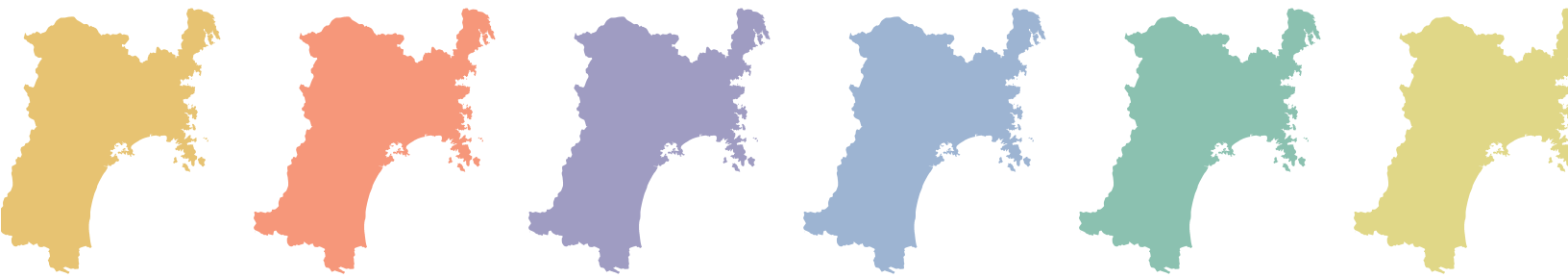
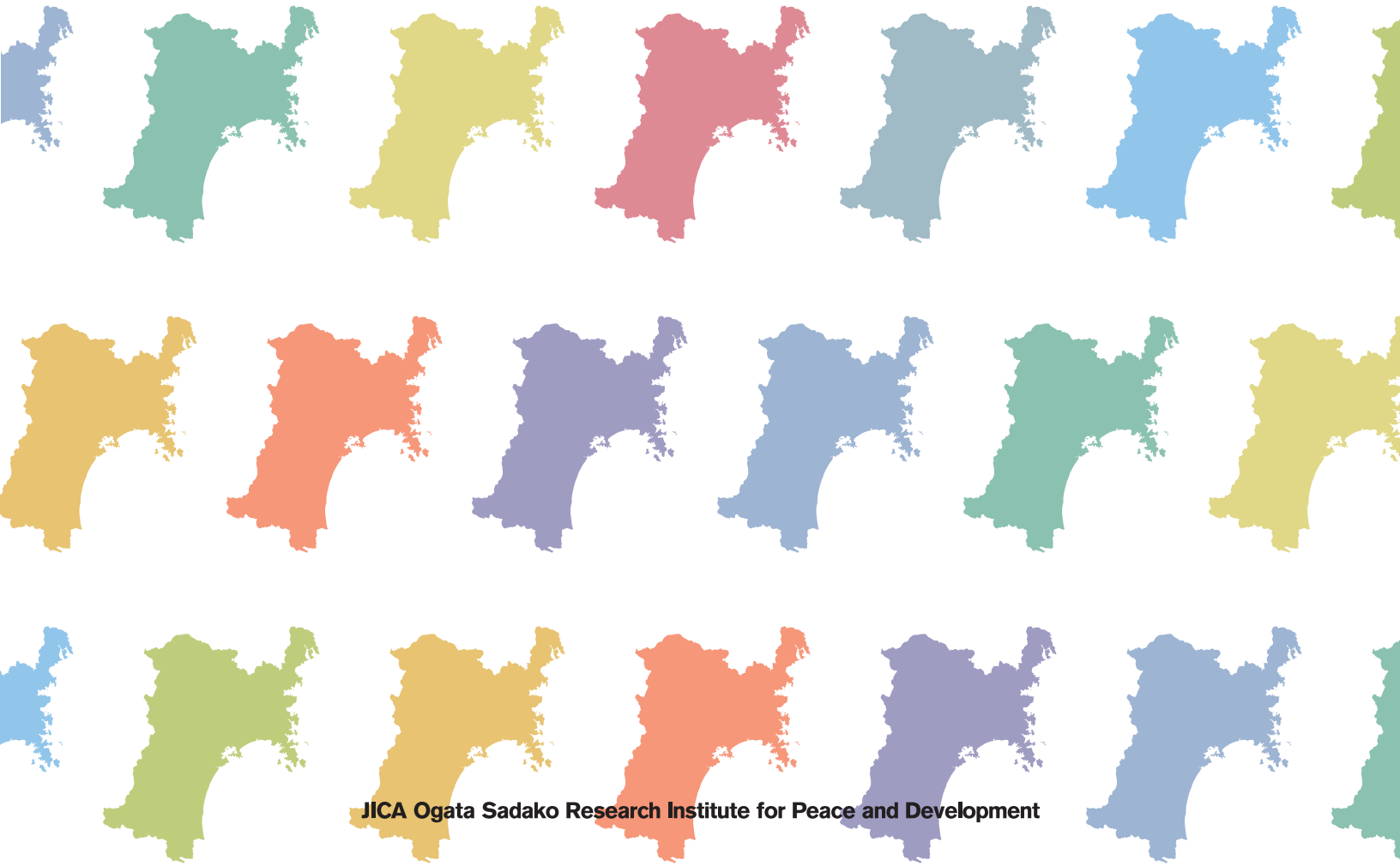


Edited by Yukio Takasu and Yoichi Mine

SDGs and Local Communities

How to Create Human Security Indicators in Your Town!

Translated by JICA Ogata Sadako Research Institute for Peace and Development



JICA Ogata Sadako Research Institute for Peace and Development

Edited by Yukio Takasu and Yoichi Mine

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JICA Ogata Sadako Research Institute for Peace and Development
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The content of this English edition is based on the research for the original Japanese book published in 2022. The members of the team that created the original edition and the contributors to the research are separately listed in this book. The findings, views and recommendations of this English edition belong solely to the respective authors of the original Japanese edition, and do not represent the official position of JICA. All reasonable precautions have been taken by the JICA Ogata Sadako Research Institute for Peace and Development to verify the information contained in this English edition. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall JICA be liable for damages arising from its use.

Contents

Contents

Part 3 SDGs Initiatives by Local Communities

Part 4 Challenges for Realizing "Communities Where No One Is Left Behind"

Contents

Preface by the Editors

The progress in implementing the Sustainable Development Goals (SDGs) is primarily measured in terms of national averages. So long as we simply try to improve the national averages of targets and indicators, there is no certainty that a nation is getting closer to the core objective of the SDGs, which is to "Leave No One Behind." This objective cannot be achieved unless conditions advance in the local communities that make up a nation.

In our previous book, *SDGs and Japan* (2020), we selected nearly one hundred indicators in the realm of human security and classified them under the themes of life, livelihood, and dignity. We then disaggregated the national averages into figures for the 47 prefectures of Japan. Following an evidence-based approach, we tried to visualize where people are being left behind and which priority areas need to be improved in each prefecture (national-municipal level).

In this sequel, *SDGs and Local Communities* (2024), we chose Miyagi Prefecture located in the northeastern part of Japan from among the 47 prefectures and further disaggregated the prefectural data into indicators for the 35 local communities in Miyagi Prefecture (cities, towns, and villages). The philosophy of the "Miyagi Model" (prefectural-municipal level) in this book is the same as that of *SDGs and Japan*: we emphasize the human dignity of vulnerable people, examine the interrelationships between subjective and objective data, and aim at further localization. By visualizing SDG challenges at the sub-national, local level, which is closer to the neighbourhoods where people live, we seek to advance the core objectives of the SDGs and realize the human security of people at the level of local communities.

Why did we select Miyagi Prefecture? The Great East Japan Earthquake in March 2011 caused a massive tsunami, which claimed the lives of more than 10,000 people in Miyagi Prefecture. The Human Security Forum (HSF), a Tokyo-based non-profit organization which had developed a methodology for measuring Human Security Indicators, dispatched staff immediately after the earthquake to work with local people to help rebuild their communities in the tsunami-hit coastal areas of Miyagi Prefecture. The tragedy of the earthquake brought latent problems to the surface, unexpectedly and intensively. The sudden natural disaster exacerbated the challenges for sustainable development previously faced by local communities in Miyagi Prefecture, which seemed like a microcosm of the situation faced by numerous local communities struggling for people's rights, security, and dignity throughout the world.

With the publication of this English version, we hope that the "Miyagi Model" developed by the experts and researchers from Miyagi Prefecture and the HSF project team will contribute to mutual learning between local communities in Japan and elsewhere, and encourage the creation of locally customized Human Security Indicators. We believe that this book offers many practical lessons that will be appreciated by people all over the world who are committed to realizing the core objective of the SDGs, to "Leave No One Behind" at the sub-national level.

Yukio Takasu and Yoichi Mine

Abbreviations

AY	academic year
ESG	Environment, Social, and Governance
FY	fiscal year
GAP	Global Action Programme on Education for Sustainable Development
GEM	Gender Empowerment Measure
GII	Gender Inequality Index
GGI	Gender Gap Index
GIS	Geographic Information System
HALE	Healthy Life Expectancy
HIV/AIDs	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
ICT	Information and Communication Technology
IPSS	National Institute of Population and Social Security Research
JCU	Japan Committee for UNICEF
JICA	Japan International Cooperation Agency
JMA	Japan Meteorological Agency
JOCA	Japan Overseas Cooperative Association
JR	Japan Railways
KPIs	key performance Indicators
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer or Questioning
MDGs	Millennium Development Goals
METI	Ministry of Economy, Trade and Industry
MEXT	Ministry of Education, Culture, Sports, Science and Technology
MHLW	Ministry of Health, Labour and Welfare
MIA	Miyagi International Association
MIC	Ministry of Internal Affairs and Communications
Miyagi DMAT	Miyagi Disaster Medical Assistance Team
MLIT	Ministry of Land, Infrastructure, Transport and Tourism
MOE	Ministry of the Environment
NHK	Japan Broadcasting Corporation (Nippon Hoso Kyokai)
NGO	non-governmental organization
NPO	non-profit organization
OECD	Organisation for Economic Co-operation and Development
RCE	Regional Centers of Expertise on Education for Sustainable Development
SDGs	Sustainable Development Goals
SME	small and medium-sized enterprise
STEM	Science, Technology, Engineering, and Math
TFR	total fertility rate
UNDESD	UN Decade of Education for Sustainable Development
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WEF	World Economic Forum

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After joining Japan's Ministry of Foreign Affairs, Yukio Takasu served as Counselor for the Japanese Mission to the UN, Director of the UN Policy Division, and Minister of the Japanese Embassy in Indonesia. From 1993, as Assistant Secretary-General (Controller) of the UN, he oversaw its budget and finances. In 1997, he represented Japan at the Security Council as Ambassador of Japan to the UN. In 2000, he was appointed Director-General of the Ministry of Foreign Affairs' Global Cooperation Department, where he promoted international cooperation on human security, infectious diseases, and climate change. After serving as Permanent Representative of Japan to the International Organizations in Vienna, he served as Permanent Representative of Japan to the UN (2007–2010) and was twice President of the Security Council. As UN Under-Secretary-General for Management from 2012 to May 2017, he was responsible for the overall management of the UN Organization. Since 2010, he has served as Special Adviser to the Secretary-General. He was formerly a Project Professor at the University of Tokyo and the National Graduate Institute for Policy Studies.

Yukio Takasu is the co-editor of *SDGs and Japan: Human Security Indicators for Leaving No One Left Behind* (Akashi Shoten, 2019) and *Oral History: 50 Years of Japan and the United Nations* (Minerva Shobo, 2008).

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Introduction

From "*SDGs and Japan*" to "*SDGs and Local Communities*"

Seven years after the adoption of the Sustainable Development Goals (SDGs) by the UN General Assembly in September 2015, media reports and publications about the SDGs continue to appear almost daily in Japan. Relative to elsewhere, Japan can be considered a country with high levels of enthusiasm regarding the SDGs, from the government to the corporate sector. It is commendable that interest in the SDGs is growing, along with the recognition that the SDGs are also challenges for Japan. The country faces a variety of issues, including widening inequality and poverty, difficult living conditions for women and children, fewer children and an aging population, the spread of infectious diseases, natural disasters, and climate change.

As seen from the government's SDGs Future Cities, Municipal SDGs Model Projects, Japan SDGs Awards, local governments' "Future City" initiative, and Environmental, Social and Governance (ESG) investment by private companies, most initiatives in Japan associate the SDGs with economic and environmental sustainability. Conversely, there is still limited understanding of the other significant dimension of the SDGs — that of protecting the dignity of each and every person, a fact that, I must admit, makes me uncomfortable.

SDGs Initiatives in Local Communities in Japan

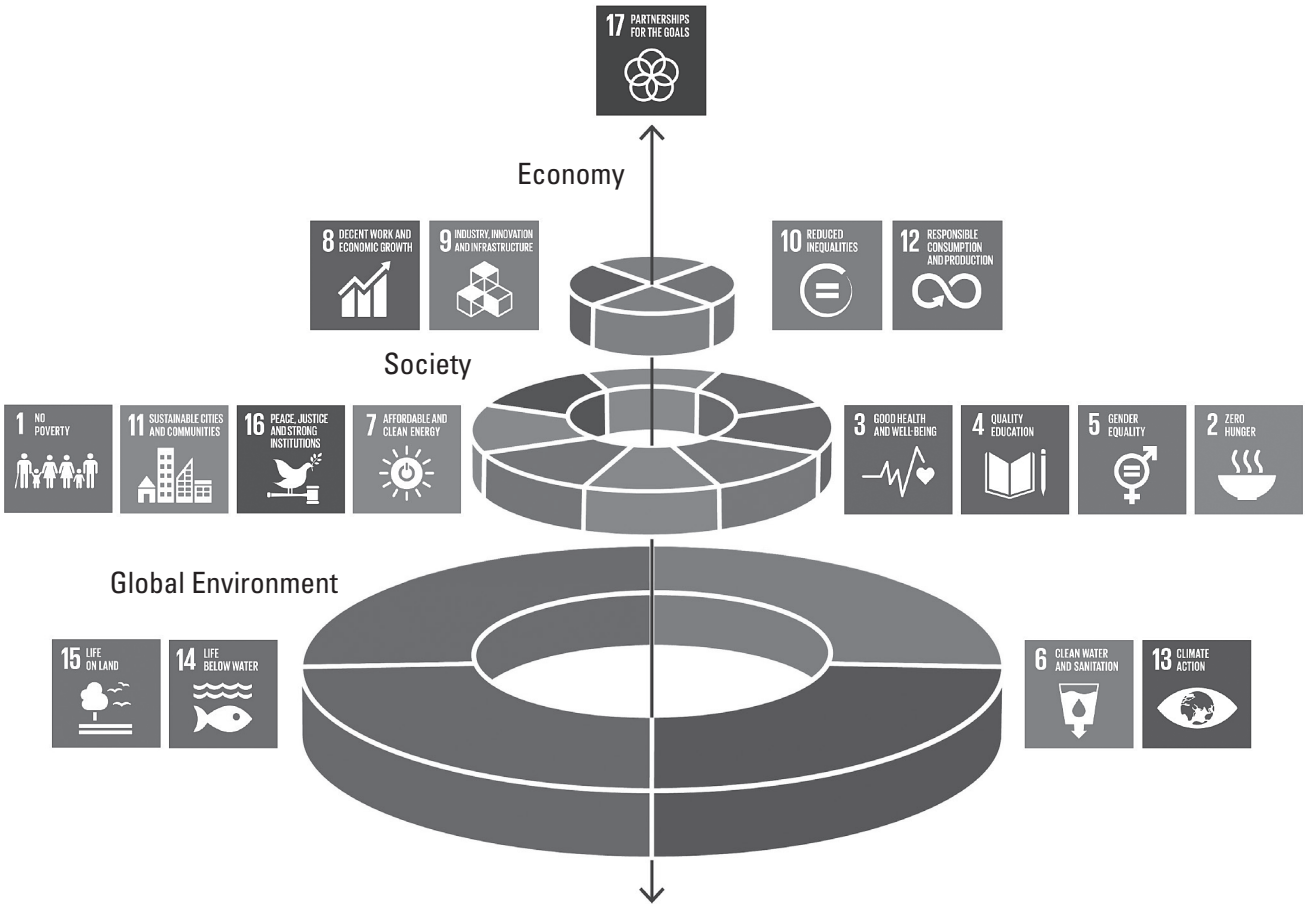
- There is a tendency to view the SDGs as an issue of economic and environmental sustainability.
- Government of Japan: SDGs Implementation Guiding Principles, Action Plan: Eight Priority Areas
  - SDGs Future Cities and Municipal SDGs Model Projects:
    The Cabinet Office of the Government of Japan selects cities and regions that achieve local revitalization and sustainable development through the creation of economic, social, and environmental value.
  - Japan SDGs Awards:
    Awards for companies, NPOs, local governments, and organizations that are making outstanding efforts to achieve the SDGs. Many of the projects are related to sustainability, such as energy, environment, and resources, as well as to raise public awareness.
- Local governments: main focus is on "Future City" and similar initiatives.
- Private companies and organizations: promotion of "Society 5.0" and ESG (Environment, Social and Governance) investment, etc.
- School education and media: Education for Sustainable Development (ESD)/SDGs education, supplementary readers, news features, etc.

The Significance of the SDGs

A special feature of the SDGs is that they take a comprehensive and multilayered view of economic, social, environmental, and global issues from the perspective of each human being (see **Figure** below). As we move toward not only environmental and economic sustainability, but also "a society where no one is left behind" (the 2030 Agenda), what is being addressed is the dignity of every person. For example, Goal 1 (Eradication of Poverty) aims to halve the percentage of people living below the poverty line, broken down by age, gender, and region, by 2030. Since there are wide variations in poverty rates by gender and region in any given country, an approach based on assessing country-level figures will not lead to the achievement of this goal. Only when we focus on individuals and achieve goals at the level of the specific local communities in which they live, will we come close to reaching the SDGs. In this sense, numerical data disaggregated by age, gender, region, and so on, is essential for fulfilling the aims of the SDGs. As such, it is data that represents the driving force behind the SDGs.

For this reason, the United Nations and other organizations around the world are looking at not only the national level, but also at how to localize the SDGs at subnational levels. People-centered community development is being emphasized on the basis that "A key avenue for accelerating progress toward the Sustainable Development Goals is to move the focus below the national level to the subnational level, including cities and communities" (Report of the International Peace Institute, July 2020). Whether the SDGs will be achieved or not depends precisely on the extent to which they are implemented at the local level.

Figure: SDGs Wedding Cake Model



Source: adapted from figure by Azote for Stockholm Resilience Centre, Stockholm University (CC BY 4.0)

Human Security Indicators

An effective way to achieve the core objective of the SDGs, which is to realize "a society where no one is left behind," is a human security approach in which global issues are viewed from the perspective of single individuals, rather than from the national level or as an aggregation, with a focus on the most vulnerable and on protecting their lives, livelihoods, and dignity, accordingly. To this end, the NPO Human Security Forum formed an Indicator Team consisting of experts and researchers from various fields, as well as staff from NPOs, foundations, organizations, and associations engaged in practical activities, to highlight the priority issues of each local community for achieving "a society where no one is left behind." This team developed a set of prefecture-level human security indicators for Japan (consisting of Life Indicators, Livelihood Indicators, and Dignity Indicators) and published the results in the book *SDGs and Japan* (JICA Ogata Sadako Research Institute for Peace and Development).

From *"SDGs and Japan"* to *"SDGs and Local Communities"*

In order to identify the challenges in protecting the lives, livelihoods, and dignity of all people and in realizing "a society where no one is left behind," it is important to create municipality-level indicators (which are more closely linked to the daily lives of residents than prefecture-level indicators), to visualize priority issues and problems, and to support participatory community planning. As a starting point, the Indicator Team developed a set of municipality-level human security indicators for Miyagi Prefecture (the "SDGs Miyagi Model"), a prefecture which had been severely damaged by the Great East Japan Earthquake and was facing significant challenges compared with other prefectures. Another reason for selecting Miyagi Prefecture as the first prefecture for municipality-level indicators was that many members of the Indicator Team, including myself, had worked in Miyagi Prefecture to support the people affected by the Great East Japan Earthquake. We had a strong desire to do what we could to help make Miyagi Prefecture a comfortable place for its residents to live.

The interim presentation of the results was held at an event held on the occasion of the 10th anniversary of the Great East Japan Earthquake at the Sendai International Center in March 2021. After this, the results were introduced at various events across the country, including seminars for the Miyagi Prefectural Government, Prefectural Assembly members, and various municipal governments. As a result, many people who are working diligently to achieve the SDGs in different parts of Japan have expressed their desire to use the SDGs Miyagi Model as a guide for creating indicators to re-examine the issues where they live. To address these calls, this book, a sequel to *SDGs and Japan*, explains the problems and challenges faced during the process of creating the SDGs Miyagi Model and provides examples and information that can be used as a reference for creating indicators tailored to local circumstances.

The book is structured as follows. Part 1 addresses the core objective of "a society where no one is left behind" that the SDGs aim to achieve, as well as the significance of human security and the meaning of dignity, and then describes the approach taken to develop the indicators. Part 2 provides details on the challenges facing Miyagi Prefecture ten years after the Great East Japan Earthquake and describes the SDGs Miyagi Model. Part 3 introduces various proposals to realize "local communities where no one is left behind." It presents ways to develop and use human security indicators at the municipal level, some unique local initiatives, and practical case studies of ESD. It also discusses how to realize the SDGs through resident participation, and the significance of Child-Friendly Cities and Communities projects. Part 4 highlights specific issues, with chapters presented by people who are working in Miyagi Prefecture and who cooperated in the development of the indicators. These authors give examples of their efforts based on their experiences in the Great East Japan Earthquake and the COVID-19 pandemic. The issues they describe include people affected by disasters, resilience in the face of natural disasters, reconstruction, local participation, children, women, the impoverishment of single-mother households during the pandemic, the internationalization of local communities, and the challenges of multicultural coexistence.

International Outreach

The outcomes of *SDGs and Japan* were presented in the 2019 edition of the *Human Development Report* of the United Nations Development Programme (UNDP) (December 2019). The methodology used in the book was recognized as a pioneering attempt to index human security factors as comprehensive indicators, with human dignity at its core and adapted to developed countries. In 2020, the book was published in English with the cooperation of the Japan International Cooperation Agency (JICA) Ogata Sadako Research Institute for Peace and Development. Since then, it has attracted international attention as a developed-country version of SDG indicators which complement the existing SDG indicators for realizing the core objective of "a society where no one is left behind."

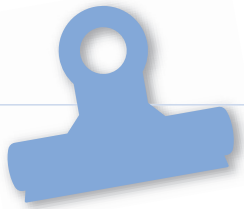
Various initiatives related to the SDGs are already underway throughout Japan. Movements toward the creation of a sustainable society, based on regional indicators and involving the participation of local residents, can also be seen. However, the majority of these efforts relate to local economic revitalization, preservation of the environment, and resource and energy sustainability. There are still only a few which use the SDGs as a catalyst for social change, for building "communities where no one is left behind" and where the dignity of each and every person is respected. Identifying local issues using indicators is only the beginning. The true significance of creating the indicators will only be realized when their recommendations are put to use, and action is taken to resolve the priority challenges that have been brought to light. Based on the recommendations of the Miyagi Model, a project to support the dignity of women and children has already been launched in Kesennuma City (see Chapter 12, 12-4). We hope that this book will be used in municipalities to help local governments, citizen groups, researchers, students, schoolchildren, and businesses to take specific actions, tailored to the characteristics and conditions of individual areas, to solve the priority issues of the SDGs.

It would be our great pleasure if many people working across the country to achieve "a society where no one is left behind" find this book useful for creating community-led local indicators.

December 2022
Human Security Forum,
Representative of the Indicator Team

Yukio Takasu

This project received assistance from Chubu University's IDEAS 202016 and IDEAS 202118 programs for "Joint Usage/Research on Digital Earth to Address Emerging Complex Systemic Problems."



Create Human Security Indicators for Your Own Town!

(1) What is human security?

(2) What is the purpose of creating indicators?

(3) What should we prepare first?

(4) How should we select the indicators?

(5) What examples would be helpful?

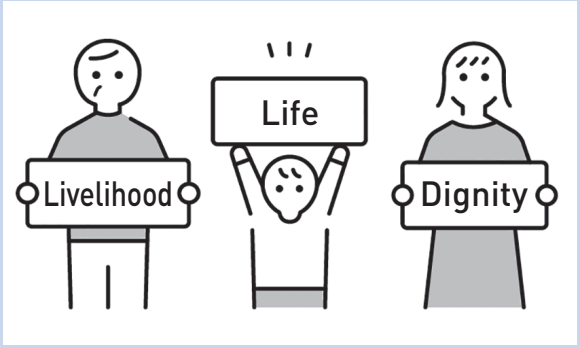
(6) What is the SDGs Miyagi Model described in this book?

(7) What should we do if we can't find any data?

(8) How should we compare the data?

(1) What is human security?

Human security refers to the protection of people's lives, livelihoods, and dignity against various threats. "Life" is about living a healthy, safe, and fulfilling life. "Livelihood" is about the ability to enjoy a secure and prosperous life. "Dignity" is about having pride, helping each other, and creating a society where vulnerable people, including women and children, can also live comfortably. It is important not only to protect those at risk of being left behind, but also to enable these people to take charge of their own lives.

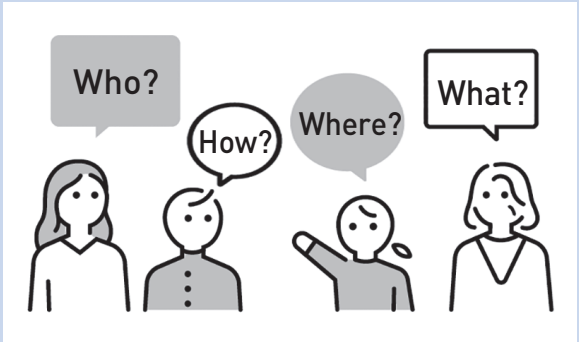


To value the life, livelihood, and dignity of every human being, we must support those for whom these things are under threat and build "a society where no one is left behind." This constitutes the core objective of the SDGs (Chapter 1, 1-1).

(2) What is the purpose of creating indicators?

Who are the people most likely to be left behind, where are they, and what difficulties do they face? This is where we must look first. In order to work with those around you, try to understand the specific nature of the problems on the ground. Even when national statistics have been reported, figures for individual municipalities are often not available until we investigate them ourselves.

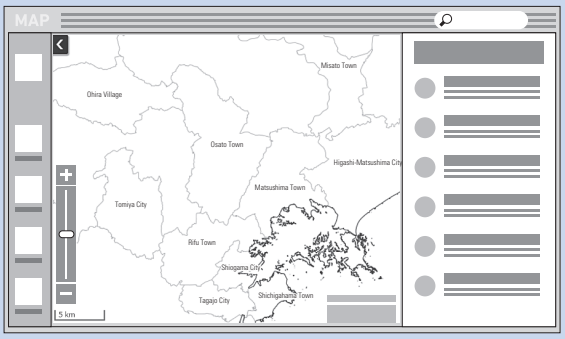
The purpose of the index is not to rank each community, but to understand their relative strengths and weaknesses. By comparing with others, you can ascertain what issues your community should prioritize. The process of coming together to think about and develop the indicators will be a fun and rewarding one. When your city, town, or village changes, so does the whole country and the whole world (Chapter 1, 1-1).



(3) What should we prepare first?

You can start by identifying the prefecture, municipality, or area that will become the framework for the indicators (depending on your purpose, it may be possible to use a wide area across prefectural borders, or conversely, a smaller area within a single prefecture. In large cities, city wards can serve as the unit of assessment). Then, use a map to visualize where and how many municipalities or districts will become the basis for the indicators. Municipal maps can be found at the Geospatial Information Authority of Japan, prefectural websites, and Google Maps (Chapter 3, Chapter 5).

Then take a look at the indicators in *SDGs and Japan* (JICA Ogata Sadako Research Institute for Peace and Development) to understand the general characteristics (strengths and weaknesses) of the area(s) that will serve as your framework. This will prepare you to think about them at the local level (Chapter 2).



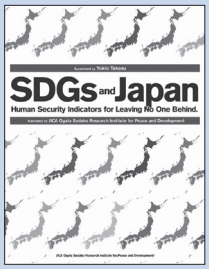
(4) How should we select the indicators?

Nearly 100 indicators were collected for the national model and the SDGs Miyagi Model. However, having too many indicators can be difficult to calculate and may lead to a loss of focus. You can narrow them down to those indicators which you think are important.

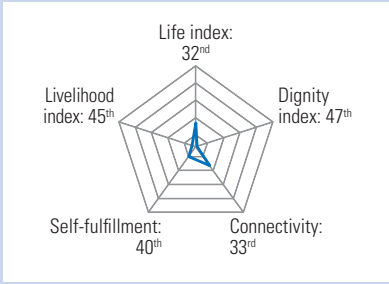
For indicators of human security, it would be best to keep the three main areas of Life, Livelihood, and Dignity, as the framework, with an emphasis on balance. Dignity is a very important area, but choosing appropriate indicators may require some creativity, so be sure to discuss them (Chapter 1, 1-2).

It is important to acknowledge and engage with people who are "at risk of being left behind." It is also essential to fully take into account the characteristics of the area, such as the natural environment, population structure, and economic environment (Chapter 1, 1-1; Chapter 3, 3-3; Chapter 5).

(5) What examples would be helpful?



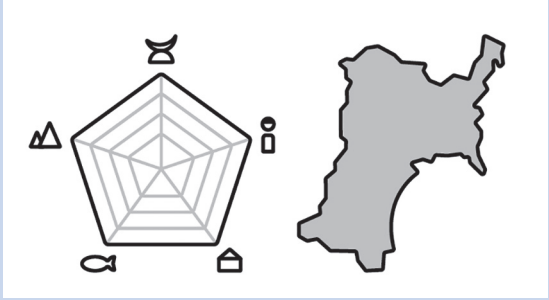
The national version of this model presented in *SDGs and Japan* (JICA Ogata Sadako Research Institute for Peace and Development) can serve as a valuable reference. The national (prefecture-based) indicators come to a total of 91 indicators, including 23 Life Indicators covering life and health; 42 Livelihood Indicators covering economic conditions and employment, education, welfare, lifestyle, environment, and safety; and 26 Dignity Indicators covering women and children, trust in the public sector, community, civic engagement, international outlook, and satisfaction with life. Sources for the indicators are listed at the end of the book, so you can find the original data by searching the internet.



Furthermore, in the national version, measures of local people's subjective perceptions (self-fulfillment and social connectivity) were derived for each prefecture using questionnaires. The consistency of these responses with the objective data was then examined and presented using radar charts. It may be worthwhile to produce similar charts for municipalities (Chapter 3, 3-5).

(6) What is the SDGs Miyagi Model described in this book?

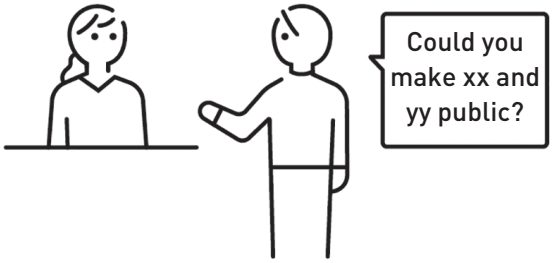
The methodology is basically the same as that used in the national version. The indicators were divided into the three domains of Life, Livelihood, and Dignity, and the residents' subjective perceptions were also measured. However, the indicators were significantly changed to take into account the characteristics and attractiveness of Miyagi Prefecture's natural environment, population structure, industry and economy, and living environment. Additional indicators were added for economic activity, natural disasters and disaster prevention, livability for women and children, child-rearing conditions, and resident participation. As a result, the Miyagi Model consists of a total of 99 indicators: 26 for Life, 48 for Livelihood, and 25 for Dignity.



The detailed aggregation of these indicators by municipality allowed us to be more specific than the national version, and to get closer to the issues on the ground. When creating your own indicators, you may want to further refine the categories based on the characteristics of your local area and the diversity of its natural environment and residents (Chapter 3, 3-3, 3-4).

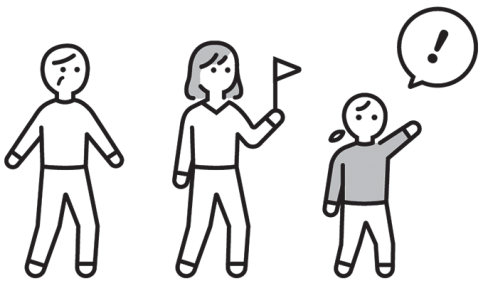
(7) What should we do if we can't find data?

Data broken down into municipalities or communities can be difficult to find. The data may not exist, or it may exist but not be publicly available. It may be useful to contact the local/national government and ask for the release of the information (on the understanding that individuals will not be identified). In some cases, data for an area covering several municipalities may be available. It may be a good idea to apply the aggregated area data to each municipality, or to use data from neighboring municipalities which have similar conditions. Another possibility is to use data and big data provided by non-governmental or private institutions. To measure the quality of policies, you may want your indicator team to develop their own evaluation criteria and "score" them based on a uniform standard (Chapter 3, 3-3; Chapter 5; Chapter 12, 12-2).



(8) How should we compare the data?

Because the original data comes in different units, you will need to "normalize" it. If the most favorable state is 1 and the least favorable is 0, then each data point falls somewhere between 1 and 0. Some indicators (e.g., number of suicides) are better when the number is low, and worse when the number is high. The approach in this case is the same. Once the normalization process is complete, the average values of the indicators can be determined for each domain of Life, Livelihood, and Dignity, and then an Overall Index can be calculated from the three averages, allowing you to determine a numerical ranking and visualize it on a map. This kind of comparison will indicate the priority issues for each area. It is hoped that local governments, citizens, and businesses can then come together to resolve these issues (Chapter 3, 3-4; Chapter 4; Chapter 5). Readers may also wish to refer to the case studies in Parts 3 and 4.



The SDGs and Human Security

Chapter 1

What Are the SDGs Aiming for?

1-1 The Meaning of the SDGs and the Significance of Human Security

1 The Road to the SDGs

The origin of the SDGs (Sustainable Development Goals), i.e., the idea that economic development must strike a balance with environmental capacity and aim for sustainable human development, can be found in Agenda 21, the Programme of Action for Sustainable Development, which was adopted at the United Nations (UN) Conference on Environment and Development in Rio de Janeiro, Brazil, in 1992. Thinking on human development has shifted from simply seeking economic prosperity and the conveniences of living to a more comprehensive approach, that aims to reduce the burden on the environment and natural resources, promote economic activities and consumption in harmony with nature, create equitable and inclusive societies, and develop human potential to the fullest extent possible. An inclusive approach to development, that puts the emphasis on each and every person, was finally adopted as the SDGs by the United Nations General Assembly in 2015. This suggests that it has taken 23 years for this global action plan to come to fruition (Table 1-1).

Table 1-1: **Timeline of people-centered inclusive initiatives leading to the SDGs**

Year	
1992	**UN Conference on Environment and Development: Agenda 21 Programme of Action for Sustainable Development**
1994	United Nations Development Programme (UNDP) Human Development Report (Human Security)
1999	Establishment of the United Nations Trust Fund for Human Security
2000	**UN General Assembly: Millennium Declaration and Millennium Development Goals (MDGs) 2001–2015**
2001-03	Commission on Human Security (Co-Chairs: Sadako Ogata, Amartya Sen)
2005	World Summit Outcome Document
2012	UN General Assembly Resolution outlining a common understanding of Human Security (A/RES/66/290) **UN Conference on Sustainable Development**
2015	**UN General Assembly: Sustainable Development Goals (SDGs) — the 2030 Agenda**

Based on the Millennium Declaration adopted by the UN General Assembly in 2000, the eight Millennium Development Goals (MDGs) and the year for achieving them (2015) were determined, and the 21 numerical targets and 60 indicators to monitor their progress were agreed. This was a landmark development, unprecedented in the UN's history.

What makes the SDGs even more groundbreaking is that they broadened the scope of the development goals, making them universal and applicable not only to developing countries but also to developed countries. The focus also evolved from the national level to the level of communities and individuals. For example, MDG 1 aimed to halve the proportion of people living in absolute poverty (those living on the equivalent of less than 1.9 US Dollars a day) by 2015. In contrast, SDG 1 aims to cut, at least by half, the proportion of people in relative poverty (those living on less than half of the median disposable income of the population) by

2030, broken down by age group, gender, and other characteristics. To achieve the SDGs, it is not sufficient to assess the whole population. Rather, we need to assess progress for each vulnerable group, for example, according to age, gender, region, disabilities, and other factors.

2 Human Security

The concept of human security has played a major role in making the Sustainable Development Goals more comprehensive and in shifting the focus from the national level to the level of communities and individuals.

The concept of human security, which aims to realize a just society by taking a holistic view of security from the perspective of individual human beings, has gradually taken root around the world since it was proposed by the United Nations Development Programme (UNDP) in its 1994 *Human Development Report*. This idea of human security, which goes beyond the traditional concept of national security and takes a comprehensive view of security threats from the perspective of the individual, should be seen within the context of the negative effects of globalization and ongoing global challenges. Globalization has yielded many benefits, but these benefits have not been equally enjoyed by all people and countries, and disparities within and between nations are widening. A country's economy may grow, but this does not mean that the lives of all its citizens will improve in the same way. As such, national level indicators, such as average life expectancy and average income, do not provide a true picture of the lives of people in that country.

In addition, in their daily lives, many people are realizing that issues that transcend national borders, such as infectious diseases and climate change, cause serious damage and pose an ever-greater threat to security. These kinds of global challenges cannot be solved by one country alone or by military force. We have entered an era in which security can no longer be thought of solely in terms of enhancing national defense capabilities or diplomatic efforts. Human security is a concept that complements national security, in that it aims to achieve security in a comprehensive way, through a full range of economic, technological, social, and cultural means, with the participation of all actors, not just the government (Table 1-2).

Since 1998, Japan has played a leading role in promoting the concept of human security around the world. At the initiative of the Government of Japan, the UN Trust Fund for Human Security was established in 1999. Moreover, based on the report of the Commission on Human Security (co-chaired by Amartya Sen and the late Sadako Ogata), the 2012 UN General Assembly agreed on a common understanding of human security, including the notion that human security incorporates

> "the right of people to live in freedom and dignity, free from poverty and despair. All individuals, in particular vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential."

This concept is now well established as a global consensus.

This General Assembly resolution stipulates that governments have the primary responsibility for ensuring the lives, livelihoods, and dignity of their citizens and that the international community has the responsibility to provide assistance to governments if they are unable to fulfil their responsibilities (Table 1-3).

The human security approach is characterized by efforts to tackle all threats and challenges from a human perspective; a focus on the most vulnerable people and communities; integrated multi-sectoral activities; context-specific measures; an emphasis on prevention; and partnerships between

Table 1-2: **National security and human security**

National Security	Defense of national territory, territorial waters, and airspace, securing national independence, people's safety, livelihoods and economy Focus on diplomacy, defense, economy, industry, food, resources, energy, etc.
Human Security	A broad and comprehensive view of threats to security from a human perspective, including global issues Aims to secure the life, livelihood, and dignity of every human being Helps people develop their innate abilities to the fullest

Table 1-3: **Main points of UN General Assembly Resolution A/RES/66/290 outlining a common understanding of human security**

Principle	Approach
Human beings have the right to live with dignity, free from poverty and despair. Governments have the primary responsibility to ensure the lives, livelihoods, and dignity of their citizens. The international community has a responsibility to provide assistance to governments in addressing current and emerging threats.	(1) People-centered perspective: focus on the most vulnerable people and communities (2) Comprehensive: implement measures that integrate activities in multiple sectors (3) Context-specific measures: identify root causes of insecurity and threats (4) Focus on prevention of insecurity and threats: emphasize empowerment alongside protection (5) Partnership: promote collaboration between local governments, businesses, civil society, etc.

governments, local governments, businesses, civil society, and other actors. In seeking to secure the life, livelihood, and dignity of every human being and to help them to develop their innate capacities to the fullest, human security places a particular emphasis on human dignity.

Every person is born into this world with inalienable value as a human being, entitled to take pride in who they are and to be accepted with respect by others as a human being of worth (Universal Declaration of Human Rights). The idea of human security, which is linked to the core objective of the SDGs, is that we must create a society in which every person born in the world can feel that their existence is meaningful. Finding ways to ensure dignity so that all people are accepted as human beings of worth is a critical issue in contemporary Japanese society (see Chapter 1, 1-2).

3 The Core Objective of the SDGs: A Society Where No One Is Left Behind

The SDGs were adopted by the UN General Assembly in September 2015. As an action plan for the 2030 Agenda, they consist of 17 goals that present a comprehensive and multi-layered view of the economy, society, the environment, and the planet from the perspective of every human being, with future generations in mind (**Figure 1-1**). The SDGs call for action at three levels: environmental (the

Figure 1-1: **The 17 SDGs**

global environment, including land, air, and sea), economic, and social (see the SDGs model in the Introduction).

As noted previously, the SDGs differ from their predecessor, the MDGs, in that they expand the development goals to be comprehensive and universal, applicable not only to developing countries but also to developed countries, while their focus has evolved from the national level to the individual level (Table 1-4).

Table 1-4: Characteristics of the SDGs: sustainability and the dignity of every individual

MDGs (2001–15)	8 Goals, 21 Targets, 60 Indicators Poverty, education, and health in developing countries	
SDGs (2015–30)	17 Goals, 169 Targets, 247 Indicators Views the economy, society, and the global environment from the perspective of individual human beings	
	Universality:	covers all countries, both developing and developed
	Integration:	emphasizes interconnectedness of economy, society, and environment
	Inclusivity:	aims for "a society where no one is left behind"
	Human dignity:	addresses inequality, discrimination, violence
	Forward-looking:	design measures which take into consideration future generations
	Participatory:	involves all core actors and organizations, in addition to government

As inequality continues to widen in many countries, an approach that focuses on the most vulnerable is essential. There is a deep affinity between the core objective of the SDGs, which aim for an inclusive society by taking a comprehensive and multi-layered view of society, the economy, and the global environment from the perspective of individual human beings; and the concept of human security, which aims for a society that recognizes that all people have the right to enjoy life, livelihood, and dignity, by virtue of being born human beings, and where people feel that their own existence is meaningful.

In accordance with the core objective of the SDGs, the 2030 Agenda aims to achieve "a society where no one is left behind" and governments pledged that they "will endeavour to reach the furthest behind first" (Paragraph 4). The SDGs can be interpreted as an extension of the MDGs with the addition of a human security perspective, transforming them into universal goals. As shown in Table 1-5, the 17 SDGs include many targets related to reducing inequalities and disparities, promoting inclusive societies, and ensuring the dignity of every person, along with the sustainability of the economy, environment, and natural resources. However, as mentioned previously, most initiatives to achieve SDGs in Japan, both public and private, have focused on economic and environmental sustainability issues. Conversely, activities related to inclusiveness, another important aspect of the SDGs which protects the dignity of each and every human being, are still limited.

4 Dignity for All and Local Communities

Since the SDGs aim for a society in which all people can lead a decent human life, with a focus on each person as a human being, it is essential to undertake initiatives tailored to the characteristics of local communities. It is

Table 1-5: 17 SDGs, 247 indicators

Sustainability	Dignity of each and every individual: leave no one behind
• End poverty and hunger (Goals 1 and 2) • Water, sanitation, and sustainable use of energy (Goals 6 and 7) • Promote inclusive and sustainable economic growth and decent work (Goal 8) • Build resilient infrastructure and promote sustainable industrialization (Goal 9) • Realize sustainable cities and human settlements (Goal 11) • Ensure sustainable consumption patterns (Goal 12) • Urgent measures to mitigate the impacts of climate change (Goal 13) • Conservation of oceans, seas, and marine resources, protection of terrestrial ecosystems, and sustainable forest management (Goals 14 and 15)	• Promote healthy living and well-being (Goal 3) • Ensure inclusive and equitable quality education (Goal 4) • Gender equality and the empowerment of women (Goal 5) • Reduce inequalities within and among countries (Goal 10) • Promote a fair and inclusive society, ensure access to justice, build inclusive institutions, and protect human rights (Goal 16)

not sufficient to simply monitor and discuss the situation at the national level. For example, improvements in per capita income, the relative poverty rate, life expectancy, the infant mortality rate, the school enrollment rate for children, and the unemployment rate at the national level are welcome, but they are only for the country as a whole and do not necessarily indicate that the situation has improved in each region of the country. Even aside from large, populous countries such as China, India, and Brazil, where regional disparity is most evident, similar disparities exist to varying degrees in all countries, and these are on a growing trend. To achieve a society where no one is left behind, it is not enough to make decisions based on national level indicators alone. This has led to a growing number of voices around the world asking how the SDGs can be achieved at the municipal and local levels, which are more closely linked to inhabitants' spheres of everyday activity (e.g., *Localizing the 2030 Agenda in West Africa: Building on What Works* by Jimena Leiva Roesch and Masooma Rahmaty of the International Peace Institute, 2020; the UN Economic and Social Commission for Western Asia report on *The Attainment of SDGs in Conflict-affected Countries in the Arab Region*, 2021). The success or failure of the SDGs depends on the extent to which the goals are achieved at the municipal and local levels.

5 Limitations of the SDG Indicators for Developed Countries

The UN General Assembly adopted 169 targets and 247 indicators to track progress towards achieving the 17 SDGs (General Assembly resolution A/RES/71/313).

While these indicators are based on universal standards, many are designed primarily for developing and conflict-affected countries, and thus are not necessarily suitable for monitoring progress in developed countries such as Japan.

For example, under Goal 5 "Gender Equality," seven of the 14 indicators are not major issues in developed countries. Meanwhile, Goal 16 "Peace, Justice and Inclusive Institutions" is one of the core SDGs, but ten of the 24 indicators for assessing progress are primarily for developing or conflict-affected countries (**Table 1-6**).

These indicators, designed primarily for developing and conflict-related countries in mind, are difficult to use in measuring the progress of a country like Japan. Despite lagging far behind the world in some areas such as gender equality, as a developed country, Japan has achieved or is achieving most of the targets in areas such as income, health/healthcare, education, energy, and infrastructure, at least at the national level, without having made any additional efforts. As such, its overall level of achievement would be rated as high. However, it cannot really be said that the life, livelihood, and dignity of every individual in Japan are respected, and that every individual lives their life with the pride befitting a human being. If Japan is to become a society where no one is left behind, it is not enough to work mechanically towards meeting the individual SDG indicators.

Another limitation of the indicators is the lack of internationally comparable data for many of them. For this reason, the Sustainable Development Report (SDR),

Table 1-6: SDG indicators primarily for developing and conflict-affected countries

Goal 5: Gender Equality (7 examples of indicators)	Goal 16: Peace, Justice, and Inclusive Institutions (10 examples of indicators)
• Legal framework for gender equality • Proportion of women married before age 15 and before age 18 • Proportion of girls and women who have undergone female genital mutilation • Laws guaranteeing sexual and reproductive rights • Proportion of women with ownership rights over agricultural land/property • Proportion of women who own a mobile telephone • Public financial allocations for gender equality	• Number of conflict-related deaths • Unsentenced detainees • Inward and outward illicit financial flows • Illicit arms dealing • Number of public officials who requested bribes, number of people who paid bribes • Primary government expenditures as a proportion of original approved budget • Inclusiveness of public institutions • Proportion of members and voting rights of developing countries in international organizations • Proportion of children whose births have been registered with a civil authority • Cases of disappearance and torture of media personnel and activists

which provides annual measurements and comparisons of progress made by countries in achieving the SDGs, uses an alternative set of indicators that combines selected SDG indicators with additional indicators. The report ranked Japan 18th out of 165 countries in 2021, and 19th out of 163 countries in 2022, meaning that it has met almost all of the indicators, except in areas such as gender and marine resource conservation. The problem with the indicators used in the SDR, however, is that they do not include indicators related to human dignity. The six indicators for Goal 5 "Gender Equality" do not include an indicator for violence that undermines the dignity of women and girls. Goal 16 "Peace, Justice and Inclusive Institutions" has 11 indicators but lacks indicators related to accountable and inclusive participatory institutions and the dignity of vulnerable populations suffering from physical, psychological, and sexual violence (Table 1-7).

6 Ultimate Objective of the SDGs

It is important to ask whether the implementation of the 247 indicators of the SDGs is the ultimate objective of the SDGs. If the objective is to get as close as possible to an inclusive society where no one is left behind, then the 247 SDG indicators represent only one route toward that objective. A large number of the SDG indicators are not necessarily suitable for assessing developed countries like Japan. If the traditional approach of monitoring and evaluating progress on SDG indicators is not sufficient to achieve the goal of leaving no one behind, then the reverse approach, starting from the end goal, is required.

7 Human Security Indicators

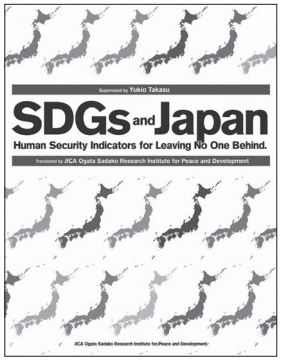
The Human Security Indicators approach starts with identifying those who are situated farthest from the goal of "a society where no one is left behind." By making visible who is left behind or likely to be left behind, and where and how this is likely to happen, the realities and priority issues of poverty, inequality, discrimination, and exclusion in each region can be brought to light, and specific goals for the period up to 2030 can be set, allowing for targeted assistance efforts. To this end, the Human Security Forum formed an Indicator Team, consisting of researchers from various fields and experts from non-profit and other organizations, to develop "Human Security Indicators for Japan." The aim was to reveal the priority issues for each region in order to achieve a society where no one is left behind.

To clarify the challenges in realizing the core objective of "a society where no one is left behind" at the local level in Japan, the Human Security Indicators for Japan were developed based on a common understanding of the UN resolution. They were structured into three domains: life, livelihood, and dignity. When using the data, the utmost care was taken to avoid the identification of any person. When selecting the human security indicators, emphasis was placed on indicators that visualize the degree to which human dignity is protected, along with feeling safe and secure, from the perspective of ensuring the lives, livelihoods, and dignity of all people.

In addition, in order to identify priority issues based on the situation and characteristics of each locality in Japan,

Table 1-7: Limitations of the Sustainable Development Report, which only monitors selected SDG indicators

Goal 5: Gender Equality (6 indicators)	Goal 16: Peace, Justice and Inclusive Institutions (11 indicators)
• Demand for family planning satisfied by modern methods • Ratio of female-to-male mean years of education received • Ratio of female-to-male labor force participation rate • Seats held by women in national parliament • Gender wage gap • Female-to-male disparity in time spent on unpaid domestic work	• Homicides • Unsentenced detainees • Population who feel safe walking alone at night • Property ownership rights • Birth registrations with civil authority • Corruption Perceptions Index • Children involved in child labor • Exports of major conventional weapons • Press Freedom Index • Access to justice • Persons held in prison



it is important to visualize the issues at the level of the administrative bodies closest to their inhabitants. In this regard, in the first phase, human security indicators were developed for the prefectural level, as this is the basic unit of local government in Japan and also the easiest in terms of data collection. The results of this phase were published as *SDGs and Japan* (JICA Ogata Sadako Research Institute for Peace and Development, 2020).

In the second phase, Miyagi Prefecture was selected as the first target for municipality-level indicators. This prefecture was chosen because it had suffered extensive damage from the Great East Japan Earthquake, and had a low prefecture-level human security index, suggesting that it faces significant challenges. As mentioned in the Introduction, another reason for choosing Miyagi Prefecture was the strong desire of the members of the Indicator Team to do what they could to help make Miyagi Prefecture a more comfortable place to live.

Since the interim results were presented at an event held on the occasion of the 10th anniversary of the Great East Japan Earthquake at the Sendai International Center in March 2021, these results have been presented at several venues across the country, including briefings for the Miyagi Prefectural Government, to Miyagi Prefectural Assembly members, and to various municipal governments. At present, the Indicator Team is at work on creating municipality-level indicators for Aichi Prefecture.

8 Notable Features of the Human Security Indicators for Japan

First, it should be noted that this is the first time that comprehensive human security indicators aimed at achieving the core objective of the SDGs have been developed at the local government level in a major developed country.

In the first stage, the prefectural indicators consisted of 91 indicators, made up of 23 Life Indicators, 42 Livelihood Indicators, and 26 Dignity Indicators. The SDGs Miyagi Model was modified to take regional characteristics into account, including indicators for local economic and industrial activities, livability of the area for families raising children, consultations on child abuse, places to spend time outside school (for children), natural disasters and disaster prevention, and municipal comprehensive plans and gender equality promotion plans. Consequently, the model is composed of 99 indicators, consisting of 26 Life Indicators, 48 Livelihood Indicators, and 25 Dignity Indicators (see Chapter 3, 3-3).

Secondly, this is a pioneering, world-first attempt at quantifying human dignity. Taking the general understanding of human dignity, as reflected in international law and norms such as the Universal Declaration of Human Rights, as the basis (that people born into this world have a value that cannot be taken away from them), the Indicator Team, with the advice of experts in various fields, took the approach of selecting indicators related to dignity from available data, including indicators on women and children. With limited data available for individual regions, the following indicators were used: violence against women and children, trust in the public sector, community ties, civic engagement, international outlook, diversity, satisfaction, emphasis on dignity in comprehensive plans and gender equality plans, consultations on child abuse, and places for children to spend time outside school (see **Table 1-9** for prefecture-level Dignity Indicators and Chapter 3, 3-3 for the Dignity Indicators used in the Miyagi Model). With regard to human dignity, we were severely constrained by the paucity of published locally disaggregated data, but we intend to make improvements going forward.

Thirdly, these are the first indicators to include subjective assessments by residents, together with objective statistical data.

Objective statistical data alone is not sufficient to understand the concerns people have and to consider effective countermeasures. By taking the residents' subjective perceptions into account and using them to complement the data, it is possible to highlight the realities of the local community (see Chapter 3, 3-5).

Fourth, the municipalities were ranked based on an index compiled from the indicators, and then visualized

Table 1-8: Human Security Indicators for Japan

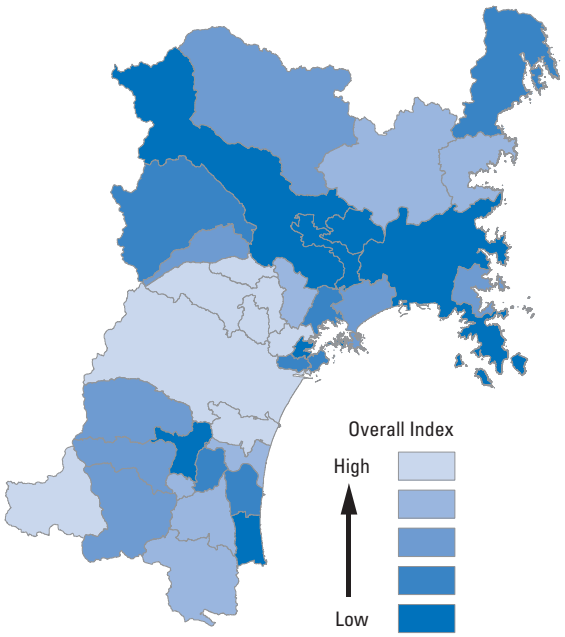
Prefecture-level Indicators (91)		Municipality-level Indicators for Miyagi Prefecture (99)	
Life Indicators (23 indicators)	Life (11) Health (12)	Life Indicators (26 indicators)	Life (13) Health, medical assistance for children, obstetrics and gynecology clinics (13)
Livelihood Indicators (42 indicators)	Economic conditions and employment (10) Education (11) Welfare (11) Lifestyle, environment, and safety (10)	Livelihood Indicators (48 indicators)	Economy, industry, regional revitalization, employment (14) Education (11) Welfare (9) Natural environment, living environment, disaster prevention, safety (14)
Dignity Indicators (26 indicators)	Women and children (7) Trust in the public sector (6) Community, civic engagement, and international outlook (11) Satisfaction with life (2)	Dignity Indicators (25 indicators)	Comprehensive plans, child abuse consultations, places to spend time outside school (6) Trust in the public sector, gender equality plans (6) Community, civic engagement, and international outlook (11) Satisfaction with life (2)

Table 1-9: Prefecture-level Dignity Indicators (26 indicators)

G: Women and children - 7 indicators	H: Trust in the public sector - 6 indicators	J: Community, civic engagement, and international outlook - 11 indicators	K: Satisfaction with life - 2 indicators
G1: Number of cases of bullying G2: Average number of days children stay in temporary child protection facilities G3: Rate of children given foster care placements among those requiring care G4: Number of child suicides G5: Number of cases of temporary protection for domestic violence victims G6: Number of hours men spend on housework and childcare G7: Gender wage gap	H1: Voter turnout in national elections H2: Rate of female representatives in local assemblies H3: Degree of information disclosure H4: Number of inquiries to Japan Legal Support Centers H5: Number of lawyers H6: Number of cases of human rights infringement	J1: Number of state-designated cultural properties J2: Number of cultural facilities and community centers J3: Number of neighborhood associations J4: Rate of participation in volunteer activities J5: Number of people who made hometown tax payments J6: Number of people who made donations to major international support organizations J7: Number of registered Non-Profit Organizations (NPOs) J8: Rate of increase in foreign residents J9: Number of foreign students J10: Number of foreign technical interns J11: Rate of people who would welcome an increase in foreign residents in their neighborhood	K1: Rate of people who are not satisfied with their own lives K2: Rate of people who do not believe that their lives will get better in the future

on a Geographic Information System (GIS) map. The statistical data for each indicator was indexed by municipality, with 1 representing the fewest challenges and 0 representing the most. The indicators for the Life, Livelihood, and Dignity categories were then indexed separately to produce Life, Livelihood, and Dignity indices, and these were used as the basis to compare and rank municipalities. **Figure 1-2** shows the municipalities ranked by the Overall Index, calculated from the average of the three category indices. The darker a municipality is colored, the more serious the problems it has to address (see Chapter 3, 3-4). It should be emphasized that ranking itself is not important. The intent of visualizing the data on a map is to clarify the priority issues that each municipality needs to address relative to other regions, providing a shared awareness of the issues and an opportunity for local governments, citizens, and businesses to work together to solve them.

Figure 1-2: **Overall indices for municipalities in Miyagi Prefecture**



These indicators revealed that many people in Japan and in Miyagi Prefecture are being left behind by poverty, inequality, isolation, and discrimination, and that not everyone is able to live with a sense of pride as a human being. To achieve the core objective of the SDGs, it is necessary to work toward reducing poverty and inequality and to eliminate discrimination, not as a matter of charity, but as a matter of human dignity. We also need to act to create a society of coexistence, in which there is mutual respect and recognition of diversity.

9 Coexistence between Humans and Nature

There are two questions that we must respond to here. The first is whether human security is an anthropocentric concept that neglects the natural environment. Human security emphasizes the importance of guaranteeing the life, livelihood, and dignity of all people, recognizing that being born into this world as a human being has an intrinsic meaning and value that cannot be taken away. The distinctive features of this approach are that it is based on human values such as these, and that it comprehensively reassesses security threats from the perspective of individual human beings. While legal norms, such as international human rights covenants, constitutions, and national bills on human rights, affirm human values as legal rights, human security can only be considered as a code of ethical conduct.

The Commission on Human Security defines human security as the protection of core human values and the fullest development of human freedom and capabilities; in other words, the protection of the fundamental freedoms that constitute the essence of human life. Respecting human freedom does not mean that humans can freely consume the environment and resources of this planet without limits. While human security aims to secure an environment in which humans can develop their innate capacities to the fullest, it does not recognize similar goals for the other animals and plants that inhabit the earth. However, it does recognize that without biodiversity, the preservation of ecosystems, and the stabilization of greenhouse gas levels in the atmosphere, humanity will not be able to maintain a secure, human way of life on this planet. Accordingly, the international community has created international legal norms and codes of conduct for the preservation of the global environment and continues to explore ways to coexist with nature (**Table 1-10**). Proponents of human security respect life, from human to all other forms, while emphasizing human dignity.

The second question is whether the SDGs may actually be harmful unless they are accompanied by fundamental systemic transformation. The SDGs have their origin in Agenda 21, the action plan of the 1992 UN Conference on Environment and Development. Its starting point was the recognition that humanity could not continue to live on this planet without preserving biodiversity and ecosystems and stabilizing the levels of greenhouse gases in the atmosphere. As such, it contained ways to curb overproduction, overconsumption, and excessive burdens on resources, beginning a journey toward coexistence with nature. As interest in the SDGs grows, it is understandable that some people are critical of irresponsible activities that ignore the negative impacts on the lives of local people and the natural environment in developing countries in order to use resources, as well as of those initiatives in which the SDGs are seen only as a business opportunity for companies. However, amid a worsening climate crisis and growing inequality in the world, the

Table 1-10: **Coexistence of human beings and nature**

Human beings	The natural world
• UN Charter • Universal Declaration of Human Rights • International human rights conventions • International Convention on the Elimination of All Forms of Racial Discrimination • Convention on the Elimination of All Forms of Discrimination Against Women • Convention on the Rights of the Child • Convention on the Rights of Persons with Disabilities • **UN General Assembly resolutions on human security**	**Vienna Convention for the Protection of the Ozone Layer** **Convention on Biological Diversity:** Species: conserve the diversity of life on Earth Ecosystems: conserve habitats, sustainable use Genes: use of genetic resources, equitable sharing of benefits **United Nations Framework Convention on Climate Change:** To stabilize the levels of greenhouse gases in the atmosphere **The Paris Agreement:** Establishes the 2°C target as a shared long-term goal for the world. Calls for efforts to limit global warming to 1.5°C

SDGs present a valuable universal plan of action and roadmap for narrowing disparities and for achieving an inclusive society where human dignity is protected and no one is left behind. The questions to ask are whether the significance of the SDGs, as a framework for global cooperation representing the consensus of all UN member states, is truly understood, and whether substantial progress is being made toward the realization of their core objectives. However, this does not undermine the value of the SDGs themselves. Together with more drastic measures by the government and local governments, innovative efforts by companies with technology, funds, and human resources, finely-tuned activities by citizens' groups, and intellectual contributions by research and educational institutions, the weight of every individual's actions as an agent of social change should not be underestimated.

10 Impact of COVID-19 on the SDGs

The COVID-19 pandemic, which has ravaged the world since early 2020, has had a tremendous impact on society, the economy, and human life in general, and poses a major challenge to the SDGs, which are due to be met by the year 2030. The impact of the pandemic on the global economy has been wide-ranging and severe, with global economic growth, trade volumes, direct investment, and foreign remittances declining significantly in 2020. As a result, the number of people living in absolute poverty (those living on less than 1.9 US Dollars a day) is estimated to have increased by 150 million, and the number of people living with food insecurity by 265 million (UN estimate). In addition, the number of children unable to access education due to school closures or for economic reasons reached 1.52 billion worldwide (89% of the total school-going population) at its peak (UNICEF report). In Japan, the number of elementary and junior high school students habitually absent from school reached record highs of 196,000 in 2020 and 245,000 in 2021, a result of blanket school closures and significant restrictions on school life.

Internationally, the impacts of the COVID-19 pandemic on the poorest countries, conflict-affected countries, migrant workers, refugees, and internally displaced persons have been particularly severe, while on a national level, it has had a disproportionately negative impact on vulnerable groups such as children, women, single parents, those in non-regular employment, the elderly, and people with disabilities, even in developed countries. In Japan, the difficulties faced by those in non-regular employment and single-mother households have been especially acute (see Chapter 12, 12-3). On a global level, there are concerns that recent progress in infant mortality and elementary school enrollment in developing countries has been substantially reversed, and that we may be back to 1990 levels, the starting year for the MDGs. Thus, the pandemic has had far-reaching and profound effects on the implementation of the SDGs (UN Secretary-General's Report, April 2020).

With people spending extended periods of time indoors as a result of the COVID-19 pandemic, there has also been a rise in domestic violence. UNICEF estimates that 243 million women and girls (aged 15–49) worldwide were subjected to sexual or physical violence in the home in 2020. In Japan, the number of children

Table 1-11: **Impact of COVID-19**

Particularly severe	At the global level: poorest people, migrant workers, refugees, poorest countries, conflict-affected countries At the national level: children, women, single parents, those in non-regular employment, the elderly, people with disabilities
Economic growth rate (2020)	Global -3.3% Developed countries -4.6% (World Bank)
Global trade volume (2020)	-8.3% (World Bank)
Remittances from migrant workers to home countries	-14% (World Bank)
People in absolute poverty (less than 1.9 USD per day)	Increase of 150 million to 736 million (UN estimate)
People living with food insecurity	Increase of 265 million (UN estimate) → Infant mortality, child nutrition, and elementary school enrollment: may regress to 1990 levels → Strengthening of international solidarity and cooperation required

Source: UN Secretary-General's Report (April 2020); World Bank, *Global Economic Prospects* (June 2022)

under the age of 18 who were reported to Child Welfare Centers due to suspected child abuse totaled 97,842 in 2020 (an increase of 17,590 from the previous year), and the number of domestic violence cases stood at 82,201 (an increase of 4,719 from the previous year), the largest number since records began. There has been a particularly sharp increase in suicides among female elementary and junior high school students, with the number of student suicides reaching a record high of 499 in 2020 (140 more than the average of the previous five years). In addition, while the number of suicides among men has decreased, the number among women has increased significantly since July 2020, especially among the 20-40 age group *(2021 White Paper on Suicide Prevention)*.

As such, the pandemic poses not just a threat to human health, but a truly compound threat to human security, requiring a response in all three areas of life, livelihood, and dignity. A human security approach that takes a multifaceted view of human life, livelihood, and dignity can provide an important framework for responding to complex global crises and for protecting and empowering the most vulnerable and marginalized groups.

11 Build Back Better

The COVID-19 pandemic is having a profound impact on our ability to meet the SDGs by 2030. Governments and UN agencies have been forced to allocate financial resources to infection prevention, health, and emergency economic measures, leading to concerns about a shortage of resources for other areas such as humanitarian assistance (food, etc.) and education. There is also an undeniable tendency for countries to prioritize their own interests in implementing emergency measures and securing vaccines. At the same time, the threat of an infectious disease to which everyone living on earth is equally exposed vividly demonstrates the fact that "no one can be safe unless everyone is safe." It is also true that, with the growing sense of global solidarity that transcends national borders, there is greater awareness of the need not just to return to the pre-pandemic status quo, but to create a more inclusive and resilient society under the slogan "Build Back Better." To this end, it is important to reaffirm international and national action plans on the SDGs, guided by the core objective that no one should be left behind. To realize this goal, there is a need to redouble efforts in local communities, focusing on vulnerable groups that have been severely impacted by the pandemic, as well as to strengthen international cooperation. Using human security indicators to bring to light the priority issues of local communities will be an effective way to do this.

Written by Yukio Takasu

1-2 What Is Dignity and How Is It Measured?

1 Dignity in the Human Security Indicators

As discussed previously, the Human Security Indicators are categorized into three areas (Chapter 1, 1-1). The first is "Life." The first and most important thing for a human being is to live out their natural life. All people wish to avoid premature death, to be spared from unnecessary suffering, and to live healthily. The second is "Livelihood." So long as someone is alive, they want not only to survive, but also to have a decent standard of living. As such, they want to receive the education they need and work when they are able to. Or, perhaps, they want to lead a respectable life and not be embarrassed to appear in front of others. These desires are common to all.

Furthermore, the Human Security Indicators have a third component: dignity. In addition to freedom from fear and freedom from want, the freedom to live with dignity has often been a central topic in the debate over human security. However, when one tries to quantify it as indicators, measuring dignity is not easy. At least, it does not appear to be easy. This marks a contrast with life and livelihood, where the indicators are easy to understand, there are many statistical resources, and the criteria are relatively easy to choose. So, what is dignity? Although we understand intuitively that it is very important, many of us may have trouble when asked to explain what it is all about.

However, it could be said that the indicators concerning dignity are the most representative of human security or the SDGs. This is because the Dignity Indicators are directly related to the goal of creating "a society where no one is left behind" (see Chapter 1, 1-1). Therefore, when you create human security indicators for your respective localities, it is important to pay particular attention to what you choose for indicators relating to dignity. This section provides some points on what to think about when conducting this work.

In the Miyagi Model, the Dignity Indicators are made up of four categories: G (Dignity of Women and Children), H (Trust in the Public Sector and Gender), J (Community Engagement), and K (Satisfaction with life) (Chapter 3, 3-3). In this section, we will consider why these are important and why they can be grouped together as indicators for dignity. After first revisiting the principles of the Universal Declaration of Human Rights, we will trace these four categories of indicators in reverse order, from K to G, and explain the main points of the concept of dignity by linking it to each category.

2 "Noble, Solemn, Inviolable"

Our starting point is the Universal Declaration of Human Rights, adopted by the UN General Assembly in 1948, which is accepted as customary international law by most nations in each corner of the world. The Preamble of the Declaration begins with the following:

> "Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice, and peace in the world..."

Meanwhile, Article 1 is worded as follows.

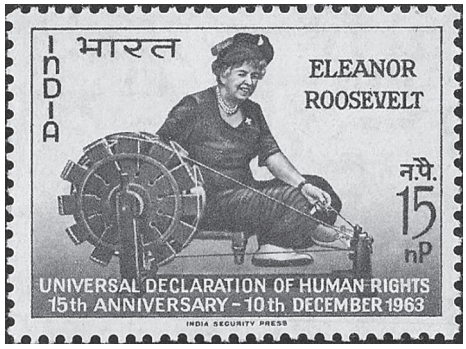
> "All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood."

All people living in this world are equal in dignity and rights. Every human being has irreplaceable value, and none is superior or inferior to another. A human being is an end in itself, not a means to some other end. This should be the basis of all laws of human society. This was emphasized in the Universal Declaration of Human Rights because in the first half of the 20th century, humanity experienced two world wars and witnessed the cruel tragedy of tens of millions of deaths. Each and every human being is important. No matter what the noble cause, we must not regard people as mere means to an end and deprive them of life so lightly. This is a lesson that humanity learned through the senseless deaths of countless people in the world wars.

In the Universal Declaration of Human Rights, dignity and rights are enshrined as paramount. Subsequently, the

substance of the Universal Declaration of Human Rights became international law in the form of human rights conventions and protocols, and many countries around the world accepted dignity and rights as central pillars of their constitutions (**Figure 1-3**). The Basic Law for the Federal Republic of Germany is a well-known example, but the values of dignity and rights are also strongly reflected in the Constitution of Japan. UN General Assembly resolution A/RES/66/290, adopted in 2012, outlines a common understanding on human security and states that human security helps Member States to identify and address widespread and cross-cutting challenges to people's survival, livelihood, and dignity, including "the right of people to live in freedom and dignity, free from poverty and despair" (1-1 of this chapter, **Table 1-3**).

Figure 1-3: Stamp commemorating the Universal Declaration of Human Rights (issued by the Government of India in 1963), Wikimedia Commons



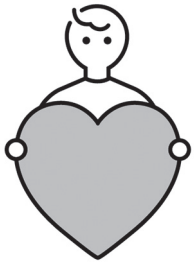
In the authoritative Japanese dictionary, the *Kojien*, the word "dignity" is defined as "noble, solemn, and inviolable." The Japanese word for dignity, *songen*, uses the Chinese characters for "noble" and "solemn."

We look up to that which is noble and solemn — in other words, we pay it respect. In the Universal Declaration of Human Rights, however, it is not a few "noble" human beings who have dignity, but all human beings. Accordingly, it follows that we should value every human being and treat each of them with respect. From the perspective of dignity, no particular person or people should ever be disregarded, ignored, or left behind.

3 Caring for Oneself

Every human being has dignity. You have dignity, as do I. Another way of putting it is that every person possesses an inner value that is unconditional and inviolable. A starting point for the practice of dignity, then, would be to value oneself, recognizing that one is born with inherent dignity (**Figure 1-4**). Since we all have equal value as human beings, one should not imagine oneself as being inferior to others. As such, having pride in one's existence and confidence in oneself is the foundation of human dignity. The greatest denial of one's dignity is thus to take one's life, i.e., suicide (which is also included in the Life Index). This will be discussed again later.

Figure 1-4: Caring for oneself



Whether or not people value themselves appropriately is seemingly a subjective matter, so let us ask people directly about it. You ask them if they are proud of themselves and if they are able to maintain their self-esteem. "Are you satisfied with your life so far? Do you feel a sense of purpose in life? Do you have hope for your future?" These are questions we asked in our questionnaire, and some of the results were selected as indicators. These were then aggregated under category K (Satisfaction with life) and compared by location, alongside scores calculated for subjective self-fulfillment and social connectivity (Chapter 3, 3-5). For these, we asked how people evaluate their own lives, as distinguished from an evaluation of the state of society. People's attitudes to life will vary depending on the place of residence, generation, gender, occupation, etc.

There is one thing to note here. While we examine people's satisfaction with their lives, we must be aware that every human being is both an individual and a social being. A person is a member of several groups at the same time, and if they feel that a group to which they belong is being humiliated, disrespected, or discriminated against, their self-affirmation may be undermined. Alternatively, they may become more inclined to protect themselves and the group because of such setbacks.

In his book *Identity: The Demand for Dignity and the Politics of Resentment* (Farrar, Straus and Giroux, 2018), political scientist Francis Fukuyama argued that dignity in Western thought has two aspects: individual dignity and group-based dignity. According to Fukuyama, now that the Cold War era is over, the latter, or the desire for group recognition, has become even more salient.

When people feel they are being left out as a group, they sometimes become furious and express their collective will in violent ways. In the United States, it is said that the frustrated "white working class" has become President Trump's main base of support. As if to counter this, the BLM (Black Lives Matter) movement also gained momentum. Even though political claims about "our dignity" are well-founded, Fukuyama says that to prevent them from contributing to a cycle of hatred, it is necessary to return to the principle of universal recognition of the dignity of every citizen, which he calls the democratization of dignity.

4 Caring for Others

Whether a person is proud of themselves depends a great deal on whether or not they feel they are receiving the proper respect from others. In a society where men who look down on women act as representatives of everyone, all women will feel that their pride has been hurt. If a particular local culture is insulted, it may take a heavy toll on the self-esteem of those who were born and raised in that place. Being demeaned by someone you believe yourself to have a close relationship with makes it hurt all the more. Children who are bullied in the classroom and people who suffer daily violence at home at the hands of a parent or spouse are clearly deprived of their human dignity. Even when we try to live confidently in a way that is true to ourselves, we can still be robbed of our pride as human beings by the thoughtless acts of others.

Therefore, the next step to widely spread the spirit of dignity is for everyone to adopt an attitude of caring not only for themselves but also for others, and to take responsibility not to hurt others. That is, respect should be given to all others, since all human beings are equal in dignity. If you only take care of yourself, it is nothing but an arrogant attitude (**Figure 1-5**).

Figure 1-5: Caring for others

The ability to care for others is a matter of the quality of relationships between people. In the languages of a wide area of sub-Saharan Africa, the word for human being or humanity is *ubuntu*, which means "I am, because you are." Human beings are born out of, and are contingent upon, their relationships with each other. The Japanese word for human being, *ningen*, is also expressed as "between people," a view of human beings very similar to that of *ubuntu* (in Chinese, the same word means "society," and *ningen* was once used in Japan in that sense as well).

Ubuntu in Africa extends not only to relations between the living, but also between the living and the dead. This is an important point to consider when thinking about the meaning of dignity. Although the dead do not have rights (dead people cannot be legal claimants), we do indeed believe that the dead have dignity. We are inclined to think in that way, at least. This is because even after the people with whom we have shared time and space have left this world, the relationship between those people and ourselves remains. In *Dignity: Its History and Meaning* (Harvard University Press, 2012), philosopher Michael Rosen focuses on the expression of respect as an important aspect of dignity. We try to treat the dead body of a person or a fetus with respect and care. While ways of showing respect vary from culture to culture, treating the dead with respect is a norm which is common to all societies.

When all members of a community are esteemed and respected, the recognition will be reciprocated and dignity will prevail in that society. Category J (Community Engagement) deals with this dimension in particular. People gather in the community, preserve the memory of the traditional local culture, and engage with each other. It also means that places are available for these things to happen. In such communities, it will be easier

to establish relationships where people naturally voice their concern if they see an isolated elderly person or if they notice that a child has been left on their own. Even when people face severe disasters, community ties are not necessarily severed; on the contrary, they may be dramatically strengthened. After every major natural disaster, whether in Tohoku or elsewhere, we have witnessed and reaffirmed the power of community.

Community engagement, community ties, and mutual aid can be the foundation of dignity. At the same time, however, community ties can be constraining. If a community lacks openness, those who are excluded from the network may be stripped of respect and esteem. We know all too well that the flip side of strong community ties is that ostracism can occur (something that happens not only in rural villages, but also in workplaces and groups of friends in urban areas). If a community excludes those with backgrounds which are different from the majority, it contradicts both the fundamental principle of human rights laws and the objective of the SDGs of achieving a society where no one is left behind. No matter how high the Community Engagement Index is, human dignity will not have been achieved if some people are excluded from the community network.

A useful indicator to measure whether a community is open and dignity is shared by all is to examine attitudes toward foreigners. Accordingly, the second half of category J (Community Engagement) contains indicators relating to the international outlook of an area. In a community where the number of foreign residents (especially young people of foreign origin) increases and where they are welcomed by the local residents, everyone, whether they are visitors from neighboring towns or migrants from Tokyo, will be able to live comfortably. In such an open and diverse society, we may also expect to see the development of innovative entrepreneurial activities (this is also related to Livelihood Indicators; see Chapter 13).

5 Democratic Institutions Fostered by Dignity

Let us return again to the Universal Declaration of Human Rights, where dignity and rights are placed side by side. Are dignity and rights the same thing, or are they different? While both refer to the value that all humans are born with (and indeed, some would argue that rights and dignity are the same), I believe there are subtle and possibly fundamental differences. Generally speaking, rights seek to empower people through legislation, whereas dignity addresses moral imperatives that are deemed important, with or without legal provisions. There is also a view that takes a somewhat narrower approach to dignity and seeks to realize the "right to be treated with respect." This is to protect people's dignity (the right not to be insulted) through legal action against things like thoughtless abuse on the internet, vicious bullying, and hate. While such moves are both important and necessary, it may not be appropriate to bind them too tightly by law, since so much of caring for oneself and for others, and the negation of such rights, take place in intimate spheres. Rather, perhaps people could give life to written clauses of human rights legislation by placing a high value on dignity as a fundamental life attitude.

Human rights laws and bills of rights have been developed over time as global and national legislation, but it is important to make them work in practice rather than remain just beautiful words on paper. To this end, it is essential for people to vote in elections to choose their representatives, respect legal orders, make new laws if necessary, and put democratic institutions into operation. Thus, the indicators at the top of category H (Trust in the Public Sector and Gender) include voter turnout in national and gubernatorial elections. It then measures whether women, who make up half of the electorate, are able to participate in decision-making processes at various levels of local government.

According to the philosopher Immanuel Kant, who addressed the concept of dignity directly in his essay, dignity is an intrinsic value that is equally imparted to all human beings, and the source of this value is "autonomy." When Kant refers to autonomy, he means that humans can create and follow their own internal moral laws. By carefully considering what one should do, one can bring oneself closer to that ideal state, and ultimately, this is where the basis of human self-respect and dignity lies. Having people think carefully, create their own rules, and then follow them on their own, are also the basic principles of self-governance for every community.

This emphasis on dignity must also be reflected in economic and social policies. At the end of *SDGs and Japan*, there is a discussion of the importance of coordinating self-help, mutual support, and public assistance in conjunction with disaster prevention thinking, in order to create a society where no one is left behind. In their book, *Good Economics for Hard Times* (Public Affairs, 2019), Abhijit Banerjee and Esther Duflo underscored the significance of social policy that does not leave the poor behind, and they won the Nobel Prize in Economics in 2019. The book places particular emphasis on the idea of dignity. Every member of society needs to think of how to help those who are seeking help (this also relates to the Livelihood Index). Then, what is important is to design institutions in a way that respects the self-esteem and agency of the people who need help, and encourages their participation, rather than just providing charity in one direction, from the top down.

6 Dignity of Women and Children

Cultivating an attitude of respect for oneself and others, and working together to build fair and caring institutions where everyone is treated with respect — as we have discussed, this is what is necessary in order to create a society that embraces dignity. There is something very important here — that society will not change simply by confirming the general principle of equal treatment of all.

We try to understand the circumstances of those whose dignity has been stripped from them and want to change people's attitudes, institutions, and policies, so that the conditions in which these people find themselves can be radically transformed. It is precisely when dignity is lacking that we appreciate its importance. This is why the entire society must address the challenges faced by those who are left behind and those who are at risk of being left behind, and change social structures and public attitudes in a way that benefits these people and puts them center stage. Only when such changes in attitudes, institutions, and policies come to pass, will we realize that we are closer to achieving a society of dignity.

So, who should we prioritize when we try to work with those at risk of being left behind? The prefectural data presented in *SDGs and Japan* shows us important areas that should be worked on. Various indicators were combined to identify urgent issues for each prefecture. In the case of Miyagi Prefecture, in addition to recovery from the Great East Japan Earthquake, the report pointed to emergent problems such as low female employment rates as well as issues related to children, including a high rate of students who are habitually absent from school, a high number of reports at Child Welfare Centers, and a high number of bullying at school. Taking such statistical evidence into account, we decided to pay special attention to the problems faced by women and children when developing the Miyagi Model. If we look at the larger picture of society, it is safe to assume that male adults in full-time employment generally do not fall into the category of those left behind. Of course, it is not enough to simply and exclusively focus on women and children. The reality is that there are many cases where diverse human attributes and social challenges intersect, such as children with disabilities, foreign women living in Japan, and so on. At any rate, in the case of the Miyagi Model, it seemed urgently necessary to focus first on the circumstances of women and children, and use them as a lens through which to view the overall picture of social problems and dignity in the region.

From there, as the start of a series of Dignity Indicators, categories G (Dignity of Women and Children) and H (Trust in the Public Sector) directly incorporate indicators from the perspectives of children and gender, respectively. G includes an evaluation of municipal comprehensive plans, focusing on how each municipality is trying to address the challenges faced by women, children, and those at risk of being left behind, and tries to make an objective evaluation to the extent possible. For Chapters 6–9 on local initiatives and Chapters 10-13 on thematic issues, we asked local Miyagi residents working on issues facing women and children against the backdrop of the 2011 earthquake to write about their activities on the ground. We hope that these chapters will give the readers a better understanding of whose dignity these indicators are focused on, and in what ways they can be used to help restore the dignity of vulnerable populations, including women and children.

7 The Urgency and Breadth of Dignity

In this section, we have discussed the importance of dignity, focusing on self-esteem, community engagement,

trust in the public sector, and the serious situation faced by women and children. Although dignity is related to a broad range of areas, at the core are pressing issues regarding the life and death of individual humans. Category G includes indicators such as deaths by suicide among children, deaths by suicide among women, child abuse, and secure places for children, all of which relate to problems that cannot wait for slow improvement. While calculating these indicators, even if there is only one case of a child committing suicide per year in a particular town, it is hard not to think about the circumstances that drove that child to suicide.

The starting point of the discussion about dignity was the idea of having pride in oneself. The premise of self-esteem is that a person has infinite potential, that they can choose their own life, that they are who they are as a result of their choices, and that the people who are important to them (and more broadly, the society around them) appreciate and approve of who they are now. A situation in which a person's options in life are almost nil, and they believe that their only course of action is to take their own life, is one in which human dignity has been fundamentally denied. It is particularly shocking for the entire society when a child, who should be bursting with future potential, ends their own life. Although the suicide rate for the population as a whole is part of the Life Index, the rate of death by suicide among vulnerable people such as women and children are specifically added to category G at the beginning of the Dignity Indicators because there is a specific urgency to these issues that should be distinguished from suicide in general.

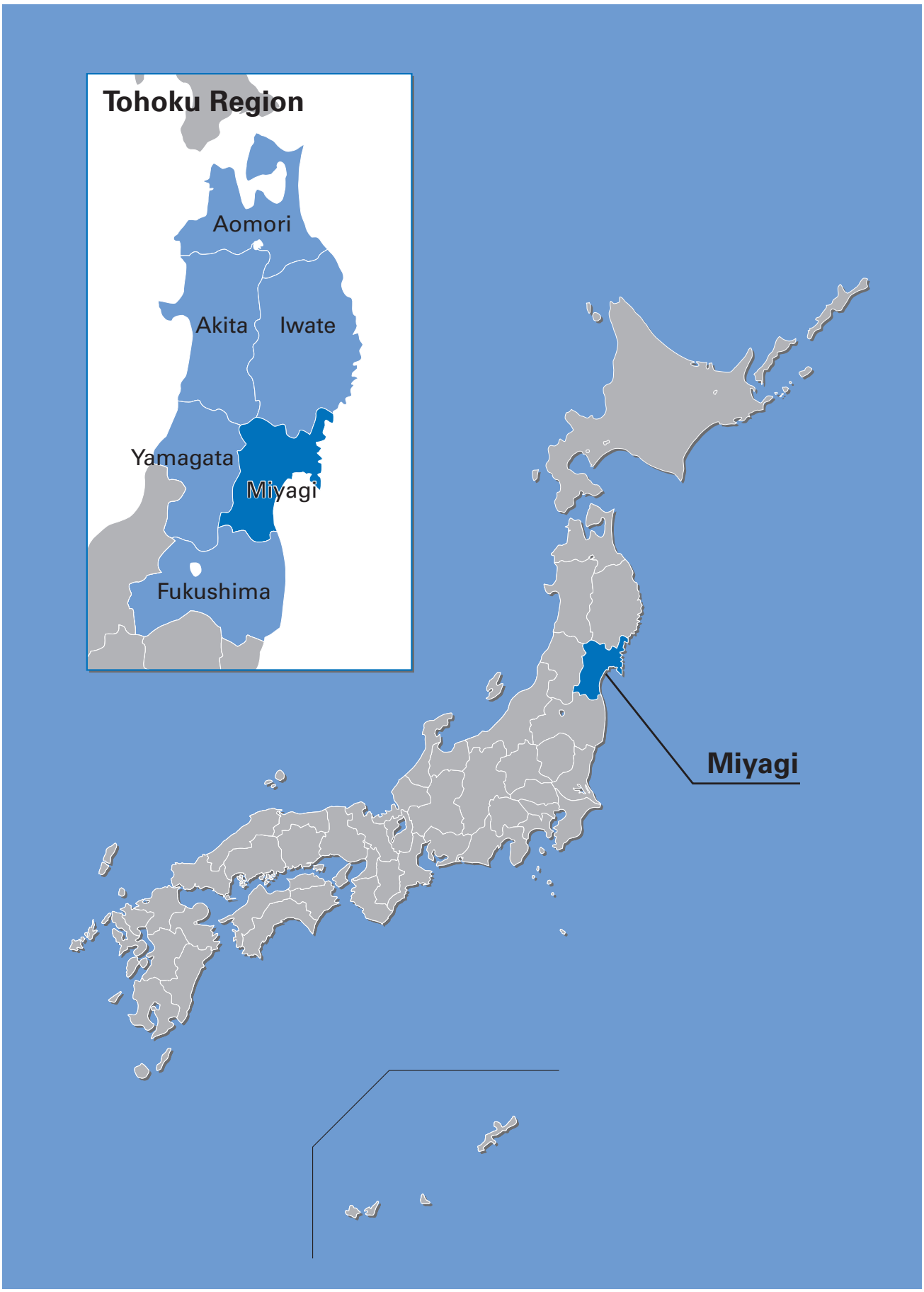
We should continue to think about the meaning of dignity and try to create and revise measurement tools as resources to realize the core objective of the SDGs. One difficult question regarding dignity that cannot be given a clear-cut answer is "death with dignity." This means allowing people, who are not expected to recover, to discontinue life-prolonging treatment so that they can die with dignity as a person. However, there are still many outstanding issues, such as whether the unchanged intent of the individual can always be confirmed, how "death with dignity" differs exactly from suicide, and what constitutes human autonomy in the first place. Against the backdrop of an aging society with fewer children, we are entering an era in which the questions of how to live well and how to die well are both being asked in the daily lives of most people.

Figure 1-6: Fishing boats at Kesennuma port, waiting to set sail (photo: Maki Onodera)

While we may feel a sense of reverence for life itself, we may also sense a kind of dignity about the natural surroundings in which the life of living things emerges. The feelings of awe and reverence that people have held toward the sea and mountains since ancient times could also form part of the Dignity Indicators. This is because, while the basis of dignity is pride in oneself, the source of one's pride may include the community to which one belongs, and this is likely to extend to the accumulation of local history in which people have interacted with their environment (the indicator for designated cultural properties might be closer to this realm of "community dignity"). A local legislator, Tomoyuki Miura of Kesennuma City, who contributed to this book (Chapter 10, 10-3), once said, "Even though the sea took the lives of many people with the tsunami, I still feel a sense of veneration toward it" (**Figure 1-6**).

By valuing both ourselves and others, we can foster communities that are kind and accommodating to the people who live there, as well as open to people from the outside world, and rethink social systems from the perspective of those who are at risk of being left behind. I believe that the concept of dignity provides an excellent starting point for undertaking these activities. I hope that readers will make the best use of the Miyagi Model to discuss the depth and breadth of the meaning of dignity, and to consider what indicators are appropriate for measuring dignity in their locality.

Written by Yoichi Mine


Tohoku Region
Aomori
Akita
Iwate
Yamagata
Miyagi
Fukushima
Miyagi

From *SDGs and Japan* to the SDGs Miyagi Model

Chapter 2

Issues Facing the Tohoku Region and Miyagi Prefecture, as Seen in *SDGs and Japan*

1 Human Security Indicators for the Six Prefectures in the Tohoku Region

Prefectures in the Tohoku (North East) region tend to appear toward the bottom of the prefectural Human Security Index rankings. With the exception of Yamagata Prefecture, these prefectures rank very low nationally in the Overall Index and face many challenges (Yamagata 18th, Iwate 37th, Akita 38th, Fukushima 41st, Miyagi 45th, and Aomori 47th, out of 47 prefectures in Japan). The reason for the low human security scores in the prefectures of the Tohoku region is that their Life and Dignity indices are generally very low.

Table 2-1: **Human security index scores for the six prefectures in the Tohoku region (national ranking)**

	Overall Index	Life Index	Livelihood Index	Dignity Index
Yamagata	18th	26th	6th	41st
Iwate	37th	46th	8th	35th
Akita	38th	43rd	11th	45th
Fukushima	41st	44th	25th	30th
Miyagi	45th	32nd	45th	47th
Aomori	47th	47th	37th	46th

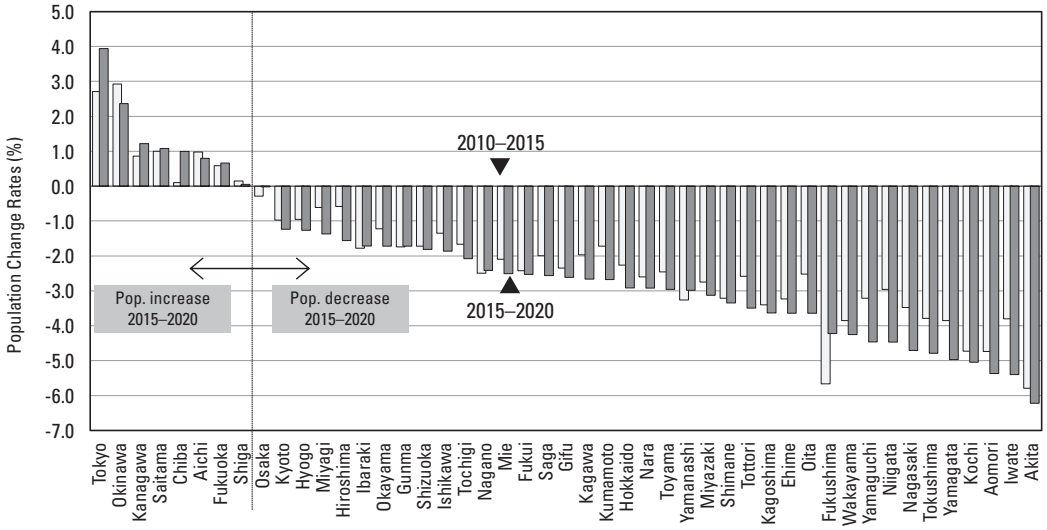
(1) Life Index

Damage from natural disasters: The three prefectures that had the most deaths and missing persons from natural disasters between 1995 and 2016 were Miyagi (508 per 100,000 people), Iwate (499 per 100,000 people), and Fukushima (217 per 100,000 people), in that order. The Great East Japan Earthquake inflicted extremely extensive damage, resulting in significant challenges in terms of rebuilding livelihoods and the social environment throughout the Tohoku region, especially for the prefectures along the Pacific coast.

Population/medical care: While the effects of the Great East Japan Earthquake are certainly significant, the biggest challenge facing the Tohoku region is population decline (Figure 2-1). According to the national census, the rates of population decline for 2015–2020 followed the 2010–2015 trend, with Akita (6.2%), Iwate (5.4%), Aomori (5.4%), Kochi (5.0%), and Yamagata (5.0%) prefectures showing the steepest population declines (the corresponding rates of decline for Fukushima and Miyagi prefectures were 4.2% and 1.4%, respectively).

In addition, the prefectures in the Tohoku region share challenges in medical care and health awareness. Life expectancy and fertility rates are low, the number of doctors per person is low, and the rates of unmarried and elderly people are high. In addition, high rates of tooth decay and smoking, coupled with low rates of sports activity and average number of steps walked, are common characteristics of the region.

Figure 2-1: **Rates of population change at the prefecture level (2010–2015, 2015–2020)**



Source: Ministry of Internal Affairs and Communications, 2020 National Census, Figure I-2-2

(2) Dignity Index

Children: The prefectures of the Tohoku region share many challenges regarding children and their welfare, as suggested by the relatively high figures for bullying cases (excluding Fukushima Prefecture), children in temporary child protection facilities, foster care placement rates, and deaths by suicide among children.

Gender: The prefectures also have common challenges regarding domestic violence and other forms of violence against women, as well as gender disparities, such as the relatively few hours that men spend on household chores, large gender wage gap, and paucity of female members in local assemblies, recovery planning councils and recovery promotion committees, and disaster prevention councils.

Access to the law: There is also room for improvement in terms of the number of inquiries to Japan Legal Support Centers, and the low number of lawyers relative to the population (with the exception of Miyagi Prefecture).

Self-affirmation: The extremely high number of negative questionnaire responses to questions on whether people are satisfied with their lives (Fukushima 33rd, Miyagi 40th, Akita 41st, Iwate 43rd, Yamagata 43rd, Aomori 46th), and whether they think the future of their lives will be better than the present (Iwate 32nd, Yamagata 35th, Aomori 37th, Fukushima 38th, Akita 42nd, Miyagi 43rd) reflects feelings of low self-affirmation among the population.

Yamagata Prefecture was the only prefecture in the Tohoku region to achieve a high ranking in the Overall Index. This was because of its good scores in life expectancy, rate of unmarried people, smoking rate, and others, placing it around the middle of the Life Index (26th), as well as its good scores in disposable income, employment, and living environment-related indicators, leading to a high ranking (6th) in the Livelihood Index.

2 Reasons for Miyagi Prefecture's Low Overall Score

Miyagi Prefecture ranked very low on the Livelihood Index (45th) and Dignity Index (47th), largely due to low scores on indices related to women, children, the elderly, and people with disabilities.

Income and employment: Although the average income of residents is in the middle of the range, scores for disposable income, the Gini coefficient, overall unemployment rate, and employment rates of women, people with disabilities, and the elderly, are extremely low compared to the rest of the country, indicating significant challenges in terms of stimulating economic activity and expanding employment.

Children: The rate of students who are habitually absent from school is higher than the national average, as is the high school dropout rate, while indicators for academic achievement are low. There are also relatively high numbers of bullying cases and consultations at Child Welfare Centers, indicating substantial issues in children's welfare and education.

3 Radar Charts for the Six Prefectures in the Tohoku Region

Figure 2-2: Yamagata Prefecture's Human Security Indicators (18th)

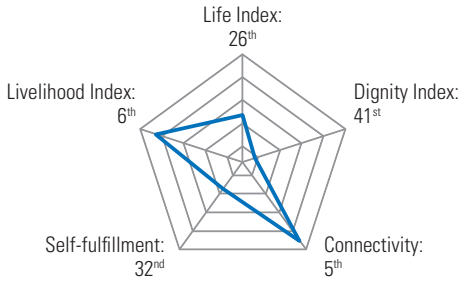


Figure 2-3: Iwate Prefecture's Human Security Indicators (37th)

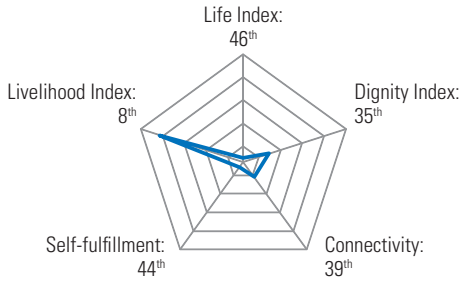


Figure 2-4: Akita Prefecture's Human Security Indicators (38th)

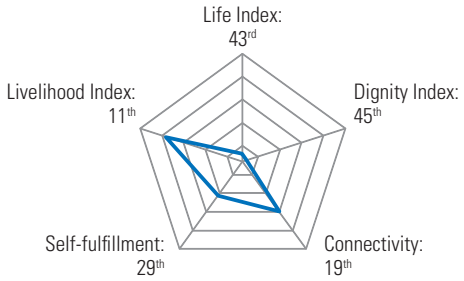


Figure 2-5: Fukushima Prefecture's Human Security Indicators (41st)

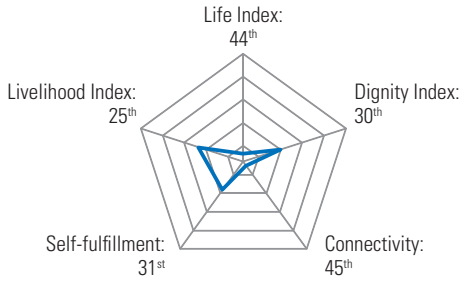


Figure 2-6: Miyagi Prefecture's Human Security Indicators (45th)

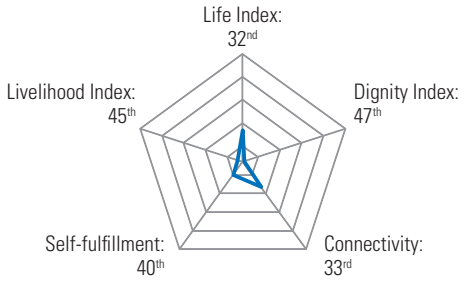
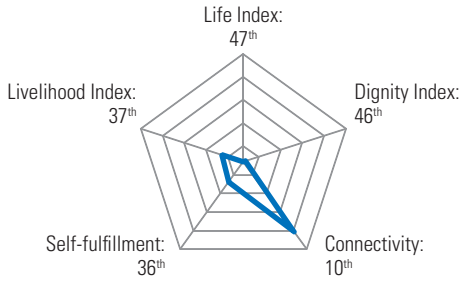


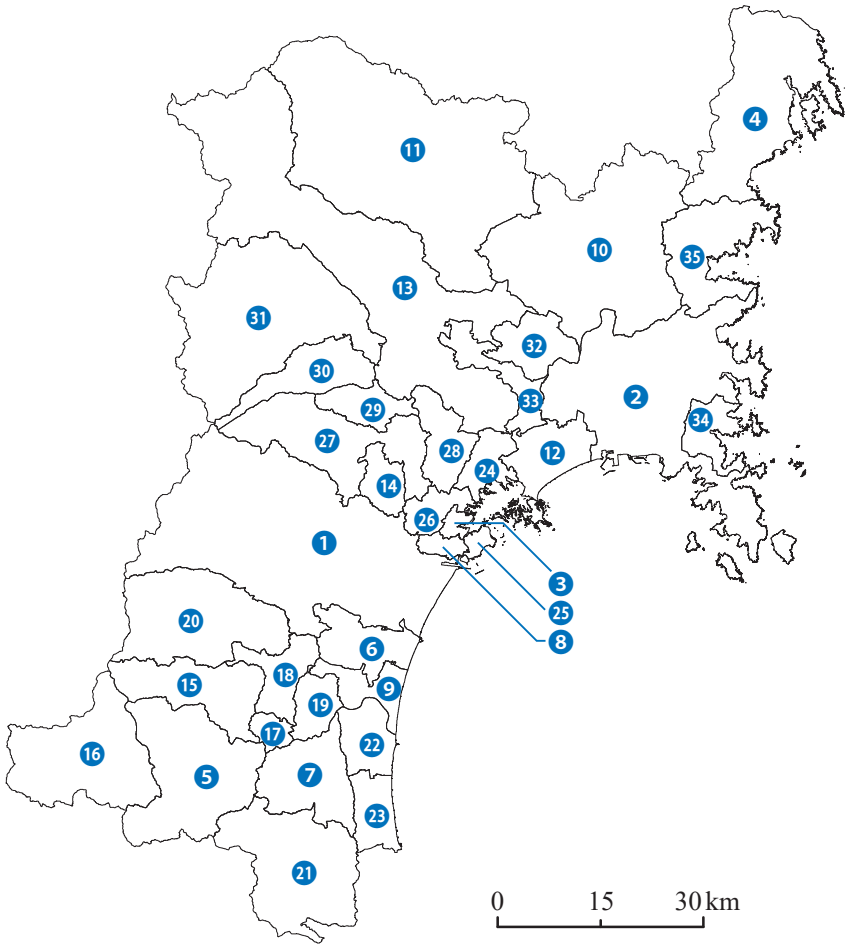
Figure 2-7: Aomori Prefecture's Human Security Indicators (47th)



Chapter 3

The SDGs Miyagi Model: Human Security Indicators for Miyagi Prefecture

Figure 3-1: **Municipalities in Miyagi Prefecture**



(1) Sendai City
(2) Ishinomaki City
(3) Shiogama City
(4) Kesennuma City
(5) Shiroishi City
(6) Natori City
(7) Kakuda City
(8) Tagajo City
(9) Iwanuma City
(10) Tome City
(11) Kurihara City
(12) Higashi-Matsushima City
(13) Osaki City
(14) Tomiya City
(15) Zao Town
(16) Shichikashuku Town
(17) Ogawara Town
(18) Murata Town
(19) Shibata Town
(20) Kawasaki Town
(21) Marumori Town
(22) Watari Town
(23) Yamamoto Town
(24) Matsushima Town
(25) Shichigahama Town
(26) Rifu Town
(27) Taiwa Town
(28) Osato Town
(29) Ohira Village
(30) Shikama Town
(31) Kami Town
(32) Wakuya Town
(33) Misato Town
(34) Onagawa Town
(35) Minami-Sanriku Town

3-1 Miyagi Prefecture on the Map

1 Social Context

(1) Municipalities and Population

Miyagi Prefecture is located south of the geographic center of the Tohoku region and in a north-northeast direction from Tokyo. In 2020, it had a population of 2,301,996, the largest in the Tohoku region and the 14th largest among all prefectures in Japan (2020 National Census). The prefecture has 35 municipalities, including 14 cities, 20 towns, and one village (see **Figure 3-1** and Reference Materials 2 for population figures as of August 31, 2022).

Sendai is the prefectural capital and is the only ordinance-designated city in the Tohoku region. It lies about 300 km from Tokyo, while Kesennuma in the northern part of the prefecture is located about 400 km from Tokyo. Approximately 70% of the prefecture's population resides in Sendai and its surrounding municipalities (Natori, Iwanuma, Shiogama, Tagajo, Tomiya, etc.) (**Figure 3-2**).

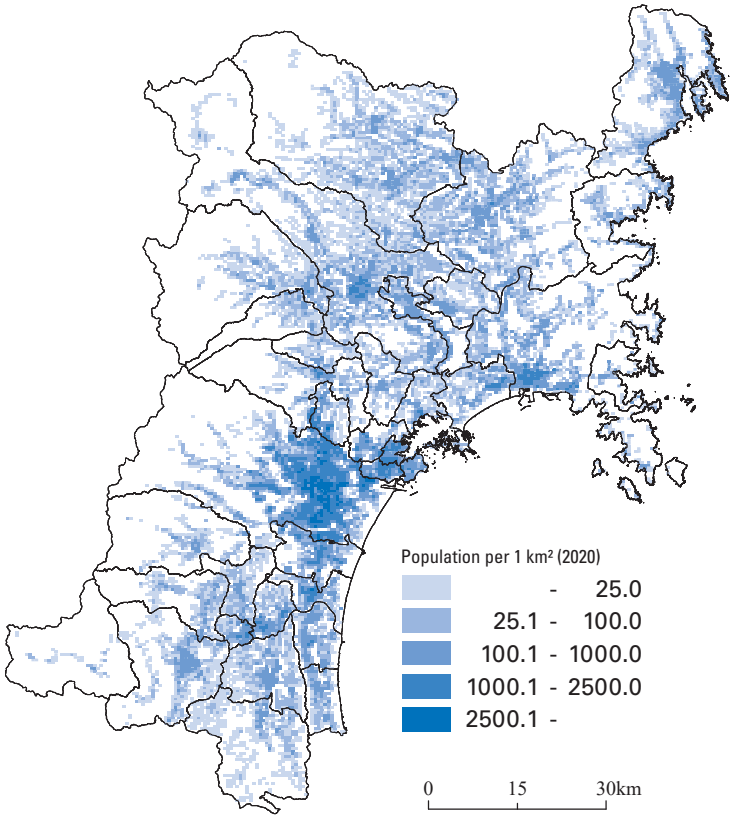
Data from the 2015 and 2020 censuses show that the prefecture's population decreased by 31,903, while the population of Sendai and its suburbs (Sendai, Natori, Tagajo, Tomiya, Taiwa, Onagawa, and Ohira) increased, with particularly high growth rates in Natori, Ohira, and Taiwa. Accordingly, the socioeconomic characteristics of Miyagi Prefecture are heavily influenced by the Sendai Metropolitan Zone. Other cities with large populations include Ishinomaki, Osaki, and Tome.

On the other hand, some municipalities suffer from declining numbers of children, demographic aging, and depopulation, such as Shichikashuku and Kawasaki in the southern part of Miyagi Prefecture bordering Yamagata Prefecture.

(2) Transportation Network

Figures 3-3 and **3-4** show Miyagi Prefecture's rail and major road networks, respectively. The Tohoku Shinkansen and Tohoku Expressway run through the region, and there are many stations and interchanges, providing good access to the Kanto and northern Tohoku regions. In addition, the city saw the opening of a subway system and improvements to the Sendai Metropolitan Zone Ring Network expressway system from the early Heisei period (around 1989)[*1], making intra-city transportation very convenient. Meanwhile, the Japan Railways (JR) Kesennuma Line used to connect Yanaizu to Kesennuma in the northern part of the prefecture, but it was severely damaged in the Great East Japan Earthquake. Passenger transportation is now provided by a Bus Rapid Transit (BRT) system operated by East Japan Railway Company.

Figure 3-2: Population density of Miyagi Prefecture (2020)



Source: Regional Grid-Square Statistics, National Census

[*1] The Heisei period (1989–2019) corresponds to the reign of the previous emperor, Emperor Akihito.

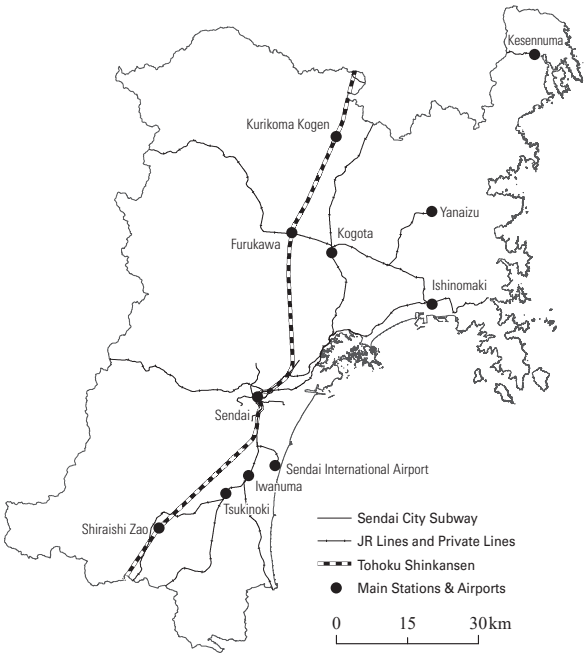
A bird's eye view of the prefecture's transportation system shows that the network was built outwards from Sendai City, with major railways and roads, such as the north-south Shinkansen line and expressway, running through it. Conversely, east-west arterial routes are less developed. The commuting area into Sendai City extends from Kogota in Misato Town, about 40 kilometers to the north, to Yamamoto Town on the border of Fukushima Prefecture to the south.

(3) Regional Administrative Divisions

In Miyagi Prefecture, regional administrative zones (regional divisions) are defined according to the geographic area under the jurisdiction of the prefecture's regional offices. The prefecture is divided into seven zones, from the Sennan Zone in the southern part of the prefecture to the Kesennuma/Motoyoshi Zone in the northern part (**Figure 3-5**). These correspond closely to the prefecture's commuting, commercial, and other nodal regions (functional regions).

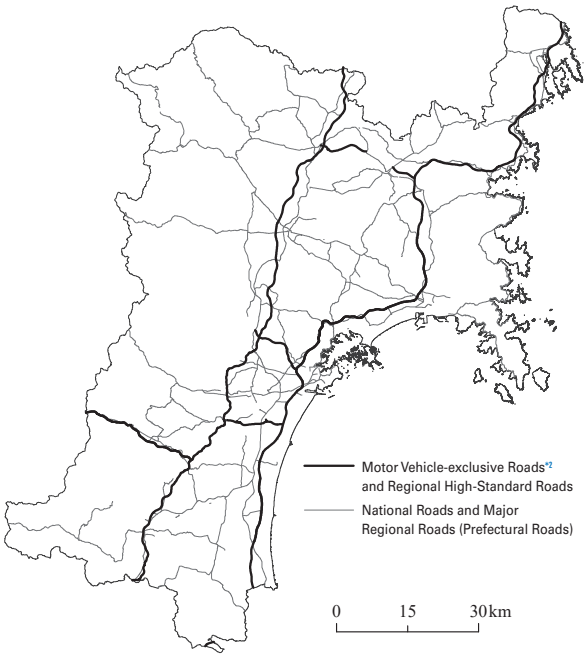
In principle, the information for the Human Security Indicators discussed in this book was gathered at the municipal level, but for some indicators, municipal-level data was not available, so the data used is collated by regional administrative zone instead. As mentioned, these divisions correspond to functional regions and are therefore treated as equivalent to municipalities.

Figure 3-3: Railway network in Miyagi Prefecture



Source: Based on 2021 Railway Data from the National Land Information Division, National Spatial Planning and Policy Bureau

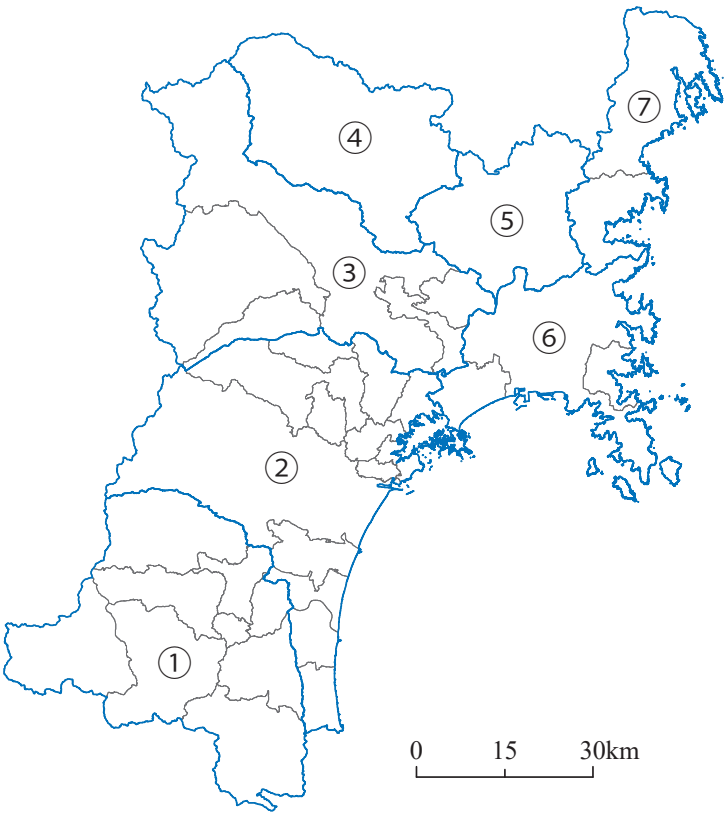
Figure 3-4: Major roads in Miyagi Prefecture



Source: Based on 2020 Emergency Transportation Road Data from the National Land Information Division, National Spatial Planning and Policy Bureau

*2 Under the Road Act of 1952, a motor vehicle-exclusive road is a road or a portion of a road designated by a road administrator to be only for automobiles. These roads mainly correspond to the expressways.

Figure 3-5: **Map of Miyagi Prefecture's regional divisions (blue lines)**



(1) Sennan Zone
(2) Sendai Metropolitan Zone
(3) Osaki Zone
(4) Kurihara Zone
(5) Tome Zone
(6) Ishinomaki Zone
(7) Kesennuma/Motoyoshi Zone

Source: Based on the Miyagi Prefectural Government website

2 Natural Environment

(1) Terrain

The natural environment of Miyagi Prefecture is varied, with the eastern side facing the Pacific Ocean, and the northern coastal area consisting of a series of rias, with many inlets and outlets. The Sanriku region is a tidal area where the warm Kuroshio Current and the cold Oyashio Current meet, which creates a rich environment for many species of fish. The region is considered to be one of the world's four major fishing grounds.

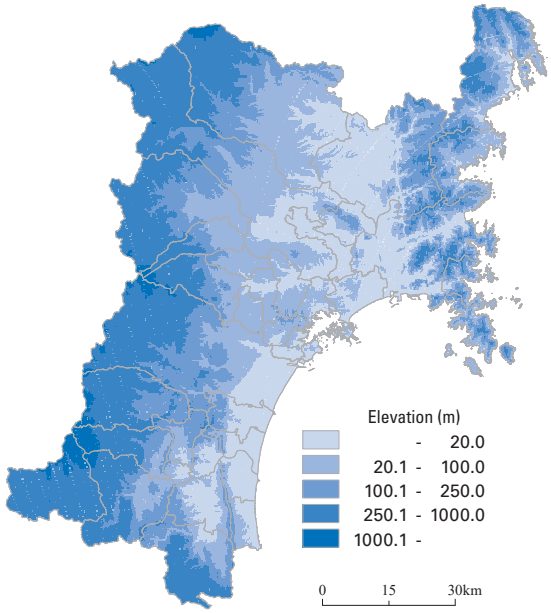
Heading south from the Sanriku region, the scenic terrain typified by Matsushima, one of Japan's top three landscapes[*3], is a delight to behold. On the west side of the prefecture lie the Ou Mountains, including Mt. Zao and Mt. Kurikoma, whose beautiful scenery can be enjoyed in each of the four seasons. Meanwhile, across the center of the prefecture stretches one of its most fertile agricultural areas, the Sendai Plain. As such, Miyagi Prefecture has a well-balanced natural environment of sea, mountains, and plains.

Looking down at the prefecture's terrain from above shows that the western part (Ou Mountains), the southern part (the northern end of the Abukuma Highlands that extend from Fukushima Prefecture), and the northern coastal area (the southern end of the Kitakami Mountains that extend from Iwate Prefecture) have a high elevation. In particular, the western section is lined with mountains over 1,000 meters high, including Byobudake (1,825 meters), the highest peak in the prefecture (**Figure 3-6**).

In the central part of the prefecture lies the wide Sendai Plain. This plain faces Sendai Bay and is surrounded by the Abukuma Highlands to the south, the Ou Mountains to the west, and the Kitakami Mountains to the

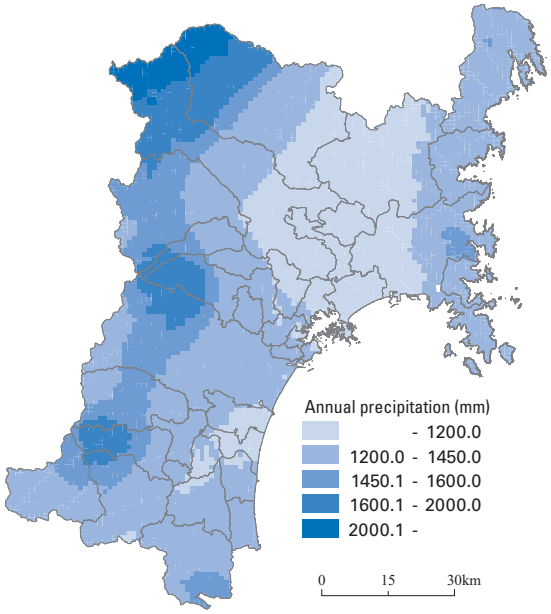
[*3] Matsushima (Miyagi Prefecture), Amanohashidate (Kyoto Prefecture), and Miyajima (Hiroshima Prefecture), are considered the top three scenic spots of Japan.

Figure 3-6: Elevation of Miyagi Prefecture



Source: 250 m Grid-Square Elevation Data, National Land Information Division, National Spatial Planning and Policy Bureau

Figure 3-7: Precipitation in Miyagi Prefecture



Source: 1 km Grid-Square Annual Average Data, National Land Information Division, National Spatial Planning and Policy Bureau

Table 3-1: Land area by type of terrain in the Tohoku Region and Miyagi Prefecture

	Land area (km²)	Mountains	Hills	Plateaus	Lowlands	Inland waters, etc.
National	377,976	230,331 (60.9)%	44,337 (11.7)	41,471 (11.0)	51,963 (13.7)	9,232 (2.4)
Tohoku region	66,948	41,498 (62.0)%	9,504 (14.2)	5,964 (8.9)	9,538 (14.2)	367 (0.5)
Miyagi Prefecture	7,282	2,158 (29.6)%	2,673 (36.7)	652 (9.0)	1,757 (24.1)	23 (0.3)

Source: Based on the 1982 National Land Information Compilation Survey. The sum of the areas of different terrain types does not equal the total land area for the country, region, or prefecture.

northeast. As a result of these topographical factors, several travel routes have converged here since antiquity, making it an important transit hub. The Sendai Plain is divided by the Matsushima Hills in the center of the prefecture, with the northern part known as the Senpoku Plain and the southern part as the Sennan Plain. The area of the Senpoku Plain near Osaki City is also called the Osaki Plain. Miyagi Prefecture's Furukawa Agricultural Experiment Station, which has produced new rice brands such as "Sasanishiki" and "Hitomebore," are located here. The Sennan Plain consists of the coastal plain along Sendai Bay and basins such as the Kakuda Basin and the Shiroishi Basin. Topographically, the area is somewhat contiguous with Hamadori in Fukushima Prefecture, and in the summer, sea breezes blow through. In some years, the northeasterly winds (*yamase*) can produce cool summers with persistent low temperatures.

The breakdown of land area by terrain type shows that mountainous areas account for about 30% of the prefecture's total area, which is low compared with the rest of the country. Conversely, hills and plateaus comprise 46% and lowlands 24% of the total, indicating that hills and plateaus have developed more markedly than elsewhere in the country (**Table 3-1**). The hills and plateaus of the Sendai Plain have been developed into residential land in the suburbs of Sendai City, while the rest is used as farmland to grow cucumbers, tomatoes, Japanese parsley, strawberries, and other crops.

(2) Climate

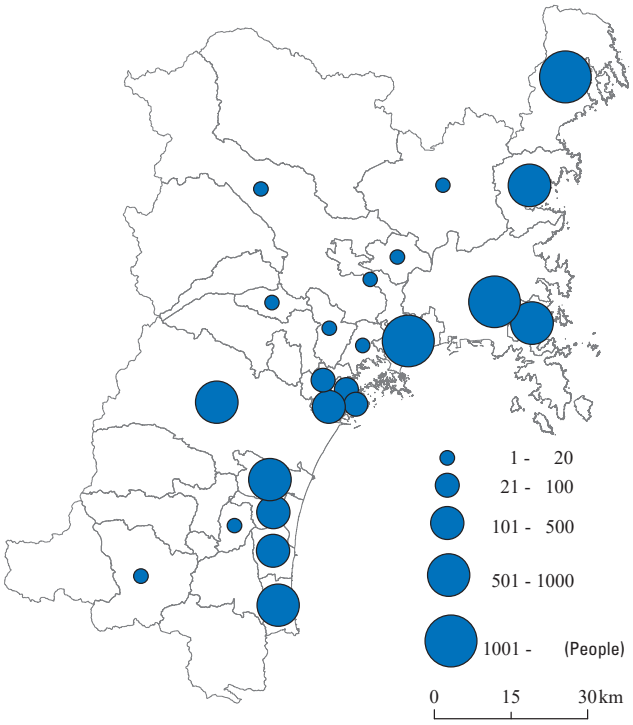
While cold temperatures and heavy snowfall in winter are often assumed to be typical of the climate of the entire Tohoku region, Miyagi Prefecture's climate is very different, with not much snowfall except in the mountainous areas in the west of the prefecture. The Pacific coast, in particular, has cold temperatures, but dry, sunny days are common. Spring is also relatively dry with many sunny days, but precipitation increases from June to October, often peaking in September due to the effects of autumn rain fronts and typhoons. The 30-year average annual precipitation (1981-2010) was 1,254 mm for Sendai City on the Sendai Plain, 1,188 mm for Shiogama City, and 1,067 mm for Ishinomaki City, which is about 70% to 80% of the precipitation of Tokyo, indicating a generally dry climate (**Figure 3-7**).

3 Damage from the Great East Japan Earthquake

At 2:46 p.m. on March 11, 2011, a magnitude 9.0 earthquake occurred off the coast of Miyagi Prefecture. On the Japanese seismic scale, Kurihara City recorded an intensity of 7 (the maximum value), while many other locations recorded intensities of Lower 6 or Upper 6.

Immediately after the earthquake, at 2:49 p.m., the Japan Meteorological Agency issued a major tsunami warning for the coast of Miyagi Prefecture, and coastal areas were subsequently hit by a tsunami that caused massive damage. The total number of deaths and missing persons in the prefecture as a result of the Great East Japan Earthquake was 11,785 (as of July 2019, according to the Miyagi Prefecture website). When broken down by municipality, most deaths and missing persons were located in coastal areas, which sustained extensive damage from the tsunami: 3,553 people in Ishinomaki City (as of February 2022), 1,433 people in Kesennuma City (as of April 2022), and 1,133 people in Higashi-Matsushima City (as of March 2021). Many victims were in the northern coastal areas of the prefecture, the Ishinomaki Zone and the Kesennuma/Motoyoshi Zone.

Figure 3-8: Numbers of dead and missing persons from the Great East Japan Earthquake in Miyagi Prefecture (as of October 20, 2011)



Source: Miyagi Prefectural Government Website

References: Toshikazu Tamura, Hideya Ishii, Masateru Hino (eds.) *Nihon no Chishi 4: Tohoku*. Asakura Shoten, 2008.

Written by Shinya Kawamura

3-2 Miyagi Prefecture 10 Years After the Great East Japan Earthquake: What Has Changed?

1 Impact of the Great East Japan Earthquake and Reconstruction

As noted previously, the Great East Japan Earthquake of March 11, 2011, caused tremendous damage to people's lives, homes, living environment, infrastructure, industry, employment, and education, especially in the coastal areas of Miyagi, Fukushima, and Iwate prefectures.

In cooperation with the national government, prefectural government, related organizations, businesses, and civic organizations, the local governments of Miyagi Prefecture have been implementing various recovery and reconstruction initiatives based on the *Miyagi Prefecture Disaster Recovery Plan*, including rebuilding the lives of people affected by the disaster, revitalizing industries, and restoring infrastructure.

According to the Miyagi Prefectural Government, as of the end of February 2021 (about ten years after the disaster), the physical aspects of these initiatives, such as rebuilding the livelihoods of disaster victims, restoring and improving infrastructure facilities essential for daily life, and creating disaster-resistant settlements, had been completed in most areas (with some exceptions).

Progress of Reconstruction in Miyagi Prefecture (end of February 2021)

Reconstruction and urban development: 195 areas for collective relocation for disaster prevention, 35 areas for land readjustment for reconstruction of disaster-affected urban areas
Residents in emergency temporary housing: 12 households (22 persons)
Provision of public housing for disaster victims: 100% (15,823 units planned/completed)
Disposal of disaster-related waste: 100% (11.6 million tons)
Total length of seawall: approximately 239 km
Source: Miyagi Prefectural Government data

By 2015, almost all industries had surpassed the level of economic activity at the time of the disaster (according to the FY2015 Miyagi Prefecture Input-Output table released in February 2021). The industry, construction, and manufacturing sectors, in particular, saw significant increases, while the share of tertiary industries declined significantly. In the primary industries, for which Miyagi Prefecture's share of output (1.7%) is higher than the national average (1.2%), the fishing and forestry industries have been recovering. However, the agricultural sector has not recovered to its 2005 level, although its decline was suspended (**Table 3-2**). The seafood processing industry, which is one of Miyagi Prefecture's most important industries (including approximately 10% of business establishments and 7% of employees) was hit particularly hard by the tsunami. It saw significant decreases in the number of establishments, value of shipments, and employees, though it has since shown signs of recovery.

In 2013, the value of shipments of manufacturing products recovered to its 2010 pre-disaster level and has been steadily expanding since then (**Figure 3-9**).

Miyagi Prefecture's gross prefectural product expanded at an annual rate of 4–5% from 2012 to 2015, partly due to demand associated with reconstruction efforts following the disaster. Since 2016, however, growth has remained below 1% (**Figure 3-10**).

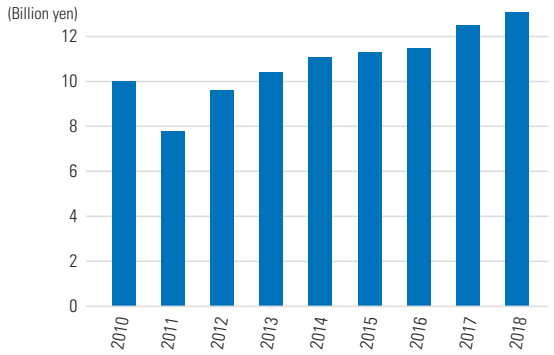
The value of landings at major fish markets in 2020 was about 49 billion yen, about 81% of what it was before the disaster (about 60.2 billion yen). The operating status of the commercial and industrial enterprises affected by the

Table 3-2: Makeup of Miyagi Prefecture's industrial output

	Miyagi Prefecture industrial output (Billion yen)				Proportion of industrial output (%)		
	2005	2011	2015	Change 2011–15	2005	2011	2015
Prefectural pro-duction	15,535.9	13,577.5	17,790.9	31.0%	100	100	100
Agriculture	242	205.7	210.7	2.4%	1.6	1.5	1.2
Forestry	18.4	13.1	16	22.1%	0.1	0.1	0.1
Fisheries	83	46.2	74.8	61.9%	0.5	0.3	0.4
Primary industry	343.4	265	301.5	13.8%	2.2	1.9	1.7
Secondary indus-try	5,077.5	4,117.9	6,363.2	54.5%	32.7	30.4	35.8
Tertiary industry	10,115	9,194.6	11,126.2	21.0%	65.1	67.7	62.5

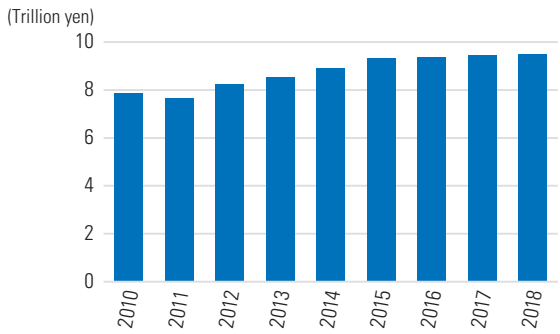
Source: Miyagi Prefecture Input-Output Table for 2015 (released February 2021)

Figure 3-9: Shipment value of manufacturing products in Miyagi Prefecture



Source: Census of Manufacture

Figure 3-10: Miyagi gross prefectural product (nominal)



Source: Miyagi Prefecture Municipal Accounts (FY2019)

Table 3-3: Number and breakdown of employees in Miyagi Prefecture

	Number of employees in Miyagi Prefecture			Proportion of total (%)			Rate of change (%)	
	2005	2011	2015	2005	2011	2015	2005-2011	2011-2015
Total employees	1,144,408	1,030,818	1,224,031	100	100	100	-9.9	18.7
Agriculture	72,674	62,011	54,257	6.4	6	4.4	-14.7	-12.5
Forestry	811	1,428	1,790	0.1	0.1	0.1	76.1	25.4
Fisheries	11,795	5,911	9,576	1	0.6	0.8	-49.9	62
Primary industry	85,280	69,350	65,623	7.5	6.7	5.4	-18.7	-5.4
Secondary industry	244,404	215,202	271,194	21.4	20.9	22.2	-11.9	26
Tertiary industry	814,724	746,266	887,214	71.2	72.4	72.5	-8.4	18.9

Source: Miyagi Prefecture Input-Output Table for FY2015 (released February 2021)

disaster returned to approximately 99% as of February 2021, based on information from the 9,807 members of the Society of Commerce and Industry who didn't go out of business (out of the 11,425 members affected by the disaster).

Looking at the number of employees, it is noteworthy that the number of agricultural workers has been on a steady decline due to a lack of successors, even from before the disaster, while the number of employees in the forestry and fishery industries has been increasing. However, as

seen in the example of the seafood processing industry, major challenges include the recruitment of personnel, expansion of sales channels, shortages of raw materials, brand appeal, and collaboration (Source: *Current Status and Issues in the Seafood Processing Industry of Miyagi Prefecture*, Bank of Japan Sendai Branch).

2 Psychological Changes

According to the Health Promotion Division of Higashi-Matsushima City, which has been examining the mental health of residents on an ongoing basis since the disaster, each stage of reconstruction, from the immediate aftermath onwards, is characterized by psychological changes such as fear of recurrent earthquakes, anxiety that makes it impossible to cope with changes in circumstances, isolation in the community after reconstruction, isolation within the family, anxiety about the future due to economic hardship, and interpersonal difficulties (**Table 3-4**).

It should not be forgotten that the mental conditions seen during the development period (2016–2017), such as a sense of loss and isolation in the community after reconstruction, isolation within the family, anxiety about the future, worsening physical illness, and complaints of insomnia, are continuing even ten years after the disaster. There are still many people, from children to the elderly, who have not been able to restore their mental health.

Table 3-4: Psychological changes among disaster victims

Recovery and reconstruction period (2012–2013)	Recovery and reconstruction period (2014–2015)	Development period (2016–2017)	Present (2019 onwards)
Complaints regarding experiences of the disaster, insomnia, PTSD-like symptoms, fear of recurring earthquakes, and vague anxiety as a result of environmental changes related to the disaster (loss, housing, unemployment, etc.)	Experiences of the disaster, loss, insomnia (sleeping pills prescribed by physician)	Many complaints of loss, isolation, financial insecurity, worsening physical illness, caregiver fatigue, and insomnia	Increased consultations from relevant agencies regarding children's behavior and development, such as inability to join groups, restlessness, difficulty in controlling emotions, and increased obesity Interruption of children's medical care, self-neglect
Distress of continuing to live in damaged homes, as well as anger and frustration at disparities in support immediately after the disaster, are evident	Many respondents checked "Criticisms from others" and "Feelings of guilt" regarding alcohol consumption. Reduction of alcohol consumption through information pro-vision	Many people who talk about the disaster tend to recall it and express the feelings they had at that time	Vague anxiety about the future due to financial difficulties after reconstruction
Increased alcohol consumption due to the disaster	Some said, "I'm able to talk about the disaster for the first time" or "I can finally talk about it"	Isolation in the community after reconstruction, isolation within the family	Inability to fit into new communities, interpersonal problems, isolation Increased counseling and support for families with no one close by to rely on
Lethargy (burnout)	Insomnia and other symptoms improved after rebuilding homes or moving to public housing for disaster victims		Obesity, hypertension, and the percentage of men with metabolic syndrome or pre-metabolic syndrome remain high Progression of disuse syndrome in the elderly, exacerbation of chronic diseases, cognitive decline Ongoing depression
Multiple stresses, including physical illness and life issues	Depression due to physical ailments, financial and community changes		Stress due to behavioral restrictions caused by the COVID-19 pandemic
Depression due to deterioration of relationships with close family members/relatives following the disaster or due to inability to adapt after evacuating to the house of a child outside of the city or nearby	Numerous complaints of physical symptoms from elderly people, tendency to develop fatigue from caring for elderly family members		Lack of exercise and overeating due to increased time spent at home

Source: Compiled from the *Results of the Specific Mental Health Examination Survey* by the Higashi-Matsushima City Health Promotion Division

3 Remaining Issues

Even ten years after the disaster, there is "still a long way to go to achieve true recovery that will lead to peace of mind and restored livelihoods for people affected by the disaster" (Miyagi Prefecture's *Vision for the Future of a New Miyagi 2021–2030*). Many issues still need to be addressed as priorities, such as providing in-depth psychological care to disaster victims, supporting the revitalization of communities and industries in their new environments as they relocate and move into public housing for disaster victims, and passing on the lessons of the disaster to future generations. In particular, efforts in areas other than physical infrastructure require fine-tuned support for each individual to ensure that no one is left behind.

Disaster prevention: With the objective of "building disaster-resilient and safe communities," Miyagi Prefecture is working to improve disaster preparedness by training leaders in disaster prevention and increasing the proportion of schools and other public facilities that are seismically reinforced (referred to as the rate of seismic reinforcement). While the rate of seismic reinforcement of public facilities that serve as disaster prevention centers has reached 100% in 21 municipalities, there are still 3 municipalities where it had yet to reach 90% at the end of FY2018.[*4] Moreover, the seismic reinforcement rate for municipal water and sewage systems is low, at less than 10% in 11 municipalities. The rate of voluntary disaster reduction organizations is less than 70% in 5 municipalities, and only 13 have reached 90% volunteer fire brigade sufficiency, with 5 municipalities having less than 80% (as of October 2020).[*5] To build disaster-resilient communities, it is necessary to urgently increase the rate of seismic reinforcement as well as increase voluntary disaster reduction organizations, and to complete the establishment of disaster prevention systems.

Passing on the lessons of the disaster: Historically, Miyagi Prefecture has been subjected to repeated earthquakes and tsunamis, and even recently, it has experienced several disasters involving typhoons and heavy rains. It is important that the memories and lessons of the disaster are not allowed to fade away, but are passed on to the next generation and people in other regions, helping them to protect themselves in the event of a new disaster. Municipalities in the hard-hit coastal areas are working to pass on the experiences and lessons of the disaster by preserving disaster sites and developing memorial parks, museums, monuments, stone inscriptions, and exhibitions. Miyagi Prefecture has also established a *Basic Policy on Passing On Memories and Lessons from the Great East Japan Earthquake* (April 2021) and is promoting various initiatives, but a sustained and systematic response is required.

4 Issues from before the Disaster

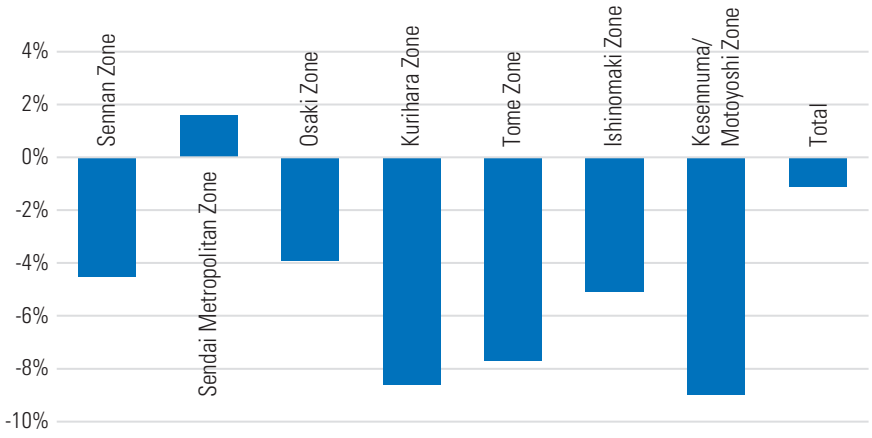
Many of the issues that municipalities in Miyagi Prefecture must address after rebuilding damaged infrastructure and living environments cannot be treated as simply being the result of the disaster. While the disaster brought to light issues such as depopulation, children's education, and the gender gap, these are issues that should have been addressed even before the disaster, and which have become even more serious because of it. As noted by Toru Kikawada, former Deputy State Minister for Reconstruction, depopulation "would have been a problem even if the disaster had never taken place."

(1) Population Decline — Miyagi Prefecture's Greatest Challenge

Before the disaster: The population of Miyagi Prefecture peaked in 2003 at 2.37 million and had been declining even before the disaster. With the exception of the Sendai Metropolitan Zone, many municipalities in the prefecture experienced population declines, reflecting a trend of polarization between Sendai and other areas. Between 2000 and 2010 (the year before the disaster), the population of Miyagi Prefecture decreased by about 1.1%, from 2,365,000 to 2,335,000. While the population of the Sendai Metropolitan Zone increased by 1.6%, other areas experienced rapid population decline. In the northern inland part of the prefecture, the populations of the Kurihara, Tome, and Osaki Zones declined by 8.6%, 7.7%, and 3.9%, respectively. Meanwhile, in the northern coastal region, the Kesennuma/Motoyoshi and Ishinomaki Zones saw decreases of 9.0% and

[*4] This rate is calculated as the number of public facilities for which seismic reinforcement work has been performed, out of all public facilities that are used as disaster prevention centers.
[*5] An organization in which local residents work together through neighborhood associations, etc. to carry out various activities aimed at improving disaster resilience.

Figure 3-11: **Changes in the population of Miyagi Prefecture before the disaster (2000–2010)**



Source: Calculated from Miyagi Prefecture Population Estimates

5.1%, respectively. Finally, the Sennan Zone experienced a decline of 4.5%.

In the immediate aftermath of the disaster: Large numbers of people died or went missing, houses and businesses were lost, and the population of the prefecture's coastal areas plummeted (Kesennuma/Motoyoshi and Ishinomaki Zones). The population increased or decreased due to migration from heavily damaged municipalities to neighboring municipalities that were relatively less affected (e.g., Onagawa to Ishinomaki, Minami-Sanriku to Tome). In Onagawa (8.7% decrease), which suffered the greatest human losses in terms of population, the damage caused an additional outflow on top of the pre-existing population decline, with a population drop of 37% between 2010 and 2015, while sharp declines were also observed in Kesennuma (11.6%) and Ishinomaki (8.5%). Due to an influx of people affected by the disaster and also the demand for labor generated by reconstruction activities, the population of Sendai City in particular has increased since 2012–13 (1,012,000 in 2011 → 1,020,000 in 2012 → 1,039,000 in 2013 → 1,050,000 in 2014 → 1,054,000 in 2015). In 2012 and 2013, factors such as reconstruction-related demand gave rise to a slight increase in Miyagi Prefecture as a whole, but the downward trend resumed in 2014 and has continued ever since.

Recent changes: The population of Miyagi Prefecture decreased by an additional 2.2% from March 1, 2011 (just before the disaster) to 2021. If we compare the populations of the 12 disaster-affected coastal municipalities, Natori, Sendai, Rifu, and Iwanuma, located in the Sendai Metropolitan Zone, showed slight increases over this period, while all others showed high rates of population decline. In the northern coastal areas of the prefecture (Kesennuma/Motoyoshi and Ishinomaki Zones), population decline bottomed out due to reconstruction-related demand, support activities, and other factors, but the trend has become more pronounced since 2017, with extremely high rates of decline from 2011 to 2021 in Onagawa (43.3%), Minami-Sanriku (37.2%), Kesennuma (18.7%), and Ishinomaki (13.3%). High rates of decline are also observed in the coastal areas, such as Shichigahama, (12.5%), Matsushima (12.0%), and Shiogama (7.5%), as well as in Yamamoto (29.3%) and Watari (5.5%) in the southern part of the prefecture.

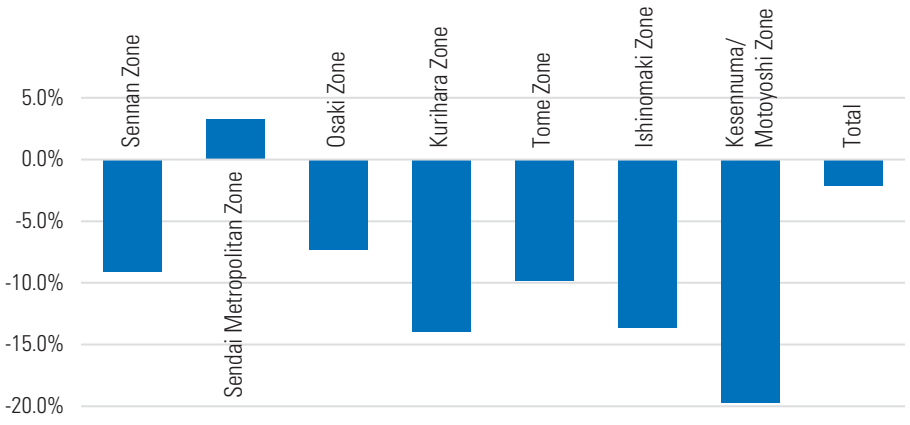
In the northern inland region (Kurihara, Tome, and Osaki Zones), population decline eased somewhat due to migration from coastal areas following the disaster, but has since accelerated after 2014, with Kurihara (14.0%), Tome (9.8%), and Osaki (7.3%) showing the highest rates of decline from 2011 to 2021, after the northern coastal areas. In the Sennan Zone in the south, population decline has become more pronounced since 2016, with the rate of population decline from 2011 to 2021 (9.1%) reaching almost the level of the northern inland region (Figure 3-12).

Table 3-5: Estimated population changes in coastal disaster-affected municipalities: 10 years after the disaster

	March 1, 2011	January 1, 2021	Population change	Rate of population change (%)
Onagawa Town	9,932	5,636	-4,296	-43.3
Minami-Sanriku Town	17,378	10,906	-6,472	-37.2
Yamamoto Town	16,608	11,750	-4,858	-29.3
Kesennuma City	73,154	59,504	-13,650	-18.7
Ishinomaki City	160,394	139,070	-21,324	-13.3
Shichigahama Town	20,353	17,818	-2,535	-12.5
Matsushima Town	15,014	13,206	-1,808	-12.0
Higashi-Matsushima Town	42,840	38,910	-3,930	-9.2
Shiogama City	56,221	52,029	-4,192	-7.5
Watari Town	34,795	32,872	-1,923	-5.5
Tagajo City	62,990	61,963	-1,027	-1.6
Iwanuma City	44,160	44,339	179	0.4
Rifu Town	34,279	35,461	1,182	3.4
Sendai City	1,046,737	1,092,478	45,741	4.4
Natori City	73,603	79,393	5,790	7.9
Coastal municipalities (total)	1,708,458	1,695,335	-13,123	-0.8
Coastal municipalities (total excl. Sendai)	661,721	602,857	-58,864	-8.9
Inland municipalities (total)	638,395	595,580	-42,815	-6.7
Prefecture (total)	2,346,853	2,290,915	-55,938	-2.4

Source: Miyagi Prefecture, data on estimated population change in municipalities compared to before the Great East Japan Earthquake (2021)

Figure 3-12: Changes in the population of Miyagi Prefecture after the disaster (2011–2021)



Source: Calculated from Miyagi Prefecture Population Estimates

Future population estimates: The population of all regions in the prefecture, including the Sendai Metropolitan Zone, is expected to continue to decline, falling 3–5.4% every five years until 2045 (relative to the population in 2020). It is expected to reach 2,046,000 in 2035 (10.9% less than in 2020) and 1,809,000 in 2045 (21.2% less than in 2020).

Table 3-6: Population estimates for Miyagi Prefecture

	2020	2025	2030	2035	2040	2045
Estimated population	2,296,113	2,227,471	2,143,601	2,046,219	1,933,258	1,809,021
Rate of decline (compared with 2020)		-3.00%	-6.60%	-10.90%	-15.80%	-21.20%

Source: National Institute of Population and Social Security Research (IPSS), *Regional Population Projections for Japan* (March 2018)

Low fertility rate: Until around 2000, the total fertility rate (TFR) of Miyagi Prefecture exceeded the national average, resulting in population growth, but since 2003, it has continued to trend well below the national average. Since 2010, the gap with the national average has widened from 0.09 to 0.15, and the TFR in 2021 was 1.15, dropping to the second lowest in the country after Tokyo (1.08). While population estimates by the National Institute of Population and Social Security Research (IPSS) are based on a TFR of around 1.4, Miyagi Prefecture aims to increase the fertility rate to 1.6 in 2030, 1.8 in 2035 (desired fertility rate), and 2.07 in 2040 (population replacement level), to control population decline. However, it is among the lowest in the country at present, and the average age of first marriage is also increasing, leading to a high rate of people who have never been married by the age of 50 (23.11%). Only seven municipalities in Miyagi Prefecture currently have fertility rates above 1.5. As of October 1, 2020, the prefectural population was slightly smaller (3,423) than estimated by the IPSS, and if current trends continue, population decline after 2025 will be more severe than the IPSS estimates.

Table 3-7: Changes in total fertility rates in Miyagi Prefecture

	Miyagi Prefecture	National average	Difference with national average
1980	1.86	1.75	0.11
1985	1.80	1.76	0.04
1990	1.57	1.54	0.03
1995	1.46	1.42	0.04
2000	1.39	1.36	0.03
2005	1.24	1.26	-0.02
2010	1.30	1.39	-0.09
2015	1.36	1.45	-0.09
2016	1.35	1.44	-0.09
2017	1.31	1.43	-0.12
2018	1.30	1.42	-0.12
2019	1.29	1.36	-0.07
2020	1.21	1.34	-0.13
2021	1.15	1.30	-0.15

Source: Ministry of Health, Labour and Welfare, *Report of Vital Statistics*

In addition to natural population growth due to births, population growth has been driven by an influx of people from other regions attracted by Sendai's appeal as an academic and commercial city. Recently, however, the inflow of people who come to pursue higher education in the city has been shrinking, and the outflow of people after graduation has been expanding. As such, the social increase in population is no longer expected to be significant (*Demographics of Miyagi Prefecture*, Bank of Japan Sendai Branch, November 2018). This suggests that Miyagi Prefecture's appeal as a destination for employment has declined relative to Tokyo and other large metropolitan areas, with only 45.1% of higher education graduates employed by companies in the prefecture in March 2019 (Miyagi Labor Bureau).

(2) Uneven Population Distribution and Depopulation

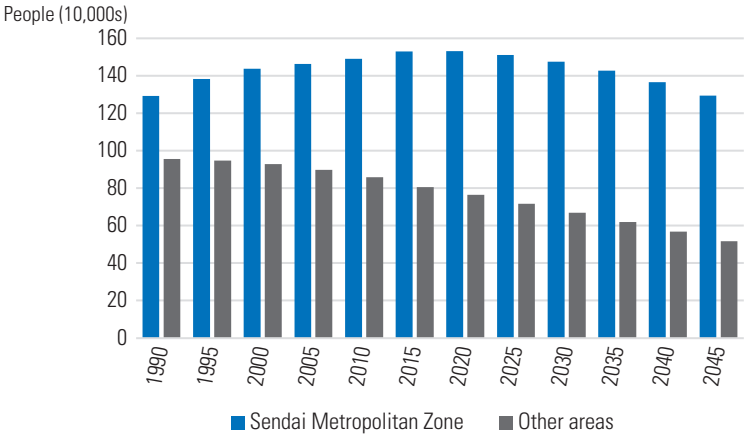
Sendai City accounts for 46.2% of the prefecture's population (Ishinomaki, the second largest city in the prefecture, accounts for 6.3%) and holds a dominant position in terms of the economy, cultural activities, and higher education opportunities. Together with the surrounding municipalities that form an economic zone for commuting, shopping, and other daily activities, nearly 70% of the population is concentrated in this area, making it a typical unipolar prefecture characterized by a large disparity between the capital and other areas.

Many disaster-affected areas outside the Sendai Metropolitan Zone had been undergoing depopulation due to population decline and shrinking spheres of activity even before the Great East Japan Earthquake, but the earthquake further accelerated this process. The population outside of the Sendai Metropolitan Zone is rapidly declining, and even there, the population, including social growth, has reached a peak. As such, the prefecture as a whole is entering a medium- to long-term population decline. Nevertheless, the Sendai Metropolitan Zone remains a magnet in terms of the economy, education,

culture, and other areas, so the polarization between Sendai and other municipalities in Miyagi Prefecture is likely to become even more pronounced. The disparity with inland municipalities, where depopulation continues apace, is considerable.

As population decline outside the Sendai Metropolitan Zone gathers pace, the northern coastal region of the prefecture (Kesennuma/Motoyoshi and Ishinomaki Zones), the inland region (Kurihara, Tome, and Osaki Zones), and the Sennan Zone in the south show the highest rates of decline, in that order. In particular, it is estimated that 7 of the 35 municipalities in Miyagi Prefecture (Shichikashuku and Marumori in the southern inland region, Onagawa, Kesennuma, and Minami-Sanriku in the northern coastal region, and Kurihara and Kami in the inland region) will see their populations decline by more than 20% by 2030, and by about 40% by 2040, relative to 2015 (four years after the Great East Japan Earthquake). By 2045, the number of municipalities with a decrease of 40% or more relative to 2015 will increase to 14 (6 coastal municipalities and 8 inland municipalities), and depopulation will intensify in many areas outside the Sendai Metropolitan Zone.

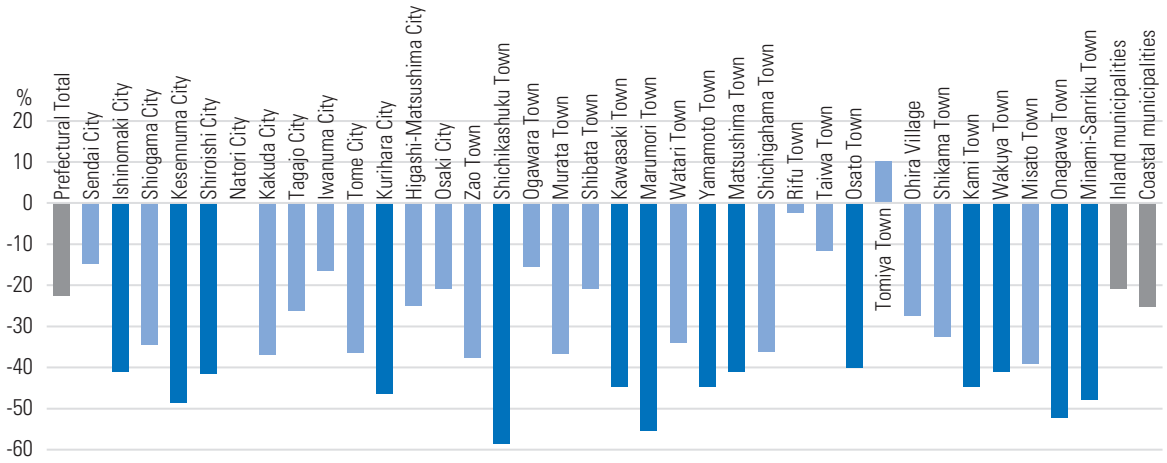
Figure 3-13: Population projections for the Sendai Metropolitan Zone and other regions (1990–2045)



Source: National Census (1990–2015), IPSS (2015 onwards), estimates as of 2018

Regional differences in aging rates: Regional disparities are also reflected in different rates of aging. Looking at the population by age group, the number of births has declined and the populations of people aged under 15 and 15–64 have declined, leading to the acceleration of aging. Although demographic aging is an issue for Japanese society as a whole, the gap between Miyagi Prefecture and the national average is continuing to widen. The working-age population (15–64) accounts for 59.2% of the total population of Miyagi Prefecture, and the elderly population (65 and older) accounts for 29.0% (2020). According to IPSS estimates of the prefecture's future population, the proportion made up of the elderly will increase to 33.1% in 2030, 37.9% in 2040, and exceed 40% in 2045, while the proportion made up of the working-age population will decrease to one out of every two people (50.0%).

Figure 3-14: Estimated population change rates for municipalities in Miyagi Prefecture (2015-2045) (municipalities shown in dark blue are those with declines of 40% or more)



Source: National Institute of Population and Social Security Research, *Regional Population Projections for Japan*

Table 3-8: **Estimated proportion of elderly people among the population in Miyagi Prefecture (%)**

	2015	2020	2025	2030	2035	2040	2045
Miyagi Prefecture	25.7	29.0	31.2	33.1	35.0	37.9	40.3
National average	26.6	28.9	30.0	31.2	32.8	35.3	36.8
Gap	-0.9	0.1	1.2	1.9	2.2	2.6	3.5

Source: National Institute of Population and Social Security Research, *Regional Population Projections for Japan*

Large discrepancies in aging rates are also evident within the prefecture. Among the municipalities in the prefecture, the proportion of the working-age population differences ranges from 47.0%–65.0% while the proportion of population aged 65 and over ranges from 19.8%–46.3% of the total population. Shichikashuku, Yamamoto, and Marumori in the southern part of the prefecture, Kurihara in the northern inland region, and Onagawa, Kesennuma, and Minami-Sanriku in the coastal region, almost meet the criteria of a high rate of population decline; a small proportion of the population made up of children (less than 10%); a small proportion of the population made up by people of working age (less than about 55%); a large proportion of the population aged 65 and over (more than 35%); and a high rate of households comprised of a single elderly person (more than about 11%). For these municipalities, there is a pressing need for countermeasures against depopulation.

(3) Economic and Industrial Decline and Regional Disparities

The uneven regional distribution of population and labor shortages caused by the decline in the working-age population have had significant impacts on local communities, including declines in economic activity. There is concern that shrinking local demand, the lack of successors to take over businesses, and the withdrawal or loss of local companies, will lead to a vicious cycle of declining industry, declining economic output, fewer job opportunities, out-migration from the prefecture, and further reduction in the population. In agriculture/forestry and fisheries, the percentage of workers aged 60 or older is high (around 70% and 50%, respectively), the problem of successors is serious, and the populations of regions associated with these industries are continuing to contract. As local demand declines alongside industrial and economic activity, it will become difficult to maintain local community functions, public transportation, and medical care. Then, as areas with no public transport or medical care coverage expand, disparities between urban areas and depopulated areas may widen further. There are many possible measures to address this problem, such as compact cities, stronger cross-boundary cooperation between multiple municipalities, and enhancing mutual aid to provide services on behalf of local government. However, to create a caring society, where no one is left behind and everyone can live comfortably, it is important to respond in a way that reflects the views of residents to the greatest extent possible and to ensure genuine and substantial resident participation.

Compared to the Sendai Metropolitan Zone (Sendai, Tomiya, Rifu, Natori, and Iwanuma), the regional disparities in economic and income indicators such as per capita income, percentage of households in poverty, the rate of full unemployment, and the rate of the elderly with a job, are more pronounced in the coastal region (Ishinomaki, Shiogama, Kesennuma, Matsushima, Yamamoto, etc.), the northern inland region (Kurihara, Shikama, Kami, etc.), and the southern inland region (Shichikashuku, Murata, Kawasaki, Marumori, etc.). Among coastal areas, Onagawa and Minami-Sanriku have high per capita income and labor productivity, but also high rates of households in poverty. Meanwhile, among inland areas, Taiwa, Ohira, and Osato, which have been successful in attracting businesses, have high income levels and low rates of households in poverty, and a relatively large number of their regional revitalization plans have been approved by the prefectural government. The *Vision for the Future of a New Miyagi 2021–2030* aims to avoid industrial decline and achieve sustainable growth in order to address population decline, fewer children, and demographic aging. To prevent depopulation and further revitalize the region, it is essential to create local jobs, and we expect to see further efforts to promote inward migration and settlement, attract businesses involved in digital technology, and create IT-related work opportunities.

(4) Education and Welfare of Children, Support for Childcare

Miyagi Prefecture faces many challenges in terms of protecting the lives, livelihoods, and dignity of children. In the prefectural comparison given in *SDGs and Japan*, Miyagi has high numbers of children who are habitually absent from school (non-attendance, or *futoukou*)[*6] (47th) and cases of bullying (45th), low levels of academic achievement (38th) and athletic ability (37th), and few social education classes (38th). In terms of family welfare, the number of consultations at Child Welfare Centers is high (47th), as is the number of days children stay in temporary child protection facilities (44th).

In order to slow down and reverse population decline and demographic aging due to the declining birth rate, it is extremely important to take good care of every child and to promote the development of communities where women and children can live comfortably. The *Vision for the Future of a New Miyagi 2021–2030* prioritizes support for child-raising age groups, with the aim of transforming Miyagi into a childcare-friendly prefecture. To this end, the prefectural government aims to raise the total fertility rate by providing stronger support for marriage, childbirth, and childcare.

A comparison of indicators such as coverage of children's medical expenses, number of obstetrics and gynecology clinics, children on waiting lists for nurseries, places for children to spend time and play outside of their schools, and promotion of comprehensive plans and gender equality, shows that the child-rearing environment is most favorable in Tomiya, Iwanuma, Natori, and other areas in the Sendai suburbs. Cities with large populations, such as Osaki in the northern part of the prefecture, Ishinomaki and Shiogama on the coast, and Shiroishi in the south, lag behind others in expanding coverage of children's medical expenses.

Municipalities have been making particular efforts to reduce the number of children on nursery waiting lists. The number has been steadily decreasing (613 on April 1, 2018; 583 on April 1, 2019; and 340 on April 1, 2020). Two cities (Kakuda and Tomiya) and eight towns and villages (Zao, Shichikashuku, Kawasaki, and Marumori in the south, Ohira, Shikama in the north, as well as Rifu and Wakuya) have reduced their respective figures to zero.

The childcare-related indicators suggest that Shichigahama, Shibata, and Misato generally have many issues. In addition, the shortage of obstetricians and gynecologists is a serious issue for many municipalities. The total number of obstetrics and gynecology facilities in the prefecture is 83, or 3.56 per 100,000 population, slightly below the national average, but most are located in Sendai or other large cities, and 20 municipalities have none. Efforts are required to create an environment in which no one is left behind, such as having multiple municipalities work together to bring these facilities to the area.

Academic achievement: In the 2019 academic year (hereinafter abbreviated as AY 2019), the average correct response rate for 6th-grade elementary students in Miyagi Prefecture, excluding Sendai City, was 3 points lower than the national average in Japanese language and math. For 3rd-grade junior high students[*7], it was 2 points lower in Japanese, 5 points lower in math, and 6 points lower in English. There is a slight improvement when Sendai City is included, but the gap with the national average is still significant, indicating that academic performance is an area of concern. After 2014, Miyagi Prefecture's annual survey of attitudes towards learning (5th graders in elementary school and 1st graders in junior high school) shows that the percentage of children who said that the disaster made it difficult to study at home, that they sometimes suddenly recalled the disaster and could not concentrate in class, or that they sometimes felt restless, decreased gradually from about 20% of 5th graders in elementary school and about 10% of 1st graders in junior high school in the 2014 academic year, to about 10% of 5th graders in elementary school and about 5% of 1st graders in junior high school in the 2019 academic year. However, the disaster's effects on children's development still cannot be ignored.

Obesity: Miyagi Prefecture ranks high in obesity rates for both boys and girls (8th for boys and 7th for girls among 5th grade elementary students, 4th for boys and 7th for

[*6] The Japanese term "*futoukou*" refers to the act of not going or refusing to go to school due to some psychological, emotional, physical, or social factors. It excludes students who do not attend due to illness or financial reasons. In this report, we use the terms "habitually absent" and "non-attendance" to refer to "*futoukou*" students.
[*7] Equivalent to the 9th grade in the American educational system.

girls among 2nd grade junior high students), suggesting the need to review dietary habits, including in relation to athletic ability.

Habitual absence from school (non-attendance): In recent years, Miyagi Prefecture has had the highest rates of non-attendance among elementary and junior high school students in the country (2012, 2016–2019). While the number of elementary and junior high school students not attending school in the AY2020 increased nationwide from the previous year (from 181,000 to 196,000) as a result of the COVID-19 pandemic, Miyagi Prefecture ranked 8th, due to a slight decrease among junior high school students. The number of habitual absentees per 1,000 students in elementary schools was 10.5 in AY2020 (10 in the previous year) and 46.1 (51.0 in the previous year) in junior high schools, giving a total of 22.6 per 1,000 (24 in the previous year). In terms of actual numbers, this was 3,921 students (4,187 in the previous year). In Sendai City, there were 9.6 absentees per 1,000 students in elementary schools (9.5 in the previous year), and 46.7 (55.8 in the previous year) in junior high schools, giving a total of 21.6 per 1,000 (24.3 in the previous year). In actual numbers, this was 1,668 students (42.5% of the total for the prefecture) in Sendai, and 2,253 in other areas. For high school students, the rate was 20.3 per 1,000 (actual number: 1,164), down from the previous year (25.9), but still high, ranking 2nd or 3rd nationally since 2018. As such, the problem of habitual absence from school remains a serious issue throughout the prefecture.

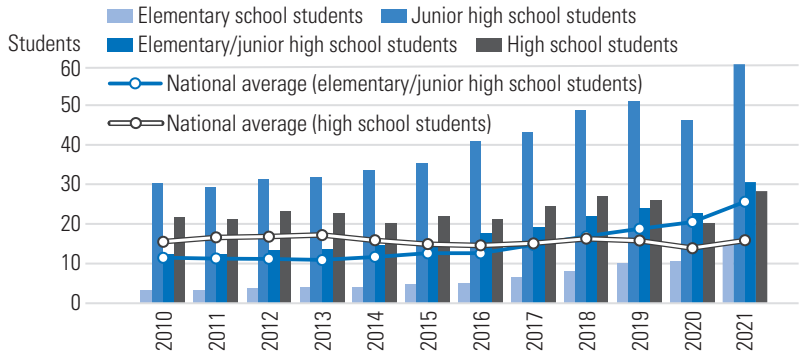
Regarding the impact of the Great East Japan Earthquake on non-attendance, figures broken down by municipality have not been published, making it difficult to identify a causal relationship. Certainly, the number of elementary school students who have not been attending school in Miyagi Prefecture as a whole has been on a slight upward trend since 2012, while the number for junior high school students increased slightly in 2012 and then rose sharply in 2014 (children aged 9–11 at the time of the disaster) and 2016 (children aged 7–9 at the time of the disaster). The number for high school students also increased in 2012. This suggests that the disaster did have some kind of impact; for example, the circumstances may have made it difficult for students to travel to school, with their families, homes, and schools suffering damage and an unstable living environment. In Chapter 11, 11-1 of this book, an important point is made regarding children who were born after the earthquake. In response to comments heard in kindergartens and schools that such children were "hyperactive and quick to become angry" and "slightly different from previous children," the author cites an expert who notes that the most important time for forming attachments is when a child is between 1 and 2 years old, and that because the parents were not in a position to affirm their emotional bonds at that time, these children have grown up with unstable attachments. The expert calls for the continuous monitoring of the situation.

On the other hand, an analysis of the available municipal-level data on the number of habitually absent students for the period 2005–13 (i.e., before and after the disaster) did not find that the number of non-attending students was higher in municipalities in disaster-affected areas compared to those in inland areas. Among elementary school students, rates of non-attendance increased in Minami-Sanriku and Tagajo between 2011 and 2013, but there was no particular change in other disaster-affected coastal areas. Among junior high school students, rates of non-attendance increased in Shiogama, Higashi-Matsushima, and Minami-Sanriku between 2011 and 2013, while rates increased only slightly or showed no change in disaster-hit areas such as Ishinomaki, Kesennuma, Sendai, and Tagajo. Conversely, rates increased between 2011 and 2012 in the inland towns of Kawasaki, Shibata, and Ogawara in the southern part of the prefecture.

Even before the disaster, the non-attendance rate in Miyagi Prefecture was higher than the national average (especially among junior high school students), indicating that this had been an issue for some time, and that the disaster appears to have exacerbated this trend.

The growing divergence in the number of students who are habitually absent from school between Miyagi Prefecture and the national average is particularly noteworthy. Non-attendance rates increased from 1-2 per thousand (2011-2013) to more than 5 per thousand (2016-2019) for elementary and junior high school students. The impact of the COVID-19 pandemic narrowed the gap in 2020, but in AY2021, figures for Miyagi Prefecture's elementary and junior high school students surged to the second highest in the country, and the divergence from the national average returned to around 5. For high school

Figure 3-15: Number of non-attendance in Miyagi Prefecture (per 1,000 students)



Elementary school students	3.2	3.4	3.7	4.0	4.1	4.7	5.2	6.6	8.1	10.2	10.5	14.6
Junior high school students	30.2	29.2	31.4	31.7	33.7	35.3	40.8	43.0	48.7	51.0	46.1	60.1
Elementary/Junior high school students	12.4	12.3	13.3	13.6	14.5	15.4	17.6	19.1	21.9	24.0	22.6	30.3
National average (elementary/junior high school students)	11.5	11.3	11.2	10.9	11.7	12.6	12.6	14.7	16.9	18.8	20.5	25.7
Ranking (elementary/junior high school students)	**10**	**10**	**1**	**6**	**3**	**2**	**1**	**1**	**1**	**1**	**8**	**2**
High school students	21.6	21.3	23.3	22.7	20.3	21.9	21.3	24.5	26.9	25.9	20.3	27.9
National average (high school students)	15.5	16.6	16.8	17.2	15.9	14.9	14.6	15.1	16.3	15.8	13.9	16.9
Ranking (high school students)	**5**	**6**	**4**	**4**	**6**	**5**	**5**	**4**	**2**	**3**	**3**	**2**

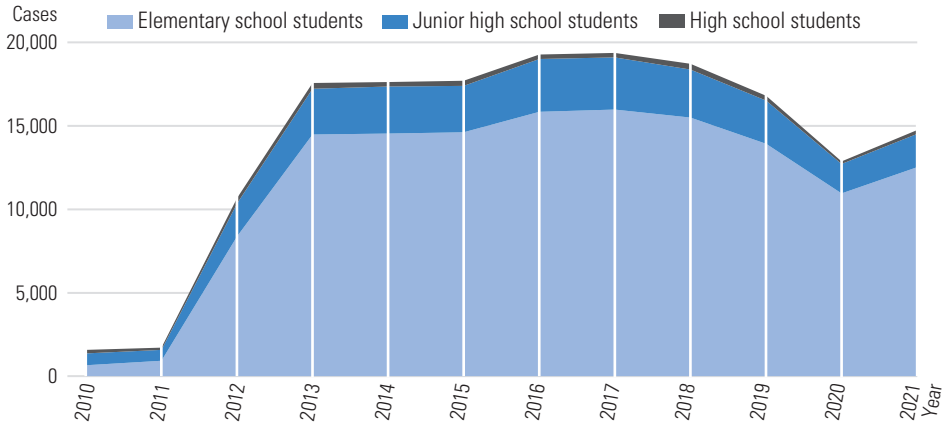
Source: Ministry of Education, Culture, Sports, Science and Technology (MEXT), *AY2021 Survey on Problem Behavior, Non-Attendance at School, and other Student Guidance Issues*

students, the divergence from the national average went up from 5 to 6 students to around 10 students per 1000 since 2017, so measures to address this issue are urgently needed. Some municipalities, such as Kesennuma, have published their school non-attendance rates and are working on countermeasures. However, to implement practical measures to create places for children to spend time (such as "free schools") and make schools more inviting, data for each municipality should be published, and cooperation between the public and private sectors should be expanded.

Bullying: In the 2021 school year, the number of recognized bullying incidents increased sharply compared to the previous year, when there was a nationwide decrease due to pandemic-induced school closures. The total number of cases at elementary and junior high schools was 615,000, up from 517,000 the previous year, while the figure per 1,000 students was 47.7, up from 39.7 the previous year. In Miyagi Prefecture, the total number of cases was 14,783, or 62.9 cases per 1,000 students, a sharp increase from the previous school year and the 10th highest in Japan. In particular, the number of recognized bullying incidents in Sendai was extremely high at 152.3 per 1,000 students (actual number: 12,271), ranking second among ordinance-designated cities and accounting for 83% of all bullying cases in the prefecture.

In 2012, immediately after the Great East Japan Earthquake, the number of recognized cases of bullying jumped to more than six times that of the previous year (from 6.7 cases per 1,000 students to 42 cases per 1,000 students), strongly suggesting a connection with the disaster. However, since the number of recognized cases was not published for each region, it is not possible to compare the affected areas with the rest of the prefecture, making it impossible to say this with certainty. On the other hand, even before the disaster, the number of bullying cases in Miyagi Prefecture tended to be slightly higher than the national average. Due in part to proactive instruction on identifying cases since 2013, the number of cases has consistently exceeded around 70 per 1,000 since that year, a very large divergence from the national average (around 50 per 1,000 from 2013–17). While there are signs of a slight reduction since 2018, in both the number of recognized cases and the difference from the national average, efforts to address this issue remain a major priority.

Figure 3-16: Number of recognized cases of bullying in Miyagi Prefecture



Elementary school students	669	934	8,377	14,478	14,545	14,613	15,840	15,970	15,491	13,928	10,949	12,532
Junior high school students	708	649	1,984	2,741	2,804	2,782	3,161	3,127	2,887	2,577	1,774	1,989
High school students	201	131	325	340	274	303	280	276	335	291	153	220
Total	1,586	1,722	10,699	17,567	17,627	17,708	19,288	19,455	18,765	16,844	12,902	14,783
Per 1,000	6.1	6.7	42	69.2	69.9	70.8	77.9	79.5	77.5	70.1	54.2	62.9
(National average)	5.1	5.5	14.3	13.4	13.7	16.5	23.8	30.9	40.9	46.5	39.7	47.7
Ranking	**11**	**8**	**3**	**4**	**2**	**2**	**3**	**3**	**3**	**9**	**10**	**10**

Source: MEXT, *AY2020 Survey on Problem Behavior, Non-Attendance at School, and other Student Guidance Issues*

Abuse and foster care placement: The number of consultations on child abuse per population is lowest in Shichikashuku, Marumori, and Kawasaki in the south, Minami-Sanriku in the northern coastal area, and Yamamoto in the southern coastal area, in that order. On the other hand, Osaki, Wakuya, Matsushima, Shiroishi, and Onagawa in the north have the highest number of consultations per population, in that order. Miyagi Prefecture achieved a high rate of foster care placements relative to the national average (33.1% in FY2017, ranking 4th in the nation), with a slight increase in FY2019 over the previous year. While the rates for the Eastern Office and Kesennuma Office of the Child Welfare Centers stand at around 60%, it is hoped that the placement rates for Sendai City (28.6% → 35.3%), the Central Office (33% → 27.6%), and the Northern Office (22.1% → 20%) will increase.

(5) The Status of Women and Gender Equality

There are many issues regarding the status of women in Miyagi Prefecture, starting with employment. A comparison by prefecture shows that the employment rate for women is low (62.9%, 42nd in Japan), and the gender pay gap is large (70.1%, 38th in Japan). The rate of elderly people with a job is lower than the national average for both men and women, but is particularly low for women. Although the number of hours that men spend on housework and childcare at home is relatively high (31 hours per week, ranking 6th nationally), women still bear the brunt of the burden of housework, with employed women spending 2 hours and 31 minutes per day on chores, childcare, and nursing care, relative to 21 minutes for men. Women make up 10.9% of legislators in local assemblies, the same as the national average (24th). There were 2.956 cases per 100,000 people of temporary protection for domestic violence victims (15th). Meanwhile, there were 2,863 consultations regarding domestic violence in FY2019, a slight decrease from the previous year.

Gender equality: Most municipalities in the prefecture claim to be pursuing gender equality, but a comparison of the actual situation shows that in most municipalities,

women are mostly discussed in relation to childcare support, with a weak perspective on gender and respect for women's dignity, and few efforts are made to eliminate gender disparities.

There are large regional differences in employment rates, distribution of household responsibilities, and the rates of women in local assemblies, municipal management positions, municipal advisory board members, and disaster prevention council members. Tome, Osaki, Kami, Shikama, and Minami-Sanriku in the northern part of the prefecture are doing well in terms of both the employment rate for women and the proportion of female workers who are regular employees, while Matsushima, Tagajo, and Higashi-Matsushima are ranked low. High female employment rates but low rates of regular employees are found in Shibata in the southern part of the prefecture and Ohira and Osato in Senpoku, while low employment rates but high rates of regular employees are found in Zao, Kesennuma, and Ishinomaki.

The proportion of women in municipal assemblies, management positions, and municipal advisory councils is less than 30% in 23 municipalities, or two-thirds of the total. Higher proportions can be seen in Shibata, as well as in Tomiya and Iwanuma around Sendai, but those in Zao, Shichikashuku, Murata, and Osato are low. Municipalities with the highest rates of women in municipal management positions are Matsushima, Wakuya, Kesennuma, Shiroishi, and Minami-Sanriku, in that order. There are 17 municipalities with no female heads of residents' associations.

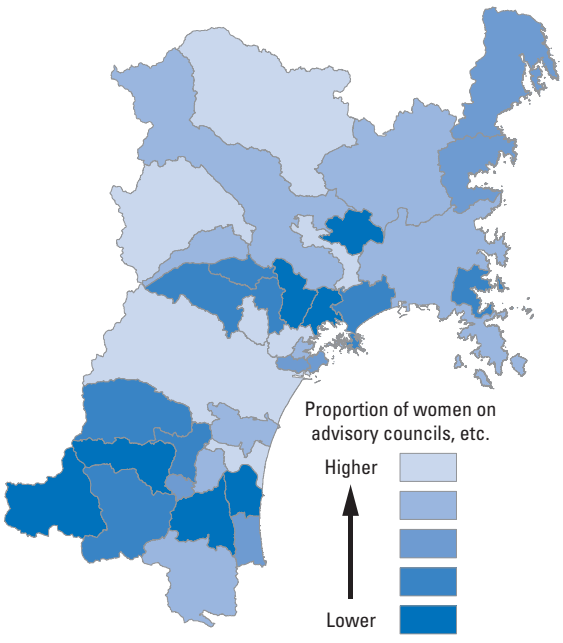
The survey of prefectural residents also showed that the percentage of those with low self-fulfillment was extremely high among women compared to men (Chapter 3, 3-5).

Miyagi Prefecture has set 12 achievement targets in its Basic Plan for Gender Equality (3rd Plan until the end of FY2020) and publicly discloses the progress towards these targets. However, as of the end of FY2019, the targets for the proportion of women on advisory councils (38.8% compared to the target of 45%), on disaster prevention councils (15.8% compared to 30%), and in management positions (7.1% compared to 15% or more), as well as for the rate of employees taking childcare leave (5% compared to 10% for men, and 77.3% compared to 90% for women), had not been achieved, indicating that further efforts are required (see Chapter 12, 12-2).

Figure 3-17: Rate of female members of advisory councils, etc. (Indicator H5)

Ranking	Municipalities	%
1st	Kurihara City	55.5
2nd	Tomiya City	50.0
3rd	Kami Town	42.7
4th	Iwanuma City	35.6
5th	Sendai City	34.3
6th	Misato Town	34.0
7th	Rifu Town	33.7
8th	Shibata Town	33.5
9th	Marumori Town	32.0
10th	Shiogama City	31.6
11th	Natori City	31.3
12th	Shikama Town	30.3
13th	Ishinomaki City	28.6
14th	Tome City	28.3
14th	Osaki City	28.3
16th	Shichigahama Town	27.2
17th	Yamamoto Town	26.3
18th	Ogawara Town	24.7

Ranking	Municipalities	%
19th	Tagajo City	24.4
20th	Kesennuma City	24.2
20th	Minami-Sanriku Town	24.2
22nd	Onagawa Town	24.1
23rd	Murata Town	23.6
23rd	Higashi-Matsushima City	23.6
25th	Taiwa Town	23.2
26th	Shiroishi City	22.9
27th	Kawasaki Town	22.8
28th	Ohira Village	22.5
29th	Osato Town	21.6
30th	Wakuya Town	20.2
30th	Kakuda City	20.2
32nd	Matsushima Town	19.5
33rd	Watari Town	19.0
34th	Shichikashuku Town	15.7
35th	Zao Town	14.2



Source: Annual Report on the Current Status of Gender Equality in Miyagi Prefecture and Related Policies (2020)

(6) Impact of the COVID-19 Pandemic

As described in Chapter 1, 1-1, the damage caused by COVID-19 since the beginning of 2020 has had a tremendous impact on all aspects of human life, including economic activities, and Miyagi Prefecture is no exception. The cumulative number of infected people was 278,000 as of October 28, 2022, or 12.2% of the prefecture's population, which remains low relative to the rest of the country. However, there have been signs of a sharp increase since the summer of 2022, with the restaurant, tourism, and manufacturing industries severely being affected. The difficulties faced by those in non-regular employment, whose employment opportunities were reduced by the pandemic, and by single-mother households, have been particularly acute (see Chapter 12, 12-3). Domestic violence and child abuse have also become nationwide problems due to truancy from school and extended periods of time spent at home, a result of school closures and significant restrictions on school life. Natural disasters such as earthquakes and other emergencies such as infectious disease pandemics have a disproportionately negative impact on women, children, single parents, those in non-regular employment, the elderly, and people with disabilities, all of whom are vulnerable even in normal conditions.

It is imperative to find ways to counteract the negative effects of the pandemic. As of the end of July 2022, the economic situation in Miyagi Prefecture has been gradually improving in terms of consumption, production activities, and employment conditions (Tohoku Finance Bureau, "Economic Situation in Miyagi Prefecture"), but support measures to address the impoverishment of people in non-regular employment and single-mother households are required.

5 Initiatives to Address Issues in Miyagi Prefecture

(1) Miyagi Prefecture is facing a falling number of children and demographic aging, which is a nationwide trend, as well as serious population decline. These issues will lead to a decline in the supply capacity to provide and produce services and goods, as well as a decrease in aggregate demand, which will put downward pressure on economic growth in the medium to long term. Avoiding industrial decline and mitigating population loss is of the utmost importance for ensuring the sustainable growth of the prefecture. Population growth resulting from inward migration for education and employment was once a strength of Miyagi Prefecture, but this has waned in recent years. For the prefecture to enjoy sustainable development in the future, it is important to enhance Sendai's appeal as an academic and commercial center offering employment opportunities, and to enhance the Sendai Metropolitan Zone's role as a core urban zone that will serve as the hub of the Tohoku region. In addition, it is important to enhance the prefecture's outreach capabilities for promoting visits and inward migration by drawing on the appeal of its history and natural environment.

(2) Miyagi Prefecture views population decline as its greatest challenge and is working to limit it. The *Vision for the Future of a New Miyagi 2021–2030* places support for the age groups raising children as the basis for implementing its policies. To this end, the prefectural government aims to raise the fertility rate by providing stronger support for marriage, childbirth, and childcare. As we have already seen, Miyagi Prefecture aims to control population decline by increasing its fertility rate to 1.6 by 2030, 1.8 by 2035 (desired fertility rate), and 2.07 by 2040 (population replacement level), compared to the 1.4 forecast by the IPSS. Indeed, a large share of respondents (30.4%, November-December 2019) to the survey of residents' attitudes raised improving support for childbirth and childrearing as an initiative that the prefecture should emphasize, along with "medical and nursing care" and "safety and disaster prevention." In a web-based survey of young people conducted by the prefecture, when asked what is needed to encourage young people to continue living in Miyagi, many respondents cited a better environment for raising children (36.1%), after greater employment opportunities (54.8%) and convenient public transport (45.1%). Nevertheless, the current fertility rate is below 1.3 (1.21 in 2020 and 1.15 in 2021), which is considerably below the national average, and there are not enough practical measures to achieve the prefecture's goal of using improved childbirth and childrearing support to raise the fertility rate to 1.8–2.07, thereby achieving natural population growth. As such, more drastic measures will be required.

(3) Another concern is that policies for women view them only as a means for bearing children to halt population decline. Emphasis needs to be placed on creating an environment that is livable for women and that allows them to live their lives in their own way. If cities are made

more child-friendly, they will also become more friendly to women and the elderly (Chapter 9).

We can look at the trend of population decline not just as a negative thing, but also as a positive sign that we have entered an era where each individual must be respected as a valuable human being and treated with greater care than in the past.

Written by Yukio Takasu

3-3 SDGs Miyagi Model (Miyagi Prefecture Human Security Indicators)

1 Features of the SDGs Miyagi Model

In order to highlight municipality-specific issues and reflect the characteristics and appeal of the local environment, population dynamics, industry and economy, and living environment, indicators for the three areas of life, livelihood, and dignity were adapted from the national version with slight modifications.

In addition to national indicators such as annual income per capita, unemployment rate, female employment rate, elderly employment rate, and the proportion of people in regular employment, this localized model includes indicators such as monthly purchases per household, agricultural and fishery output by municipality, number of certified regional revitalization plans, labor productivity, availability of housing adapted for the elderly, and number of nursing care staff. Since poverty rates by municipality are not calculated or published, we compared poverty levels based on the proportion of households with incomes of less than 3 million yen (excluding single-person households) and the proportion of people who are fully exempt from national pension insurance contributions.[*8]

Regarding indicators for natural disasters and disaster prevention which were used in *SDGs and Japan*, such as the number of deaths and missing persons from natural disasters and the public facilities seismic reinforcement rate, the indicators have been expanded by adding damage to residences caused by natural disasters, the seismic reinforcement rate for public facilities that serve as disaster prevention centers, the volunteer fire brigade member sufficiency rate, the proportion of female members on disaster prevention committees, and community bonds resulting from the Great East Japan Earthquake (based on the results of the questionnaire survey).

With regard to child welfare and child-rearing support, in addition to the indicators found in *SDGs and Japan*, such as the number of clinics, the number of children on waiting lists for nursery and kindergarten, and the rate of people getting regular health checks, new indicators were added such as support for childbirth and child-rearing in each municipality, the level of coverage for children's medical expenses, the availability of obstetrics and gynecology services, the number of places for children to spend time outside school, the degree to which the core objective of the SDGs is reflected in municipal comprehensive plans, municipalities' efforts to increase the visiting population and domestic migrants who move to the municipality, and the level of gender equality promotion. This allowed us to compare the ease of living for women and children, the ease of raising children, and the level of participation by residents, and to present the priority issues for each municipality.

With regard to children's education, important indicators are the high school dropout rate, rate of habitual absence from school (truancy), number of bullying cases, level of academic achievement of elementary and junior high school students, and children's athletic ability, but these statistics are not published at the municipal level. In addition, university enrollment rates are based on high school location, so figures broken down by where students live are not publicly available. Therefore, indicators based on available data, such as the rate of obese students, the ICT education environment, places for children to spend time outside school, children's centers, and lifelong education opportunities, were

[*8] Those with no or low incomes or who are unemployed can apply for an exemption from national pension insurance contributions.

used for the SDGs Miyagi Model in addition to indicators from *SDGs and Japan*, such as the number of students per teacher, the rate of school attendance support recipients, and education expenditure per student.

Finally, as most municipalities do not publish gender-disaggregated data (with the exception of the proportion of women in public office posts), the SDGs Miyagi Model used publicly available data to evaluate each local government's gender-equality efforts, such as the proportion of full-time employees among female workers, the rate of deaths by suicide among women, and the proportion of women among municipal council members, municipal managerial positions, municipal advisory council members, and heads of residents' associations.

This process led to a final count of 99 Human Security Indicators for the SDGs Miyagi Model, including 26 Life indicators, 48 Livelihood indicators, and 25 Dignity indicators.

2 Comparison of the SDGs Miyagi Model with the SDG Indicators

The 17 SDGs have 169 specific targets with 247 indicators. These can be seen on the United Nations website at https://unstats.un.org/sdgs/indicators/indicators-list/, as given in the annex of the resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development (A/RES/71/313).

The SDGs Miyagi Model indicators with their related targets and the SDG indicators are compared in the following table. Indicators in bold are those added in the Miyagi Model.

Indicators for the SDGs Miyagi Model

Life Indicators (26 indicators):	Life (13 indicators), Health (13 indicators)
Livelihood Indicators (48 indicators):	Economy, industry and employment (14 indicators), Education (11 indicators), Welfare (9 indicators), Nature and living environment (14 indicators)
Dignity Indicators (25 indicators):	Dignity of women and children (6 indicators), Trust in the public sector and gender equality (6 indicators), Community engagement (11 indicators), Satisfaction with life (2 indicators)

Life Indicators (26 indicators)

A: Life (13 indicators)

A1	Average life expectancy at birth (men) Average life expectancy at birth (women)	SDGs 1.2.2, 1.3.1, 1.5.1, 3.8.1, 3.8.2, 3.9.1, 3.9.2, 3.9.3, 17.19.2 SDGs 1.2.2, 1.3.1, 1.5.1, 3.8.1, 3.8.2, 3.9.1, 3.9.2, 3.9.3, 5.c.1, 17.19.2
A2	Population increase/decrease	SDGs 8.6.1, 8.b.1, 9.1.1, 9.1.2, 9.2.2, 10.7.2, 11.2.1, 11.3.2, 11.a.1
A3	Total fertility rate (TFR)	SDGs 1.2.2, 3.1.1, 3.1.2, 3.7.1, 3.7.2, 5.c.1
A4	Rate of children aged 0–14 in population	SDGs 1.2.2, 8.7.1
A5	Working age population	SDGs 1.3.1, 1.4.1, 8.6.1, 8.b.1
A6	Unmarried rate	SDGs 1.2.2
A7	**Inward/outward migration gap**	SDGs 11.2.1, 11.3.1
A8	**Rate of elderly people**	SDGs 1.1.1, 1.2.1, 1.3.1, 10.2.1, 11.2.1
A9	Rate of households comprised of single elderly person	SDGs 1.1.1, 1.2.1, 1.3.1, 10.2.1, 11.2.1
A10	Rate of children in single parent households	SDGs 1.2.2, 2.2.1, 2.2.2, 3.2.1, 3.7.2, 3.b.1, 4.2.1, 4.2.2
A11	Number of deaths by suicide	SDGs 3.4.2
A12	Number of deaths and missing persons due to natural disasters	SDGs 1.5.1, 11.b.2, 11.5.1, 13.1.1, 13.1.2, 13.1.3, 13.3.1
A13	Number of deaths and injuries due to traffic accidents	SDGs 3.6.1, 11.2.1

B: Health (13 indicators)

B1	Healthy Life Expectancy (HALE) (men) Healthy Life Expectancy (HALE) (women)	SDGs 1.2.2, 1.3.1, 3.4.1 SDGs 1.2.2, 1.3.1, 3.4.1, 5.c.1
B2	Number of general hospitals and clinics	SDGs 3.8.1
B3	Number of doctors at medical facilities	SDGs 3.c.1
B4	**Number of obstetrics/gynecology clinics**	SDGs 3.1.1, 3.1.2, 3.2.1, 3.2.2, 3.7.1, 3.7.2, 3.8.1, 5.6.1, 5.6.2
B5	Annual medical expenses per capita	SDGs 1.2.2, 3.8.2
B6	Rate of people getting regular health checks	SDGs 1.3.1, 3.8.1, 3.b.1
B7	**Amount paid for National Health Insurance per capita**	SDGs 3.8.2
B8	**Coverage of children's medical expenses**	SDGs 3.8.1, 3.8.2, 3.b.1
B9	**Number of teeth lost due to decay and other reasons**	SDGs 3.8.1
B10	Number of people with disabilities	SDGs 1.3.1, 16.7.1, 16.7.2 (Not included in the indices)
B11	Rate of smoking among adults	SDGs 3.a.1
B12	Annual rate of people participating in sports activities	SDGs 11.7.1
B13	Rate of people who know number of daily steps walked	SDGs 3.6.1, 9.1.2, 9.4.1

Livelihood Indicators (48 indicators)

C: Economy, Industry, and Employment (14 indicators)

C1	Annual income per capita	SDGs 8.1.1, 10.1.1, 10.2.1
C2	**Purchases per household per month**	SDGs 8.1.1, 10.1.1, 10.2.1
C3	**Rate of households with annual incomes of less than 3 million yen**	SDGs 10.1.1, 10.2.1
C4	**Rate of people fully exempted from national pension contributions**	SDGs 1.2.1, 1.2.2, 1.3.1, 1.4.1, 10.1.1, 10.2.1
C5	**Labor productivity by municipality**	SDGs 8.2.1, 8.3.1, 8.5.1, 10.1.1, 10.4.1
C6	**Agricultural and fishery output by municipality**	SDGs 2.3.1, 2.3.2, 2.4.1
C7	**Number of Miyagi Prefecture Regional Revitalization Plans approved for the municipality**	SDGs 8.2.1, 8.3.1, 8.4.1, 9.2.1, 9.2.2, 9.3.1

C8	Unemployment rate	SDGs 1.2.1, 1.2.2, 4.4.1, 8.5.2, 8.b.1, 10.2.1
C9	Rate of regular employees among employed persons	SDGs 4.4.1, 8.3.1, 8.5.1, 8.b.1, 10.2.1
C10	Rate of working females out of total female population	SDGs 4.5.1, 5.1.1, 5.4.1, 5.5.2, 5.c.1, 8.5.1, 8.5.2, 10.2.1
C11	**Rate of regular employees among female employees**	SDGs 4.5.1, 5.1.1, 5.4.1, 5.5.2, 8.5.1, 8.5.2, 10.2.1
C12	Rate of people with disabilities among employees	SDGs 4.5.1, 8.5.1, 8.5.2, 10.2.1
C13	Rate of people aged 65 and over with a job	SDGs 8.5.1, 8.5.2, 10.2.1
C14	Financial capability index	SDGs 17.1.1, 17.1.2

D: Education (11 indicators)

D1	Number of children on waiting lists for nursery	SDGs 4.2.1, 4.2.2
D2	Number of elementary school children per teacher	SDGs 4.1.1
D3	Number of junior high school students per teacher	SDGs 4.1.1
D4	Number of high school students per teacher	SDGs 4.1.1
D5	Rate of recipients of school attendance support	SDGs 1.2.2, 4.3.1, 4.5.1
D6	**Educational expenditure per capita**	SDGs 4.1.1, 4.3.1, 4.4.1
D7	University enrollment rate	SDGs 4.3.1, 8.6.1 (Not included in the indices)
D8	**Student obesity rate**	SDGs 3.4.1. 4.1.1
D9	Opportunities for lifelong learning	SDGs 4.3.1, 4.4.1, 4.5.1
D10	**ICT education environment in elementary and junior high schools (ICT facilities and equipment)**	SDGs 4.4.1, 4.a.1
D11	Rate of schools designated as UNESCO Schools	SDGs 4.7.1, 12.8.1

E: Welfare (9 indicators)

E1	Number of children's homes	SDGs 1.3.1, 4.5.1, 16.2.1
E2	Number of consultations at Child Welfare Centers	SDGs 1.3.1, 4.5.1, 16.2.1
E3	Rate of households receiving livelihood protection allowance	SDGs 1.2.1, 1.2.2, 1.3.1, 1.b.1, 1.4.1, 10.2.1
E4	**Long-Term Care Insurance contributions**	SDGs 1.3.1, 1.4.1, 8.5.1, 10.2.1
E5	**Rate of persons requiring long-term care**	SDGs 1.3.1, 1.4.1
E6	Number of facilities for the elderly (care homes, senior citizens homes)	SDGs 1.3.1, 1.4.1
E7	**Rate of applicants for special nursing facilities**	SDGs 1.3.1, 1.4.1
E8	Number of nursing care staff	SDGs 1.3.1
E9	Number of assigned households per livelihood protection allowance caseworker	SDGs 1.2.2, 1.3.1, 1.b.1

F: Nature and Lifestyle (14 indicators)

F1	**Annual hours of sunshine**	SDGs 2.4.1, 7.1.2, 7.2.1, 9.1.1
F2	**Rate of housing adapted for the elderly**	SDGs 11.2.1
F3	CO_2 emissions	SDGs 7.3.1, 8.4.1, 8.4.2, 9.4.1, 13.2.2
F4	**Amount of electricity generated from renewable sources**	SDGs 7.1.2, 7.b.1, 8.4.1, 8.4.2
F5	**Total floor space per residence**	SDGs 11.1.1
F6	**Rate of owner-occupied households**	SDGs 1.4.2, 11.1.1
F7	**Number of cars owned**	SDGs 7.3.1, 11.2.1, 16.1.4
F8	**Number of convenience stores**	SDGs 12.2.2, 12.3.1,
F9	Sewage treatment rate	SDGs 6.3.1, 8.4.1, 8.4.2, 12.2.1, 12.2.2

F10	**Damage to housing caused by natural disasters**	SDGs 11.b.2, 11.5.2, 13.1.1, 13.1.3
F11	**Volunteer firefighter sufficiency rate**	SDGs 11.b.2, 13.1.1, 13.1.3, 13.3.1
F12	**Rate of seismic reinforcement of public facilities that serve as disaster prevention centers**	SDGs 11.b.2, 11.5.2, 13.1.1, 13.1.3
F13	**Number of drunk driving violations**	SDGs 3.5.2, 3.6.1
F14	Number of reported criminal offences	SDGs 16.1-16.5, except 16.1.2

Dignity Indicators (25 indicators)

G: Dignity of Women and Children (6 indicators)

G1	**Assessment of Municipal Comprehensive Plans from the Perspective of the SDGs**	SDGs goals 1-17, 1.5.4, 11.3.2, 11.b.2, 13.1.3
G2	**Number of consultations on child abuse**	SDGs 11.7.2, 16.2.1
G3	**Number of places for children to spend time outside school**	SDGs 4.6.1, 4.a.1, 16.2.1
G4	Number of children given foster care placements	SDGs 11.7.2, 16.2.1 (Not included in the indices)
G5	Rate of deaths by suicide among children	SDGs 3.4.2, 11.7.2, 16.2.1
G6	**Rate of deaths by suicide among women**	SDGs 3.4.2, 5.2.1, 5.2.2, 11.7.2, 16.1.3

H: Trust in the Public Sector, Gender (6 indicators)

H1	Voter turnout in national and gubernatorial elections	SDGs 16.7.1
H2	**Municipality gender equality promotion**	SDGs 5.1.1, 5.2.1, 5.4.1, 5.5.1-5.6.2, 5.a.2, 5.c.1
H3	Rate of female representatives in municipal assemblies	SDGs 5.5.1, 16.7.1, 16.7.2
H4	**Rate of women in municipal management positions**	SDGs 5.5.1, 16.7.1, 16.7.2
H5	**Rate of female members of advisory councils, etc.**	SDGs 5.5.1, 16.7.1. 16.7.2
H6	**Rate of women among heads of community associations**	SDGs 5.5.1, 16.7.1, 16.7.2

J: Community Engagement (11 indicators)

J1	**Effectiveness of promotional activities by municipalities to increase visitors, migration and settlement**	**SDGs 8.9.1, 8.9.2, 11.2.1, 11.3.1, 11.4.1**
J2	Number of designated cultural properties	SDGs11.4.1
J3	Number of community centers	SDGs 11.3.2, 11.4.1, 11.7.1
J4	**Rate of people who believe community bonds got stronger after the Great East Japan Earthquake**	
J5	Number of neighborhood associations	SDGs 11.3.2
J6	Number of registered Non-Profit Organizations (NPOs)	SDGs 11.3.2, 17.9.1, 17.17.1
J7	Number of foreign nationals	SDGs 10.7.2, 10.7.4
J8	Rate of foreign nationals among children	SDGs 10.7.2, 10.7.4
J9	Number of international students	(Not included in the indices)
J10	Number of foreign technical interns	SDGs 8.8.1, 8.8.2, 10.7.1, 10.7.2
J11	Rate of people who would welcome more foreign nationals in their neighborhood	

K: Satisfaction with Life (2 indicators)

K1	Rate of people who are not satisfied with their own lives	
K2	Rate of people who do not believe that their lives will get better in the future	

3 Sources of Data

In principle, the data used for each indicator is provided by public agencies for each of the 35 municipalities, as shown below. For indicators for which data by municipality is not published, data is provided for the seven zones of the prefecture (Sennan, Sendai, Osaki, Kurihara, Tome, Ishinomaki, and Kesennuma-Motoyoshi) or the jurisdictions of individual welfare centers.

However, for items such as municipal comprehensive plans, coverage of children's medical expenses, measures to promote inward migration and settlement, and gender equality, which in themselves do not indicate whether they are in line with the core objective of the SDGs, the Indicator Team or Women's Working Group (WG) made an assessment (based on the criteria indicated in the relevant sections below).

Life Indicators (26 indicators)

A: Life (13 indicators)

A1	Average life expectancy at birth (men) Average life expectancy at birth (women)	Ministry of Health, Labour and Welfare (MHLW), Life Expectancy by Municipality, 2015
A2	Population increase/decrease (% change between 2011 and 2021)	Municipal population estimates
A3	Total fertility rate (TFR)	*Report of Vital Statistics*, Total Fertility Rate by Municipality (FY2013–FY2017)
A4	Rate of children aged 0–14 in population	National Census (2015)
A5	Working age population (aged 15-64)	National Census (2015)
A6	Unmarried rate (at 50 years old) (men) Unmarried rate (at 50 years old) (women)	National Census (2015)
A7	Inward/outward migration gap (between 2010 and 2015)	National Census (2010, 2015)
A8	Rate of elderly people (aged 65 and over)	Miyagi Prefecture, Elderly Population Survey Results (2019)
A9	Rate of households comprised of single elderly person (aged 65 and over)	National Census (2015)
A10	Rate of children in single parent households	National Census (2015)
A11	Number of deaths by suicide (per 100,000 population)	MHLW, *Basic Information on Suicide in Regional Areas* (Place of Residence and Date of Suicide), 2019
A12	Number of deaths and missing persons due to natural disasters (total 2008–2020; per 1,000 population)	Population is the average of figures from the Basic Resident Register from 2008 to 2020. The number of deaths and missing persons is the total number of victims recorded for disasters listed in "Past Disasters in Miyagi Prefecture." For the Great East Japan Earthquake, see Miyagi Prefecture, "Earthquake Damage and Evacuation Situation" (as of January 31, 2021).
A13	Number of deaths and injuries due to traffic accidents (average for 2014–2018; per 10,000 population)	Average for 2014–2018. Institute for Traffic Accident Research and Data Analysis, *Annual Report of Traffic Accident Statistics*

B: Health (13 indicators)

B1	Healthy Life Expectancy (HALE) (men) Healthy Life Expectancy (HALE) (women)	Miyagi Prefecture Health Promotion Division, Regional Healthy Life Expectancy by Municipality (2016)
B2	Number of general hospitals and clinics (per 1,000 population)	Miyagi Prefecture, Survey of Medical Facilities, October 1, 2018
B3	Number of doctors at medical facilities (per 1,000 population)	Miyagi Prefecture, Survey of Medical Facilities, October 1, 2018
B4	Number of obstetrics/gynecology clinics	Japan Medical Association, Regional Medical Information System, February 2020
B5	Annual medical expenses per capita (average of past 3 years)	Municipal National Health Insurance, per capita National Health Insurance medical expenditures by municipality (FY2017)
B6	Rate of people getting regular health checks	Miyagi Prefecture, FY2016 results from the statutory reports on "Specific Health Checkup" (medical examinations to check for lifestyle diseases), by category of insured
B7	Amount paid for National Health Insurance per capita	Municipal National Health Insurance, per capita National Health Insurance medical expenditures by municipality (FY2017)

B8	Coverage of children's medical expenses	Comparative assessment of coverage performed by the Indicator Team based on the following criteria (1) Age limit for children's medical expense coverage: up to 18 years old, up to 15 years old, or below (2) Partial payment required: Yes/No (3) Income restrictions: Yes/No
B9	Number of teeth lost due to decay and other reasons (at age 12)	Miyagi Prefecture Education Bureau, Sports and Health Division, *Results of FY2017 Statistical Survey of Health Issues for Children in Miyagi Prefecture*
B10	Number of people with disabilities (not included in the indices)	Miyagi Prefecture Mental Health and Welfare Center, number of persons holding Disability Passbooks and Special Education Passbooks, as of March 31, 2020
B11	Rate of smoking among adults (taking the whole of prefecture as 100)	Japan Health Insurance Association, data on the Municipal National Health Insurance, "Specific Health Checkup" questionnaire, disaggregated by gender (FY2016)
B12	Annual rate of people participating in sports activities (by area)	Miyagi Prefecture Health Promotion Division, *Report on the 2016 Prefectural Citizens' Health and Nutrition Survey*, January 2018
B13	Rate of people who know number of daily steps walked (by area)	Miyagi Prefecture Health Promotion Division, *Report on the 2016 Prefectural Citizens' Health and Nutrition Survey*, January 2018

Livelihood Indicators (48 indicators)

C: Economy, Industry, and Employment (14 indicators)

C1	Annual income per capita	Miyagi Prefecture Department of Disaster Reconstruction and Planning, *FY2017 Annual Report of Miyagi Prefecture Municipal Economic Accounts*
C2	Purchases per household per month	Monthly purchases of food, daily necessities, fresh produce, and prepared dishes per household in 2020, based on big data from True Data, Inc.
C3	Rate of households with annual incomes of less than 3 million yen (excluding single-person households)	*2018 Housing and Land Survey*, Basic Summary of Housing and Households
C4	Rate of people fully exempted from national pension contributions	National Health Insurance, Payment Status by Municipality, March 2019
C5	Labor productivity by municipality (per capita)	Miyagi Prefecture, *FY2017 Annual Report of Prefectural Economic Accounts*
C6	Agricultural and fishery output by municipality (per capita)	Ministry of Internal Affairs and Communications (MIC), Agricultural Output by Municipality, FY2018
C7	Number of Miyagi Prefecture Regional Revitalization Plans approved for the municipality	Miyagi Prefecture, list of approved Regional Revitalization Plans in Miyagi Prefecture
C8	Unemployment rate	2015 National Census, basic tabulation of employment status, etc. (labor force status, industry and occupation of workers, etc.)
C9	Rate of regular employees among employed persons	2015 National Census, basic tabulation of employment status, etc. (labor force status, industry and occupation of workers, etc.), number of employees aged 15 and over by employee status (8 categories) and gender
C10	Rate of working females out of total female population	2015 National Census, basic tabulation of employment status, etc. (labor force status, industry and occupation of workers, etc.)
C11	Rate of regular employees among female employees	2015 National Census, basic tabulation of employment status, etc. (labor force status, industry and occupation of workers, etc.), employee status (8 categories)
C12	Rate of people with disabilities among employees	Miyagi Labor Bureau, FY2017 Press Release Materials
C13	Rate of people aged 65 and over with a job	2015 National Census, basic tabulation of employment status, etc.
C14	Financial capability index	*FY2018 Survey of Financial Results by Municipality*

D: Education (11 indicators)

D1	Number of children on waiting lists for nursery	Miyagi Prefecture Office for the Promotion of Health, Welfare and a Childrearing Society, Number of children on waiting lists for use of nurseries, etc., FY2020
D2	Number of elementary school children per teacher	Miyagi Prefecture Board of Education, *FY2020 Overview of Education Administration in Miyagi Prefecture*

D3	Number of junior high school students per teacher	Miyagi Prefecture Board of Education, *FY2020 Overview of Education Administration in Miyagi Prefecture*
D4	Number of high school students per teacher	Miyagi Prefecture Board of Education, *FY2020 Overview of Education Administration in Miyagi Prefecture*
D5	Rate of recipients of school attendance support (out of all students in public elementary and junior high schools)	Miyagi Prefecture Education Bureau, Compulsory Education Division, Schooling Support for Children in Need of Assistance, FY2019
D6	Educational expenditure per capita	Local Education Expenditure Survey (FY2019), MEXT (e-Stat); Prefectural and Municipal Statistics (Social and Demographic Statistics System)
D7	University enrollment rate (not included in the indices)	MEXT, Basic School Survey
D8	Student obesity rate (6th grade of elementary school) Student obesity rate (2nd grade of junior high school)	Miyagi Prefecture Education Bureau, Report on FY2017 Statistical Survey of Health Issues for Children in Miyagi Prefecture
D9	Opportunities for lifelong learning (index)	Miyagi Prefecture Education Bureau, Lifelong Learning Division, Results of FY2019 Survey on Municipal Social Education Administration and Social Education Facilities (Community Centers); Miyagi Prefecture Education Offices, list of social education facilities (libraries, community centers, record offices, etc.)
D10	ICT education environment in elementary and junior high schools (ICT facilities and equipment)	MEXT, Results of FY2019 Survey on Computerization of Education in Schools (as of March 2020)
D11	Rate of schools designated as UNESCO Schools	MEXT, UNESCO Schools Website, School Basic Survey (as of March 2020)

E: Welfare (9 indicators)

E1	Number of children's homes (including foster homes and childcare institutions)	Miyagi Prefecture Child Welfare Centers (Central, North, East, and East-Kesennuma Branch Office), *FY2020 Summary of Consultations at Child Welfare Centers* (child welfare facilities in the prefecture), as of June 2020 * For the national indicators, comparisons were made using data from the MHLW's *Survey of Social Welfare Facilities*, while the Miyagi model includes smaller facilities such as children's homes, infant homes, small regional children's homes, children's self-reliance support homes, residential facilities for children with disabilities, and family homes. However, non-residential child and family support centers are excluded.
E2	Number of consultations at Child Welfare Centers (per 1,000 population)	Miyagi Prefecture Child Welfare Centers (Central, North, East, and East-Kesennuma Branch Office), *FY2020 Summary of Consultations at Child Welfare Centers* (Number of child welfare consultations (excluding disability and health consultations) received by municipality), total number of cases from FY2015 to FY2019)
E3	Rate of households receiving livelihood protection allowance	Miyagi Prefecture, Statistics on Livelihood Protection Allowance (2019)
E4	Long-Term Care Insurance contributions (standard per capita)	Municipal websites, standard amount of long-term care insurance contributions (monthly)
E5	Rate of persons requiring long-term care	Miyagi Prefecture, *FY2016 Report on the Status of Long-Term Care Insurance Services* (percentage of caregivers by municipality)
E6	Number of facilities for the elderly (care homes, senior citizens homes) (per population aged 65 and over)	Miyagi Prefecture, *FY2020 Welfare Evacuation Shelter Designation Status*
E7	Rate of applicants for special nursing facilities (out of total number of people certified at Levels 3-5 under the Long-Term Care Insurance System)	Miyagi Prefecture, Data on Medical and Nursing Care, updated end of March 2020. Long-Term Care Insurance Business Report
E8	Number of nursing care staff (per 1,000 population aged 75 and over)	Miyagi Prefecture, Data on Medical and Nursing Care, updated end of March 2020
E9	Number of assigned households per livelihood protection allowance caseworker	Miyagi Prefecture, Statistics on Livelihood Protection Allowance, Local Public Body Capacity Management Survey (Table 4)

F: Nature and Lifestyle (14 indicators)

F1	Annual hours of sunshine	1 km grid-square 30-year average annual sunshine hours, 2010 (JMA, statistical period 1981–2010, created in 2012) overlaid in GIS with locations of municipal offices
F2	Rate of housing adapted for the elderly	MIC Statistics Bureau, *2018 Housing and Land Survey*
F3	CO_2 emissions (per capita)	Ministry of Environment (MOE), current estimates of CO_2 emissions by sector (by municipality, 2019), divided by population

F4	Amount of electricity generated from renewable sources	Ministry of Economy, Trade and Industry (METI), Agency for Natural Resources and Energy, "Feed-in Tariff Scheme" information page, authorized installed capacity by municipality (2017). Municipality-specific electricity sales calculated from nationwide renewable energy sales by power source and facility installations by power source
F5	Total floor space per residence	Cabinet Office, *FY2018 Housing and Land Survey*, Basic Summary of Housing and Households
F6	Rate of owner-occupied households	*2018 Housing and Land Survey*, Basic Summary of Housing and Households
F7	Number of cars owned (per capita)	Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Tohoku District Transport Bureau (FY2020)
F8	Number of convenience stores (per 1,000 population)	NAVIGATE 2021.2.4 Search (field check)
F9	Sewage treatment rate	Domestic Wastewater Treatment Facilities in Miyagi Prefecture, statistics by municipality, end FY2018
F10	Damage to housing caused by natural disasters (per 1,000 housing units)	2008–2020 damage to housing (total destruction/partial destruction) * Number of households is the average of the figures from the Basic Resident Register from 2007 to December 31, 2020. * Number of damaged homes is the total number of homes that fall under "total destruction/partial destruction" or "inundation above floor level" from the disasters listed in "Past Disasters in Miyagi Prefecture" (disasters occurring in the prefecture). For the Great East Japan Earthquake, see "State of Damage from the Great East Japan Earthquake."
F11	Volunteer firefighter sufficiency rate	Data on numbers of volunteer firefighters from the Miyagi Prefecture Firefighters Association as of October 1, 2020 (date retrieved: March 1, 2021)
F12	Rate of seismic reinforcement of public facilities that serve as disaster prevention centers	MIC, Survey on Implementation of Seismic Reinforcement of Public Facilities serving as Disaster Prevention Centers (end FY2018) (State of Seismic Reinforcement of Public Facilities serving as Disaster Prevention Centers)
F13	Number of drunk driving violations (per 10,000 license holders)	Miyagi Prefectural Police, Number of Traffic Accidents by Municipality (during 2019)
F14	Number of reported criminal offences (per 1,000 population)	Crime and Crime Prevention, Overview of Miyagi Prefecture during 2016, by municipality

Dignity Indicators (25 indicators)

G: Dignity of Women and Children (6 indicators)

G1	Assessment of Municipal Comprehensive Plans from the Perspective of the SDGs (assessment by Indicator Team)	Assessment performed by the Indicator Team based on the following 12 criteria (1) Does it refer to the SDGs? (2) Are there links between individual measures and SDG indicators? (3) Does it cover anything other than environmental or industrial sustainability? (4) Does it set numerical targets to be achieved? (5) Does it emphasize pride in one's occupation or hometown? (6) Does it advocate for the protection of human rights? (7) Perspectives of women/gender perspectives (8) Perspectives of people with disabilities (9) Perspectives of multicultural coexistence, respect for diversity, and social inclusion (10) Is there substantial resident participation in drafting the comprehensive plan or community development? (11) Are children's voices heard, and are their views reflected in policies? (12) Proportion of women on the planning council
G2	Number of consultations on child abuse (per 1,000 population)	Miyagi Prefecture Child Welfare Centers (Central, North, East, and East-Kesennuma Branch Office), *FY2020 Summary of Consultations at Child Welfare Centers (Number of child abuse consultations received by municipality)*, total number of cases from FY2015 to FY2019)
G3	Number of places for children to spend time outside school (number of elementary, junior high, and high school students per facility)	Miyagi Network for Co-Creating Diverse Ways of Learning, Map of Places for Children to Spend Time in Miyagi Prefecture. Miyagi Prefecture and Sendai City official websites, List of Children's Halls and Centers. * Total number based on data for free schools, play parks, parent groups, "*Keyaki*" classes, "*Kokoro Care*" houses, children's halls/children's centers, "*Mori no Hiroba,*" and after-school children's clubs. Excludes tutoring schools and "*Nobisuku Sendai*" which are aimed mainly at infants and toddlers.

G4	Number of children given foster care placements (not included in the indices)	Miyagi Prefecture Child Welfare Centers (Central, North, East, and East-Kesennuma Branch Office), *FY2020 Summary of Consultations at Child Welfare Centers (Foster parent registrations and foster placements)*, as of end of March 2019
G5	Rate of deaths by suicide among children (aged under 18) (per 10,000 population)	MHLW, *Basic Information on Suicide in Regional Areas* (Place of Residence and Date of Suicide), 5-year average 2015–2019
G6	Rate of deaths by suicide among women (per 10,000 population)	MHLW, *Basic Information on Suicide in Regional Areas* (Place of Residence and Date of Suicide), 5-year average 2015–2019

H: Trust in the Public Sector, Gender (6 indicators)

H1	Voter turnout in national and gubernatorial elections	Average voter turnout for House of Representatives (2017), House of Councillors (2019), and Miyagi gubernatorial elections (2017)
H2	Municipality gender equality promotion (assessment by Indicator Team)	Miyagi Prefecture, *Annual Report on the Current Status of Gender Equality in Miyagi Prefecture and Related Policies* (assessment of the following 7 criteria for FY2016 to FY2020 by the Women's WG team) (1) Do they have a basic plan and set current and target values? (2) Gender equality awareness and status surveys (past 5 years) (3) Do they have a basic plan based on the Act on the Prevention of Spousal Violence and the Protection of Victims? (4) Do they have gender equality ordinances? (5) Existence of activity centers and the status of activities such as lectures and workshops (6) Public information materials (past 5 years) (7) Availability of public awareness materials/publications (past 5 years)
H3	Rate of female representatives in municipal assemblies	Miyagi Prefecture, *Annual Report on the Current Status of Gender Equality in Miyagi Prefecture and Related Policies*, FY2020
H4	Rate of women in municipal management positions	Miyagi Prefecture, *Annual Report on the Current Status of Gender Equality in Miyagi Prefecture and Related Policies*, FY2020
H5	Rate of female members of advisory councils, etc.	Miyagi Prefecture, *Annual Report on the Current Status of Gender Equality in Miyagi Prefecture and Related Policies*, FY2020
H6	Rate of women among heads of community associations	Miyagi Prefecture, *Annual Report on the Current Status of Gender Equality in Miyagi Prefecture and Related Policies*, FY2020

J: Community Engagement (11 indicators)

J1	Effectiveness of promotional activities by municipalities to increase visitors, migration and settlement (assessment by Indicator Team)	Effectiveness and inclusiveness of municipalities' policies to increase visitors, migration, and settlement (as found on municipality websites) were assessed by the Indicator Team, based on the following 12 criteria (1) Does the information on public relations, inward migration, and tourism have an immediate impact? (2) Does it effectively express a unique appeal (brand)? (3) Are childcare support measures effectively presented? (4) Are employment/ in-migration support measures effectively presented? (5) Is there a gender equality perspective in publicity efforts for childcare, employment, and in-migration support? (6) Is there a perspective that emphasizes individuality and diversity in publicity efforts for childcare, employment, and in-migration support? (7) Does the municipality appear to be a comfortable place to live after viewing the information? (8) Are there plenty of tourism resources? (relative to size) (9) Are tourism resources fully publicized? (10) Does it represent the reality of local people's lives? (11) Does it present comments from people who have moved to or visited the municipality? (12) Does it include specific information such as statistical figures?
J2	Number of designated cultural properties (per 1,000 population)	Miyagi Prefecture official website, "List of Miyagi Prefecture's Designated and Selected Cultural Properties," updated February 2020. * Total number of buildings, paintings, sculptures, handicrafts, books, archaeological materials, archival and historical documents, folk customs, historical sites, natural monuments, and folk performing arts

J3	Number of community centers (per 10,000 population)	Miyagi Prefecture Education Bureau, Lifelong Learning Division, *Results of FY2019 Survey on Municipal Social Education Administration and Social Education Facilities (Community Centers)*; Official websites of Miyagi Prefecture and municipalities, "List of Community Centers" (updated July 2020)
J4	Rate of people who believe community bonds got stronger after the Great East Japan Earthquake (questionnaire survey)	Assessed based on the results of the survey
J5	Number of neighborhood associations (per 1,000 population)	Number of residents' associations, *Annual Report on the Current Status of Gender Equality in Miyagi Prefecture and Related Policies*, Table 17 (as of April 2020)
J6	Number of registered Non-Profit Organizations (NPOs) (per 1,000 population)	Miyagi Prefecture List of Specified Nonprofit Corporations, updated December 31, 2020
J7	Number of foreign nationals (per 1,000 population)	Ministry of Justice, Statistics on Foreign Residents (as of June 2020)
J8	Rate of foreign nationals among children (per 1,000 population)	Basic Resident Register (January 2020)
J9	Number of international students (actual number) (not included in the indices)	Ministry of Justice, Statistics on Foreign Residents (as of June 2020)
J10	Number of foreign technical interns (per 1,000 population)	Ministry of Justice, Statistics on Foreign Residents (as of June 2020)
J11	Rate of people who would welcome more foreign nationals in their neighborhood (questionnaire survey)	Assessed based on the results of the survey

K: Satisfaction with Life (2 indicators)

K1	Rate of people who are not satisfied with their own lives (questionnaire survey)	Assessed based on the results of the survey
K2	Rate of people who do not believe that their lives will get better in the future (questionnaire survey)	Assessed based on the results of the survey

3-4 Miyagi Prefecture Municipal Indices

1 Calculating Indices from Indicators

Although the goal of this analysis is to compare and examine the overall challenges municipalities face, a direct comparison is not possible because the figures for the 99 indicators in the Miyagi Model are provided in different units. To integrate the indicators, the data for each indicator is normalized and converted to a variable from 1 to 0. If the most favorable state for a given indicator is 1, and vice versa is 0, then the variable for each municipality falls somewhere between 1 and 0. This method is based on UNDP's method for calculating the Human Development Index.

For indicators such as "life expectancy" or "total fertility rate," for which high values are desirable, the variable is calculated using the formula: **(value for the municipality in question - minimum value) / (maximum value - minimum value)**.

In this case, if the value for the municipality in question is the highest (most favorable) in the dataset, then the normalized variable will be 1, and if it is the lowest, (least favorable), the normalized variable will be 0.

Conversely, for indicators such as "suicide rate" or "annual medical expenses per person," for which a low value is desirable (or where a high value indicates a significant issue to be solved), the variable is calculated using the formula: **(value for the municipality in question - maximum value) / (minimum value - maximum value)**.

Here, if the value for the municipality in question is the lowest (most favorable) in the dataset, then the normalized variable will be 1, and if it is the highest (least favorable), the normalized variable will be 0.

All indicators are normalized, and then the Life Index, Livelihood Index, and Dignity Index are calculated by averaging the indexed values of the indicators in each of the three areas described in Chapter 3, 3-3. The average values for these three indices are then ranked in descending order as an Overall Index by municipality, and then visualized on a map.

In this exercise, some indicators are excluded from the calculation of indices because it is inappropriate to rank their numerical values or because the data is not available at the municipal level (for example, B10: Number of people with disabilities, D7: University enrollment rate, G4: Number of children given foster care placements, J9: Number of foreign students). The Life (25), Livelihood (47), and Dignity (23) indices are calculated without these indicators, then combined to produce an Overall Index (95 items) (please refer to the Reference Materials for ranks and maps for individual indicators).

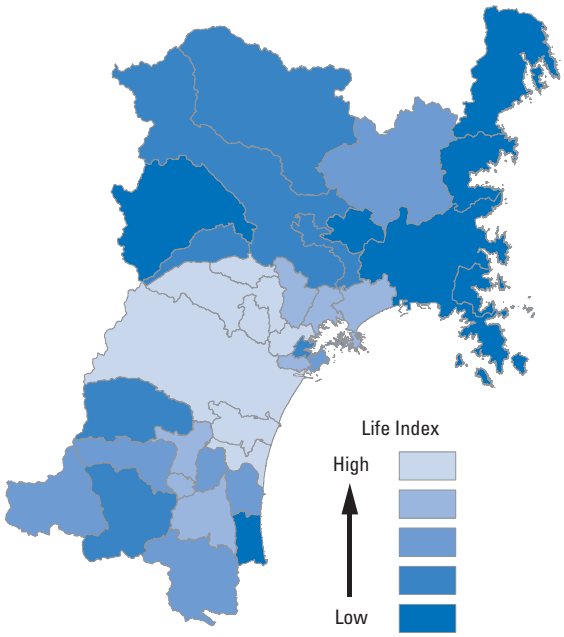
Note that indicators vary in terms of their importance and impact. As this involves subjective judgment, the Indicator Team adopted the method of taking a simple average and comparing the indices for Life, Livelihood, and Dignity. Although the three areas have different numbers of indicator variables, the rankings can be obtained by calculating an Overall Index based on the average values of the Life, Livelihood, and Dignity indices, thereby facilitating comparisons between municipalities.

2 Life Index

Sendai, Tomiya, Rifu, Iwanuma, and Natori in the Sendai Metropolitan Zone, as well as Ohira and Taiwa in Senpoku, have good medical environments, high health awareness, and low rates of aging, leading to high scores in the Life Index. Conversely, Life Index values are low in the coastal areas that suffered extensive damage in the Great East Japan Earthquake, with Onagawa, Kesennuma, Minami-Sanriku, Yamamoto, and Ishinomaki performing poorly. The inland areas of the northern part of the prefecture (Kami, Wakuya, Osaki, Misato, Shikama, etc.) have low fertility rates, low inward migration rates, low numbers of children, and acceleration of aging, giving them low scores on the Life Index. Shiroishi and Kawasaki in the southern part of the prefecture also had low Life Index scores. Issues in these areas include exercise and health awareness, suggesting the need to improve medical infrastructure and lifestyle habits.

Figure 3-18: **Miyagi Prefecture Life Index scores**

Ranking	Municipalities	Index
1st	Tomiya City	0.791
2nd	Rifu Town	0.730
3rd	Sendai City	0.719
4th	Ohira Village	0.703
5th	Taiwa Town	0.684
6th	Iwanuma City	0.630
7th	Natori City	0.629
8th	Ogawara Town	0.601
9th	Tagajo City	0.592
10th	Osato Town	0.575
11th	Higashi-Matsushima City	0.539
12th	Matsushima Town	0.537
13th	Murata Town	0.532
14th	Kakuda City	0.527
15th	Tome City	0.523
16th	Watari Town	0.519
17th	Shichigahama Town	0.515
18th	Zao Town	0.511
19th	Marumori Town	0.503
20th	Shibata Town	0.502
21st	Shichikashuku Town	0.492
22nd	Kawasaki Town	0.479
23rd	Kurihara City	0.477
24th	Shikama Town	0.466
25th	Shiogama City	0.465
26th	Osaki City	0.464
26th	Misato Town	0.464
28th	Shiroishi City	0.461
29th	Wakuya Town	0.452
30th	Kami Town	0.448
31st	Ishinomaki City	0.435
32nd	Yamamoto Town	0.408
33rd	Minami-Sanriku Town	0.399
34th	Kesennuma City	0.396
35th	Onagawa Town	0.347



3 Livelihood Index

Thanks to good figures for income, employment, and financial capability, as well as education, welfare, and living environment, the municipalities of Tomiya and Rifu, adjacent to Sendai, score extremely high in the Livelihood Index. In Senpoku, Shikama has an attractive living environment in terms of agricultural output, employment, education and welfare, total floor space per residence, rate of owner-occupied households, and number of reported crimes. Meanwhile, Taiwa has been successful in attracting companies, with high figures for income, labor productivity, and financial capability boosting its rank in the Livelihood Index.

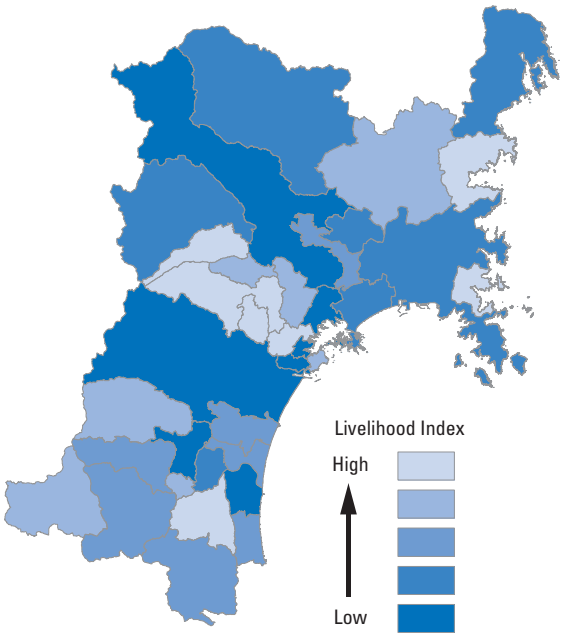
Onagawa and Minami-Sanriku in the northern coastal area of the prefecture perform well in the Livelihood Index, with good living environments in terms of fisheries output, employment, education and welfare, and housing. In the southern part of the prefecture, the Livelihood Index is high in Kakuda, which has a favorable living environment in terms of employment of women and people with disabilities, education, housing, and reported crimes.

However, in Sendai and many of the surrounding municipalities (Matsushima, Murata, Shiogama, Tagajo, Higashi-Matsushima, and Watari), the Livelihood Index is surprisingly low. There are many issues to be addressed in terms of employment, including with respect to women, the elderly, and regular employment; education, such as the number of children on waiting lists for nurseries; welfare, such as the number of child welfare consultations and the rate of livelihood protection allowance recipients; and the living environment, such as total floor space per residence, the rate of owner-occupied households, and the number of reported crimes. As such, it is hoped that efforts will be made to enhance the appeal of the area as a well-developed living environment. In the northern part of the prefecture, Osaki, Kurihara, and Wakuya score low on the Livelihood Index. There are issues in income and employment, such as the percentage of low-income households and the employment rate of women; in education, such as the number of children on waiting lists for nursery and the rate of school attendance support recipients; in welfare, such as the number of child welfare consultations and the number of households in receipt of livelihood protection allowance; and in the living environment,

Figure 3-19: **Miyagi Prefecture Livelihood Index scores**

Ranking	Municipalities	Index
1st	Tomiya City	0.564
2nd	Shikama Town	0.548
3rd	Onagawa Town	0.544
4th	Rifu Town	0.543
5th	Kakuda City	0.538
6th	Taiwa Town	0.533
7th	Minami-Sanriku Town	0.531
8th	Ohira Village	0.526
8th	Shichikashuku Town	0.526
10th	Ogawara Town	0.525
11th	Shichigahama Town	0.524
12th	Osato Town	0.523
13th	Tome City	0.514
14th	Kawasaki Town	0.510
15th	Iwanuma City	0.506
16th	Misato Town	0.504
17th	Yamamoto Town	0.503
18th	Zao Town	0.502

Ranking	Municipalities	Index
19th	Shiroishi City	0.500
20th	Natori City	0.495
21st	Marumori Town	0.494
22nd	Kami Town	0.493
23rd	Kesennuma City	0.489
24th	Kurihara City	0.485
25th	Shibata Town	0.477
26th	Higashi-Matsushima City	0.473
26th	Wakuya Town	0.473
26th	Ishinomaki City	0.473
29th	Watari Town	0.472
30th	Tagajo City	0.467
31st	Sendai City	0.463
32nd	Osaki City	0.461
33rd	Shiogama City	0.439
34th	Murata Town	0.438
35th	Matsushima Town	0.437



such as housing adapted for the elderly and the sewage treatment rate. The Livelihood Index is also relatively low in the coastal cities of Ishinomaki and Kesennuma. This is due to several issues related to income and employment, such as the rate of low-income households, the number of households in receipt of livelihood protection allowance, employment rates for women and elderly people, and the number of child welfare consultations.

4 Dignity Index

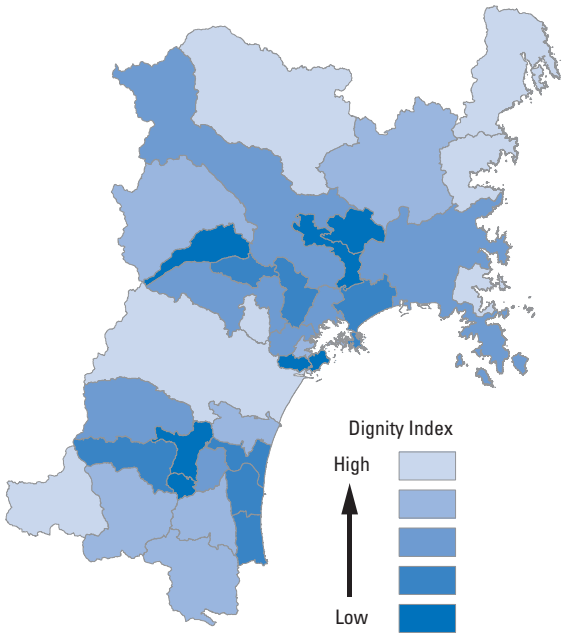
Dignity Index scores are high in Shichikashuku and Marumori in the southern interior, as well as in Minami-Sanriku, Onagawa, and Kesennuma in the north. These municipalities have lower rates of child abuse consultations and suicides among women, greater social capital such as community centers, neighborhood associations, and non-profit organizations, more effective efforts to increase inward migration and settlement, and higher rates of people who would welcome an increase in foreigners. Kurihara, in the northern part of the prefecture, is enthusiastic about promoting gender equality, has many women in managerial positions and on municipal advisory councils, has large numbers of designated cultural properties, community centers, and neighborhood associations and organizations, and communicates the appeal of the city effectively. Tomiya, Sendai, and Shiogama also rank highly on the Dignity Index, performing well in areas related to gender. This includes emphasizing the dignity of children and promoting gender equality, as well as high numbers of female assembly members, municipal advisory council members, and heads of residents' associations.

Conversely, the Dignity Index scores are low in Shichigahama and Tagajo, located adjacent to Sendai City, as well as in Wakuya, Misato, and Shikama in the northern part of the prefecture. These municipalities face many issues relating to children, such as high numbers of consultations on child abuse and few places to spend time outside school, and also gender equality, with high rates of suicide among women, and few women in municipal management positions or among heads of residents' associations. Also facing challenges in terms of promoting gender equality are the towns of Ogawara, Murata, and Zao, in the southern part of the prefecture. With few female assembly members, municipal managers, or heads of residents' associations, they perform poorly in the Dignity Index. There is a noticeable trend for smaller

Figure 3-20: **Miyagi Prefecture Dignity Index scores**

Ranking	Municipalities	Index
1st	Shichikashuku Town	0.593
2nd	Minami-Sanriku Town	0.569
3rd	Onagawa Town	0.516
4th	Kurihara City	0.481
5th	Tomiya City	0.476
6th	Sendai City	0.463
7th	Kesennuma City	0.460
8th	Marumori Town	0.459
9th	Shiogama City	0.439
10th	Natori City	0.432
11th	Shiroishi City	0.425
12th	Kakuda City	0.424
13th	Tome City	0.419
14th	Kami Town	0.415
15th	Ishinomaki City	0.404
16th	Shibata Town	0.403
17th	Rifu Town	0.402
18th	Matsushima Town	0.396

Ranking	Municipalities	Index
19th	Osaki City	0.385
20th	Kawasaki Town	0.383
21st	Taiwa Town	0.373
22nd	Ohira Village	0.368
22nd	Higashi-Matsushima City	0.368
24th	Yamamoto Town	0.362
25th	Watari Town	0.361
26th	Zao Town	0.355
27th	Iwanuma City	0.341
28th	Osato Town	0.336
29th	Murata Town	0.330
30th	Shikama Town	0.329
31st	Ogawara Town	0.306
32nd	Misato Town	0.293
33rd	Wakuya Town	0.287
34th	Tagajo City	0.283
35th	Shichigahama Town	0.264



municipalities to score lower in the Dignity Index, so it is hoped that they can take advantage of their relative agility to improve the situation.

Whereas there are only three municipalities with an index below 0.4 for the Life Index (**Figure 3-18**), and zero for the Livelihood Index (**Figure 3-19**), half (18) of the municipalities in the prefecture score under this level on the Dignity Index, suggesting that the prefecture as a whole has significant issues when it comes to women and children (**Figure 3-20**). The figures for non-attendance at school and cases of bullying, which contributed to Miyagi Prefecture's bottom ranking in the nationwide Dignity Index, are not reflected in the Miyagi Model because data for these indicators is not available for individual municipalities. If these indicators were added, it would be possible to shed further light on these issues.

5 Overall Index

In the Sendai Metropolitan Zone, Tomiya, Rifu, Sendai, Natori, and Iwanuma have the highest Overall Index scores, in that order. Ohira and Taiwa in Senpoku, which have been successful in attracting companies to the area, have extremely high Overall Index scores due to their high Life Index and Livelihood Index scores. Shichikashuku, located in the southern inland region, has a low Life Index but the highest Dignity Index, resulting in a good ranking in the Overall Index.

On the other hand, the coastal municipalities affected by the Great East Japan Earthquake recorded low Life and Livelihood indices, resulting in low scores on the Overall Index (Yamamoto, Shiogama, Ishinomaki, Matsushima, Kesennuma, Watari, Tagajo, and Shichigahama). The results for Shichigahama, Tagajo, Watari, and Yamamoto revealed issues related to the Dignity Index.

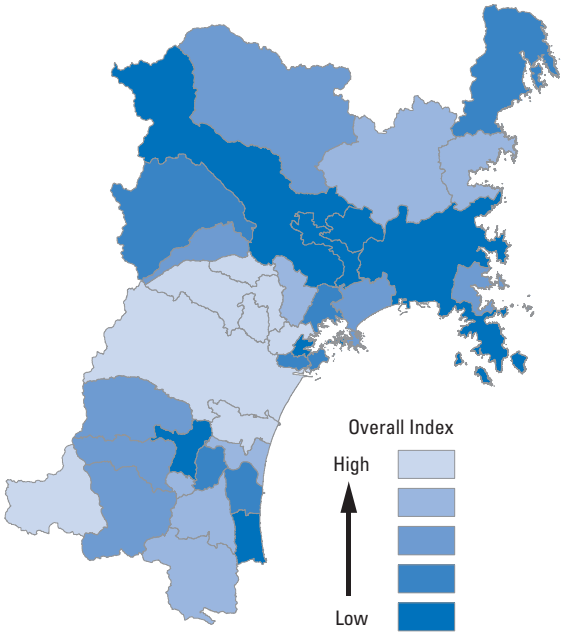
Among the disaster-affected areas, there are some cases, such as Natori, Minami-Sanriku, Iwanuma, and Onagawa, where the Life Index is low, but the Dignity Index and Life Index are high, improving the Overall Index. The Overall Index is low in Wakuya, Misato, Osaki, and other

municipalities in the northern part of the prefecture, where population decline, low numbers of children, and demographic aging are pronounced, leading to low scores in the Life and Livelihood indices. In the southern part of the prefecture, Murata has low Livelihood and Dignity indices, leading to an extremely low Overall Index score. However, some notable examples perform well in the Livelihood Index and enjoy a good ranking in the Overall Index, such as Kakuda.

Figure 3-21: Miyagi Prefecture Overall Index scores

Ranking	Municipalities	Index
1st	Tomiya City	0.608
2nd	Rifu Town	0.564
3rd	Ohira Village	0.539
4th	Taiwa Town	0.538
5th	Sendai City	0.535
6th	Shichikashuku Town	0.531
7th	Natori City	0.518
8th	Kakuda City	0.508
9th	Iwanuma City	0.503
10th	Minami-Sanriku Town	0.502
11th	Ogawara Town	0.495
12th	Tome City	0.494
12th	Osato Town	0.494
14th	Marumori Town	0.488
15th	Kurihara City	0.482
16th	Onagawa Town	0.481
17th	Shikama Town	0.473
18th	Shiroishi City	0.471

Ranking	Municipalities	Index
18th	Kawasaki Town	0.471
20th	Zao Town	0.470
21st	Higashi-Matsushima City	0.467
22nd	Shibata Town	0.466
23rd	Kami Town	0.462
24th	Shichigahama Town	0.460
25th	Watari Town	0.459
25th	Tagajo City	0.459
27th	Kesennuma City	0.456
27th	Matsushima Town	0.456
29th	Shiogama City	0.446
29th	Ishinomaki City	0.446
31st	Osaki City	0.444
32nd	Misato Town	0.443
33rd	Yamamoto Town	0.442
34th	Murata Town	0.440
35th	Wakuya Town	0.423



3-5 Subjective Evaluation by Questionnaire

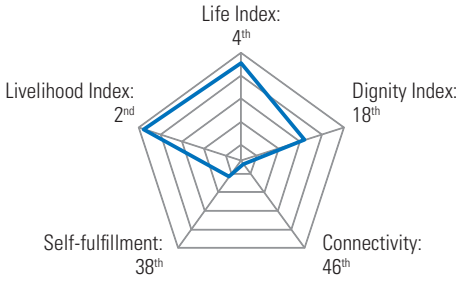
Objective statistical data alone is not sufficient to understand the concerns people have and to consider effective countermeasures. Combining the priorities identified from objective data with the subjective assessments of the residents' sense of fulfillment in life, anxiety, feelings of isolation, and connections with others, will help highlight the reality facing local communities.

The prefectural comparison reveals examples where the residents' subjective self-fulfillment and social connectivity are weak, even though the prefectures in question score highly in the Overall Index (mainly based on quantitative data). For example, residents' self-fulfillment and community ties are very weak in Toyama Prefecture, which ranks second in Japan in the Overall Index. Conversely, in many cases, residents' subjective self-fulfillment and community ties are strong despite a low Overall Index for the prefecture, indicating a discrepancy between objective data and subjective evaluation. For example, despite Osaka Prefecture's low ranking in the index based on objective data, the residents' self-fulfillment, positive attitude toward life, and community ties are strong. However, Miyagi Prefecture ranks low in both the Overall Index (45th) and in subjective self-fulfillment (40th), indicating that there are significant issues to be addressed (see *SDGs and Japan*).

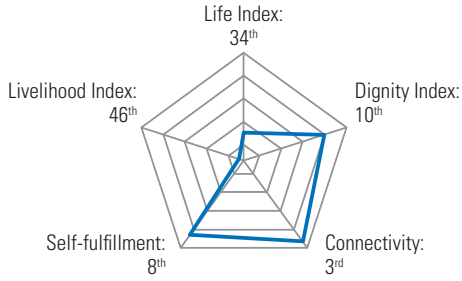
To compare the prefectures, an online survey was conducted as part of the research for *SDGs and Japan* to assess subjective self-fulfillment and social connectivity, and it was possible to categorize the responses by gender and age group. However, in this comparison of 35 municipalities in Miyagi Prefecture, there were extremely limited numbers of people registered for online surveys in some areas, which may result in an insufficient number of responses. After considering alternative methods, we decided to administer an anonymous written questionnaire in cooperation with Miyagi Co-op, covering all municipalities in the prefecture from September to December 2020. Even though there are some differences in coverage rates between municipalities in the prefecture, the Miyagi Co-op[*9] covers more than 75% of all households of Miyagi Prefecture, providing comprehensive coverage of all municipalities (the majority of which have a rate of more than 60%). There were 3,624 respondents (962 men, 2,647 women, and 15 who did not write in their gender).

The questionnaire asked the following questions to determine the extent to which respondents believe their dignity is assured in daily life, such as whether they are proud of and confident in themselves, whether they feel happy to have been born as human beings, and whether they have respect and compassion for others.

Figure 3-22: Differences between prefectural index scores and subjective ratings



Toyama (National rank: 2nd)



Osaka (National rank: 43rd)

Source: *SDGs and Japan*

[*9] The Co-op refers to a consumer co-operative, which operates food outlets in the prefecture and provides a variety of services to members such as weekly food deliveries.

List of questions for subjective evaluation of residents' perceptions

Q1: Do you think bonds in your community have become stronger after the Great East Japan Earthquake? (single answer)
Strongly agree / Somewhat agree / Neither agree nor disagree / Somewhat disagree / Strongly disagree / Don't know

Q2: What are you most proud of? (single answer)
My job / Family and relatives / Friends / Local community / Hobbies / Talents / Community service / Other / Nothing

Q3: What gives you a reason to live? (single answer)
My job / Family and relatives / Friends / Hobbies /Talents / Community service / Other / Nothing

Q4: Are you satisfied with your life? (single answer)
Very satisfied / Somewhat satisfied / Neither satisfied not dissatisfied / Somewhat dissatisfied / Strongly dissatisfied / Don't know

Q5: Do you think your life will be better in the future? (single answer)
Yes, it definitely will / Yes, it probably will / Cannot say either way / No, it probably will not / No, it definitely will not / Don't know

Q6: Do you have someone to talk to when you are having trouble? (multiple answers)
Family / Relatives / Friends / Teachers / Colleagues / Senior colleagues / Neighbors / Other / No-one

Q7: When do you feel lonely? (single answer)
When alone / With family / With friends / At work / I don't feel lonely / I don't feel lonely even if alone / Other

Q8: In what situations have you helped someone in need? (multiple answers)
Someone in trouble at work / Someone with no money / Someone who is sick / Someone with life problems / Everyday favors / Nursing care / Other / I haven't helped anyone

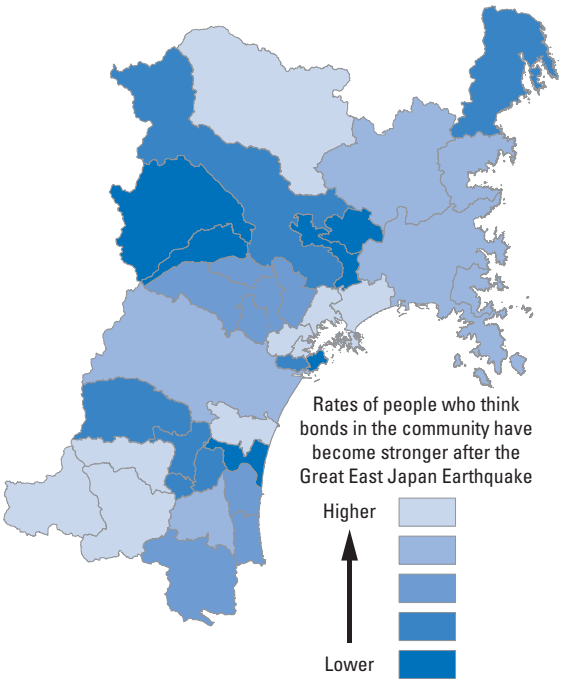
Q9: Would you welcome an increase in foreigners in your neighborhood? (single answer)
Yes, I definitely would / Yes, I probably would / Cannot say either way / No, I probably would not / No, I definitely would not / Don't know

1 Community Bonds

The percentage of "strongly agree" and "somewhat agree" responses to Q1 (Do you think bonds in your community have become stronger after the Great East Japan Earthquake?) were quantified and indexed from high to low on a scale of 1 to 0 for each municipality. Higher rankings indicate that more people feel that community bonds have improved. In areas along the coast where the disaster caused extensive damage, including Higashi-Matsushima, Matsushima, Shiogama, Natori, and Ishinomaki, many people responded that bonds had become stronger, but this was not a uniform pattern. It is noteworthy that many respondents in inland areas that suffered less direct damage, such as Kurihara in the north, and Shiroishi, Zao, Shichikashuku, and Kakuda in the south, also reported that bonds had become stronger (**Figure 3-23**). Another finding was that stronger bonds were reported more often by women than men (54.7% to 47.9%).

Figure 3-23: **Rate of people who think bonds in the community have become stronger after the Great East Japan Earthquake (Indicator J4)**

Ranking	Municipalities	%
1st	Higashi-Matsushima City	73.2
2nd	Matsushima Town	71.4
3rd	Shiogama City	66.7
4th	Rifu Town	64.0
5th	Kurihara City	63.3
6th	Natori City	58.3
7th	Shiroishi City	57.7
7th	Zao Town	57.7
7th	Shichikashuku Town	57.7
10th	Ishinomaki City	56.3
10th	Kakuda City	56.3
10th	Onagawa Town	56.3
13th	Minami-Sanriku Town	56.0
14th	Sendai City	55.0
14th	Tome City	55.0
16th	Tomiya City	54.5
17th	Yamamoto Town	52.9
18th	Taiwa Town	52.4
18th	Osato Town	52.4
18th	Ohira Village	52.4
21st	Marumori Town	51.9
21st	Watari Town	51.9
23rd	Osaki City	46.9
24th	Kesennuma City	41.9
25th	Shibata Town	40.5
26th	Tagajo City	38.7
27th	Ogawara Town	37.8
27th	Murata Town	37.8
27th	Kawasaki Town	37.8
30th	Iwanuma City	36.8
31st	Shikama Town	36.0
31st	Kami Town	36.0
33rd	Wakuya Town	28.1
33rd	Misato Town	28.1
35th	Shichigahama Town	28.0



2 Self-fulfillment

In the national survey conducted in August 2018 as part of the process of developing Human Security Indicators for Japan, the percentage of respondents who were satisfied with their lives (5.7%), fairly satisfied (37.2%), and undecided (20.3%) totaled 63.2%, while the percentage of those who were unsatisfied with their lives was 26.7%, suggesting that one in four of the nation's population is not satisfied with their lives. Among all of the prefectures in Japan, the prefectures in the Tohoku region had the highest rates of people who were dissatisfied with their lives, with 31.7% of Miyagi residents reporting dissatisfaction. Also, at the national level, almost twice as many respondents thought their lives would not get better in the future (35.5%) compared to those who thought they would (20.9%), indicating that people who are pessimistic about the future are more dissatisfied with their lives so far. The percentage of respondents who thought their lives would not improve was particularly high in the prefectures in the Tohoku region, including Miyagi Prefecture at 42.0%.

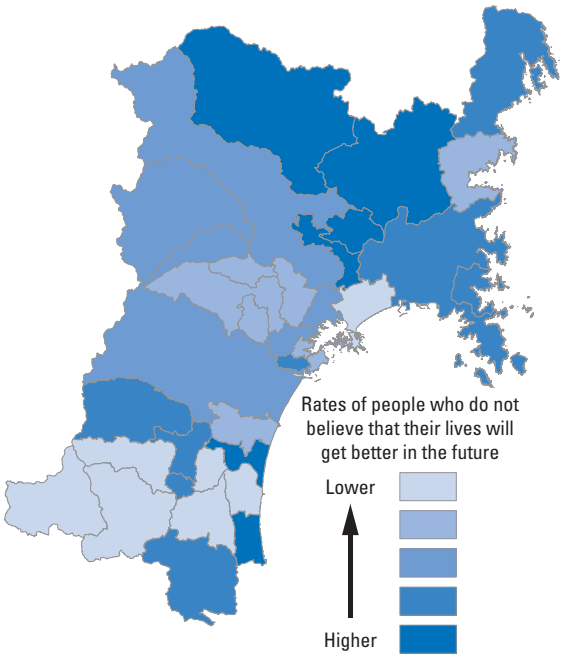
In the municipality-based survey conducted across Miyagi Prefecture (September–December 2020), the percentage of respondents who answered "Somewhat dissatisfied" or "Strongly dissatisfied" to the question "Are you satisfied with your life?" was 6.7%, which is lower than in the national survey. This percentage was the same for both men and women, indicating there is little difference between men and women in their assessment of the current state of their lives. The fact that the survey was conducted with the cooperation of the Miyagi Co-op, whose members are mostly middle-aged or older and who tend to be socially conscious, may have been a contributing factor to this result.

On the other hand, 18.3% of respondents answered "No, it probably will not" or "No, it definitely will not" to the question "Do you think your life will be better in the future?," a rate three times higher than that of those who evaluated their present circumstances negatively. This indicates that many people are anxious and pessimistic about the future, even if not about their current situation (see **Figure 3-24**). Looking at the responses by gender, women tended to be slightly more pessimistic about the future (18.8% of women and 16.9% of men).

By protecting people's dignity, the human security approach aims to help people to be proud of themselves, to have a sense of purpose in life, to have hope for the future,

Figure 3-24: **Rate of people who do not believe that their lives will get better in the future (Indicator K2)**

Ranking	Municipalities	%
1st	Watari Town	9.6
2nd	Shibata Town	10.8
3rd	Shiroishi City	11.5
3rd	Zao Town	11.5
3rd	Shichikashuku Town	11.5
6th	Higashi-Matsushima City	12.2
7th	Kakuda City	12.5
8th	Shiogama City	12.8
9th	Natori City	13.1
10th	Taiwa Town	14.3
10th	Osato Town	14.3
10th	Ohira Village	14.3
13th	Tomiya City	15.6
14th	Shichigahama Town	16.0
14th	Minami-Sanriku Town	16.0
16th	Sendai City	16.3
17th	Matsushima Town	17.9
18th	Rifu Town	18.0
19th	Osaki City	18.8
20th	Shikama Town	20.0
20th	Kami Town	20.0
22nd	Kesennuma City	20.9
23rd	Ishinomaki City	21.3
23rd	Onagawa Town	21.3
25th	Marumori Town	25.9
26th	Tagajo City	26.4
27th	Ogawara Town	26.7
27th	Murata Town	26.7
27th	Kawasaki Town	26.7
30th	Tome City	27.5
31st	Iwanuma City	27.6
32nd	Kurihara City	28.3
33rd	Wakuya Town	31.2
33rd	Misato Town	31.2
35th	Yamamoto Town	41.2



and to feel that their existence is meaningful. Even though possible responses to the question "What are you most proud of?" include family and relatives, work, hobbies, friends, community service, talents, and one's hometown, 14.6% of respondents answered "nothing." It is noteworthy that the proportion of respondents who answered that they have nothing to be proud of is about twice as high for women, as for men (16.5% to 9.3%), indicating lower levels of self-affirmation among women. By municipality, Tagajo and Natori, both adjacent to Sendai, and Marumori in the southern part of the prefecture, had the highest rates of people responding that they had "nothing" to be proud of.

Furthermore, 5.9% of respondents answered that they had "nothing" that gave them a reason to live (out of the choices of family and relatives, work, hobbies, friends, community service, talents, or other). By gender, women were slightly more likely than men to report having nothing to live for (6.6% to 3.8%), suggesting that gender issues play a significant role.

By municipality, Higashi-Matsushima, Tagajo, and Natori (in that order) had the highest percentages of respondents who answered "nothing."

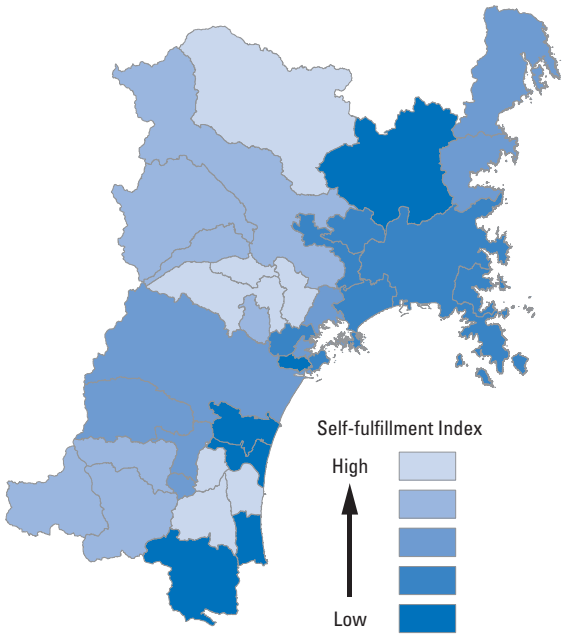
The percentage of respondents who answered "I am not satisfied with my life," "I do not think my life will be better in the future," "I have nothing to be proud of," and "I have nothing to live for" were averaged by municipality and then used to calculate an index, with lower values ranking higher (i.e., the lower the percentage of these responses, the closer the index is to the maximum value of 1, and the higher the percentage, the closer the index is to the minimum value of 0). In the prefecture as a whole, self-fulfillment tends to be lower in the coastal areas affected by the Great East Japan Earthquake. By region, in the southern part of the prefecture, self-affirmation was high in Kakuda, Watari, Shibata, and Shiroishi, and low in Marumori and Yamamoto. Self-affirmation was high in the Taiwa, Osato, and Ohira areas of Senpoku and Kurihara City, and low in Tagajo, Ishinomaki, Higashi-Matsushima, and Tome City in the north (see Figure 3-25).

3 Isolation and Social Connectivity

Isolation and the erosion of social connections is a nationwide problem. According to a recent Cabinet Office survey, single and elderly men in particular tend to be more isolated (Cabinet Office, "Survey on the Health of the Elderly," 2017). When asked "When do you feel lonely?," a total of 25.5% of the respondents in the Miyagi survey answered that they feel lonely when they are alone,

Figure 3-25: Self-fulfillment Index by municipality

Ranking	Municipalities	Index
1st	Kakuda City	0.058
2nd	Ohira Village	0.122
2nd	Taiwa Town	0.122
2nd	Osato Town	0.122
5th	Watari Town	0.228
6th	Kurihara City	0.253
7th	Shibata Town	0.275
8th	Shichikashuku Town	0.284
8th	Shiroishi City	0.284
8th	Zao Town	0.284
11th	Osaki City	0.308
12th	Shikama Town	0.323
12th	Kami Town	0.323
14th	Tomiya City	0.330
15th	Minami-Sanriku Town	0.395
16th	Shiogama City	0.400
17th	Matsushima Town	0.403
18th	Sendai City	0.411
19th	Ogawara Town	0.416
19th	Kawasaki Town	0.416
19th	Kesennuma City	0.416
19th	Murata Town	0.416
23rd	Shichigahama Town	0.459
24th	Rifu Town	0.464
25th	Misato Town	0.465
25th	Wakuya Town	0.465
27th	Higashi-Matsushima City	0.477
28th	Onagawa Town	0.527
28th	Ishinomaki City	0.527
30th	Iwanuma City	0.530
31st	Natori City	0.535
32nd	Tome City	0.545
33rd	Yamamoto Town	0.566
34th	Marumori Town	0.583
35th	Tagajo City	0.727



The mean values of the index, based on the percentage of respondents who answered "I am not satisfied with my life," "I do not think my life will be better in the future," "I have nothing to be proud of," and "I have nothing to live for," are ranked in ascending order. The higher the ranking, the higher the self-fulfillment of the residents of that municipality.

with their family, with friends, or at work, indicating that one in four people has feelings of isolation. There was no gender gap in these responses (25.7% for women, 24.7% for men). The municipalities with the most respondents reporting loneliness were Tome and Kurihara in the north, and Kakuda and Watari in the south.

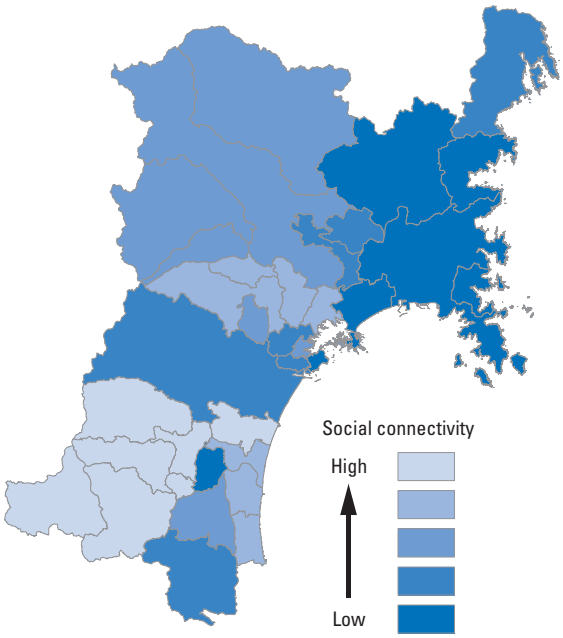
To the question "Do you have someone to talk to when you're having trouble?," only 1.2% of respondents replied "No one." By gender, the proportion of respondents who had no one to talk to was about twice as high for men (2.0%) as for women (0.9%). Men show a tendency not to talk to anyone about their troubles, or only with family if they do. Conversely, women have a wider range of people to talk to about their concerns than men do. The municipalities with the most respondents reporting that they had no one to talk to were Higashi-Matsushima and Minami-Sanriku on the coast, and Marumori in the south.

To the question "In what situations have you helped someone in need?," 10.6% of respondents said that they had never done so in any of the following situations: work and the workplace, money, illness, worries about life, everyday chores, nursing care, or other. By gender, men (12.3%) were more likely than women (10.0 %) to have never helped someone, while women were more likely to have provided advice in various situations. Shibata, Yamamoto, and Marumori in the southern part of the prefecture had the highest rates of respondents who answered they had never helped anyone.

The percentage of respondents who answered "I am lonely," "I have no one to talk to when I'm having trouble," and "I have never helped anyone" were averaged by municipality and used to calculate an index, with lower values ranking higher (i.e., the lower the percentage of these responses, the closer the index is to the maximum value of 1, and the higher the percentage, the closer the index is to the minimum value of 0). By region, Natori, Ogawara, Murata, and Kawasaki in the Sendai Metropolitan Zone, and Shiroishi and Zao in the south, had high self-evaluations regarding social connectivity, while Ishinomaki, Higashi-Matsushima, and Shichigahama on the coast, Tome City in the north, and Onagawa, Minami-Sanriku, and Kesennuma in the northern coastal area scored lower (see **Figure 3-26**).

Figure 3-26: Social Connectivity Index by municipality

Ranking	Municipalities	Index
1st	Natori City	0.184
2nd	Shichikashuku Town	0.226
2nd	Shiroishi City	0.226
2nd	Zao Town	0.226
5th	Ogawara Town	0.230
5th	Kawasaki Town	0.230
5th	Murata Town	0.230
8th	Watari Town	0.262
9th	Ohira Village	0.272
9th	Taiwa Town	0.272
9th	Osato Town	0.272
12th	Yamamoto Town	0.293
13th	Matsushima Town	0.310
14th	Iwanuma City	0.327
15th	Kurihara City	0.333
16th	Kakuda City	0.344
17th	Osaki City	0.349
18th	Shiogama City	0.354
19th	Tomiya City	0.362
20th	Shikama Town	0.378
20th	Kami Town	0.378
22nd	Misato Town	0.397
22nd	Wakuya Town	0.397
24th	Sendai City	0.406
25th	Rifu Town	0.448
26th	Tagajo City	0.482
27th	Kesennuma City	0.491
28th	Marumori Town	0.514
29th	Minami-Sanriku Town	0.517
30th	Tome City	0.523
31st	Higashi-Matsushima City	0.530
32nd	Onagawa Town	0.561
32nd	Ishinomaki City	0.561
34th	Shichigahama Town	0.585
35th	Shibata Town	0.710



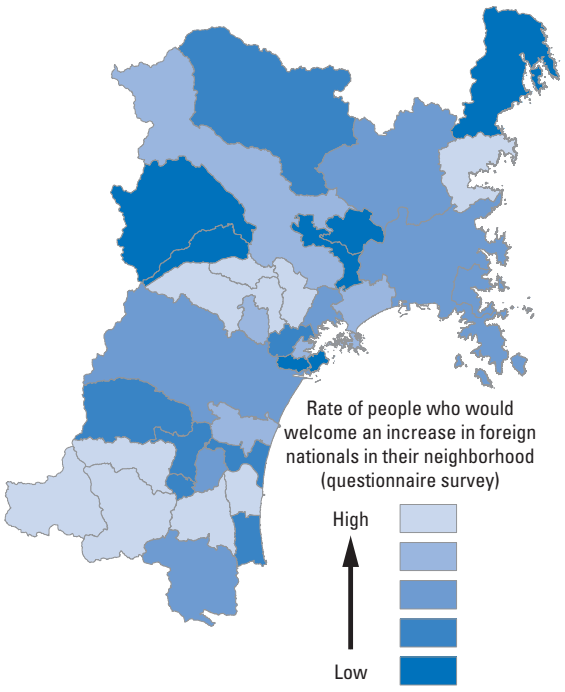
Municipalities with higher rankings and lower average values are considered to have relatively stronger self-assessments of social connectivity between residents. Conversely, residents of the low-ranking municipalities can be considered relatively isolated, or to be feeling particularly lonely. In order to create a society in which the lives, livelihoods, and dignity of all people are ensured, it is necessary to create a society in which people can build connections and partnerships with one another. As we can see, however, there are substantial challenges involved in doing this.

4 Proportion of People Who Would Welcome an Increase in Foreign Nationals

In the municipality-based survey, the percentage of respondents who answered "Yes, I definitely would" or "Yes, I probably would" to the question "Would you welcome an increase in foreigners in your neighborhood?" was 26.6%, with women tending to be slightly more welcoming (27.4% for women and 24.5% for men) (**Figure 3-27**, Indicator J11). The municipalities with the highest rates of these responses were Kakuda and Shiroishi in the south and Minami-Sanriku, whereas those with the lowest rates were Wakuya, Misato, Kami, Shikama, and Kesennuma in the north.

As shown previously, subjective evaluations of both "Self-fulfillment" and "Social connectivity" tend to be lower in the tsunami-affected areas, so it is hoped that more emphasis will be placed on people-centered recovery rather than physical rebuilding from now on.

Figure 3-27: Rate of people who would welcome an increase in foreign nationals in their neighborhood (Indicator J11)



Discrepancies between objective data and subjective evaluation (Self-fulfillment and Social connectivity) were also evident at the municipal level in Miyagi Prefecture, as shown in the municipality profiles in the Reference Materials. In the Sendai Metropolitan Zone, subjective evaluations tended to be fairly low, relative to the objective data (Tomiya, Sendai, Rifu, Tagajo, etc.). Meanwhile, there were also many examples where subjective evaluations were higher than the objective data (Osato and Ohira in Senpoku, as well as Wakuya, Shichikashuku, and Zao in the southern inland part of the prefecture).

When creating indicators for different regions of Japan, it is vital to conduct questionnaires, interviews, and community meetings to identify priority issues for each region, based on the subjective evaluations of residents. Taking the characteristics of the local area into account, we recommend that questions include whether residents have pride and confidence in themselves and the community in which they live, whether they feel fortunate to have been born in the community, and whether they have respect and consideration for others.

Written by Yukio Takasu

SDGs Initiatives by Local Communities

Chapter 4

Proposals for Creating Communities Where No One Is Left Behind

To achieve a society where no one is left behind, the SDGs must first reach out to those who are the most marginalized. It is therefore critically important to step up efforts to achieve the SDGs at the local level, which is closest to citizens, while also implementing policy and budgetary measures at the national level. SDGs-related activities are underway in many communities in Japan, and we can now see sustainable development initiatives that involve the participation of residents. However, the emphasis to date has been mainly on environmental and economic sustainability, while efforts focusing on the dignity of each individual are still limited.

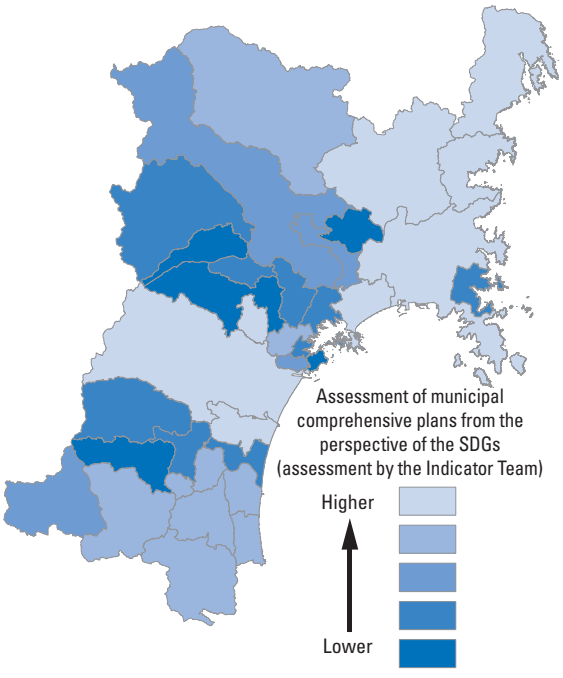
Based on the challenges identified through the SDGs Miyagi Model, we would like to make the following recommendations to achieve "communities where no one is left behind" in every part of Japan.

1 Comprehensive Plans and Community Development Visions

The Miyagi Model assessed municipalities in Miyagi Prefecture using 12 criteria (Figure 4-1). The results showed that the comprehensive plans of many municipalities do not take the SDGs into account, and that while some municipalities associate their plans with the SDGs logo, they focus primarily on environmental and economic sustainability without adequately reflecting inclusivity and human dignity (Dignity Indicators, G1).

Figure 4-1: **Assessment of municipal comprehensive plans from the perspective of the SDGs (Indicator G1)**

Evaluation Criteria	
(1)	Does it refer to the SDGs?
(2)	Are there links between individual measures and SDG indicators?
(3)	Does it cover anything other than environmental or industrial sustainability?
(4)	Does it set numerical targets to be achieved?
(5)	Does it emphasize pride in one's occupation or hometown?
(6)	Does it advocate for the protection of human rights?
(7)	Perspectives of women/gender perspectives
(8)	Perspectives of people with disabilities
(9)	Perspectives of multicultural coexistence, respect for diversity, and social inclusion
(10)	Is there substantial resident participation in formulating the comprehensive plan or community development?
(11)	Are children's voices heard, and are their views reflected in policies?
(12)	Proportion of women on the planning council



Proposal: When developing and revising municipal comprehensive plans and community development visions, emphasis should be placed not only on sustainability but also on the dignity of individuals.

Example: In order to emphasize human dignity and implement sustainable community development throughout a region, local governments, businesses, residents' groups, NPOs, and researchers work together to promote the SDGs under a regional "SDGs Consortium" or similar framework, taking advantage of the region's natural environment, industry, history, cultural heritage, and other unique features.

2 Disaggregated Statistics

Many statistics relating to municipalities are either not published or not broken down by attributes such as gender, age group, or disability status. In many cases, progress can't be monitored because the current situation and the goals to be attained are not being visualized.

Proposal: Provide disaggregated statistics and set numerical targets to be achieved.

Example a) The relative poverty rate and child poverty rate should be calculated and published, at the very least by prefecture and also preferably by municipality, and stronger measures should be taken to steadily reduce them.

Example b) Set a year for early achievement of zero children on waiting lists for childcare facilities.

Example c) At present, many statistics are not broken down into men and women (e.g., in the Miyagi Model, data on population inflow and outflow by gender, proportion of the medical workforce made up of women, etc.). The disaggregation of statistics by gender should become a standard practice.

3 Resident-Driven Community Development

Although individual municipalities are making efforts to listen to residents' views through municipal roundtables, residents' workshops, public consultations, and so on, most are led by the local government. In many cases, citizen participation remains a mere formality, although the successful efforts of the residents of Kesennuma to have a seawall plan revised is a landmark example of real citizens' power (Chapter 10, 10-3). It is essential to achieve true citizen participation, in which residents' opinions are reflected in policymaking, through the establishment of resident-led partnerships with local government.

To assess the extent of public participation in government, American scholar Sherry Arnstein (1969) proposed an eight-rung "ladder of citizen participation" (**Table 4-1**). If we look at the activities of the Kesennuma Shishiori Community Building Council, described in Chapter 8, they range from local government-led activities with citizen participation (5th rung of the ladder), to activities conducted in cooperation with local government (6th rung of the ladder), to citizen-led activities (8th rung of the ladder). The higher the rung on the ladder, the greater the responsibility of citizens and the burden on local government. As such, it is necessary to take into account the nature of the project in question, as well as the burden on both local government and residents.

Proposal: To avoid making "resident-driven community development" merely a platitude, it is important to reflect residents' opinions in policies instead of merely listening to them. Going forward, it is hoped that residents will play a greater role in their communities and that more resident-led activities will be undertaken.

Example a) Support the creation of an environment in which the participation of local residents in realizing the SDGs, and the activities of organizations that play a role in this process, take root and expand.

Table 4-1: **The eight-rung ladder of citizen participation in public decision-making**

Real citizen power	8	Citizen control (involving local government in citizen-led activities)
	7	Delegated power (citizen-led activities)
	6	Partnership (collaboration between citizens and local government; shared decision-making authority)
Tokenism	5	Placation (participation involving citizens in decision-making at the initiative of the local government)
	4	Consultation (participation based on roles assigned by local government; invitations to the public to give written feedback on policy proposals, also called "public comment" in Japan; resident briefings, etc.)
	3	Informing (tokenistic citizen participation; limited participation)
Nonparticipation	2	Therapy (decorative participation, only to make people "feel better")
	1	Manipulation (manipulated participation with unclear purpose or roles)

Source: Author, based on Sherry Arnstein (1969)

Example b) Provide support for community development activities by residents (such as personnel, budget, and administrative assistance), and implement human resource development programs for each generation, from children to seniors, to encourage residents' participation.

Example c) Incorporate the act of listening to residents' voices into administrative processes and make it an integral part of the process (see Chapter 8).

Example d) Resident-led reconstruction, disaster prevention (shelter setup, seawalls, disaster prevention inspections) (see Chapter 10, 10-1, 10-3).

Example e) Directly solicit the opinions of women, single parents, people with disabilities, disaster victims, people who identify as LGBTQ, foreign nationals, etc.

Example f) Promote "multicultural society" forums involving foreign residents in the public and private sectors (see Chapter 13, 13-1).

4 Child-Friendly Cities and Violence Against Children

Child abuse, bullying, and non-attendance at school are serious issues in many municipalities. It is necessary to implement stronger measures based on the rights recognized in the Convention on the Rights of the Child: the right to live and grow up healthily, to live in safety and security, and to express opinions and participate in society. In particular, children's playgrounds form a community where people of all ages interact with the younger generation, creating a "hometown" ("*furusato*") for the children and supporting them throughout their lives (Chapter 11, 11-3).

Proposal: To let children's voices be heard and to end violence against them, strengthen initiatives that emphasize children's dignity at the family, educational, and community levels.

Example a) Together with environmental education, use ESD education in schools and designated UNESCO Schools to enhance learning about human dignity as part of the SDGs, and provide opportunities to learn about the Convention on the Rights of the Child (using a children's version with easy-to-understand explanations). In the future, we hope to see it become compulsory for all students (see Chapter 7, Chapter 9).

Example b) Participate in UNICEF's "Child Friendly Cities and Communities Initiative," in which children's views are reflected in community development (see Chapter 9 and Chapter 11, 11-2). Communities that are friendly to children will become friendly to everyone.

Example c) Redouble and enhance existing efforts to address bullying and non-attendance at school. In order to assess how effective these initiatives are, the number of bullying incidents and the number of students who have not been attending school could be published by each municipality.

Example d) Enhance the system of Child Welfare Centers to address child abuse and strengthen public support for NPOs and personnel training for programs such as child hotlines, playgrounds where children can interact with friends, have fun and learn, places to spend time outside of school, and free schools (see Chapter 11, 11-1 and 11-3).

Example e) Tell children as early and as often as possible where they can go for help when they are experiencing problems such as abuse, domestic violence, or deprivation (Chapter 11, 11-1).

5 Gender Equality

Despite the efforts of local governments, gender disparities persist in terms of employment opportunities, wages, time spent on household chores, and the number of female local assembly members, municipal managerial personnel, and members of advisory councils and disaster prevention councils (Dignity Indicators, H2-H6). In addition, policies on women are mostly discussed in relation to childcare support, with few efforts to eliminate gender disparities.

Proposal: Emphasize women-friendly communities and the elimination of gender disparities in municipal gender equality plans and childcare support measures.

Example a) Review and improve the approach to gender equality in local governments from the perspective of women's dignity, including measures to prevent domestic violence (see Chapter 12, 12-2).

Example b) Increase the rate of male employees taking parental leave.

Example c) Create spaces to nurture female community leaders through community development that draws on women's voices.

Example d) Set an initial target of 30% female representation in local assemblies, advisory councils, disaster prevention councils, and similar organs.

6 Municipal Government Systems

Government structures at the municipal level are siloed in terms of cooperation with central government agencies and in ordinances and budget execution. A comprehensive and multifaceted approach is essential for supporting children and women. A few municipalities have implemented initiatives that cut across organizational boundaries, but these are the exception. The National Diet's approval of the Act for the Establishment of the Children and Families Agency and the Basic Act on Children will provide an opportunity for local governments to strengthen their systems.

Proposal: Promote initiatives that cut across organizational boundaries (initiatives for children on education and welfare, and for women on employment, childcare, and prevention of abuse and violence). Provide public services through cross-border cooperation between neighboring municipalities.

Example a) Consider establishing and enhancing support centers that provide comprehensive services to support children, women, and the elderly, and expand the functions they offer.

Example b) Consider having "children's social workers" who work exclusively on children's issues and who have the skills to solve children's problems by connecting education and welfare, in cooperation with families, schools, and government.

7 Community-Based Mutual Support

Many NPOs have a keen awareness of the issues facing the community and undertake distinctive initiatives rooted in the local area. They address social issues by emphasizing partnerships with local government, businesses, advocates, supporters, and new actors. However, most of them are small in scale. In order to increase their social impact through sustainable activities, it is also important to strengthen their ties with companies, local government, NPOs, and other organizations (Chapter 6).

In municipalities with declining numbers of children, demographic aging, and declining populations, organizations, businesses, and local groups such as community associations and co-ops are complementing public assistance and providing services that are finely tuned to the needs of residents. This kind of community-based mutual support will play an increasingly important role in the years to come.

Proposal: Strengthen partnerships between local government and residents by maximizing the use of local networks and human connections. Collaborate with local government initiatives by encouraging and supporting mutual aid activities that involve community-based organizations, civil society such as NPOs and volunteers, and the private sector.

Example a) Encourage and provide the necessary support for NPOs and resident-led activities that strengthen human and community ties.

Example b) Encourage housing for multi-generational households, oversight for elderly people living alone, and shopping assistance.

Example c) Promote compact city development, collaboration with neighboring municipalities that share common spheres of daily activity.

8 Economy and Employment

In addition to falling numbers of children and demographic aging, many regions are experiencing an outflow of young people and a rapid decline in populations outside urban areas. However, not many municipalities have taken effective measures to deal with this situation.

Proposal: Expand employment through private-sector partnerships, enhance government services aimed at new residents, and create communities that young people, especially women, will want to move to, settle in, or return to.

Example a) Promote high value-added and branded agriculture, livestock, forestry, fishing, manufacturing, and tourism, that make the most of regional characteristics, history, traditions, and resources.

Example b) Expand the industrial base by working with institutions of higher education to attract and retain advanced industries such as IT and remote work.

Example c) Incorporate a gender equality perspective into policies on inward migration and settlement.

Example d) Provide one-stop services for supporting inward migration and settlement.

9 Outreach That Draws on Local Pride

Many local communities are blessed with rich natural, historical, and cultural resources. While local governments are working to communicate these merits, their efforts are not always effective.

Proposal: Enhance the impact of outreach to domestic and international audiences regarding the attractiveness of municipalities in terms of visiting, settlement, and inward migration, through wide-area cooperation.

Example a) Businesses that take advantage of digital technology, increase opportunities for employment (including remote work), and aim to increase people's mobility.

Example b) Make efforts to establish an image of the area as a comfortable place for foreign nationals to live.

Example c) Attract tourism, inward migration, and foreign residents from across the country.

10 Disaster Recovery and Natural Disaster Preparedness

In natural disasters such as earthquakes, typhoons, and heavy rains, the same people who are vulnerable under normal circumstances, such as the elderly and people with disabilities, suffer the greatest harm. Even during the recovery process, these people take longer to rebuild their lives, leaving them at risk of being left behind. To ensure that this does not happen, it is important to take their views on board, mitigate their vulnerability, and build a society that is comfortable for everyone to live in (Chapter 10, 10-1, 10-2).

Proposal: Pass on the lessons about natural disasters to the next generation. Furthermore, to prevent people from being left behind in disaster recovery and disaster prevention, focus on the situation of each individual, remedy the disparities and inequalities which exist in normal times, work to alleviate vulnerabilities, and build a society of mutual support in which all people can live comfortably.

Example a) Pass on memories and lessons about natural disasters, such as earthquakes and tsunamis, to the next generation (e.g., Kesennuma Rias Ark Museum of Art, Ishinomaki Minamihama Tsunami Memorial Park, Minami-Sanriku Memorial Park, and many others).

Example b) Aim for sustainable reconstruction where no one is left behind, by taking care of the emotional and psychological needs of victims.

Example c) Set goals for improving the seismic reinforcement rate for municipal sewage systems.

Example d) To increase resilience in the event of natural disasters, encourage residents to collaborate during normal times with local governments, community organizations, NPOs, and businesses, and to develop local disaster support networks in preparation for emergencies. Put arrangements in place for cooperation with neighboring municipalities in advance (see Chapter 10, 10-2).

Written by Yukio Takasu

Chapter 5

Developing and Using the Indicators

1 Who Develops the Indicators?

It is our hope that resident groups, non-profit organizations (NPOs), and interested businesses, rather than experts, will be the ones who develop human security indicators and put them to use. The method suggested here is to uncover problems as the figures are investigated, rather than to identify problems right away. The three areas of Life, Livelihood, and Dignity are also inclusive rather than discrete. In this regard, the development of indicators may be done by a coalition of several organizations, rather than individual organizations working on specific issues.

The local indicators described in this book focused on a specific prefecture, and the municipalities within that prefecture served as the basic units to visualize the issues. This level of indicators will be of more interest to organizations which are based in a particular region than to national NPOs. In particular, they would be appropriate for a program that works toward the realization of the SDGs at the local level. This is because these indicators are, above all, a multifaceted measure of the fundamental objective of the SDGs, which is to create a society where "no one is left behind."

It should not be only private organizations which take on the role of developing human security indicators. Local governments and organizations associated with them could also take the initiative in developing indicators. However, because these indicators aim to provide an honest picture of areas where municipalities are not doing enough, they may work better as a means for residents to evaluate their policies. The development of indicators by local governments (as a form of self-assessment) is welcome, but it would be preferable for the residents themselves to participate as the main players in the process and strengthen their ability to raise their voices and express their opinions (see **Table 4-1** "The eight-rung ladder of citizen participation in public decision-making" in Chapter 4).

We hope that resident groups, NPOs, and local governments will take the initiative to "localize" Human Security Indicators in this way. However, another avenue is to develop indicators as part of classes at universities (or high schools and junior high schools). It would be of great value to try to develop indicators in schools, so that the young people who will lead their communities in the future can become familiar with the issues facing their local areas.

Most of the statistical data on which the indicators are based can be obtained online. Given the widespread use of personal computers and the internet today, it should be fairly easy to select indicators and download the relevant data, although some tasks, such as creating maps, normalizing data, and plotting graphs, may require a certain level of computer skills (including basic knowledge of spreadsheet software).

However, this is not of great concern, and those who are struggling can ask someone to help. Thanks to recent changes in the curriculum set by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), high school students now learn how to read and process statistical data and digital maps in mandatory classes, such as Information[*1] and General Geography. The calculations used to create the Human Security Indicators are not particularly complex, involving only addition, subtraction, multiplication, and division, rather than any advanced functions (although the extent to which they are studied in the classroom depends on the school, and there may be differences between science and humanities courses). If you are interested in the indicators but are not very good at information technology, try asking a young person close to you for advice. With tablet PCs being used

[*1] A course on "Information" is mandatory for all high school students. The course aims to help students acquire the knowledge and skills to use information and IT effectively to discover and solve problems. Some level of computer programming is also included.

in elementary schools these days, I think it would be a good idea to engage in intergenerational dialogue through the development of indicators.

2 How To Develop Indicators

For more information on the concept of indicators, see the previous chapters of this book, and for an introduction to the development of the indicators in this book, see "Create Human Security Indicators for Your Own Town!" in the opening chapter. Here, I would like to outline a few points that may help in developing specific indicators.

(1) Collect Statistical Data

Statistics for individual municipalities are available on the websites of their respective prefectures. Alternatively, municipal-level data may be available from national government statistics websites. There may also be useful information on sites compiled by third parties, but be aware that they may not be up to date. It is important to collect the most recent figures possible.

Sometimes, data that has not been published may be obtained through a freedom of information request. Since it is impossible to make policies with the participation of local residents if they are not aware of current problems, the government should make all statistical information public, unless there is a specific reason not to. Of course, information that would violate personal privacy should not be made public. In the case of municipal-level data containing small numbers from which individuals can be identified, we can avoid this by aggregating the data over a five-year period, processing it on a per 1,000 population basis (i.e., as a rate), or combining it with data from other municipalities. Furthermore, it may be worthwhile to look for reliable statistics from sources other than public institutions.

In some cases, data may not be available at the municipal level, but is available for aggregated areas which group several municipalities together (for example, the jurisdictions of welfare offices or education bureaus). The results of public opinion polls, which reveal the subjective views of residents, may also be made public on a regional or similar basis. In such cases, data from the area to which the municipality belongs can be used, or data from neighboring towns with similar conditions can be used. It would also be good to make active use of data and big data from non-public institutions, if available.

When measuring the quality of local government policies, the indicator team can develop evaluation criteria and "score" the policy documents based on a uniform standard. With the Miyagi Model, the current status of municipalities' Comprehensive Plans (Chapter 4) and gender equality efforts (Chapter 12, 12-1) were evaluated in this way. The members of the Indicator Team assessed these plans and gave their own scores, and the average score was used as the data point for each municipality.

(2) Find Data on Subjective Views

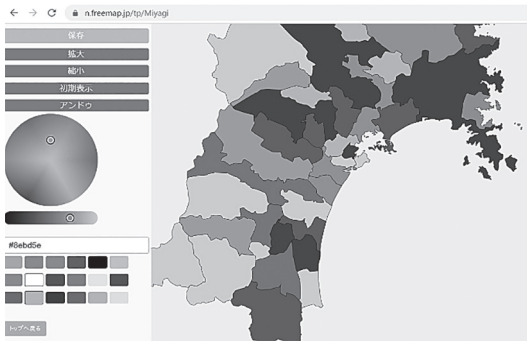
Public opinion polls and questionnaire surveys conducted by prefectures may be available. However, these are often administered for larger regions rather than by municipality. You may wish to assess whether they can be used as part of Dignity Indicators or as indicators of something else. For the Miyagi Model, we were able to conduct a survey at the municipal level with the cooperation of Miyagi Co-op (Chapter 3, 3-5). Miyagi Prefecture's "Survey of Citizens' Attitudes" also provided valuable data (broken down into seven zones, rather than by municipality). When used as an indicator, local data can be used in conjunction with data from the larger area or zone to which the municipality belongs. Another qualitative approach, which can't be calculated as an indicator but could be explored, would be to conduct in-depth interviews to gauge the thoughts and feelings of people in major locations outside of prefectural capitals.

(3) Create Maps

Blank maps of municipalities can be printed from the website of Japan's Geospatial Information Authority. Although it may be hard work to create statistical maps for all indicators, presenting some of the main indicators using color shading makes them easier to understand. There are various types of GIS (Geographic Information System) software, but a free, easy-to-use option available in Japan (as of the date of publication) is *Hakuchizu NuriNuri* (https://n.freemap.jp/st/list.html) (**Figure 5-1**).

Rather than using different colors, it is easier to discern different shades of the same color. In addition, all colors

Figure 5-1: **Example of shading on a blank map**



have their unique codes, so noting them down will make it easier to update the maps later, using the same colors. Depending on how high or low the value in question is, using about five shades will make the maps more legible.

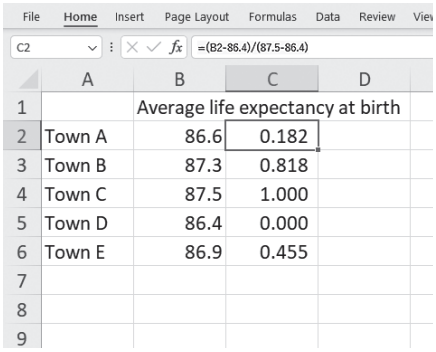
(4) Normalize the Data

Let us assume that average life expectancy is distributed between 78 and 81 years, and that per capita income is distributed between 2.4 million yen and 3.8 million yen in different municipalities. Since these two sets of data are different, they cannot be compared, added together, or averaged. To make this possible, a calculation called normalization is performed. Using the range of the values as the denominator and the difference between the data point in question and the minimum (or maximum) value as the numerator, you ensure that the information is distributed between 1 and 0 (see Chapter 3, 3-4).

To do this for the indicators, we can use the formula **(value for the municipality in question - least favorable value of all municipalities) / (most favorable value - least favorable value of all municipalities)**. This can be done on a calculator but that can be hard work, so it may be better to perform all the calculations simultaneously using an Excel spreadsheet. Figure 5-2 shows life expectancy (the higher the value, the better) and Figure 5-3 shows the unemployment rate (the lower the value, the better) for fictitious municipalities. The formula bar at the top contains the formula. For the unemployment rate, the value is positive because both the numerator and denominator are negative.

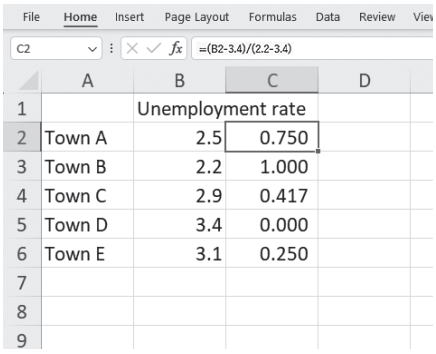
Here, "good" or "bad" mean that there are fewer or more problems to be addressed, but in practice it is

Figure 5-2: **Normalization of life expectancy**



	A	B	C	D
1		Average life expectancy at birth		
2	Town A	86.6	0.182	
3	Town B	87.3	0.818	
4	Town C	87.5	1.000	
5	Town D	86.4	0.000	
6	Town E	86.9	0.455	
7				
8				
9				

Figure 5-3: **Normalization of unemployment rate**



	A	B	C	D
1		Unemployment rate		
2	Town A	2.5	0.750	
3	Town B	2.2	1.000	
4	Town C	2.9	0.417	
5	Town D	3.4	0.000	
6	Town E	3.1	0.250	
7				
8				
9				

sometimes difficult to find a clear linkage between an indicator and the magnitude of the problem, so the data should be viewed within the context of the issue or the area concerned.

(5) Life, Livelihood, Dignity, and Overall Indices

Once all indicators have been normalized, the Life Index, Livelihood Index, and Dignity Index can be calculated by averaging the normalized values for each area. These can then be averaged to give an Overall Index. This process is basically the same as that used by UNDP (United Nations Development Programme) to calculate the Human Development Index.

(6) Create Radar Charts

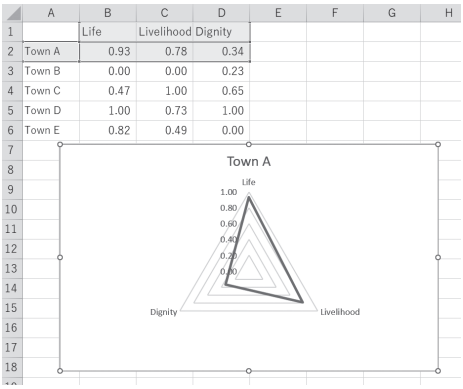
Finally, create radar charts for each municipality or selected region. Select a range of data in Excel, then go to Insert > Chart > All Charts > Radar. For the Miyagi Model, the Life, Livelihood, and Dignity Indices are combined with subjective data on Self-fulfillment and Connectivity

to produce a pentagon. **Figure 5-4** shows an example where it was not possible to obtain subjective data. For this fictitious Town A, the Life Index is high, but the Livelihood Index is rather low, and the Dignity Index is very low. The triangles are different for each of the municipalities, and when placed side by side, their strengths and weaknesses should be apparent at a glance.

When there are a large number of municipalities, the team may, at its discretion, select examples of municipalities that it particularly wishes to compare, and use them as material for further investigation (e.g., municipalities that represent urban, suburban, coastal, and mountainous areas).

In terms of how the data is presented, the rankings of municipalities may attract a lot of attention, but the radar charts are more important. This is because they provide a clear, qualitative look at the strengths and weaknesses of each municipality.

Figure 5-4: Radar chart



3 How to Present and Disseminate Indicators

Once the indicators take shape, it would be helpful to publish them on the websites of resident groups and NPOs so that anyone can view them freely. Although it has become common to publish results online, it is difficult to abandon the idea of printing pamphlets and other paper documents. It might be a good idea to distribute them to relevant agencies or to review them together at meetings. Of course, they could also be made available for downloading as a PDF to enable widespread access.

Rather than just showing the results as numbers, the significance of the results lies in interpreting what they show and drawing up proposals in response. As the proposals are drawn up based on data, they should be very persuasive. It would be excellent to see resident groups and NPOs meet and share the indicators, discuss them together, and come up with proposals for local governments and citizens.

Once the details are roughly finalized, meetings should be held to present the indicators and proposals. For the Miyagi Model, we held an event titled "How to Achieve a Miyagi Prefecture Where No One Is Left Behind? Interim Presentation of Human Security Indicators for Miyagi Prefecture" at the Sendai International Center on March 23, 2021. Due to COVID-19, the event was a hybrid of in-person attendance and online participation via Zoom. Many interested parties took part and engaged in lively discussions (**Figure 5-5**).

Figure 5-5: Presentation of the Miyagi Model

4 How to Utilize Indicators

So, now that an original set of indicators has been completed and published, how can they be put to further use? From this point forward, it seems better to leave it to you, the reader, to make specific suggestions, rather than the authors of this book.

Nevertheless, I would like to share a few comments in closing. It would be a waste to present the indicators and proposals and leave it at that, so it is our hope that the teams who develop the indicators will take the lead in using them as the basis for creating networks of local resident groups and NPOs. In this way, they can be an important

starting point for closer communication between citizens and local government officials. For the Miyagi Model, the Indicator Team visited the Miyagi Prefectural Government and several municipalities to exchange ideas, both before and after the completion of the indicators. The indicators also attracted interest at the Miyagi Prefectural Assembly. Specifically, we approached the city of Kesennuma, which was found to have a particularly large number of issues relating to women and children. This led to the launch of a project called "Building a Kesennuma Where No One Is Left Behind" in cooperation with the city government and local businesses (Chapter 12, 12-4).

Furthermore, it would also be interesting to exchange opinions on a wider regional or national level by comparing different sets of indicators (Kazuko Tsurumi, known for her theory of endogenous development, called for an "exchange of models"). An organization called the Japan Civil Society Network on SDGs (SDGs Japan), which brings together civil society groups working on the SDGs, has been established, and discussions on indicators led by "regional units" have begun as well.

The prefectural-level Human Security Indicators are described in detail in the sister volume of this book, *SDGs and Japan*, but a comparison between that volume and the Miyagi Model in this book shows that the content has changed considerably, including the way the indicators are selected. Regarding further applications, we have some suggestions on how to develop indicators, such as to balance Life, Livelihood, and Dignity; emphasize the new area of dignity; and break indicators down to the municipal level as much as possible. But we would also like to see indicators developed spontaneously in line with the realities of individual communities. It is our hope that the indicators will evolve independently in this way, and that there will be more opportunities for those involved to share a wide variety of indicators developed in other places, and to learn from each other.

Written by Yoichi Mine

Chapter 6

Notable Initiatives by Local Communities

1 SDGs from the Perspective of Local Communities

This section presents case studies that demonstrate different ways in which the ideas and aims of the SDGs are being implemented in local communities. The nature of activities in each case varies widely. Some companies and organizations identify specific areas and objectives within the SDG, while others work on outreach activities for companies and organizations that are interested in the SDGs but have difficulty engaging with them. In addition, many public organizations, companies, and NPOs are conducting activities that correspond to issues covered by the SDGs, even if they are not tied to specific goals.

Thanks to more opportunities to learn about the SDGs in schools, as well as more initiatives by governments, corporations, and nonprofit organizations, awareness of the SDGs is spreading at an ever-increasing pace. Resident-led lifelong learning groups and training sessions by company labor unions are helping people think about the future direction of their lives and businesses. However, while the general public has developed an interest in the SDGs, it is not always clear to people what action they can take to resolve social issues. There may be many companies in regional communities that have encountered the SDGs, but are still looking for information on ways to engage with the SDGs and on how to relate their business to solving social issues.

The Japan Business Federation (*Keidanren*) has published a collection of case studies titled "Innovation for SDGs: Road to Society 5.0," providing examples of initiatives such as BOP (base of the pyramid) businesses serving developing countries and the development of large-scale social systems that provide health care closely linked to people's everyday lives. In rural areas, it is small and medium-sized enterprises (SMEs) that form the heart of the local economy, and it is difficult for them to consider the same kind of initiatives that large corporations engage in. That said, local governments, companies, and NPOs are starting to combine their efforts to address local issues and achieve the SDGs.

In rural areas, there are major challenges not only for the growth and sustainability of companies, but also for the sustainability of the local communities that stand behind them. A particularly important question is how to train the personnel who will be responsible for the future of these communities. In communities along the Pacific coast of the Tohoku region, the issue of human resource development came into sharper focus during the process of recovery from the 2011 Great East Japan Earthquake. Many children struggle with a lack of places to play and share experiences together, non-attendance at school, social withdrawal, bullying, abuse, and other problems relating to social systems and ethics. The number of government agencies and public support personnel who deal with these important issues is limited, and many children fall through the gaps in terms of service provision. Furthermore, with feelings of confinement permeating society, an increasing number of young people are struggling to find their way in life. Public education at the primary, secondary, and tertiary levels alone is not sufficient to develop human resources.

This chapter will look at local approaches to the SDGs by providing examples of SDG initiatives by local authorities, private companies, and NPOs, particularly from areas affected by the Great East Japan Earthquake and the Tohoku region.

2 Local Government Initiatives

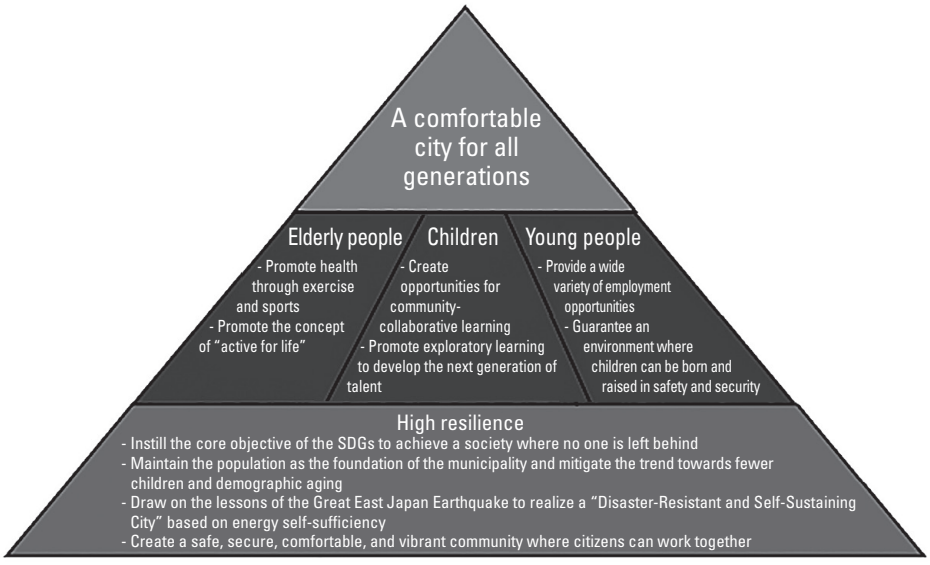
Local governments are confronted with various issues affecting their communities on a daily basis. In response, they draw up "Comprehensive Plans" which are used as the basis for developing policies, programs, and projects. While there is an inherent compatibility between these plans and the SDGs, setting out clearer goals and indica-

tors makes it possible to explain how particular projects contribute to solving global issues.

While the Cabinet Office's *Comprehensive Strategy for the Revitalization of Communities, People and Jobs* for 2016 mentions the SDGs only once, the SDGs are discussed throughout the 2017 report. The inclusion of the SDGs in subsequent reports has further reinforced their relationship with local development. What lies behind this is the "Future City" initiative.[*1] In FY2008 the government selected "Eco-Model Cities," from which the Future Cities were subsequently selected. Looking at the key performance indicators (KPIs) set out in the "SDGs Future City" Initiative, regional revitalization and efforts to achieve the SDGs require not only the decarbonization of individual regions, but also efforts to optimize overall policy strategies and the faster resolution of local issues. Circular economy and environmental policy perspectives are also reflected in such areas as applications of advanced digital technologies, the establishment of smart cities, and the formation of "Regional Circular and Ecological Spheres."[*2]

Higashi-Matsushima: Of the initial 29 municipalities selected for the Future City Initiative launched in FY2018, Higashi-Matsushima City was the only one located in Miyagi Prefecture. This was one of the communities that suffered severe damage from the Great East Japan Earthquake. It has set out a vision for earthquake reconstruction and the natural environment, undertaking projects such as the "Smart Disaster Prevention Eco-Town." By linking these to the SDGs, Higashi-Matsushima has become a model city that is moving forward with plans to manage the economy, environment, and society in a sustainable way. As shown in **Figure 6-1**, the six priority issues include: attracting companies and designing employment measures for the elderly oriented to lifelong work (Economy); promoting citizen participation in local activities to foster collaborative community development, and improving the education system with a focus on community schools within all elementary and junior high schools (Society); and achieving high levels of resilience through parallel efforts on the environment and disaster recovery (Environment).

Figure 6-1: Higashi-Matsushima City's Comprehensive Plan and SDGs



Source: Higashi-Matsushima City, *Higashi-Matsushima City SDGs Future City Plan (2021–2023)* (2021)

[*1] For more information, please see https://future-city.go.jp/en/about/.
[*2] The concept of "Regional Circular and Ecological Spheres" proposed by the Ministry of Environment promotes the idea of developing regional resources by building networks composed of natural connections (connections among forests, the countryside, rivers, and the sea) and economic connections (human resources, funds, and others). For more information, see https://www.env.go.jp/content/900457435.pdf.

However, Miyagi Prefecture ranks 45th out of 47 in the prefectural Human Security Indicators in *SDGs and Japan*, and Higashi-Matsushima has a low Overall Index in the Miyagi Model, ranking 23rd out of 35 municipalities. Indicators related to dignity and gender, such as places for children to spend time outside of school and women in municipal managerial positions, were especially low (both 34th). This suggests the need for more practical measures.

Higashi-Matsushima City posts initiatives for each year on its website. Lectures and workshops are held for elementary, junior high, and high schools, as well as residents and businesses, reflecting the municipal government's efforts to raise awareness among both children and adults. It is hoped that fostering citizens' awareness of the issues will lead to widespread progress in achieving the goals and targets set for 2030 with respect to the six priority issues described above. Further discussions are needed to translate this into action focused on the dignity of women and children.

3 Corporate Initiatives

(1) Role of the Media — The Case of Yamagata Prefecture

The media plays a major role in communicating information to the general public. Numerous broadcasters and newspapers across the country, in both urban and rural areas, have declared their participation in the SDG Media Compact. In Yamagata Prefecture, which has the highest Human Security Index in the Tohoku region, the media is actively trying to raise awareness among residents. Yamagata Television (YTS) is taking advantage of its broadcasting business to promote initiatives related to poverty, education, and energy in the region. With local university students from Yamagata University, Tohoku University of Art & Design, and other institutions acting as interviewers, SDG-related activities being undertaken by companies in the prefecture are presented in a weekly two-minute program called "Yamagata SDGs Mirai Lab," which provides an opportunity to think about the future. Meanwhile, Yamagata Broadcasting Company (YBC) is working to bring the world and the region together through radio programs that explain corporate initiatives on the SDGs from the perspectives of the environment, society, economy, and partnerships. In addition, the program presents initiatives that individuals can do in their daily lives to contribute to the SDGs (Yamagata TV, "Yamagata SDGs Mirai Lab" https://www.yts.co.jp/sdgs/mirailab/) (in Japanese).

In August 2020, the *Yamagata Shimbun* (newspaper), Yamagata University, and the Yamagata Prefectural Government agreed to commit to the SDGs with a set of joint guidelines for action and practice. One such initiative is a long-running series of articles titled "The Compass of Happiness — SDGs and the Future of the Region," which is available to prefectural residents (https://www.yamagata-np.jp/feature/sdgs_rashinban/) (in Japanese). It aims to reflect on sustainable community development, looking not only at the activities of companies working to reduce waste and create a recycling-oriented society, but also at educational projects for the healthy development of children and students, as well as ways to support students and citizens who have fallen into poverty as a result of measures to prevent COVID-19. Whether on TV or in print, most coverage focuses on activities involving young people, such as regional revitalization initiatives that draw on school learning; ways to build communities amid the shrinking labor force caused by fewer children and an aging population; and efforts by companies to reduce their impact on the environment. However, there is currently limited coverage of issues from perspectives such as gender or human rights.

(2) Small and Medium-sized Enterprises

While activities aimed at raising awareness through the media have increased, these tend to focus on larger companies. It is therefore difficult to ascertain the trends among SMEs, which make up the majority of regional economies. In fact, many businesses don't know how to address this as part of their corporate activities, indicating a need for training, workshops, and consulting services.

However, some people are providing support for local businesses, such as Hiromi Konta of CSR Integration (based in Tendo City, Yamagata Prefecture). In an interview (October 27, 2021), Mr. Konta emphasized the need to give companies tips on how they can address the SDGs in their business activities, particularly in the Tohoku region. Dialogues with companies revealed that one possible method is to "backcast" from beyond the 169 targets of the SDGs to identify what companies can do, and then pursue initiatives towards this end. The interview also highlighted structural challenges at local companies arising from perceptions of

social roles and established practices, and suggested that important factors for achieving SDGs include not only the environment, innovation, and partnerships, but also gender and job satisfaction.

Resolving social issues such as gender and job satisfaction remains a significant challenge because of the difficulty in measuring effects, because these issues relate to personnel policies, and also because the low personnel mobility in SMEs leads to systems becoming ossified. As such, it will be necessary to outline specific actions to be taken, while showing that taking social issues into account can still contribute to business growth.

(3) Company Certification System — An Example from Miyagi Prefecture

To provide better incentives for creating comfortable workplaces and promoting work-life balance, Miyagi Prefecture has established a certification system for "Companies that Harness the Power of Women." As a further economic incentive, this certification will be added to the assessment criteria used in the comprehensive bidding evaluation system for construction work and construction-related services from April 2020. Some 484 companies that have their headquarters, main office, or a base of operations in Miyagi Prefecture and that conduct business activities in the prefecture have been certified (as of November 1, 2021). Of these, 35 have been certified as "gold companies." Although details of initiatives are given on company websites, only some show specific systems, while others only mention policies, indicating that there is some way to go before company efforts are fully developed.

4 NPO Initiatives

(1) Examples from Miyagi Prefecture

Data on children's living environments and situations show that standards in Miyagi Prefecture compare poorly to those found in the rest of Japan. Serious problems include those related to children's mental health, such as non-attendance at school and the number of consultations at Child Welfare Centers. Meanwhile, there are not enough school counselors and school social workers to address these issues on the ground.

A number of NPOs working with children are active in Miyagi Prefecture. A search of the Miyagi NPO Information Net, operated by Miyagi NPO Plaza (an NPO support facility in Miyagi Prefecture), revealed 125 organizations whose main fields of activity are "children," "youth" or "education and learning support." With the enactment of the Act on the Promotion of Policy on Child Poverty in 2013, various initiatives to improve environments for children now include collaboration with NPOs, while government-contracted programs provide "free schools"[*3] and places for learning support. In addition, many activities are supported by the public, in the form of donations from citizens and companies, volunteering, and private grants. The work of several such organizations are highlighted here.

(2) NPO TEDIC (https://www.tedic.jp)

TEDIC works mainly in Ishinomaki City. Established in May 2011 in the aftermath of the Great East Japan Earthquake, the organization is dedicated to supporting children and young people in difficult circumstances, such as poverty, abuse, neglect, non-attendance at school, and social withdrawal. TEDIC was set up by a young man from the local area, and its activities have continued with the support and participation of many people from Sendai City and outside the prefecture. Today, it is run by co-chairs Taira Suzuki and Kenya Otsu, who came from outside the region to ensure that its work will keep going. Ten years have passed since the disaster, but support for children and young people is still required, even now under "normal circumstances." For example, the group offers children who are not attending school, or whose family members have left for work and who have no one to spend the evening with, a place to spend time (**Figure 6-2**). In an interview (November 8, 2021), Taira Suzuki pointed out that providing these services will not solve the problem, and that the underlying issues in society still need to be addressed. The challenges facing children and young people are largely a matter of social structures, and the situation will not improve without, for example, the elimination of silos in the public institutions which they look to for support, as well as stronger cooperation between local agencies and organizations. Today, the environment that surrounds children and young people is coming under scrutiny, and

[*3] "Free schools" are private educational facilities that may provide educational opportunities, counseling, and a place to spend time to children who, for whatever reason, cannot or do not want to go to school.

Figure 6-2: **Initiatives under the Ishinomaki City learning and life support project (courtesy of TEDIC)**

it is essential to have a safety net built by residents of all ages, rather than only relying on the efforts of NPOs and volunteers. To create such an environment, it is also vital to enhance frameworks in which a wide range of stakeholders, including all generations and genders, can participate, express their views, and be involved in decision-making.

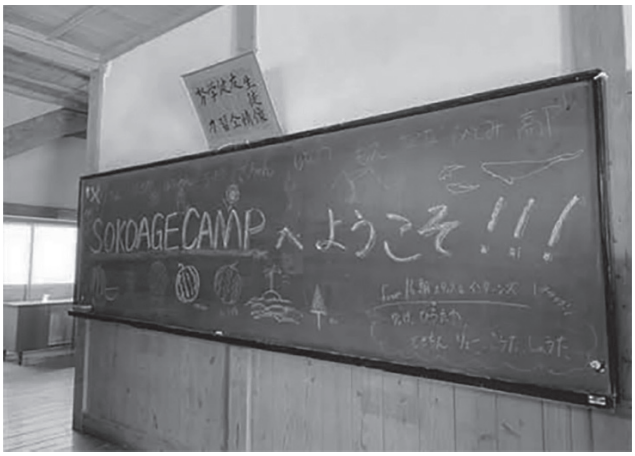
Since 2018, TEDIC has been commissioned by Miyagi Prefecture to operate the Ishinomaki Zone Comprehensive Consultation Center for Children and Young People. It offers one-stop services for children and young people (aged up to around 30) in Ishinomaki, Higashi-Matsushima, and Onagawa, for advice regarding the difficulties of everyday life, such as non-attendance at school, social withdrawal, and being outside education, employment, or training (**Figure 6-2**). It is hoped that it will provide seamless and comprehensive support for facilitating access to a wide range of official services, as well as referrals to the services of NPOs and other private organizations.

(3) Certified NPO Sokoage (https://sokoage.org/)

Following the Great East Japan Earthquake, many organizations started working with children in the Tohoku region. Sokoage is an organization established in Kesennuma by its president, Hiroaki Yabe, and other members who began working as volunteers in the aftermath of the Great East Japan Earthquake. Although it began operations as a volunteer organization, it obtained NPO status in 2012 to conduct activities over the long term. It supports high school students in Tohoku to think about what they want and can do for their hometowns, and to take action. The Tohoku region is experiencing an ongoing decline in the number of children and an aging population, with many young people leaving for major metropolitan areas. As such, one of the critical issues it faces is securing the personnel needed to build sustainable communities. To this end, Sokoage promotes partnerships and collaborations with the Kesennuma City Hall, the Board of Education, and other NPOs, to enable high school students to engage in community-based activities so that they can develop their ability to learn independently and solve problems. One of the goals of the organization is to nurture a sense of affection for one's hometown through these activities. There are already some young people who left for cities but have now returned, and others who are working for NPOs to tackle social issues.

Sokoage is also committed to developing young talent and runs a program called Sokoage Camp for university students (**Figure 6-3**). In a society that, despite enjoying a certain degree of prosperity, is beset by uncertainty and dim prospects for the future, many young people are seeking opportunities to think about what they want to do and what they want to become. Putting one's thoughts and values into words, and having friends to share them with, not only establishes one's position in society, but also helps them develop a sense of meaning about their own existence. In a world where travel between regions can become difficult, such as during the COVID-19 pandemic, it's important that people have other people nearby whom they can turn to when needed. In 2022, Sokoage decided to roll out the program to three regions outside Miyagi Prefecture (Hiroshima, Yamagata, and Fukushima prefectures). Past

Figure 6-3: **Sokoage Camp program (courtesy of Sokoage)**



participants have returned as interns and program administrators. By working on the delivery side, they learn how to reflect and share their experiences with others, which they then incorporate into activities in their communities. It is hoped that expanding the organization's activities outward in this way will produce an even greater impact (interview with Yusuke Saito, Deputy Representative Director, November 2, 2021).

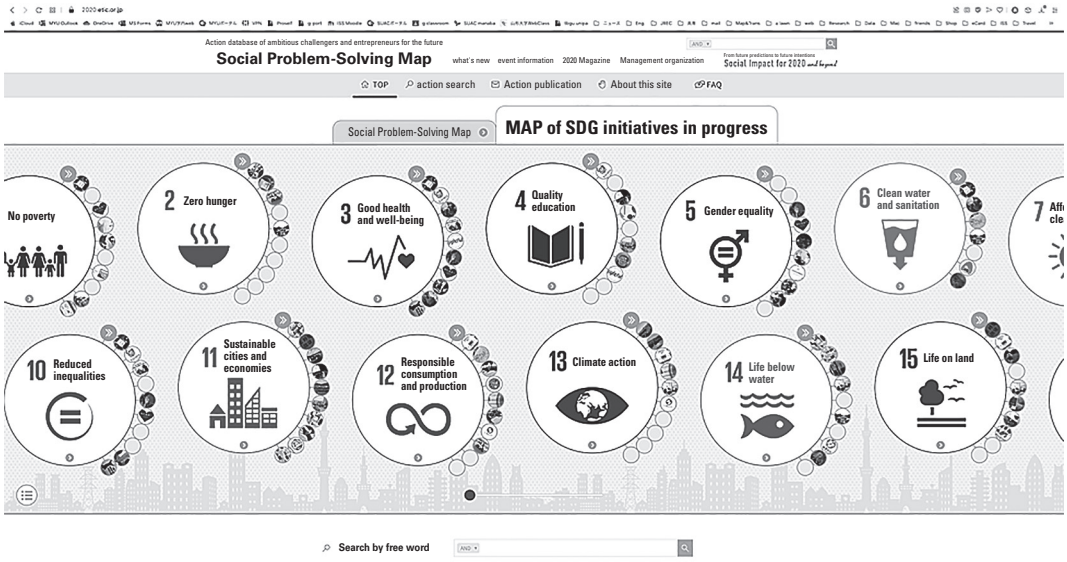
(4) NPO Ishinomaki Reconstruction Support Network (https://www.yappesu.jp/)

There are several organizations that focus on the parents of children. The Ishinomaki Reconstruction Support Network was launched out of an awareness of the need for a place where people, especially mothers, can freely consult with each other and show mutual respect, ensuring that they do not grow isolated in the reconstruction process. In addition, the organization helps women play an active role in the community by offering parenting support and assistance for starting their own businesses. Yoshie Kaneko, former Representative Director (2011-2022), had been interested in the issue of multicultural coexistence from before the disaster. After the disaster, she became involved in initiatives aimed at empowering women to play a part in their communities, ranging from community building to business start-up support, drawing on partnerships with companies and local government.

Ms. Kaneko suggests that to understand gender issues, it is vital to develop mutual recognition and to put it into words (interview with Ms. Kaneko, November 24, 2021). On the other hand, she feels that because the culture of the coastal city of Ishinomaki still has deep-seated notions

Figure 6-4: **Activities conducted by the Ishinomaki Reconstruction Support Network (Left) Children's cafeteria event "Having fun with art" (Right) Mental health care counselors (courtesy of Ishinomaki Reconstruction Support Network)**

Figure 6-5: **Databases for visualizing NPO activities (homepage) (Source: https://2020.etic.or.jp)**



about the social roles of men and women, gender issues are still difficult to discuss. Nevertheless, the impacts of the group's persistent efforts are beginning to emerge. For example, incorporating hobbies into events for fathers has led more fathers and couples to attend seminars, and holding regular events for children has led young people (now in their mid-20s) to take a more cooperative attitude toward parenting. Another positive result of the group's work in promoting women's participation is that local people who took part in its women's empowerment projects are now serving as speakers for the Ishinomaki City Women's Human Resource Development Seminar.

(5) Initiatives for Visualizing the SDGs

ETIC is a non-profit organization that trains social entrepreneurs who can produce social impacts. To help visualize the work of organizations working on local and social issues, ETIC developed databases for a "Social Problem-Solving Map" and an "SDGs Map" (**Figure 6-5**). For the former, it created categories to identify activities that aim to solve local and social issues, while the latter allows users to search for organizations working on the 17 different SDGs. What is interesting about these databases is that they not only highlight the organizations carrying out the activities, but also provide information for companies who may wish to support them.

What these NPOs have in common is that they properly frame regional or social problems and promote innovative or policy-driven approaches. Each group focuses on partnerships to address social issues, with some emphasizing collaboration with government or business, some involving advocates and supporters, and still others encouraging new participants to become the next generation of supporters. They also develop policy proposals and advocate for addressing social issues using public systems and institutions.

Since the NPOs involved in civic activities are not very large, it is also important for them to increase their social impact by taking advantage of social structures such as corporations, governments, and NPO alliances. For example, the term "policy entrepreneur" has been gaining attention in Japan in recent years, a label discussed by public policy scholar Michael Mintrom, who examined the commonalities among the people responsible for these types of activities and the strategies they employ (M. Mintrom, *Policy Entrepreneurs and Dynamic Change,* 2020). Ten years have passed since the Great East Japan Earthquake, and we are seeing many changes in the representatives of organizations in the affected areas of Tohoku. In several of the groups discussed above, the baton is being passed to the next generation of staff. Given the current climate created by the SDGs, it is essential to nurture entrepreneurs who will contribute to solving social issues.

Written by Yu Ishida

Chapter 7

The Significance of Education for Sustainable Development (ESD) and Practical Examples: A Case Study of Kesennuma City, Miyagi Prefecture

1 What Is Education for Sustainable Development (ESD)?

What is Education for Sustainable Development (ESD)? Japan's National Plan for ESD defines ESD as

> "learning and education activities that aim to realize a sustainable society by helping people to proactively identify various problems in modern society caused by development activities by human beings, such as climate change, loss of biodiversity, resource depletion, and the spread of poverty, and to recognize them as their own challenges and to tackle them, starting with those close to them, thereby bringing about new values and behavioral changes that will generate solutions, allowing future generations to enjoy prosperous and rewarding lives."

To achieve such a society, it is important to develop a perspective "in which all people strive to understand the connections between people and people, people and society, and people and nature, and to consider for themselves what initiatives are needed to solve these various problems and take action accordingly."

The importance of ESD was first shared with the world at the Earth Summit held in Rio de Janeiro, Brazil, in 1992. Chapter 36 of Agenda 21 adopted at that Summit specifically called for a reorientation of education toward sustainable development and recognized the important role of education in sustainable development and its future attainment. The Government of Japan then proposed the UNDESD (UN Decade of Education for Sustainable Development), in collaboration with NGOs, at the World Summit on Sustainable Development in Johannesburg, South Africa, in 2002. Japan took the lead on this idea at the 57th UN General Assembly in 2002, and a resolution was unanimously adopted which designated the period from 2005 to 2014 as the UNDESD, beginning from January 2005 (Table 7-1).

Table 7-1: **History of international initiatives in Education for Sustainable Development (ESD)**

Year held	Name of summit, etc.	Agenda and ESD-related measures	Held in
1992	UN Conference on Environment and Development	Importance of ESD identified in Chapter 36 of Agenda 21	Rio de Janeiro
2002	World Summit on Sustainable Development	At Japan's suggestion, the United Nations Decade of Education for Sustainable Development (UNDESD) is included in the implementation plan	Johannesburg
2002	UN 57th General Assembly	UNDESD adopted UNESCO named as lead agency	New York
2005	UN 60th General Assembly	UNDESD International Implementation Plan developed by UNESCO approved	New York
2009	UNESCO World Conference on ESD	Held at the mid-point of the UNDESD; Bonn Declaration adopted	Bonn
2012	UN Conference on Sustainable Development (Rio+20)	Declaration to promote ESD beyond 2014 in *The Future We Want*	Rio de Janeiro
2014	UNESCO World Conference on ESD	Held in the last year of the UNDESD; Aichi-Nagoya Declaration adopted	Nagoya Okayama
2014	UN 69th General Assembly	*Global Action Programme on Education for Sustainable Development* (GAP) adopted	New York

Source: Author

In 2009, the mid-point of the UNDESD, the UNESCO World Conference on Education for Sustainable Development was held in Bonn, Germany, and the Bonn Declaration was issued, calling for action to further expand the UNDESD. Japan, as the proposing country, also submitted the *UNDESD Japan Report: Establishing Enriched Learning through Participation and Partnership among Diverse Actors*, which summarized ESD achievements and challenges during the first half of the UNDESD across various sectors, including the national government, local governments, universities, and international organizations, and shared the country's best practices of ESD with the world.

Furthermore, in collaboration with UNESCO, Japan hosted the UNESCO World Conference on ESD in Nagoya and Okayama in 2014, the final year of the UNDESD. The World Conference on ESD summarized the UNDESD (2005–2014) and presented a new ESD framework. As a result, the Aichi-Nagoya Declaration on Education for Sustainable Development was adopted, promising to sustain and expand ESD into the future, beyond the UNDESD. To build on these achievements and generate a renewed impetus for after the UNDESD ended in 2014, UNESCO published the *Global Action Programme on Education for Sustainable Development* (GAP). It was submitted just as the international community was proposing the new framework of the Sustainable Development Goals (SDGs), which were to be action-oriented, global, and universally applicable. The GAP, developed in 2013 as a follow-up (2015–2019) to the UNDESD, was intended to create and scale up ESD actions and to make a substantive contribution to the SDGs.

2 Kesennuma's Pioneering ESD

Amid this major international movement for a sustainable planet and society spanning the late 20th and early 21st centuries, it was the small city of Kesennuma in Miyagi Prefecture that led ESD in Japan and around the world. Tracing the course of this project, the messages and proposals that it has delivered, both in Japan and abroad, will be described and analyzed here.

(1) The Beginning of ESD in Kesennuma

ESD in Kesennuma began as a bottom-up initiative at a public school, Omose Elementary School, in 2002. This was the year that Japan proposed the "United Nations Decade of Education for Sustainable Development (UNDESD)" at the Johannesburg Summit, a proposal that was subsequently adopted by the UN General Assembly. This year also saw a major revision of Japan's national curriculum guidelines, including the establishment of a "period for integrated studies," and the proposal of the concept of "zest and skills for life" (*"ikiru chikara"*). In the midst of this great swell of activity both in Japan and abroad, Omose Elementary School began implementing a study program that fostered "a global perspective while remaining rooted in the local community," using hands-on, inquiry-based learning that took advantage of the region's rich natural environment and exchanges with schools overseas. To implement this program, the school collaborated with the local community and specialized institutions, including the Miyagi University of Education, drawing on their expertise and resources to enhance the quality of learning (Figure 7-1).

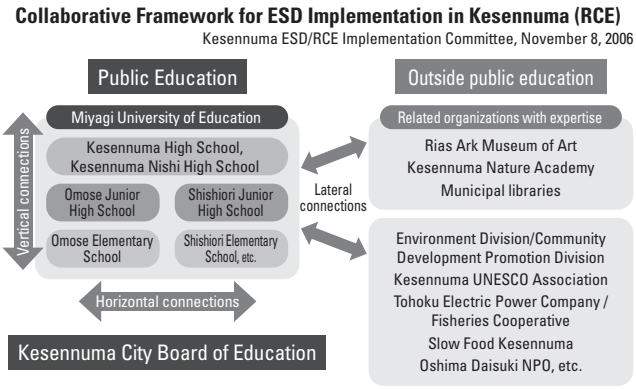
Figure 7-1: 6th grade Future City project at Omose Elementary School

Based on the experience of Omose Elementary School, ESD education spread to other schools in Kesennuma, with each school pursuing its own ESD activities. Furthermore, around 2008, all elementary and junior high schools in the city, as well as some of its kindergartens and prefectural high schools, became UNESCO Schools, which are also designated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) as "ESD Promotion Centers." It was here that the first system in which local kindergartens and elementary, junior high, and high schools collaborated to implement ESD throughout the educational system was established. This subsequently developed into a model for ESD, not only for Japan but also for the world.

(2) Development of ESD in Kesennuma

These ESD efforts have also enjoyed international recognition. In 2005, UN University recognized "RCE Greater Sendai" as one of seven RCEs (Regional Centres of Expertise on ESD), which were to be model regions for ESD. As a model RCE, Kesennuma City has attempted to build three types of connections: "vertical connections" corresponding to the developmental stages of kindergarten, elementary school, junior high school, and high school; "horizontal connections" that spread across the city; and "lateral connections" with social education facilities, businesses, and government (**Figure 7-2**).

Figure 7-2: Kesennuma ESD/RCE implementation framework



Source: *Mobius for Sustainability*, written/edited by Yukihiko Oikawa

To realize this goal, the Kesennuma ESD/RCE Implementation Committee was established at the initiative of the Kesennuma Board of Education. The Kesennuma ESD/RCE Roundtable was then set up as a platform for sharing information and reciprocal learning. The event has been held at Omose Elementary School, the birthplace of ESD, every year for the past two decades since 2002, even overcoming the Great East Japan Earthquake in 2011.

The objectives of the Kesennuma ESD/RCE Roundtable are threefold:

(1) To acquire and share information on the latest trends in education and ESD/SDGs, with the participation of invited experts, MEXT, the Ministry of the Environment, UNESCO, other UN bodies, and so on.
(2) Reciprocal learning about local ESD/SDGs practices at kindergartens, elementary schools, junior high schools, high schools, community centers, companies, NPOs, and so on.
(3) To discuss various local issues related to the environment, disaster prevention/reconstruction, and urban development from an ESD perspective, and to share directions and initiatives for the sustainable development of local communities (SDGs) with a diverse range of stakeholders, including participants from education, local communities, government, business, and UNESCO associations.

This is precisely what it means to create a "classroom" for sustainable community development through the participation and collaboration of a diverse range of actors. This forms the foundation of Kesennuma City's current ESD-based SDGs initiatives.

(3) Global Expansion of Kesennuma's ESD

ESD is rooted in the local community, but it is important to pursue learning from a global perspective. Led by Omose Elementary School, Kesennuma City has also developed ESD involving an in-depth study of the Earth. From 2002 to 2006, it collaborated with schools in the U.S. to develop "paired projects" on the topic of "Waterside Environment and Human Life," with the same grade in each country having the same theme. Through this international ESD project, children in Japan and the U.S., separated by 11,000 kilometers across the Pacific Ocean, used ICT to engage in shared learning across the barriers of time, space, and language. Through this exchange, the children not only developed a deeper understanding of differences (continents and coasts, lakes and oceans, etc.) and similarities (water cycle, benefits of nature, impact of human life on the environment, etc.) in their respective environments, but also shared their commitment to making their communities and the Earth sustainable, thereby cultivating a global perspective and expanding their circles of learning and friendship (**Figure 7-3**).

Sharing and experiencing the ESD educational philosophy between Japan and the U.S. also had a significant impact on many of the teachers involved, transforming their teaching methods and educational philosophies to incorporate ESD principles and learning methods into their own classroom instruction, as well as influencing their later lives. This Japan-U.S. initiative won high acclaim in the U.S., including a resolution of commendation from the Texas State Legislature.

Figure 7-3: **Japan-U.S. environmental education project (Master Teachers Program)**

Source: *Mobius for Sustainability*, written and edited by Yukihiko Oikawa

Kesennuma's international outreach based on ESD has continued to the present day (although the structure and themes continue to change), such as the participation of students in UNESCO, OECD, and other international projects on disaster prevention/reconstruction, oceans, and climate change, as well as the participation of teachers in overseas training programs.

(4) Applicability of Kesennuma's ESD

As described previously, ESD in Kesennuma, which originated at Omose Elementary School, has been a pioneer for ESD in Japan and around the world, serving as a model in terms of practice, implementation framework, and outreach to both domestic and international audiences. Its progressive and widely applicable features can be summarized as follows:

i) Development and implementation of systematic and exploratory ESD programs rooted in the community
ii) Establishment of partnerships with local communities, universities, and specialized institutions that serve as a knowledge base for ESD promotion
iii) Systematic practice of ESD through collaboration between kindergartens, elementary schools, junior high schools, and high schools
iv) Cultivation of a global perspective through joint learning with schools in other regions and overseas
v) Implementation of "shared learning" that uses ICT to transcend time and space

Using the strategies and framework discussed here, Kesennuma developed a unique ESD program that makes the most of the characteristics of individual communities and addresses local issues.

3 Overcoming the Great East Japan Earthquake and Creating a Sustainable Future

Tragedy struck suddenly on Friday, March 11, 2011, just a day before the junior high school graduation ceremony. Kesennuma was hit by a huge earthquake and tsunami of unimaginable scale, described as a "once-in-a-thousand-years" event. Indeed, in the aftermath of this unprecedented disaster, the city fell into an "unsustainable situation."

This section describes actual examples to demonstrate how, even in these circumstances, the ESD capabilities that Kesennuma had cultivated over the years contributed to evacuation processes and recovery from this immense disaster.

(1) ESD and Crisis Response in the Great East Japan Earthquake

In preparation for future earthquakes and tsunamis, all schools in Kesennuma City had previously developed a disaster prevention manual and conducted regular evacuation drills for various hypothetical scenarios. However, the scale of the Great East Japan Earthquake was truly unprecedented, far exceeding those manuals and scenarios. In addition, the disruption of communication networks meant that instructions from the Board of Education and contact with other schools were cut off, forcing each school to make its own judgments and choices in the absence of any information. At each school, teachers worked together as one, applying their wits and courage for last-minute evacuation and escape operations. Meanwhile, children on their way home from school also evacuated together, making their own decisions, and receiving advice from local residents. Thanks to the good judgment of teachers and children and communication with the community, no children under school supervision in Kesennuma City lost their lives.

In addition, immediately after the earthquake, junior high and high school students were active at evacuation centers and schools, supporting the evacuation and recovery process. Student councils took the lead in planning what they could do for the evacuees and the community, and also took the initiative to make proactive contributions to the restoration of the community. At each school,

students did what they could in terms of planning how to help with food distribution, clearing up debris, securing water for toilets at evacuation centers, caring for elderly evacuees, holding concerts at evacuation centers, and much more. These activities by the students brought comfort to the residents whose lives had been shattered by the disaster and served as a beacon of hope for reconstruction (**Figure 7-4**).

Figure 7-4: Junior high school students cooking at an evacuation center (Oshima Junior High School)

Source: Kesennuma City Board of Education

The measures taken by students in response to the crisis were not something that could be accomplished overnight. Communication skills and capacity for independent thought, judgment, and action, even in the face of unforeseen circumstances, are abilities that Kesennuma has cultivated over many years through disaster prevention education and ESD education. The response serves as proof that these skills can be used even in dire situations, and that the partnerships between schools, the community, and related organizations that had been developed through this learning were able to function effectively.

(2) Disaster Recovery/Reconstruction and ESD

ESD fosters critical thinking and systems thinking, as well as skills in communication, information gathering and analysis, and the ability to make decisions and take action. These capabilities are essential when dealing with crises, and need to be employed at a moment's notice in the face of a disaster. In fact, during the Great East Japan Earthquake, teachers at every school made the best use of these skills to deal with the difficulties they faced. The children also used the skills they had developed through their studies to evacuate appropriately and do what they could to help rebuild the community after the disaster.

If recovery from disasters is viewed as the process of building a sustainable society, the following four abilities and attitudes should be cultivated in ESD-oriented learning for disaster prevention and mitigation:

(1) Scientific knowledge and understanding of the mechanisms through which disasters occur
(2) The ability to recognize disasters and their impact on human society and the students' own lives
(3) The ability to prepare and respond to minimize damage resulting from disasters
(4) The ability and attitude to participate in post-disaster recovery and to "Build Back Better"

In order to achieve a better recovery ("Build Back Better"), it is important to develop resilience among children, who will shoulder the burden of recovery, as well as nurture their ability to design a future for themselves and their communities. This cannot be achieved overnight but is possible through human resource development based on long-term, sustained, and systematic education. All elementary and junior high schools in Kesennuma are UNESCO Schools, and the city aims to nurture individuals to lead reconstruction and the creation of a sustainable society, through appropriate and sustainable education at the kindergarten, elementary, junior high, and high school levels.

Each region of Japan, not just disaster-stricken areas like Kesennuma, is facing a variety of challenges, including falling numbers of children, demographic aging, depopulation, and the decline of key industries. The participation and contribution of young people, who will lead the next generation, is essential to overcome these challenges. Moreover, these young people must be able to perceive issues from a global perspective while remaining attuned to their communities; to think and make decisions; and to take action both inside and outside their local areas. "Developing the creators of a sustainable society," as outlined in the national curriculum guidelines, is something that cannot be achieved without ESD.

(3) Establishment of ESD Networks for Disaster Prevention and Mitigation

It is said that there are three stages to disaster prevention and mitigation: self-help, mutual aid, and public assistance. However, although self-help and mutual aid worked to some extent after the Great East Japan Earthquake, they could not be sustained by themselves over a long period. Meanwhile, support from public assistance took time because of the extensive damage across a wide area, with some areas not receiving any. NPOs/NGOs took on new roles to fill these gaps, and new support was provided by a network of diverse actors, such as corporations and international organizations. I describe this as "Network Help." Through longstanding ESD initiatives such as UNESCO Schools and RCEs, Kesennuma had established connections and networks not only in Japan but also around the world (see p.96). These functioned well during the disaster, allowing wide-ranging and effective support to be provided for the emergency assistance and recovery/reconstruction phases, and this was a major driving force for subsequent efforts to rebuild education. In this way, ESD lies at the very heart of "Network Help," and I believe that it can operate as an important principle and method for reconstruction, both in terms of approach and in terms of networking.

4 ESD for 2030 — A Contribution to the Achievement of the SDGs

With the deadline for achieving the SDGs by 2030 approaching, a new international framework, "Education for Sustainable Development: Towards Achieving the SDGs (ESD for 2030)" was adopted at the 74th UN General Assembly in December 2019.

Education is addressed in Goal 4 of the SDGs, which aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." Meanwhile, target 4.7 of this goal calls for ESD to ensure that "all learners acquire the knowledge and skills needed to promote sustainable development"). Moreover, based on the common understanding that ESD is "a key enabler of all the other Sustainable Development Goals," ESD is emphasized not only as an integral component of SDG 4 on education, but also as an enabler of all other SDGs (UN General Assembly Resolution A/RES/72/222 on Education for development in the framework of the 2030 Agenda for Sustainable Development, 2017). The overall objective of ESD by 2030 is to realize a more just and sustainable world by achieving the 17 SDGs, and to strengthen ESD's contribution to each (**Figure 7-5**).

Figure 7-5: The "ESD for 2030" concept

Source: Japanese National Commission for UNESCO

In other words, ESD is not limited to Goal 4 but also contributes to the achievement of all 17 SDGs by developing the creators of a sustainable society. Therefore, in terms of human resource development, further promotion of ESD will lead directly or indirectly to the achievement of the SDGs. Going forward, we can further clarify the objectives, issues, and contents of ESD by adding new value to existing ESD (and related educational activities) from the perspective of its contribution to each SDG. In addition, being aware of the global SDGs which are shared by all of humanity, while trying to find solutions to local issues, may link community-based activities to solutions to global challenges. In this way, by establishing that "ESD for 2030" framework meant "ESD is human resource development (education) for achieving the SDGs," clarified the relationship between ESD and the SDGs. The SDGs have provided a clear direction for ESD by clarifying the issues which ESD should address as well as the approach to be taken.

Meanwhile, the Kesennuma ESD/RCE Roundtable 2021 was held to discuss the future city-wide promotion of the SDGs, with the participation of the Mayor of Kes-

ennuma and others (November 5, 2021). Based on discussions at this event, it was proposed that a "Kesennuma SDGs Consortium" (provisional name) be established to pursue sustainable community development throughout the city. It was also proposed that a framework be created to promote the SDGs in Kesennuma through collaboration between industry, government, and academia, focusing not only on ESD, but also the "Slow Food" movement, the *"Mori wa Umi no Koibito"* ("The Forest is the Lover of the Sea") movement[1], human security, and other initiatives. This marks a major step toward the realization of the SDGs.

Written by Yukihiko Oikawa

[1] This slogan was created following the discovery that the quality of oysters and fish caught in the sea was affected by the deterioration of the forests. To address this, fishermen began planting trees in the forests near the sea. An NPO called "Mori wa Umi no Koibito" based in Kesennuma currently works on reforestation, nature conservation, and hands-on educational programs for children to deepen their understanding about the links between human beings and nature. See https://mori-umi.org/english/.

Chapter 8

Putting SDGs into Practice through the Participation of Citizens and the Role of Local Governments

Introduction

In recent years, government services have become increasingly limited due to declining tax revenues and shrinking budgets, while the falling number of children and demographic aging have exacerbated issues such as welfare. As such, we can expect more and more people to fall through the various social safety nets in the future. When this happens, it will be at the level of the local community that those at risk of being left behind are most likely to be noticed. In order to sustain local communities, and to realize a society where no one is left behind at the local level, it is essential to broaden and diversify the people who contribute to civic life.

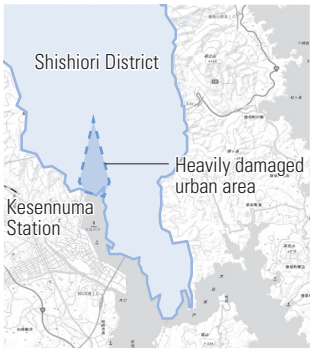
In this chapter, we would like to address the topic of citizen and resident participation. Calls for "resident-centered community development" can be heard in many municipalities, and Kesennuma City is promoting resident participation under the slogan of "citizen-led community development." Taking the "Shishiori Community Building Council," with whom the author has been involved, as an example, this chapter will review how the council's activities have changed over time. It will also explore the process of expanding and enhancing resident participation and examine the ideal relationship between residents and the government.

1 Putting SDGs into Practice with Resident Participation: Activities of the Shishiori Community Building Council

The Shishiori Community Building Council (hereafter referred to as the "Community Council") is a residents' group in the Shishiori District of Kesennuma City. The author was active in the secretariat of this group for three years before working at the city office. As of October 2021, the district had a population of about 5,000 people (out of the approximately 60,400 for the city as a whole). It currently has 27 administrative precincts and also constitutes an elementary school district. It suffered severe damage from the Great East Japan Earthquake and was featured frequently on national news because of events such as a major fire at sea and a large fishing boat swept inland by the tsunami (Figure 8-1).

From its establishment to the present, the Community Council has gone through the following three phases (p. 104, Table 8-1).

Figure 8-1: **Southern part of Shishiori District**



Source: Drawn on map from the Geospatial Information Authority of Japan

(1) Founding Phase: October 2012–March 2014

The Shishiori Community Building Council was established in October 2012, after the disaster, in order to involve residents in the recovery planning process. It was made up of the heads of the neighborhood associations for the 13 wards that had been affected by the disaster (out

of the district's 27 wards), and the scope of its activities was limited to those areas. The Community Council's most important activities during this period were to discuss the vision for the reconstruction of Shishiori and community development at residents' meetings and in workshops with junior high school students, and to draw up recommendations regarding the "Grand Design" for the reconstruction of the district, which were submitted to the Mayor of Kesennuma in March 2014.

Outside experts were heavily involved in this phase, and with the help of university students, the views expressed by residents at workshops and similar events were compiled into a proposal. However, the people affected by the disaster were still too busy rebuilding their lives to participate actively, and most of the neighborhood association heads (who were the main players in the Community Council) felt unable to be forthright with their opinions, given that most of them had suffered relatively little damage to their property. There was a disconnect between the sentiments of residents who had been affected by the disaster and those who had not, and while this largely dissipated as the recovery progressed, there are still some aspects in which it persists. The governance of local communities was also in a chaotic state in the immediate aftermath of the disaster. Given this situation, there was limited participation from residents, and it was difficult to say that any relationship with the government had been established.

(2) Recovery Phase: April 2014–March 2017

The Community Council's board members felt a growing sense of urgency about the lack of resident participation.

The turning point came with the arrival of several capable individuals at the behest of an advisory city council member, which was followed by organizational reforms. All neighborhood association heads were asked to nominate two or three young people or women per ward, and a "constituent meeting" was organized (March 2015). Since then, they have continued to meet every week without fail, acting as the Community Council's driving force and front-line personnel (**Figure 8-2**). Activities during this period were varied, but mainly centered around discussions about recovery work. Various proposals and requests were submitted to the Mayor on five occasions during this period, including the "Vision for the Future of Shishiori" (March 2016), a proposal on the district's vitality, livelihoods, and disaster prevention measures, which the constituent members had spent months discussing.

Figure 8-2: Constituent meeting

Cooperation with the government made progress, and some city officials joined as constituent members. In addition, staff from the relevant city departments began to participate in constituent meetings whenever they had something they wanted to discuss with the residents. Daily communication with city officials proved very effective in fostering collaboration between the government and residents.

In addition, residents' opinions also started to be reflected in some of the reconstruction projects. The Community Council held workshops for junior high school students and residents on the design of a new park and the selection of trees to be planted along roads, and residents' views were incorporated into the results. The most difficult activity at the time was to build consensus among residents on a plan for a pedestrianized street, which divided opinion and led to a petition campaign. Through meetings with residents to exchange views, and behind-the-scenes negotiations among the Council's board members, the voices of residents were successfully conveyed to the authorities. In addition, private homes and extensive public housing for disaster victims were constructed on an area of newly raised ground, and preparations were made to receive residents returning to the district, facilitating community interaction.

The most significant activity during this period was the Shishiori Recovery Bon Dance Festival, which took place on August 11, 2016. The purpose of the festival was to bring residents, who had lost touch with each other for

some time, back together at the site of the disaster after a five-year absence. Led by the Shishiori Community Building Council, more than 20 organizations in the district made preparations for the event. Elementary and junior high school students drew the posters, and the festival brought the community together. The centerpiece was the "great tug-of-war," an event that had been held at the district festival before the disaster (**Figure 8-3**). The large rope that had traditionally been used had been swept away by the tsunami but was later miraculously recovered. It was the first festival the district had seen for some time and served as a link to its memories from before the disaster. The Bon Dance Festival was held every year after that, until it was again suspended due to the COVID-19 pandemic.

Figure 8-3: Great tug-of-war

(3) Development Phase: April 2017–Present

Over time, the focus of the Community Council's activities has gradually shifted from recovery to local issues. These diverse issues include the erection of a tsunami memorial stone, workshops to discuss disaster prevention, a public consultation on naming bridges, classes on "how to communicate with your dog," lectures on community development at junior high schools and nursing homes, the preservation of old cherry trees, and a survey on the damage caused by Typhoon Hagibis in 2019. Kesennuma City's "City Government Roundtable Meetings" came into play during this phase. These meetings are held once a year in each district and serve as a forum for dialogue between the Mayor, relevant government departments, and district residents. The Shishiori Community Council submitted its own proposals at the beginning of the reconstruction, but after becoming a member of the District Promotion Association (see below), it began submitting questions and requests through this association and discussing them at the City Government Roundtable Meetings. It has also been active in other community participation opportunities provided by the city, such as the Reconstruction Memorial Park Study Committee and workshops on the development of the city's Comprehensive Plan.

In 2019, a Record-Keeping Subcommittee was formed to work on the creation of a documentary journal, together with a Disaster Prevention Subcommittee. The latter is working with the city to establish evacuation centers designed with COVID-19 measures in mind and is conducting training on setting up these centers in cooperation with the city. It is also conducting training with junior high schools on setting up and operating these centers and holding evacuation drills. During the heavy rains of July 2021, the Community Council cooperated with the city on opening and operating evacuation shelters.

In addition, new neighborhood associations had to be established and rebuilt in disaster-hit areas where residents have returned. The Community Council is cooperating with the local government to support this process. Members of the Community Council, who are local residents, informally lay the groundwork with key people in the community who could serve as neighborhood association presidents and officers, while to reassure the community, invitations to formal discussions are made in the name of the city government. Another activity typical of this phase is watching over children traveling to and from school, in cooperation with other organizations. This activity is a further embodiment of the "all-Shishiori" approach.

During this phase, a community center was provided by the city to serve as an office, and through the Ministry of Internal Affairs and Communications (MIC)'s Community Support Staff Program, the city also assigned one person to serve as administrative staff for the Community Council and subsidized its activity budget. Previously, the administrative staff had been hired through a prefectural grant and an office had been rented at a local assembly hall.

Table 8-1: **Shishiori Community Building Council timeline**

Period	Features
October 2012–March 2014 [Founding Phase]	■ Shishiori Community Building Council established. Situation still chaotic, including the surrounding environment. ■ Limited participation of residents. Heavy reliance on outside advisors. ■ Target area: 13 affected wards of Shishiori ■ Community Building Workshops, Youth Group, Business Group, Recommendations for the "Grand Design" ■ Relationship with government: Submission of recommendations (once)
April 2014–March 2017 [Recovery Phase]	■ Launch of constituent meetings: Increased independent involvement of residents. Active as front-line personnel. ■ Target: All 27 wards of Shishiori ■ Reconstruction projects (expressing opinions on parks and public facilities), support for disaster victims, Recovery Bon Dance Festival ■ Relationship with government: Submission of proposals (5 times), collaboration in workshops, etc., regular meetings between the city, the Urban Renaissance Agency, and the Community Council, and attendance of City Hall staff at constituent meetings
April 2017–Present [Development Phase]	■ Continuation of constituent meetings: resident-led activities. ■ Target: All 27 wards of Shishiori ■ Recovery Bon Dance Festival, disaster prevention activities such as survey of the damage and management of evacuation centers, support for establishing neighborhood associations, etc. ■ Became a member of the District Promotion Association and currently cooperates with other organizations. ■ Relationship with government: discussions at City Government Roundtable Meetings. Attendance of city officials at constituent meetings. ■ Administrative staff: support staff assigned by the city.

2 Promoting Resident Participation

This section will use the experience of the Shishiori Community Building Council to discuss key points on how to promote resident participation to realize the aim of the SDGs: a society where "no one is left behind."

(1) Integration of Organizations with Local Communities

While increasing resident participation makes it easier to identify residents' needs, it is extremely difficult to reach out to all residents. Furthermore, the government may call for consensus among residents, but that is next to impossible. To eliminate imbalances as much as possible, broaden the base of resident participation, and ensure that support and activities reach everyone, organizations that promote resident participation need to have roots in their communities. During the Founding Phase, outside experts had a significant presence, and during the Recovery Phase, activities expanded as reconstruction projects progressed. As a result, the residents could not always keep up, and there was little participation from them or the community association heads. Looking back, I don't think we were fully rooted in the community. This is not uncommon — the more active a person or group is, the more likely they are to lose touch with their community. When this happens, the group becomes concerned with just a handful of residents, and the needs they can address represent just a small fraction of the whole. As such, the question of how to spread the work of a few active people and organizations throughout the community, and how to minimize imbalances in the opinions and voices that are heard, is a critical one.

The power of festivals: The first opportunity for the Community Council to step up its efforts was the Shishiori Recovery Bon Dance Festival. The leaders of the Community Council who were pressing to hold the festival perhaps knew subconsciously what activity the community needed most. The most important outcome of the festival was to develop a sense of cohesion, community solidarity, and unity among residents. As one community development leader said, "Festivals are [a type of] infrastructure." It is this kind of invisible community energy that forms the foundation for all activities in a given area.

There was also progress in cooperation between local organizations. In Shishiori, the highest-level residents' organization was the Shishiori District Promotion Association, with 23 neighborhood associations and 16 other organizations as members at the time. It was this association that led the festival, creating an implementation framework that involved the entire community, including its member organizations as well as elementary and junior high schools. As a result, the Community Council was able to secure its standing and cohesive influence in the district, leading to wider community recognition. Moreover, the

timing of the festival coincided with the resumption of activities five years after the disaster, and as such, it served as an impetus for various organizations, including the District Promotion Association, to revitalize themselves.

Building trust and integrating with the community: There is another reason why the Community Council was able to establish itself as part of the community. As community organizations became more active, dissatisfaction with the Community Council surfaced among groups and community leaders who had previously been standing on the sidelines. This is because an organization that had been in existence for only a few years, and with many young members, had reached the point where it was coordinating district activities, a role that would normally have been performed by the District Promotion Association. One neighborhood association head remarked, "The top-level organization in Shishiori is the District Promotion Association, not the Community Council. What function does the Community Council serve, now that the recovery (phase) is coming to an end?" Some on the Community Council were disheartened and some were indignant, which almost led to a rift. It seemed that now that reconstruction had finished, the organization would have to disband.

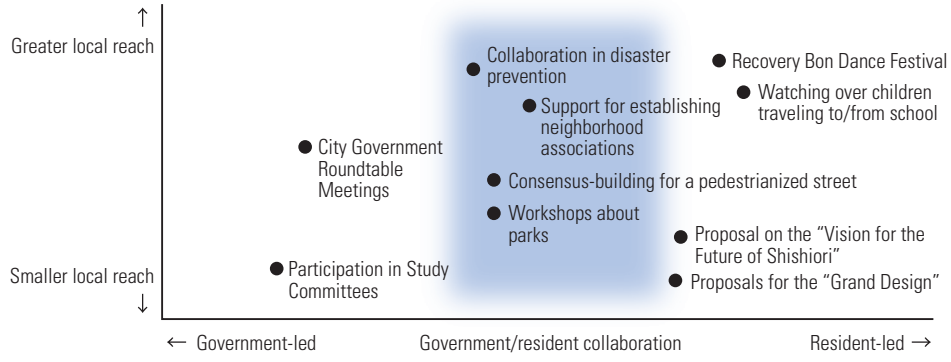
After repeated discussions, the Community Council redefined its position as a member of the District Promotion Association. It took on the role of making recommendations about the district to the city through the association and revised its rules accordingly. Since then, when making decisions about the community, the following four groups will come together to discuss issues: the District Promotion Association, the Liaison Council of Shishiori Neighborhood Association Heads, the Urashima District Promotion Society (which is not affiliated with the District Promotion Association), and the Community Council, which includes young people and can act as front-line personnel. As a result, the activities of the Community Council became the activities of the entire community, and Shishiori District's self-governance system became stronger.

(2) Reach of Activities in the Community

Local reach: Another important factor in achieving the SDGs is the extent to which resident participation extends into the community and involves a broad spectrum of the population. **Figure 8-4** shows the activities of the Shishiori Community Building Council laid out along two axes.

Both the Study Committee and the City Government Roundtable Meetings incorporate resident participation in government. However, they differ in terms of their reach into the local community: a single representative of the Community Council participates in Study Committee meetings (8 meetings in total), while anyone can participate and voice their opinions in the City Government Roundtable Meetings. Similarly, there is a difference in community involvement between the initial recommendations for the "Grand Design," which summarized residents' opinions with the help of students, and the proposed "Vision for the Future of Shishiori," which was developed after months of discussion by residents, and a park workshop for local junior high school students and residents. Meanwhile, activities related to the Development Phase of the Community Council, such as support for the establishment of neighborhood associations and

Figure 8-4: Activities of the Shishiori Community Building Council



Source: Author

disaster prevention activities involving the entire community, are located further up in **Figure 8-4**. As the Community Council has taken root in the community, the reach of its activities has expanded throughout the area.

If we trace the changes in the positions of the residents' organizations, we can see that while they were fully engaged in reconstruction projects, they slightly lost touch with the community. However, the festival led them to become one with the community again, and the district began to work together on disaster prevention, neighborhood associations, and community issues (part of the transition to an "all-Shishiori" approach). The relationship with the government also changed from submitting proposals independently, to participating and collaborating through the city's institutions.

3 Issues

Burden on government: When resident participation is expanded in both scope and depth, the increased burden on both the government and the residents must be considered. On the government side, the workload will increase, especially for staff. For example, if we compare the "Study Committee" approach with the "City Government Roundtable" approach, the number of departments and staff members involved, as well as the total work time, are far greater for the latter. The same burden applies when moving horizontally across the axis toward resident collaboration. If we compare the government's task of designing a park on its own, with designing it through a residents' workshop, the latter is significantly more costly in terms of both time and effort.

In this sense, it is not necessarily true that the more resident-led or the greater the scope of participation, the better the project. Rather, it is more practical to select the most appropriate method on a case-by-case basis, taking into consideration various factors such as the burden on both the government and residents, and how easily discussions can be held. What is important is that the act of listening to residents' voices be integrated into government processes and become an established part of them.

In addition, close daily contact will help minimize possible conflicts between the government and residents, and in the long run, the cost of coordination will also fall. The Community Council was consulted frequently on questions such as "What kind of trees should be used around this facility?" and "What equipment needs to be provided at the welfare center?" The more frequent this kind of communication, the more the barriers between the organization and the government broke down.

Burden on residents: For working-age residents in particular, being involved in community development without compensation, as well as sacrificing free time and daily activities on weeknights and weekends, represents a considerable burden. This is a major factor holding back resident participation. Moreover, the greater the scope of resident participation in the community, the greater the burden. What used to be a matter for the Community Council alone to decide, now requires a meeting of four organizations to discuss and reach a decision.

Another issue that arises from closer integration with the community is the additional legwork required. If bringing together the people who had sustained the local community were to slow action or cause the younger generation to withdraw, this would defeat the purpose. At meetings of the Community Council, members (including younger members) engage in open discussion, and then the chairperson and the other two officers pass on the results to the District Promotion Association and other organizations.

On a related note, we have mentioned the importance of unity in the community, but as a practical matter, there are plenty of opportunities for relationships between groups and individuals to deteriorate. Moreover, there is no other field where human relationships and emotions affect the entire process so much. Unlike government or business, there are no salaries, and thus, no obligations for financial compensation, as well as no strict organizational hierarchy. Rather, this work relies on each individual resident's passion, motivation, and sense of mission toward the community. Citizen participation on the ground is truly a living thing, the result of behind-the-scenes efforts on the part of residents, that can only be maintained through constant mutual encouragement and care, sometimes through patient discussions and sometimes through festivals and other activities that enhance the sense of solidarity. If such participation is taken for granted, any community development plan will end up as just something on paper, ensuring its failure.

4 The Role of Government with Respect to Resident Participation in the SDGs

Here, let us consider what the government can do to support resident participation.

Indirect support to foster resident autonomy: As mentioned above, the field of resident participation is not a simple one, and a sense of unity and connectedness within the district are required as the foundation for everything, including issues handled by local governments. The government can no longer afford to sit on the sidelines and view this as a problem for residents. In some cases, the government can work to encourage discussion within the community through intermediary support groups and provide venues for residents' groups to meet and exchange information. As noted previously, promoting festivals and resident interaction can also be effective.

Administrative support for residents' self-governance: Community self-governance is facing a variety of adverse factors, such as fewer participants due to the declining number of children and demographic aging, a social climate of "putting oneself first," and an increase in the workload involved. In this context, one effective measure would be for the government to provide personnel, budgetary support, and institutional support for community development activities led by residents. In Kesennuma, the city utilizes the MIC's Community Support Staff Program to assign an administrative officer to the Community Council and subsidize the activity budget. Furthermore, a community center has been provided as an office, ensuring a connection to social education. In Kesennuma, the community center also serves as the administrative office for residents' groups such as the District Promotion Association, providing inconspicuous but strong logistical support for the residents.

Participation of local government officials in the community: By participating in residents' activities, municipal employees can gain firsthand knowledge of local needs that they cannot get at their desks, and this can then be applied when planning and implementing projects. The participation of municipal employees is a different approach for governments to take toward "communities where no one is left behind."

Human resource development to encourage resident participation: Kesennuma runs several human resource development programs tailored for individual groups, from high school students to young people, women, and active seniors, to promote resident-led community-building activities.

In addition, social education plays an important role in government efforts to foster people who can become active in civic life. After WWII, newly-built community centers and their programs and activities nurtured a sense of local belonging, pride, and attachment, as well as a sense of fellowship among residents. They also supported the development of community leaders, as exemplified by youth associations, and provided a venue for solidarity to grow. The Koizumi Community Center in Kesennuma, where the author currently works, is promoting lifelong learning and interaction among residents through lectures and other activities, as well as conducting local history classes and town tours to enhance people's knowledge of the area and foster a sense of hometown pride. Community centers play an important role as focal points of their districts, and although their role in terms of social education has changed over time, they are still needed to actively facilitate interaction between residents, foster the development of community leaders, and provide support for maintaining and strengthening local communities.

5 Conclusion

When working to realize the core objective of the SDGs in local communities, the participation of residents does not necessarily mean that every issue will be attended to. To bring us as close as possible to this goal, what is needed is for residents to participate; for the organizations that support this to take root in their communities; and for the scope of their activities to grow broader. In this case study, we showed that the most effective activities in this respect were festivals and discussions, which at first glance appear to be low-profile initiatives with results that are difficult to observe.

Given its importance, we hope to see governments provide indirect support for establishing environments where resident participation can take place. In addition, to reduce the costs of long-term resident participation, it is necessary to work on drastic institutional reforms for

resident participation now, and to make efforts to keep in close contact with residents on a daily basis.

This means that governments must be prepared to address the potential risks involved in resident participation. When residents think, discuss, and act independently, it also means that they will not just passively accept the benefits of government policies, but will critique their merits and approaches. By promoting healthy democracy from the grassroots and applying it to public administration, government services can be reexamined, and the government can transform itself to meet needs that have been previously overlooked. This kind of attitude on the part of the government will motivate and create a stronger foundation for residents to participate.

It is essential for residents and the government to work together to establish self-governance for the community as a whole. This, in turn, will lead to a society where "no one is left behind."

Written by Chigusa Miura

Note: This chapter represents the author's personal views and not those of her organization.

Chapter 9

Significance of the "Child Friendly Cities and Communities Initiative" and Its Status Today

Introduction

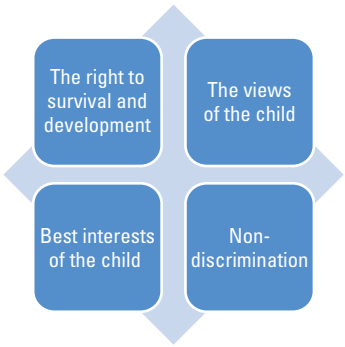
The Child Friendly Cities and Communities Initiative (CFCI) is a UNICEF initiative being rolled out worldwide. What comes to mind when you think of the phrase "child friendly"? Does it just mean when adults do things for children? That is part of it, of course, but does this alone constitute "child friendliness?" In any case, the term puts a spotlight on the attitudes of the adults who live around children. I hope that this chapter will provide an opportunity for us to think together about these issues.

UNICEF's CFCI, initiated at the Second United Nations Conference on Human Settlements (Habitat II) in 1996, is a project in which local governments play a leading role. The Convention on the Rights of the Child, which was adopted in 1989 and entered into force the following year, has also had a significant impact. "Child-friendly" means "a city, town, village or community, or any local governance system, committed to realizing the rights of the child as enshrined in the Convention on the Rights of the Child." As such, it refers to a municipality or community where children's voices, needs, priorities, and rights are an integral part of public policies, programs, and decisions. This initiative is aligned with the transition from the United Nations Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs), where there are no developing or developed countries, no governments or private sectors, no children or adults, just everyone working together to protect the planet. In the 21st century, humanity as a whole must engage in activities to care for the Earth. When children are respected as human beings and are involved in society, there is hope for achieving a sustainable world.

1 What Are the Rights of Children?

The CFCI is an embodiment of the provisions of the Convention on the Rights of the Child, as applied by local governments. The Convention on the Rights of the Child was adopted in 1989 to protect the lives and healthy development of the world's children and has now been ratified by 196 countries and regions, making it the most widely recognized human rights treaty in the world. The Convention regards children (people under the age of 18) as agents and recognizes that they are entitled to rights as individuals, just like adults. Furthermore, the process of growing into adulthood is also taken into consideration. The principles of the Convention are shown in Figure 9-1. The CFCI places particular emphasis on the "child's right to participation."

Figure 9-1: Four principles of the Convention on the Rights of the Child



Here, the ideas of Janusz Korczak, a Polish Jewish physician and writer who devoted his life to protecting children, and whose pioneering practice during World War II led to the enactment of the Convention on the Rights of the Child, are instructive. He emphasized the independence of children, stressing not only "self-determination" (which is often the focus of children's rights), but also the link between self-determination and freedom. Fundamental to this approach is respect for others. In other words, the goal of respecting the rights of children

grew out of the desire to persuade people to value others as they value themselves. As Korczak astutely pointed out, "Children are not the people of tomorrow, but are people of today. They have a right to be taken seriously, and to be treated with tenderness and respect."

2 What Is a "Child-Friendly Community"?

What does a "child-friendly community" look like? One of the key factors is the importance of children's participation in the decision-making processes of municipalities. We can say that a child-friendly community is a place that protects the healthy development of children and where children have self-confidence and a sense of active participation in society. What is especially important is for adults to be attentive to children's opinions. In this regard, Article 12, Paragraph 1 of the Convention on the Rights of the Child states:

> "States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child..."

As indicated here, listening closely to the voices of children will encourage their participation in society. Accordingly, a child-friendly community promotes respect for children's rights, treating them as holders of rights, not just recipients. Respect for children's human rights is something closely intertwined with everyday life, and it is important to respect children's human rights from when they are young. Respect for the rights of children leads to the protection of human rights for all, and as such, being "child-friendly" means being friendly to all. A child-friendly community is one that is attuned to children, encourages them to think and make decisions autonomously, and provides them with chances and spaces for them to feel a sense of accomplishment.

3 Why Promote the CFCI?

What is the rationale for promoting the CFCI? Essentially, it is because a society in which everyone participates, children and adults alike, is imperative for achieving a sustainable world. It is especially important to establish systems that include children's opinions and ideas in this process. The CFCI plays a major role in this regard. In order to build a sustainable planet, we must confront the situation we face today and work to ensure that safe and secure societies continue to exist. For these reasons, the CFCI shares a close relationship with the SDGs. The SDGs represent an effort to harness the efforts of everyone —developing and developed countries, businesses, and citizens alike— to make our planet a better place to live. The CFCI is relevant to each of the 17 goals, especially Goal 11 "Sustainable Cities and Communities" which calls for making "cities and human settlements inclusive, safe, resilient and sustainable." Specifically, it aims to maintain the places where people live as safe, inclusive, and resilient communities. Such communities require people with flexible ways of thinking. The key issue here is the involvement of all people who live on our planet, and especially the participation of children, who are essential to making this effort sustainable. Having children participate in society as a matter of course during their childhood, when the foundations of humanity are laid, and harnessing their potential, will lead to a sustainable planet.

4 The Focus of the CFCI

Using several examples, we will examine how children's perspectives can be taken into account when advancing the CFCI.

(1) The Town as Seen from the 95 cm Eye Level

Let's examine the "town" as seen from the eye level of a child. As shown in **Figure 9-2**, crouching down reveals the view from a child's perspective. The average height of a five-year-old child in Japan is about 110 cm, so the eye level of such a child is about 95 cm from the ground. An adult holding a cigarette in their hand casually waves their hand just around a child's eye level. Even when a cigarette is not being smoked, it is likely to be burning at around 250 to 260 degrees Celsius, so it could cause serious harm if it comes into contact with a child's eyes. This is an example of how a casual or ill-advised wave of the hand can affect someone in a different position, such as a young child. Imagining or experiencing how a town looks like from a "95 cm perspective" will reveal that we have been looking at a town from an adult-centric view. It is unlikely that any adult would want to harm a child, but when adults act without considering other people in different positions,

Figure 9-2: **A workshop on the town as seen from a 95 cm perspective (photo courtesy of Urban95/Amsterdam Placemaking Week)**

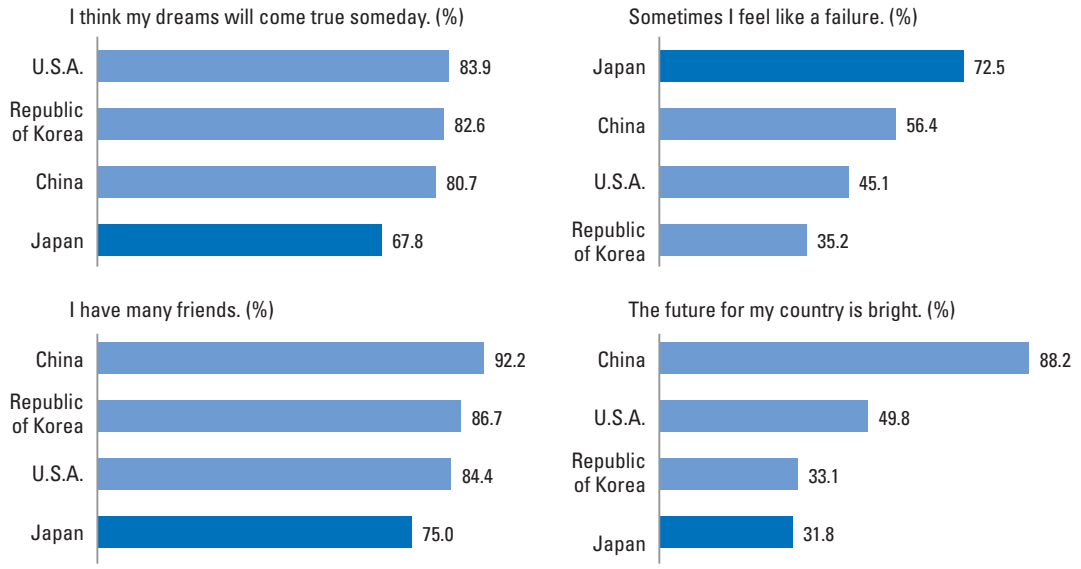
such as children, it can have serious consequences. With this understanding, we can shift our perspective of the "town" from being merely a physical place to a human place. In other words, we can develop the ability to think flexibly and to see things from a different standpoint. This means conceiving of towns from a variety of perspectives: not just that of children, but also elderly people, women, and people with disabilities. In turn, this leads to towns with sharing, cooperation, and peace of mind, where everyone can live in comfort. As such, a town that is friendly to children will be friendly to everyone.

(2) Low Self-Esteem among Japanese Children

In 2014, an interesting study was conducted that compared self-esteem among Japanese children with that of children in other countries. The National Institution for Youth Education of Japan surveyed high school students in Japan, the United States, China, and the Republic of Korea. The survey results are shown in **Figure 9-3**.

What do the results of this survey tell us? Japanese children do not seem to have very positive attitudes about themselves or their hopes for the future. Why is that? This view of oneself in society may be the result of being treated in a way that negates one's feelings of self-affirmation. A similar pattern can be seen in the results of a survey of children in 38 developed countries from UNICEF's *Report Card 16*, published in September 2020. This has important implications for the relationship between children and society. Shukuro Manabe, the 2021 Nobel Prize winner in Physics, explained why he left Japan to become a U.S. citizen: "In Japan, people always worry about not disturbing others. But in the U.S., I can do things I like.... That's one reason I don't want to go back to Japan. Because I cannot bear a way of life that places too much emphasis on harmony." (*Mainichi Shimbun*, October 6, 2021). There seems to be a common thread between Manabe's comments and the reasons for Japanese children's

Figure 9-3: **Comparison of self-esteem of children in four countries**



Source: National Institution for Youth Education (August 28, 2015), *Survey Report on High School Students' Views on Life: A Comparison of Japan, the United States, China, and South Korea.*

low levels of self-esteem. Do we recognize and praise children's progress in Japan without comparing them to other children? Are we imposing instructions on children's thoughts and opinions from above? Are we encouraging children to think and make decisions on their own? Put another way, the question is whether adults can respect children's autonomy and refrain from imposing excessive demands on them.

(3) Japanese Children's Attitudes toward Social Participation

A comparison of the attitudes of high school students in the four countries revealed that Japanese high school students have low levels of self-esteem and view the future of their country in a negative light. However, Japanese children do not necessarily have pessimistic attitudes. The results of a survey of attitudes of junior and senior high school students toward social participation conducted by Chiba City in 2009 provide some insights (**Figure 9-4**). According to the results, more than 60% of children answered "no" when asked whether they would like to speak out about the local environment and activities. However, when asked the reason why that was, they said that even if they spoke up, nothing would change and no one would listen. In other words, it is a question of listening on the part of adults. If children have opportunities to voice their opinions and a social system that is receptive to them, we expect that their motivation will increase, and their participation in society will be enhanced. How can we build a society for the future if children have no interest in society? This raises questions about the attitudes and approaches taken by adults.

(4) The Power of Children Shown in Rebuilding Schools after the Great East Japan Earthquake

A school rebuilding project in Otsuchi Town, Iwate Prefecture, which was severely damaged by the Great East Japan Earthquake, is a clear example of how children's voices and ideas can play a major role in community development. The Japan Committee for UNICEF asked elementary school students, who had lost their school buildings in the earthquake and had experienced studying in temporary school buildings, to help design a new school. The goal was to use their experience to create a school that was resistant to earthquakes and tsunamis, as well as one that was conducive to learning. The "Classroom of the Future" workshop was held three times, starting in October 2012, with the participation of approximately 90 fifth-grade students studying in temporary school buildings. In this workshop, the children built models of their ideal classrooms and school facilities. Under the guidance of experts, the children had a fun time building the models. They came up with many ideas on how to make the school more disaster-resistant, freely throwing around ideas as only children can. The workshop report, with comments from the experts, was then submitted to the Otsuchi municipal government. The Otsuchi Board of Education began construction of a new school building that embodied the children's ideas, and the result of their efforts came to fruition as Otsuchi Gakuen (academy) in November 2016. This was a project in which the power of children contributed greatly to the recovery from a major disaster. Through this experience, they learned that children have a considerable capacity to contribute to society. It was a tangible demonstration of the wonderful possi-

Figure 9-4: Children's attitudes toward social participation in Chiba City

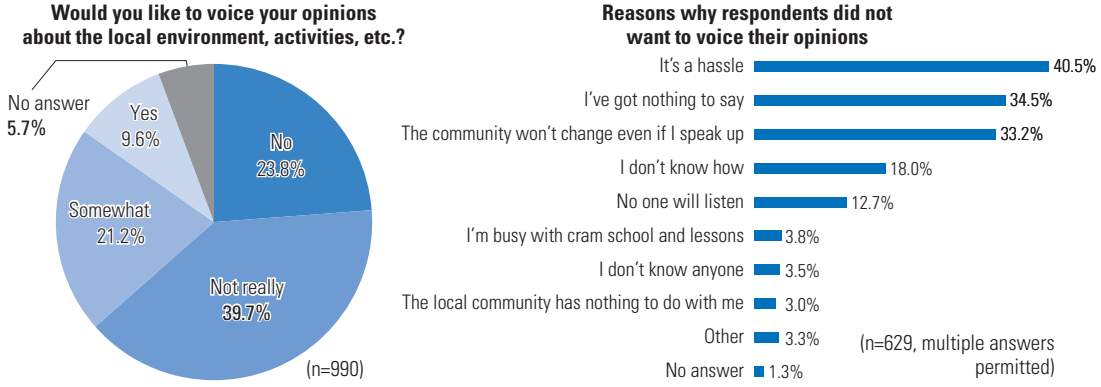


Figure 9-5: "Classroom of the Future" workshop

bilities for community development undertaken together with children. This great achievement, which bore fruit through the participation of children, also served as a catalyst for the Japan Committee for UNICEF to start working on CFCI in Japan.

5 CFCI around the World Today

The CFCI is a global initiative promoted by UNICEF. The extent to which this initiative has spread around the world gives us a glimpse of a sustainable future for the planet. The Child Friendly Cities Summit was held in Cologne, Germany, from October 15 - 18, 2019, coinciding with the 30th anniversary of the adoption of the UN Convention on the Rights of the Child. The summit was attended by 682 participants from over 250 municipalities around the world, including mayors of towns and cities, experts, children, and young people. A Mayors' Declaration was

Figure 9-6: Child Friendly Cities Summit

also issued, which appealed to municipalities around the world to become more child-friendly. Since the Summit, the number of countries and municipalities implementing the CFCI has increased rapidly, and as of March 2021, there were 5,676 municipalities in 58 countries taking part. Why does the CFCI focus on municipalities? This is because municipalities, as a system of administration, are closer to their residents and familiar with their needs. This makes them suitable for working with children, families, and other members of the community to find solutions. Among recent activities in developing and developed countries, there are active efforts to promote children's participation in society, to expand support for families, to coordinate with the SDGs, and to provide support for children amid the COVID-19 pandemic. Accordingly, there is a growing recognition that a sustainable planet cannot exist unless both developing and developed countries work hand in hand on this project.

6 The CFCI in Japan Today

What do the activities undertaken through the CFCI look like in Japan? The CFCI has common global standards, but as circumstances differ from country to country, there is also room for mechanisms to reflect those circumstances. For example, Japan's CFCI is based on the nine elements defined as universal standards by UNICEF, and also includes a tenth element that represents the challenges faced by each local government that is engaged in the CFCI. It also advocates "Our Local CFCI," an initiative in which municipalities voluntarily engage in sustainable municipal management. This helps an attachment to the project to develop, which in turn allows it to take root. This is not a self-centered approach that assumes that using this initiative is enough to improve only your own town. Putting the CFCI into practice will affect the municipalities around the area in question, as well as nearby cities, prefectures, and countries, until it eventually becomes something the entire world is engaged in. Implementation in Japan began with a forum held on October 29, 2018, at which UNICEF commissioned five municipalities (Niseko Town, Hokkaido; Abira Town, Hokkaido; Tomiya City, Miyagi Prefecture; Machida City, Tokyo; and Nara City, Nara Prefecture) to work on testing a UNICEF Japan-based CFC model. This testing work was completed over two years and produced excel-

Figure 9-7: **Mayors participating in the CFCI Forum (held on October 29, 2018)**

lent results (for an example of CFCI, see Chapter 11, 11-2, about Tomiya City's initiatives). Among these efforts, proactive and tangible measures are enhancing systems for implementing the CFCI, including establishing "Children's Future Divisions" in local governments; including the CFCI in Comprehensive Plans; and incorporating the CFCI into training programs for new employees. These measures clearly indicate that the CFCI is an important project for local government management in Japan. For more information on the implementation of the CFCI in Japan, please refer to the following website: https://www.unicef.or.jp/cfc/japan/ (in Japanese).

Amidst a plethora of issues involving children, such as child poverty, abuse, and bullying, major changes are taking place in the systems and legislation related to children in Japan. The Diet adopted the Basic Act on Children's Policy, which incorporates the spirit and principles of the Convention on the Rights of the Child, and the Act Establishing the Children and Families Agency, which centralizes the responsibility for child policy and the comprehensive coordination of measures regarding children (June 15, 2022). Although 28 years have passed since Japan ratified the Convention on the Rights of the Child, there is still little understanding in the country regarding respect for children's rights, including in schools. Under these circumstances, a clear national policy on respecting the rights of the child is a landmark achievement.

As a result, local governments are required to organize councils for implementing, liaising on, and coordinating matters related to policies involving children, and to ensure coordination among relevant departments. Drastic improvements in policies related to children and childcare are now expected, not only by the national government but by local governments as well. It is extremely important to take advantage of the new national systems and legislation to ensure widespread acceptance of their substance and principles, but it is the governments of the municipalities where children live that will take the lead in implementing them. The CFCI is an initiative in which local governments take the lead in protecting the human dignity of children, as embodied in the Convention on the Rights of the Child, and in increasing child participation. Therefore, CFCI can be seen as a project to meet these expectations in a tangible way. It is hoped that as many municipalities as possible will take a cue from the CFCI activities of the five commissioned municipalities and make a significant contribution to the future roll-out of the CFCI in Japan.

7 Conclusion

It goes without saying that people are influenced by their surroundings. Thus, children who grow up in an environment where human rights are respected will become people who respect human rights. Municipalities are the level of government closest to children. They can listen to their opinions on matters that concern them and incorporate new perspectives into municipal management. If we value the qualities that children naturally possess, they will develop an interest in the community and participate in its projects. This leads to greater activity in the community and facilitates interaction between people, resulting in safe and stable municipalities. This process will serve as a "glocal" initiative that is friendly to all, which will help protect the planet we live on. This will create sustainable communities that belong to everyone.

Written by Tatsuru Mikami

Note: This chapter represents the author's personal views and not those of his organization.

Challenges for Realizing "Communities Where No One Is Left Behind"

Chapter 10

People Affected by Disasters

10-1 How to Prevent People Affected by Disasters from Being Left Behind

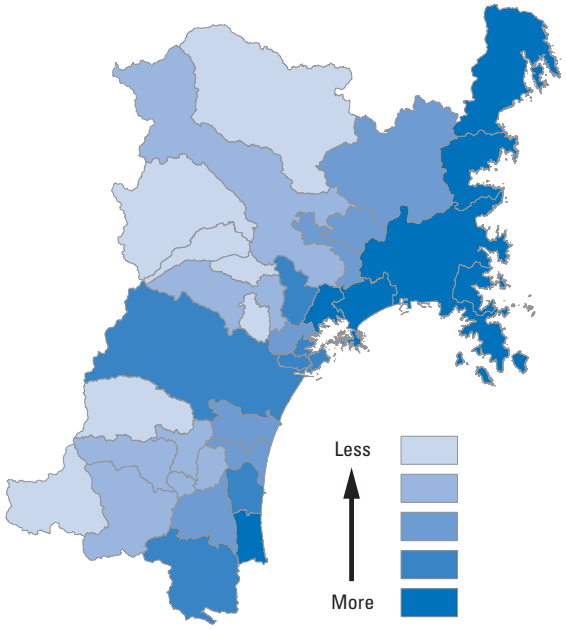
1 Disaster Damage and People Affected by Disasters in Miyagi Prefecture

The term "disaster" refers to the damage done to humans and society by a hazard, such as an earthquake or a fire. Disasters can be broadly divided into two categories according to the nature of the hazard: those caused by natural phenomena and those caused by human activity. Here, those impacted by disasters are referred to as "people affected by disasters," while the damaged areas are called "disaster areas."

In this chapter, two researchers who have been active in the affected areas of Miyagi Prefecture, the author and Dr. Dinil Pushpalal, and Tomoyuki Miura, who himself experienced the 2011 disaster, will explore the themes of natural disasters, the people affected by them, and disaster areas, from their own perspectives (see sections 10-2 and 10-3, respectively). In this section, I will highlight the challenges faced by people in Miyagi Prefecture, while touching upon issues pertaining to labels such as "people affected by disasters" and "disaster area."

Having suffered from numerous disasters throughout its history, Japan is known as one of the world's most disaster-prone countries. According to *SDGs and Japan*, between 1995 and 2016, Miyagi Prefecture had 508 people per 100,000 people killed or missing due to natural disasters, the highest out of all prefectures. Meanwhile, indicator F10,[*1] which measures damage to housing caused by natural disasters (per 1,000 housing units) by municipality from 2008 to 2020, shows that the coastal town of Onagawa had the largest number of damaged houses (1,000.1 houses per 1,000 units), followed by Higashi-Matsushima (724.4 per 1,000 units) and Minami-Sanriku (700.1 per 1,000 units). The town of Shichikashuku in the southern inland part of the prefecture suffered the least damage (1.5 houses per 1,000 units), followed by Kawasaki and Kami in the northern inland part of the prefecture (at 4.6 houses per 1,000 units and 7.6 houses per 1,000 units, respectively). This indicator underscores the fact that coastal areas suffered the most

Figure 10-1: **Damage to housing caused by natural disasters (Indicator F10)**



[*1] The number of housing units used to calculate F10 is the average between 2007 and 2020, which is extremely large for municipalities such as Onagawa because the total number of housing units declined significantly after the disaster while the number of damaged units was high.

damage. While the uneven distribution of damage is largely due to the damage caused by the tsunami following the Great East Japan Earthquake (2011), it is also important to note the damage caused by the Iwate-Miyagi Nairiku Earthquake in 2008 and by Typhoon Hagibis in 2019, mainly in the non-coastal area of Marumori.

Two further offshore earthquakes (2021 and 2022)[*2] occurred while this chapter was being written. However, the discussion in this chapter will focus primarily on the people affected by the Great East Japan Earthquake.

2 Problems with the Term "People Affected by Disasters" (*"Hisaisha"*)

(1) Definition and Diversity of "People Affected by Disasters"

Here, I would like to touch on several problems related to the term "people affected by disasters."

First, the people themselves have expressed unease with this label. The term "people affected by disasters" is used from the perspective of those outside the disaster area, and there is a reluctance among people in a wide range of situations to be lumped together, as this obscures their diversity. In the past, the author conducted a secondary analysis of narratives from victims of the Great East Japan Earthquake to try to capture this diversity and to identify what they saw as differences among them. The analysis revealed that such differences were perceived not only in social attributes such as age and generation, but also by the type and degree of damage suffered, and in terms of their ability to have a say in the recovery process (Maho Yamazaki, "Self-Perception of 'Affected People' in Disaster Recovery," *Disaster Recovery and Revitalization Review*, No. 16).

Furthermore, perceptions of the differences in damage suffered relates to the second problem with this label: the difficulty in answering the question, "Who is a 'person affected by a disaster'?" When discussing the Great East Japan Earthquake, common phrases include "the Tohoku disaster area," "the three disaster-affected prefectures (Iwate, Miyagi, and Fukushima)," "the disaster-hit Miyagi Prefecture," and so on. Although the definition of "disaster areas" and perceptions of these areas are highly variable and context-dependent (for example, the whole of Japan is sometimes viewed as a disaster area from a foreign perspective), the perception of Miyagi Prefecture as a disaster area is common both within and outside the prefecture. On the other hand, who in Miyagi Prefecture should be treated as a "person affected by the disaster," or in other words, who should be the focus of this chapter?

(2) Ambiguity of the Concept of "Being Affected by Disasters"

As can be seen from the variable nature of the term "disaster area," the phenomenon of "being affected by a disaster" can be delineated in countless ways, and cannot be simply viewed as a binary opposition of "yes" or "no." For example, there are various ways to measure this at the individual or household level (such as damage to residential buildings or physical injuries), and at the municipal or regional level (such as the number of dead or missing or the number of houses completely destroyed). Instead, being affected by disasters should be measured in gradations or "degrees" of being affected.

However, to determine the scope of public assistance from government agencies following a disaster, there is a need to clearly delineate the extent of being "affected by disasters." This leads to a variety of problems, as will be discussed below. Furthermore, the extent of damage and the corresponding media coverage, as well as the amount of support, form a "core" that attracts most of the attention and a "periphery" that does not. The images of "people affected by disasters" and "disaster areas" are constructed around this "core"; those who do not fit into this framework are marginalized. In the case of the Great East Japan Earthquake, the "core" includes people who lost their houses to the tsunami, areas that suffered severe damage, areas severely affected by the nuclear disaster, and people who were forced to flee their homes.

It is already known that victims consciously or unconsciously compare the extent of their suffering to others (for example, by thinking "I am still better off"). In addition, it is

[*2] Data on the damage caused by these two earthquakes is not included in the F10 indicator in this book.

not difficult to imagine that people on the "periphery" find it difficult to express their feelings and seek support as "disaster victims," given that most of the focus is on the "core."

In Miyagi Prefecture, where various areas have suffered severe damage in recent disasters, the issues surrounding the diversity of victims and the ambiguity of "being affected by a disaster" underline many of the challenges faced by such people. The discussion in this section is based on these realities, and I would like to consider all people affected in some way by the disaster as "people affected by the disaster." This is because this issue is closely tied to "being left behind," the main theme of this book.

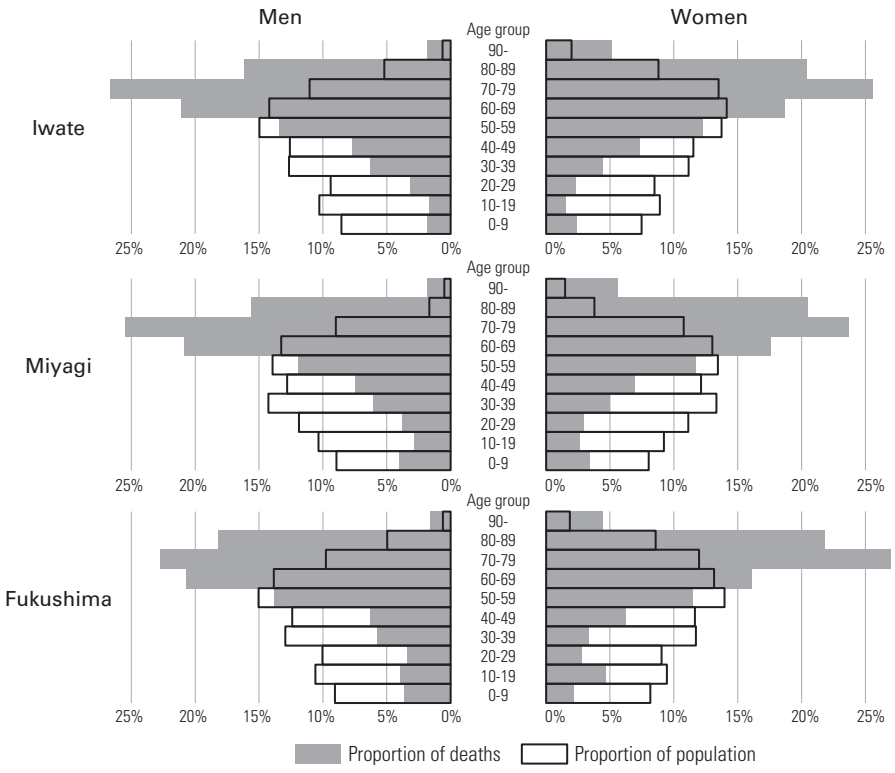
3 Diversity of People Affected by Disasters and the Uneven Distribution of Disaster Damage

(1) Elderly People

Disasters occur where hazards occur, in conjunction with pre-existing vulnerabilities in society. Although anyone can be affected by a disaster, the damage tends to be concentrated among certain social groups, such as the elderly and disabled, or, to put it another way, on the "weaker" parts of society. This trend also holds true for the people affected by the disaster in Miyagi Prefecture.

The Great East Japan Earthquake caused tremendous human suffering to the elderly, who had difficulty evacuating on their own. Figure 10-2 shows the percentage of deaths by age group (gray bars, Ministry of Health, Labour and Welfare, 2012) and the proportion of the population of the same age group (black-outlined bars, 2010 Census) for the three hardest-hit prefectures, Iwate, Miyagi, and Fukushima. For all prefectures, the proportion of deaths is lower than the proportion of the population up to the 50–59 age group, but for the 60–69 age group and above, the proportion of deaths exceeds the proportion of the population. Meanwhile, Table 10-1 shows the ratio of the proportion of deaths (gray bars in Figure 10-2) to the

Figure 10-2: **Population pyramid for the three prefectures and proportion of deaths by gender and age group**



Source: produced by the author based on data from the 2010 National Census and *Deaths due to the Great East Japan Earthquake from the Vital Statistics* by the Ministry of Health, Labour and Welfare.

Table 10-1: **Ratio of the proportion of deaths to the proportion of the population by gender and age group, in Iwate, Miyagi, and Fukushima Prefectures**

Age group	Iwate		Miyagi		Fukushima	
	Men	Women	Men	Women	Men	Women
90-	2.99	2.59	3.79	3.79	2.61	2.38
80-89	3.11	2.32	9.43	5.41	3.66	2.54
70-79	2.41	1.90	2.84	2.20	2.33	2.25
60-69	1.49	1.32	1.57	1.35	1.49	1.22
50-59	0.90	0.89	0.86	0.87	0.92	0.82
40-49	0.62	0.63	0.59	0.57	0.50	0.54
30-39	0.50	0.40	0.42	0.37	0.45	0.29
20-29	0.34	0.27	0.32	0.26	0.34	0.31
10-19	0.16	0.17	0.28	0.29	0.37	0.49
0-9	0.21	0.32	0.45	0.43	0.40	0.26

proportion of the population in 10-year age increments (black-outlined bars in Figure 10-2) by age group, sex, and prefecture (Shigeo Tatsuki, "Elderly and Disabled People and the Great East Japan Earthquake: Actual Conditions and Issues of Evacuation for People in Need of Assistance during Disasters," *Shoubou Kagaku to Jyouhou* (Fire and Emergency Science and Information Technology), No. 111, 2013). The proportion of harm suffered by the elderly was particularly high in Miyagi Prefecture. One reason was that many facilities for the elderly were located along the coast, and another was because the proportion of elderly people living in their own homes was high (Tatsuki, 2013).

The tendency for elderly people to be overrepresented among victims is also thought to hold for Typhoon Hagibis (2019), although the distribution of the dead and missing in the prefecture by gender and age is still unknown at the time of writing this chapter.

(2) People with Disabilities and Women

People with disabilities also suffered disproportionate harm. It has been reported that in the Great East Japan Earthquake, the fatality rate for disabled people (holders of disability passbooks) was nearly twice that of the resident population as a whole. It was reported that 3.5% (1,027) of the disabled population in 13 coastal municipalities of Miyagi Prefecture died, and that the fatality rate was 2.5 times higher than the average for residents. One reason given for this was that Miyagi Prefecture had much higher occupancy rate of facilities for people with disabilities than Fukushima and Iwate prefectures (Tatsuki, 2013). As Miyagi Prefecture accounts for the majority of the population of the three prefectures, as well as the majority of people with disabilities, some think these figures may be overstated. Nonetheless, there was a large difference compared to Iwate and Fukushima prefectures.

Precedents in Japan and overseas have also shown that women are more likely to be victims of disasters, especially earthquakes. Of the total number of people who died in the Great East Japan Earthquake (18,877 people), 10,184 (53.9%) were women and 8,693 (46.1%) were men (Ministry of Health, Labour and Welfare, "Deaths due to the Great East Japan Earthquake from the Vital Statistics," September 6, 2012). In Miyagi Prefecture, 5,667 (54.1%) of the 10,483 deaths were women, while 4,816 (45.9%) were men, though it is also important to take into account the high ratio of women among the elderly population in Japan. Table 10-1 shows that the death rate of older men (as a proportion of the population) was higher than for older women. One reason is that many elderly people in Miyagi Prefecture lived at home, and compared to women, men of advanced age tended to live at home with their wives and families (Tatsuki, 2013).

(3) People in Need of Assistance during Disasters

The *1987 White Paper on Disaster Management* defines "people in need of assistance during disasters" holistically as those people who are vulnerable to becoming victims of disasters (i.e., vulnerable people and people requiring special consideration). In addition to elderly people and people with disabilities, people in need of assistance during disasters include various groups who are vulnerable under normal conditions, such as pregnant and nursing women, infants (and parents with infants), the sick and injured, and the infirm. Moreover, it has recently been pointed out that without proper support, foreign nationals with limited Japanese language skills and tourists with little geographical knowledge are also at high risk of harm during disasters.

People in need of assistance during disasters also face difficult living conditions in evacuation centers after a disaster strikes. The percentage of people whose health

condition worsened during their stay in evacuation centers after the Great East Japan Earthquake was higher among those defined as being in need of assistance during disasters (50%) than among those who were not (25%) (Cabinet Office, *Results of the Survey on the Promotion of Comprehensive Measures for Evacuation, 2013*). The harsh environment of evacuation centers is thought to place a significant strain on those who need assistance during disasters. In particular, the physical environment of the centers, which are often school gymnasiums or classrooms, places a burden on the elderly, as the stress of living in evacuation centers is thought to increase with age. Other reasons include the lack of awareness about the welfare evacuation center system, which provides special accommodation for those in need.

It has also been noted that evacuation centers tend to be run by men, and women feel a greater burden due to difficulties in finding privacy while living in such centers. Furthermore, violence towards women and children during disasters is known to be a global phenomenon. Japan was no exception in this regard, with reports of sexual violence against women at evacuation centers and other facilities in the aftermath of the Great East Japan Earthquake.

4 Being "Left Behind" in the Recovery Process

(1) Viewing Recovery from a Holistic Perspective

The differences in vulnerability are also evident when the long process of recovery gets properly underway, as it reveals who are being left behind in society as it moves ahead in the recovery process. When examining the challenges faced by these people, it is important to view recovery from a holistic perspective.

Although "recovery" is often used without distinguishing it from "restoration," the two are different in the following respects. While "restoration" generally refers to restoring "hard" aspects such as disaster prevention facilities to their original state, "recovery" also covers "soft" aspects and aims to create something better. There are various perspectives from which to view the progress of disaster recovery. Physical recovery, such as infrastructure development and the rebuilding of houses, does not necessarily equate to the "soft" dimensions of recovery involving people and society. For example, after the Great East Japan Earthquake, the completion rate for the construction of public housing for disaster victims (as a percentage of planned housing units) had reached 99% by the end of March 2020, while the completion rate for the construction of land for private housing and other purposes was also 99%, making it seem like the infrastructure and housing recovery stage was coming to an end (Reconstruction Agency, *Progress of Full-Scale Restoration and Reconstruction of Public Infrastructure*). However, when asked about the "degree of recovery" (their impression of the progress of recovery) during the same period, the average score given by disaster victims in the coastal areas of the three affected prefectures was only 62.8% (*Kahoku Shimpo*, March 10, 2020).

A particularly important issue in the recovery of Miyagi Prefecture, where the population is declining and aging, is rebuilding the lives of those affected by the disaster. Specifically, problems such as solitary deaths in temporary and public disaster housing and disparities in the recovery of disaster victims have emerged, which require "soft" recovery support such as assistance in rebuilding communities. These are further described below.

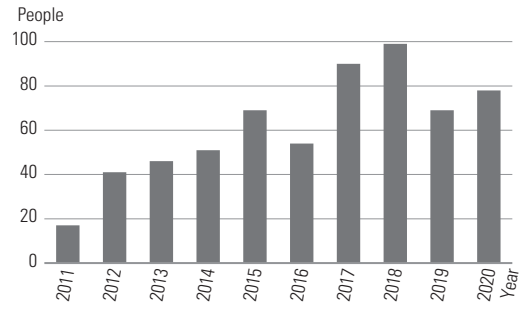
(2) Solitary Deaths

Since the Great Hanshin-Awaji Earthquake, "solitary deaths" in temporary housing and public housing for people affected by the disaster (hereafter referred to as disaster-related public housing) have emerged as a problem. These are most common among low-income individuals who are unemployed or in non-regular employment. It is thought to be caused by being confined to their homes and the breakdown of interpersonal relationships, which in turn can lead to excessive alcohol consumption, inadequate nutrition, and neglect of chronic illnesses. Furthermore, a breakdown of data on solitary deaths following the Great Hanshin-Awaji Earthquake by gender and age showed that they are more common among men, especially those in their 50s to 70s.

Lack of "community" has been identified as a factor behind the high incidence of solitary deaths in temporary housing and disaster-related public housing. In recent years, various measures have been taken to promote the formation of new communities among disaster victims,

Figure 10-3: Number of people who died while living alone in disaster-related public housing

* Deaths reported to the National Police Agency by the Iwate, Miyagi, and Fukushima police. Includes cases where the place of death was outside the home, except traffic accidents.



Source: *Asahi Shimbun*, "614 'Solitary Deaths' in Temporary and Reconstruction Housing: 10 Years in Three Prefectures" (here, "reconstruction housing" refers to disaster-related public housing)

including the introduction of resident selection methods that preserve existing communities (e.g., moving entire settlements together); the installation of shops and meeting spaces within housing complexes; and better monitoring of elderly people by neighborhood associations.

Such measures were also taken with respect to temporary housing in areas affected by the Great East Japan Earthquake. However, many municipalities used a lottery system to decide who would move into disaster-related public housing, resulting in the dismantling of communities that had been formed in the temporary housing complexes. By the end of 2020, 196 people had been reported as having died alone in disaster-related public housing in Miyagi Prefecture (deaths reported to the police). In Iwate, Miyagi, and Fukushima prefectures, 75.4% of the deaths in disaster-related public housing were reported to be among people aged 65 or older. According to a survey by the Miyagi Prefectural Government, as of April 1, 2021, elderly people living alone accounted for 32.4% of all households living in the prefecture's disaster-related public housing, and there is concern that more solitary deaths may occur in the future.

(3) Disparities in Recovery

It has also been noted that the degree of recovery varies according to the social characteristics of the affected population. In terms of the reconstruction of housing for those who lost their homes, those with high household incomes tend to rebuild on their own as soon as possible. Meanwhile the elderly and those with low incomes tend to be left behind, due to factors such as delays in moving out of temporary housing. It has also been noted that in the process of evacuation and reconstruction, such as moving into temporary housing, some households were split up, and the number of households consisting of only a married couple or an elderly person living alone increased. Under the disaster-related public housing system, rent is kept low at the beginning of the tenancy but rises over time and with increases in income. In recent years, rent increases have placed a heavy burden on the victims of the Great East Japan Earthquake, causing them to cut back on living expenses and withdraw money from their savings accounts.

In addition, there are many reports of people who were forced to leave their jobs, were dismissed, or had to take a leave of absence in the aftermath of the disaster. The resulting problems of unemployment and declining income are more severe among those in non-regular employment, especially women.

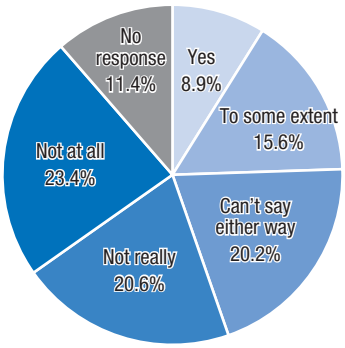
Moreover, with respect to the ambiguity of the term "disaster damage," there are cases of people who fell between the cracks of the public assistance system and were left behind in the reconstruction process. Here, I would like to discuss the case of "at-home victims."

The term "at-home victims" refers to those who were unable to secure a place to stay in evacuation centers, and who were forced to live as evacuees in their own damaged homes. In the Great East Japan Earthquake, a significant number of people continued to live at home, and challenges arose because support activities and information mainly targeted those people staying in evacuation centers and temporary housing. The Ishinomaki Medical District Health and Lifestyle Recovery Council, a private organization that provides support to "at-home victims" in Ishinomaki City, estimated there were 12,000 such households in the city (as of March 2012). It has been reported that many of these people were still living in their damaged homes in 2021, ten years after the disaster, because the level of damage to their properties was not severe enough to be covered by public support systems.

Given these disparities in recovery, some people cannot easily escape from their social position as "people affected by the disaster." A person's awareness of being deemed a

"person affected by a disaster" (or personally identifying as such) is called "disaster victim self-perception." In general, this awareness tends to weaken over time as the recovery process progresses (especially livelihood recovery). However, a survey conducted by NHK (Japan's public broadcaster) on disaster victims in Iwate, Miyagi, Fukushima, and other prefectures just before the 10th anniversary of the disaster found that more than 60% of respondents said they had this "disaster victim self-perception." In particular, those who have yet to experience economic recovery tended to have more difficulty in breaking free from this mindset. When asked whether they could escape from the image of living in a "disaster area" or being a "person affected by a disaster," only one quarter answered that they could (**Figure 10-4**).

Figure 10-4: Have you been able to escape the image of living in a "disaster area" or being a "person affected by a disaster"?



Source: Based on NHK News Web, "Survey of Disaster Victims: What does '10 years' mean?"

5 How to Prevent People Affected by Disasters from Being Left Behind

Disasters have been called x-rays that reveal fractures in society. While people's daily lives after a disaster differ from the norm, they are closely linked to existing weaknesses in society, with damage borne disproportionately by those sections of society that are vulnerable even in normal times. Inequality can grow during disaster recovery, as vulnerable people are more likely to face delays in rebuilding their lives and to be left behind in the recovery process.

As mentioned several times in this book, the world was ravaged by the COVID-19 pandemic from the beginning of 2020. The pandemic has had a major impact on those affected by the disasters in Miyagi Prefecture, especially those who have been "at risk of being left behind" in the recovery process. When taken together with the Great East Japan Earthquake and Typhoon Hagibis, it can be seen as a kind of "double (or triple) disaster." Its effects on employment have been greater for those in non-regular employment, particularly women. Moreover, by preventing people from meeting each other, the pandemic severely restricted interactions among residents of disaster-related public housing, as well as the monitoring activities of the people supporting them. Cases of solitary deaths also occurred, posing a new type of risk arising from isolation.

So, what efforts are needed to prevent victims from being "left behind" in this way? Activities to prevent disasters or limit the spread of damage are not enough. Rather, what is required is to reduce disparities, inequalities, and vulnerabilities in society during normal times, and to build a society of coexistence that is comfortable for everyone to live in.

Written by Maho Yamazaki

10-2 Resilience to Natural Disasters

1 Resilience and the SDGs

"Resilience" and its related terms have become buzzwords in recent literature dealing with disaster risk reduction. For example, the term resilience was used four times in the short 434-word message from Margareta Wahlström, former Special Representative of the UN Secretary-General for Disaster Risk Reduction, to the 3rd UN World Conference on Disaster Reduction held in Sendai in 2015. As such, interest is now focused on making things "resilient" rather than "strong." This is a positive step toward the realization of a sustainable world.

The SDGs were adopted by the UN General Assembly in 2015. Goal 11 of the SDGs aims to "make cities and human settlements inclusive, safe, resilient and sustainable." Target 11.b states that "By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels."

2 How Can Resilience Be Precisely Defined?

In elasticity theory, the term "resilience" is strongly related to elasticity, proportionality, and limiting properties. Looking at elasticity and proportionality from the perspective of disasters, the stresses caused by disasters on the one hand, and the social, economic, and physical tensions caused by disasters on the other, show a substantial correlation. Resilience in elasticity theory has a maximum value. Applying this to disasters, the severity of a disaster must be within the ability of a place or society to cope with that disaster.

In the literature on this topic, many authors provide definitions of resilience, but these definitions vary according to their areas of expertise and interest. Following an extensive review of many sources, the United Nations Office for Disaster Risk Reduction (UNDRR)[*3] defined resilience as "the ability of a system, community, or society exposed to hazards to resist, absorb, accommodate, and recover from the adverse effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions."

The relationship between vulnerability and resilience has also been discussed by many authors. The main questions in these discussions are: whether resilience is the opposite of vulnerability; whether resilience is a factor in vulnerability, or vice versa; whether vulnerability takes into account coping capacity and resilience; or whether vulnerability and resilience are distinct characteristics that counteract each other.

Whatever the topic in question, the definition of resilience includes some notion of mechanics. In the theory of elasticity, fragility (i.e., vulnerability) and resilience are completely different properties. As in the case of weaker materials such as rubber, resilience refers to the property of maintaining functional strength in a given event and returning to its original state after stress is released. This property is similar to that of strong, ductile materials such as certain types of steel. In light of this, I propose to define resilience to disasters by incorporating methods from the theory of elasticity. Resilience as applied to disasters can be simply defined as "the ability of a system, community, or society damaged by a disaster to return to its original state immediately and efficiently." The following discussion will proceed using this provisional definition.

> What is resilience as applied to disasters?
> The ability of a system, community, or society damaged by a disaster to return to its original state immediately and efficiently.

[*3] The United Nations International Strategy for Disaster Reduction was renamed the United Nations Office for Disaster Risk Reduction (UNDRR) on May 1, 2019.

3 The Etymology of Resilience and the Theory of Elasticity

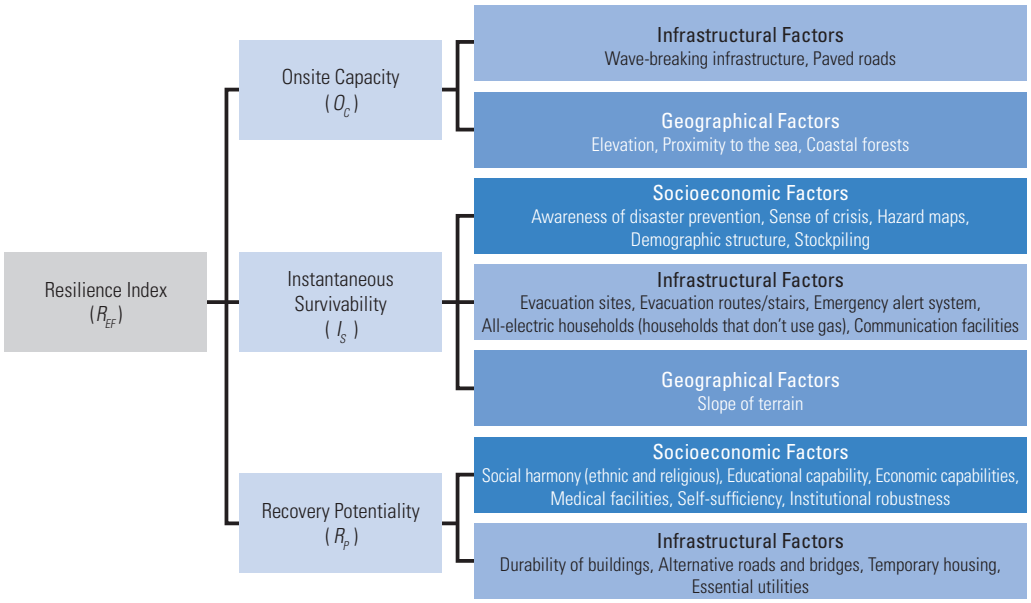
While many use "resilience" without considering its original meaning, some researchers have examined the history and usage of the term. D.E. Alexander, for example, conducted research on how the term resilience developed through history, providing insights into the historical depths and continuity of its modern usage ("Resilience and disaster risk reduction: an etymological journey," *Nat. Hazards Earth Syst. Sci.* 2013, 2707-2716). He suggests that the first significant use of the term "resilience" in mechanics can be found in 1858, when William J. M. Rankine (1820–1872), a prominent Scottish engineer, used it to describe the strength and ductility of steel beams. As resilience is the foundation of the theory of elasticity, pioneering experts in this field have explored the legacy of this word. According to Isaac Todhunter (1820–1884), an English mathematician who conducted historical research on the theory of elasticity, Thomas Young (1773–1829) first brought the term resilience into English. His general theorem states that the "resilience of a prismatic beam resisting a transverse impulse is simply proportional to the bulk or weight of the beam." Young's Theorem 337 mentions that "the resilience of prismatic beams simply depends on their bulk." Furthermore, the theorem describes resilience as a joint ratio of the length, breadth and depth (for more details, see the author's paper, "A New Methodology for Measuring Tsunami Resilience Using the Theory of Springs," *Geosciences* 2020, 10, 469).

4 A Practical Conceptual Framework and Mathematical Model for Measuring Resilience

Many studies have attempted to assess resilience in disaster-prone areas by establishing frameworks, weighting techniques, and even indices. However, these studies don't take into account resilience's background in mechanics. Moreover, while some effective factors are aggregated by addition or division, rational explanations for them are rarely provided. In view of the lack of established theories on the calculation and evaluation of resilience, the author proposes a practical conceptual framework (**Figure 10-5**) and a mathematical model based on spring theory (**Figure 10-6**).

The framework proposes a Resilience Index that is valid for a particular region and breaks this index down into three variables (requisites), defined as Onsite Capacity (O_C), Instantaneous Survivability (I_S), and Recovery Potentiality (R_P), respectively. It assumes that the capacity for each phase depends on the socioeconomic, infrastructural, and geographical factors of the area in question.

Figure 10-5: Conceptual Framework of the Resilience Index



Each phase of the framework depends on two or three factors, which can be measured by different indicators.

The proposed framework assumes that an "ideal resilient region" should fulfill all three requisites. Although the framework can be applied to any water hazard, we will limit our discussion to tsunamis for the sake of simplicity.

In the case of tsunamis, Onsite Capacity is the ability of a given place to withstand a tsunami even before it occurs. Instantaneous Survivability is the ability to survive extreme situations during a disaster. Recovery Potentiality is the ability to recover soon after a disaster, even though the region has been destroyed by a tsunami.

Figure 10-6 illustrates a composite spring composed of series springs and parallel springs, which is analogous to each phase of the conceptual framework and the mathematical model. In this model, the Onsite Capacity (O_C), Instantaneous Survivability (I_S), and Recovery Potentiality (R_P) of a given town are treated as equal to the constants of the spring. A normalized spring consisting of a parallel spring with a spring constant equal to 1, and a series spring with a spring constant equal to $\alpha O_C\,(I_S + R_P + 1)$, are introduced in order to normalize the resilience index (R_{EF}). Onsite Capacity O_C has been considered indispensable for the prevention of a tsunami disaster. Normalization gives O_C this indispensability and avoids division by zero, even in the worst case. The constant α controls the value of R_{EF}. If $O_C = I_S = R_P = 1$, then α must be 4/9 to keep $R_{EF} = 1$. Table 10-2 shows the final properties of the proposed model.

Figure 10-6: **Composite spring consisting of parallel springs and series springs and the mathematical model**

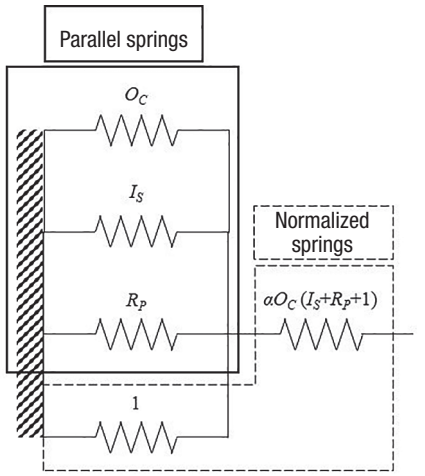


Table 10-2: **Final properties of the proposed model**

Case	O_c	I_S	R_P	R_{EF}	Notes
1	1.00	1.00	1.00	1.00	Optimal conditions in all phases
2	0.00	1.00	1.00	0.00	No Onsite Capacity, optimal conditions in other phases
3	1.00	0.00	1.00	0.69	No Instantaneous Survivability, optimal conditions in other phases
4	1.00	1.00	0.00	0.69	No Recovery Potentiality, optimal conditions in other phases
5	1.00	0.00	0.00	0.36	Optimal Onsite Capacity, worst conditions in other phases
6	0.00	0.00	0.00	0.00	Worst conditions in all phases

5 What Kind of Mathematical Model Indicates a Resilient City?

In the proposed mathematical model, tsunami resilience is largely dependent on the Onsite Capacity (O_C) of a particular location. In other words, no place can survive if it does not have Onsite Capacity (O_C). I_S and R_P are employed as necessary conditions but are not sufficient. However, the mathematical model shows that an area that scores the maximum for all three factors is the ideal, leading to the maximum in the resilience index. Therefore, no place can be resilient if there are no human activities, because Instantaneous Survivability and Recovery Potentiality are only valid if there is human life. In other words, a town with the ideal Onsite Capacity can be strong in facing a tsunami, but weak in resilience if it lacks Recovery Potentiality. Constructing seawalls and raising the height of land would greatly improve resilience. However, the proposed mathematical model acknowledges that resilience is, in part, a socially constructed capability. The third priority for action in the Sendai Framework for Disaster Risk Reduction recommends increasing social resilience through

investments in disaster risk reduction and taking a broader, more people-centered, preventive approach to disaster risk.

6 Is Minami-Sanriku a Resilient Town?

Finally, I would like to discuss Minami-Sanriku as an example of a model resilient town and explain why I consider it to be so. Minami-Sanriku is a small coastal town located in northeastern Miyagi Prefecture. On March 11, 2011, the town was hit by a magnitude 9.0 earthquake, accompanied by a tsunami that claimed 620 lives out of a population of 17,666, with 211 people still missing. It is estimated that 58.6% of the town's buildings were completely destroyed. By moving residences to higher ground, building seawalls, relocating fishing infrastructure, and providing other socioeconomic initiatives, the town became a benchmark for resilient urban development (**Table 10-3**). Following the theory described here, Onsite Capacity is the ability of a given place to withstand a tsunami even before it comes. Onsite Capacity can be assessed by the elevation of a location, its proximity to the sea, the presence of seawalls, and the condition of roads. Minami-Sanriku's heavy civil engineering structures have contributed to its recognition as a strong and resilient town (**Figures 10-7** to **10-10**).

Construction of the new Minami-Sanriku town began in February 2013. One reason for Minami-Sanriku's decision to undertake mass relocation to higher ground is that the town has experienced several major tsunamis in the past, including the 1960 Valdivia earthquake and tsunami. For centuries, residents have been taught to run when a tsunami comes. However, Mayor Jin Sato sought

Figure 10-7: **Minami-Sanriku's Shizugawa District, where the land has been elevated (August 2021)**

Figure 10-8: **Disaster victims relocated as communities, with homes rebuilt on higher ground (Shizugawa-Higashi District, Minami-Sanriku, October 2020) (courtesy of Minami-Sanriku Town)**

Figure 10-9: **Breakwater and emergency evacuation stairs in Minami-Sanriku's Shizugawa District (August 2021)**

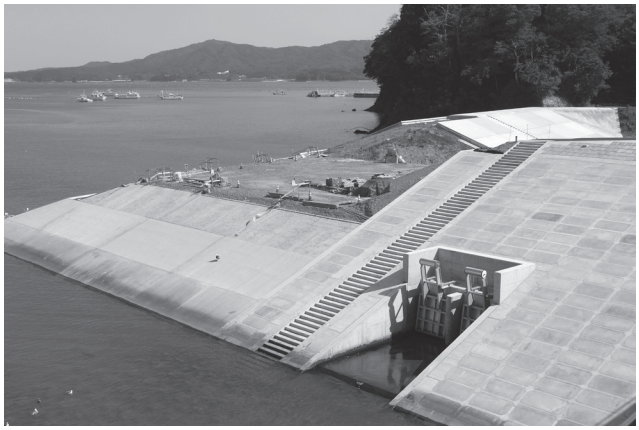


Figure 10-10: **Minami-Sanriku's Shizugawa District, where the fishing industry has been located (August 2021)**

Table 10-3: Measures taken by Minam-Sanriku to build a resilient town

Necessary conditions	Factors	Indicators: Measures
Onsite Capacity (O_C)	Infrastructural Factors	**Seawall:** Tokyo Peil (TP)[*4] + 8.7 m in Shizugawa Bay (assuming an offshore earthquake in Miyagi Prefecture) **Paved roads:** Arterial and other roads have been realigned and improved. Readjustment has been done for non-residential land dedicated to commercial, industrial, and business activities. This has allowed the construction of roads with easy connections to major roads (National Routes 45 and 398). The construction of a hub access road connecting housing developments on higher ground and an evacuation road has also made it possible to evacuate to higher ground more quickly.
	Geographical Factors	**Elevation:** The level of the town has been raised substantially.
Instantaneous Survivability (I_S)	Socioeconomic Factors	**Disaster prevention awareness:** On the first Sunday after November 5 (Tsunami Disaster Prevention Day), a comprehensive disaster drill is held every year for town residents, in cooperation with disaster prevention agencies, simulating earthquakes, tsunamis, landslides, and other disasters. **Hazard maps:** Posted on the town's official website. Printed copies are distributed to all households in the town. **Stockpiling:** Food, blankets, and other supplies for the number of people to be accommodated are stockpiled at designated evacuation centers in public facilities (16 locations). At the district's designated emergency evacuation site, the town subsidizes part or all of the cost of food and other items stockpiled by each district's voluntary disaster prevention organization.
	Infrastructural Factors	**Evacuation sites:** 16 designated evacuation centers, 52 designated emergency evacuation sites. **Evacuation routes/stairs:** Emergency evacuation routes and stairs have been constructed. The construction of an evacuation road to higher ground has also made it possible to evacuate more quickly. **Residential development:** Residences and public facilities are located on higher ground or other safe locations (TP + 20.0 m or higher) in accordance with the basic land-use principle of "locate homes on high ground, even if daily activities take place in varied locations." **Industrial sites:** Safe evacuation sites and evacuation routes have been provided near areas of daily activity near the coast. **Emergency alert system:** Using disaster information obtained through the J-Alert receiver located in the town hall building, the information is automatically broadcast over the municipal disaster prevention radio using an automatic activation device for the broadcast system, or automatically sent via the town's registered email system using an automatic email activation device. Evacuation guide vehicles are run to facilitate evacuation.
Recovery Potentiality (R_P)	Socioeconomic Factors	**Medical facilities:** 16 medical facilities have been designated as Miyagi Prefecture Disaster Medical Assistance Team (Miyagi DMAT) facilities, and agreements have been concluded for dispatching medical personnel. **Revitalization of local communities:** Because residential and commercial areas are now located far away from each other, the town improved its public transportation network, including by operating a town bus service. **Institutional robustness:** Disaster support agreements with seven municipalities located far away from each other (and therefore less likely to be affected by the same disaster).
	Infrastructural Factors	**Alternative roads and bridges:** Four bridges are being built to connect the coastline. A reconstruction hub access road has been provided to connect residences located on high ground. **Essential utilities:** Based on the results of estimates for major wind and flood damage, various measures are being implemented to mitigate damage from a major disaster, including flood prevention measures to minimize damage to facilities, dispersion of operating sites, securing alternative facilities, proper maintenance and management of facilities, establishment of disaster recovery systems, stockpiling and securing materials and equipment, and promotion of redundancy in systems.

Reference: *Building a Miyagi Model for Disaster-Resilient Community Development, March 2017; Reconstruction after the Great East Japan Earthquake: Progress in Minami-Sanriku Town*, February 2021.

to build a new town where the next generation of residents could sleep in peace. Under the assumption that another tsunami would come again, it was decided to build housing and public facilities on higher ground, consolidating public facilities in one place to create a "compact city."

As a resident of Miyagi Prefecture, I would like to take this opportunity to express my sincere gratitude to all those involved in sharing the lessons they have learned about building a resilient city with the world. I am confident that the resilience built by the people living in the Tohoku region will prevent the destruction of the region in the event of another major tsunami.

Acknowledgments: I would like to thank Mr. Taiga Sugawara, Head of the Policy Coordination Section and Administrative Reform Promotion Section, Planning Division, Minami-Sanriku Town, Miyagi Prefecture, for providing materials for this section on Minami-Sanriku.

Written by Dinil Pushpalal

[*4] The mean sea level of Tokyo Bay is called the Tokyo Peil and is used as a reference for measuring elevations in Japan.

10-3 Reconstruction and Resident Participation: A Case Study of the Kesennuma Seawall

1 Disasters and Seawalls

Kesennuma City in Miyagi Prefecture, where I live, is a town that developed from the rich fishing grounds off of the ria coastline of Sanriku. It is a town which existed in harmony with the sea.

Then, on March 11, 2011, the Great East Japan Earthquake struck. I lost both my home and my mother. Many people shook in fear of the tsunami, wept over the death of their loved ones, and grieved the destruction of the city. Ten years have passed since that day, and much has changed in the affected areas. The elevation of land for rebuilding homes and the provision of public disaster housing have been completed, and the fish processing plants and shopping streets that were swept away by the tsunami have now reopened. Most of the infrastructure such as damaged roads and public facilities have been restored. As part of national government policy, the Sanriku Jukan Road has been reconstructed, and "reconstruction plazas" have been established in each municipality. Meanwhile, along the coast, huge seawalls are being constructed. With a maximum height of about 15 m, they extend from Iwate to Fukushima for a total of about 400 km. When the plan was presented, many beaches were the subject of fierce disputes between residents and the government, or among residents themselves, regarding issues such as landscapes, the environment, disaster prevention, and more (Figure 10-11).

Figure 10-11: **Seawall built after the disaster**

However, in the Oya area, the community came together as one without conflict until the very end, and by collaborating with various government agencies, they were able to make major changes to the original seawall plan and succeeded in protecting the sandy beach of the Oya coast, which represents the community's identity. In addition, the "Seawall Study Group," organized by volunteers from among Kesennuma citizens, had a significant social impact on the seawall issue by improving citizen literacy. I have been involved in the seawall issue as an affected disaster victim and as a local resident. Here, I would like to outline some of the activities that have taken place so far.

2 Resident Petitions and the Disaster Recovery Plan

The population of Oya District, Kesennuma City, is 3,700. The district is home to several small fishing ports and farming areas, with mountains and forests directly behind it. Oya's coastline includes a 1 km stretch of sandy shore, and before the disaster, it was a much-loved swimming beach that served as a symbol of the local community. However, most of it was lost due to the tsunami and land subsidence. Then, as part of the recovery plan, the construction of a 9.8-meter-high seawall was proposed on what little of the beach remained (Figure 10-12).

In July 2012, public information sessions on the seawall began, and the venues were filled with angry criticisms of the plan. Having learned of the seawall project early on, I had been interviewing various people in the community to sign a petition in opposition. As a result, I learned that there was more than just opposition to the seawall in the community. I worked to strike a balance in the content of the petition to get more people on board. In this way, it underwent a natural change from an expression of opposition to a request for the project to be temporarily suspended and for residents' views to be taken into account — what you might call a "participatory petition campaign."

The petition was discussed at a meeting of the "Oya Residents Association Liaison Council," a federation of neighborhood associations in the district. Given that the content was fairly neutral, the associations unanimously decided that the liaison council would sponsor the petition campaign. The petition was then distributed to all households in Oya District and collected at the community center via the head of each neighborhood association (i.e., at the neighborhood level). If the petition had been about rejecting the project outright, there would have been an inevitable divide in the community between those against and those in favor. It was important for this kind of confrontation to be avoided. A total of 1,324 signatures were collected and submitted to the Mayor of Kesennuma in November of the same year.

Figure 10-12: **Original seawall plan for the Oya coast (July 2012)**

At the same time, the Motoyoshi Earthquake Reconstruction Plan was being prepared in the former Motoyoshi Town, a part of Kesennuma that includes the Oya District. At the time, I was working for an NGO that had moved into the area after the disaster to provide assistance, and I was assigned to support the development of this plan. In Oya District, a representative meeting was held to discuss issues affecting the district as a whole and to allow the individual district neighborhood associations to coordinate their plans with each other. This process led to the common understanding that Oya coast's sandy beach was an asset for the whole district, and a proposal was incorporated into the district-wide plan to the effect that, instead of building a seawall on the beach, National Route 45, which runs along the coast, should be raised to provide a view of the ocean. From there, the Oya coastal seawall issue gradually turned into a movement to protect the beach. The common desire of Oya's residents was to protect the district's sandy beach, and this came to be the overarching theme of community development.

Initially, however, it was said that it would be impossible to raise the national route. One reason is because the sources of public finance differed from the start. The seawall would come from the coastal budget and the national highway would come from the road budget. Oya District did not include any projects that involved directly raising the land, such as land readjustment projects or tsunami disaster prevention center projects. On the contrary, for the Forestry Agency-governed beaches which cover most of the Oya coast, it was not even possible to set the seawall back due to an institutional requirement that prevented coastal structures from being brought closer to the mountains within the protection forest area. Discussions with the government went nowhere.

3 The Seawall Study Group

While the petition drive and development of the reconstruction plan were underway in Oya District, public information sessions on seawalls were also being held at various locations in Kesennuma City. In August 2012, as the debate over seawalls intensified, a "Seawall Study Group" was launched in Kesennuma by citizen volunteers. The goal was to help citizens study and understand various aspects of the plan from a neutral perspective

throughout the city. Various speakers were invited to each session, including the respective government agencies with jurisdiction over seawalls, various experts, members of the national, prefectural, and municipal assemblies, and representatives of Kesennuma residents, to study seawalls from all angles. Thirteen study sessions were held in two and a half months for the entire Kesennuma City area, involving a total of 2,500 participants. Many of the founder members were representatives of Kesennuma companies — people who had been leading the city in the private sector. Having been involved in Oya District's petition drive, I was also approached to help launch the project.

The strength of the Seawall Study Group was that it was neutral, not taking a position for or against the seawall itself. This approach was maintained throughout the thirteen study sessions. Another excellent feature was that the minutes, documents, and key points of each meeting were promptly uploaded to the website, allowing the participants to intensively acquire knowledge in a short period of time. The neutral stance of the movement, which neither opposed nor supported seawalls, attracted widespread attention, and the discussion of the seawall became a social issue.

Then, drawing on the findings of the Study Group, we requested improvements to the systems governing the seawall project and the way it was being carried out. This took the form of a written request to the Governor of Miyagi Prefecture and various related organizations. In particular, we urged that the construction of seawalls take into account the diversity of the region and be tailored to local conditions, and that the opinions of local residents be reflected and their consensus respected. At that time, in accordance with the "National Government Defrayment Act for the Reconstruction of Disaster Stricken Public Facilities," the rule was that disaster restoration and reconstruction projects had to be completed within three years. This short timeframe intensified conflicts in the local area. After that, however, the deadline for the reconstruction budget was repeatedly extended.

The activities of the Seawall Study Group yielded a certain amount of success. First, the initial goal of improving the literacy of citizens was met to some extent, creating a large number of citizens who were familiar with the systems involved. Furthermore, the Study Group's work attracted a great deal of attention, bringing public scrutiny to the seawall issue and creating a situation in which it was not possible to proceed without the residents' consent. These factors helped to put citizens on a roughly equal footing in discussions with the government. However, despite some improvements in the process and a little more flexibility, the seawall plan proceeded unchanged. Discussions on seawalls were left to local discussions for each individual beach.

4 Oya Community Development Committee

The Seawall Study Group ran from August 2012 to April 2014. During this time, a second movement was underway in the Oya District: the participation of the younger generation in community development. A group of people in their 20s and 30s in the Oya District who were involved in the petition drive and disaster recovery plan formed the "Study Group on Oya Local Development." Study meetings were held based on the disaster recovery plan prepared by the neighborhood associations, and recommendations were made to the respective associations regarding the new Oya coast. They also built trust with the community through social activities such as beach clean-ups and helping out at local festivals. Eventually, together with youth group leaders in their 40s, they formed the Oya Community Development Committee, a community development council for the Oya District. The Oya Residents Association Liaison Council then entrusted them to further develop the specifics of the development plan for the Oya coast, allowing the younger generation to participate in the community's decision-making process. I was appointed the executive secretary of this organization.

The Development Committee spent a year working with the Liaison Council to finalize a detailed vision for the community, which was submitted to the Mayor of Kesennuma along with a written request. During this period, experts were not directly involved in the discussions (other than as facilitators), which were essentially conducted solely among residents. After submitting the written request, discussions focused on exchanging opinions with various government agencies, and experts from various fields were invited to participate in the discussions regarding the specific design of the seawall, as needed.

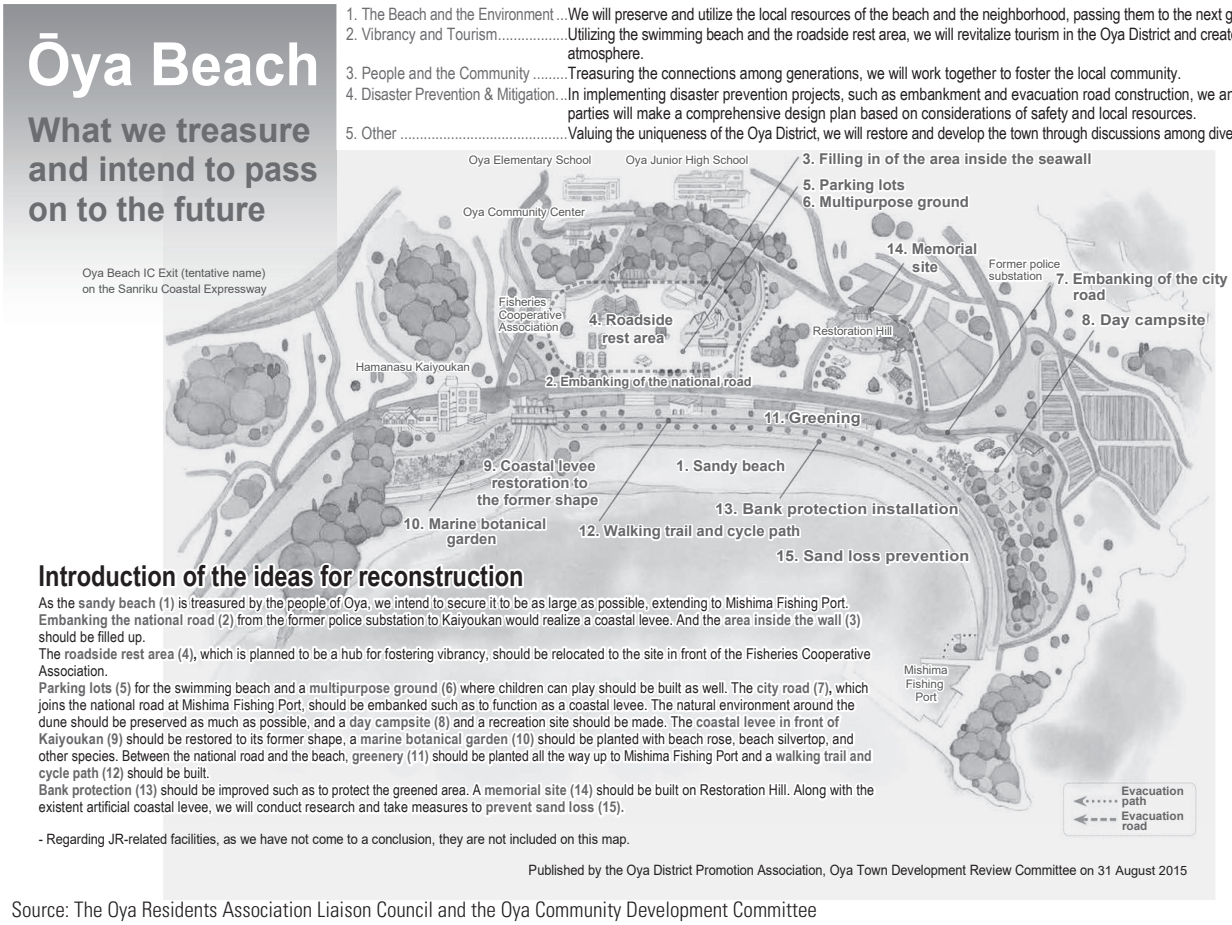
Eventually, a meeting of relevant officials was formed within the national government with a view to raising the national route along the Oya coast. One year after the submission of the request, the possibility of raising the national route was first presented at an information session for residents in July 2016. The issue regarding the seawall, which previously could not even be set back from the coast, was overcome by a partial change of jurisdiction over the beach. Meanwhile, the restoration of the JR Kesennuma line, which ran between the national route and the beach, was abandoned, making it easier to push the seawall back further toward the mountains. Ultimately, the project succeeded in creating an argument for raising the national route and the land behind it to restore the beach to its previous size, despite being in a location where no land-raising project had been planned. The government also worked hard to accommodate the residents' wishes.

A year later, the final government plan was completed. Instead of building the seawall on top of the beach, National Route 45 would be raised to serve as a seawall, allowing for a view of the ocean while ensuring the beach would return to its pre-disaster size (**Figure 10-13**). The land behind the national route was also raised, and the Oya-Kaigan Roadside Service Station, which had been located on the ocean side of the route, was relocated. In this way, the project represented an integrated development of the Oya coast, including the beach, the seawall, the national route, and the roadside service station. By then, five years had already passed since the 2012 briefing.

5 Separation of Community, Society and Activities

The issue of seawalls is a problem for society as a whole. However, this does not hold true in local decision-making. What communities are aiming for is not to solve the overall problem of the seawall project, but to find the best possible compromise for each region. In dealing with the

Figure 10-13: Vision for the Development of the Oya Coast, produced by the local community (August 2015)



Source: The Oya Residents Association Liaison Council and the Oya Community Development Committee

seawall project, I had to address both the local and social aspects of the problem. I therefore established a general incorporated association with friends in June 2014 as a catch-all for activities broadly related to recovery, including seawalls. The activities of this new organization served to detach me from the community. While building consensus in the community, we worked as a group on the seawall issue as a whole, working with various colleagues on a case-by-case basis.

First, we studied examples of seawall construction and the process of consensus building at major beaches in Iwate and Miyagi prefectures. We also read through the minutes and documents of various meetings regarding the systems governing seawalls, such as the Central Disaster Management Council and its expert study groups. Whenever possible, we attended symposiums and other events in which key experts who sat on relevant national committees spoke, and we made contact with them to learn what they thought. We also learned as much as possible about past cases of problems involving seawalls and other social issues that might be relevant by visiting the sites ourselves. These visits included Okushiri Island, where a seawall up to 11 meters high was constructed after the 1993 Okushiri Earthquake; Isahaya Bay, where a large-scale land reclamation project had split the local community into opposing camps; the site of Arase Dam, the only case in Japan of a successful dam removal; Yubari City, where the municipal government declared bankruptcy; and Fukushima, which has undergone repeated struggles regarding decontamination efforts and policies on the return of displaced residents. Using the knowledge gained through these efforts, we conducted outreach efforts regarding the seawall issue and made policy proposals to the government on various occasions.

It is very difficult to strike a balance between building consensus in the community and raising social awareness of the issues. We always chose our words with the utmost care when engaging in any activities that involved communication. It is difficult to know to what extent these activities had an impact on society. However, as we continued our activities, the voices supporting the protection of the sandy beach on the Oya coast gradually grew louder and louder. Then, meetings were held by the various government agencies involved regarding the raising of the national route. In Oya District, this resulted in achieving

Figure 10-14: **Opening of Oya Swimming Beach after 11 years (July 2021)**

respect for the residents' consensus and consideration for the diversity of the region, both of which we had been calling for from the outset.

Construction work on the Oya coast began in January 2018 and finished in July 2021, finally bringing back the district's sandy beach. The beach re-opened after 11 years, and the new roadside service station built behind the raised national route now offers a panoramic view of the ocean. It has already seen many visitors who come to experience Oya's sea for themselves.

6 Challenges of Social Consensus Building and Overcoming Conflict

If the seawall issue is viewed as a matter of social consensus building, the case of Oya District can be regarded as a successful model. The greatest barrier to social consensus building is emotional conflict. Ultimately, people will always be emotional beings. They are also influenced by group psychology. For example, they will be more generous in their assessments of members of groups to which they belong, and more critical in their assessments of members of groups to which they do not. In the case of seawalls, those in favor of their construction and those opposed to them tended to form pro- and anti-seawall camps, judging each other harshly and only accepting arguments convenient for their own group. The same is true for residents versus government and between various government agencies. In any case, dialogue in the true

sense of the word cannot be established without working to avoid antagonistic structures and building up relationships of trust.

In addition, "environment/landscape" and "disaster prevention/mitigation" often come into conflict when discussing seawalls. Because seawalls are massive structures, they have a significant impact on the landscape. Because of their size, their purpose of stopping waves, and the fact that they are located between land and sea, they cut off or make irreversible the flow of organisms and materials. At the same time, however, the new national policy on disaster prevention has the stated objective of preventing damage from L1 tsunamis and mitigating damage from L2 tsunamis[*5] through the use of seawalls and similar structures. Physical protection is not necessarily the only way to prevent or mitigate disasters, but there is a sense of justice that prevails in the discussion of seawalls. Whether it is the environment or disaster prevention, if feelings of righteousness are too strong, it creates antagonism. That is, if you emphasize justice, the other side's sense of justice will also assert itself. Meanwhile, in situations of emotional conflict, many people keep their voices low and disappear from the consensus-building process. Consequently, only those people who feel a sense of righteousness remain, and conflict ensues.

However, the reality is that without loud voices, society will not be aware of the issues at hand. This was overcome to some extent by the Seawall Study Group. In this respect, neutrality is one tip. Even during the consensus-building process, I ran the project by keeping my own personal feelings out of it and ensuring as much neutrality as possible. If I had attempted to run it while guiding the outcome, I would have lost the trust of the community. And, although it may be obvious, the problems that seawalls entail are not limited to social consensus-building alone. Challenges remain on a variety of fronts, including environmental and landscape issues, the ideal form of disaster prevention and mitigation, and the reconstruction of tsunami-affected areas.

In the discussions on seawalls in Kesennuma, citizens who had acquired a wide variety of knowledge and ideas began to mediate between the community and the government as local coordinators. Moreover, the self-governance capabilities and community power that the local residents built up over the years came together at the consensus-building stage, creating a powerful tool to influence the national government and administrative agencies. In terms of collaboration with the government, relationships of trust were built up through the division of roles and joint work between residents and the government, and the groundwork was laid for dialogue. The same was true among residents from different generations with different ideas and perspectives. This foundation was more important than anything else in the consensus-building process. Then, in situations where expertise was required, we sought the help of specialists, leading to the final planning process.

Of course, not all districts followed the same path. Ten years after the earthquake, the coastal landscape of Sanriku has been drastically changed by the seawalls. Although they have faded over time, the conflicts that arose regarding seawalls in some areas remain in their communities today. However, there are also several examples where communities overcame the stumbling blocks in social consensus building that created polarization. The traces of the battles waged by citizens, government officials, and experts against seawall projects, which were driven forward for the sake of the projects themselves, can be seen everywhere along the Sanriku coastline. Even though the landscape itself has changed, it still reflects the thoughts and feelings of the people who sought to keep themselves close to the sea.

7 Beyond Recovery

What was the recovery that we sought? On that day, 20,000 people lost their lives, creating tremendous sadness, anxiety, and an anger that had nowhere to go. However, family, friends, and community members shared the pain, people around the world became aware

[*5] L1 and L2 tsunamis (L stands for "Level") are tsunami levels representing "tsunamis with a relatively high frequency of occurrence" (with a frequency of roughly 20 to 200 years) and "tsunamis of the largest class," which occur very infrequently, respectively. Taking into consideration the tsunami damage caused by the Great East Japan Earthquake, these levels are used to design tsunami countermeasures, as set by the expert study group of the Cabinet Office's Central Disaster Management Council.

Figure 10-15: **Floral tribute platform on the Oya coast**

of the grief, and numerous people made their way to the Tohoku region. We were in pain, but at the same time, we were also enveloped in a warm sense of togetherness. Despite the unbearable pain, there was a sense that Japan as a whole would change for the better, a sense of possibilities for society and for people.

However, the reconstruction projects handed down by the government since then have been subject to many restrictions, and we have had to contend with yet another set of difficulties. Initially, in many instances, we were faced with the binary choice of whether or not to get on board with the projects. However, local communities are not that simple. It is necessary to build towns that reflect the existing lifestyles and aspirations of residents, tailored to the terrain and climate of the area. This is a process that creates a third choice, which lies outside of that binary. That is why we have kept up our activities to this day. Our activities to protect the beach that belongs to the residents of Oya District were activities to recover the hometown we lost in the earthquake. In that process, what we are calling "recovery" may, in fact, be the image of the hometown we want to reclaim.

Right now, huge seawalls are already standing along the Tohoku coast. The current state of reconstruction may represent a different future from what was envisioned in the aftermath of the disaster. Some frustration is mounting with respect to living in harmony with nature. However, at least in the affected areas, a wealth of community development and civic activities has been built up over the past 10 years. I have made connections with many people who visited the affected areas since the disaster. The horror of the disaster and people's desire to rebuild their hometowns have helped the people of the affected areas to grow (**Figure 10-15**).

We were not able to change the systems governing the seawalls themselves. However, I believe that the activities of the Seawall Study Group demonstrated to society the potential of citizen activism, and the activities of the Oya District's residents demonstrated one way of solving problems in the community. Our achievements may have been small, but it is my hope that they will give courage to those who will face similar problems in the future, and to those who are already under pressure to deal with them now. Tomorrow's society will surely see different landscapes emerging. It is with this belief that I continue my work.

Written by Tomoyuki Miura

Chapter 11

Children

11-1 Children's Issues in Miyagi

Introduction

It is impossible to talk about Miyagi Prefecture today without mentioning the Great East Japan Earthquake.

Perhaps it was my encounter with the Human Security Forum, a non-profit organization that provided learning support for children at a temporary housing community hall in Tome City after the earthquake, which led me to write this article.

The Human Security Forum's Human Security Index had ranked Miyagi 45th out of Japan's 47 prefectures. I had concerns about what would be gained by assessing the SDG status of Miyagi, which still bears the scars of the disaster today even ten years after the Great East Japan Earthquake. Nevertheless, I accepted the request to write this article because I want Japan to become a society that puts the interests of children first, rather than one in which children are left until last in the face of successive disasters. From the standpoint of someone who has been involved in NPO activities related to children and childcare in Miyagi for more than 20 years, I would like to reflect on the issues facing children in the prefecture.

1 Miyagi and Children through History

A child's upbringing is strongly influenced by the local culture. In this section, I have intentionally used the term "Miyagi" because one can get a better understanding of the current SDG assessment by getting a sense of the local climate and culture, rather than looking at it from the administrative perspective of "Miyagi Prefecture."

Inspired by works such as Miekichi Suzuki's *Akai Tori* ("Red Bird"), local adults began publishing the children's song magazine *Otento-san* in the 1900s, which gave rise to a children's culture movement rooted in the local community. Students and leading cultural figures in Miyagi engaged with children and developed various activities for them. Later, after the hardships of World War II, many original "Tohoku songs" were composed to encourage children growing up in the post-war period. The children's singing in the Sendai Broadcasting Children's Choir, which was played on the radio, also provided comfort to adults.

While Tohoku is blessed with a rich natural environment, the region has always been beset by disasters such as typhoons, floods, and earthquakes. As such, there is a long history of people living together with nature, patiently rebuilding their lives each time there is some kind of damage.

Miyagi also experienced the waves of modernization and consolidation that swept over the country in the past. As a result of the national policy of merging municipalities during the Heisei Era (1989–2019), the number of municipalities in the prefecture was cut in half, from 71 in March 2003 to 35 in 2009 (**Table 11-1**). These mergers resulted in bigger administrative districts and major changes in people's lives. The integration of schools and hospitals made some people more vulnerable, as they faced longer distances to their workplaces, schools, and hospitals, and the decrease in the number of pediatricians, obstetricians, and gynecologists further compounded the declining trend in the number of children. Some experts also say that the increased size of administrative districts made the recovery from the Great East Japan Earthquake take longer than it should have.

The number of births in Miyagi Prefecture continued to decline until 2009 when it appeared to have leveled

Table 11-1: **Mergers of Municipalities in the Heisei-Era**

Date	Cities	Towns	Villages	Total municipalities	Before merger	After merger
April 1, 2003	10	57	2	69	Nakaniida Town, Onoda Town, Miyazaki Town	Kami Town
April 1, 2005	13	31	1	45	Hasama Town, Toyoma Town, Towa Town, Nakada Town, Toyosato Town, Yoneyama Town, Ishikoshi Town, Minamikata Town, Tsuyama Town	Tome City
					Tsukidate Town, Wakayanagi Town, Kurikoma Town, Takashimizu Town, Ichihasama Town, Semine Town, Uguisuzawa Town, Kannari Town, Shiwahime Town, Hanayama Village	Kurihara City
					Yamoto Town, Naruse Town	Higashi-Matsushima City
					Ishinomaki City, Kahoku Town, Ogatsu Town, Kanan Town, Monou Town, Kitakami Town, Oshika Town	Ishinomaki City
October 1, 2005	13	30	1	44	Shizugawa Town, Utatsu Town	Minami-Sanriku Town
January 1, 2006	13	29	1	43	Kogota Town, Nango Town	Misato Town
March 31, 2006	13	22	1	36	Furukawa City, Matsuyama Town, Sanbongi Town, Kashimadai Town, Iwadeyama Town, Naruko Town, Tajiri Town	Osaki City
					Kesennuma City, Karakuwa Town	Kesennuma City
September 1, 2009	13	21	1	35	Kesennuma City, Motoyoshi Town	Kesennuma City

out, but then declined again in 2011 in the wake of the Great East Japan Earthquake. However, in 2012 and 2013, the number of children on childcare waiting lists temporarily increased due to an uptick in the number of births and the inability of kindergartens and nursery schools to operate due to the disaster. The total fertility rate continues to decline today, but we must also consider the prefecture's unique situation: about half of the prefecture's population is concentrated in Sendai, which became an ordinance-designated city in 1989.

Figure 11-1: **Former Miyagi Central Children's Center**

The importance that Miyagi places on children is manifested in the Miyagi Central Children's Center, a groundbreaking facility established in 1958. It relocated to a new building in 1965 which had a children's library, gymnasium, and outdoor cooking facilities.

There were also overnight training programs for Junior Leaders (members of youth groups who conduct community activities in conjunction with the "Children's Associations" that began around 1965), as well as extensive volunteer activities by high school, university, and vocational school students. Many of the people who were trained in these programs are now working to support Miyagi Prefecture today. The Children's Center, which included a children's playground with a huge play structure designed by architect Mitsuru Senda, attracted nationwide attention. However, as Japanese society shifted its focus from welfare to the economy, a petition to preserve the facility was unsuccessful, and due

to aging facilities, it fell out of use from the 2000s onwards before closing in March 2013. When the Great East Japan Earthquake struck, many people who had grown up here went to the disaster area to help. Some say that better support could have been provided for the children if the Children's Center had been there to serve as a base of operations.

After the disaster, it seemed as though people would no longer be able to live in the affected areas, but after a while, there were reports that local festivals were being revived across the prefecture. Footage from the reports followed the adults who worked hard to revive these festivals, and also showed children participating in the preparations and taking on roles appropriate for their age. The festivals were more than just events; they were opportunities for communities to connect, and for children to work alongside adults as colleagues. For many years, children in Miyagi have been raised in the "cradle" of the local community.

At evacuation centers after the disaster, junior high and high school students helped however they could, distributing supplies, making and putting up newspaper posters, or playing with small children. Many of them were Junior Leaders. Even though the Children's Center was no longer there, its activities continued. Many teachers, government officials, and local business owners in Miyagi Prefecture have had experience as Junior Leaders, and they all speak enthusiastically about those days. The organization of Junior Leaders, like local festivals, had a long history as a place for children to grow up, following in the footsteps of their predecessors. As such, it also played a major role as a source of encouragement for adults during the disaster.

Although the "cradles" for raising children in Miyagi may have been temporarily lost or transformed, they endure to this day.

2 Activities to Protect Children's Rights in Miyagi

After the Government of Japan ratified the UN Convention on the Rights of the Child, several national conferences on children were held in Miyagi Prefecture, expanding the network of organizations working with children in the prefecture. In 2010, the executive committee of the "Convention on the Rights of the Child Forum," a private-sector-led forum held annually in various locations, was formed with the NPO Childline Miyagi as its core. A total of 1,606 participants from all over Japan gathered in Sendai to learn together. Just when we thought that we could move forward and build on these accomplishments, the Great East Japan Earthquake struck.

In the aftermath of the disaster, everywhere I went, including evacuation centers and temporary housing in coastal areas, I met people engaged in activities for children even though they themselves had been affected by the disaster and were facing difficult circumstances. This served to further expand the circle of organizations working to support children.

Often during the disaster, when I was feeling frustrated that I was not able to do as much as I wanted, I felt that Tohoku was regarded as a backward region in terms of children's rights by NGOs and NPOs who came from outside the prefecture and abroad to provide support. There were also cases of friction between outside supporters and local groups regarding support for children in the affected areas. Having experienced being both a *provider of support* as well as a *recipient of support* (as we were located in an inland area with relatively little damage, and relayed outside assistance to the affected areas on the coast), I would like to pass on some of the lessons we learned.

3 Children in the Wake of the Great East Japan Earthquake

(1) In Evacuation Centers

The front page of the Sendai-based *Kahoku Shimpo* (newspaper) still carries a daily report on the number of people killed or missing in the Great East Japan Earthquake (compiled by the National Police Agency and other organizations; figures for disaster-related deaths are based on *Kahoku Shimpo* surveys). As of November 1, 2021, for Miyagi Prefecture, the number of deaths was listed as 9,544, the number of missing as 1,213, and the number of other disaster-related deaths as 929. This indicates that a great many children have faced the death of someone close to them, or are still in a state of "ambiguous loss" whereby they are waiting for a family member or friend who is still classified as missing.

The presence of children in the evacuation centers was

not very welcome, and there was a lack of understanding about children who cried with anxiety or continued to play make-believe games about the earthquake and tsunami. Childline Miyagi had to suspend operations of the Childline telephone service from March to July 2011, but the national Childline was there to listen to the anguished voices of children in the affected areas. To protect their children, many families left the shelters and returned to their damaged homes, or moved to other areas, relying on relatives and others to help them.

(2) In Temporary Housing

When construction of temporary housing began, the joy of moving in was short-lived. In these prefabricated units, houses were separated only by a thin board, so conversations could easily be heard from next door, and children's footsteps would echo through the steel frames to three houses away. It was not a carefree environment for children. The grounds of the temporary housing were used for parking, with cars frequently coming and going, and children were told off for playing there. In addition, there were no places for them to play because local parks and school playgrounds were being used as temporary housing.

Most of the departments responsible for temporary housing were those that dealt with elderly and disabled people, so they did not have an accurate grasp of the number of children when people moved in. **Table 11-2** was compiled from a survey commissioned by Childline Miyagi in March 2016. At least 3,044 children had been living in temporary housing for more than five years, and 606 had spent five years of infancy there. The children, however, never complained. They instinctively knew that if they did, they would only upset their parents, and that there was nothing that could be done about it anyway. However, their patience could not last indefinitely, and problems between children frequently broke out at school, leading to more and more children stopping from regularly attending school. From 2016 to 2019, rates of non-attendance among elementary and junior high school students in Miyagi Prefecture were the worst in the country.

Table 11-2: Number of children who lived in temporary housing (based on a survey of support centers in each municipality, as of March 2016)

	Number of children	Age																		
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Sendai	93	0	4	3	4	2	5	2	5	3	8	3	4	6	7	6	8	6	9	8
Ishinomaki	1,131	6	17	40	61	61	52	51	52	50	74	55	61	67	78	71	74	74	100	87
Shiogama	21	0	0	2	0	2	0	2	1	2	2	1	1	1	2	0	1	2	1	1
Kesennuma	617	5	4	16	29	28	37	31	35	27	29	25	30	40	44	45	54	50	47	41
Natori	94	0	3	4	4	2	5	11	1	6	2	4	6	4	8	8	5	10	4	7
Tagajo	42	1	2	0	4	3	3	0	2	3	3	1	2	3	2	2	2	1	5	3
Iwanuma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tome	58	0	0	2	3	1	4	2	5	2	2	3	2	2	2	8	4	6	6	4
Higashi-Matsushima	240	5	9	6	15	7	10	12	13	18	11	19	15	10	18	14	16	10	17	15
Watari	27	0	1	1	2	2	1	2	1	2	1	2	1	1	1	1	2	3	1	2
Yamamoto	73	0	1	1	2	2	4	3	2	0	2	4	6	5	7	2	11	5	7	9
Shichigahama	8	0	0	0	0	0	0	0	0	1	0	1	0	0	0	3	2	0	1	0
Osato	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misato	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Onagawa	282	12	12	8	12	17	9	11	9	14	7	12	17	13	18	25	26	27	16	17
Minami-Sanriku	358	1	2	4	11	19	11	13	13	19	27	23	25	25	17	23	26	31	38	30
Total	3,044	30	55	87	147	146	141	140	139	147	168	153	170	177	204	208	231	225	252	224

Further weighing on these children's minds was the consolidation of schools (Table 11-3). The consolidation of schools in Miyagi Prefecture was already underway due to the falling number of children and municipal mergers, but the Great East Japan Earthquake further accelerated this process. The loss of schools that had served as hubs for local communities brought a great sense of loss, not only for the children but also for local residents.

Table 11-3: **Number of school closures in Miyagi Prefecture following the disaster**

	Elementary schools	Junior high schools
Sendai	7	
Ishinomaki	12	3
Kesennuma	6	1
Natori	1	1
Higashi-Matsushima	4	2
Watari	1	
Yamamoto	1	
Onagawa	3	2
Minami-Sanriku	1	1
Total	35	10

(3) Children Born After the Disaster

Children born after the disaster were often described by nursery school and kindergarten teachers as "hyperactive and short-tempered" and "somehow different from previous children." Similar comments are now heard at schools. Even small children intuitively understand situations in which adults are at their limits, and so they try their best to be "good." It may be that as the recovery process moved forward and adults began rebuilding their lives, the emotions that children had unconsciously held back until then came to the surface. But experts say that that alone does not explain their characteristics.

At the "Review meeting of support operations by Support Center (2017)" conducted by Childline Miyagi on behalf of the prefecture, Professor Tomoaki Adachi of the Faculty of Education at Miyagi Gakuin Women's University, stated that:

"The most important time for forming attachments is when a child is between 1 and 2 years old, but because the parents were not in a position to affirm their emotional bonds at that time, children have grown up with unstable attachment as a result. Their tolerance for emotional trauma is weakened, a situation known as developmental trauma disorder. Among the challenges faced by children born after the disaster are problems in attachment formation, a result of not being able to build resilience against trauma."

He also pointed out that:

"There are many cases in which, as with abuse, a lack of attachment formation at the time of the disaster causes a child to exhibit impulsive, aggressive, and restless speech and behavior. These issues are often mistreated as a developmental disorder, and are therefore not properly addressed in school settings."

Accordingly, children in this age group will require close monitoring going forward.

(4) Parents Who Lived Through the Disaster as Children

The generation that was in high school at that time is now a generation of parents, raising children of their own. Recently, people involved in childcare support have expressed concerns about people in this age group, who have become parents but who still have unhealed mental scars. After the disaster, many people relocated to inland areas, making it difficult for those providing support to connect with such parents, because their identities were not known, and they did not talk about having lived through the disaster. As such, there are concerns about the impact on the upbringing of their children.

4 Children in Miyagi Prefecture Today

(1) Problems at School

According to the Ministry of Education, Culture, Sports, Science and Technology (MEXT)'s *AY2020 Survey on Problem Behavior and Other Student Guidance Issues*, Miyagi Prefecture has higher figures than the national average for every problem examined (as shown in Table 11-4). Non-attendance at school, in particular, remained the highest in Japan until 2020. However, incidents of bullying and dropping out of high school are on the decline.

Table 11-4: **Children's situation in Miyagi Prefecture**

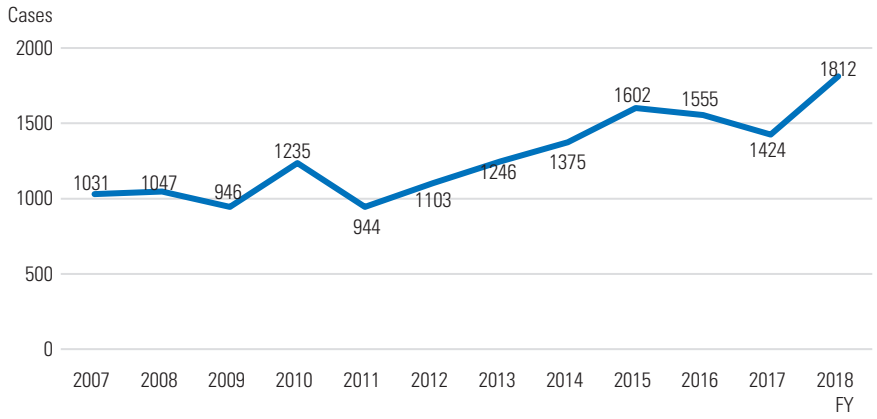
Category	Cases	Rate per 1,000 people		
		Miyagi Prefecture	National average	National ranking
Violence (elementary, junior high, and high school)	2,001	8.5%	5.1%	8th
Bullying (elementary, junior high, high school, special needs school)	12,902	54.2%	39.7%	10th
Non-attendance (elementary and junior high school)	3,921	22.6%	20.5%	8th (4 prefectures tied)
High school dropouts	714	1.2%	1.1%	10th (2 prefectures tied)

Source: MEXT "*AY2020 Survey on Problem Behavior and Other Student Guidance Issues*"

(2) Child Abuse

The number of consultations regarding child abuse in Miyagi Prefecture and Sendai City dipped briefly in FY2011, but then increased sharply, with a gradual decline starting in 2015, followed by a sharp increase in FY2018 (**Figure 11-2**). There are several possible reasons for the decline in consultations in FY2011, including the disaster (which made it difficult to seek a consultation). Another reason is that although abuse was relatively easy to identify in the densely packed living environment of temporary housing, it tended to be dealt with by the residents themselves or by temporary housing support staff, with few people contacting the Child Welfare Center. The sharp increase in 2018 has been attributed to an increase in "witnessing domestic violence" in the psychological abuse category. It is important to emphasize that abuse occurs within the secluded environment of the home, and can result in children not attending school, depression, and even suicide.

Figure 11-2: **Number of cases of abuse in Miyagi Prefecture**



Source: Childcare Support Division, Health and Welfare Department, Miyagi Prefectural Government

Table 11-5: **Number of consultations on child abuse in Miyagi Prefecture (by type)**

FY			FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Number of consultations			1,246	1,375	1,602	1,555	1,424	1,812
Type of abuse	Physical abuse		371	406	425	424	379	450
	Neglect		226	288	327	282	271	382
	Sexual abuse		30	29	18	9	12	26
	Psychological abuse (total)		619	652	832	840	762	954
		Of which witnessing domestic violence	394	388	449	496	449	—
		%	64 %	60 %	54 %	59 %	59 %	—

Source: Compiled by the author based on materials from the Childcare Support Division, Health and Welfare Department, Miyagi Prefecture and the Miyagi Prefectural Police Department's "Domestic Violence Countermeasures Promotion Project"

5 Issues Facing Children in Miyagi Prefecture and Measures to Address Them

In the previous sections, I examined the situation of children in Miyagi before and after the 2011 disaster.

In 2020, the COVID-19 pandemic broke out just as signs of post-disaster recovery were beginning to emerge. While recognizing that the pandemic threw schools into disarray and caused great emotional stress to children, here I would like to focus on the current issues facing Miyagi's children and offer some recommendations for future directions.

Proposal 1. Safe places for children to spend time in peace!

If home or school are not places where a child feels safe, then an alternative place for them to spend time should be found. Since loneliness and isolation can lead to suicide, we must strengthen cooperation among the education sector, the welfare sector, and the private sector, and provide a variety of places such as playgrounds, free schools, children's centers, learning support centers, and community activities to ensure that children have places to spend time, in keeping with their circumstances.

Proposal 2. Train a diverse workforce for children!

The presence of adults whom children trust is essential for establishing such places. There is a need for social workers who are aware of children's problems and have the skills to connect families, schools, and government services to resolve such problems, as well as to provide urgent help when the need arises. Compared to school social workers who are usually employed by education-related departments, children's social workers work from a welfare perspective, acting as "child advocates" from the child's point of view.

Proposal 3. Provide more information to children!

Although 18-year-olds are now legally considered adults, children are not fully aware that they will be held responsible as adults for matters in which they were previously treated as minors, such as harm caused through social media, unexpected pregnancies, and financial damages. They also do not have a good understanding of where to turn for help when faced with problems such as abuse, domestic violence, and poverty. Children need to be repeatedly given accurate information from as early an age as possible.

Proposal 4. Establish systems for preventing abuse and helping children!

Child Welfare Centers are places to report abuse, and the National Child Consultation Hotline "Dial 189" is now well-known. However, some children hesitated to contact Childline after seeing reports of children who were not saved despite the involvement of Child Welfare Centers. Questions have also been raised as to whether the staff who respond to "Dial 189" calls are capable of listening to what the child has to say. In Miyagi Prefecture, there

is only one Child Welfare Center in Sendai City, a city of one million people, and temporary shelters have limited capacity. Consideration should be given to setting up more facilities as soon as possible.

Proposal 5. Improve understanding and support for non-attendance at school!

Children do not have an obligation to go to school; they have the right to learn. Since adults have an obligation to ensure that their children receive an education, consideration should be given to creating environments in which every child can learn. Some parents who send their children to private "free schools" have asked for financial support, and we hope that this will lead to cooperation between the government and the private sector, taking the best interests of the child into account.

Conclusion: Make Miyagi a Place Where Young People Can Live in Hope and Raise Their Children with Peace of Mind!

After the Great East Japan Earthquake, many of the children who lived through the disaster felt a strong desire to do something for their damaged hometowns, but there was not enough support for them to do so, and many were forced to leave. Although reconstruction has progressed and many young people have returned to the affected areas, there is not yet an adequate environment in place for raising children, such as hospitals, schools, and nurseries. Planned projects were called off or scaled down due to the COVID-19 pandemic, and the economic situation has also become more difficult. On the other hand, there have been some success stories, such as the revitalization of traditional industries through IT. There are many examples of young people who came to Miyagi to help after the disaster and are now playing an active role in the prefecture.

In any case, what must be done now is to create an environment for children and young people to put down roots in Miyagi and live happily. Communities that are friendly to children will be friendly to everyone.

Written by Junko Kobayashi

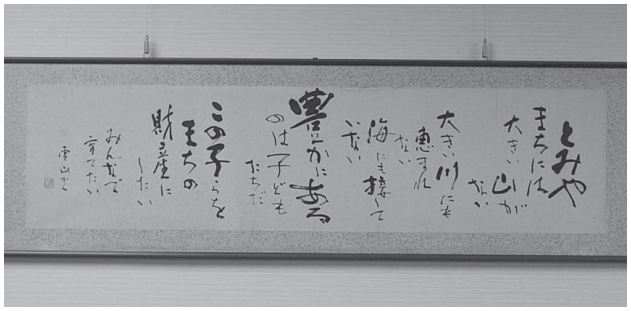
11-2 Tomiya City's Child Friendly City Initiative

1 Profile of Tomiya City

Tomiya is located in the center of Miyagi Prefecture, on the northern side of Sendai. Although it has a 400-year history as a post town on the Oshu-Kaido highway, its streets are also lined with newly developed residential areas. Having grown from a village to a town, the population kept rising, and in 2016, it was officially designated a city. Today, the population is approximately 52,000, of which around 16% are aged 14 or under. As such, the city has a high proportion of children and has many households raising children.

With regard to childcare support, the Tomiya Childcare Support Center (*Tomikoko*), which opened in April 2017 as one of the city's key projects, provides seamless support from pregnancy and throughout the child-raising period. The city also opened centers for early childhood education and care and secured childcare workers, thereby achieving zero children on waiting lists in FY2018, FY2020, and FY2021.

Figure 11-3: A plaque in the mayor's office of Tomiya City



On the wall of the mayor's office hangs a plaque that reads, "Tomiya has no great mountains, no great rivers, and no access to the sea; what it has in abundance is its children." These are the words of Teruo Wako, former mayor of Tomiya town, put into calligraphy by Akio Kasashima (Setsuzan), a former elementary school principal (**Figure 11-3**). This shows that although Tomiya City is not in an ideal geographical position, it has always had a tradition of carefully nurturing its children as "the town's assets."

2 A Japanese Approach to UNICEF's Child Friendly Cities and Communities Initiative (CFCI)

In partnership with the Japan Committee for UNICEF (JCU), Tomiya City has been participating in the Child Friendly Cities Initiative Working Group since January 2017. The first objective of this working group was to determine the effectiveness of the revised version of the Japan-style Child Friendly Cities and Communities Initiative (CFCI) checklist, and the second apply the checklist taking Tomiya as a model municipality and reflect the results in the review process. While participating in this working group, we explored questions such as "Is Tomiya a child-friendly city?" and "What does it mean to undertake a child-friendly city development project?"

Through this process, we became aware of several issues and challenges, both positive and negative. These included:

- A bird's eye view of current city projects and activities reveals specific issues
- By becoming a model-testing municipality, we can receive cooperation from the JCU in the form of advice, staff, training for citizens, and so on
- Tips can be obtained on issues such as child poverty, creating places for children to spend time, bullying, and measures to address falling numbers of children
- There is a need to create an awareness of children's human rights across all agencies
- The time and workload required for activities are unclear, making it difficult to assign personnel, etc.
- With broad topics and no national mandates, motivating staff is a challenge
- There is a need to develop mechanisms to promote the participation of residents and children

What should we aim for with the CFCI program? What are the short-term and long-term perspectives, and what are the specific outcome goals? Although the program name mentions "children," it could also be "community development" at the same time. These were some of the issues raised by staff in the office designated to oversee the program, who felt that it would be difficult to launch the program on their own.

Table 11-6: **Tomiya City's major CFCI activities (January 2017–February 2021)**

Date	Initiative
January 2017	Participation in the Japan Committee for UNICEF (JCU)'s CFCI Working Group Cities Initiative Working Group (later renamed the CFCI Committee)
May 2018	Tomiya Child-Friendly City Development Promotion Agency Internal Coordination Council established (meets 2 to 4 times a year)
October 2018	Commissioned by JCU as one of five municipalities to test UNICEF's Japan-style CFCI model
November 20, 2018 (World Children's Day)	Tomiya Child-Friendly City Development Declaration and Forum 196 participants, including assembly members, welfare volunteers, school and facility staff, and citizens
May 2019	Tomiya City Sports Declaration for Children Endorsed UNICEF's "Children's Rights in Sport Principles"
August 2019	CFCI training session for Tomiya City employees 56 participants, including the mayor and 2 other city officers, as well as managers of city departments and divisions
November 2019	UNICEF Japan-style CFCI Model Testing Interim Report Forum
November 20, 2019 (World Children's Day)	Tomiya *Wakuwaku* Children's Conference (later renamed the Children's Meeting)
October 2020	Testing of the UNICEF Japan-style CFCI Model completed
November 20, 2020 (World Children's Day)	Tomiya *Wakuwaku* Children's Meeting held
February 2021	UNICEF Japan-style CFCI Model Testing Completion Report Forum (held online)

To address the need for an all-agency structure, comprehensive and long-term deliberations, the participation of citizens and children, and a forum for discussing these issues, the decision was made to launch the "Tomiya Child-Friendly City Development Promotion Agency Internal Coordination Council" in May 2018. On October 29 of the same year, Tomiya City was commissioned to be one of five municipalities in Japan to test UNICEF's Japan-style CFCI model (see Chapter 9).

The testing work was mainly guided by a checklist made up of nine components, which municipalities were expected to use to perform a self-evaluation of their "child-friendly city" initiatives. However, these components were a collection of global standards ("certification-based"), which were difficult to understand, and many of the phrases were not appropriate for local government. Accordingly, with the committee taking the lead, each participating municipality came up with ideas to develop a common understanding of the wording which was easy to understand. The evaluation sheet for the "Japan-style CFCI model" proposed by the JCU is composed of the original 9 components and an additional component, specific to the municipality in question.

3 Tomiya City's Activities (1)

On November 20, 2018 (World Children's Day), Tomiya City issued the "Tomiya Child-Friendly City Development Declaration," which consisted of the pillars of the right to life, the right to grow up, the right to be protected, and the right to participate, as set forth in the Convention on the Rights of the Child. The intention was for all of the city's agencies to work toward a "child-friendly city."

I feel that for the mayor to have made the declaration in front of citizens was very effective in building awareness throughout the city's agencies, increasing staff motivation, and promoting the participation of residents and children. Furthermore, when promoting child-related projects and child participation, it is essential to present them in a manner that is easy for children to understand. This, in turn, builds understanding and trust in the city government in ways that are easy for citizens to understand and leads to self-governance with collaboration between the government and residents. The participation of children also helps children develop an attachment to their city. The projects that Tomiya City has been engaged in since the declaration are unique in that they were undertaken not only by departments related to children, but across the entire city government.

Table 11-7: **Item 10 of the UNICEF Japan-style CFCI model and checklist (Tomiya City version)**

10. Implement initiatives based on the five pillars of the "Tomiya Child-Friendly City Development Declaration"	
Japan-style CFCI model checklist	
1	Are initiatives being carried out to ensure that children are nurtured with care and grow up healthy?
2	Are initiatives being carried out to ensure that children can live safely and securely?
3	Are initiatives being carried out to enable children to interact with their friends and have fun playing and learning?
4	Are initiatives being carried out so children have a role within the scope of the social bonds that exist in the local community and so that they can participate actively?
5	Are initiatives being carried out which listen to children's opinions and apply them to community development?

Tomiya City set the tenth item of the checklist as an evaluation based on the five pillars of the "Tomiya Child-Friendly City Development Declaration" (**Table 11-7**), which is being carried out alongside the CFCI model municipality program. This is because Tomiya's goal of becoming a "child-friendly city" involves having children actively participate in community activities and harnessing their abilities and voices for community development. An emphasis was placed on communicating Tomiya City's self-evaluation to citizens, including children, in a way which could be easily understood.

4 Tomiya City's Activities (2)

Tomiya City has three main activities to promote "child-friendly city development." The first is to hold a series of discussions at the "Tomiya Child-Friendly City Development Promotion Agency Internal Coordination Council," which aims to share the citywide assessment, confer on the current situation and issues facing Tomiya, and bring the city closer to its goal of being "child-friendly."

Promoting "child-friendly city development" throughout the city requires more than just awareness-raising and hard work on the part of the offices directly involved with children. This alone will not lead to a city that is truly "child friendly." Rather, making everyone think about children, no matter whether they are directly or indirectly involved, will provide a shortcut to this goal. There remains a lot of work to do for the city to raise awareness on the part of individual employees. However, with the completion of testing for the JCU and the establishment of Tomiya City's status as a CFCI Practice Municipality in April 2021, I feel that the groundwork has been laid.

The second activity is to hold "*Wakuwaku* Children's Meetings," which represent a concrete example of one of the four principles of the Convention on the Rights of the Child: "the ability to express opinions and participate." Regarding the opinions expressed by the children in the discussions, we try not only to listen to their opinions but also to reflect their opinions in local administration, by making immediate improvements where possible, and keeping them informed of the status of issues that cannot be resolved right away.

At the "*Wakuwaku* Children's Meeting" held in 2020, which had the theme of "Our Vision for the Future of Tomiya," there were many opinions not only about everyday matters, but also about the SDGs and COVID-19, and other opinions on the city government, suggesting that the children had deepened their understanding of these issues before presenting them to the city government. This reaffirmed the importance of listening to children's voices. The "*Wakuwaku* Children's Meeting" was held again in FY2021, with the theme "Thinking about the

Figure 11-4: **Narita Marche's "*Obento Biraki*"**

Future of Tomiya." We would like to continue this style of direct exchange of opinions between the mayor and 16 fifth- and sixth-grade students from 8 elementary schools in the city.

The third activity is to broaden the range of efforts undertaken by residents. The organization Narita Marche,

Figure 11-5: **A "Hand-me-down Party" held by Narita Marche**

which has endorsed Tomiya's "Child-Friendly City Development Declaration," was established in the city's Narita district and has now been running for more than 10 years. The initial motivation for founding the group was to create a warm community where people could once again experience the reassuring sense of kinship that they felt when encouraging each other in the aftermath of the 2011 Great East Japan Earthquake.

Narita Marche has hosted a variety of events, including independent movie screenings for parents, "*Makanai-tsuki Terakoya* (traditional temple school with lunch)" which provides a meal and a place for children to spend time outside school, "*Nagashi Somen*" parties, where participants enjoy eating noodles flowing down a bamboo chute, "*Obento Biraki*" where the staff prepare side dishes and let the children pack their own lunches, "*Omusubi no Kai*" where people from all generations gather to take a break together, and "Hand-me-Down Parties," which provides second-hand school uniforms and gym clothes and is a great help to the many people in the area raising children (**Figure 11-4**, **Figure 11-5**).

Due to the COVID-19 pandemic that broke out in 2020, there was a time when it was not possible to hold any events involving eating or drinking, forcing them to temporarily suspend activities. However, when schools were closed, they worried about whether the children were eating lunch properly and whether they were all right staying at home all day. Consequently, the group handed out lunchboxes so that they could also see the children's faces and chat a little. It seems to me that this initiative went beyond simply handing out lunchboxes, serving also to convey the thoughts and good wishes of the staff. We will continue to collaborate with "Narita Marche" to make a "child-friendly city" a reality.

Other community activities include the PTA's "Community Disaster Prevention Activities for Junior High School Students," in which the students take part in disaster drills. The students enthusiastically performed their roles, such as calling on residents and helping with food distribution, happy that they could look after people in the community who normally look after them. Meanwhile, on "Baby School Day," when mothers and their babies attend elementary schools in the city, sixth-grade elementary school students look back on their own childhood through the relationship between mothers and babies as a "life lesson." Participating mothers are reminded of the importance of their babies' presence and their love for their children, and gain a sense of fulfillment from raising children in the community.

Tomiya has also endorsed UNICEF's "Children's Rights in Sport Principles." This involves conducting child-friendly city development from a number of angles. For example, the "Declaration of Sports for Children," signed by the managers and coaches of 23 sports teams, was adopted at the inauguration ceremony of the Junior Sports Club Association, the first declaration like this by a local government. This Declaration of Sports for Children was also introduced at the CFCI Summit in Cologne in October 2019.

From April 2021, Tomiya City has been promoting the Japanese version of CFCI as a municipality that has already implemented CFCI. By ensuring safety and security in everyday life and enhancing systems to support child-raising activities, Tomiya is working to be a city where people want to keep living. This has been done by adding the goal of "creating a child-friendly city" to the Tomiya City Five-Year Comprehensive Plan (2021-2025) from FY2021, and by incorporating new perspectives into municipal government management.

For example, to emphasize the dignity of children, one activity is to give cards with the Convention on the Rights of the Child and the Tomiya Child-Friendly City Development Declaration, written in simple words, with the maternal and child health handbook which is issued to mothers and fathers when they find out they are expecting a baby. Some of these activities can be undertaken without establishing new departments to oversee them and without committing special budgets or large numbers of personnel. I believe that resolving issues as we become aware of them, one step at a time, will foster awareness about them.

It is my hope that we can spread Tomiya Child-Friendly City Development throughout the city by keeping our activities going, addressing issues that can be resolved right away, and having the Tomiya Child-Friendly City Development Promotion Agency Internal Coordination Council examine and evaluate those that require a long-term perspective. By implementing UNICEF's Japan-style CFCI program, we aim to spread the concept of "child-friendly cities" to all citizens in an easy-to-understand way, build understanding and trust in the city government, and make the city sustainable over the long term, becoming a city that is friendly to everyone and where no one is left behind.

Written by Junko Inomata

11-3 SDGs from Children's Eyes: The Power of "Play (Asobi)" as Learned from Actual Practices in Disaster Areas

1 Lessons from the Great Hanshin-Awaji Earthquake

Someone shouted, "Let's go!" Seven junior high school students and elementary school students formed a scrum on a table made of scrap wood gathered from the rubble. The shaking of the scrum gradually intensified, "Level 1, Level 2..." Then "Level 5, 6...7!" With a shout, the shaking reached a climax, and the legs of the table snapped off at the base, collapsing with a crack. The children cheered and jumped to the next table.

On January 17, 1995, a major earthquake centered on Awaji Island struck the city of Kobe. On the 25th, I arrived in Kobe with a small minivan packed with equipment that would be useful for building a children's playground. Nagata Ward, where the playground was established, was crammed with small wooden houses, many of which had collapsed, and the ward had the largest area destroyed by fire in the city. Houses had collapsed like dominoes; the roofs of two-story buildings crushed to waist height. There may have been people still under them. The thick H-shaped steel beams that probably once supported the shopping arcade were twisted like candy, and the area was burned to the ground as far as the eye could see, just like in photographs of the hypocenter of the atomic bomb.

Children care for their psychological wounds through play. As a long-time operator of an adventure playground (play park) in Setagaya, Tokyo, I have seen countless such children in my daily life. However, is this still effective in the face of such destruction? In 1995, society paid little attention to children's mental health care. Even amid the emergency, in the freezing weather, with no food or a place to sleep, we played happily with the children. Yet we came under harsh criticism, which served to further heighten our anxiety. It was here that the scene I described at the beginning of this article unfolded.

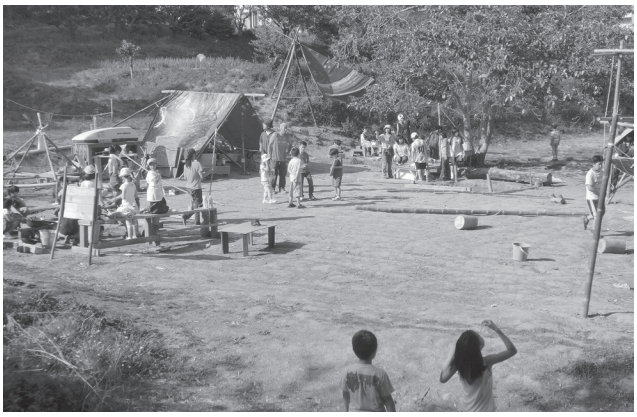
Even for me, who had not lived through the disaster, it was shocking to see. Moreover, it was taking place in an evacuation center set up in a park, surrounded by people who had lost not only their homes and possessions, but also relatives and loved ones. Though it annoyed the adults, I realized that children were tending to their own mental health through play. Gradually increasing the shaking, they collapsed the table at "Level 7." By recreating the earthquake, which even adults had not been able to withstand, they were attempting to control it and make sense of things once more. I was convinced that these games, which kept happening despite angry scolding from the adults, were a sign of self-care.

2 Establishing a Playground in Kesennuma

"Do you know how bored we were before the playground was built?" These were the first words spoken by a child who flew home from elementary school on the day that "Kesennuma *Asobiba*" opened (*Asobiba* means "play area" and is also a pun on "beaver"). The playground had been established in Motoyoshi, part of Kesennuma City in Miyagi Prefecture, on April 26, 2011, in the aftermath of the Great East Japan Earthquake. It began as a project by the Japan Adventure Playground Creation Association, an intermediary support group that promotes adventure playgrounds throughout Japan, to support areas affected by the disaster. The next day, the wife of the chairman of the District Promotion Association, who had made a great effort to open the playground, said, "I now understand how much the children had to endure at the shelters." With a big smile on her face, she added, "Now that we have a playground, the children have got their wild side back." I then remembered a handmade newspaper posted in the middle of the wall of the community center that read, "Children are the treasure of the community." More than 100 people had evacuated to this community center.

The area affected by the earthquake and tsunami covered several thousand kilometers of coastline. If inland areas were also included, the size of the affected area would be unimaginably vast. Although we knew that mental health care for children was important, we had

Figure 11-6: ***Asobiba*** **flat area**



no idea how to narrow down the areas to focus on. We therefore took the approach of selecting a location where we would reach every child in the local area, even if that area was small. The area of Motoyoshi that we chose had a kindergarten, elementary school, and junior high school on the same site. We thought that if we could build a playground nearby, we could cover all the children in the area. The school complex was on high ground, 30 meters above sea level and 500 meters from the coast, but the tsunami had still engulfed the schoolyard and some of the school buildings, dragging all the houses on the seaward side of the school into the sea. The playground had to be on even higher ground than that — an absolute requirement for residents' peace of mind.

"In Sanriku, each valley has a different culture from the next." This is what my contacts from the area all said when they learned that I was going to help start up a playground. However, what this meant was that the local culture was still alive. In communities like these, schools often play a central role in matters involving children. Conversely, if the school was wary, it might have become difficult to organize any activities involving local children. Therefore, to set up the playground, we first visited the school to ask for their understanding. The principal then introduced us to the District Promotion Association chairman and his wife, whom I mentioned previously.

The chairman looked for a place that could be used as a playground and rented it from the landowner. It was a hilly area, covered with thickets of bamboo so dense that not even children could squeeze in. We cleared this area and opened it up to the neighboring fallow fields. First, we used the slope to build a long slide, which was made out of scrap wood we had collected. I thought this was an essential piece of equipment to use play to recreate a tsunami rushing up and engulfing everything in its path. Beginning with the first child whose words I noted above, elementary school students started to come, one after another. Golden Week (a week in April to May containing multiple national holidays) began immediately after the opening ceremony, and the principal of the elementary school reported that 90% of the school's students had been to *Asobiba* by the time the holidays ended.

Figure 11-7: ***Asobiba*** **hill area and slide**

3 Insights from Kesennuma *Asobiba*

After opening the playground, I noticed two major things.

The first is how mental turmoil can be expressed. From my experience in the Great Hanshin-Awaji Earthquake, I had expected the children to speak and act wildly after the disaster, but what emerged was completely different from what I had imagined. In Kobe, the children's agitation came in the form of unresolved anger and sadness that they unleashed on one another directly, involving plenty

of rough words and behavior, something that was easy to understand. In Kesennuma, meanwhile, it is hard to describe the way the children seemed to sting each other, rubbing salt in each other's wounds. It was unbearable to watch, as though the very foundation of communication had broken down. I felt that this was not only a result of the mental distress brought about by the disaster.

The other thing I noticed was their physical condition. Running around the bumpy fallow fields, their upper bodies would sway from side to side. This happened even on level ground, and it was even more pronounced when running on the slopes that had been cut into the soil. When they ran down a slope, their upper body was left behind, or they flopped forward, as though they could fall over and hurt themselves at any time. There was also a rope swing, formed from a natural vine hanging from the seven-meter-high branch of a large tree. By grabbing the rope and kicking off toward the bottom of the hill, it was possible to reach about four meters off the ground. We had left it there when clearing the area, thinking it would be something exciting for the children to play with. Of course, the children's eyes lit up and many had a go, but to my surprise, they could not keep their arms in front of their chest when holding the vine. They would run down the slope as it were, still gripping the vine above their heads. Unable to run on bumpy ground, and unable to hold their bodies in place while swinging, it seemed that there was a fundamental problem with their physical abilities.

This was a problem common to most children, and one that I found quite shocking. It was clear that, regardless of the disaster, these children had not been playing outside. Despite the area being famous for its coast and ocean, backing onto forests and mountains, they had never had the chance to play there with their friends.

4 Play Car, Go!

The area affected by the disaster was frighteningly vast. To cover this area, we decided to use a "Play Car," a small minivan loaded with play equipment and materials. Due to the nuclear power plant explosion, Fukushima Prefecture was the least tended to of the disaster areas. With the support of corporate sponsors, we began running a Play Car around Fukushima Prefecture, opening one-day visiting playgrounds.

The first of these cars was named "*Asobocar*" (which means "let's play" car). The most important consideration in the process of setting it up was the design. Disaster areas can often seem like a monotone world. The presence of a car with a pop-inspired design in primary colors was sure to brighten up the surroundings and delight the children, but what concerned me was how adults would perceive it. Once *Asobocar* started running, however, it turned out that I needn't have worried. Children's eyes would light up at the mere sight of the car, and when it passed by, they would turn around, point, and wave. Just the smiles on the children's faces must have brought cheer to many adults, and so *Asobocar* was very popular with them too.

The play kits inside also featured bright, vibrant designs in primary and pastel colors. These included an air hockey table, spinning tops, a wagon filled with tools, building blocks, a ring toss, a blackboard for scribbling on, a charcoal stove, ladles, pots, as well as wood, bamboo, nails, and glue for crafts. There were also ropes and sheets of fabric to make improvised playground equipment using trees, fences, or anything else at hand. Of course, the Play Car itself also functioned as a piece of play equipment. Even just spreading a few objects would transform the site into somewhere else entirely.

A toddler and an elementary school student said they'd never had so much fun before. A mother said through tears that it was the first time that her child had been able to leave her side since the disaster. A father murmured how he'd been wrong before, and that this was the kind of play he wanted to see. A grandmother told us happily

Figure 11-8: ***Asobocar***

that this was the first time after the disaster that she had seen her grandchild this excited. While I was heartened by these words, I was also painfully aware of how dire the situation must be for something this modest to make the children so happy.

The Play Car business could only be viable if the people hosting it were locals. This was to avoid, as much as possible, a situation where children could only play when a Play Car was there. The main goal was to have local people experience the program together, to convey the importance of playing together, and to increase the number of adults in various communities who could support children's play without the use of a Play Car.

This activity was well received and caught the attention of the Reconstruction Agency and the Japan Committee for UNICEF, leading to the addition of Play Cars No. 2 and No. 3, "*Asobu-bu*" and "*Asobitaiya*." The area covered by the Play Cars was then expanded to include Miyagi and Iwate, covering the three prefectures most heavily affected by the disaster.

5 Playworkers

Playgrounds have "playworkers" (play leaders) whose job is to create an environment that draws out each child's desire to try things and have fun. In Europe, it has long been a respectable profession, but in Japan, the first playworkers were introduced in 1979, when Hanegi Play Park, a permanent adventure playground, was established in Setagaya Ward to commemorate the International Year of the Child (I was one of those appointed). Playworkers' skills have a direct effect on the quality of the play environment. Having a playworker was a prerequisite for being able to run *Asobocar*, the first Play Car.

A major challenge in increasing the number of Play Cars was to train playworkers with these abilities. Intensive training was conducted over four nights and five days, with a play park in Setagaya used as a training site. The playworker who ran *Asobocar* was then put in charge of the Play Car training. Subsequently, the three playworkers established their own "playworkers" organization to promote the creation of play environments for children, mainly in the Tohoku region.

6 Revitalizing Children

Japan's "Children's Day" holiday came ten days after the opening of *Asobiba*. Starting in May, we talked with the children about all sorts of things to make this day as much fun as possible. Several children wanted to sing the song "*Niji*" ("Rainbow"; lyrics by Toshihiko Shinzawa, music by Hirotaka Nakagawa), so they started practicing that morning. In the evening, sitting on the raised bank of the playground, four children began to sing toward the ocean. When I looked over, I saw that the group had grown to seven and was taken aback, for among them was a child who had barely spoken since the disaster. That child, who had lost close relatives, was loudly singing "*Niji*" with everyone else.

One day, after the May holidays, I heard a voice say "Wow!" and went over to see what was happening. There, I saw a girl on the rope swing. She kicked off the ground as hard as she could and flew toward the sky. Holding her arms tightly in front of her chest, she swung through the air over and over again. She became the first to tame the swing, and by the end of the day, she had learned how to go right around the tree. Her body had responded to her determination, and she had acquired the strength to make it possible.

By the end of May, there were virtually no more children who swayed from side to side as they ran through the fallow fields. There was no longer any need to worry when they ran down the slope, and by the end of the summer holiday, they were all leaping about like monkeys.

Around the beginning of June, a group came to conduct a survey to support NPOs working in the disaster area.

Figure 11-9: Children playing

After spending some time at *Asobiba*, they said that it was the first time they had seen such a cheerful place in the affected areas. These words, coming from people who had observed many different places, came as the highest praise.

As I had expected, tsunami games showed up often in the children's play for a time. At one point, a group of boys started playing, and a little girl nearby shouted "Stop!" in a small voice. The boys said sorry and started another game. In the winter of that year, building secret bases became popular. Once, a child stepped through the floor of one and cried out, and a voice from somewhere said, "Are you okay?" The thought came to me that they were playing together, sharing a time and place, even though they were playing completely different games. I experienced firsthand how the relationships between them, which had been so antagonistic at the start, had gradually transformed into warm and amicable ones.

7 The Value of Play

Play that begins with the desire to try something is a world where the child's inner life comes to the surface. As such, it fosters a sense of the self as a living thing. For children, "play" means building "my world," an essential experience for creating their identity. "Wanting to try" is also a kind of desire, and the ability to take care of oneself is deeply linked to this "will to live."

This does not only apply to children. One grandmother who comes here says that hearing children's laughter cheers her up, and a mother with a small child says she is happy and relieved to see her child being cared for by everyone. If it makes the children happy, local adults are willing to offer their help. The community, with the children at the center, comes alive.

A community built around children becomes their "hometown," something that will support them throughout their lives. One cannot talk about the SDGs and children without mentioning the value of "play."

To this day, *Asobiba* remains a beloved, irreplaceable community playground, led by the wife of the District Promotion Association chairman, where all generations come together to interact.

Written by Hideaki Amano

Chapter 12

Women

12-1 SDGs and Women's Empowerment: Perspectives from Women's Disaster Studies

When thinking about sustainability and local communities, it is essential to consider women's perspectives and gender issues. This section introduces the concept of "Women's Disaster Studies" which emerged from Miyagi following the Great East Japan Earthquake. It focuses on issues that became evident through the discussions of the Women's Working Group on "SDGs and Miyagi," as described further below.

1 What Is Women's Disaster Studies?

Women's Disaster Studies is an academic field, made up of practical and interdisciplinary expertise that draw from the realities on the ground involving women and disasters. The publication *Creating Women's Disaster Studies* (Fumie Asano and Mutsuko Tendo, 2021, Seikatsu Shisosha) was prompted by the Great East Japan Earthquake of 2011. Asano, who has been involved in supporting women in the affected areas since the immediate aftermath of the earthquake, and Tendo (the author), who returned to her hometown of Miyagi in 2015 to teach women's studies at a university, teamed up to launch a co-authored project that aimed to bring a female perspective to the study of disasters and the practice of disaster management. We created a new academic field called "Women's Disaster Studies" by tracing back through the research and practices of civic groups that put women in the center, including groups that were active before and after the Great East Japan Earthquake in Miyagi and other parts of Japan. This was driven by our belief in the need to identify the various issues and background factors that women face whenever disasters occur, and to develop women's studies as an academic and theoretical framework and a tangible, practical tool to empower women to solve these issues.

In Japan, particularly after the Great Hanshin-Awaji Earthquake in 1995, there has been a profusion of sociological and psychological research on disasters. While women's perspectives have gradually been incorporated into these studies, there are still very few disaster studies that focus on women's perspectives or gender issues. Moreover, disasters do not affect all people equally. Rather, the impact includes human-induced harm suffered by more vulnerable groups against a background of social vulnerability and structural inequality. Above all, it is the various gender disparities that lie beneath the surface in everyday life that emerge in times of disaster. The inequitable gender order that pervades social, economic, and political systems is revealed in the division of labor by gender roles in running evacuation centers; the emphasis on women's household responsibilities; the uneven distribution of care responsibilities; the harm caused by domestic violence; biases in support systems resulting from male-centric norms regarding the heads of households; layoffs of women in non-regular employment; and the limited number of women involved in disaster management councils and reconstruction policy-making. In other words, in times of disaster, the veil that had previously covered such disparities is lifted, and gender issues built into the structure of society are brought to the surface all at once. It is not that gender issues had not existed before, but rather that there had been a failure to adequately address them in normal times.

As such, it is essential to make a conscious effort to incorporate democratic, civic engagement, and gender-equitable strategies throughout the reconstruction process and disaster prevention efforts. Women's Disaster Studies argues that regularly giving voice to those who find it

difficult to speak up, and ensuring their dignity and rights as human beings, must be established as criteria for disaster prevention and reconstruction (*Creating Women's Disaster Studies*, pp. 14–15). This conception of Women's Disaster Studies can be applied to the SDGs and women's empowerment.

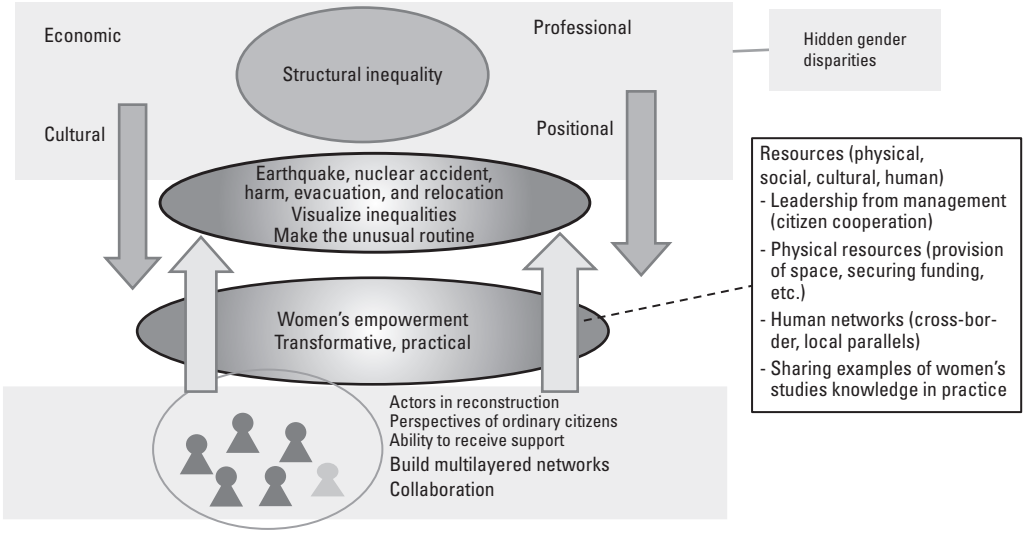
2 Women's Empowerment

The "empowerment" of women means women themselves achieving power. This "power" refers not to authority from above, but a force of change and creativity produced by people connecting with each other and showing solidarity. In other words, it refers to the power of women at the grassroots acting in solidarity to change their own circumstances and positions: a bottom-up approach. This concept was popularized after the Third World Conference on Women held in Nairobi in 1985, and has been adopted worldwide. In Japan, this concept was introduced early by Muramatsu and others (Yasuko Muramatsu and Yasuko Muramatsu, eds., *Empowerment in Women's Studies*, Yuhikaku, 1995).

As shown in **Figure 12-1**, the resources for empowering women are networks of mutual support; the extent of physical resources (public and private support such as provision of space and financial resources) to create and maintain a place to work together; a shift from a relationship of support/receiving support to one of collaboration; and the sharing of practical wisdom in women's studies. Even if the power and resources of each individual are limited, by working together, speaking up, and moving forward while maintaining respect for the wishes of each individual, we can share and cultivate a deeper awareness of the issues and open the way for improvement and change. When these networks connect across perspectives and disciplines, it offers the possibility of building multilayered networks that transcend the boundaries of corporations, local governments, and even countries (Asano and Tendo, *Creating Women's Disaster Studies*, pp. 165–168).

Women's empowerment has become a key concept in international indicators of gender equality. A well-known example is the Gender Empowerment Measure (GEM) in the UN Development Programme (UNDP)'s *Human Development Report*. The UNDP published the GEM until 2009, with Japan ranking 57th out of 109 countries in the 2009 edition. The 2010 edition of the *Human Development Report* replaced the GEM with a new Gender Inequality Index (GII).

Figure 12-1: A practical model of women's empowerment



Source: Adapted from *Creating Women's Disaster Studies* (Asano and Tendo, 2021, p.166)

The GII quantifies the level of gender equality based on three dimensions and five indicators: reproductive health (maternal mortality ratio and adolescent birth rate), empowerment (gender ratio of legislators and gender ratios in primary and secondary education), and the labor market (women's labor market participation rate). Recently, Japan ranked 24th out of 162 countries in the GII (2020). Japan's low maternal mortality ratio and low adolescent birth rate (the rate of pregnancy and childbearing among women aged 15-19) are some of the factors that boosted its ranking in the GII (*UNDP Human Development Report 2020*, Gender Equality Bureau 2021) (Table 12-1).

Another index that measures global gender equality is the Gender Gap Index (GGI), published annually by the World Economic Forum (WEF). The WEF Gender Gap Index reflects the inequality between men and women based on the four areas of politics, economics, education, and health. Specifically, these areas cover political power (representation in decision-making structures), economic participation and opportunities (salaries, participation levels, and employment opportunities in technical jobs), opportunities provided from basic to higher education, and health and life expectancy.

As shown in the table, Japan ranks 120th out of 156 countries (116th out of 146 countries in 2022) in the ranking announced in 2021, the lowest among the G7 countries (Table 12-1). Japan scored particularly low in the areas of politics and the economy. The proportion of women in the House of Representatives is less than 10% (9.7% in November 2021), which is extremely low compared to other countries. In the area of the economy, the income gap between men and women and the small number of women in managerial positions have a major impact (*Global Gender Gap Report 2021*).

Japan ranks near the top in education, health, and health care, with no disparities in literacy rates and primary and secondary education, although there are some challenges in higher education such as the low rates of women in STEM (Science, Technology, Engineering, and Math). Given that enrollment in higher education affects the choice of profession, career development, economic independence, and lifetime wages, gender equality in education is an important issue for Japan (Figure 12-2).

The absence and paucity of women in decision-making positions in the public sector is not limited to the political sphere. As shown in Figure 12-3, the percentage of women in decision-making positions in many fields, such as in the legal profession (judges, prosecutors, and lawyers), in education (school principals), and in management positions in private companies, remains below 30%. The proportion of women on local disaster management councils is also low.

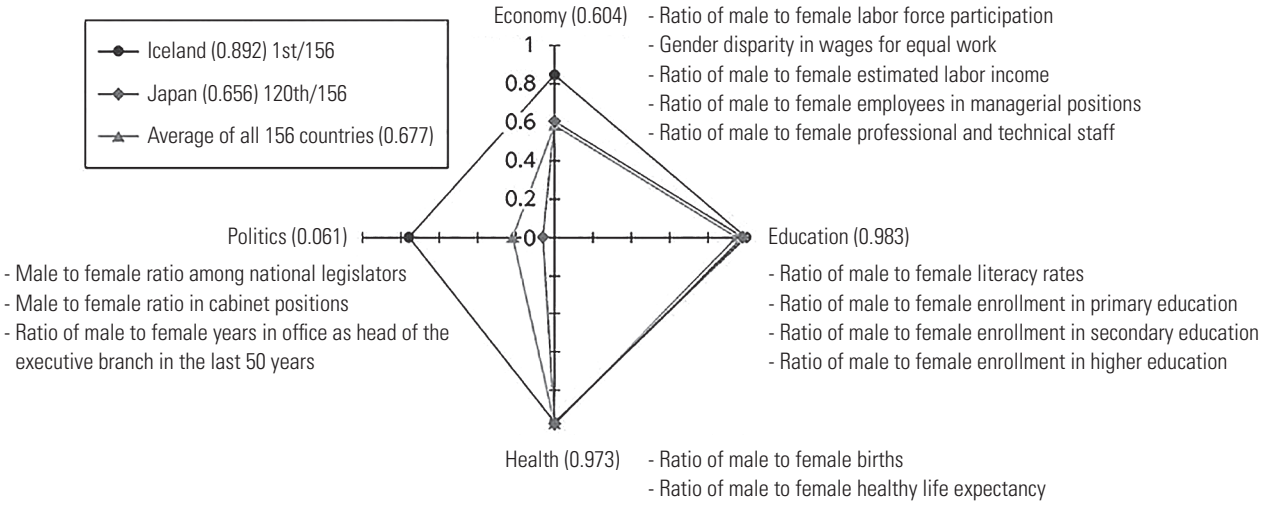
Table 12-1: **Comparison of countries using the Gender Inequality Index (UNDP) and the Gender Gap Index (WEF)**

GII (UNDP) ranking			GGI (WEF) ranking		
Ranking	Country	GII score	Ranking	Country	GII score
1	Switzerland	0.025	1	Iceland	0.892
2	Denmark	0.038	2	Finland	0.861
3	Sweden	0.039	3	Norway	0.849
4	Belgium	0.043	4	New Zealand	0.84
4	Netherlands	0.043	5	Sweden	0.823
6	Norway	0.045	6	Namibia	0.809
7	Finland	0.047	7	Rwanda	0.805
8	France	0.049	8	Lithuania	0.804
9	Iceland	0.058	9	Ireland	0.800
10	Slovenia	0.063	10	Switzerland	0.798
11	Republic of Korea	0.064		...	
	...		17	Philippines	0.784
24	Japan	0.094		...	
25	Australia	0.097	23	United Kingdom	0.775
	...			...	
31	United Kingdom	0.118	29	Denmark	0.768
	...		30	United States of America	0.763
46	United States of America	0.204		—	
	...			...	
101	Colombia	0.428	120	Japan	0.656

Source: Based on UNDP, *Human Development Report 2020*, World Economic Forum, *Global Gender Gap Report 2021*, as cited in the *White Paper on Gender Equality 2021*, Gender Equality Bureau, Cabinet Office

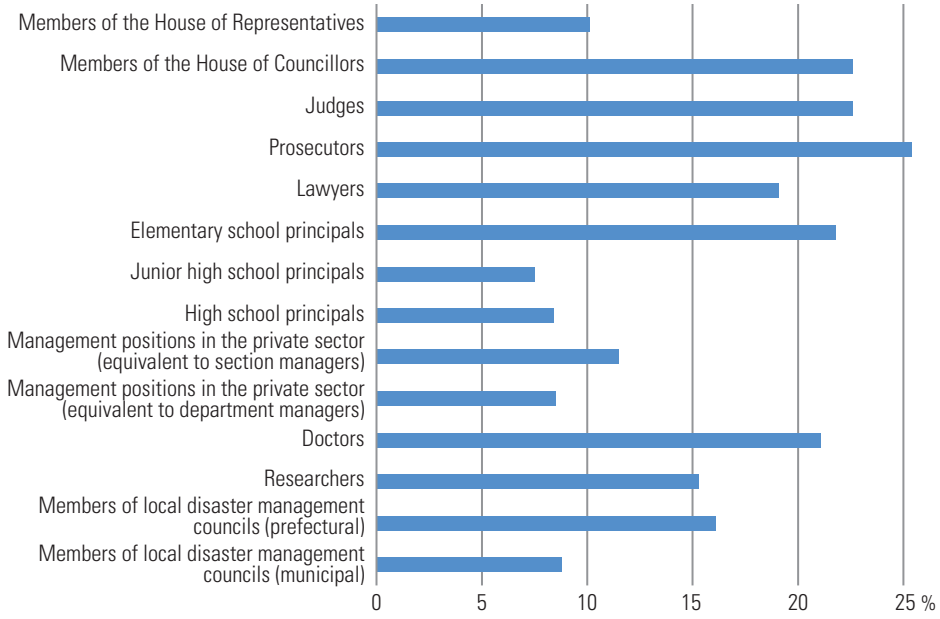
A certain percentage of women in decision-making positions and the political sphere is not only important for women's rights, but also provides an opportunity for diversity and the possibility of change in the very essence of governance, unbound by existing conventions and entrenched value systems. As such, women's empowerment is essential to the creation of a society in which no one is left behind (Mutsuko Tendo, *Women's Empowerment and the Future of Education*, Toshindo).

Figure 12-2: Japan's position in the four areas of the Gender Gap Index (WEF)



Source: Gender Equality Bureau, Cabinet Office, *White Paper on Gender Equality 2021*

Figure 12-3: Percentage of women in each field in Japan



Source: Compiled by the author based on the *White Paper on Gender Equality 2021* and other sources

3 SDGs and Women in Miyagi: Current Status and Challenges

SDGs and gender equality: As a follow-up to the Millennium Development Goals (MDGs), Agenda 2030 and the SDGs were developed to address issues such as poverty, inequality, and the environment. In the SDGs, gender equality and women's empowerment are prerequisites for eradicating poverty and hunger, promoting health, and finding ways to address inequality and violence against women.

As noted in Chapter 1, 1-1 of this volume, SDG 5, "Achieve gender equality and empower all women and girls," has various targets for eliminating discrimination and violence against women, ending harmful practices such as underage marriage, recognizing and valuing unpaid labor such as care and domestic work, ensuring opportunities for participation in decision-making and leadership, and guaranteeing universal access to sexual and reproductive health and rights. It also targets reforms to provide women with equal rights to economic resources, enhanced use of enabling technologies, including ICT, and the adoption of legal frameworks to promote gender equality and women's empowerment.

The eight goals set forth in the MDGs to be achieved by 2015 were: 1) Eradicate extreme poverty and hunger; 2) Achieve universal primary education; 3) Promote gender equality and empower women; 4) Reduce child mortality; 5) Improve maternal health; 6) Combat HIV/AIDS, malaria, and other diseases; 7) Ensure environmental sustainability; and 8) Promote global partnerships for development. Although the MDGs included human rights for women, as well as education, reproductive health, and other areas closely associated with women, they were primarily targets for developing countries. Conversely, the SDGs are universal goals that all countries, including developed countries, should address. It should also be noted that the SDGs aim to "realize the human rights of all and to achieve gender equality and the empowerment of all women and girls" (*Preamble to the 2030 Agenda*) from the perspective of each individual, not just at the national level. If we relate this to the situation in Japan and Miyagi Prefecture, it is also an opportunity to reconsider what was needed and what was left out of the post-disaster reconstruction process, as well as the disadvantages and pressures that COVID-19 placed on women, particularly in terms of employment and livelihoods.

Women's Working Group set up for the SDGs Miyagi Model project: The Women's Working Group was launched in 2020, during a period overshadowed by a looming sense of crisis due to the spread of COVID-19 and the measures put in place to address it. Under the leadership of Megumi Ishimoto of the Indicator Team and using online meetings, women and men living and working in Miyagi Prefecture brought their experience and knowledge to the discussions on women-related indicators aimed at achieving the core objective of the SDGs (see 12-2 in this chapter). What was impressive was that the process of creating the indicators embodied a participatory citizen-led "gender democracy," with vigorous discussions that took regional characteristics and local needs into account. In particular, gender statistics were examined to determine what was sufficient and what was lacking.

Gender statistics are statistics that make gender disparities and discrimination quantitatively visible, which are necessary for an objective understanding of the discriminatory situation in which women are placed (UN Women, *Strategic Plan*). To obtain objective information on the actual conditions and needs of women, it is vital to develop gender statistics, including the collection and analysis of gender-specific data based on the results of individual and fact-finding surveys. For example, when trying to ascertain the actual conditions facing women, there are cases where the data is grouped by household unit, making it impossible to ascertain differences in the attitudes of women and men in the household or the status of individual women. In the case of "women-related indicators" for Miyagi, it was difficult to obtain gender-specific data on regional movement (inward and outward) and municipality-specific statistics, such as the percentage of women in the medical workforce and the amount of time men spend doing household chores and childcare.

It would also be useful to visualize the extent of women's participation in disaster prevention and reconstruction. There are interesting findings on gender-sensitive disaster response efforts from a survey of local governments across Japan on disaster prevention (Mari Osawa, ed., *Disaster*

Prevention and Mitigation and Gender Equality, Institute of Social Science, University of Tokyo, 2019). A comparative analysis between municipalities which had no female members on disaster management councils (279 municipalities) and which had 10% or more female members on disaster management councils (294 municipalities) found that municipalities with 10% or more female members showed greater concern about certain aspects of evacuation centers, such as ensuring privacy, providing barrier-free and universal access, preventing violence against women and sexual harassment, and mental health care. In addition, the presence of female members led to guidelines that widely reduced disaster risks and improved their effectiveness, such as including allergy-friendly foods and disposable diapers in emergency stockpiles.

Nevertheless, the proportion of women in prefectural and municipal disaster management councils remains low at 16.1% and 8.8% respectively (in 2020). This is also the case for prefectural disaster management councils in the areas affected by the Great East Japan Earthquake, with Iwate at 19.7%, Miyagi at 15.5%, and Fukushima at 16.7%. Although the Japanese government has postponed its goal of achieving "30% female leadership by 2020," perhaps this will serve as a turning point for creating a society where women's participation and leadership are commonplace in all fields, leading to better community resilience.

4 Women's Empowerment and "Human Recovery"

As time has passed since the Great East Japan Earthquake, I sometimes reflect on the SDGs and the issues facing Miyagi, local communities, and women, and wonder: "Does recovery have a human face?" As mentioned above, the extraordinary nature of disasters brings to light gender inequalities that are usually hidden. Normal times and emergencies are contiguous.

Women's Disaster Studies emphasizes the need to incorporate women's perspectives into the process of disaster prevention, disaster, and recovery, but simply "adding women" does not create the power for change. In addition to including women's voices in the disaster recovery process, it is essential to focus on issues affecting not only women, but also other people who face difficulties in society, and to engage in future-oriented discussions and proposals on how to create a better society.

How can the example of Miyagi be used? The Human Security Indicators related to women in Miyagi Prefecture, including the dire results, gave me a lot to think about. The low birth rate in the Life Index (32nd) and the low employment rate of women in the Livelihood Index (45th) stand out in particular.

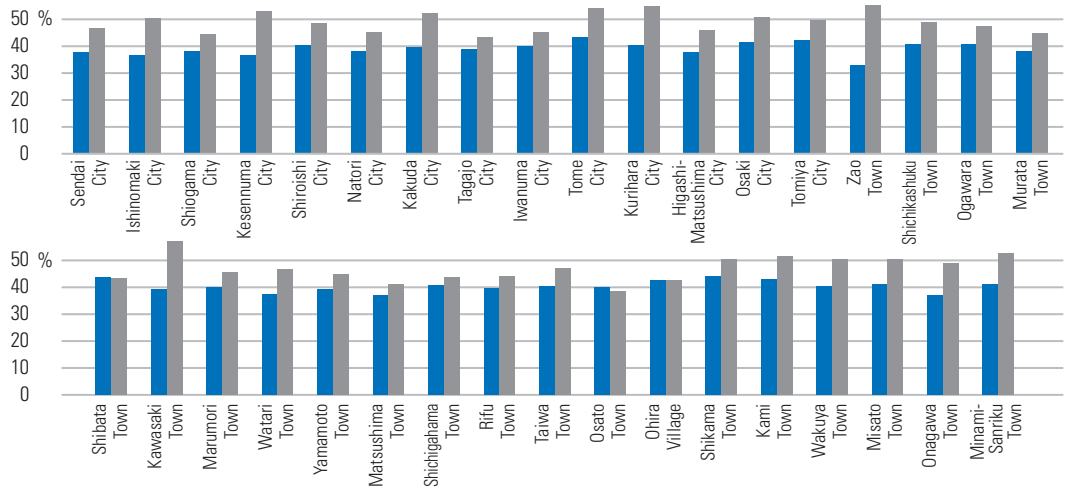
In terms of the Life Index, rather than being pleased or disappointed with the rankings or trying to increase the birth rate, local governments must listen to the needs of municipal and prefectural residents and foster an environment conducive to giving birth and raising children.

Regarding the Livelihood Index, the low overall employment rate of women in the prefecture, as well as the low proportion of women in regular employment, reflect their difficult situation (**Figure 12-4**). The high rate of women in non-regular employment (54.4% for women and 22.2% for men in 2020) is an issue for Japan as a whole, and as such, we must not only foster a workplace culture that develops female managers, but also create work environments where no one is left behind, create opportunities for employment and re-employment, and maintain a human rights approach that ensures that people can work and live with dignity, even in times of emergency.

In addition, livelihood support for single-parent families, especially single mothers, is also a pressing issue. In a survey conducted in 2020 during the COVID-19 pandemic, 60.8% of single parents reported that their living conditions were "difficult" (see 12-3 in this chapter).

In terms of women's dignity, the number of domestic violence consultations in Miyagi remains high (2,863 cases in 2019). Although the problem of domestic violence existed before, the disaster prompted an increase in the number of consultations, and with the call for people to "stay home" during the COVID-19 pandemic, violence against women in the home has become a global issue, dubbed a "shadow pandemic" (UN Women 2021). Preventing and dealing with domestic violence and invisible inequalities within households requires urgent action beyond the boundaries of public/private and local/global.

Figure 12-4: **Rate of working females out of total female population (blue, Indicator C10) and percentage of female workers that are regular employees (gray, Indicator C11), for each municipality in Miyagi Prefecture.**



Source: 2015 National Census

According to the survey of Miyagi Prefecture residents carried out for this volume, there are also gender differences in subjective evaluations of self-affirmation among the prefecture's residents. Regionally, there are indications of differences in subjective evaluations (self-fulfillment and social connectivity) between the Sendai Metropolitan Zone, other areas, and areas that were severely affected by the earthquake (e.g., coastal areas) (see Chapter 3, 3-4 and 3-5).

Initiating change from Miyagi: With regard to gender equality, concrete measures that can be taken promptly by local governments include: 1) promote gender equality, including the prevention of domestic violence and child abuse, in other words, expand "human recovery" at the administrative level while being aware of human dignity; and 2) through community development that harnesses women's voices, increase the number of female members of public bodies such as advisory councils, and develop local female leaders without being hindered by gender roles.

It is precisely in difficult situations such as disasters that the question of how to achieve "human recovery" based on human dignity and the empowerment of citizens is raised. Discussions and proposals to visualize "women's experiences" from the disaster-affected areas and to achieve a gender-equal society will be born out of a network of future-oriented collaboration that goes beyond positions and arguments and includes people who make up the community, specifically individual citizens, neighborhood associations, local governments, disaster management councils, people working toward gender equality, disaster prevention leaders, government officials, council members, local businesses, NPOs, people involved in schools and childcare, volunteers, citizen groups, students, and children.

Written by Mutsuko Tendo

12-2 Resident-led Development of Assessment Criteria for Gender Equality Promotion by Local Governments

1 Women's Issues from the Perspectives of Those Involved

When asked, "What are the issues that you, as women living in Miyagi Prefecture, have seen and heard about in your own lives," the eight women who had gathered at our event offered an array of opinions. These women represented different generations, occupations, and communities. A woman in her 30s opened the conversation by saying, "I moved to Sendai a few years ago, and unlike in Tokyo, I am having trouble finding a babysitter." In response, another woman who had finished raising her child and who was concerned about the other woman's isolated environment, asked, "It must be hard raising a child knowing so few people. Are you all right?" Yet another woman familiar with information on childcare facilities promised to provide her with information later. A woman living in a coastal area in the northern part of the prefecture said, "Because this is a strongly male-dominated area, I need my husband's permission even to buy a computer. He says, 'Why do you need one when I don't even have one?'" Women living near that area nodded their heads, while those living in urban areas, such as Sendai and its suburbs, were surprised. Even within the same prefecture, the economy, employment, culture, and customs are quite different between the urban area where the prefectural government is located, and the farming, mountain, and fishing villages in remote mountainous and coastal areas. "Women are continually told to give birth, raise children, and provide nursing care, and they are expected to do so. And parenting, too, is often spoken about in terms of men helping more, but instead of helping, isn't parenting supposed to be something men themselves do too?" Women from all regions of the prefecture nodded their heads repeatedly when they heard these remarks.

I would also like to share some other issues of concern that people raised:

"We hear a lot more about domestic violence in areas far away from the cities, but there are no facilities for victims of domestic violence in these areas."

"When women have children, the subject of every sentence tends to be 'the children', but I think there need to be more opportunities to think and talk about things as a woman, not just through the lens of children."

"I feel that teenage girls are being left behind in the coastal areas after the disaster."

"In farming, mountain, and fishing villages where the population continues to decline, there are no obstetricians or places to give birth, and women must drive more than an hour each way to go to the hospital."

"There are many dysfunctional families where the parents are present, but the family is not functioning. Support for the children is required. These kinds of consultations have been increasing during the pandemic."

"Teenage births are more common in rural areas. Early marriage and early childbirth can lead to girls being deprived of the right to learn."

The issues discussed by these women are not limited to the cities and villages of Miyagi Prefecture but are common to all regions of Japan.

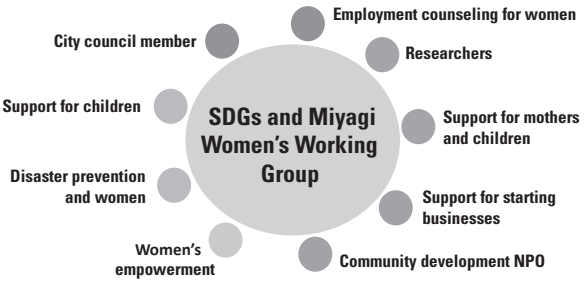
(1) Launch of the "SDGs and Miyagi" Women's Working Group

The first discussion of the "SDGs and Miyagi" Women's Working Group was held in October 2020 in Sendai City and online, with invitations extended to women involved in any kind of activities related to women in Miyagi Prefecture. The discussion described at the beginning of this section was from this meeting. Because this was around the start of the COVID-19 pandemic, the second and subsequent sessions were held mainly online. Despite

being in the same prefecture, the 128 km distance from Kesennuma City in the northern part of the prefecture to Sendai City in the center takes about two hours to travel by car. Holding the discussions online therefore lowered the barriers for people from outlying areas to participate. These discussions were held once a month until March 2021. We identified issues and discussed how we could visualize those issues, and what data we could suggest for indicators regarding women. Several new members were added, including a woman who runs a childcare-related NPO and a male city council member who was concerned about child poverty and support for single mothers (**Figure 12-5**).

The genesis of these discussions can be traced to when I was asked to propose women-related indicators for the SDGs Miyagi Model (Human Security Indicators for Miyagi Prefecture). To illustrate the challenges facing women based on prefectural data in *SDGs and Japan*, we sought advice from women with expertise and on-the-ground experience in research, NPOs, government, and other fields. To propose indicators which help visualize the issues facing women in the 35 cities, towns, and villages of Miyagi Prefecture, we came up with the idea of having local women create these indicators themselves. This is because most of those involved in decision-making in local government are men, and because we perceived a disconnect between the issues discussed by women in the community and the issues addressed at the municipal government level.

Figure 12-5: Main participants in the "SDGs and Miyagi" Women's Working Group



Indicators are an effective tool to convey disparities and issues in terms of specific standards and objective data. However, the hurdles regarding indicators and data can be high, even for women who are aware of the issues. Sometimes indicators have difficult names, and are handed down from above to people who are not familiar with them. No matter how important the indicators are, they do not have an instinctive connection to the issues women face in their daily lives. That is why we needed a working group to perform a series of tasks: to communicate the issues women experience in their daily lives in their own words, to find municipality-level data representing the issues to communicate them to others, and to use that data to develop indicators. As the work was done in a short period of about four months, many issues and indicators could not be included due to time limitations and lack of data. However, the most valuable aspect of this effort was the discussion and decisions made by residents engaged in a wide range of activities throughout the prefecture, and the process of generating ideas, researching, and discussing was worthwhile in itself.

It was this working group that drafted the parts relating to women in the Miyagi Human Security Indicators, which were published in March 2021. In this section, I would like to elaborate on the "criteria for evaluating the promotion of gender equality," which was proposed as one of the indicators relating to women.

(2) Assessment Criteria for Gender Equality Promotion by Local Governments

The "SDGs and Miyagi" Women's Working Group proposed criteria to evaluate the promotion of gender equality by local governments to visualize how committed they are to that goal. There are still many areas, not only in Miyagi Prefecture but throughout Japan, where gender roles are divided and misogynistic attitudes and customs persist. To resolve the issues faced by women living in a given community and to eliminate gender disparities, it is necessary not only for women themselves to change their attitudes and behavior, but also for the environment and institutions surrounding women in the community to change. This has been keenly felt through the 10 years of experience on the ground at Women's Eye, an NPO based in Tome and Minami-Sanriku, Miyagi Prefecture, that has continued to pursue women's empowerment since the Great East Japan Earthquake of 2011.

The "SDGs and Miyagi" Women's Working Group created seven assessment criteria to compare the status of gender equality promotion efforts in the 35 municipalities of Miyagi Prefecture (**Table 12-2**). All assessments were scored on a 3-point scale.

Table 12-2: **Criteria to assess gender equality promotion**

		3 points	2 points	1 point
Criterion 1	There is a basic plan for gender equality	There is a plan and it includes at least two of both current and target values	There is a plan and it includes at least one current or target value	There is no plan
Criterion 2	A survey on attitudes toward gender equality and the actual gender equality situation has been conducted (in the past 5 years)	Conducted regularly	Not conducted regularly, but has been conducted	Not conducted
Criterion 3	There is a basic plan based on the Act on the Prevention of Spousal Violence and the Protection of Victims	There is a plan	—	There is no plan
Criterion 4	There are gender equality ordinances	—	Yes	No
Criterion 5	There is a center for gender equality activities. Gender equality-related initiatives are actively conducted (lectures, events, training sessions, consultation services, etc.)	There is a center and initiatives are active	There is a center but initiatives are sporadic/ There is no center but initiatives are active	There is no center and no initiatives/There is a center but initiatives are not active
Criterion 6	Gender equality is publicized in government information magazines (in the past 5 years)	Frequently every year/Every year	Frequently some years	Some years/Not at all
Criterion 7	Gender equality awareness materials and publications are published (in the past 5 years)	Frequently every year/Every year	Some years	Not at all

(3) Our Approach to the Assessment Criteria for Gender Equality Promotion by Local Governments

<Criterion 1>
There is a basic plan for gender equality

Initially, the plan was to use the presence or absence of a plan as the criterion. However, after comparing the plans of the 23 cities/towns, we found significant differences in content, leading us to conclude that the assessment could not be based solely on whether a plan existed or not. One example would be a plan that only states abstract ideals such as the goal of a gender-equal society, but does not include specific figures or measures. There were also plans that only set numerical targets for "citizens' awareness of the term 'gender equality'" and "degree of realization of gender equality," but no figures on things like the percentage of women in decision-making positions. Several plans provided current values, such as percentages of women on councils and committees, but no target values. On the other hand, some plans included a number of figures and specific measures to capture the current situation. As this indicates, despite all of these being "basic plans for gender equality," their content varied significantly. As a result, it was decided that in addition to the presence or absence of a plan, the criteria would also cover whether and to what extent the plan included current or target values on issues. We compared the extent to which the plans of the 23 cities/towns that had them included current and target values, using a three-point scale: (1) existence of a plan, (2) inclusion of at least one current or target value, and (3) inclusion of at least two of both current and target values.

As of 2020, the national percentage of municipalities with gender equality plans was 98.3% for cities and 69.4% for towns and villages (Gender Equality Bureau, Cabinet Office). In Miyagi Prefecture, the percentage of cities with gender equality plans was 100%, but the figure for towns and villages was 42.9%, 26.5% lower than the national average (Table 12-3).

<Criterion 2>
A survey on attitudes towards gender equality and the actual gender equality situation has been conducted (in the past 5 years)

We established a hypothesis that a municipality that is serious about resolving gender issues would first survey its residents' attitudes toward gender equality and make efforts to understand the actual situation. In the past five years, 14 cities/towns had conducted surveys and 21 cities/towns/villages had not. Of the 14 cities/towns that had conducted a survey, 3 did so annually, and 11 had done so in the past but not annually. The period of "the past five years" was set based on the assumption that attitudes and conditions may change significantly after more than five years pass.

Table 12-3: **Assessment of gender equality promotion in the 35 municipalities in Miyagi Prefecture (municipalities with plans, %)**

		Cities (14)	Towns/ villages (21)	Total (35)	Cities	Towns/ villages	Total
Criterion 1	There is a basic plan for gender equality	14	9	23	100.0 %	42.9 %	65.7 %
Criterion 2	A survey on attitudes toward gender equality and the actual gender equality situation has been conducted (in the past 5 years)	10	4	14	71.4 %	19.0 %	40.0 %
Criterion 3	There is a basic plan based on the Act on the Prevention of Spousal Violence and the Protection of Victims	14	9	23	100.0 %	42.9 %	65.7 %
Criterion 4	There are gender equality ordinances	10	2	12	71.4 %	9.5 %	34.3 %
Criterion 5	There is a center for gender equality activities. Gender equality-related initiatives are actively conducted (lectures, events, training sessions, consultation services, etc.)	13	12	25	92.9 %	57.1 %	71.4 %
Criterion 6	Gender equality is publicized in government information magazines (in the past 5 years)	10	6	16	71.4 %	28.6 %	45.7 %
Criterion 7	Gender equality awareness materials and publications are published (in the past 5 years)	10	7	17	71.4 %	33.3 %	48.6 %

<Criterion 3>
There is a basic plan based on the Act on the Prevention of Spousal Violence and the Protection of Victims

In recognition of the fact that domestic violence is a violation of human rights, the 23 cities/towns that have a plan to prevent domestic violence received the maximum score of 3 points, while the 12 towns/villages with no plan received the minimum score of 1 point.

<Criterion 4>
There are gender equality ordinances

The 12 cities/towns with ordinances received 2 points, and the 23 cities/towns/villages without ordinances received 1 point. While appreciating the importance of enacting ordinances, the score did not use the maximum of three points in recognition of the hurdles that municipalities face in enacting ordinances.

<Criterion 5>
There is a center for gender equality activities
Gender equality-related initiatives are actively conducted (lectures, events, training sessions, consultation services, etc.)

While there were some municipalities where gender equality-related initiatives were inactive despite having a center, there were also those with no center but active initiatives. Therefore, although the Working Group agreed that it is important to have a local center for gender equality initiatives, it was decided to differentiate the points according to the state of the initiatives. Accordingly, the results were divided into three categories: (1) 4 cities with centers and active initiatives, (2) 21 cities/towns/villages with centers and occasional initiatives, or no center but active initiatives, and (3) 10 cities/towns with no centers and no initiatives, or with centers but no active initiatives.

<Criterion 6>
Gender equality is publicized in government information magazines (in the past 5 years)

We compared the number of times in the past five years that information on gender equality had been published in local governments' information magazines, or when newsletters on gender equality had been issued. There was considerable variation in publicity regarding gender equality: frequently every year; about once a year but every year; frequently some years; once only; and not at all. Accordingly, the results were rated on a 3-point scale: (1) 11 cities/towns/villages that engaged in publicity frequently; (2) 5 cities/towns that did it occasionally; and (3) 19 cities/towns that did not do it very often. Although websites are very important from the viewpoint of access to information, not everyone visits them. Therefore, in terms of outreach to households in the local community, we decided to focus on whether or not gender equality was publicized in sources that are reliably delivered to each household, such as local governments' information magazines.

<Criterion 7>
Gender equality awareness materials and publications are published (in the past 5 years)

The working group considered it important not only for a basic plan for gender equality to be established but also for it to be publicized and awareness raised accordingly. A comparison of the frequency of publication of promotional and educational materials and publications on building a gender-equal society over the past five years showed considerable variation: frequently every year; about once a year but every year; not every year but some years frequently; only once; and not at all. Accordingly, the results were rated on a 3-point scale: (1) 7 cities/towns that frequently conducted public awareness campaigns; (2) 10 cities/towns/villages that occasionally conducted such campaigns; and (3) 18 cities/towns that did not conduct such campaigns very often.

(4) Issues to Be Addressed

The members of the Working Group agreed to include gender budgets in the assessment criteria for local governments' promotion of gender equality. However, the process of identifying budget items that fell under the category of gender budget was time-consuming, so this could not be included in the assessment this time around. In the discussion on why gender budgets are important, we thought that since solving problems always involves policies, a comparison of whether a budget is gender-related or gender-conscious would be a symbolic criterion for gauging whether a municipality is serious about promoting gender equality, now or in the future. We also discussed the idea of holding a public study session for the "SDGs and Miyagi" Women's Working Group once the pandemic subsided, as well as compiling a list of items for which gender-disaggregated data could not be found.

Written by Megumi Ishimoto

12-3 Impoverishment of Single-Mother Households during the COVID-19 Pandemic: A Report from the Research Project on Single Mothers in the COVID-19 Pandemic

1 Economic Situation of Single-Mother Households

As COVID-19 spread in Japan, there were widespread reports of impoverishment among single-mother households. It is estimated that there are 1,419,000 single-parent households in Japan, of which 1,232,000 are single-mother households and 187,000 are single-father households. Although the employment rate of single mothers is high at 81.8%, about half of them (46.5%) are in non-regular employment, their average annual income from work is 2 million yen, and the rate of receipt of child-support payments is only 24% (Ministry of Health, Labour and Welfare (MHLW), *FY2016 Nationwide Survey on Single Parent Families*). The poverty rate for single-parent households is 48.3% (MHLW, *2019 Comprehensive Survey of Living Conditions*), and many households were in a difficult financial situation even before the pandemic.

2 "Single Mother Survey Project" Launched during the COVID-19 Pandemic

The "Single Mother Survey Project" was initiated in the hope of gathering data on the current situation of single-mother households in the COVID-19 pandemic so that the necessary support could be provided as soon as possible. Although a state of emergency was declared in April 2020 in seven prefectures and there were reports of a significant number of single-mother households falling into poverty, it was necessary to collect data on a broader scale and on an ongoing basis. This project was therefore launched in May 2020, together with members of organizations that had been providing support and policy advocacy for single-mother households from before the pandemic, researchers specializing in women's

employment and poverty among women and children, and those who have long worked on gender issues in Japan.

The survey was sent by e-mail to single mothers who subscribe to member organizations of the Certified NPO "Single Mothers' Forum" and the "National Council of Single Mother Support Groups." An initial survey was conducted in July 2020 (referred to hereinafter as the "1,800-person survey"), focusing on questions about the impact of COVID-19 on employment, daily life, and children. This was followed by a panel survey with 539 respondents, drawn from the 1,800-person survey, who had expressed their willingness to cooperate over the course of the next year. The panel survey was conducted monthly from August 2020 to July 2021. Approximately half of the panel survey respondents lived in Tokyo and the other half in other areas of Japan.

3 Collecting Data during the COVID-19 Pandemic

First, the survey team developed draft questions for the 1,800-person survey. They discussed the importance of understanding the current situation as soon as possible and conducting ongoing surveys to determine the economic and social situation of single mothers whose incomes had been reduced or who had lost their jobs as a result of the pandemic, and how their children had been affected. Discussions led to an investigation focusing on changes in income, employment status, living conditions, and children's situations. In addition, the emphasis of the survey was to collect data that would be useful not only for emergency assistance but also for addressing structural problems.

Poverty among single-mother households is directly related to underlying structural gender issues in Japanese society. Even if a woman is the breadwinner in a single-parent household, she should not be in poverty as long as she earns sufficient income. While the social security system should guarantee a minimum standard of living for those who are unable to earn enough to support their children, the reality is that this is not the case. Discussions were held on what needs to be identified to change the current situation so that single-mother households do not fall into poverty, whether in normal times or in emergencies.

4 What the 1,800-Person Survey Revealed (July 2020)

A total of 2,119 responses were gathered in the 1,800-person survey conducted in July 2020, of which 1,816 were valid. Many conveyed how difficult daily life was in painful detail, such as not having enough food to eat three meals a day.

(1) Reduction in Income

About 70% of the single mothers who responded indicated that their employment and income had been affected by the pandemic. The most common impacts were "reduced income" and "reduced working days and working hours," with the impact particularly severe for those working in non-regular employment. The percentage of single mothers who were in work in February 2020, but reported "no employment income," increased with each passing month after February. Excluding those with "no income," average employment income showed a downward trend from February onwards, for both regular and non-regular workers. It was also revealed that about 10% of households were always in arrears for the payment of rent and essential utilities.

(2) Impact of School Closures

Single parents are responsible for care work in addition to their jobs, and the temporary closure of schools and children staying home from school had a very significant impact on their jobs and incomes, as well as on their children's nutritional and academic needs. About 30% of the respondents "voluntarily" took leave or resigned from their jobs due to the fear that they would not be able to care for their families if they themselves became infected. More than half of the single mothers with children in elementary, junior high, or high school indicated that their own work was affected by the temporary school closures, such as having to take time off work, reduce their workdays or hours, or quit their jobs. Furthermore, only about 20% of respondents, a very limited number, indicated that they were paid their full salary in response to the workload restrictions imposed by the temporary school closures.

School closures also meant that children did not eat school lunches (provided by public schools), and consequently an increase in household food expenses, with more pronounced increases for families with more children. In terms of the impact on children's eating habits, about

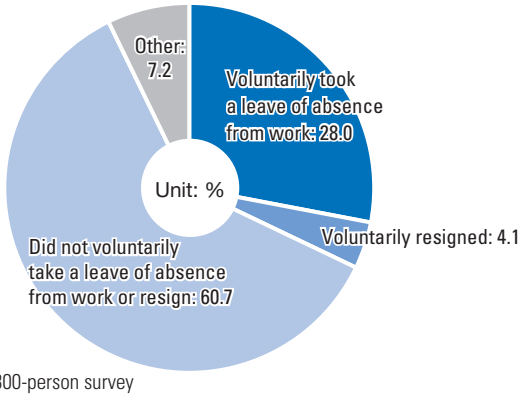
20% of households reduced the number of meals they ate. Meanwhile, about 40% of households with children of junior high school age or older did not own a computer or tablet for use at home. The fact that approximately 30% of households were unable to access the internet at home or had to limit their internet usage raises concerns about the impact of the pandemic on children's learning.

(3) "Voluntary" Leaves of Absence and Resignations at over 30%

Approximately 30% of the single mothers who responded said that they "voluntarily" took a leave of absence or resigned due to the pandemic. If a leave of absence is "voluntary," it is deemed to be for one's own personal reasons and is therefore not covered by compensation for temporary absence from work (compensation paid when a person cannot work due to reasons such as work-related accidents). Those people who were providing support for single mothers heard that voluntary absence from work due to anxiety about becoming infected, or having to "voluntarily" quit due to lack of child care or infection anxiety, would be treated as personal reasons by the system.

Of the 1,603 who were in work, the 449 people who "voluntarily took a leave of absence from work" (28.0%) and the 66 who "voluntarily quit work" (4.1%) together accounted for 515 (32.1%) "voluntary" leaves of absence or resignations (**Figure 12-6**). Furthermore, those in service positions, where there is a high risk of contact with an indeterminate number of people, had the highest rate of "voluntary" leave or resignation compared to other industries, at 37.3% (**Table 12-4**). The fact that more than 30% of single mothers "voluntarily" took leave or resigned from their jobs is indicative of the challenges they faced.

Figure 12-6: "Voluntary" leaves of absence and resignations



Source: 1,800-person survey

Table 12-4: "Voluntary" leaves of absence and resignations (by sector)

	People who voluntarily took a leave of absence from work	People who voluntarily resigned	Total
Administrative	27.1%	2.9%	30.1%
Service	31.8%	5.5%	37.3%
Specialized/ Technical	27.3%	3.6%	30.9%
Retail	28.1%	1.5%	29.6%
Production processes	19.1%	3.4%	22.5%
Transportation/ Cleaning/ Packing, etc.	29.4%	—	29.4%

Source: 1,800-person survey

The following reasons were given for the "voluntary" leaves of absence and resignations:

> "I was forced to take time off work because I couldn't leave my children at school or nursery, but they fired me at the end of June for poor attendance."
>
> "I was very anxious because if I contracted COVID, there would be no adult at home who could care for my children. But I was also very anxious because if I took time off work and stayed at home all the time, I would lose my income."
>
> "I live with my elderly mother, so I asked to take a leave of absence from work on the understanding that it would be without pay."

Of the 1,816 valid responses in the survey, 83.4% (1,514 respondents) answered that they "do not have" anyone living with them other than themselves and their children. Many single mothers who "voluntarily" took leave or resigned were not connected to people or systems they could rely on in normal times and had no other options during the pandemic. In other words, the "choice" to take leave or resign was a passive one, taken to protect their families.

5 What the One-Year Survey Revealed (August 2020 to July 2021)

After conducting the 1,800-person survey in July 2020, the research project conducted a panel survey of 539

people every month for one year from August 2020 to July 2021. Of these 539 subjects, about half lived in Tokyo and the other half in other regions of Japan.

(1) Precarious Work and Low Income

The employment rate among respondents as of February 2020 (considered to be before the start of the pandemic) was very high at 87.7%. However, only 32.0% of the respondents worked as regular employees, with 61.6% in non-regular positions. Therefore, only 34.7% of the workers were paid on a monthly basis, while 62.8% were paid on an hourly, daily, or commission basis, indicating that precarious working conditions had existed even before COVID-19.

The pandemic had a variety of effects on the workforce, including requests for leave, restrictions on attendance, and layoffs. Looking at monthly employment income, almost half of all respondents (44.2% of those in Tokyo and 44.7% of those outside Tokyo) had lower income in April 2021 than in February 2020 (before the pandemic). For those working on an hourly or daily basis, the reduced numbers of shifts and hours worked due to pandemic-induced restrictions on work appear to have led directly to reductions in income. Since the start of the panel survey, monthly employment income (including tax) has averaged around 130,000 yen, reflecting the challenge of raising money to pay for childcare.

(2) Household Finances Strained by the Pandemic

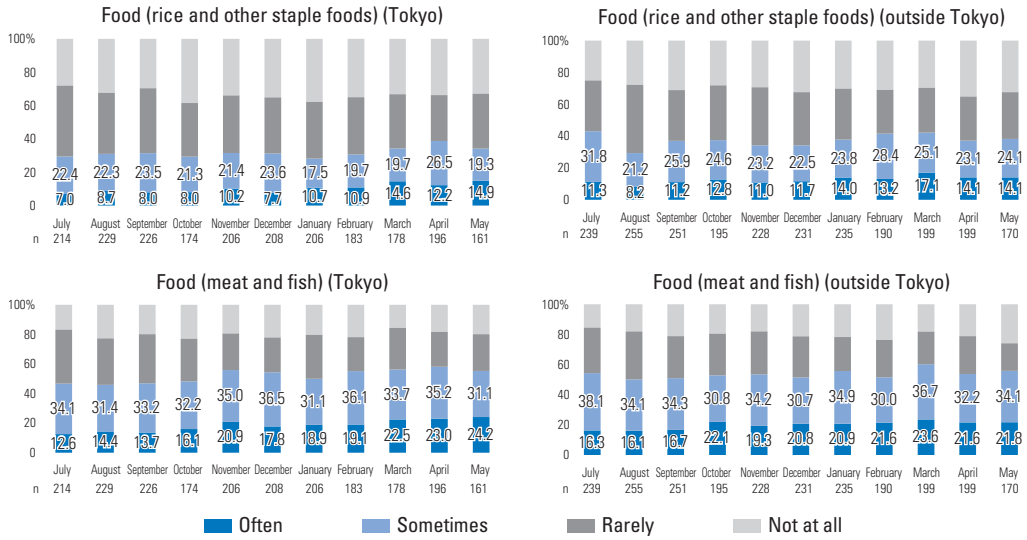
About 10% of households were in arrears for monthly payments related to utilities such as rent, electricity, water, gas, and telephone/communication bills. For some months, about 30% of respondents both in Tokyo and elsewhere were behind in paying their water bills.

In response to the question, "Please tell us specifically which expenses you found difficult to pay," one answer in the June 2021 survey read, "It was difficult to pay school expenses and utility bills. I couldn't pay the bills for things like gas for the previous month, and they would get cut off if I didn't pay this time, so I had to prioritize them." This highlighted the situation of households that pay bills on alternate months so that they can somehow keep their essential utilities running.

Another response in the September 2020 survey said, "When you prioritize things that need to be paid first, like rent, utilities, and loans, you have no choice but to put off or cut back on food, hospital bills, and school expenses." This shows that beset by payments for necessities, people were forced to cut back on food expenses, which should ordinarily be the last thing to skimp on.

They were also asked how often they were unable to buy food or clothing their families needed for financial reasons. When asked about the situation for the month prior to the survey (May 2021), 34.2% of respondents in

Figure 12-7: How often have you been unable to buy food? (July 2020 to May 2021)



Source: Panel survey conducted with 539 respondents from the 1,800-person survey

Tokyo and 38.2% of respondents outside Tokyo answered that they "often" or "sometimes" could not buy "rice and other staple foods," while 55.3% of respondents in Tokyo and 55.9% of respondents outside Tokyo reported that they were sometimes unable to buy meat and fish. Since the survey began, the percentage of respondents who even have difficulty purchasing staple foods such as rice has remained at approximately 30% in Tokyo and 40% elsewhere.

(3) Declines in Children's Diets and Weight

In order to understand how this situation was affecting children, the July 2021 survey asked respondents who had children of elementary school age what changes they had seen in their children's eating habits as a result of the COVID-19 pandemic. For this question, 18.6% of respondents in Tokyo and 15.4% of respondents outside Tokyo said their children experienced a "decrease in the number of meals per day," 29.4% of respondents in Tokyo and 27.6% of respondents outside Tokyo said their children experienced a "decrease in the amount of food per meal," while 28.4% of respondents in Tokyo and 32.5% of respondents outside Tokyo said they were unable to provide enough food to meet their children's increasing food needs as they grew up. It was confirmed that about one out of three children ate reduced amounts of food during their elementary school years (normally a period of rapid growth and development), and that they were not eating enough food to meet their needs as they grew older.

Furthermore, when asked about concerns they had about their children during the previous month, respondents in Tokyo who selected "lost weight" hit the highest level at 12.2% in Tokyo (based on June 2021 survey) and 10% in areas other than Tokyo (based on September 2021 survey). While the pandemic also highlighted insufficient exercise and weight gain among children, it is notable that mothers were concerned that their children were losing weight during their elementary school years, when they would normally be on the growth curve.

In this research project, surveys were conducted through organizations throughout Japan. Going forward, we hope to see surveys conducted in every region and measures implemented in line with the results. As part of this effort, the Human Security Forum decided to survey the living conditions of single-parent households with the cooperation of Kesennuma City, Miyagi Prefecture (see 12-4 in this chapter). To obtain a thorough grasp of the actual situation in other regions, surveys need to be conducted there as well.

I would like to thank the "Single Mothers' Forum" and the "National Council of Single Mother Support Groups" for their cooperation in writing this section.

Written by Hikari Igarashi

12-4 Project to Achieve a Kesennuma Where No One Is Left Behind

1 Local Women's Discomfort: Women's Employment

Some of the comments from women who participated in the workshop "Thinking about Women's Work" in September 2020, co-hosted by three NPOs and citizens' groups active in Kesennuma and Minami-Sanriku in Miyagi Prefecture and Rikuzentakata in Iwate Prefecture, included the following:

> "Even though I had been working normally before, when my child was born, I had to ask if I could work."
>
> "Maternity and paternity leave is referred to as a 'blank,' but is raising a child a blank [period from work]? I think parenting is an important job too."
>
> "When you give birth, you're given the attribute of 'mom.' I want to keep my own identity."
>
> "Women are seen more in terms of their children and family than their own abilities."
>
> "In job interviews, people keep asking, 'How many children do you have?' 'How old are your children?' They don't even bother asking what I think about the company."
>
> "I want to work more."

An article covering the workshop was published in the *Sanriku Shimpo* newspaper on September 30, 2020, under the title "Daily 'Discomforts' One After Another - Thinking about How Women Work."

Town development plans in every region of the country often use catchphrases such as "easy to have children," "easy to raise children," "women can play an active role," and "balance work and childcare." However, women living in these communities face a reality of employment that is far from the proclaimed ideals.

2 Workplaces Where Women Can Work Comfortably and Work Involving Data

It is May 2021, and about 10 women are sitting in front of laptop computers and working in an apartment in Munakata City, Fukuoka Prefecture (**Figure 12-8**). Lupinus Network was founded in May 2018 and successfully became profitable in three years. It currently employs 22 people. What is notable is that the organization is committed to establishing a workplace environment and systems that are comfortable to work in for women who are raising children. The women are unanimous in their praise of the company, saying that they can take time off at their convenience even if their child suddenly develops a fever, and that it is a comfortable place for them to work. One woman who has only been working at Lupinus for a few months said that at her previous workplace, she always felt weary because people resented it if her child was unwell and she suddenly had to take time off. "Here, everyone's in the same situation, so I can take time off without worrying." Many women find it difficult to continue working through stages of life such as parenting, nursing care, illness, and age. Even if they want to continue working, they are not allowed to do so, and as a result, they have been excluded from the workplace and kept away from opportunities to gain job satisfaction, work experience, and earning potential. Having experienced setbacks and difficulties when she, herself, continued to work while parenting, Akemi Fujitani, the company's president, is strongly committed to creating a workplace where women can continue to work.

The women working here are mainly engaged in corporate data maintenance, which involves searching for information and entering and processing data. Employees are given the opportunity to meet individually each month for career counseling regarding their data processing skills, areas for improvement, and concerns about the workplace. To provide better data maintenance, the women who work here have developed mechanisms

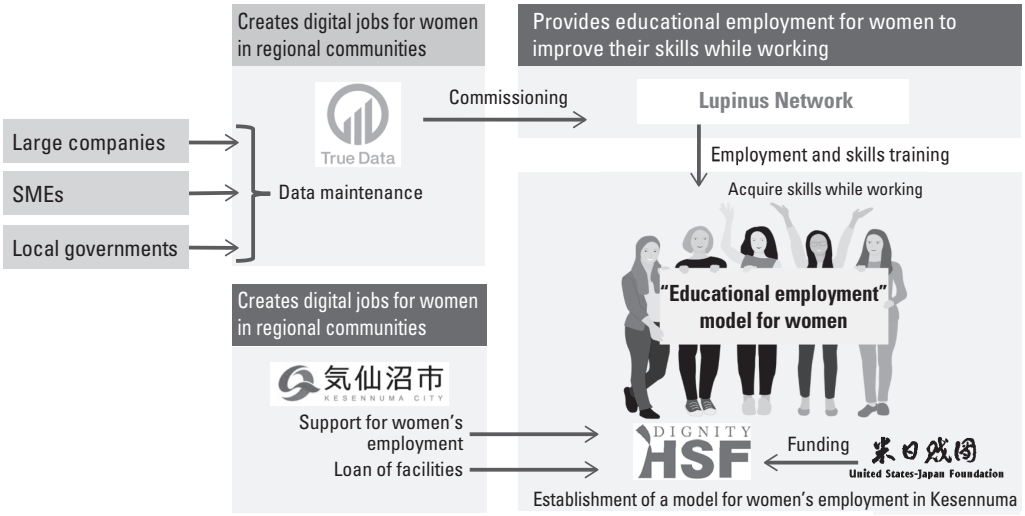
to share what they have learned. This data work is commissioned by Tokyo-based True Data Inc., a big data platform that handles information on the purchasing behavior of 60 million people, one of the largest such platforms in Japan. President Hiroyuki Yonekura says he wants to create jobs that allow women living in outlying regions to get involved in ICT, such as data handling, just as they can in urban areas. The company is also working to train data marketing personnel to help not only urban areas and large companies, but also regional communities and SMEs to make use of data. Accordingly, in November 2019, it began outsourcing the task of the maintenance of purchasing data to Lupinus Network, in an effort to give women in outlying regions who want to work the opportunity to do so.

Figure 12-8: **Lupinus Network (Munakata City, Fukuoka Prefecture)**

3 A Model for Women's Employment in Regional Communities, Developed in Kesennuma

In cooperation with True Data and Lupinus Network, the Human Security Forum held discussions on what kind of workplace would be more valuable to the women of Kesennuma, devising an "Educational Employment" model for women in November 2021. This "Educational Employment" model (Figure 12-9) aims to create opportunities for single mothers and women raising children to improve their skills while working, develop their motivation, and create welcoming workplaces where women can work happily and enthusiastically. By creating a work environment where women raising children can work free of worry, women can acquire expertise in data maintenance while earning an income. Those who wish to do so can also gain professional work experience in accounting, general affairs, labor relations, and other areas that Lupinus Network offers, or they can use their knowledge of database building to pursue careers in data-driven marketing. The idea is that after a few years, the number of highly skilled women in the workforce will increase, producing local female talent for local companies and entrepreneurial ventures.

Figure 12-9: **Educational Employment Model for Women**



4 Project on Building a Kesennuma Where "No One Is Left Behind"

The Women's Educational Employment Model has been incorporated into a project pursued by the Human Security Forum in partnership with the city of Kesennuma to realize a community where no one is left behind. This project is a collaboration between the government, NPOs, and businesses, funded by the United States-Japan Foundation. It aims to solve specific issues to realize the SDG philosophy of "leave no one behind" in Kesennuma, which was chosen because the Human Security Indicators for Miyagi Prefecture (the SDGs Miyagi Model) showed that the city was facing many issues, especially involving women and children. To this end, in addition to providing IT employment opportunities for women (initiative (1) on the Educational Employment Model for Women, described above), Kesennuma City, the Human Security Forum, and True Data are implementing the following projects through a Comprehensive Cooperation Agreement (August 30, 2021):

(2) Provision of opportunities for children to learn programming
(3) Surveys of single-parent households
(4) Promotion of understanding about the Convention on the Rights of the Child

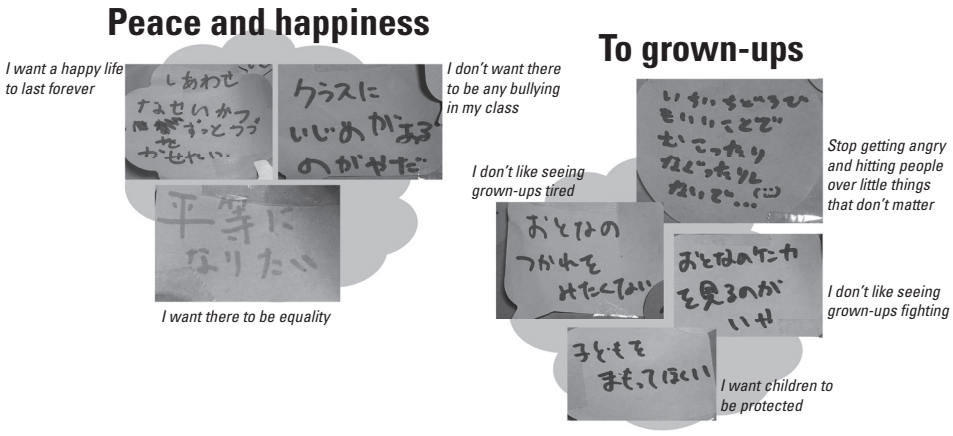
More specifically, for (2) "Provision of opportunities for children to learn programming," a programming workshop was held for elementary school students in Kesennuma in November 2021, followed by a two-day workshop in January 2022 where children could enjoy learning programming, with online participation by Massachusetts Institute of Technology (MIT) students under the MIT Japan Program.

With regards to (3) "Surveys of single-parent households," preparations are underway with the cooperation of Kesennuma municipal government to conduct the first survey on the living conditions of single parents in the city. In November 2021, consultations were held with representatives from single-mother and single-father households.

Finally, (4) "Promotion of understanding about the Convention on the Rights of the Child" is a project to publicize and raise awareness of the Convention on the Rights of the Child. This is a valuable opportunity for children facing various challenges such as poverty, non-attendance at school, bullying, and disabilities, to gain self-confidence, improve their sense of self-affirmation, and develop a better awareness of their own dignity. Specifically, along with children's study groups at schools and in the community, the project conducts awareness-raising activities aimed at the general public. In December 2021, a study session on the Convention on the Rights of the Child was held at Kesennuma Ohya Elementary School and received a positive response from the participating children and teachers. The project plans to continue workshops at elementary and junior high schools in the city, as well as training sessions for teachers and staff. In addition, as an educational project for citizens, an event on the Convention on the Rights of the Child, titled "A Child Friendly City - Thinking about the Happiness of

Figure 12-10: **Convention on the Rights of the Child Event (December 4, 2021, Kesennuma Central Community Hall)**

Figure 12-11: **Examples of comments received from children (from the Kesennuma Children's Rights Consultation, November 2021)**



Children Growing up in Kesennuma" was held at the newly opened Kesennuma Central Community Hall in December 2021. Experts explained the Convention on the Rights of the Child in straightforward terms to the general public, including caregivers of children, and then shared comments from children who use the city's childcare centers and after-school facilities. Roundtable discussions were also held between support groups and city government officials involved with children in Kesennuma.

Through this series of projects to achieve a Kesennuma where no one is left behind, we hope to continue our efforts to realize the SDGs in the local community.

Written by Megumi Ishimoto

Chapter 13

Internationalization

13-1 Status, Challenges, and Prospects of Internationalization in Miyagi Prefecture

Introduction

About 15 years ago, Miyagi Prefecture became the first prefecture in Japan to enact an ordinance on the promotion of a multicultural society. Since then, it has suffered from the Great East Japan Earthquake, an unprecedented disaster, and then while preparations were underway for the 2020 Tokyo Olympics and Paralympics (which had been billed as the "Recovery Olympics"), COVID-19 led to the scaling back and postponement of the event to 2021. The impact was immeasurable for Miyagi Prefecture, which had planned to showcase its recovery from the disaster and express its gratitude for the support it had received from around the world. For a long time after the earthquake, the region was beset by harmful rumors and other obstacles to recovery, and the outflow of young workers further accelerated the depopulation afflicting communities that were dependent on seafood processing and agriculture. Border restrictions aimed at curbing the spread of COVID-19 blocked the admission of technical interns from abroad who had been compensating for this labor shortage. This was a major blow to the micro, small, and medium-sized enterprises in Miyagi that make up its primary industries. Furthermore, Miyagi Prefecture has more foreign students than any other prefecture in the Tohoku region, but these students and their families were also affected by the disaster and the pandemic. Tohoku University, the largest university in the Tohoku region, which has been promoting internationalization in recent years, saw the number of foreign students drop significantly after the outbreak of the pandemic.

Against the backdrop of these circumstances, I will present the current status of internationalization in the prefecture and then set out the issues that need to be addressed. In addition, this chapter will reflect on the nature of regionally-focused internationalization through case studies based on interviews with staff of the Miyagi International Association (MIA), which supports the promotion of a multicultural society in Miyagi Prefecture.

1 Current Status of Internationalization in Miyagi Prefecture

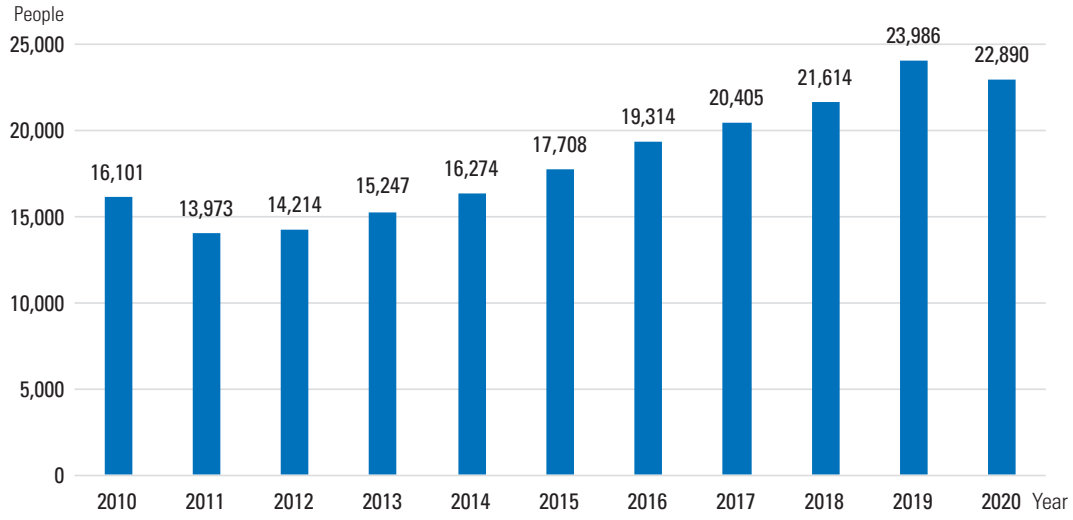
(1) Miyagi Prefecture from the Perspective of Foreign Residents

According to the Immigration Services Agency (2020), the number of foreign residents in Japan at the end of 2020 was 2,887,116 people, down 1.6% from the previous year. This figure had been steadily increasing by 6–7% each year since 2012 (which saw a drop in foreign residents as a result of the Great East Japan Earthquake), so this represented the first decline in eight years. A breakdown by status of residence shows that the number of foreign students (-18.8%) and technical interns (-8.0%), who were subject to the government's border restrictions, declined significantly. Foreign students and technical interns account for 9.7% and 13.1% of all foreign residents in Japan, together making up nearly a quarter of the total. This suggests that the overall decline can largely be explained by the decline in these categories, both of which were affected by the government's counter-pandemic measures. The picture is similar in Miyagi Prefecture, but the decline of 4.6% is larger than the national average due to the high numbers of foreign students and technical interns. As shown in Figure 13-1, there were 22,890 foreign residents as of 2020. By country/region of origin, the largest proportion is

represented by China, followed by Vietnam, the Republic of Korea, and Nepal (Table 13-1). In terms of status of residence, permanent residents (23.3%) account for the largest share, followed closely by foreign students (22.3%) and technical interns (18.9%) (Table 13-2).

In recent years, the number of students from Vietnam and Nepal attending Japanese language schools and specialized training colleges in Sendai City has increased rapidly, changing the profile of foreign students in Miyagi Prefecture. Tohoku University also stands out, not only in terms of having the largest number of students enrolled at a single institution, but also because it attracts students with diverse cultural backgrounds from approximately 100 countries and regions around the world. Everywhere you go, you can hear different languages across the campus. Over the past decade, the university has been expanding the number of courses that allow students to earn degrees taught entirely in English. This contributed to the steady increase in foreign students until the COVID-19

Figure 13-1: Number of foreign residents in Miyagi Prefecture



Source: Miyagi International Association, *Statistics on Foreign Residents*

Table 13-1: Number of foreign residents in Miyagi Prefecture by country/region of origin

Country/region	Number	Percentage
China	5,653	24.7%
Vietnam	4,741	20.7%
Republic of Korea	3,063	13.4%
Nepal	1,757	7.7%
Philippines	1,458	6.4%
Indonesia	958	4.2%
United States of America	685	3.0%
Myanmar	537	2.3%
Pakistan	377	1.6%
Thailand	377	1.6%
Taiwan	368	1.6%
Bangladesh	311	1.4%
Brazil	245	1.1%
Other	2,360	10.3%

Source: Miyagi International Association, *Statistics on Foreign Residents*

Table 13-2: Number of foreign residents in Miyagi Prefecture by status of residence

Status of residence	Number	Percentage
Permanent resident	5,330	23.3%
Student	5,111	22.3%
Technical intern trainee	4,316	18.9%
Special permanent resident	1,726	7.5%
Engineer/Specialist in humanities/ International services	1,463	6.4%
Dependent	1,295	5.7%
Spouse of Japanese national	948	4.1%
Designated activities	777	3.4%
Long-term resident	404	1.8%
Other	1,520	6.6%

Source: Miyagi International Association, *Statistics on Foreign Residents*

pandemic broke out.

However, once they step out of the university, foreign students are faced with a situation that falls far short of internationalization. The ATMs at local banks and local government notices are still only in the Japanese language, and therefore foreign students have to share their personal information with friends and acquaintances for translation and other assistance in their daily lives. When looking for housing, there are still properties that do not accept foreign nationals, and many students come to consult us about part-time jobs they were turned down for because of their nationality. As this suggests, even Sendai, the prefectural capital, has yet to establish a comfortable living environment for foreign residents.

The Tohoku region is home to many "marriage migrants" who moved to rural areas as brides after the Second World War, mainly from China and the Philippines. There was also a surge in so-called "newcomer" migration in the 1980s, particularly Brazilians of Japanese descent. Nevertheless, these foreigners were dispersed throughout the prefecture and always constituted minorities at the municipal level. The adjustments they had to make at that time to fit into the lifestyles imposed on them were probably quite considerable.

(2) Efforts to Create a Multicultural Society

Miyagi Prefecture became the first prefecture in Japan to enact an ordinance on the promotion of a multicultural society. The ordinance is said to have been triggered by the rapid increase in Japanese-Brazilians in Taiwa, located to the north of Sendai, around the year 2000, and the media coverage of conflicts between them and the local residents. In 2003, there were 1,041 registered foreign residents, accounting for more than 4% of the total population, which led to discussions on how government intervention could help foreign nationals and local residents live together in harmony. Nationwide, "newcomers" such as Japanese-Brazilians, who came to Japan in the late 1980s, were beginning to form permanent communities, and there was a growing awareness in Miyagi Prefecture that an increase in foreign workers was inevitable if it was to attract companies from outside the prefecture. This is thought to have led Miyagi Prefecture to enact the "Ordinance on the Promotion of the Formation of a Multicultural Society" a few years later. The number of foreign workers in Japan was already increasing rapidly in areas with high concentrations of factories associated with the automotive industry, such as the Chubu region. For example, in 2006, the number of registered foreign residents in Aichi Prefecture was 208,514, or 2.9% of the total, which represented a very high proportion of the prefecture's population. An estimated 36.6% of these were of Brazilian origin. In comparison, the number of registered foreign residents in Miyagi Prefecture in 2004 and 2006 was 16,484 and 16,091, respectively, less than one-tenth the number in Aichi Prefecture. Furthermore, this number declined following the closure of the factory in Taiwa, which led many Japanese-Brazilians to move out of the prefecture. Why, then, was the ordinance enacted?

Several documents examined by the author indicate that the ordinance was drafted at the strong request of the Governor of Miyagi Prefecture. Deliberations were held to enact the ordinance, but some people felt that the process was rushed. Therefore, when a new governor was elected, there were calls for the deliberations to be suspended, but in the end the new governor gave his approval. With the approval of Prefectural Assembly, the ordinance finally came into force. At the "Second Exchange of Opinions on the Promotion of Multicultural Coexistence" held on November 16, 2009, Miyagi Prefecture stated that the reasons the ordinance was enacted in Miyagi (where the number of foreign residents is not particularly large) were that:

> "(1) Against a backdrop of fewer children, demographic aging, and globalization, there has been an increase in the number of foreign nationals living and settling in the prefecture. In order to maintain the vitality of local communities, it is necessary to create a society in which all people, regardless of nationality, ethnicity, etc., can maximize their potential.
>
> (2) With the challenges that come with a dispersed, rather than clustered, population of foreign residents, a multicultural perspective is essential for Miyagi Prefecture to realize a prosperous and vibrant society."

Some observers have pointed out that the new Governor had a keen interest in formulating and promoting policies that would contribute to the development of the local economy, and that he recognized the potential

of the publicity for attracting businesses. This led to the first prefectural-level ordinance for the promotion of a multicultural society in Japan.

2 Challenges Regarding Internationalization in Miyagi Prefecture

In 2007, Miyagi Prefecture established an Advisory Committee for the Promotion of a Multicultural Society to study and discuss matters related to the drafting and implementation of policy measures based on the ordinance. The Committee is made up of members of different nationalities, ethnicities, and other cultural backgrounds, who work in various fields. They are appointed by the Governor and discuss proposed policies. The author has also served on the committee for the past 10 years and has been involved, albeit in a small way, in promoting the development of a multicultural society in Miyagi Prefecture. The Miyagi Prefecture Multicultural Society Promotion Plan, which was also discussed at this committee, was drawn up in March 2009, and again extended for a second phase five years later in March 2014. The third phase of the plan, which was established in 2019, is currently underway.

The number of foreign residents was around 16,000 when the initial plan was drawn up. It temporarily declined after the Great East Japan Earthquake in 2011 but has continued to increase since then. The diversity of foreign residents, as reflected in place of origin and status of residence, is also increasing. So what kind of challenges do these foreign residents face and what kind of support do they need?

Figure 13-2 compares excerpts from the *Survey of Foreign Residents* conducted by Miyagi Prefecture in 2012 (five years after the ordinance was enacted) and the same survey in 2017. Regarding interactions with Japanese people, the number of respondents who said they "have someone with whom I can talk to about anything" decreased to less than half (24.2%) in 2017, compared to 52% in 2012, and the number of respondents who said "(I) have someone with whom I can chat with occasionally" also decreased from 34% to 24.5%. Meanwhile, those who responded that they did not have any interactions at all increased almost threefold from 4% to 11.8%. Regarding the desire to interact with Japanese people, "I want to learn about Japanese culture and customs," "I want to participate more in local events," and "I don't particularly want to interact" all increased in 2017, surpassing the figures for 2012. Conversely, the number of respondents wishing to participate in social activities such as volunteer work or activities that involve building close relationships, such as going out to eat or shopping together, decreased. In terms of situations in which they had unpleasant experiences, 2017 exceeded 2012 in almost all situations, except "when looking for a job" and "children at school, etc." The increase is particularly noticeable in situations essential to daily life, such as "at work" (35% → 42.6%) and "when shopping or eating out" (13% → 20.9%). Moreover, perhaps due to the spread of the internet, the percentage of respondents who had bad experiences "through information from the media such as TV and the internet" doubled from 8% to 16.5%.

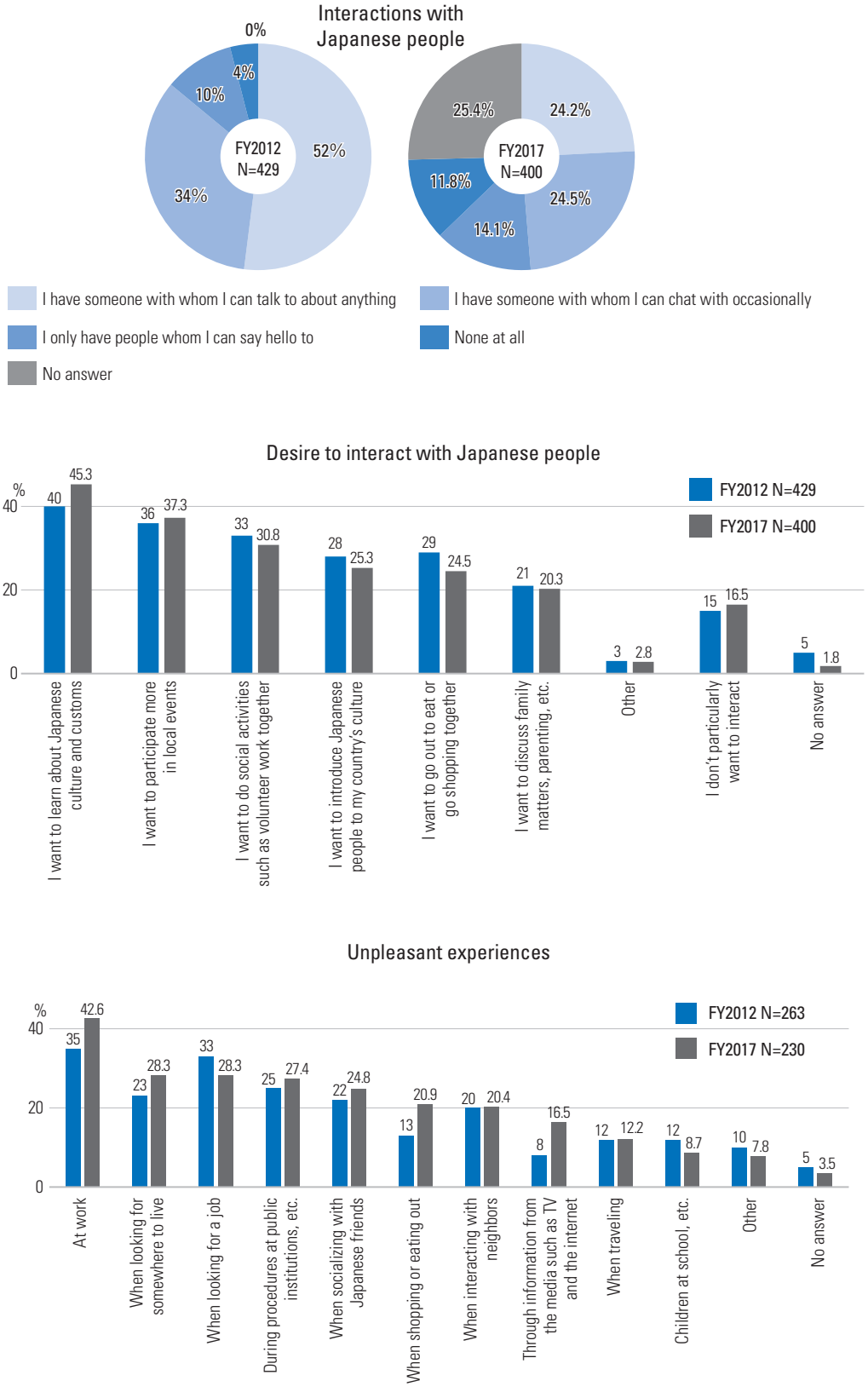
From these surveys, it is not possible to identify any major achievements made by the Multicultural Society Promotion Plan, and the results for several items could be seen as a step backward. The small but growing number of foreign residents who responded that they "don't particularly want to interact" with Japanese people reveals the existence of foreign residents who may want to participate in activities to learn about Japan, but are not interested in close interaction with Japanese people. However, these surveys do not indicate why the subjects chose the answers they did. To better understand the challenges faced by foreign residents, it is necessary to try to verify them through follow-up surveys, such as interviews, and qualitative analyses.

3 Interviews with Full-Time MIA Staff

(1) Establishment and Development

The Miyagi International Association (MIA) is an integral part of Miyagi Prefecture's efforts to promote a multicultural society. As of April 2021, the MIA consisted of seven full-time employees and six part-time foreign consultants with connections to foreign countries, supported by "interpreter supporters" and instructors who teach Japanese to foreign residents. The participants in this survey were one regular staff member and two foreign consultants.

Figure 13-2: Results from Miyagi Prefecture's Survey of Foreign Residents (2012, 2017)



Source: Miyagi Prefecture, *Survey of Foreign Residents*

Semi-structured interviews were conducted in September 2021 to obtain their thoughts on project development, challenges, and future prospects at the MIA.

The MIA's predecessor was the Miyagi Overseas Association, established in 1955 primarily to support Japanese emigrants to South America and their families who remained behind. In 1987, it was reborn as the "Miyagi International Exchange Association" to promote cross-cultural interaction, before changing its name to the Miyagi International Association when it became a public interest incorporated foundation in 2012. The organization's name in Japanese also incorporated the word "internationalization" to reflect the activities that had become the focus of its efforts, namely helping foreign residents adjust to life in Japan and providing support in their daily lives. Initially, the association's operations consisted mainly of exchange activities with foreign residents, but from around 1990, there was an increase in foreign women who migrated to the rural areas of Miyagi Prefecture to marry Japanese men. These women began to ask for assistance, so the organization began to provide support to them. Since then, it has expanded the scope of its support to include foreign children at Japanese schools and foreign technical interns, and is currently expanding its operations to a wide range of areas.

(2) MIA's Activities

The MIA focuses on projects related to support for foreign residents, such as Japanese language courses, training courses for Japanese language volunteers, establishment of multilingual consultation services for foreign residents, production of various guidebooks, and training of "interpreter supporters." It also conducts educational activities for foreign residents in the prefecture. When the prefecture held the "Miyagi Foreign Residents Roundtable" in 2004 in preparation for the enactment of the multicultural coexistence ordinance, the MIA recommended foreign participants and helped establish the prefecture's first forum for dialogue with foreign residents. Since then, it has continued to conduct awareness-raising activities by cooperating with the prefecture's multicultural coexistence symposiums as a joint hosting organization. This expansion of support for foreign residents and other related parties has become a resource for the prefecture and has led to several commissioned projects.

(3) Recipients of Support

When Interviewee X (a full-time employee) arrived at MIA in April 1999, most of the recipients of support were still immigrant women from China and South Korea who had married Japanese men, and most of the consultations were related to relationships with husbands and relatives, domestic violence, and related problems. Many of the participants in the Japanese language course were also these immigrant spouses. In recent years, the number of "marriage migrant" women has decreased while the number of foreign technical interns has increased, especially after the Great East Japan Earthquake. Mutual assistance activities amongst foreign residents surged after the earthquake, with support groups set up by people from China, the Philippines and other countries for their respective compatriots. MIA provides indirect support by providing facilities for sessions offering advice support and opinion exchanges. As information to confirm people's safety and about evacuation buses outside of the prefecture was not conveyed promptly to foreign residents following the Great East Japan Earthquake, foreign residents voluntarily took action to organize themselves, with MIA providing support. MIA collects information on volunteer associations of foreign residents and publishes it on its website for new foreign residents who move to Miyagi Prefecture.

(4) Policy on Projects

Like regional international associations in other prefectures, MIA has been carrying out its work under commission from Miyagi Prefecture, but it is less dependent on the local government than its counterparts in other prefectures. Since its establishment, it has maintained a certain degree of independence and self-sufficiency in implementing its projects. As such, it has taken on the challenge of cutting-edge initiatives that other organizations have not. One example is the dispatch of "interpreter supporters" in the field of healthcare. MIA began this work in response to the frequent requests for assistance from public health nurses for their work with immigrant spouses. During the spate of bids for international events such as the World Cup, the decision was taken to develop this work as a regular project. This project, in which trained "interpreter supporters" accompany foreign residents and provide interpretation at insured medical institutions, is

highly appreciated not only by the residents but also by the healthcare providers.

MIA was also quick to provide support for foreign technical interns. In recent years, support for foreign technical interns has become more extensive, but at the time, local governments were at a loss as to what kind of support measures to put in place. MIA's activities aimed to connect isolated technical interns with the local community and attracted the interest of local governments and regional internationalization associations in other prefectures, who often ask MIA for more information. MIA's distinctive character comes from the fact that it conducts its support work on the principle of listening to the voices on the ground and reflecting them in their activities, tailoring them to the needs of foreign residents and the local communities that host them.

(5) Impact of the COVID-19 Pandemic and Countermeasures

The outbreak of COVID-19, which swept the world in early 2020, has disrupted many activities involving face-to-face interaction. For MIA, the loss of information-gathering opportunities was a considerable blow because it had always emphasized getting out into the field, listening to the issues faced by foreign residents and their supporters, and developing support projects on such issues. Since many activities, including Japanese language classes, training for Japanese language volunteer instructors across municipalities, interpreter support, and consultation services for foreign residents, were based on face-to-face contact and designed to involve a large number of volunteers, there was a risk that some might not be able to continue. During the surge in infections in Sendai City, staff members received requests from outlying municipalities to refrain from visiting because of the risk of transmission.

However, MIA's activities had to be continued for the sake of the foreign residents and supporters who needed its assistance. Various training sessions and liaison meetings were held using Zoom and other online tools for the first time. Japanese language courses, multicultural understanding awareness activities involving the dispatch of foreign volunteers to schools, and interpretation support were also gradually shifted online. There was also an increase in the number of consultations directly related to the pandemic. These included consultations from persons in poor health and their families; foreign residents in difficulty because of reduced income or loss of employment resulting from work stoppages or downsizing; foreign residents wishing to return to their home countries; and foreign residents and family members who were unable to return to Japan. Recognizing the need for first-hand information, MIA took action by expanding the number of languages supported on its website.

Due to the pandemic, all exchange events between foreign technical interns and residents were canceled. Interviewee X was concerned that the inability to make contacts through exchanges, which is the first step in providing support for multicultural coexistence, as well as the reduced opportunities to identify issues and needs on the ground or build relationships with foreign residents and supporters in each municipality, would undermine MIA's key strength — its connection to the front lines — which in turn could lead to the stagnation of its activities. On the other hand, the switch to online activities led to an expansion of interpretation services and other forms of support, which distance had made difficult to provide in the past. For example, working in Kesennuma City, which hosts many technical interns, requires several hours of travel from Sendai, making it difficult to deploy interpreters. However, today, online tools can be used as long as the person making the request has an internet connection. MIA had been providing interpreting support over the telephone for some time, so the switch to an online mode was relatively easy. In this way, its wealth of previous experience helped it to adapt quickly to the crisis.

(6) Future Prospects

In recent years, there has been a growing understanding of multicultural coexistence among the prefecture's residents. The term "multicultural coexistence" can now be heard in conversations with local university students and in high school study presentations. The need to explain the concept of multicultural coexistence from scratch has diminished, and there is a real sense that the people of Miyagi are now familiar with the concept. This suggests that there are more opportunities for addressing cross-cultural understanding and multicultural coexistence in school education, which can be taken as a sign

of the success of Miyagi Prefecture's policies and MIA's ongoing awareness-raising activities.

The diversification of the foreign population living in Miyagi will likely continue, given the increase in technical interns, the establishment of a new system for immigration for foreign nationals with specified skills under the 2018 revision of the Immigration Control and Refugee Recognition Act, and the recent increase of foreign nationals working under the category of engineer/specialist in humanities/international services. Already in some areas, the number of Pakistanis operating used car businesses is increasing, and inquiries about educational assistance for the families accompanying them, especially their children, are on the rise. As the communities where foreign residents are concentrated continue to change, prefectural residents who have never had contact with non-Japanese people will have more opportunities to think about multicultural coexistence.

The key to addressing the diverse issues and needs of foreign residents and local communities is to strengthen partnerships between local governments and other organizations. Some municipalities have already implemented their own support measures for foreign residents. For example, Ishinomaki and Kesennuma (which both host a large number of foreign technical interns) offer their own Japanese language classes and exchange programs, while Shiogama devised a support package with the support of the city's mayor for foreign residents whose livelihoods have been adversely affected by the pandemic. It is hoped that these model cases of local governments implementing projects on their own initiative will spread to other municipalities. Going forward, strengthening partnerships with organizations other than local governments will also become even more important for MIA. For example, Tagajo, which is actively working to realize a multicultural society, has incorporated collaboration with non-profit organizations into its policies. Meanwhile, Shibata is focusing on projects aimed at foreign visitors and has launched activities to promote "Easy Japanese" in the community, in cooperation with the Social Welfare Council. Iwanuma City has outsourced work to the Japan Overseas Cooperative Association (JOCA), while the Japan International Cooperation Agency (JICA) has consulted with the MIA about collaboration. These examples show that the promotion of multicultural coexistence, which used to be led by municipalities, is now expanding to other organizations. The diversification of stakeholders involved in supporting foreign residents is expected to continue, leading to more support for foreign residents and further development of MIA's operations.

4 Conclusion

Drawing on the results of various surveys and case studies based on interviews with staff of the Miyagi International Association (MIA), this section has presented an overview of the current status of internationalization in Miyagi Prefecture, focusing on prefectural policies, achievements, and challenges. It revealed that, having experienced the successive crises of the Great East Japan Earthquake and the COVID-19 pandemic, the MIA did not stop its efforts to study measures to overcome hardships and put measures in place, which led to positive results. The promotion of a multicultural society has been driven by its attitude of "turning a crisis into an opportunity," as well as a kind of obstinate perseverance underpinned by physical stamina. Another point is diversification. This refers to not only diversifying the kind of support provided in response to the increasing diversity of foreign residents (including students). It also refers to the diversification of the support community, which came about through greater collaboration among those involved in providing assistance. I believe that if foreign residents and their supporters continue to work together to communicate the value of multicultural coexistence, Miyagi will become a wealthy prefecture in the truest sense of the word.

Acknowledgments: I would like to express my deepest gratitude to Mr. Takahiro Oizumi of the Miyagi International Association for his cooperation in coordinating the survey.

Written by Kazuko Suematsu

13-2 Issues Regarding Multicultural Coexistence Revealed by COVID-19

Introduction

The COVID-19 pandemic cast a shadow over people's daily lives across the world. In particular, it had a significant impact on foreign residents and other minorities. In the past, differences in language and culture, as well as their right to residency, have placed foreign residents in a vulnerable social position. Despite this, foreign nationals are considered a valuable "labor force" in Japan, which is now suffering from a shortage of workers. Although various problems remain, foreign employees have been actively recruited in recent years.

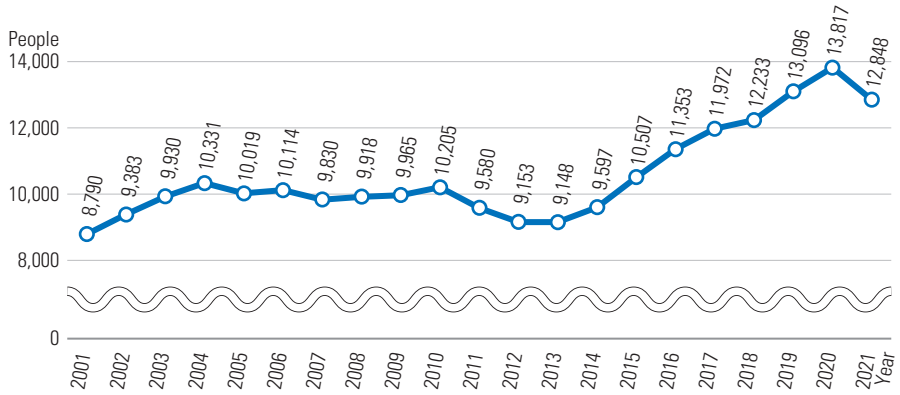
However, when the COVID-19 pandemic restricted the movement of people across borders and the economy stagnated, a variety of problems became apparent in terms of how foreign nationals actually led their everyday lives. In this sense, the pandemic prompted a reexamination of "multicultural coexistence" in Japanese society. Against this backdrop, this section presents a case study of a consultation service for foreign residents in Sendai City, Miyagi Prefecture.

1 Increasingly Multicultural Communities

In recent years, communities across Japan have become increasingly multicultural. According to the Immigration Services Agency, the number of foreign residents in Japan was 2,823,565 as of the end of June 2021. Although the COVID-19 pandemic led to a 2.2% decrease in foreign residents compared to the end of 2020, the figure for 2011 was 2,047,349, indicating a steady overall increase from ten years ago. Similarly, Sendai City saw a temporary drop in foreign residents following the Great East Japan Earthquake in 2011, but the number has been on an upward trend ever since (**Figure 13-3**).

Moreover, although the Japanese government has consistently stated that it does not have a "policy of immigration," a shift is now underway. One change is the amendment to the Immigration Control and Refugee Recognition Act (the "Immigration Act") in 2018, which established a new category called "specified skilled worker." This status of residence is for foreign nationals with a certain level of expertise and skills who are ready to work immediately, and is a response to the growing labor shortage in industrial fields that have difficulty in securing personnel. In conjunction with the revision of the Immigration Act, the government also began to revise its policy with the "Comprehensive Measures for Acceptance and Coexistence of Foreign Nationals." It was in the middle of these developments that the COVID-19 pandemic struck.

Figure 13-3: Number of foreign residents in Sendai City (as of April 30 of each year)



Source: Sendai City

2 Support for Foreign Nationals in the COVID-19 Pandemic: A Case Study of Sendai City

What problems did foreign residents face during the COVID-19 pandemic, and how have local communities responded? Many answers can be found by looking at the work of a consultation service for foreign residents in Sendai City. This service represents the "border" of a multicultural society, where foreign nationals who have problems seek advice on a daily basis.

(1) About the Sendai Multicultural Center

Sendai City established a consultation service for foreign residents called the Sendai Multicultural Center (Figure 13-4) in June 2019, in response to the aforementioned "Comprehensive Measures for Acceptance and Coexistence of Foreign Nationals." The Center is operated by the Sendai Tourism, Convention and International Association under contract from the Sendai City Government. Table 13-3 outlines the Center's consultation response system.

Figure 13-4: **Sendai Multicultural Center**

The system has three main features. The first is the assignment of "multilingual counselors" who speak Korean, Chinese, Vietnamese, or Nepali. In addition to Chinese and Korean, the number of foreign residents whose native languages are Vietnamese and Nepali has been increasing rapidly, so it is important to offer consultation services in these languages. In addition, the system can support a total of 19 languages through the use of three-way calls (using a system called "triophone"). The second is regular consultation sessions held in cooperation with the Sendai Bar Association and other professional organizations. For example, when providing counseling on international divorces, it is necessary to consider which country's law applies (governing law) and the nationality of each spouse. The impact of divorce on the residence status of the parties involved may also need to be considered. Dealing with these highly specialized consultations requires collaboration with professional organizations (Figure 13-5). The third is providing "accompaniment services" in cooperation with civic groups. For foreign residents with different languages and cultures, procedures at government offices can be very difficult and stressful. In these situations, it can be reassuring to be accompanied by a local resident. Please refer to Table 13-4 (categorized by language) and Table 13-5 (categorized by method) for the Multicultural Center's consultation response records for FY2020.

Table 13-3: **Overview of Sendai Multicultural Center's consultation response system (FY2021)**

Full-time staff	7 (English- or Chinese-speaking staff). In addition, a Coordinator for International Relations (CIR) is available two days a week.
Multilingual consultants	Available for Korean (Monday), Chinese (Tuesday or Saturday), Vietnamese (Wednesday), and Nepali (Friday).
Interpreter support phone	Communication support through three-way calls ("triophone"). A partnership has been established with a multilingual call center to provide support in 19 languages.
Specialized consultations	Consultation meetings for foreign residents are held regularly in cooperation with professional organizations. Sendai Immigration Bureau (monthly), Sendai Bar Association (monthly), Miyagi Certified Administrative Procedures Legal Specialist Association (monthly), Miyagi Labor Bureau (every other month), Tohoku Certified Public Tax Accountants' Association (every three months)
Accompaniment volunteers	Accompaniment support is provided by OASIS, a support group for foreign residents. Volunteers accompany the person to daycare centers, child development counseling, and support centers, driver's license centers, banks, etc. (78 cases in FY2020)

Figure 13-5: Consultation service provided by the Miyagi Certified Administrative Procedures Legal Specialist Association at the Sendai Multicultural Center

(2) Support for Foreign Residents during the COVID-19 Pandemic

The Multicultural Center began receiving consultations and inquiries related to COVID-19 around January 2020. In late March, several people, including an assistant language teacher (ALT), were confirmed to have been infected at a restaurant in Sendai City, leading to a surge in consultations from foreign residents concerned about infections and reporting suspicious symptoms. These consultations were passed on to a specialized call center, set up by Miyagi Prefecture and Sendai City, and communication support was provided through three-way calls ("triophone"). The Center also took on the role of liaising and coordinating with health centers and medical facilities, as necessary.

Subsequently, there was a sharp increase in the number of consultations on poverty from around May. In particular, since Sendai is home to many Japanese language schools and vocational schools, consultations from foreign students at these institutions began to pour in, including issues such as difficulties in paying school fees due to the sharp drop in part-time work, not being able to pay rent, and running out of food. The Center cooperated with the Sendai City Social Welfare Council to provide information on "Special Loans for COVID-19" and helped coordinate appointments for applications. Together with Food Bank Sendai, the Center also helped the Social Welfare Council to provide food to foreign residents by publicizing and providing venues for these activities. Staff members continued to provide attentive services, while also paying close attention to their own health.

Table 13-4: Record of Sendai Multicultural Center's consultation services for FY2020 (by language)

Language	Cases	Percentage
Japanese	1,825	61.9
English	638	21.6
Nepali	236	8.0
Chinese	167	5.7
Vietnamese	56	1.9
Tagalog	8	0.3
Korean	6	0.2
Other	13	0.4
Total	2,949	100.0

Table 13-5: Record of Sendai Multicultural Center's consultation services for FY2020 (by method)

Method	Cases	Percentage
Triophone	1,034	35.1
Visit	916	31.1
Telephone (non-triophone)	770	26.1
Email	227	7.7
Written correspondence (faxes, letters, etc.)	2	0.1
Total	2,949	**100.0**

In October, a cluster occurred at a vocational school dormitory in Sendai City, infecting more than 100 foreign students. Drawing on its existing network of vocational schools and Japanese language schools, the Sendai Tourism, Convention and International Association made further efforts to communicate with foreign residents, providing information in multiple languages on preventing infection and livelihood support, as well as gathering feedback on the situation at each school. In FY2020, the Multicultural Center provided communication support on 514 occasions.

In the spring of 2022, the Center also began providing information and consultations regarding vaccinations. Information was made available in multiple languages, and individual consultations were also provided on issues such as the inability to make reservations for vaccinations (for example, on websites written only in Japanese).

3 Issues Revealed by the COVID-19 Pandemic

(1) Emergence of Problems in Local Communities

Through the consultations that came in during the pandemic, it became clear that COVID-19 had brought

problems that had long existed in local communities to the surface. One such problem was information accessibility in the medical sector. In a regional city like Sendai, few medical facilities provide services in foreign languages. This was a particularly serious problem during the pandemic, with some foreign residents expressing severe anxiety over issues such as not being able to receive PCR tests. Other problems were laid bare in consultations with foreign students. Students who had come to Japan with the expectation of using income from part-time jobs to pay for school and living expenses faced a variety of issues. These included not only impoverishment as a result of the pandemic, but also contractual problems with their schools and the closing of their path to higher education and employment in Japan. On the other hand, some schools that had previously admitted many foreign students reported that they would find it difficult to continue their operations if the situation continued (*Nihon Keizai Shimbun*, October 21, 2021).

These are structural problems that existed before the pandemic. Japan has been actively accepting foreign students and other foreign nationals as part of its labor force, but has not yet developed systems for accommodating them in daily life.

(2) Perspectives Required for "Multicultural Coexistence" Policies

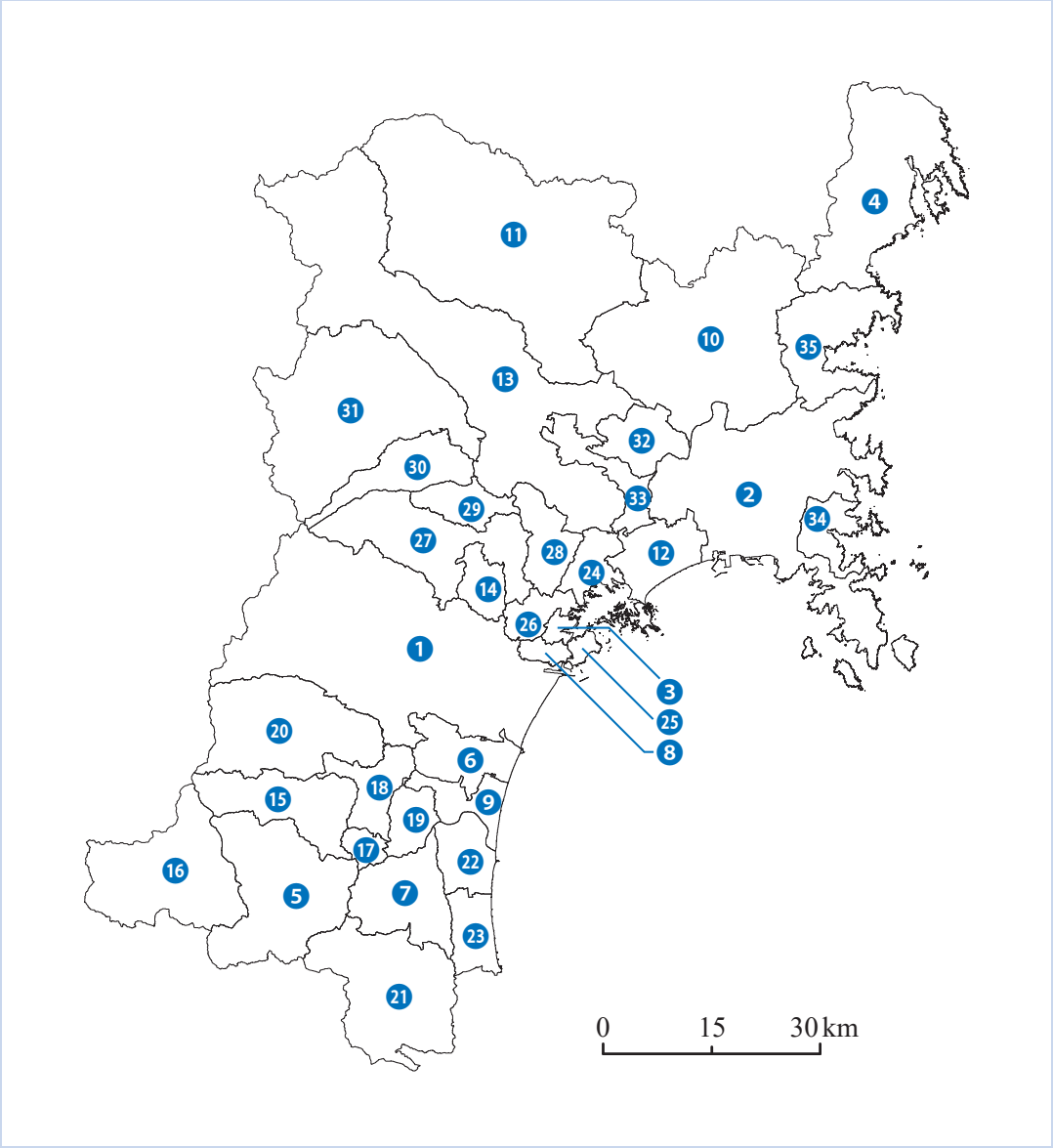
The structural problems noted above will not be easy to solve, but we must learn from the COVID-19 pandemic. Several issues have become apparent through the efforts undertaken so far. One is the issue of information accessibility for foreign nationals. Since the Great Hanshin-Awaji Earthquake in 1995, local governments have developed systems to provide information in multiple languages when a disaster occurs. However, there has not been sufficient confirmation that this information is reaching the people who need it. Although the issue of effective multilingual information persisted during the pandemic, it is notable that the Japanese government has made proposals that take the foreign community into account, calling for "cluster measures that go further than before" in terms of "supporting the foreign community, communicating information in multiple languages and Easy Japanese, and establishing multiple channels for consultation." It has also recommended "information dissemination with dialogue," in that "information should be provided based on an understanding of the feelings and perceptions of the recipients, and the effects and impact of messages should be confirmed." (Cabinet Secretariat Expert Committee on Countermeasures against Novel Influenza, etc., 14th Subcommittee Meeting on Countermeasures against COVID-19, November 9, 2020). "Information accessibility" is not a one-way street between the sender and receiver of information; it is something that can only be achieved through communication. In this sense, the inclusion of the issue of communication with the foreign community in government policies is a major step forward. In Sendai, foreign residents themselves have been participating in solving local issues, such as local disaster drills and guidance for children from foreign backgrounds to enter high school. It is hoped that the experience of the pandemic will serve as a catalyst for encouraging foreign residents to participate as leaders on policies in a variety of areas.

4 Conclusion

In 1965, the Swiss writer Max Frisch said of the problem of foreign workers, "We asked for workers. We got people instead." remarks that are still instructive in Japan today, more than half a century later. When the COVID-19 pandemic eventually subsides, Japan is likely to bring in foreign workers at an ever-increasing rate to compensate for the decline in the working population. However, the lessons learned from the COVID-19 pandemic must not go to waste — it is essential to put in place an environment and mutual understanding for accepting foreigners, not only as a labor force, but also as people leading their lives in Japan. Unless this is done, we will not be able to realize the kind of sustainable society set out in the SDGs. In light of the core objective of the SDGs, "multicultural coexistence" may also be redefined as human security. It is here that the essential meaning of multicultural coexistence emerges. That is, coexistence is not only a matter of human security for foreign residents of Japan but also for all of us who live here, regardless of the boundaries between "foreigners" and "Japanese." All people living in the local community are parties to a multicultural coexistence, and it is their activities that will build a society where no one is left behind.

Written by Akiyoshi Kikuchi

Reference Materials



(1) Sendai City
(2) Ishinomaki City
(3) Shiogama City
(4) Kesennuma City
(5) Shiroishi City
(6) Natori City
(7) Kakuda City
(8) Tagajo City
(9) Iwanuma City
(10) Tome City
(11) Kurihara City
(12) Higashi-Matsushima City
(13) Osaki City
(14) Tomiya City
(15) Zao Town
(16) Shichikashuku Town
(17) Ogawara Town
(18) Murata Town
(19) Shibata Town
(20) Kawasaki Town
(21) Marumori Town
(22) Watari Town
(23) Yamamoto Town
(24) Matsushima Town
(25) Shichigahama Town
(26) Rifu Town
(27) Taiwa Town
(28) Osato Town
(29) Ohira Village
(30) Shikama Town
(31) Kami Town
(32) Wakuya Town
(33) Misato Town
(34) Onagawa Town
(35) Minami-Sanriku Town

Reference Materials 1: Municipality Rankings for the SDGs Miyagi Model

In order to visualize the various issues that municipalities in Miyagi Prefecture should address from the perspective of improving human security and achieving a prefecture where "no one is left behind," each municipality has been ranked according to their scores for the Life Indicators (26 indicators), Livelihood Indicators (48 indicators), and Dignity Indicators (25 indicators) and then mapped. For data sources, please see Chapter 3.

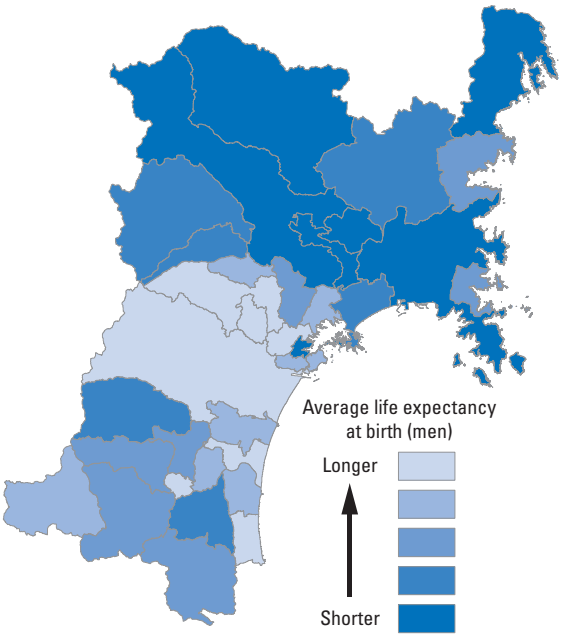
The municipality rankings have been grouped based on the following five sets of rankings: 1-7, 8-14, 15-21, 22-28, and 29-35. The shading on the map corresponds to these groups, but note that the number of municipalities in each group is not always consistent because there are cases where municipalities share the same ranking. Some maps have only three or four shades. Due to rounding, there are cases in which the rankings are different, even though the figures in the table are the same.

It should be noted that a darker shade does not necessarily indicate fault. For example, having more unpreventable deaths in a natural disaster does not imply fault on the part of the municipality in question. However, it suggests that more issues may need to be resolved in that municipality. Similarly, having a large number of elderly people is not a bad thing, but it means that special policies and care have to be put in place. In addition, it would be simplistic for a municipality with a high rate of unmarried people to tell its residents to get married in order to improve its figures. Rather, these figures are intended to serve as a basis for further thinking about the reasons for the current situation.

A1 Average life expectancy at birth (men)

Ranking	Municipalities	Years
1st	Rifu Town	81.8
2nd	Sendai City	81.7
3rd	Iwanuma City	81.6
4th	Tomiya City	81.5
4th	Yamamoto Town	81.5
6th	Taiwa Town	81.4
7th	Ogawara Town	81.3
8th	Tagajo City	81.2
8th	Shibata Town	81.2
10th	Natori City	81.1
10th	Shichigahama Town	81.1
10th	Ohira Village	81.1
13th	Shichikashuku Town	81.0
13th	Watari Town	81.0
13th	Matsushima Town	81.0
16th	Murata Town	80.9
16th	Marumori Town	80.9
18th	Zao Town	80.8

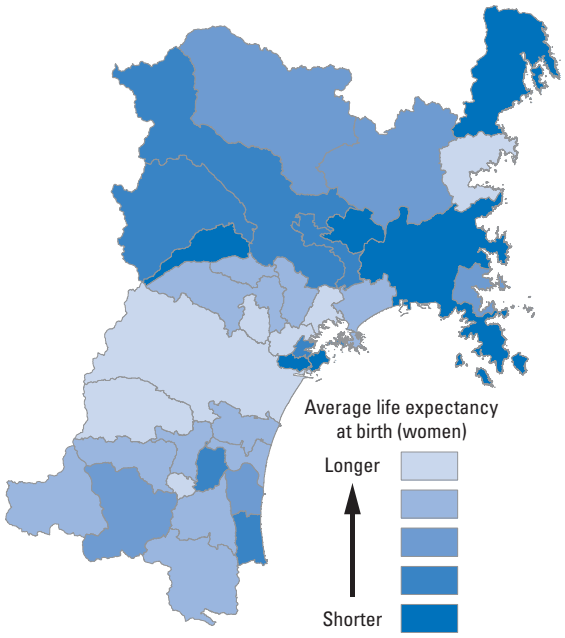
Ranking	Municipalities	Years
19th	Shiroishi City	80.7
19th	Osato Town	80.7
19th	Onagawa Town	80.7
19th	Minami-Sanriku Town	80.7
23rd	Tome City	80.6
23rd	Higashi-Matsushima City	80.6
23rd	Kawasaki Town	80.6
26th	Kakuda City	80.5
26th	Shikama Town	80.5
26th	Kami Town	80.5
29th	Kurihara City	80.4
29th	Misato Town	80.4
31st	Ishinomaki City	80.3
32nd	Shiogama City	80.2
32nd	Osaki City	80.2
34th	Wakuya Town	80.1
35th	Kesennuma City	80.0



A1 Average life expectancy at birth (women)

Ranking	Municipalities	Years
1st	Tomiya City	87.8
2nd	Rifu Town	87.6
2nd	Sendai City	87.6
2nd	Ogawara Town	87.6
5th	Matsushima Town	87.5
5th	Minami-Sanriku Town	87.5
5th	Kawasaki Town	87.5
8th	Iwanuma City	87.4
8th	Murata Town	87.4
10th	Shichikashuku Town	87.3
11th	Ohira Village	87.2
11th	Higashi-Matsushima City	87.2
11th	Kakuda City	87.2
14th	Taiwa Town	87.1
14th	Natori City	87.1
14th	Marumori Town	87.1
14th	Zao Town	87.1
14th	Osato Town	87.1

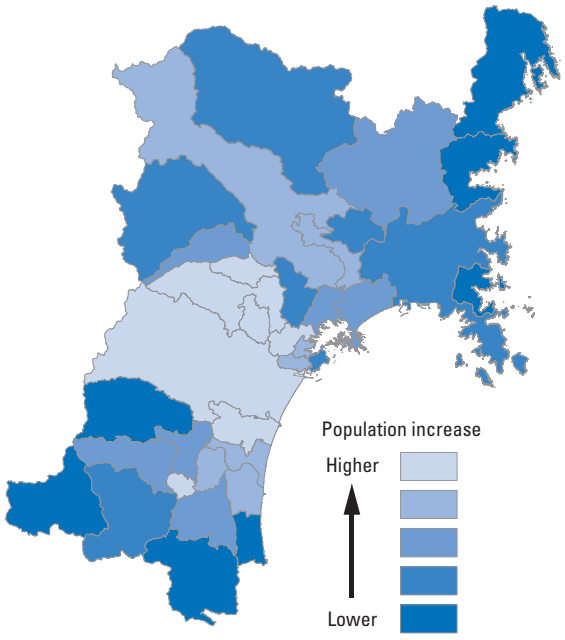
Ranking	Municipalities	Years
19th	Watari Town	87.0
19th	Onagawa Town	87.0
19th	Shiroishi City	87.0
19th	Tome City	87.0
19th	Kurihara City	87.0
24th	Kami Town	86.9
25th	Yamamoto Town	86.8
25th	Shibata Town	86.8
25th	Misato Town	86.8
25th	Osaki City	86.8
25th	Shiogama City	86.8
30th	Tagajo City	86.7
30th	Shichigahama Town	86.7
30th	Shikama Town	86.7
30th	Ishinomaki City	86.7
30th	Wakuya Town	86.7
30th	Kesennuma City	86.7



A2 Population increase/decrease (% change between 2011 and 2021)

Ranking	Municipalities	%
1st	Taiwa Town	11.854
2nd	Tomiya City	9.015
3rd	Natori City	7.853
4th	Ohira Village	7.237
5th	Sendai City	4.370
6th	Rifu Town	3.448
7th	Ogawara Town	0.699
8th	Iwanuma City	0.405
9th	Shibata Town	-1.323
10th	Tagajo City	-1.630
11th	Misato Town	-4.797
12th	Osaki City	-5.506
13th	Watari Town	-5.527
14th	Shiogama City	-7.456
15th	Tome City	-8.779
16th	Higashi-Matsushima City	-9.174
17th	Kakuda City	-10.498
18th	Shikama Town	-10.964

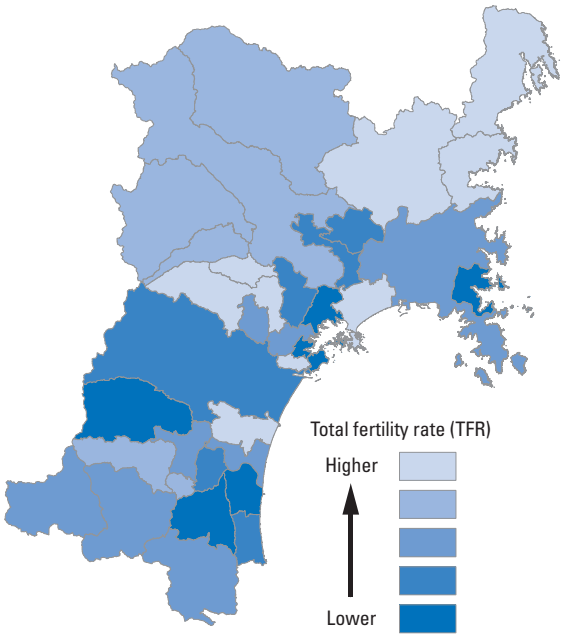
Ranking	Municipalities	%
19th	Zao Town	-11.442
20th	Murata Town	-11.676
21st	Matsushima Town	-12.042
22nd	Osato Town	-12.175
23rd	Shiroishi City	-12.395
24th	Shichigahama Town	-12.455
25th	Wakuya Town	-12.558
26th	Ishinomaki City	-13.295
27th	Kurihara City	-14.355
28th	Kami Town	-14.555
29th	Kawasaki Town	-14.739
30th	Kesennuma City	-18.659
31st	Marumori Town	-19.789
32nd	Shichikashuku Town	-25.180
33rd	Yamamoto Town	-29.251
34th	Minami-Sanriku Town	-37.242
35th	Onagawa Town	-43.254



A3 Total fertility rate (TFR)

Ranking	Municipalities	
1st	Taiwa Town	1.65
2nd	Ohira Village	1.64
3rd	Tagajo City	1.57
4th	Kesennuma City	1.54
4th	Minami-Sanriku Town	1.54
6th	Higashi-Matsushima City	1.53
7th	Natori City	1.51
7th	Tome City	1.51
9th	Ogawara Town	1.49
9th	Zao Town	1.49
11th	Kurihara City	1.48
12th	Osaki City	1.46
12th	Kami Town	1.46
14th	Shikama Town	1.44
15th	Ishinomaki City	1.42
15th	Marumori Town	1.42
17th	Tomiya City	1.39
18th	Rifu Town	1.37

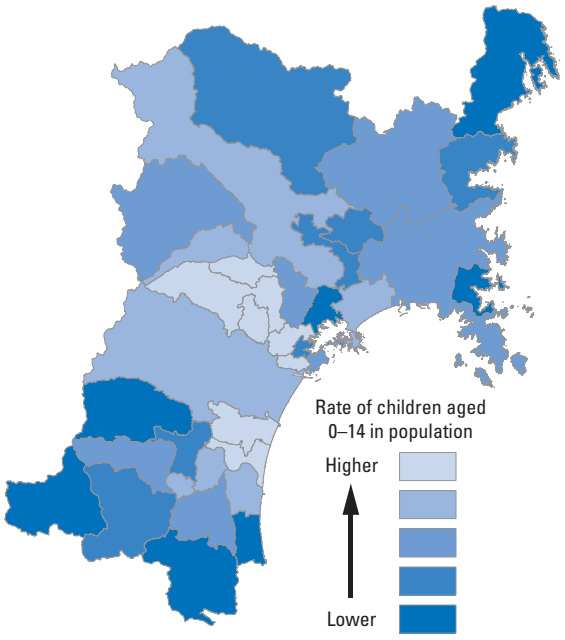
Ranking	Municipalities	
18th	Iwanuma City	1.37
20th	Shiroishi City	1.36
21st	Murata Town	1.35
21st	Shichikashuku Town	1.35
23rd	Shibata Town	1.33
24th	Misato Town	1.32
25th	Osato Town	1.31
26th	Sendai City	1.30
27th	Wakuya Town	1.29
27th	Yamamoto Town	1.29
29th	Watari Town	1.27
30th	Shiogama City	1.25
30th	Kakuda City	1.25
32nd	Kawasaki Town	1.22
33rd	Matsushima Town	1.17
33rd	Shichigahama Town	1.17
35th	Onagawa Town	0.64



A4 Rate of children aged 0–14 in population

Ranking	Municipalities	%
1st	Tomiya City	18.703
2nd	Natori City	15.692
3rd	Rifu Town	15.560
4th	Taiwa Town	15.359
5th	Ohira Village	14.617
6th	Iwanuma City	14.501
7th	Tagajo City	14.122
8th	Ogawara Town	13.873
9th	Higashi-Matsushima City	13.628
10th	Osaki City	12.885
11th	Shikama Town	12.807
12th	Watari Town	12.612
13th	Sendai City	12.451
14th	Shibata Town	12.186
15th	Shichigahama Town	12.133
16th	Tome City	11.903
17th	Kakuda City	11.682
18th	Ishinomaki City	11.569

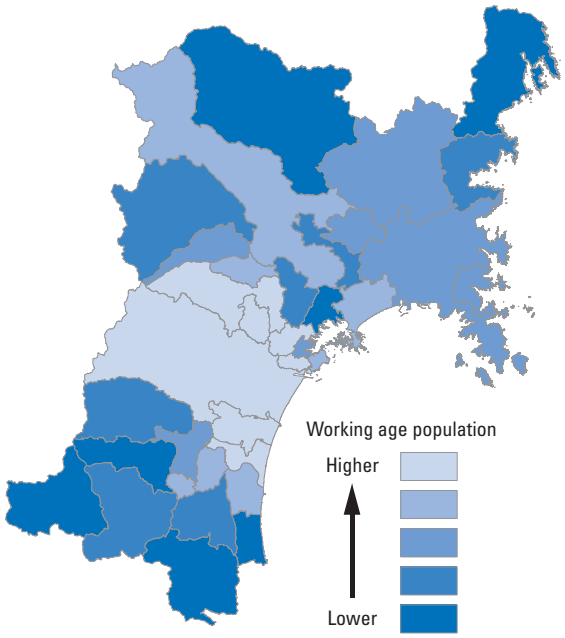
Ranking	Municipalities	%
19th	Osato Town	11.493
20th	Zao Town	11.370
21st	Kami Town	11.360
22nd	Misato Town	11.347
23rd	Shiroishi City	11.038
24th	Murata Town	10.979
25th	Wakuya Town	10.864
26th	Shiogama City	10.711
27th	Kurihara City	10.483
28th	Minami-Sanriku Town	10.309
29th	Kesennuma City	10.192
30th	Kawasaki Town	9.797
31st	Marumori Town	9.771
32nd	Matsushima Town	9.539
33rd	Yamamoto Town	9.274
34th	Onagawa Town	8.748
35th	Shichikashuku Town	6.845



A5 Working age population (aged 15-64)

Ranking	Municipalities	%
1st	Sendai City	64.983
2nd	Rifu Town	64.009
3rd	Tagajo City	63.829
4th	Tomiya City	63.637
5th	Natori City	63.462
6th	Taiwa Town	63.253
7th	Iwanuma City	62.077
8th	Shibata Town	61.932
9th	Shichigahama Town	61.227
10th	Ogawara Town	60.912
11th	Higashi-Matsushima City	60.141
12th	Osaki City	60.085
13th	Watari Town	59.437
14th	Ohira Village	58.413
15th	Murata Town	58.287
16th	Ishinomaki City	58.161
17th	Shiogama City	57.995
18th	Onagawa Town	57.682

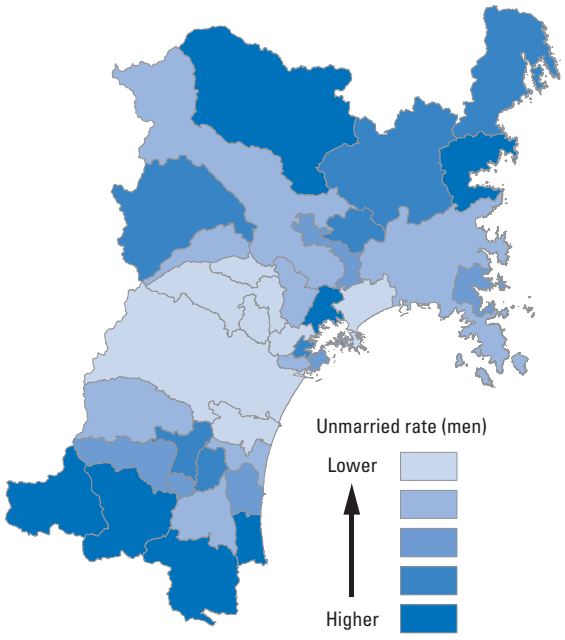
Ranking	Municipalities	%
19th	Tome City	57.115
20th	Shikama Town	57.088
21st	Wakuya Town	57.049
22nd	Shiroishi City	57.033
23rd	Misato Town	56.905
24th	Kakuda City	56.811
25th	Kawasaki Town	56.568
26th	Minami-Sanriku Town	56.234
27th	Osato Town	55.795
28th	Kami Town	55.619
29th	Zao Town	55.389
30th	Matsushima Town	55.199
31st	Kesennuma City	54.629
32nd	Yamamoto Town	54.076
33rd	Kurihara City	53.301
34th	Marumori Town	52.779
35th	Shichikashuku Town	47.023



A6 Unmarried rate (at 50 years old) (men)

Ranking	Municipalities	%
1st	Tomiya City	9.9
2nd	Rifu Town	10.2
3rd	Ohira Village	12.3
4th	Natori City	14.6
5th	Sendai City	19.3
6th	Higashi-Matsushima City	19.6
7th	Taiwa Town	20.0
8th	Osato Town	20.3
9th	Shikama Town	20.6
10th	Tagajo City	20.7
11th	Iwanuma City	21.8
12th	Osaki City	22.1
12th	Kakuda City	22.1
14th	Ishinomaki City	22.4
14th	Kawasaki Town	22.4
16th	Onagawa Town	22.5
17th	Ogawara Town	22.6
18th	Watari Town	22.7

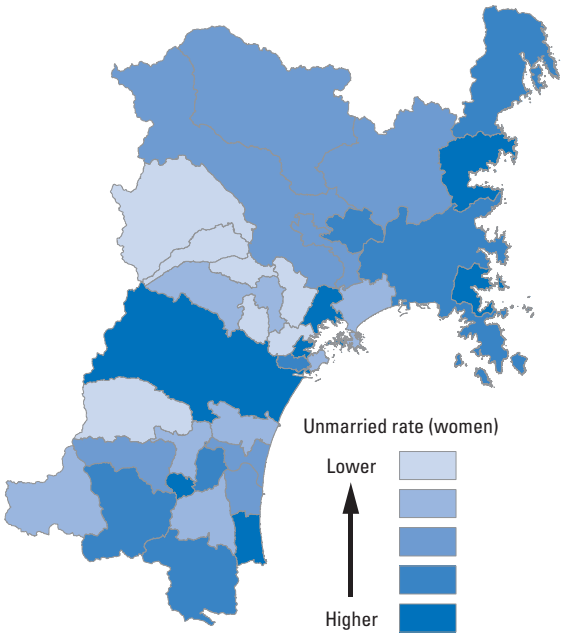
Ranking	Municipalities	%
19th	Shichigahama Town	22.9
20th	Misato Town	23.0
21st	Zao Town	23.1
22nd	Kami Town	23.9
23rd	Tome City	25.1
24th	Wakuya Town	25.4
24th	Kesennuma City	25.4
26th	Murata Town	25.5
27th	Shiogama City	25.7
28th	Shibata Town	25.8
29th	Minami-Sanriku Town	26.3
30th	Kurihara City	26.5
31st	Shiroishi City	26.6
32nd	Matsushima Town	26.7
32nd	Yamamoto Town	26.7
34th	Shichikashuku Town	26.9
35th	Marumori Town	31.0



A6 Unmarried rate (at 50 years old) (women)

Ranking	Municipalities	Index
1st	Rifu Town	3.7
2nd	Shikama Town	3.9
3rd	Osato Town	4.8
4th	Tomiya City	5.1
5th	Ohira Village	5.2
6th	Kami Town	5.7
7th	Kawasaki Town	5.8
8th	Shichikashuku Town	6.7
9th	Taiwa Town	6.8
10th	Higashi-Matsushima City	7.0
11th	Kakuda City	7.2
12th	Shichigahama Town	7.5
13th	Natori City	7.6
13th	Murata Town	7.6
15th	Tome City	7.8
15th	Kurihara City	7.8
17th	Watari Town	8.1
18th	Osaki City	8.5

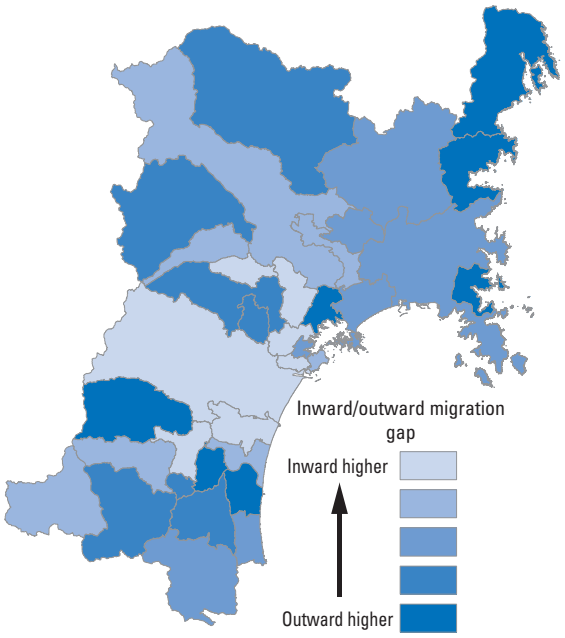
Ranking	Municipalities	Index
19th	Zao Town	8.7
20th	Iwanuma City	9.2
20th	Misato Town	9.2
22nd	Shibata Town	9.6
23rd	Tagajo City	9.7
23rd	Marumori Town	9.7
25th	Shiroishi City	9.9
26th	Kesennuma City	10.2
27th	Wakuya Town	10.5
28th	Ishinomaki City	11.0
29th	Matsushima Town	11.1
30th	Ogawara Town	11.6
31st	Minami-Sanriku Town	12.2
32nd	Onagawa Town	13.3
32nd	Shiogama City	13.3
34th	Sendai City	13.5
35th	Yamamoto Town	14.4



A7 Inward/outward migration gap (between 2010 and 2015)

Ranking	Municipalities	%
1st	Rifu Town	0.136
2nd	Murata Town	0.134
3rd	Sendai City	0.068
4th	Ohira Village	0.066
5th	Natori City	0.052
6th	Osato Town	0.046
7th	Tagajo City	0.038
8th	Iwanuma City	0.032
9th	Zao Town	0.023
10th	Shichikashuku Town	0.017
11th	Shikama Town	0.017
12th	Shichigahama Town	0.010
13th	Misato Town	0.000
14th	Osaki City	-0.007
15th	Shiogama City	-0.027
16th	Yamamoto Town	-0.049
17th	Marumori Town	-0.066
18th	Higashi-Matsushima City	-0.069

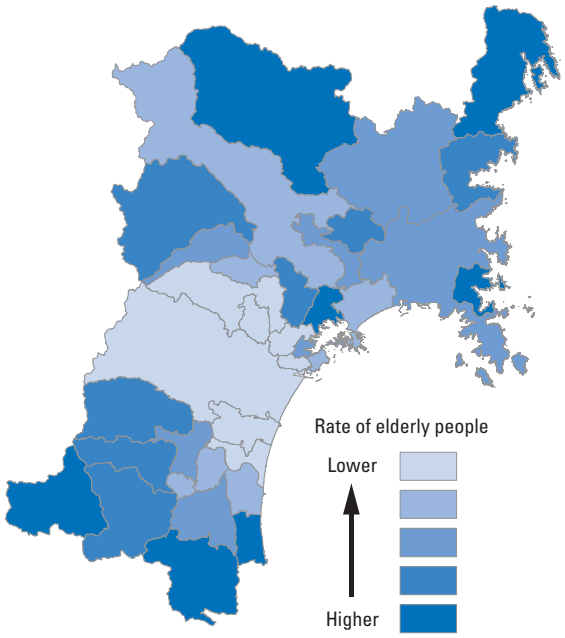
Ranking	Municipalities	%
19th	Ishinomaki City	-0.074
20th	Wakuya Town	-0.079
21st	Tome City	-0.084
22nd	Kakuda City	-0.101
23rd	Ogawara Town	-0.102
24th	Shiroishi City	-0.103
25th	Tomiya City	-0.106
26th	Kami Town	-0.106
27th	Kurihara City	-0.110
28th	Taiwa Town	-0.128
29th	Kesennuma City	-0.146
30th	Matsushima Town	-0.164
31st	Shibata Town	-0.180
32nd	Kawasaki Town	-0.200
33rd	Onagawa Town	-0.271
34th	Watari Town	-0.357
35th	Minami-Sanriku Town	-0.402



A8 Rate of elderly people (aged 65 and over)

Ranking	Municipalities	%
1st	Tomiya City	19.800
2nd	Taiwa Town	21.990
3rd	Natori City	22.218
4th	Rifu Town	22.508
5th	Sendai City	23.718
6th	Tagajo City	24.148
7th	Iwanuma City	25.786
8th	Ogawara Town	26.951
9th	Ohira Village	28.455
10th	Higashi-Matsushima City	28.682
11th	Shibata Town	29.254
12th	Osaki City	29.390
13th	Shichigahama Town	29.704
14th	Watari Town	30.453
15th	Ishinomaki City	32.444
16th	Shikama Town	33.021
17th	Shiogama City	33.125
18th	Murata Town	33.672

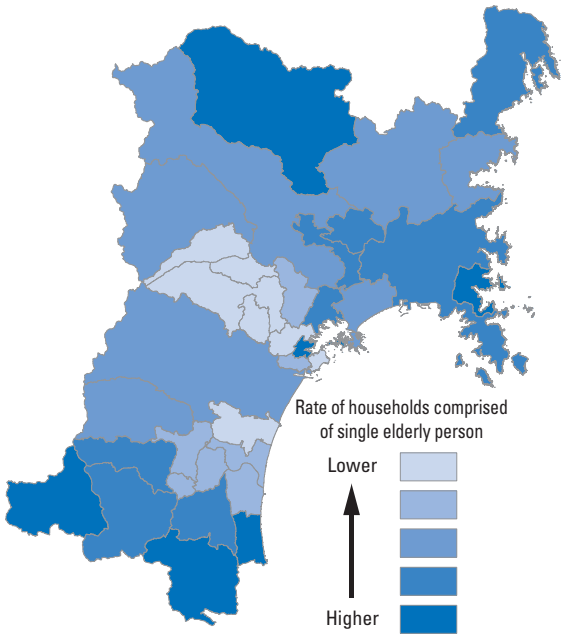
Ranking	Municipalities	%
19th	Tome City	33.854
20th	Misato Town	34.138
21st	Kakuda City	34.233
22nd	Shiroishi City	34.334
23rd	Wakuya Town	35.124
24th	Minami-Sanriku Town	35.631
25th	Kawasaki Town	35.868
26th	Kami Town	35.921
27th	Osato Town	36.197
28th	Zao Town	36.433
29th	Kesennuma City	37.381
30th	Matsushima Town	37.902
31st	Onagawa Town	38.695
32nd	Kurihara City	38.740
33rd	Yamamoto Town	39.620
34th	Marumori Town	40.251
35th	Shichikashuku Town	46.322



A9 Rate of households comprised of single elderly person (aged 65 and over)

Ranking	Municipalities	%
1st	Tomiya City	4.5
2nd	Rifu Town	5.7
3rd	Ohira Village	6.1
4th	Taiwa Town	6.5
4th	Natori City	6.5
4th	Shikama Town	6.5
7th	Shichigahama Town	7.1
8th	Iwanuma City	7.2
9th	Shibata Town	7.3
10th	Tagajo City	7.7
10th	Watari Town	7.7
12th	Osato Town	8.1
13th	Murata Town	8.2
14th	Ogawara Town	8.6
15th	Higashi-Matsushima City	8.7
16th	Tome City	8.9
17th	Sendai City	9.0
17th	Kawasaki Town	9.0

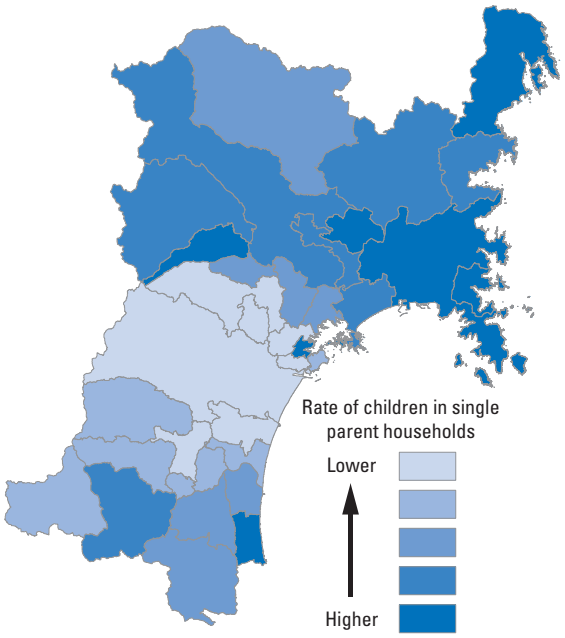
Ranking	Municipalities	%
19th	Osaki City	9.1
20th	Minami-Sanriku Town	9.2
21st	Kami Town	9.3
22nd	Kakuda City	9.5
23rd	Zao Town	9.7
24th	Misato Town	10.0
25th	Shiroishi City	10.1
26th	Wakuya Town	10.8
27th	Ishinomaki City	11.0
28th	Kesennuma City	11.2
28th	Matsushima Town	11.2
30th	Kurihara City	11.4
31st	Marumori Town	11.8
32nd	Shiogama City	12.1
33rd	Yamamoto Town	12.4
34th	Onagawa Town	13.2
35th	Shichikashuku Town	22.5



A10 Rate of children in single parent households

Ranking	Municipalities	%
1st	Tomiya City	5.67
2nd	Natori City	5.91
3rd	Rifu Town	6.67
4th	Taiwa Town	7.35
5th	Sendai City	7.74
6th	Tagajo City	9.18
7th	Murata Town	9.23
8th	Shichigahama Town	9.49
9th	Ogawara Town	9.66
10th	Shichikashuku Town	9.94
11th	Iwanuma City	10.03
12th	Kawasaki Town	10.04
13th	Zao Town	10.15
14th	Shibata Town	10.41
15th	Marumori Town	10.61
16th	Watari Town	10.75
17th	Ohira Village	10.85
18th	Matsushima Town	10.93

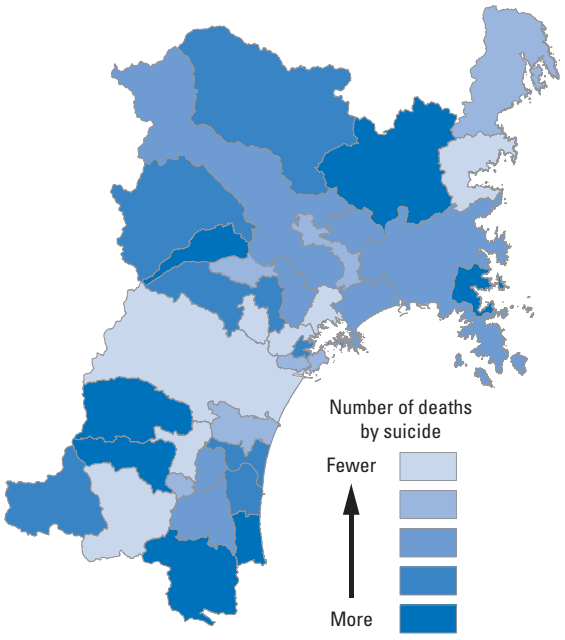
Ranking	Municipalities	%
19th	Kurihara City	10.94
20th	Osato Town	11.07
21st	Kakuda City	11.15
22nd	Misato Town	11.29
23rd	Minami-Sanriku Town	11.54
24th	Osaki City	11.56
25th	Kami Town	11.72
26th	Shiroishi City	11.73
27th	Tome City	11.81
28th	Higashi-Matsushima City	12.06
29th	Shikama Town	12.87
30th	Kesennuma City	13.12
31st	Ishinomaki City	13.16
32nd	Yamamoto Town	13.22
33rd	Wakuya Town	13.32
34th	Shiogama City	13.82
35th	Onagawa Town	15.12



A11 Number of deaths by suicide (per 100,000 population)

Ranking	Municipalities	People
1st	Murata Town	11.893
2nd	Rifu Town	11.960
3rd	Shiroishi City	12.493
4th	Tomiya City	12.680
5th	Matsushima Town	13.940
6th	Minami-Sanriku Town	14.947
7th	Sendai City	15.213
8th	Ogawara Town	15.510
9th	Shichigahama Town	15.803
10th	Kesennuma City	15.923
11th	Misato Town	16.180
12th	Tagajo City	16.537
13th	Natori City	16.600
14th	Ohira Village	17.017
15th	Kakuda City	17.957
16th	Higashi-Matsushima City	18.243
17th	Shibata Town	18.383
18th	Osaki City	20.140

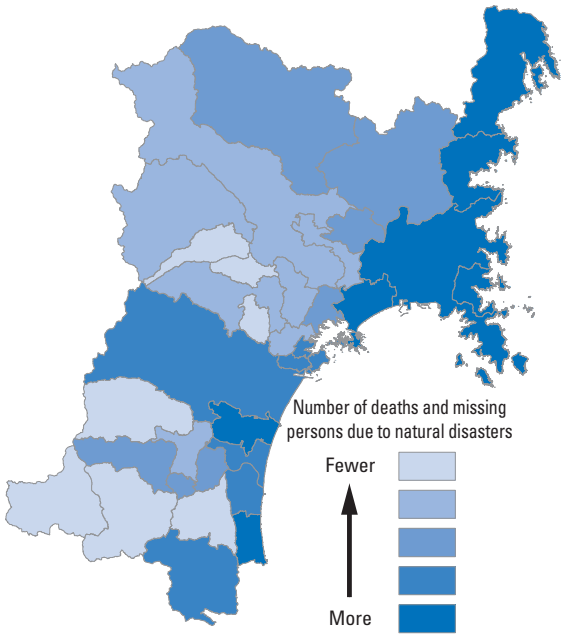
Ranking	Municipalities	People
19th	Wakuya Town	20.213
20th	Osato Town	20.277
21st	Ishinomaki City	20.300
22nd	Iwanuma City	20.330
23rd	Shiogama City	20.703
24th	Kami Town	20.960
25th	Kurihara City	22.520
26th	Taiwa Town	23.280
27th	Shichikashuku Town	23.360
28th	Watari Town	23.637
29th	Zao Town	24.550
30th	Tome City	25.137
31st	Yamamoto Town	29.603
32nd	Kawasaki Town	29.890
33rd	Onagawa Town	30.377
34th	Marumori Town	33.540
35th	Shikama Town	42.883



A12 Number of deaths and missing persons due to natural disasters (per 1,000 population)

Ranking	Municipalities	People
1st	Ohira Village	0.000
1st	Shichikashuku Town	0.000
1st	Kawasaki Town	0.000
1st	Shikama Town	0.000
5th	Tomiya City	0.020
6th	Shiroishi City	0.028
7th	Kakuda City	0.033
8th	Kami Town	0.040
9th	Osaki City	0.052
10th	Rifu Town	0.056
11th	Taiwa Town	0.074
12th	Misato Town	0.080
13th	Murata Town	0.086
14th	Osato Town	0.116
15th	Wakuya Town	0.117
16th	Shibata Town	0.131
17th	Zao Town	0.158
18th	Ogawara Town	0.170

Ranking	Municipalities	People
19th	Tome City	0.180
20th	Kurihara City	0.274
21st	Matsushima Town	0.470
22nd	Shiogama City	0.751
23rd	Marumori Town	0.811
24th	Sendai City	0.922
25th	Tagajo City	3.518
26th	Shichigahama Town	4.096
27th	Iwanuma City	4.247
28th	Watari Town	8.347
29th	Natori City	13.239
30th	Kesennuma City	20.852
31st	Ishinomaki City	26.117
32nd	Higashi-Matsushima City	28.111
33rd	Yamamoto Town	51.255
34th	Minami-Sanriku Town	55.566
35th	Onagawa Town	109.842

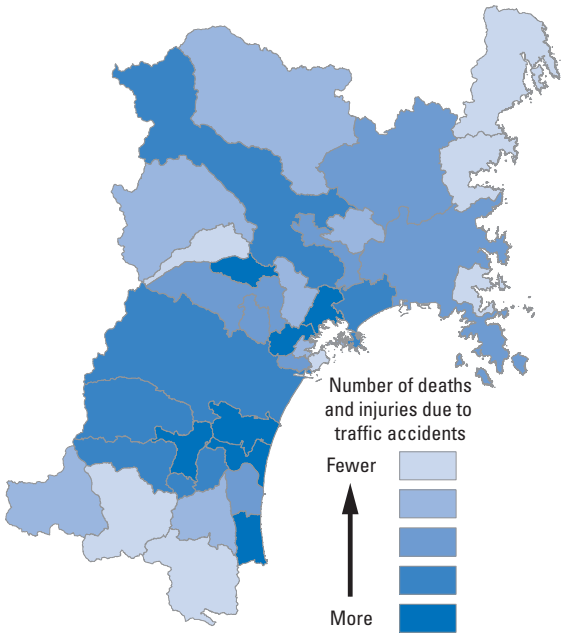


* Total 2008–20

A13 Number of deaths and injuries due to traffic accidents (average for 2014–2018; per 10,000 population)

Ranking	Municipalities	People
1st	Shichigahama Town	12.709
2nd	Marumori Town	15.179
3rd	Onagawa Town	16.424
4th	Minami-Sanriku Town	20.428
5th	Kesennuma City	24.670
6th	Shiroishi City	26.782
7th	Shikama Town	26.855
8th	Kurihara City	28.755
9th	Kami Town	29.412
10th	Shichikashuku Town	30.898
11th	Kakuda City	32.591
12th	Shiogama City	33.533
13th	Osato Town	34.090
14th	Wakuya Town	34.331
15th	Tome City	38.883
16th	Watari Town	40.250
17th	Tomiya City	40.736
18th	Taiwa Town	41.311

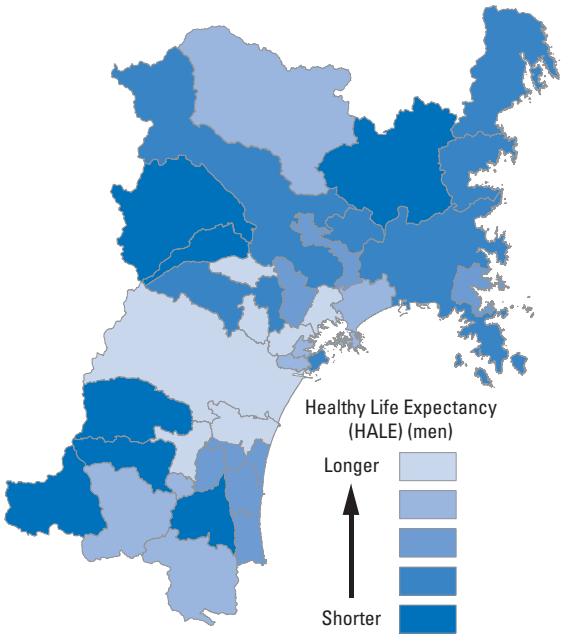
Ranking	Municipalities	People
19th	Ishinomaki City	42.380
20th	Tagajo City	44.236
21st	Misato Town	45.025
22nd	Sendai City	45.358
23rd	Shibata Town	46.570
24th	Zao Town	48.770
25th	Osaki City	49.740
26th	Ogawara Town	49.954
27th	Higashi-Matsushima City	50.262
28th	Kawasaki Town	51.429
29th	Matsushima Town	52.265
30th	Iwanuma City	53.999
31st	Yamamoto Town	54.507
32nd	Rifu Town	58.764
33rd	Murata Town	64.164
34th	Natori City	65.937
35th	Ohira Village	104.451



B1 Healthy Life Expectancy (HALE) (men)

Ranking	Municipalities	Years
1st	Ohira Village	81.775
2nd	Tomiya City	81.722
3rd	Rifu Town	81.544
4th	Matsushima Town	80.619
5th	Murata Town	80.442
6th	Sendai City	80.234
7th	Natori City	80.097
8th	Shiogama City	80.096
9th	Higashi-Matsushima City	80.057
10th	Ogawara Town	80.030
11th	Kurihara City	79.949
12th	Shiroishi City	79.908
13th	Tagajo City	79.811
14th	Marumori Town	79.697
15th	Iwanuma City	79.682
16th	Misato Town	79.606
17th	Osato Town	79.500
18th	Watari Town	79.306

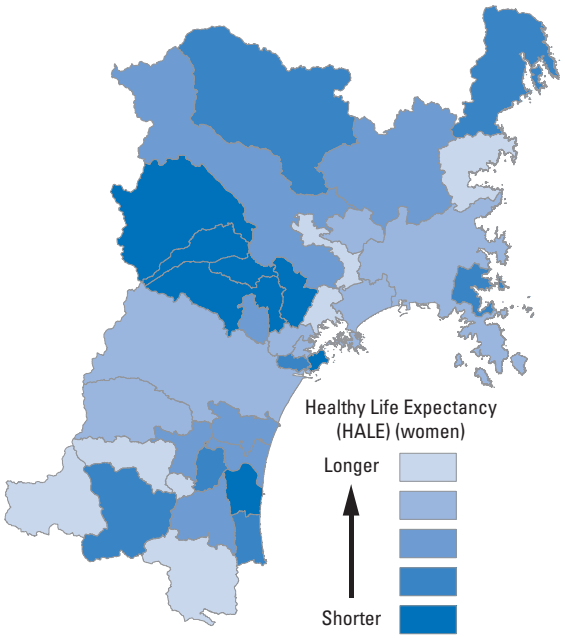
Ranking	Municipalities	Years
19th	Yamamoto Town	79.236
20th	Shibata Town	79.189
21st	Onagawa Town	79.151
22nd	Shichigahama Town	79.037
23rd	Wakuya Town	78.986
24th	Ishinomaki City	78.955
25th	Taiwa Town	78.939
26th	Osaki City	78.879
27th	Minami-Sanriku Town	78.867
28th	Kesennuma City	78.833
29th	Kakuda City	78.762
30th	Tome City	78.584
31st	Zao Town	78.578
32nd	Kawasaki Town	78.295
33rd	Kami Town	78.228
34th	Shikama Town	78.088
35th	Shichikashuku Town	76.114



B1 Healthy Life Expectancy (HALE) (women)

Ranking	Municipalities	Years
1st	Shichikashuku Town	88.731
2nd	Ogawara Town	86.213
3rd	Matsushima Town	86.040
4th	Zao Town	85.581
5th	Misato Town	85.183
6th	Minami-Sanriku Town	84.893
7th	Marumori Town	84.769
8th	Sendai City	84.532
9th	Wakuya Town	84.481
10th	Higashi-Matsushima City	84.428
11th	Rifu Town	84.355
12th	Kawasaki Town	84.284
13th	Shiogama City	84.245
14th	Ishinomaki City	84.220
15th	Tomiya City	84.211
16th	Natori City	84.172
17th	Murata Town	84.171
18th	Osaki City	84.149

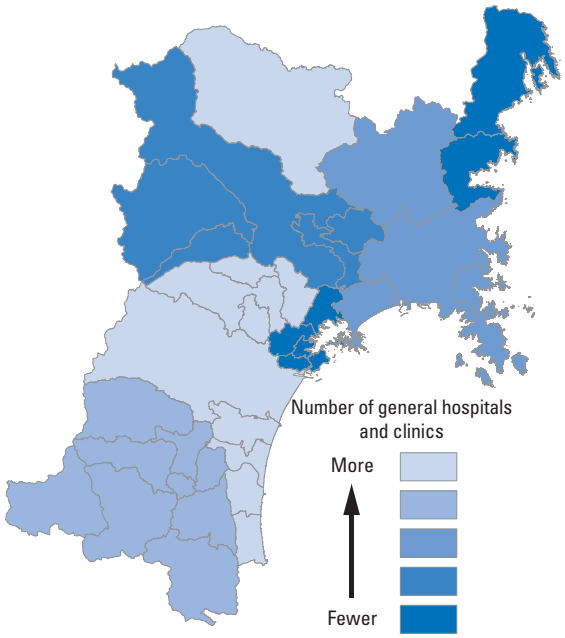
Ranking	Municipalities	Years
19th	Kakuda City	84.020
20th	Tome City	83.967
21st	Iwanuma City	83.923
22nd	Kesennuma City	83.842
23rd	Kurihara City	83.825
24th	Shiroishi City	83.624
25th	Tagajo City	83.559
26th	Onagawa Town	83.176
27th	Shibata Town	83.166
28th	Yamamoto Town	83.049
29th	Osato Town	82.985
30th	Kami Town	82.873
31st	Watari Town	82.721
32nd	Ohira Village	82.415
33rd	Taiwa Town	82.387
34th	Shichigahama Town	82.115
35th	Shikama Town	81.947



B2 Number of general hospitals and clinics (per 1,000 population)

Ranking	Municipalities	—
1st	Tomiya City	1.227
1st	Osato Town	1.227
1st	Ohira Village	1.227
1st	Taiwa Town	1.227
5th	Sendai City	0.894
6th	Kurihara City	0.842
7th	Natori City	0.733
7th	Iwanuma City	0.733
7th	Yamamoto Town	0.733
7th	Watari Town	0.733
11th	Shichikashuku Town	0.722
11th	Ogawara Town	0.722
11th	Zao Town	0.722
11th	Marumori Town	0.722
11th	Kawasaki Town	0.722
11th	Murata Town	0.722
11th	Kakuda City	0.722
11th	Shiroishi City	0.722

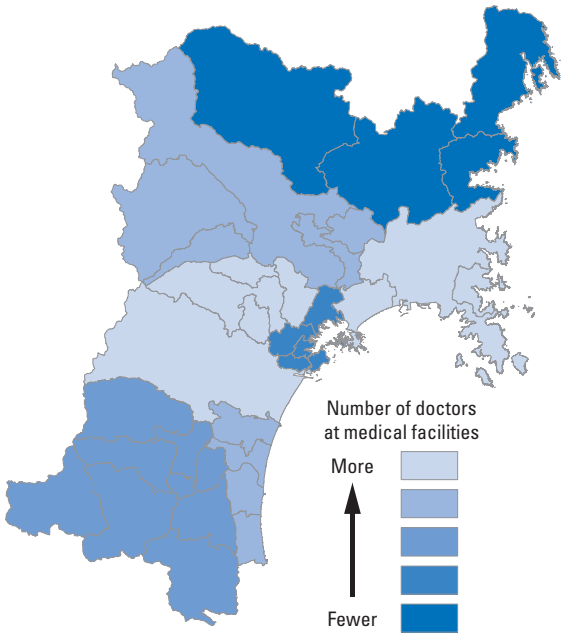
Ranking	Municipalities	—
11th	Shibata Town	0.722
20th	Tome City	0.709
21st	Higashi-Matsushima City	0.700
21st	Ishinomaki City	0.700
21st	Onagawa Town	0.700
24th	Misato Town	0.689
24th	Wakuya Town	0.689
24th	Osaki City	0.689
24th	Kami Town	0.689
24th	Shikama Town	0.689
29th	Matsushima Town	0.619
29th	Rifu Town	0.619
29th	Shiogama City	0.619
29th	Tagajo City	0.619
29th	Shichigahama Town	0.619
34th	Minami-Sanriku Town	0.597
34th	Kesennuma City	0.597



B3 Number of doctors at medical facilities (per 1,000 population)

Ranking	Municipalities	—
1st	Sendai City	3.502
2nd	Tomiya City	2.100
2nd	Osato Town	2.100
2nd	Ohira Village	2.100
2nd	Taiwa Town	2.100
6th	Higashi-Matsushima City	1.894
6th	Ishinomaki City	1.894
6th	Onagawa Town	1.894
9th	Natori City	1.835
9th	Iwanuma City	1.835
9th	Yamamoto Town	1.835
9th	Watari Town	1.835
13th	Misato Town	1.823
13th	Wakuya Town	1.823
13th	Osaki City	1.823
13th	Kami Town	1.823
13th	Shikama Town	1.823
18th	Shichikashuku Town	1.618

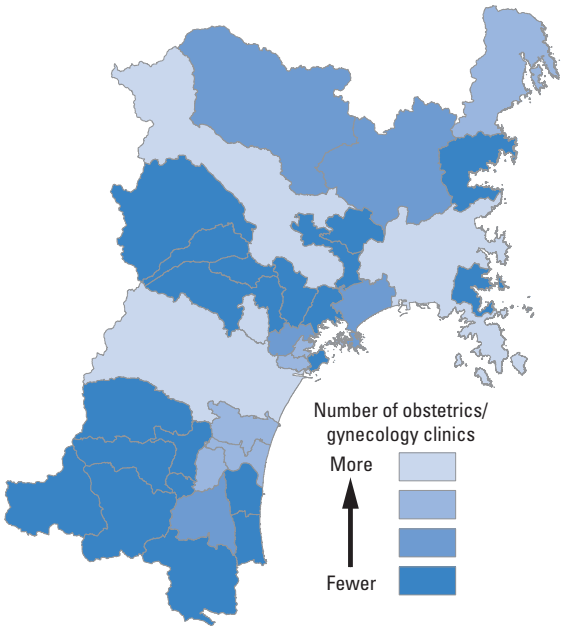
Ranking	Municipalities	—
18th	Ogawara Town	1.618
18th	Zao Town	1.618
18th	Marumori Town	1.618
18th	Kawasaki Town	1.618
18th	Murata Town	1.618
18th	Kakuda City	1.618
18th	Shiroishi City	1.618
18th	Shibata Town	1.618
27th	Matsushima Town	1.554
27th	Rifu Town	1.554
27th	Shiogama City	1.554
27th	Tagajo City	1.554
27th	Shichigahama Town	1.554
32nd	Minami-Sanriku Town	1.521
32nd	Kesennuma City	1.521
34th	Kurihara City	1.473
35th	Tome City	1.102



B4 Number of obstetrics/gynecology clinics

Ranking	Municipalities	—
1st	Sendai City	52
2nd	Tomiya City	4
2nd	Ishinomaki City	4
2nd	Osaki City	4
5th	Shiogama City	3
5th	Tagajo City	3
7th	Natori City	2
7th	Iwanuma City	2
7th	Shibata Town	2
7th	Kesennuma City	2
11th	Higashi-Matsushima City	1
11th	Kakuda City	1
11th	Rifu Town	1
11th	Kurihara City	1
11th	Tome City	1
16th	Osato Town	0
16th	Ohira Village	0
16th	Taiwa Town	0

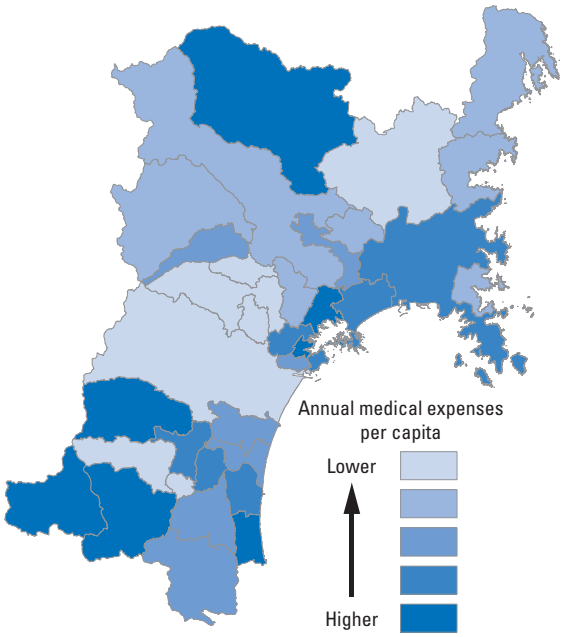
Ranking	Municipalities	—
16th	Onagawa Town	0
16th	Yamamoto Town	0
16th	Watari Town	0
16th	Misato Town	0
16th	Wakuya Town	0
16th	Kami Town	0
16th	Shikama Town	0
16th	Shichikashuku Town	0
16th	Ogawara Town	0
16th	Zao Town	0
16th	Marumori Town	0
16th	Kawasaki Town	0
16th	Murata Town	0
16th	Shiroishi City	0
16th	Matsushima Town	0
16th	Shichigahama Town	0
16th	Minami-Sanriku Town	0



B5 Annual medical expenses per capita (average of past 3 years)

Ranking	Municipalities	Yen
1st	Ohira Village	323,942
2nd	Taiwa Town	346,777
3rd	Zao Town	348,451
4th	Sendai City	350,537
5th	Tome City	351,583
6th	Ogawara Town	357,400
7th	Tomiya City	358,189
8th	Osaki City	360,423
9th	Osato Town	361,534
10th	Kami Town	369,452
11th	Wakuya Town	372,192
12th	Onagawa Town	372,403
13th	Minami-Sanriku Town	373,040
14th	Kesennuma City	373,697
15th	Tagajo City	373,851
16th	Kakuda City	375,198
17th	Marumori Town	376,509
18th	Misato Town	377,303

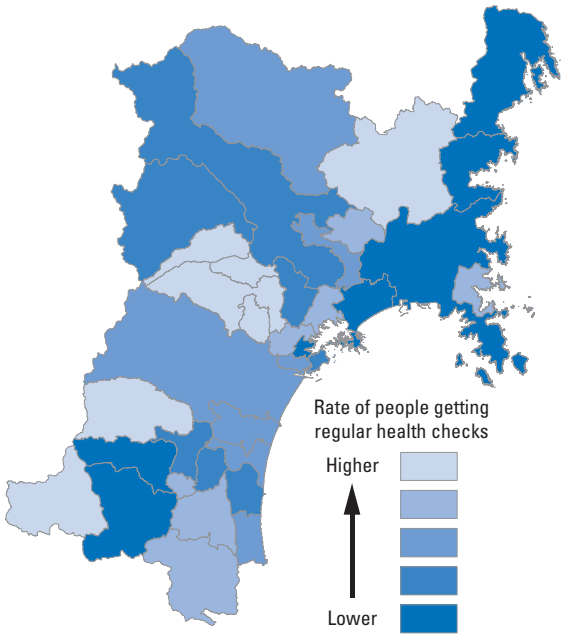
Ranking	Municipalities	Yen
19th	Shikama Town	378,822
20th	Iwanuma City	382,847
21st	Natori City	383,038
22nd	Rifu Town	384,338
23rd	Shichigahama Town	386,532
24th	Murata Town	387,983
25th	Higashi-Matsushima City	392,082
26th	Watari Town	393,057
27th	Shibata Town	397,719
28th	Ishinomaki City	398,126
29th	Kurihara City	398,181
30th	Matsushima Town	407,386
31st	Shiroishi City	410,649
32nd	Shichikashuku Town	413,103
33rd	Kawasaki Town	420,284
34th	Shiogama City	421,449
35th	Yamamoto Town	435,367



B6 Rate of people getting regular health checks

Ranking	Municipalities	%
1st	Shichikashuku Town	64.4
2nd	Tome City	63.1
3rd	Ohira Village	61.6
4th	Tomiya City	59.7
5th	Shikama Town	56.4
6th	Taiwa Town	56.0
6th	Kawasaki Town	56.0
8th	Marumori Town	55.9
9th	Rifu Town	54.8
10th	Matsushima Town	54.6
11th	Wakuya Town	54.1
12th	Kakuda City	52.9
13th	Onagawa Town	51.1
14th	Ogawara Town	50.7
15th	Natori City	50.4
16th	Tagajo City	49.4
17th	Yamamoto Town	49.1
18th	Iwanuma City	48.0

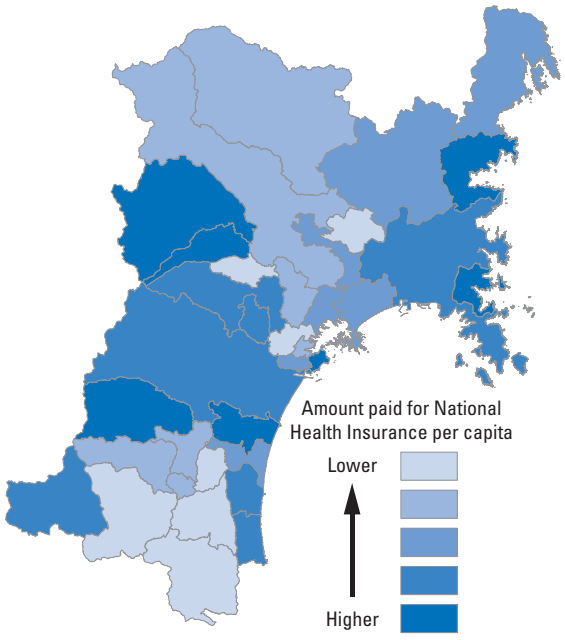
Ranking	Municipalities	%
19th	Kurihara City	47.7
20th	Misato Town	47.5
21st	Sendai City	47.4
22nd	Kami Town	47.1
23rd	Osato Town	46.6
24th	Watari Town	46.4
25th	Osaki City	46.1
26th	Shichigahama Town	45.5
27th	Murata Town	44.7
27th	Shibata Town	44.7
29th	Shiogama City	43.6
30th	Zao Town	43.2
30th	Kesennuma City	43.2
32nd	Minami-Sanriku Town	42.2
33rd	Shiroishi City	40.3
34th	Ishinomaki City	39.6
35th	Higashi-Matsushima City	35.6



B7 Amount paid for National Health Insurance per capita

Ranking	Municipalities	Yen
1st	Shiroishi City	110,860
2nd	Wakuya Town	111,037
3rd	Ohira Village	111,801
4th	Marumori Town	113,017
5th	Shibata Town	113,140
6th	Rifu Town	113,643
7th	Kakuda City	114,987
8th	Zao Town	115,342
9th	Murata Town	116,301
10th	Shiogama City	117,238
11th	Ogawara Town	117,733
12th	Osato Town	117,941
13th	Kurihara City	119,987
14th	Osaki City	120,024
15th	Matsushima Town	120,296
16th	Kesennuma City	121,535
17th	Iwanuma City	122,159
18th	Tagajo City	122,545

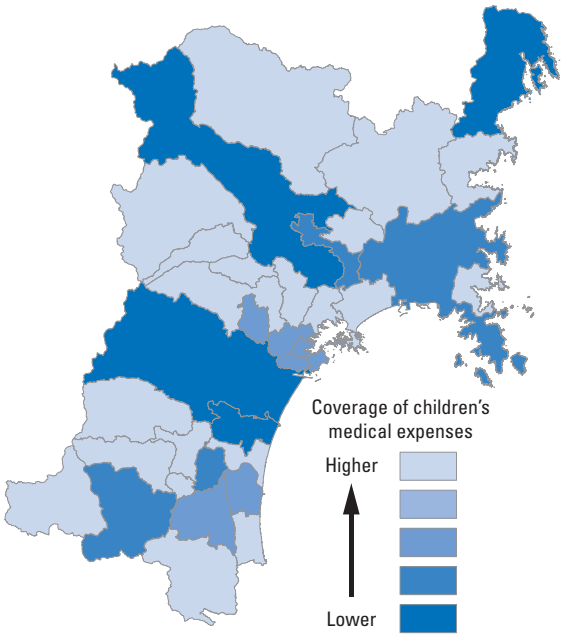
Ranking	Municipalities	Yen
19th	Misato Town	122,917
20th	Tome City	123,049
21st	Higashi-Matsushima City	123,242
22nd	Shichikashuku Town	123,596
23rd	Tomiya City	123,751
24th	Ishinomaki City	124,131
25th	Taiwa Town	124,220
26th	Sendai City	125,147
27th	Watari Town	126,644
28th	Yamamoto Town	127,004
29th	Kawasaki Town	127,393
30th	Shichigahama Town	129,311
31st	Kami Town	131,980
32nd	Onagawa Town	131,988
33rd	Natori City	134,843
34th	Shikama Town	138,855
35th	Minami-Sanriku Town	147,259



B8 Coverage of children's medical expenses

Ranking	Municipalities	Index
1st	Wakuya Town	100
1st	Ohira Village	100
1st	Marumori Town	100
1st	Zao Town	100
1st	Murata Town	100
1st	Ogawara Town	100
1st	Osato Town	100
1st	Kurihara City	100
1st	Matsushima Town	100
1st	Iwanuma City	100
1st	Tome City	100
1st	Higashi-Matsushima City	100
1st	Shichikashuku Town	100
1st	Taiwa Town	100
1st	Yamamoto Town	100
1st	Kawasaki Town	100
1st	Kami Town	100
1st	Onagawa Town	100

Ranking	Municipalities	Index
1st	Shikama Town	100
1st	Minami-Sanriku Town	100
21st	Rifu Town	75
21st	Kakuda City	75
21st	Shiogama City	75
21st	Tagajo City	75
21st	Tomiya City	75
21st	Watari Town	75
21st	Shichigahama Town	75
28th	Shiroishi City	50
28th	Shibata Town	50
28th	Misato Town	50
28th	Ishinomaki City	50
32nd	Osaki City	25
32nd	Kesennuma City	25
32nd	Sendai City	25
32nd	Natori City	25

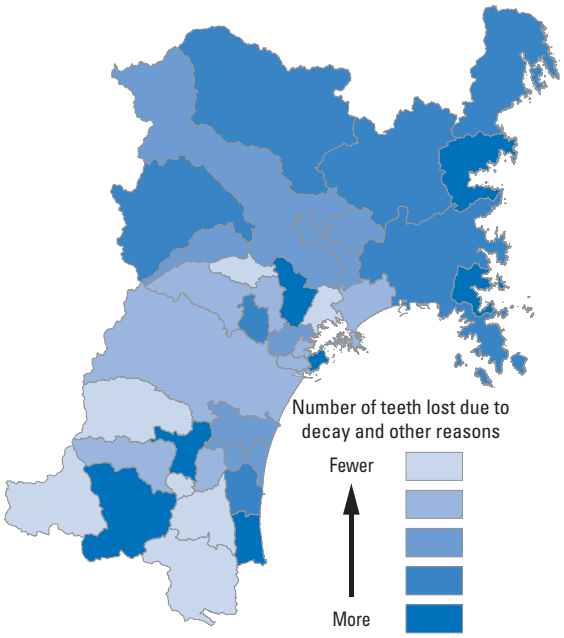


* Degree to which the criteria set by the Indicator Team are met.

B9 Number of teeth lost due to decay and other reasons (at age 12)

Ranking	Municipalities	—
1st	Shichikashuku Town	0.20
2nd	Kawasaki Town	0.40
3rd	Kakuda City	0.43
4th	Marumori Town	0.52
5th	Ogawara Town	0.71
6th	Ohira Village	0.76
7th	Matsushima Town	0.83
8th	Sendai City	0.90
9th	Taiwa Town	1.02
9th	Tagajo City	1.02
11th	Shibata Town	1.09
12th	Higashi-Matsushima City	1.10
13th	Shiogama City	1.14
14th	Zao Town	1.17
15th	Wakuya Town	1.19
16th	Natori City	1.20
17th	Rifu Town	1.22
18th	Iwanuma City	1.26

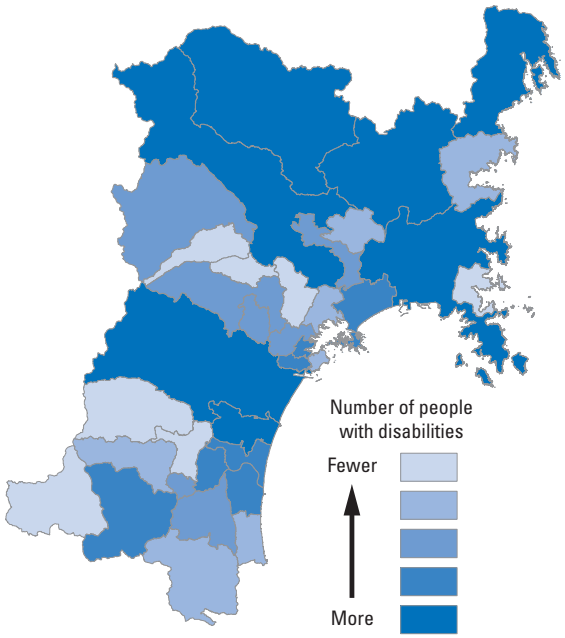
Ranking	Municipalities	—
19th	Misato Town	1.31
20th	Shikama Town	1.32
21st	Osaki City	1.33
22nd	Kurihara City	1.35
22nd	Tomiya City	1.35
24th	Watari Town	1.40
25th	Kami Town	1.45
26th	Kesennuma City	1.53
27th	Tome City	1.57
28th	Ishinomaki City	1.73
29th	Onagawa Town	1.81
30th	Shiroishi City	1.91
31st	Murata Town	2.32
32nd	Minami-Sanriku Town	2.35
33rd	Yamamoto Town	2.58
34th	Osato Town	2.72
35th	Shichigahama Town	2.80



B10 Number of people with disabilities

Ranking	Municipalities	People
1st	Shichikashuku Town	113
2nd	Ohira Village	325
3rd	Shikama Town	374
4th	Onagawa Town	392
5th	Kawasaki Town	487
6th	Osato Town	503
7th	Murata Town	682
8th	Zao Town	736
9th	Minami-Sanriku Town	784
10th	Yamamoto Town	815
11th	Marumori Town	852
12th	Matsushima Town	854
13th	Wakuya Town	927
14th	Shichigahama Town	1,010
15th	Ogawara Town	1,114
16th	Taiwa Town	1,301
17th	Misato Town	1,436
18th	Rifu Town	1,453

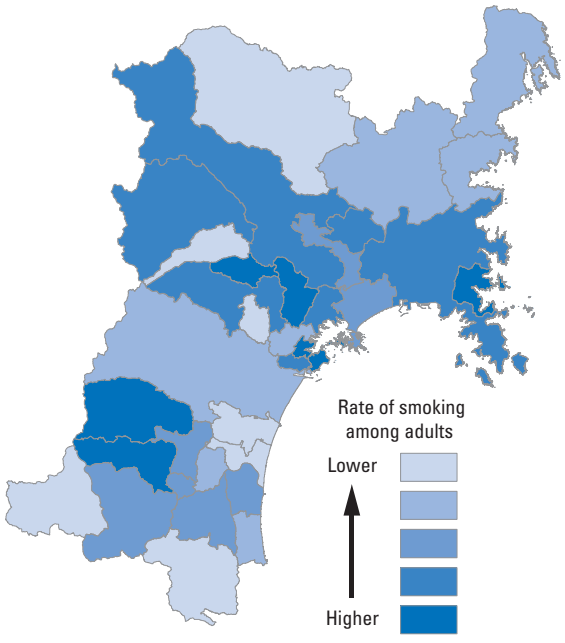
Ranking	Municipalities	People
19th	Kami Town	1,509
20th	Kakuda City	1,639
21st	Tomiya City	1,741
22nd	Watari Town	1,758
23rd	Shibata Town	1,941
24th	Shiroishi City	2,091
25th	Higashi-Matsushima City	2,109
26th	Iwanuma City	2,176
27th	Tagajo City	2,777
28th	Shiogama City	3,117
29th	Kesennuma City	3,530
30th	Natori City	4,582
31st	Tome City	4,708
32nd	Kurihara City	5,073
33rd	Osaki City	7,318
34th	Ishinomaki City	8,232
35th	Sendai City	52,178



B11 Rate of smoking among adults (taking the whole of prefecture as 100)

Ranking	Municipalities	Rate
1st	Shichikashuku Town	67.5
2nd	Shikama Town	84.4
3rd	Marumori Town	88.3
4th	Iwanuma City	91.5
5th	Tomiya City	91.6
6th	Kurihara City	91.9
7th	Natori City	94.4
8th	Sendai City	95.2
9th	Yamamoto Town	96.4
10th	Minami-Sanriku Town	96.6
11th	Kesennuma City	96.9
12th	Tome City	97.3
13th	Rifu Town	97.7
14th	Shibata Town	99.4
15th	Watari Town	99.5
16th	Kakuda City	99.9
17th	Misato Town	102.6
18th	Murata Town	105.4

Ranking	Municipalities	Rate
19th	Higashi-Matsushima City	105.7
20th	Shiroishi City	106.5
21st	Ogawara Town	106.8
22nd	Osaki City	107.3
23rd	Matsushima Town	107.8
24th	Kami Town	108.7
25th	Taiwa Town	108.9
26th	Wakuya Town	109.2
27th	Tagajo City	112.1
28th	Ishinomaki City	113.1
29th	Shichigahama Town	113.3
30th	Zao Town	114.1
31st	Onagawa Town	114.5
32nd	Shiogama City	114.9
33rd	Ohira Village	115.5
34th	Osato Town	117.8
35th	Kawasaki Town	121.2

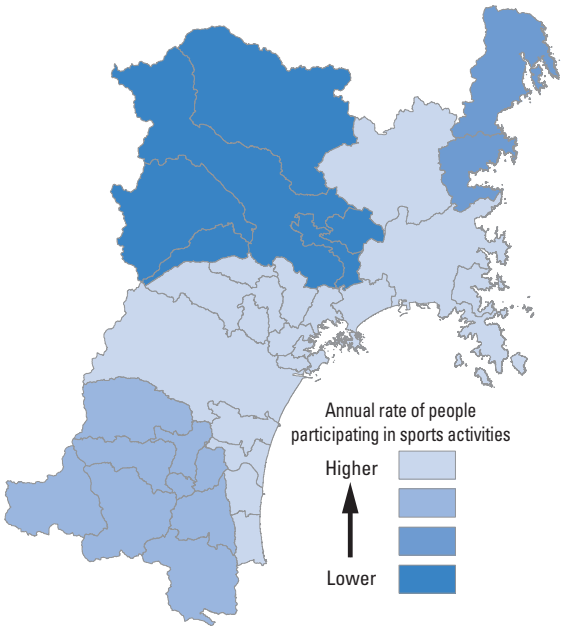


* Overall Miyagi Prefecture rate = 100

B12 Annual rate of people participating in sports activities (by zone)

Ranking	Municipalities	%
1st	Sendai City	29.7
2nd	Tome City	28.9
3rd	Higashi-Matsushima City	28.0
3rd	Ishinomaki City	28.0
3rd	Onagawa Town	28.0
6th	Iwanuma City	27.6
6th	Tomiya City	27.6
6th	Natori City	27.6
6th	Yamamoto Town	27.6
6th	Rifu Town	27.6
6th	Watari Town	27.6
6th	Matsushima Town	27.6
6th	Taiwa Town	27.6
6th	Tagajo City	27.6
6th	Shichigahama Town	27.6
6th	Shiogama City	27.6
6th	Ohira Village	27.6
6th	Osato Town	27.6

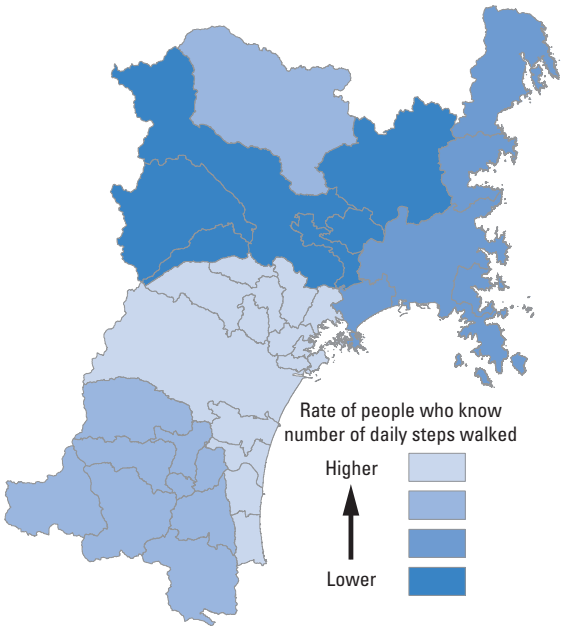
Ranking	Municipalities	%
19th	Shichikashuku Town	21.6
19th	Marumori Town	21.6
19th	Shibata Town	21.6
19th	Kakuda City	21.6
19th	Murata Town	21.6
19th	Shiroishi City	21.6
19th	Ogawara Town	21.6
19th	Zao Town	21.6
19th	Kawasaki Town	21.6
28th	Minami-Sanriku Town	20.8
28th	Kesennuma City	20.8
30th	Kurihara City	20.2
31st	Shikama Town	19.4
31st	Misato Town	19.4
31st	Osaki City	19.4
31st	Kami Town	19.4
31st	Wakuya Town	19.4



B13 Rate of people who know number of daily steps walked (by area)

Ranking	Municipalities	%
1st	Sendai City	24.0
2nd	Shiogama City	22.7
2nd	Natori City	22.7
2nd	Tagajo City	22.7
2nd	Iwanuma City	22.7
2nd	Tomiya City	22.7
2nd	Watari Town	22.7
2nd	Yamamoto Town	22.7
2nd	Matsushima Town	22.7
2nd	Shichigahama Town	22.7
2nd	Rifu Town	22.7
2nd	Taiwa Town	22.7
2nd	Osato Town	22.7
2nd	Ohira Village	22.7
15th	Kurihara City	18.1
16th	Shiroishi City	18.0
16th	Kakuda City	18.0
16th	Zao Town	18.0

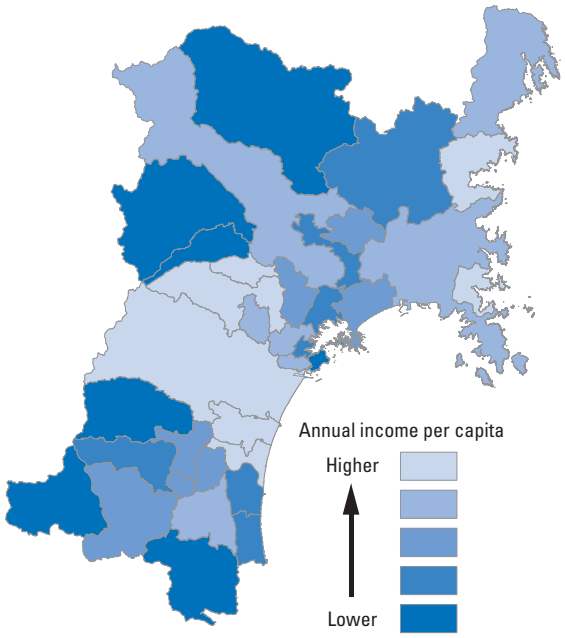
Ranking	Municipalities	%
16th	Shichikashuku Town	18.0
16th	Ogawara Town	18.0
16th	Murata Town	18.0
16th	Shibata Town	18.0
16th	Kawasaki Town	18.0
16th	Marumori Town	18.0
25th	Ishinomaki City	17.3
25th	Kesennuma City	17.3
25th	Higashi-Matsushima City	17.3
25th	Onagawa Town	17.3
25th	Minami-Sanriku Town	17.3
30th	Tome City	14.4
31st	Osaki City	14.3
31st	Shikama Town	14.3
31st	Kami Town	14.3
31st	Wakuya Town	14.3
31st	Misato Town	14.3



C1 Annual income per capita

Ranking	Municipalities	Yen (1000s)
1st	Ohira Village	4,198
2nd	Onagawa Town	3,993
3rd	Taiwa Town	3,926
4th	Sendai City	3,461
5th	Iwanuma City	3,066
6th	Minami-Sanriku Town	3,063
7th	Natori City	3,025
8th	Rifu Town	2,970
9th	Tomiya City	2,961
10th	Ishinomaki City	2,845
11th	Osaki City	2,803
12th	Kesennuma City	2,801
13th	Kakuda City	2,772
14th	Tagajo City	2,721
15th	Ogawara Town	2,632
16th	Wakuya Town	2,596
17th	Murata Town	2,574
18th	Shiroishi City	2,513

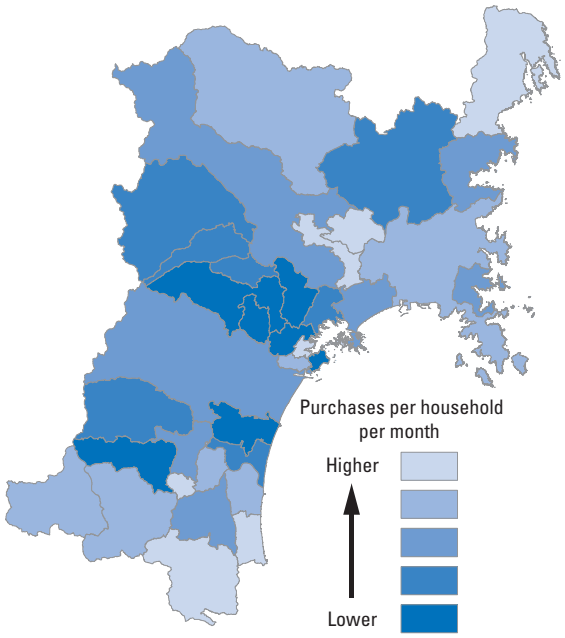
Ranking	Municipalities	Yen (1000s)
18th	Higashi-Matsushima City	2,513
20th	Osato Town	2,509
21st	Shibata Town	2,478
22nd	Shiogama City	2,475
23rd	Zao Town	2,449
24th	Watari Town	2,431
25th	Tome City	2,422
26th	Misato Town	2,406
27th	Yamamoto Town	2,402
28th	Matsushima Town	2,368
29th	Kami Town	2,365
30th	Shichigahama Town	2,345
31st	Kawasaki Town	2,334
32nd	Shikama Town	2,323
33rd	Marumori Town	2,274
34th	Kurihara City	2,260
35th	Shichikashuku Town	1,996



C2 Purchases per household per month

Ranking	Municipalities	Yen
1st	Marumori Town	205,991
2nd	Wakuya Town	204,243
3rd	Kesennuma City	203,789
4th	Yamamoto Town	203,295
5th	Shiogama City	202,311
6th	Ogawara Town	201,962
7th	Misato Town	201,849
8th	Shibata Town	200,890
9th	Shichikashuku Town	200,880
10th	Shiroishi City	200,342
11th	Ishinomaki City	200,219
12th	Kurihara City	199,259
13th	Watari Town	199,055
14th	Tagajo City	198,583
15th	Osaki City	198,011
16th	Higashi-Matsushima City	197,902
17th	Onagawa Town	197,856
18th	Kakuda City	197,593

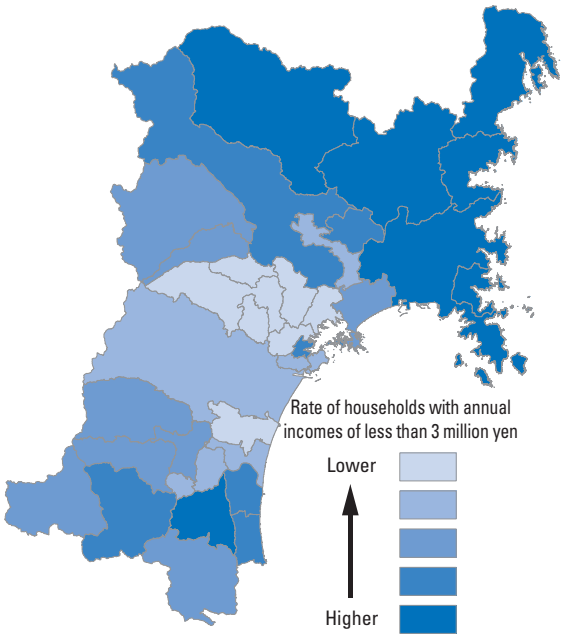
Ranking	Municipalities	Yen
19th	Minami-Sanriku Town	197,541
20th	Sendai City	197,412
21st	Murata Town	196,750
22nd	Kami Town	196,540
23rd	Iwanuma City	195,996
24th	Tome City	195,862
25th	Kawasaki Town	195,046
26th	Matsushima Town	194,928
27th	Ohira Village	192,979
28th	Shikama Town	192,770
29th	Zao Town	192,556
30th	Natori City	191,518
31st	Rifu Town	190,851
32nd	Taiwa Town	190,601
33rd	Osato Town	190,236
34th	Shichigahama Town	189,576
35th	Tomiya City	187,577



C3 Rate of households with annual incomes of less than 3 million yen (excluding single-person households)

Ranking	Municipalities	%
1st	Tomiya City	17.2
2nd	Ohira Village	17.7
2nd	Osato Town	17.7
4th	Rifu Town	18.3
5th	Taiwa Town	18.8
6th	Natori City	18.8
7th	Matsushima Town	21.2
8th	Sendai City	22.5
9th	Tagajo City	22.9
10th	Iwanuma City	24.7
11th	Misato Town	25.1
12th	Shibata Town	26.2
13th	Ogawara Town	26.2
14th	Shichigahama Town	26.8
15th	Shikama Town	27.1
16th	Kami Town	27.3
17th	Higashi-Matsushima City	27.9
18th	Marumori Town	28.5

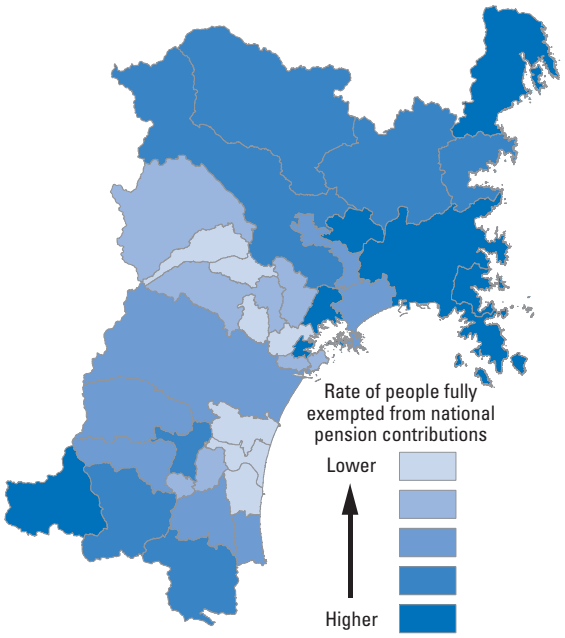
Ranking	Municipalities	%
18th	Shichikashuku Town	28.5
18th	Murata Town	28.5
18th	Kawasaki Town	28.5
18th	Zao Town	28.5
23rd	Osaki City	28.7
24th	Wakuya Town	29.9
25th	Yamamoto Town	30.3
25th	Watari Town	30.3
27th	Shiogama City	30.4
28th	Shiroishi City	30.6
29th	Kakuda City	31.1
30th	Tome City	31.2
31st	Kurihara City	32.5
32nd	Ishinomaki City	33.1
32nd	Onagawa Town	33.1
34th	Kesennuma City	35.9
34th	Minami-Sanriku Town	35.9



C4 Rate of people fully exempted from national pension contributions

Ranking	Municipalities	%
1st	Tomiya City	2.99
2nd	Rifu Town	3.78
3rd	Ohira Village	3.97
4th	Natori City	4.00
5th	Iwanuma City	4.59
6th	Shikama Town	4.90
7th	Watari Town	5.01
8th	Tagajo City	5.12
9th	Taiwa Town	5.17
10th	Osato Town	5.34
11th	Shichigahama Town	5.70
12th	Ogawara Town	5.74
13th	Kami Town	5.81
14th	Shibata Town	5.83
15th	Sendai City	6.01
16th	Misato Town	6.23
17th	Zao Town	6.29
18th	Kakuda City	6.53

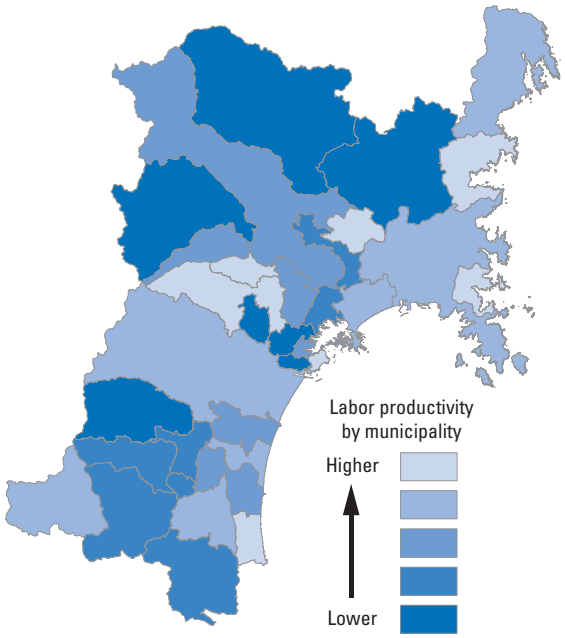
Ranking	Municipalities	%
19th	Kawasaki Town	6.57
20th	Yamamoto Town	6.68
21st	Higashi-Matsushima City	6.76
22nd	Osaki City	6.78
23rd	Minami-Sanriku Town	6.82
24th	Kurihara City	7.00
25th	Tome City	7.03
26th	Murata Town	7.04
27th	Marumori Town	7.18
28th	Shiroishi City	7.25
29th	Matsushima Town	7.34
30th	Shiogama City	7.37
31st	Onagawa Town	7.52
32nd	Ishinomaki City	7.60
33rd	Kesennuma City	7.64
34th	Wakuya Town	8.12
35th	Shichikashuku Town	10.68



C5 Labor productivity by municipality (per capita)

Ranking	Municipalities	Yen (10000s)
1st	Taiwa Town	1432.2
2nd	Onagawa Town	1390.1
3rd	Wakuya Town	1131.3
4th	Shichigahama Town	1093.2
5th	Yamamoto Town	1052.4
6th	Minami-Sanriku Town	1026.2
7th	Ohira Village	1016.7
8th	Sendai City	1006.7
9th	Kakuda City	955.1
10th	Higashi-Matsushima City	912.7
11th	Kesennuma City	912.3
12th	Shichikashuku Town	872.2
13th	Iwanuma City	866.0
14th	Ishinomaki City	847.6
15th	Osaki City	837.8
16th	Shiogama City	807.2
17th	Natori City	805.3
18th	Shikama Town	792.1

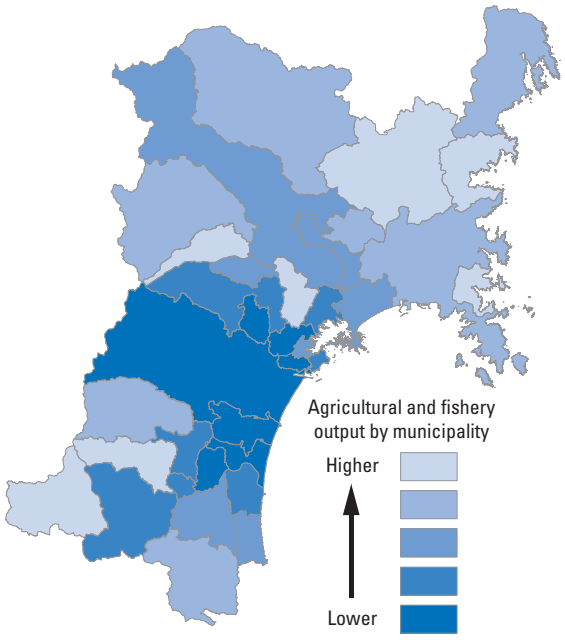
Ranking	Municipalities	Yen (10000s)
19th	Osato Town	791.7
20th	Watari Town	778.5
21st	Shibata Town	751.6
22nd	Matsushima Town	737.4
23rd	Zao Town	729.4
24th	Ogawara Town	721.4
25th	Murata Town	714.6
26th	Shiroishi City	707.7
27th	Misato Town	701.5
28th	Marumori Town	690.0
29th	Tagajo City	681.9
30th	Rifu Town	658.1
31st	Tome City	639.3
32nd	Kurihara City	634.2
33rd	Kawasaki Town	620.0
34th	Tomiya City	617.8
35th	Kami Town	565.0



C6 Agricultural and fishery output by municipality (per capita)

Ranking	Municipalities	Yen
1st	Shikama Town	996,977
2nd	Onagawa Town	896,040
3rd	Minami-Sanriku Town	372,511
4th	Shichikashuku Town	361,368
5th	Zao Town	211,320
6th	Tome City	206,290
7th	Osato Town	186,186
8th	Kesennuma City	185,180
9th	Ishinomaki City	173,586
10th	Kurihara City	167,681
11th	Marumori Town	157,769
12th	Kami Town	152,639
13th	Kawasaki Town	150,192
14th	Wakuya Town	136,498
15th	Ohira Village	126,187
16th	Misato Town	112,974
17th	Higashi-Matsushima City	109,444
18th	Shiogama City	103,158

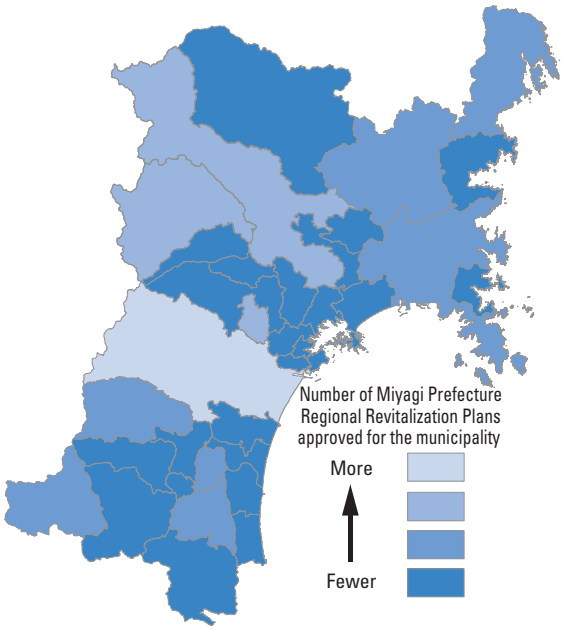
Ranking	Municipalities	Yen
19th	Yamamoto Town	99,507
20th	Osaki City	92,780
21st	Kakuda City	86,243
22nd	Watari Town	79,555
23rd	Shichigahama Town	75,073
24th	Shiroishi City	69,351
25th	Murata Town	60,638
26th	Matsushima Town	58,223
27th	Ogawara Town	43,436
28th	Taiwa Town	40,065
29th	Natori City	22,861
30th	Shibata Town	17,920
31st	Iwanuma City	17,616
32nd	Rifu Town	9,890
33rd	Tomiya City	6,789
34th	Sendai City	3,596
35th	Tagajo City	2,904



C7 Number of Miyagi Prefecture Regional Revitalization Plans approved for the municipality

Ranking	Municipalities	—
1st	Sendai City	5
2nd	Kami Town	3
2nd	Osaki City	3
4th	Tomiya City	2
5th	Shichikashuku Town	1
5th	Tome City	1
5th	Kesennuma City	1
5th	Ishinomaki City	1
5th	Kawasaki Town	1
5th	Kakuda City	1
5th	Shibata Town	1
12th	Shikama Town	0
12th	Onagawa Town	0
12th	Minami-Sanriku Town	0
12th	Zao Town	0
12th	Osato Town	0
12th	Kurihara City	0
12th	Marumori Town	0

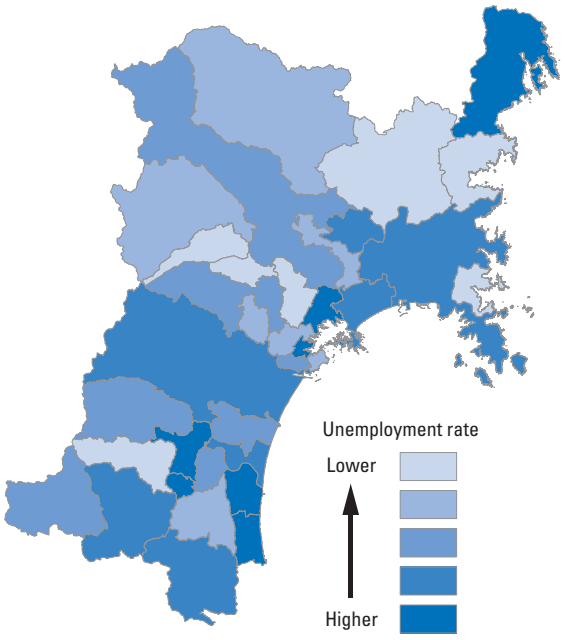
Ranking	Municipalities	—
12th	Wakuya Town	0
12th	Ohira Village	0
12th	Misato Town	0
12th	Higashi-Matsushima City	0
12th	Shiogama City	0
12th	Yamamoto Town	0
12th	Watari Town	0
12th	Shichigahama Town	0
12th	Shiroishi City	0
12th	Murata Town	0
12th	Matsushima Town	0
12th	Ogawara Town	0
12th	Taiwa Town	0
12th	Natori City	0
12th	Iwanuma City	0
12th	Rifu Town	0
12th	Tagajo City	0



C8 Unemployment rate

Ranking	Municipalities	%
1st	Shikama Town	2.72
2nd	Ohira Village	3.12
3rd	Zao Town	3.32
4th	Onagawa Town	3.34
5th	Tome City	3.52
6th	Minami-Sanriku Town	3.57
7th	Osato Town	3.61
8th	Kami Town	4.04
9th	Rifu Town	4.14
10th	Kurihara City	4.14
11th	Misato Town	4.17
12th	Tomiya City	4.17
13th	Kakuda City	4.23
14th	Shichigahama Town	4.24
15th	Taiwa Town	4.25
16th	Natori City	4.37
17th	Osaki City	4.57
18th	Shichikashuku Town	4.58

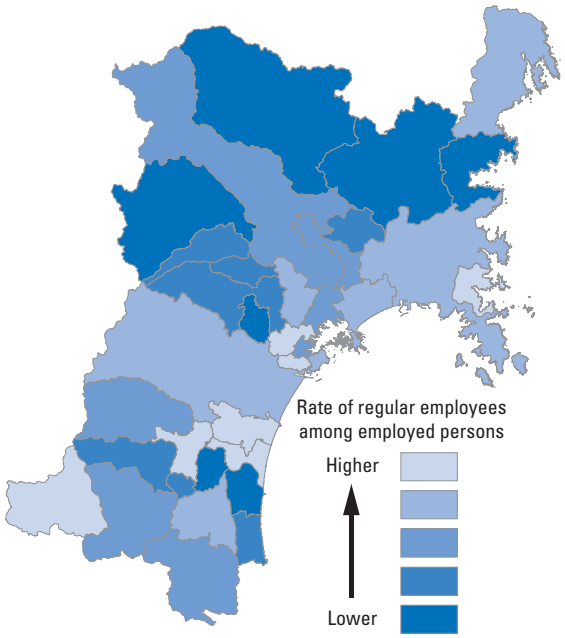
Ranking	Municipalities	%
19th	Shibata Town	4.67
20th	Tagajo City	4.71
21st	Kawasaki Town	4.85
22nd	Sendai City	4.92
23rd	Iwanuma City	5.01
24th	Shiroishi City	5.21
25th	Ishinomaki City	5.38
26th	Marumori Town	5.40
27th	Wakuya Town	5.47
28th	Higashi-Matsushima City	5.47
29th	Kesennuma City	5.72
30th	Watari Town	6.06
31st	Shiogama City	6.10
32nd	Ogawara Town	6.37
33rd	Yamamoto Town	6.67
34th	Murata Town	6.99
35th	Matsushima Town	7.41



C9 Rate of regular employees among employed persons

Ranking	Municipalities	%
1st	Onagawa Town	60.04
2nd	Rifu Town	58.34
3rd	Murata Town	58.02
4th	Natori City	57.49
5th	Shichikashuku Town	57.30
6th	Iwanuma City	57.29
7th	Tagajo City	57.03
8th	Shichigahama Town	56.99
9th	Sendai City	56.79
10th	Osato Town	56.50
11th	Higashi-Matsushima City	55.52
12th	Kesennuma City	55.24
13th	Ishinomaki City	54.86
14th	Kakuda City	54.82
15th	Matsushima Town	54.42
16th	Osaki City	54.31
17th	Marumori Town	54.13
18th	Kawasaki Town	53.71

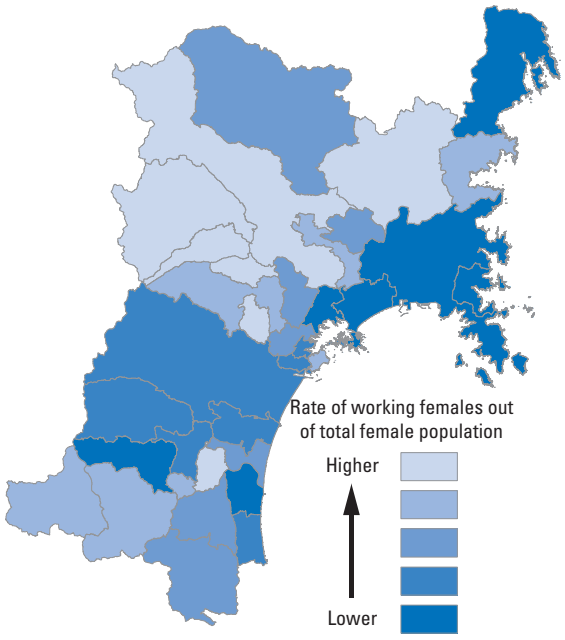
Ranking	Municipalities	%
19th	Misato Town	53.56
20th	Shiroishi City	52.96
21st	Shiogama City	52.83
22nd	Ogawara Town	52.05
23rd	Wakuya Town	51.72
24th	Yamamoto Town	51.53
25th	Zao Town	51.14
26th	Ohira Village	51.03
27th	Taiwa Town	50.86
28th	Shikama Town	50.80
29th	Watari Town	50.63
30th	Kurihara City	50.36
31st	Tome City	49.60
32nd	Kami Town	49.15
33rd	Shibata Town	48.66
34th	Tomiya City	47.92
35th	Minami-Sanriku Town	46.72



C10 Rate of working females out of total female population

Ranking	Municipalities	%
1st	Shikama Town	44.17
2nd	Shibata Town	43.85
3rd	Tome City	43.21
4th	Kami Town	43.07
5th	Ohira Village	42.62
6th	Tomiya City	42.11
7th	Osaki City	41.65
8th	Misato Town	41.20
9th	Minami-Sanriku Town	40.96
10th	Ogawara Town	40.88
11th	Shichigahama Town	40.82
12th	Shichikashuku Town	40.75
13th	Shiroishi City	40.44
14th	Taiwa Town	40.38
15th	Kurihara City	40.37
16th	Wakuya Town	40.22
17th	Osato Town	40.10
18th	Marumori Town	39.97

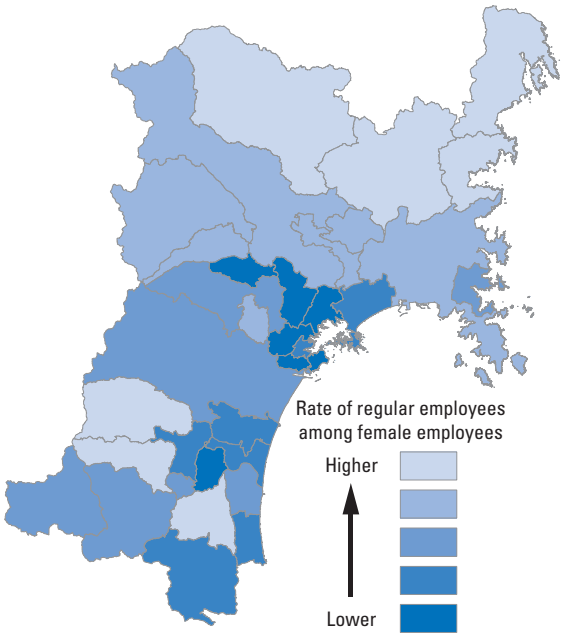
Ranking	Municipalities	%
19th	Iwanuma City	39.87
20th	Rifu Town	39.67
21st	Kakuda City	39.58
22nd	Yamamoto Town	39.35
23rd	Kawasaki Town	39.13
24th	Tagajo City	38.86
25th	Shiogama City	38.16
26th	Murata Town	38.10
27th	Natori City	38.07
28th	Sendai City	37.74
29th	Higashi-Matsushima City	37.72
30th	Watari Town	37.48
31st	Matsushima Town	37.15
32nd	Onagawa Town	37.08
33rd	Kesennuma City	36.74
34th	Ishinomaki City	36.67
35th	Zao Town	32.75



C11 Rate of regular employees among female employees

Ranking	Municipalities	%
1st	Kawasaki Town	57.25
2nd	Zao Town	55.32
3rd	Kurihara City	54.76
4th	Tome City	54.00
5th	Kesennuma City	53.05
6th	Minami-Sanriku Town	52.66
7th	Kakuda City	52.35
8th	Kami Town	51.44
9th	Osaki City	50.92
10th	Misato Town	50.59
11th	Wakuya Town	50.49
12th	Shikama Town	50.37
13th	Ishinomaki City	50.20
14th	Tomiya City	49.78
15th	Shichikashuku Town	49.09
16th	Onagawa Town	49.00
17th	Shiroishi City	48.51
18th	Ogawara Town	47.50

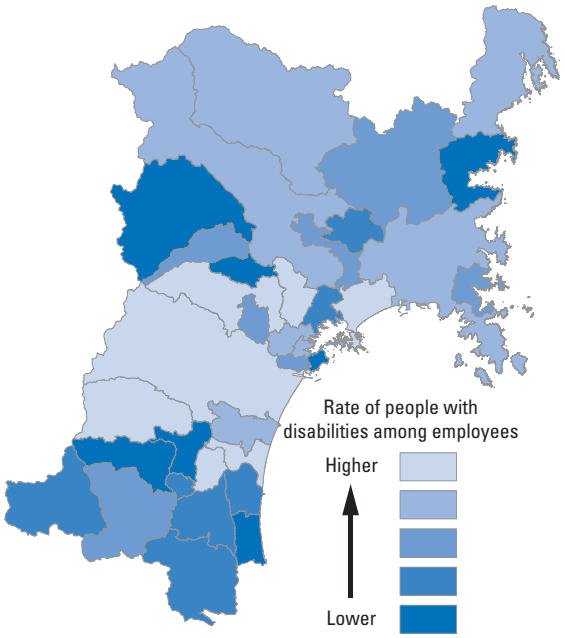
Ranking	Municipalities	%
19th	Taiwa Town	47.17
20th	Watari Town	46.61
21st	Sendai City	46.54
22nd	Higashi-Matsushima City	46.16
23rd	Marumori Town	45.49
24th	Iwanuma City	45.21
25th	Natori City	45.04
26th	Murata Town	45.01
27th	Yamamoto Town	44.88
28th	Shiogama City	44.57
29th	Rifu Town	44.24
30th	Shichigahama Town	43.63
31st	Shibata Town	43.39
32nd	Tagajo City	43.23
33rd	Ohira Village	42.40
34th	Matsushima Town	40.97
35th	Osato Town	38.48



C12 Rate of people with disabilities among employees

Ranking	Municipalities	%
1st	Taiwa Town	3.61
2nd	Iwanuma City	3.36
3rd	Shibata Town	3.08
4th	Osato Town	2.94
5th	Sendai City	2.80
5th	Higashi-Matsushima City	2.80
7th	Kawasaki Town	2.68
8th	Rifu Town	2.58
9th	Osaki City	2.54
10th	Ishinomaki City	2.48
11th	Kesennuma City	2.42
12th	Shiogama City	2.40
13th	Kurihara City	2.39
14th	Natori City	2.29
15th	Onagawa Town	2.27
16th	Tagajo City	2.23
17th	Shiroishi City	2.21
18th	Shikama Town	2.17

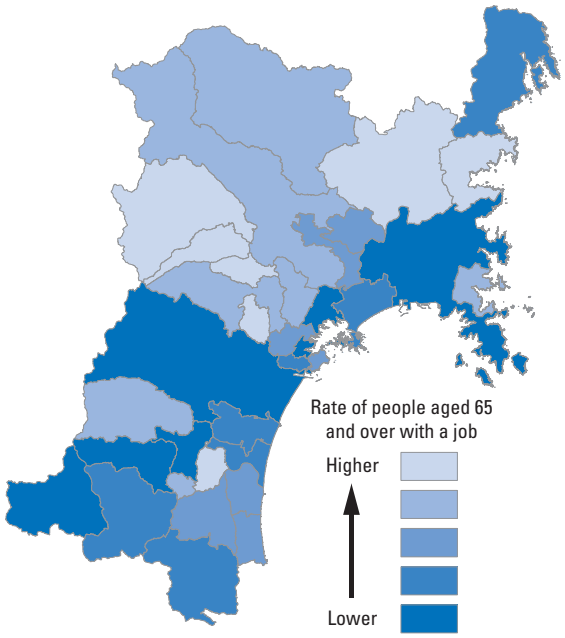
Ranking	Municipalities	%
19th	Misato Town	2.08
19th	Tomiya City	2.08
21st	Tome City	1.96
22nd	Ogawara Town	1.92
23rd	Kakuda City	1.90
23rd	Marumori Town	1.90
25th	Shichikashuku Town	1.85
26th	Watari Town	1.80
27th	Matsushima Town	1.73
28th	Wakuya Town	1.69
29th	Minami-Sanriku Town	1.44
30th	Ohira Village	1.41
31st	Shichigahama Town	1.35
32nd	Murata Town	1.21
33rd	Kami Town	1.13
34th	Zao Town	0.00
34th	Yamamoto Town	0.00



C13 Rate of people aged 65 and over with a job

Ranking	Municipalities	%
1st	Ohira Village	31.30
2nd	Shikama Town	27.31
3rd	Tome City	26.62
4th	Shibata Town	26.18
5th	Kami Town	25.23
6th	Minami-Sanriku Town	25.01
7th	Tomiya City	24.33
8th	Ogawara Town	23.79
9th	Kurihara City	23.50
10th	Onagawa Town	23.19
11th	Osaki City	23.15
12th	Taiwa Town	22.83
13th	Kawasaki Town	22.40
14th	Osato Town	22.35
15th	Wakuya Town	22.28
16th	Misato Town	22.13
17th	Yamamoto Town	21.27
18th	Kakuda City	20.95

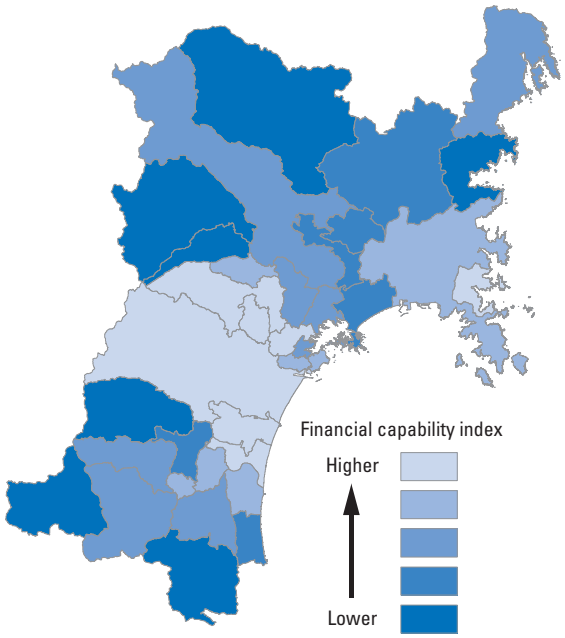
Ranking	Municipalities	%
19th	Rifu Town	20.72
20th	Shichigahama Town	20.54
21st	Watari Town	20.47
22nd	Marumori Town	20.38
23rd	Iwanuma City	20.23
24th	Natori City	20.16
25th	Kesennuma City	19.95
26th	Shiroishi City	19.71
27th	Higashi-Matsushima City	19.66
28th	Tagajo City	19.61
29th	Ishinomaki City	19.35
30th	Matsushima Town	18.72
31st	Shiogama City	18.46
32nd	Shichikashuku Town	18.28
33rd	Sendai City	18.21
34th	Murata Town	17.19
35th	Zao Town	16.91



C14 Financial capability index

Ranking	Municipalities	Index
1st	Onagawa Town	1.01
2nd	Taiwa Town	0.92
3rd	Sendai City	0.91
4th	Rifu Town	0.85
5th	Iwanuma City	0.83
6th	Tomiya City	0.82
6th	Natori City	0.82
8th	Ohira Village	0.78
9th	Tagajo City	0.69
10th	Shibata Town	0.63
10th	Ogawara Town	0.63
12th	Shichigahama Town	0.59
13th	Watari Town	0.57
14th	Ishinomaki City	0.53
15th	Shiogama City	0.52
16th	Kakuda City	0.51
17th	Osaki City	0.50
18th	Shiroishi City	0.49

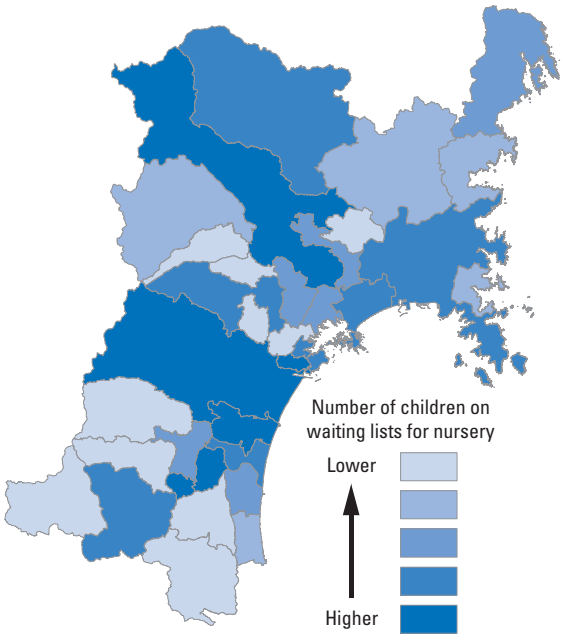
Ranking	Municipalities	Index
19th	Zao Town	0.48
20th	Matsushima Town	0.47
21st	Osato Town	0.45
21st	Kesennuma City	0.45
23rd	Murata Town	0.44
24th	Higashi-Matsushima City	0.43
25th	Misato Town	0.42
26th	Wakuya Town	0.38
27th	Yamamoto Town	0.37
28th	Tome City	0.36
29th	Kami Town	0.34
30th	Kawasaki Town	0.32
31st	Kurihara City	0.31
31st	Shichikashuku Town	0.31
33rd	Shikama Town	0.30
33rd	Minami-Sanriku Town	0.30
33rd	Marumori Town	0.30



D1 Number of children on waiting lists for nursery

Ranking	Municipalities	People
1st	Kakuda City	0
1st	Tomiya City	0
1st	Zao Town	0
1st	Shichikashuku Town	0
1st	Kawasaki Town	0
1st	Marumori Town	0
1st	Rifu Town	0
1st	Ohira Village	0
1st	Shikama Town	0
1st	Wakuya Town	0
11th	Yamamoto Town	1
11th	Kami Town	1
11th	Onagawa Town	1
14th	Tome City	2
14th	Minami-Sanriku Town	2
16th	Murata Town	3
17th	Osato Town	4
18th	Watari Town	5

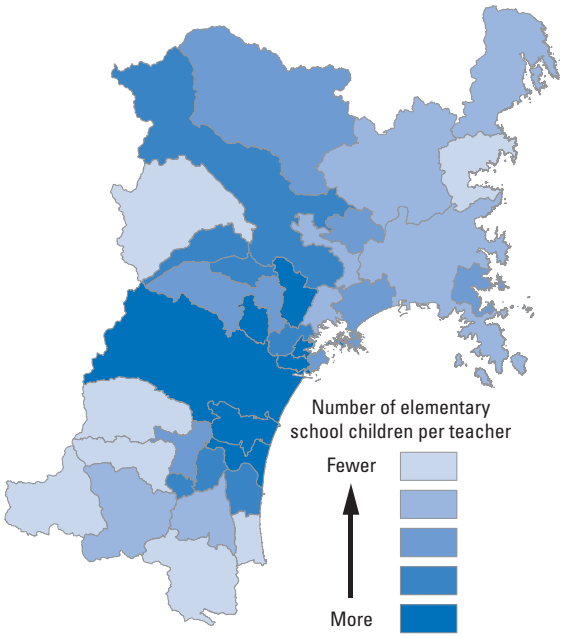
Ranking	Municipalities	People
18th	Matsushima Town	5
20th	Kesennuma City	6
20th	Misato Town	6
22nd	Higashi-Matsushima City	8
23rd	Kurihara City	9
23rd	Taiwa Town	9
25th	Shiogama City	11
25th	Iwanuma City	11
27th	Ishinomaki City	12
27th	Shiroishi City	12
27th	Shichigahama Town	12
30th	Ogawara Town	13
31st	Tagajo City	18
32nd	Shibata Town	24
33rd	Natori City	27
34th	Osaki City	47
35th	Sendai City	91



D2 Number of elementary school children per teacher

Ranking	Municipalities	People
1st	Shichikashuku Town	3.15
2nd	Marumori Town	5.77
3rd	Minami-Sanriku Town	6.31
4th	Kawasaki Town	7.25
5th	Zao Town	7.79
6th	Yamamoto Town	8.41
7th	Kami Town	8.64
8th	Kesennuma City	9.89
9th	Matsushima Town	9.98
10th	Shiroishi City	10.17
11th	Kakuda City	10.64
12th	Tome City	10.93
13th	Misato Town	11.54
14th	Ishinomaki City	11.99
15th	Shichigahama Town	12.20
16th	Onagawa Town	12.25
17th	Wakuya Town	12.28
18th	Kurihara City	12.44

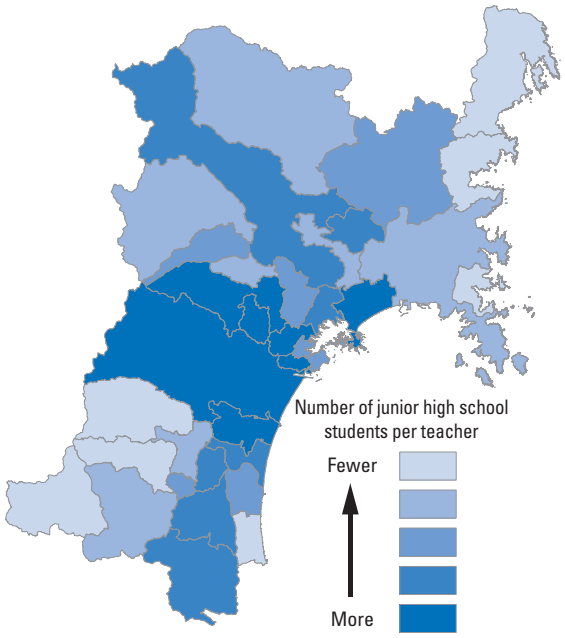
Ranking	Municipalities	People
19th	Murata Town	12.59
20th	Taiwa Town	12.81
21st	Higashi-Matsushima City	12.82
22nd	Osaki City	13.58
23rd	Shibata Town	14.16
24th	Watari Town	14.51
25th	Rifu Town	14.57
26th	Shikama Town	14.70
27th	Ohira Village	14.92
28th	Ogawara Town	15.12
29th	Osato Town	15.56
30th	Shiogama City	15.78
31st	Sendai City	16.74
32nd	Natori City	17.12
33rd	Iwanuma City	17.72
34th	Tagajo City	17.78
35th	Tomiya City	18.26



D3 Number of junior high school students per teacher

Ranking	Municipalities	People
1st	Shichikashuku Town	1.67
2nd	Onagawa Town	5.15
3rd	Zao Town	6.25
4th	Kawasaki Town	6.65
5th	Yamamoto Town	7.29
6th	Kesennuma City	7.82
7th	Minami-Sanriku Town	7.95
8th	Murata Town	8.52
9th	Ishinomaki City	9.39
10th	Kami Town	9.82
11th	Ohira Village	9.94
12th	Misato Town	9.98
13th	Kurihara City	10.12
14th	Shiroishi City	10.21
15th	Watari Town	10.35
16th	Shichigahama Town	10.37
17th	Tome City	10.48
18th	Osato Town	10.72

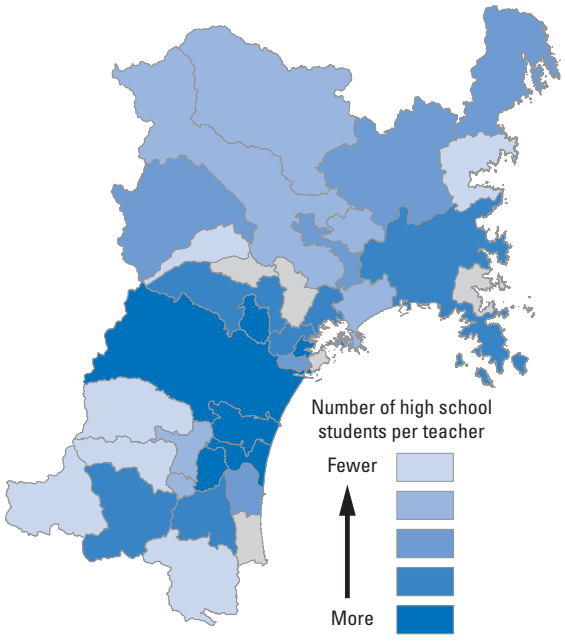
Ranking	Municipalities	People
19th	Shikama Town	10.83
20th	Ogawara Town	11.25
21st	Shiogama City	11.33
22nd	Marumori Town	11.43
23rd	Matsushima Town	11.78
24th	Osaki City	11.91
25th	Wakuya Town	12.03
26th	Kakuda City	12.25
27th	Shibata Town	12.45
28th	Iwanuma City	12.49
29th	Higashi-Matsushima City	13.13
30th	Rifu Town	13.20
31st	Sendai City	13.21
32nd	Tagajo City	14.04
33rd	Taiwa Town	14.45
34th	Tomiya City	15.05
35th	Natori City	15.25



D4 Number of high school students per teacher

Ranking	Municipalities	People
1st	Shichikashuku Town	3.68
2nd	Zao Town	3.86
3rd	Shikama Town	5.81
4th	Marumori Town	6.19
5th	Minami-Sanriku Town	6.33
6th	Kawasaki Town	6.55
7th	Murata Town	7.77
8th	Higashi-Matsushima City	9.00
9th	Kurihara City	9.41
10th	Wakuya Town	9.97
11th	Ogawara Town	9.98
12th	Osaki City	10.18
13th	Misato Town	10.21
14th	Watari Town	10.21
15th	Tome City	10.35
16th	Kami Town	11.07
17th	Tagajo City	11.09
18th	Kesennuma City	11.28

Ranking	Municipalities	People
19th	Ishinomaki City	11.55
20th	Shiroishi City	11.65
21st	Rifu Town	12.18
22nd	Kakuda City	12.35
23rd	Taiwa Town	13.10
24th	Matsushima Town	13.18
25th	Shibata Town	13.42
26th	Natori City	13.94
27th	Iwanuma City	13.98
28th	Sendai City	14.49
29th	Shiogama City	15.49
30th	Tomiya City	15.94
—	Ohira Village	—
—	Yamamoto Town	—
—	Onagawa Town	—
—	Osato Town	—
—	Shichigahama Town	—

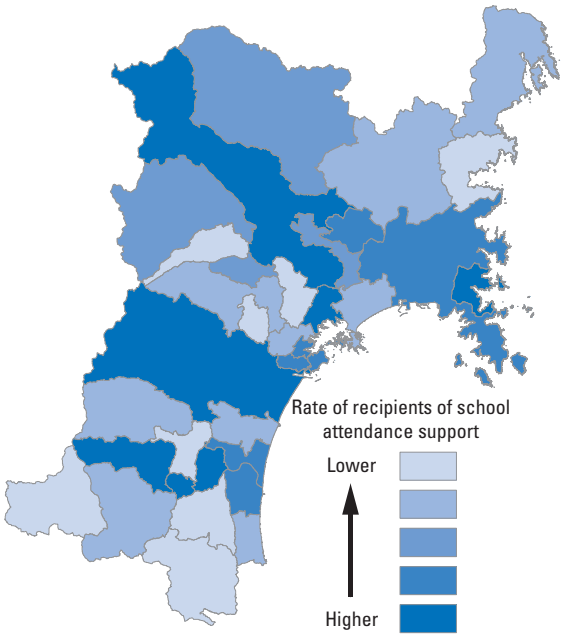


* Gray areas represent municipalities without high schools

D5 Rate of recipients of school attendance support (out of all students in public elementary and junior high schools)

Ranking	Municipalities	%
1st	Shichikashuku Town	0.0
1st	Shikama Town	0.0
1st	Tomiya City	0.0
1st	Osato Town	0.0
5th	Marumori Town	0.1
5th	Minami-Sanriku Town	0.1
5th	Murata Town	0.1
5th	Kakuda City	0.1
9th	Kawasaki Town	0.2
9th	Tome City	0.2
9th	Kesennuma City	0.2
9th	Taiwa Town	0.2
13th	Higashi-Matsushima City	0.3
13th	Shiroishi City	0.3
13th	Rifu Town	0.3
13th	Natori City	0.3
13th	Yamamoto Town	0.3
18th	Misato Town	0.4

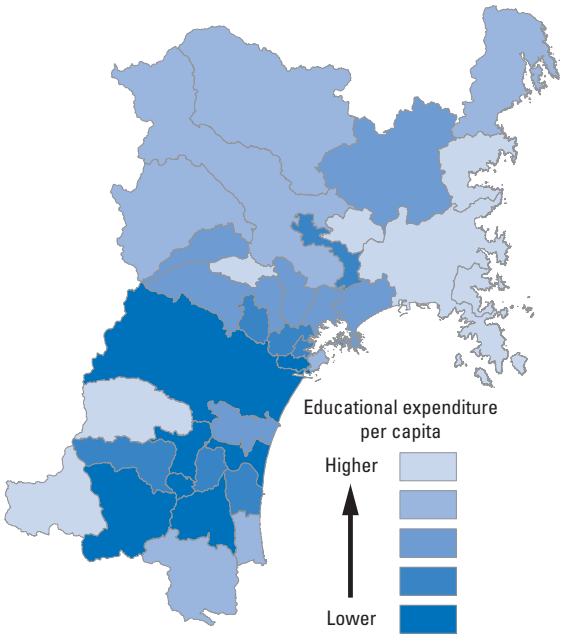
Ranking	Municipalities	%
18th	Kami Town	0.4
18th	Ohira Village	0.4
21st	Kurihara City	0.5
22nd	Wakuya Town	0.7
22nd	Watari Town	0.7
22nd	Ishinomaki City	0.7
22nd	Shiogama City	0.7
26th	Tagajo City	0.8
27th	Iwanuma City	0.9
27th	Shichigahama Town	0.9
29th	Osaki City	1.0
30th	Ogawara Town	1.1
31st	Zao Town	1.2
32nd	Onagawa Town	1.3
33rd	Shibata Town	1.4
33rd	Sendai City	1.4
35th	Matsushima Town	1.7



D6 Educational expenditure per capita

Ranking	Municipalities	Yen (1000s)
1st	Shichikashuku Town	813.46
2nd	Onagawa Town	616.42
3rd	Minami-Sanriku Town	572.25
4th	Ishinomaki City	375.09
5th	Ohira Village	353.49
6th	Wakuya Town	278.13
7th	Kawasaki Town	254.81
8th	Yamamoto Town	252.29
9th	Kurihara City	232.70
10th	Shichigahama Town	227.61
11th	Kesennuma City	222.86
12th	Marumori Town	216.50
13th	Osaki City	214.61
14th	Kami Town	207.43
15th	Osato Town	202.22
16th	Matsushima Town	196.95
17th	Shikama Town	196.91
18th	Higashi-Matsushima City	196.24

Ranking	Municipalities	Yen (1000s)
19th	Tome City	193.85
20th	Natori City	184.59
21st	Taiwa Town	184.22
22nd	Rifu Town	182.28
23rd	Watari Town	182.12
24th	Misato Town	178.88
25th	Zao Town	173.86
26th	Tomiya City	165.68
27th	Shibata Town	162.46
28th	Shiogama City	156.89
29th	Shiroishi City	154.81
30th	Sendai City	153.61
31st	Tagajo City	132.96
32nd	Iwanuma City	130.34
33rd	Murata Town	128.20
34th	Kakuda City	114.47
35th	Ogawara Town	111.97

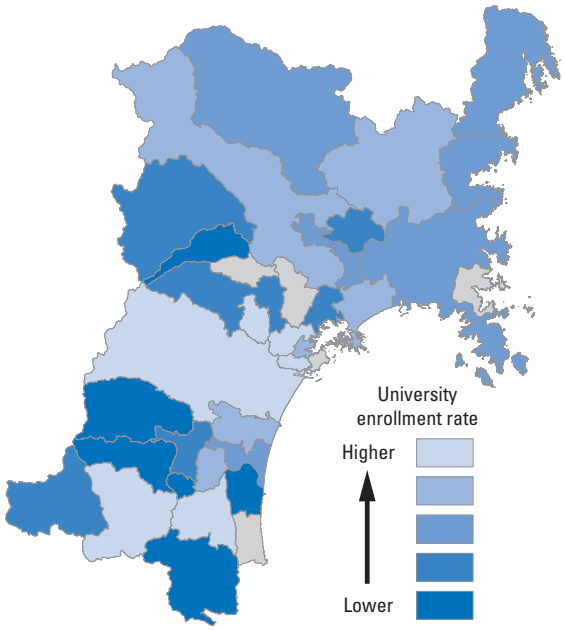


* Educational expenditure per student by the government

D7 University enrollment rate

Ranking	Municipalities	%
1st	Tomiya City	77.94
2nd	Sendai City	60.31
3rd	Kakuda City	60.26
4th	Tagajo City	59.82
5th	Rifu Town	55.02
6th	Shiroishi City	53.14
7th	Osaki City	44.86
8th	Shiogama City	42.22
9th	Higashi-Matsushima City	41.03
10th	Natori City	38.83
11th	Tome City	38.69
12th	Shibata Town	37.18
13th	Ishinomaki City	36.95
14th	Iwanuma City	33.92
15th	Kesennuma City	33.55
16th	Kurihara City	31.93
17th	Minami-Sanriku Town	26.09
18th	Misato Town	24.19

Ranking	Municipalities	%
19th	Kami Town	20.35
20th	Shichikashuku Town	17.14
21st	Wakuya Town	16.92
22nd	Matsushima Town	16.04
23rd	Taiwa Town	15.09
24th	Murata Town	14.68
25th	Kawasaki Town	13.79
26th	Watari Town	8.88
27th	Ogawara Town	8.46
28th	Zao Town	6.00
29th	Shikama Town	4.62
30th	Marumori Town	3.66
—	Osato Town	—
—	Shichigahama Town	—
—	Yamamoto Town	—
—	Ohira Village	—
—	Onagawa Town	—

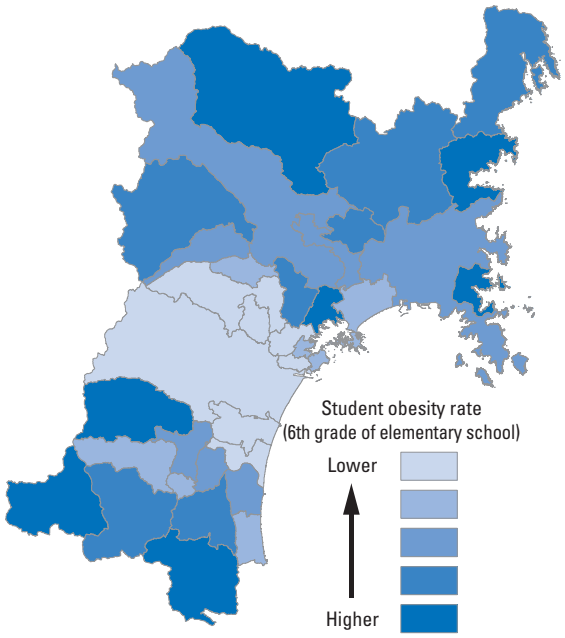


* Average of all high schools in each municipality. Municipalities in gray have no high schools.

D8 Student obesity rate (6th grade of elementary school)

Ranking	Municipalities	%
1st	Sendai City	7.60
2nd	Tomiya City	8.20
3rd	Rifu Town	8.29
4th	Natori City	8.42
5th	Taiwa Town	9.46
6th	Tagajo City	9.67
7th	Iwanuma City	10.05
8th	Ogawara Town	10.14
9th	Shiogama City	10.39
10th	Shichigahama Town	10.57
11th	Ohira Village	10.75
12th	Yamamoto Town	11.40
13th	Higashi-Matsushima City	11.96
14th	Zao Town	12.16
15th	Osaki City	12.17
16th	Murata Town	12.68
17th	Shibata Town	12.83
18th	Misato Town	13.02

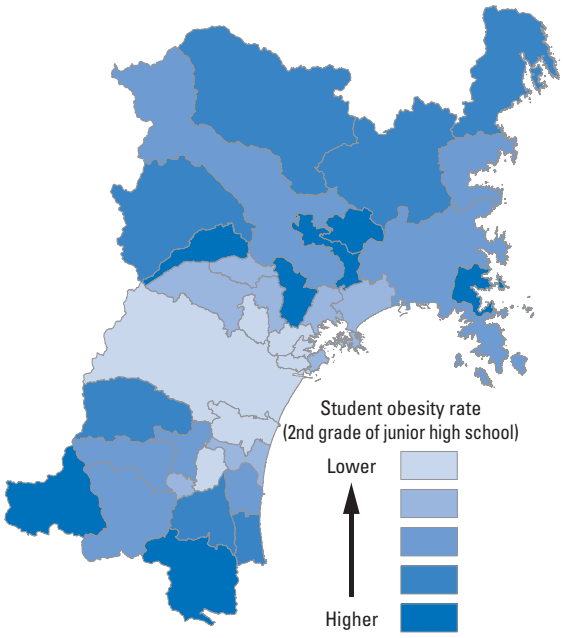
Ranking	Municipalities	%
19th	Shikama Town	13.33
20th	Watari Town	13.36
21st	Ishinomaki City	13.42
22nd	Kesennuma City	13.43
23rd	Tome City	14.00
24th	Shiroishi City	14.11
25th	Kakuda City	14.31
26th	Osato Town	14.46
27th	Kami Town	14.93
28th	Wakuya Town	14.97
29th	Shichikashuku Town	15.00
30th	Matsushima Town	15.19
31st	Kawasaki Town	15.24
32nd	Kurihara City	15.93
33rd	Onagawa Town	16.00
34th	Marumori Town	17.40
35th	Minami-Sanriku Town	18.35



D8 Student obesity rate (2nd grade of junior high school)

Ranking	Municipalities	%
1st	Tomiya City	8.66
2nd	Sendai City	8.85
3rd	Rifu Town	9.45
4th	Shibata Town	9.50
5th	Natori City	9.81
6th	Tagajo City	9.83
7th	Shiogama City	10.06
8th	Matsushima Town	10.68
9th	Iwanuma City	11.17
10th	Taiwa Town	11.87
11th	Ogawara Town	11.99
12th	Higashi-Matsushima City	12.58
13th	Shichigahama Town	12.77
14th	Ohira Village	12.85
15th	Shiroishi City	13.12
16th	Zao Town	13.21
17th	Osaki City	13.81
18th	Watari Town	14.30

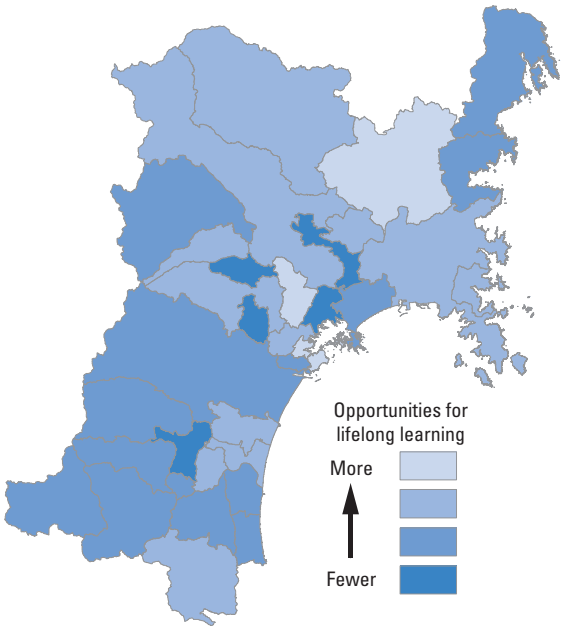
Ranking	Municipalities	%
19th	Ishinomaki City	14.64
20th	Minami-Sanriku Town	14.94
21st	Murata Town	15.18
22nd	Kakuda City	15.32
23rd	Kawasaki Town	15.34
24th	Kami Town	15.36
25th	Yamamoto Town	15.41
26th	Kesennuma City	15.79
27th	Tome City	15.90
28th	Kurihara City	16.35
29th	Onagawa Town	16.67
30th	Misato Town	16.70
31st	Wakuya Town	16.80
32nd	Shikama Town	17.31
33rd	Osato Town	17.44
34th	Marumori Town	20.06
35th	Shichikashuku Town	43.48



D9 Opportunities for lifelong learning (index)

Ranking	Municipalities	Index
1st	Shiogama City	1.00
1st	Shichigahama Town	1.00
1st	Tome City	1.00
1st	Osato Town	1.00
5th	Rifu Town	0.75
5th	Shibata Town	0.75
5th	Natori City	0.75
5th	Iwanuma City	0.75
5th	Taiwa Town	0.75
5th	Osaki City	0.75
5th	Ishinomaki City	0.75
5th	Kurihara City	0.75
5th	Onagawa Town	0.75
5th	Wakuya Town	0.75
5th	Shikama Town	0.75
5th	Marumori Town	0.75
17th	Sendai City	0.50
17th	Tagajo City	0.50

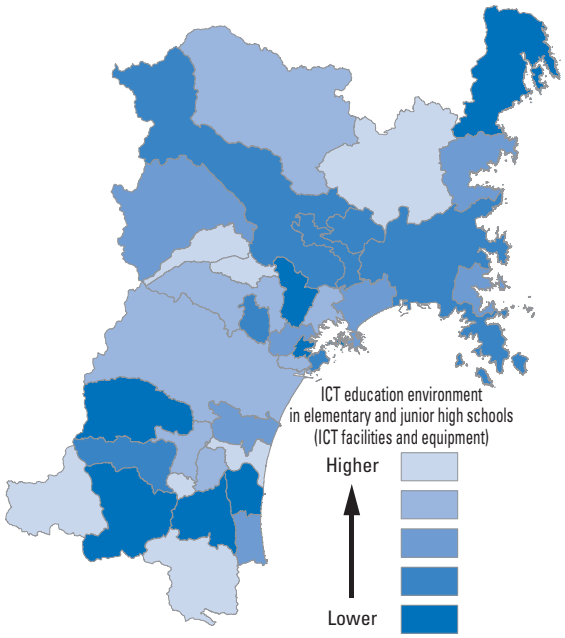
Ranking	Municipalities	Index
17th	Ogawara Town	0.50
17th	Higashi-Matsushima City	0.50
17th	Shiroishi City	0.50
17th	Zao Town	0.50
17th	Watari Town	0.50
17th	Minami-Sanriku Town	0.50
17th	Kakuda City	0.50
17th	Kawasaki Town	0.50
17th	Kami Town	0.50
17th	Yamamoto Town	0.50
17th	Kesennuma City	0.50
17th	Shichikashuku Town	0.50
31st	Tomiya City	0.25
31st	Matsushima Town	0.25
31st	Ohira Village	0.25
31st	Murata Town	0.25
31st	Misato Town	0.25



D10 ICT education environment in elementary and junior high schools (ICT facilities and equipment)

Ranking	Municipalities	%
1st	Shikama Town	100.0
1st	Shichikashuku Town	100.0
3rd	Marumori Town	91.5
4th	Ogawara Town	90.5
5th	Iwanuma City	76.2
6th	Tome City	75.3
7th	Ohira Village	73.9
8th	Shibata Town	72.1
9th	Taiwa Town	70.1
10th	Tagajo City	67.6
11th	Matsushima Town	67.4
12th	Sendai City	58.1
13th	Kurihara City	56.6
14th	Murata Town	56.3
15th	Natori City	52.0
16th	Yamamoto Town	51.4
17th	Minami-Sanriku Town	50.9
18th	Higashi-Matsushima City	45.7

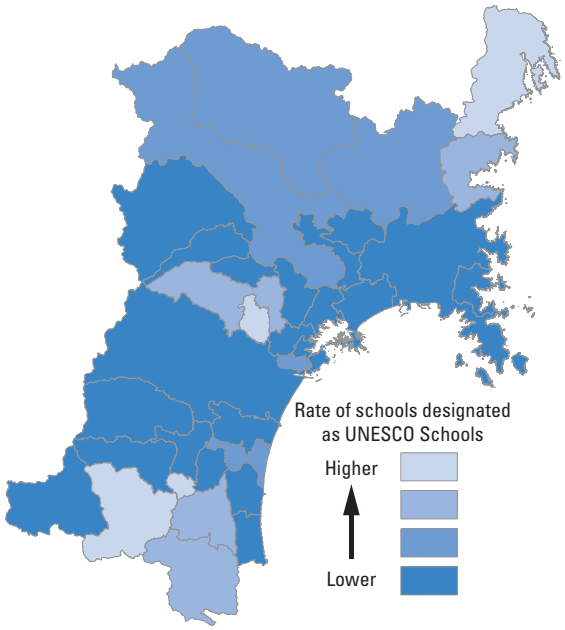
Ranking	Municipalities	%
19th	Kami Town	44.7
20th	Onagawa Town	42.9
21st	Rifu Town	40.3
22nd	Ishinomaki City	40.2
23rd	Osaki City	39.6
24th	Tomiya City	34.9
25th	Wakuya Town	34.0
26th	Shichigahama Town	33.8
27th	Misato Town	33.3
28th	Zao Town	26.4
29th	Kakuda City	25.9
30th	Shiogama City	25.5
31st	Kesennuma City	24.1
32nd	Kawasaki Town	23.1
33rd	Shiroishi City	20.3
34th	Osato Town	0.0
34th	Watari Town	0.0



D11 Rate of schools designated as UNESCO Schools

Ranking	Municipalities	%
1st	Tomiya City	84.21
2nd	Ogawara Town	62.50
3rd	Shiroishi City	58.33
4th	Kesennuma City	48.72
5th	Kakuda City	11.76
6th	Minami-Sanriku Town	11.11
7th	Marumori Town	9.09
7th	Taiwa Town	9.09
9th	Osaki City	8.33
10th	Iwanuma City	7.69
11th	Tagajo City	5.26
12th	Tome City	4.17
13th	Kurihara City	2.94
14th	Ishinomaki City	2.74
15th	Sendai City	0.92
16th	Shichikashuku Town	0.00
16th	Onagawa Town	0.00
16th	Ohira Village	0.00

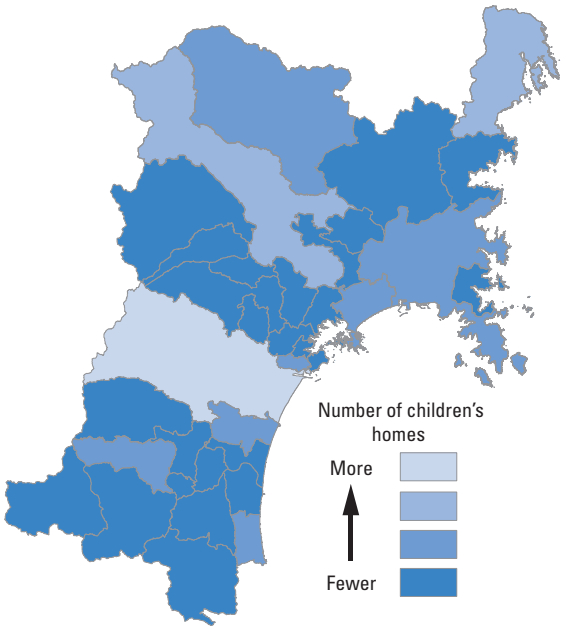
Ranking	Municipalities	%
16th	Wakuya Town	0.00
16th	Kawasaki Town	0.00
16th	Yamamoto Town	0.00
16th	Shichigahama Town	0.00
16th	Kami Town	0.00
16th	Osato Town	0.00
16th	Matsushima Town	0.00
16th	Shikama Town	0.00
16th	Higashi-Matsushima City	0.00
16th	Natori City	0.00
16th	Rifu Town	0.00
16th	Watari Town	0.00
16th	Misato Town	0.00
16th	Zao Town	0.00
16th	Shibata Town	0.00
16th	Shiogama City	0.00
16th	Murata Town	0.00



E1 Number of children's homes (including foster homes and childcare institutions)

Ranking	Municipalities	—
1st	Sendai City	28
2nd	Kesennuma City	3
2nd	Osaki City	3
4th	Natori City	2
5th	Ishinomaki City	1
5th	Tagajo City	1
5th	Kurihara City	1
5th	Higashi-Matsushima City	1
5th	Zao Town	1
5th	Yamamoto Town	1
11th	Shiogama City	0
11th	Shiroishi City	0
11th	Kakuda City	0
11th	Iwanuma City	0
11th	Tome City	0
11th	Tomiya City	0
11th	Shichikashuku Town	0
11th	Ogawara Town	0

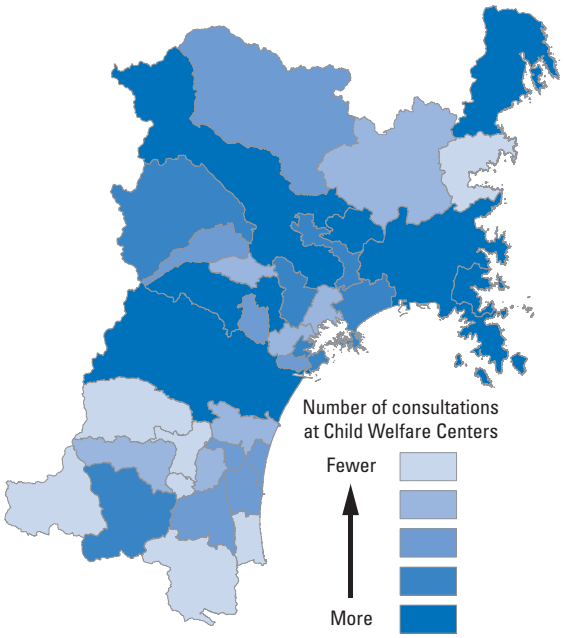
Ranking	Municipalities	—
11th	Murata Town	0
11th	Shibata Town	0
11th	Kawasaki Town	0
11th	Marumori Town	0
11th	Watari Town	0
11th	Matsushima Town	0
11th	Shichigahama Town	0
11th	Rifu Town	0
11th	Taiwa Town	0
11th	Osato Town	0
11th	Ohira Village	0
11th	Shikama Town	0
11th	Kami Town	0
11th	Wakuya Town	0
11th	Misato Town	0
11th	Onagawa Town	0
11th	Minami-Sanriku Town	0



E2 Number of consultations at Child Welfare Centers (per 1,000 population)

Ranking	Municipalities	—
1st	Shichikashuku Town	0.00
2nd	Marumori Town	0.26
3rd	Kawasaki Town	0.57
4th	Yamamoto Town	0.63
5th	Minami-Sanriku Town	0.68
6th	Murata Town	0.72
7th	Ogawara Town	0.77
8th	Rifu Town	0.79
9th	Matsushima Town	0.80
10th	Zao Town	0.88
11th	Tome City	0.89
12th	Natori City	0.89
13th	Ohira Village	0.90
14th	Shibata Town	0.91
15th	Watari Town	0.93
16th	Tomiya City	0.95
17th	Shikama Town	0.97
18th	Kakuda City	0.99

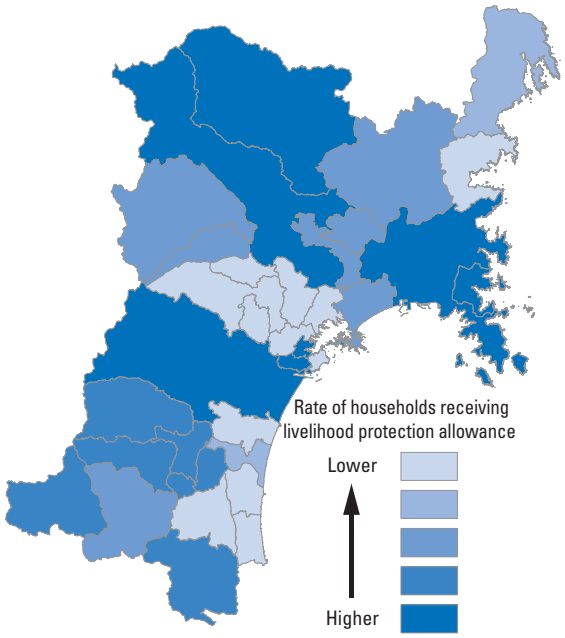
Ranking	Municipalities	—
19th	Iwanuma City	1.00
20th	Tagajo City	1.05
21st	Kurihara City	1.05
22nd	Shichigahama Town	1.22
23rd	Osato Town	1.23
24th	Higashi-Matsushima City	1.24
25th	Misato Town	1.25
26th	Shiroishi City	1.27
27th	Kami Town	1.28
28th	Shiogama City	1.31
29th	Ishinomaki City	1.33
30th	Kesennuma City	1.34
31st	Taiwa Town	1.46
32nd	Wakuya Town	1.50
33rd	Osaki City	1.72
34th	Onagawa Town	1.81
35th	Sendai City	3.82



E3 Rate of households receiving livelihood protection allowance (per 1,000 population)

Ranking	Municipalities	%
1st	Tomiya City	1.61
2nd	Kakuda City	3.60
3rd	Natori City	6.55
4th	Minami-Sanriku Town	6.58
5th	Yamamoto Town	7.27
5th	Rifu Town	7.27
5th	Matsushima Town	7.27
5th	Ohira Village	7.27
5th	Watari Town	7.27
5th	Shichigahama Town	7.27
5th	Osato Town	7.27
5th	Taiwa Town	7.27
13th	Kesennuma City	7.88
14th	Iwanuma City	7.89
15th	Higashi-Matsushima City	8.47
16th	Shikama Town	8.47
16th	Misato Town	8.47
16th	Kami Town	8.47

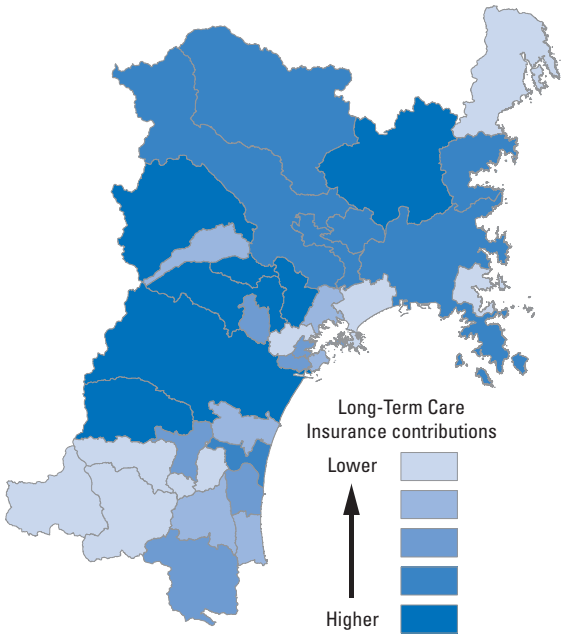
Ranking	Municipalities	%
16th	Wakuya Town	8.47
20th	Shiroishi City	8.56
21st	Tome City	8.60
22nd	Shichikashuku Town	9.24
22nd	Marumori Town	9.24
22nd	Kawasaki Town	9.24
22nd	Murata Town	9.24
22nd	Ogawara Town	9.24
22nd	Zao Town	9.24
22nd	Shibata Town	9.24
29th	Kurihara City	9.59
30th	Onagawa Town	10.82
31st	Ishinomaki City	11.02
32nd	Tagajo City	11.84
33rd	Shiogama City	13.36
34th	Osaki City	13.69
35th	Sendai City	16.74



E4 Long-Term Care Insurance contributions (standard per capita)

Ranking	Municipalities	Yen
1st	Ogawara Town	3,900
2nd	Zao Town	4,050
3rd	Kesennuma City	4,900
4th	Shichikashuku Town	4,950
5th	Higashi-Matsushima City	5,000
6th	Rifu Town	5,400
6th	Shiroishi City	5,400
6th	Shibata Town	5,400
6th	Onagawa Town	5,400
10th	Natori City	5,430
11th	Yamamoto Town	5,500
12th	Kakuda City	5,600
12th	Matsushima Town	5,600
12th	Shichigahama Town	5,600
12th	Shikama Town	5,600
16th	Marumori Town	5,640
17th	Shiogama City	5,712
18th	Tomiya City	5,750

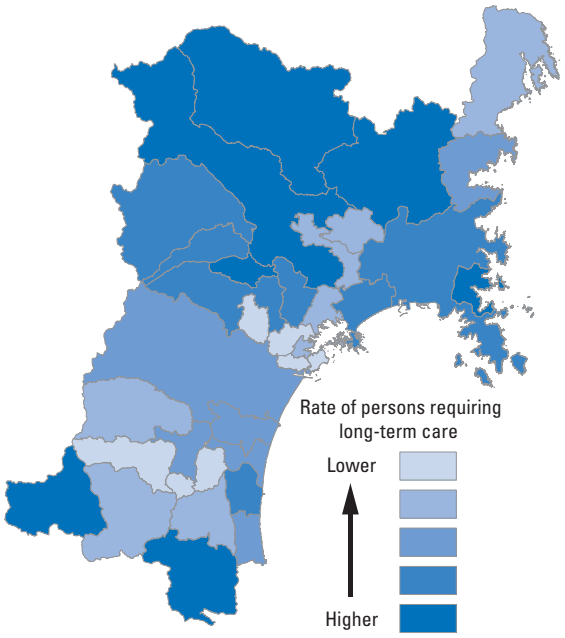
Ranking	Municipalities	Yen
19th	Tagajo City	5,800
20th	Watari Town	5,850
20th	Murata Town	5,850
22nd	Osaki City	5,865
23rd	Misato Town	5,900
23rd	Ishinomaki City	5,900
25th	Kurihara City	5,960
26th	Iwanuma City	5,992
27th	Minami-Sanriku Town	6,000
27th	Wakuya Town	6,000
29th	Sendai City	6,001
30th	Osato Town	6,200
31st	Kami Town	6,300
32nd	Kawasaki Town	6,380
33rd	Ohira Village	6,500
34th	Taiwa Town	6,520
35th	Tome City	6,800



E5 Rate of persons requiring long-term care

Ranking	Municipalities	%
1st	Ogawara Town	11.5
2nd	Rifu Town	13.5
3rd	Tomiya City	14.2
4th	Shibata Town	14.8
5th	Zao Town	15.0
6th	Tagajo City	15.8
7th	Shichigahama Town	16.5
8th	Shiogama City	16.8
9th	Shiroishi City	16.9
10th	Wakuya Town	17.1
11th	Matsushima Town	17.4
12th	Kesennuma City	17.5
13th	Kakuda City	17.6
13th	Misato Town	17.6
13th	Kawasaki Town	17.6
16th	Murata Town	17.8
16th	Iwanuma City	17.8
18th	Natori City	18.1

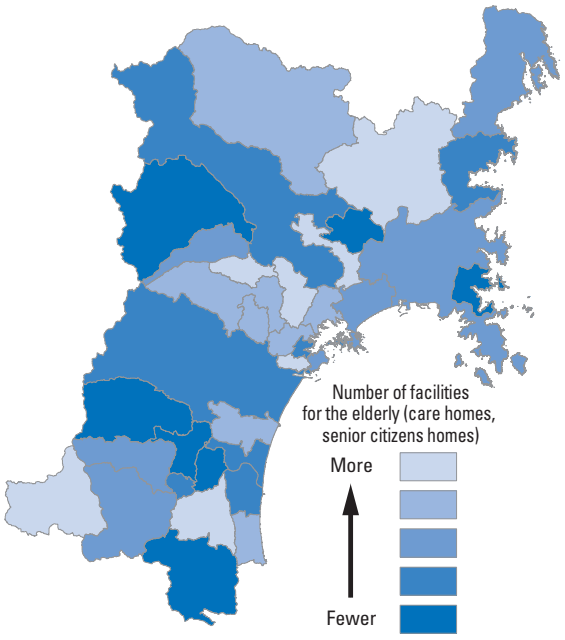
Ranking	Municipalities	%
18th	Sendai City	18.1
20th	Minami-Sanriku Town	18.5
21st	Yamamoto Town	18.6
22nd	Higashi-Matsushima City	18.9
23rd	Watari Town	19.4
24th	Taiwa Town	19.5
25th	Shikama Town	19.6
25th	Osato Town	19.6
25th	Kami Town	19.6
28th	Ishinomaki City	19.8
29th	Osaki City	20.1
30th	Ohira Village	20.5
31st	Onagawa Town	20.7
32nd	Tome City	21.6
33rd	Marumori Town	21.8
34th	Kurihara City	22.2
35th	Shichikashuku Town	26.8



E6 Number of facilities for the elderly (care homes, senior citizens homes) (per population aged 65 and over)

Ranking	Municipalities	—
1st	Tagajo City	8.516
2nd	Osato Town	4.781
3rd	Misato Town	3.697
4th	Tome City	3.682
5th	Ohira Village	3.519
6th	Kakuda City	3.307
7th	Shichikashuku Town	3.145
8th	Yamamoto Town	3.090
9th	Kurihara City	3.006
10th	Taiwa Town	2.716
11th	Tomiya City	2.693
12th	Matsushima Town	2.437
13th	Natori City	2.288
14th	Rifu Town	2.218
15th	Shiroishi City	2.140
16th	Higashi-Matsushima City	2.095
17th	Kesennuma City	2.071
18th	Zao Town	1.833

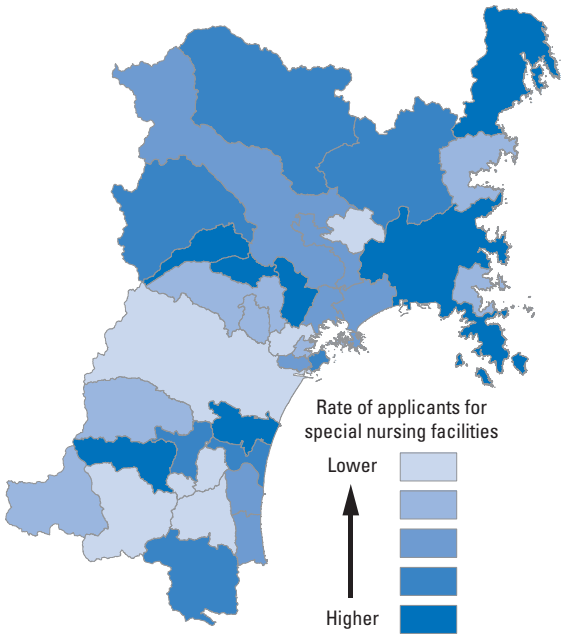
Ranking	Municipalities	—
19th	Shichigahama Town	1.794
20th	Shikama Town	1.772
21st	Ishinomaki City	1.759
22nd	Iwanuma City	1.758
23rd	Ogawara Town	1.734
24th	Watari Town	1.564
25th	Osaki City	1.542
26th	Minami-Sanriku Town	1.530
27th	Shiogama City	1.504
28th	Sendai City	1.414
29th	Wakuya Town	1.408
30th	Murata Town	1.347
31st	Kawasaki Town	1.273
32nd	Marumori Town	1.099
33rd	Kami Town	1.079
34th	Onagawa Town	0.799
35th	Shibata Town	0.635



E7 Rate of applicants for special nursing facilities (out of total number of people certified at Levels 3-5 under the Long-Term Care Insurance System)

Ranking	Municipalities	%
1st	Shibata Town	26.3
2nd	Kakuda City	27.0
3rd	Shiroishi City	28.8
4th	Rifu Town	29.9
5th	Ogawara Town	30.0
6th	Wakuya Town	33.8
7th	Sendai City	34.8
8th	Tomiya City	36.9
9th	Minami-Sanriku Town	37.1
10th	Taiwa Town	39.0
11th	Onagawa Town	39.7
12th	Shichikashuku Town	40.3
13th	Kawasaki Town	40.5
14th	Shiogama City	40.7
15th	Matsushima Town	44.0
16th	Higashi-Matsushima City	44.9
17th	Watari Town	45.0
18th	Osaki City	45.6

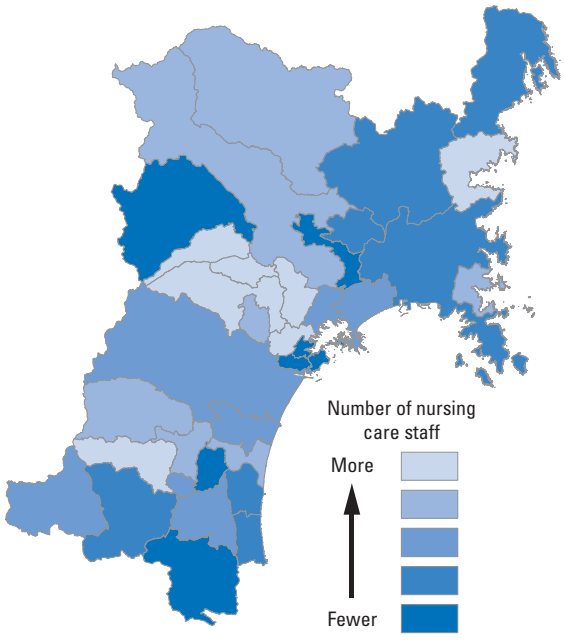
Ranking	Municipalities	%
19th	Tagajo City	45.9
20th	Yamamoto Town	46.4
21st	Misato Town	47.0
22nd	Murata Town	50.0
23rd	Kurihara City	55.6
24th	Shichigahama Town	56.8
25th	Iwanuma City	58.0
26th	Kami Town	59.5
27th	Tome City	60.3
28th	Marumori Town	60.5
29th	Zao Town	61.7
30th	Ishinomaki City	73.6
31st	Osato Town	76.6
32nd	Ohira Village	90.1
33rd	Natori City	96.2
34th	Shikama Town	129.4
35th	Kesennuma City	136.1



E8 Number of nursing care staff (per 1,000 population aged 75 and over)

Ranking	Municipalities	People
1st	Ohira Village	192.9
2nd	Osato Town	177.3
3rd	Rifu Town	158.2
4th	Zao Town	155.4
5th	Shikama Town	152.3
6th	Minami-Sanriku Town	146.3
7th	Taiwa Town	143.2
8th	Onagawa Town	138.6
9th	Kawasaki Town	136.9
10th	Tomiya City	125.9
11th	Kurihara City	118.2
12th	Iwanuma City	117.3
13th	Osaki City	114.4
13th	Murata Town	114.4
15th	Natori City	114.1
16th	Shichikashuku Town	113.1
17th	Kakuda City	112.6
18th	Sendai City	112.6

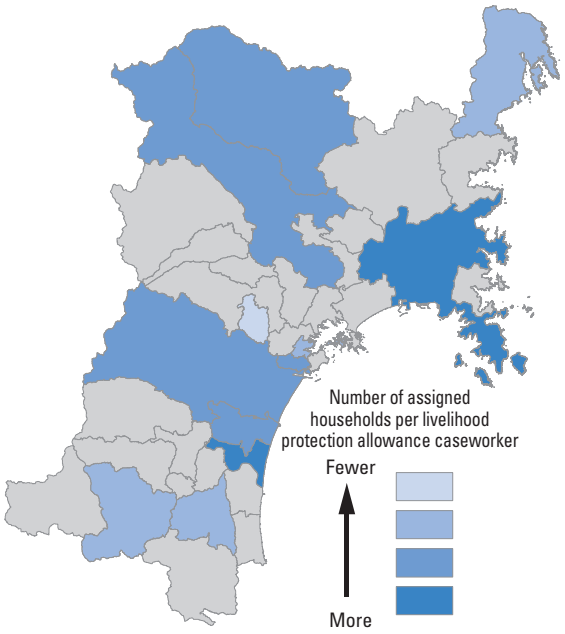
Ranking	Municipalities	People
19th	Higashi-Matsushima City	108.8
20th	Ogawara Town	108.2
21st	Matsushima Town	104.0
22nd	Ishinomaki City	104.0
23rd	Tome City	103.8
24th	Watari Town	103.1
25th	Wakuya Town	98.1
26th	Shiroishi City	95.4
27th	Kesennuma City	94.3
28th	Yamamoto Town	91.5
29th	Marumori Town	90.5
30th	Shiogama City	87.9
31st	Misato Town	83.6
32nd	Tagajo City	81.5
33rd	Kami Town	70.1
34th	Shichigahama Town	69.2
35th	Shibata Town	65.7



E9 Number of assigned households per livelihood protection allowance caseworker

Ranking	Municipalities	—
1st	Tomiya City	5.71
2nd	Kakuda City	42.21
3rd	Kesennuma City	66.82
4th	Shiroishi City	69.06
5th	Shiogama City	69.37
6th	Kurihara City	72.42
7th	Tagajo City	78.20
8th	Osaki City	78.83
9th	Natori City	81.67
10th	Sendai City	97.08
11th	Iwanuma City	108.29
12th	Ishinomaki City	122.60
—	Tome City	—
—	Higashi-Matsushima City	—
—	Zao Town	—
—	Shichikashuku Town	—
—	Ogawara Town	—
—	Murata Town	—

Ranking	Municipalities	—
—	Shibata Town	—
—	Kawasaki Town	—
—	Marumori Town	—
—	Watari Town	—
—	Yamamoto Town	—
—	Matsushima Town	—
—	Shichigahama Town	—
—	Rifu Town	—
—	Taiwa Town	—
—	Osato Town	—
—	Ohira Village	—
—	Shikama Town	—
—	Kami Town	—
—	Wakuya Town	—
—	Misato Town	—
—	Onagawa Town	—
—	Minami-Sanriku Town	—

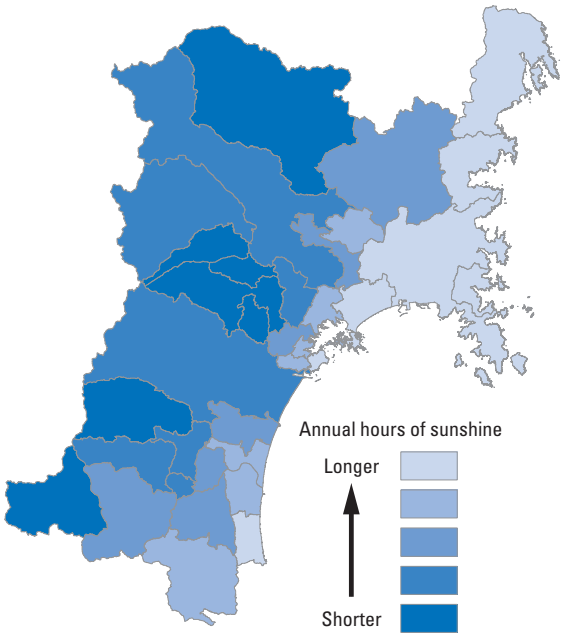


* Gray areas represent municipalities that do not have a full-time caseworker or where the number of caseworkers is unknown.

F1 Annual hours of sunshine

Ranking	Municipalities	Hours
1st	Ishinomaki City	1929.2
2nd	Higashi-Matsushima City	1892.3
3rd	Kesennuma City	1882.8
4th	Minami-Sanriku Town	1873.4
5th	Yamamoto Town	1870.8
6th	Onagawa Town	1860.7
7th	Shichigahama Town	1846.3
8th	Iwanuma City	1843.2
9th	Watari Town	1841.9
10th	Wakuya Town	1829.6
11th	Tagajo City	1826.2
12th	Matsushima Town	1815.2
13th	Shiogama City	1813.9
14th	Marumori Town	1811.2
15th	Tome City	1803.7
16th	Natori City	1799.9
17th	Kakuda City	1795.4
18th	Shiroishi City	1786.8

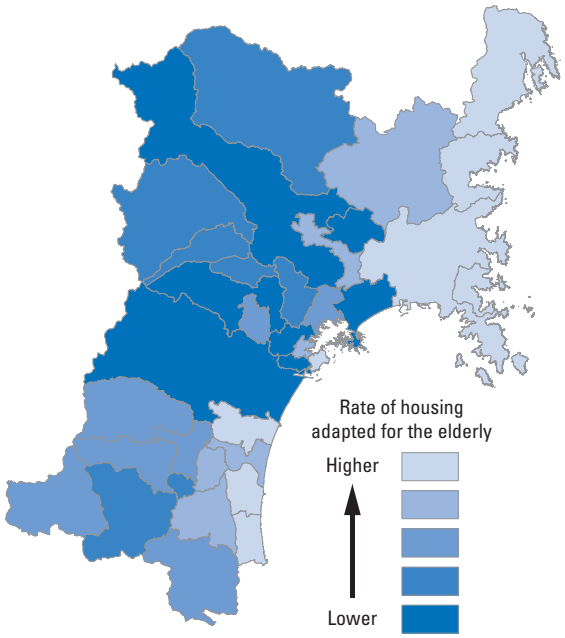
Ranking	Municipalities	Hours
18th	Rifu Town	1786.8
20th	Shibata Town	1778.9
21st	Misato Town	1774.7
22nd	Ogawara Town	1770.4
23rd	Sendai City	1762.0
24th	Osato Town	1758.0
25th	Murata Town	1752.1
26th	Zao Town	1741.8
27th	Kami Town	1737.6
28th	Osaki City	1734.5
29th	Tomiya City	1710.8
30th	Shikama Town	1707.7
31st	Kurihara City	1689.1
32nd	Taiwa Town	1684.4
33rd	Ohira Village	1658.5
34th	Shichikashuku Town	1631.8
35th	Kawasaki Town	1591.7



F2 Rate of housing adapted for the elderly

Ranking	Municipalities	%
1st	Shichigahama Town	72.7
2nd	Ishinomaki City	71.9
2nd	Onagawa Town	71.9
4th	Yamamoto Town	71.9
4th	Watari Town	71.9
6th	Natori City	71.7
7th	Kesennuma City	71.2
7th	Minami-Sanriku Town	71.2
9th	Misato Town	70.6
10th	Iwanuma City	68.9
11th	Shibata Town	68.7
12th	Kakuda City	68.2
13th	Tome City	67.6
14th	Shiogama City	67.4
15th	Tomiya City	67.0
16th	Matsushima Town	67.0
17th	Zao Town	66.7
18th	Marumori Town	66.7

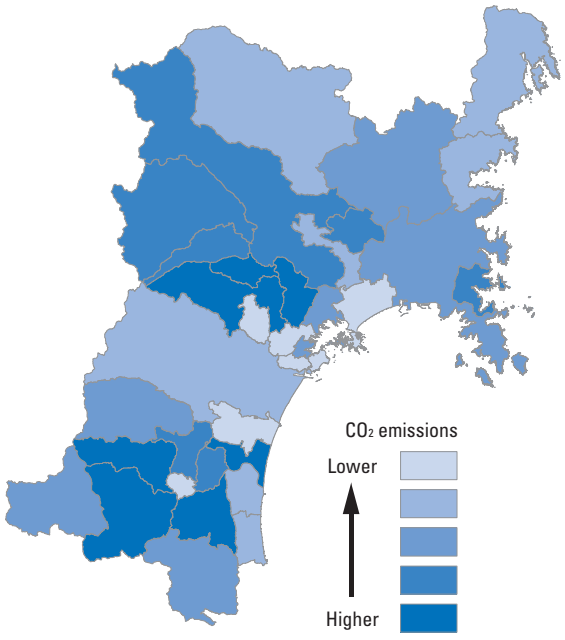
Ranking	Municipalities	%
18th	Murata Town	66.7
18th	Shichikashuku Town	66.7
18th	Kawasaki Town	66.7
22nd	Shikama Town	66.3
23rd	Kurihara City	65.9
24th	Kami Town	65.3
25th	Shiroishi City	65.0
26th	Ohira Village	64.4
27th	Osato Town	64.4
28th	Ogawara Town	63.8
29th	Tagajo City	63.6
30th	Rifu Town	63.1
31st	Osaki City	62.9
32nd	Sendai City	61.0
33rd	Wakuya Town	60.9
34th	Taiwa Town	59.9
35th	Higashi-Matsushima City	59.6



F3 CO_2 emissions (per capita)

Ranking	Municipalities	Tons (1000s)
1st	Shichigahama Town	3.85
2nd	Tomiya City	4.63
3rd	Higashi-Matsushima City	5.39
4th	Rifu Town	5.88
5th	Tagajo City	6.20
6th	Natori City	6.59
7th	Ogawara Town	6.63
8th	Misato Town	6.79
9th	Watari Town	7.15
10th	Sendai City	7.18
11th	Yamamoto Town	7.21
12th	Kesennuma City	7.27
13th	Minami-Sanriku Town	7.43
14th	Kurihara City	7.46
15th	Marumori Town	7.61
16th	Shichikashuku Town	7.78
17th	Tome City	7.80
18th	Shiogama City	7.86

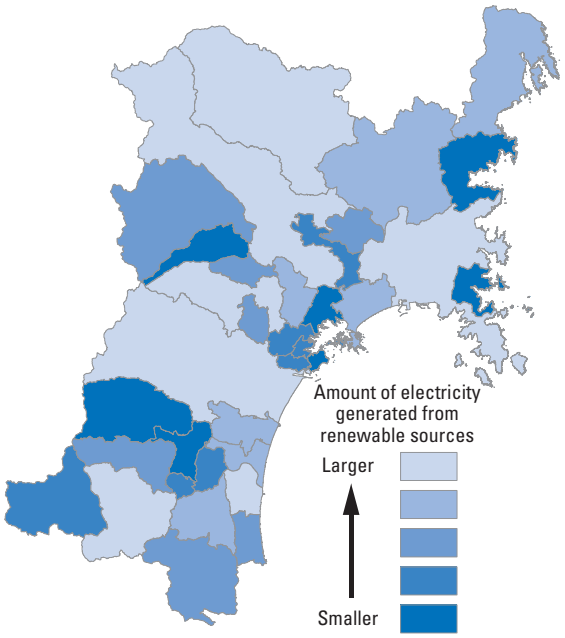
Ranking	Municipalities	Tons (1000s)
19th	Kawasaki Town	8.03
20th	Matsushima Town	8.58
21st	Ishinomaki City	8.96
22nd	Osaki City	9.10
23rd	Kami Town	9.29
24th	Shibata Town	9.37
25th	Onagawa Town	9.71
26th	Wakuya Town	10.01
27th	Murata Town	10.60
28th	Shikama Town	10.71
29th	Iwanuma City	10.80
30th	Shiroishi City	10.81
31st	Osato Town	11.00
32nd	Zao Town	12.99
33rd	Kakuda City	13.51
34th	Taiwa Town	33.48
35th	Ohira Village	83.63



F4 Amount of electricity generated from renewable sources

Ranking	Municipalities	kwh
1st	Ishinomaki City	63,723
2nd	Sendai City	30,469
3rd	Osaki City	16,748
4th	Kurihara City	13,894
5th	Taiwa Town	13,550
6th	Shiroishi City	9,959
7th	Watari Town	9,180
8th	Kesennuma City	7,138
9th	Tome City	6,878
10th	Osato Town	6,402
11th	Iwanuma City	6,266
12th	Natori City	6,189
13th	Higashi-Matsushima City	4,932
14th	Kakuda City	4,320
15th	Marumori Town	3,845
16th	Yamamoto Town	3,638
17th	Kami Town	3,206
18th	Wakuya Town	2,588

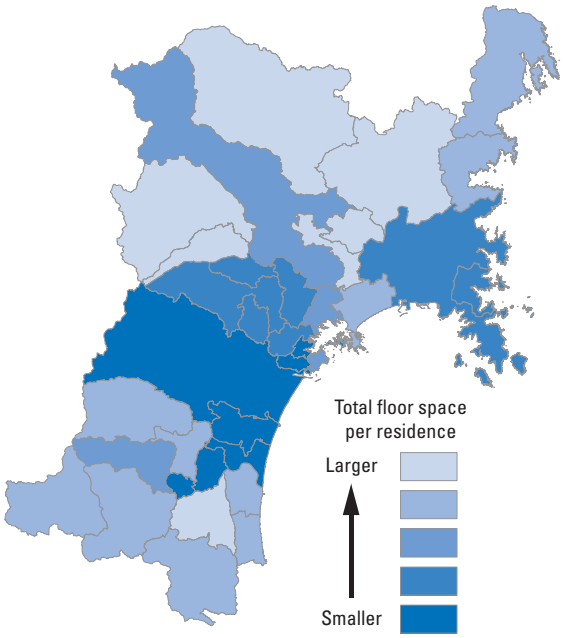
Ranking	Municipalities	kwh
19th	Zao Town	2,446
20th	Tomiya City	2,282
21st	Ohira Village	2,130
22nd	Shiogama City	1,896
23rd	Rifu Town	1,824
24th	Tagajo City	1,749
25th	Ogawara Town	1,557
26th	Shibata Town	1,451
27th	Misato Town	1,414
28th	Shichikashuku Town	1,412
29th	Shikama Town	1,113
30th	Minami-Sanriku Town	1,084
31st	Kawasaki Town	1,014
32nd	Matsushima Town	838
33rd	Shichigahama Town	623
34th	Murata Town	520
35th	Onagawa Town	257



F5 Total floor space per residence

Ranking	Municipalities	m²
1st	Kurihara City	148.70
2nd	Wakuya Town	143.52
3rd	Tome City	143.26
4th	Shikama Town	139.85
5th	Misato Town	138.97
6th	Kami Town	138.31
7th	Kakuda City	132.43
8th	Watari Town	124.98
8th	Yamamoto Town	124.98
10th	Kesennuma City	123.82
10th	Minami-Sanriku Town	123.82
12th	Higashi-Matsushima City	120.31
13th	Shiroishi City	119.90
14th	Marumori Town	115.17
14th	Shichikashuku Town	115.17
14th	Kawasaki Town	115.17
14th	Murata Town	115.17
18th	Zao Town	115.17

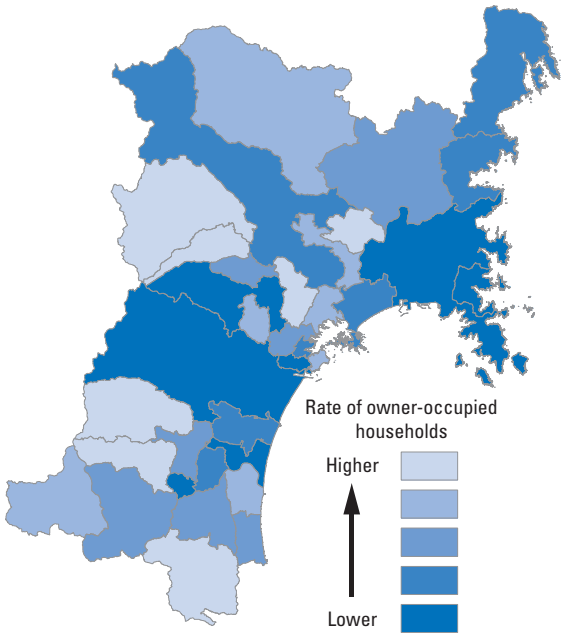
Ranking	Municipalities	m²
19th	Osaki City	114.79
20th	Shichigahama Town	114.12
21st	Matsushima Town	114.07
22nd	Rifu Town	114.05
23rd	Taiwa Town	108.60
24th	Osato Town	108.52
25th	Ohira Village	108.52
26th	Tomiya City	108.47
27th	Ishinomaki City	108.07
27th	Onagawa Town	108.07
29th	Shiogama City	107.87
30th	Ogawara Town	107.39
31st	Shibata Town	104.90
32nd	Natori City	104.79
33rd	Iwanuma City	102.39
34th	Tagajo City	89.61
35th	Sendai City	78.31



F6 Rate of owner-occupied households

Ranking	Municipalities	%
1st	Osato Town	89.6
2nd	Marumori Town	89.5
3rd	Kawasaki Town	88.6
4th	Zao Town	86.9
5th	Shikama Town	86.8
6th	Wakuya Town	84.7
7th	Kami Town	84.4
8th	Kurihara City	83.8
9th	Shichikashuku Town	82.9
10th	Tomiya City	82.1
11th	Shichigahama Town	81.8
12th	Misato Town	81.6
13th	Matsushima Town	81.3
14th	Watari Town	80.2
15th	Murata Town	79.8
16th	Tome City	79.6
17th	Kakuda City	79.3
18th	Ohira Village	79.3

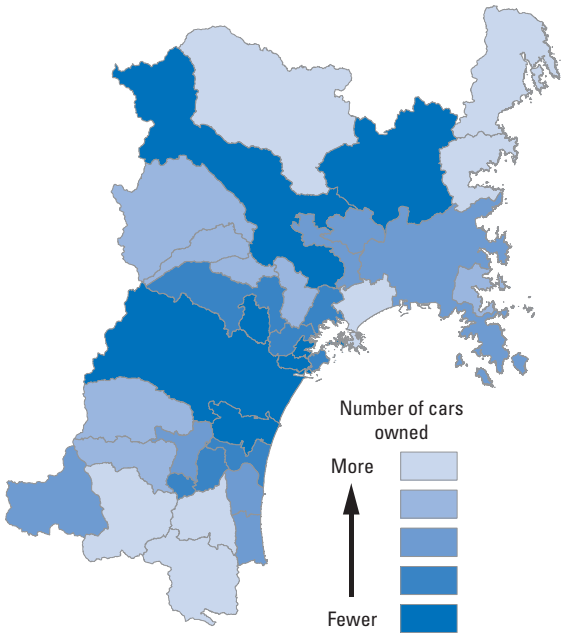
Ranking	Municipalities	%
19th	Rifu Town	78.8
20th	Yamamoto Town	76.4
21st	Shiroishi City	73.8
22nd	Shiogama City	72.4
23rd	Kesennuma City	70.7
24th	Osaki City	68.5
25th	Natori City	67.3
26th	Minami-Sanriku Town	66.8
27th	Higashi-Matsushima City	66.2
28th	Shibata Town	63.9
29th	Ishinomaki City	63.3
30th	Ogawara Town	63.3
31st	Iwanuma City	61.3
32nd	Taiwa Town	61.1
33rd	Tagajo City	56.2
34th	Sendai City	48.2
35th	Onagawa Town	45.6



F7 Number of cars owned (per capita)

Ranking	Municipalities	—
1st	Kakuda City	1.87
2nd	Kesennuma City	1.67
3rd	Higashi-Matsushima City	1.43
4th	Shiroishi City	1.43
5th	Kurihara City	1.03
6th	Minami-Sanriku Town	0.97
7th	Marumori Town	0.91
8th	Onagawa Town	0.90
9th	Osato Town	0.89
10th	Shikama Town	0.89
11th	Kami Town	0.88
12th	Kawasaki Town	0.88
13th	Zao Town	0.87
14th	Ohira Village	0.86
15th	Yamamoto Town	0.84
16th	Murata Town	0.83
17th	Wakuya Town	0.82
18th	Shichikashuku Town	0.82

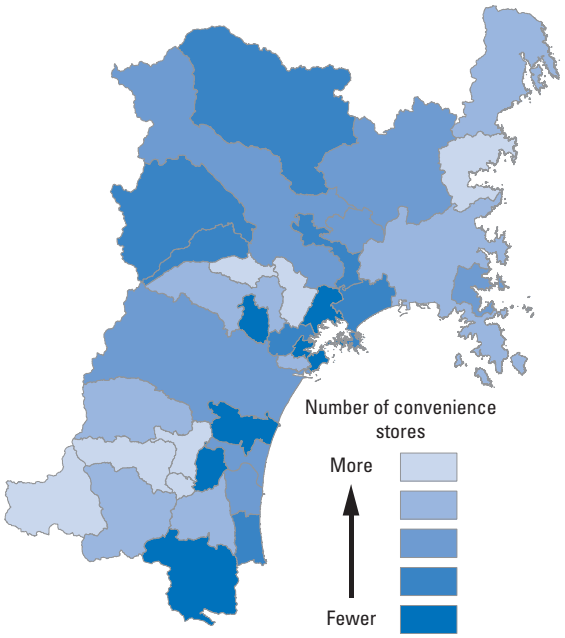
Ranking	Municipalities	—
19th	Ishinomaki City	0.77
20th	Misato Town	0.75
21st	Watari Town	0.75
22nd	Taiwa Town	0.74
23rd	Ogawara Town	0.71
24th	Shichigahama Town	0.70
25th	Iwanuma City	0.67
26th	Matsushima Town	0.66
27th	Rifu Town	0.66
28th	Shibata Town	0.64
29th	Tomiya City	0.61
30th	Shiogama City	0.60
31st	Sendai City	0.52
32nd	Tome City	0.48
33rd	Tagajo City	0.37
34th	Natori City	0.31
35th	Osaki City	0.22



F8 Number of convenience stores (per 1,000 population)

Ranking	Municipalities	—
1st	Shichikashuku Town	1.606
2nd	Osato Town	0.770
3rd	Ogawara Town	0.762
4th	Minami-Sanriku Town	0.734
5th	Zao Town	0.703
6th	Ohira Village	0.696
7th	Murata Town	0.664
8th	Tagajo City	0.629
9th	Kesennuma City	0.605
10th	Taiwa Town	0.599
11th	Kawasaki Town	0.591
12th	Ishinomaki City	0.590
13th	Shiroishi City	0.582
14th	Kakuda City	0.573
15th	Osaki City	0.549
16th	Watari Town	0.548
17th	Iwanuma City	0.541
18th	Onagawa Town	0.532

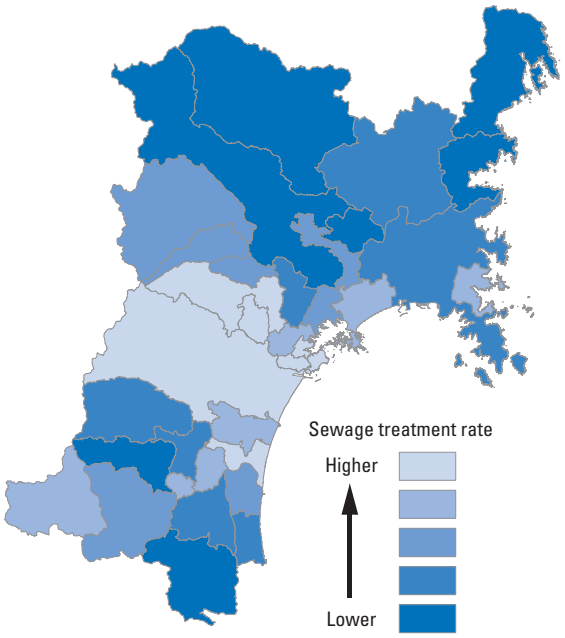
Ranking	Municipalities	—
19th	Wakuya Town	0.526
20th	Tome City	0.524
21st	Sendai City	0.521
22nd	Higashi-Matsushima City	0.514
23rd	Yamamoto Town	0.511
24th	Rifu Town	0.508
25th	Kurihara City	0.486
26th	Misato Town	0.461
27th	Kami Town	0.460
28th	Shikama Town	0.455
29th	Matsushima Town	0.454
30th	Natori City	0.453
31st	Shiogama City	0.442
32nd	Shibata Town	0.413
33rd	Tomiya City	0.367
34th	Marumori Town	0.325
35th	Shichigahama Town	0.281



F9 Sewage treatment rate

Ranking	Municipalities	%
1st	Shichigahama Town	99.95
2nd	Shiogama City	99.94
3rd	Tagajo City	99.91
4th	Sendai City	99.69
5th	Tomiya City	99.40
6th	Iwanuma City	98.88
7th	Taiwa Town	98.12
8th	Natori City	98.11
9th	Shichikashuku Town	97.67
10th	Rifu Town	97.43
11th	Ogawara Town	96.83
12th	Onagawa Town	94.66
13th	Shibata Town	93.35
14th	Higashi-Matsushima City	93.24
15th	Matsushima Town	91.51
16th	Watari Town	90.47
17th	Shiroishi City	88.68
18th	Ohira Village	87.90

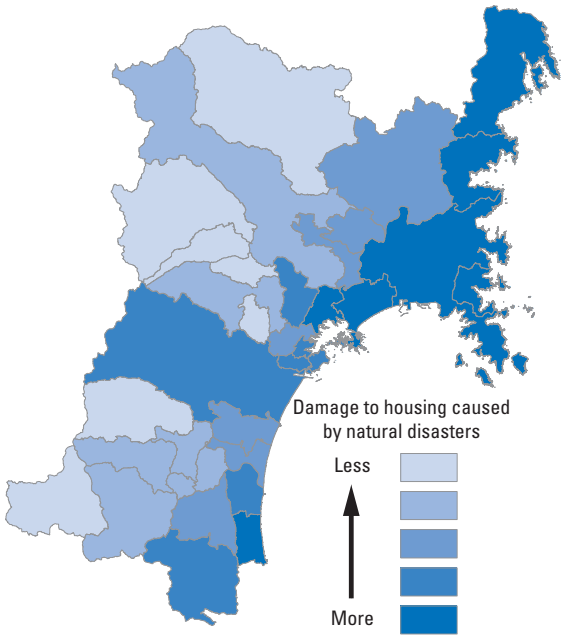
Ranking	Municipalities	%
19th	Shikama Town	86.72
20th	Misato Town	85.87
21st	Kami Town	84.29
22nd	Kawasaki Town	83.87
23rd	Murata Town	83.20
24th	Yamamoto Town	82.83
25th	Tome City	82.42
26th	Ishinomaki City	81.03
27th	Osato Town	80.64
28th	Kakuda City	78.09
29th	Zao Town	77.71
30th	Osaki City	72.33
31st	Kurihara City	71.66
32nd	Minami-Sanriku Town	70.17
33rd	Wakuya Town	66.76
34th	Marumori Town	66.07
35th	Kesennuma City	49.95



F10 Damage to housing caused by natural disasters (per 1,000 housing units)

Ranking	Municipalities	Units
1st	Shichikashuku Town	1.5
2nd	Kawasaki Town	4.6
3rd	Kami Town	7.6
4th	Shikama Town	7.9
5th	Ohira Village	14.8
6th	Kurihara City	28.2
7th	Tomiya City	32.3
8th	Ogawara Town	34.3
9th	Zao Town	42.2
10th	Taiwa Town	42.7
11th	Shiroishi City	56.8
12th	Shibata Town	58.7
13th	Murata Town	65.6
14th	Osaki City	79.6
15th	Tome City	80.5
16th	Rifu Town	84.0
17th	Misato Town	87.6
18th	Kakuda City	90.2

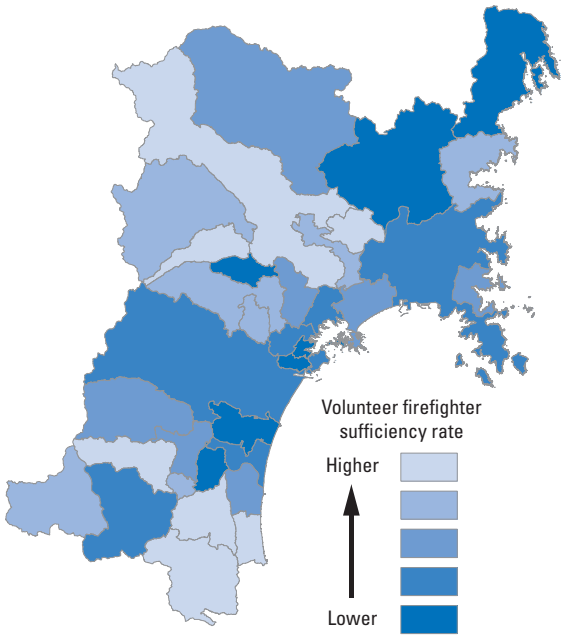
Ranking	Municipalities	Units
19th	Iwanuma City	140.7
20th	Natori City	141.5
21st	Wakuya Town	164.1
22nd	Shiogama City	178.9
23rd	Osato Town	179.5
24th	Shichigahama Town	202.6
25th	Tagajo City	217.6
26th	Marumori Town	236.0
27th	Sendai City	292.7
28th	Watari Town	301.7
29th	Matsushima Town	406.5
30th	Kesennuma City	427.0
31st	Ishinomaki City	565.5
32nd	Yamamoto Town	668.6
33rd	Minami-Sanriku Town	700.1
34th	Higashi-Matsushima City	724.4
35th	Onagawa Town	1001.2



F11 Volunteer firefighter sufficiency rate

Ranking	Municipalities	%
1st	Zao Town	100.0
2nd	Kakuda City	97.8
3rd	Wakuya Town	95.4
4th	Shikama Town	93.8
5th	Marumori Town	93.8
6th	Yamamoto Town	92.0
7th	Osaki City	91.9
8th	Tomiya City	91.6
9th	Misato Town	91.4
10th	Kami Town	90.9
11th	Shichikashuku Town	90.7
12th	Ogawara Town	90.7
13th	Taiwa Town	90.1
14th	Minami-Sanriku Town	89.0
15th	Osato Town	88.7
16th	Higashi-Matsushima City	87.7
17th	Watari Town	87.6
18th	Kawasaki Town	86.7

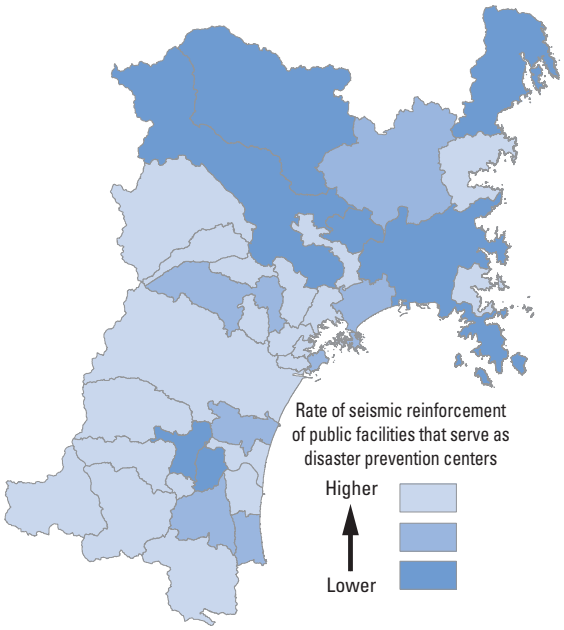
Ranking	Municipalities	%
19th	Murata Town	86.4
20th	Kurihara City	86.3
21st	Onagawa Town	86.1
22nd	Iwanuma City	85.7
23rd	Shiroishi City	84.7
24th	Sendai City	83.9
25th	Matsushima Town	83.6
26th	Shichigahama Town	82.7
27th	Rifu Town	81.7
28th	Ishinomaki City	80.9
29th	Tome City	80.4
30th	Shibata Town	80.0
31st	Kesennuma City	79.0
32nd	Natori City	79.0
33rd	Tagajo City	78.5
34th	Ohira Village	73.5
35th	Shiogama City	53.1



F12 Rate of seismic reinforcement of public facilities that serve as disaster prevention centers

Ranking	Municipalities	%
1st	Zao Town	100.0
1st	Shikama Town	100.0
1st	Marumori Town	100.0
1st	Tomiya City	100.0
1st	Misato Town	100.0
1st	Kami Town	100.0
1st	Shichikashuku Town	100.0
1st	Ogawara Town	100.0
1st	Minami-Sanriku Town	100.0
1st	Osato Town	100.0
1st	Watari Town	100.0
1st	Kawasaki Town	100.0
1st	Onagawa Town	100.0
1st	Iwanuma City	100.0
1st	Shiroishi City	100.0
1st	Sendai City	100.0
1st	Matsushima Town	100.0
1st	Rifu Town	100.0

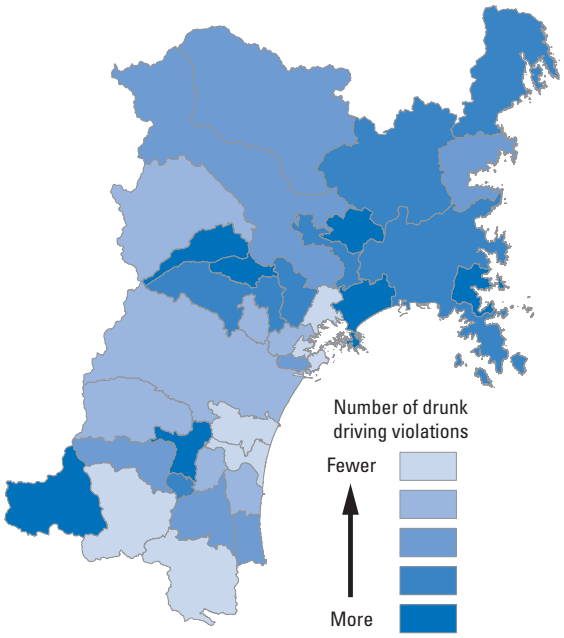
Ranking	Municipalities	%
1st	Tagajo City	100.0
1st	Ohira Village	100.0
1st	Shiogama City	100.0
22nd	Tome City	99.5
23rd	Taiwa Town	98.1
24th	Shichigahama Town	97.4
25th	Higashi-Matsushima City	97.3
26th	Kakuda City	95.7
26th	Yamamoto Town	95.7
28th	Natori City	95.5
29th	Kurihara City	95.2
30th	Wakuya Town	95.1
31st	Ishinomaki City	91.0
32nd	Osaki City	90.5
33rd	Shibata Town	87.5
34th	Kesennuma City	85.1
35th	Murata Town	69.6



F13 Number of drunk driving violations (per 10,000 license holders)

Ranking	Municipalities	—
1st	Iwanuma City	0.7
2nd	Marumori Town	1.1
2nd	Matsushima Town	1.1
4th	Shiogama City	1.2
5th	Shiroishi City	1.3
5th	Natori City	1.3
7th	Shichigahama Town	1.5
8th	Kawasaki Town	1.6
8th	Rifu Town	1.6
8th	Shibata Town	1.6
11th	Tomiya City	1.9
11th	Kami Town	1.9
11th	Sendai City	1.9
14th	Watari Town	2.1
15th	Minami-Sanriku Town	2.3
16th	Zao Town	2.4
17th	Kurihara City	2.6
18th	Kakuda City	3.0

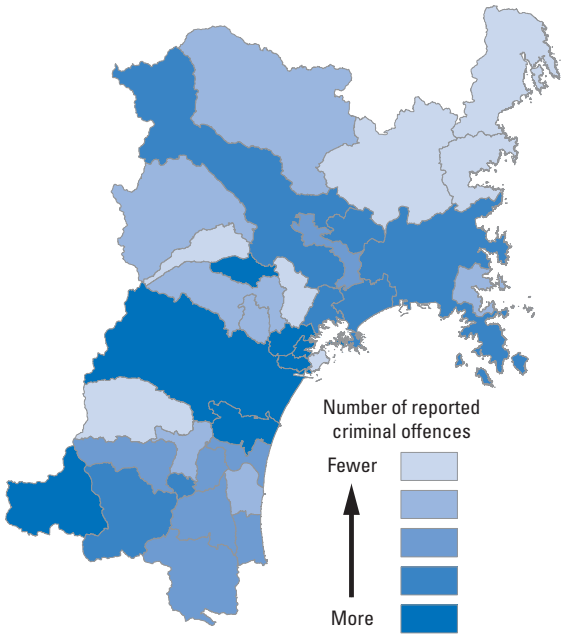
Ranking	Municipalities	—
19th	Osaki City	3.2
20th	Tagajo City	3.4
21st	Yamamoto Town	3.5
22nd	Osato Town	3.6
22nd	Taiwa Town	3.6
24th	Ogawara Town	3.7
24th	Ishinomaki City	3.7
26th	Tome City	3.9
27th	Misato Town	4.1
27th	Kesennuma City	4.1
29th	Higashi-Matsushima City	4.4
30th	Ohira Village	4.9
31st	Wakuya Town	5.4
32nd	Shikama Town	6.2
33rd	Murata Town	6.6
34th	Onagawa Town	10.1
35th	Shichikashuku Town	12.1



F14 Number of reported criminal offences (per 1,000 population)

Ranking	Municipalities	—
1st	Shikama Town	2.11
2nd	Shichigahama Town	2.96
3rd	Kesennuma City	3.26
4th	Minami-Sanriku Town	3.32
5th	Kawasaki Town	3.56
6th	Osato Town	3.76
7th	Tome City	4.02
8th	Onagawa Town	4.04
9th	Kami Town	4.22
10th	Murata Town	4.39
11th	Tomiya City	4.67
12th	Kurihara City	5.18
13th	Taiwa Town	5.24
14th	Watari Town	5.25
15th	Zao Town	5.66
16th	Marumori Town	5.75
17th	Misato Town	6.07
18th	Yamamoto Town	6.16

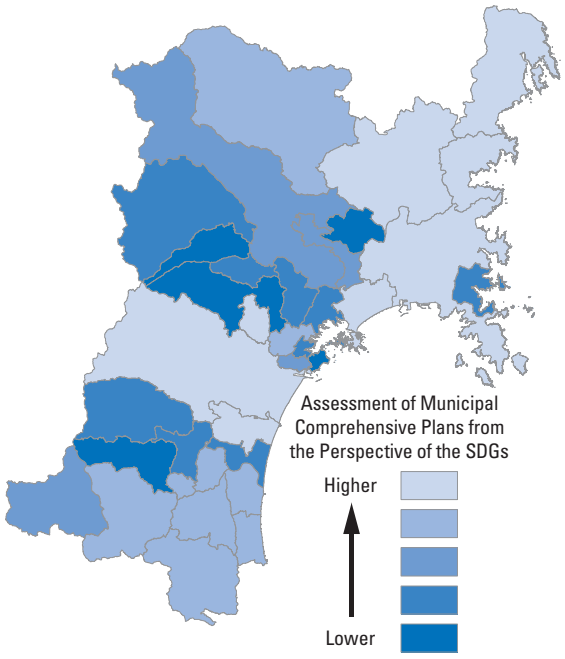
Ranking	Municipalities	—
19th	Kakuda City	6.16
20th	Iwanuma City	6.36
21st	Shibata Town	6.44
22nd	Wakuya Town	6.48
23rd	Matsushima Town	6.67
24th	Ishinomaki City	6.82
25th	Osaki City	7.11
26th	Ogawara Town	7.25
27th	Higashi-Matsushima City	7.37
28th	Shiroishi City	7.52
29th	Rifu Town	7.72
30th	Sendai City	7.98
31st	Shiogama City	7.99
32nd	Natori City	8.04
33rd	Tagajo City	9.71
34th	Ohira Village	10.43
35th	Shichikashuku Town	13.18



G1 Assessment of Municipal Comprehensive Plans from the Perspective of the SDGs (assessment by Indicator Team)

Ranking	Municipalities	Score
1st	Kesennuma City	0.87
1st	Tomiya City	0.87
3rd	Natori City	0.84
3rd	Tome City	0.84
5th	Sendai City	0.81
5th	Ishinomaki City	0.81
5th	Higashi-Matsushima City	0.81
5th	Minami-Sanriku Town	0.81
9th	Rifu Town	0.78
10th	Shiroishi City	0.75
10th	Kakuda City	0.75
10th	Marumori Town	0.75
13th	Kurihara City	0.69
13th	Ogawara Town	0.69
13th	Shibata Town	0.69
13th	Watari Town	0.69
13th	Yamamoto Town	0.69
18th	Tagajo City	0.66

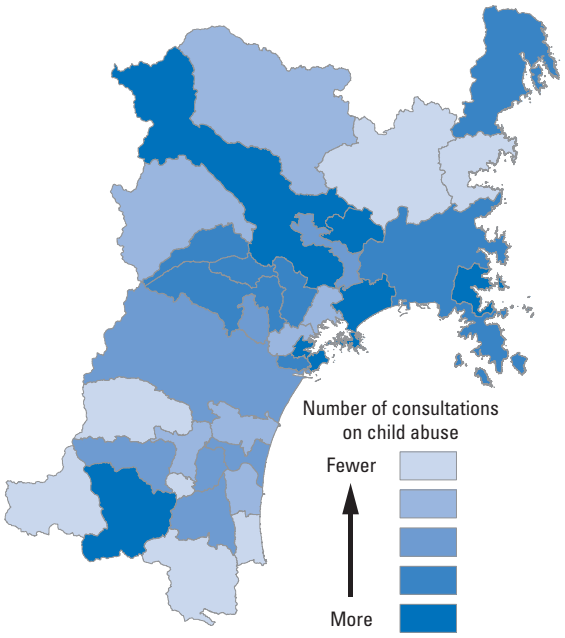
Ranking	Municipalities	Score
18th	Osaki City	0.66
18th	Shichikashuku Town	0.66
18th	Misato Town	0.66
22nd	Matsushima Town	0.63
22nd	Onagawa Town	0.63
24th	Shiogama City	0.60
24th	Ohira Village	0.60
26th	Kami Town	0.57
27th	Iwanuma City	0.54
27th	Murata Town	0.54
27th	Kawasaki Town	0.54
27th	Osato Town	0.54
31st	Zao Town	0.51
31st	Shichigahama Town	0.51
31st	Shikama Town	0.51
34th	Taiwa Town	0.48
34th	Wakuya Town	0.48



G2 Number of consultations on child abuse (per 1,000 population)

Ranking	Municipalities	—
1st	Shichikashuku Town	0.000
2nd	Marumori Town	0.114
3rd	Kawasaki Town	0.331
4th	Minami-Sanriku Town	0.348
5th	Yamamoto Town	0.391
6th	Ogawara Town	0.474
7th	Tome City	0.532
8th	Watari Town	0.578
9th	Matsushima Town	0.591
10th	Rifu Town	0.609
11th	Murata Town	0.626
12th	Kami Town	0.626
13th	Kurihara City	0.637
14th	Natori City	0.690
15th	Shibata Town	0.692
16th	Zao Town	0.703
17th	Misato Town	0.713
18th	Tomiya City	0.715

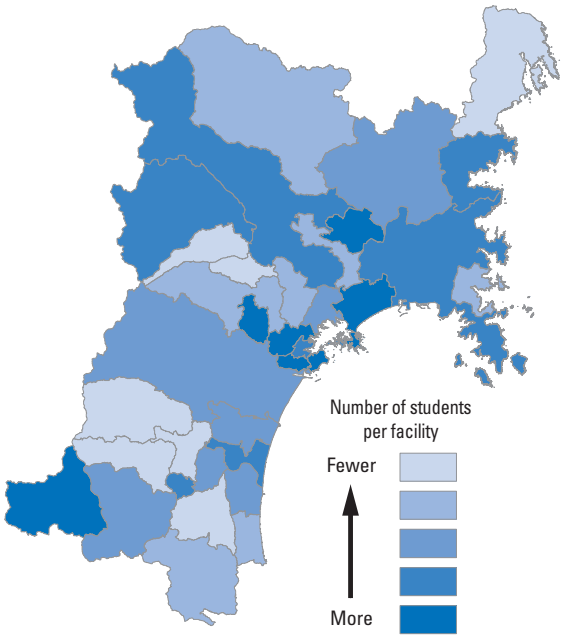
Ranking	Municipalities	—
19th	Sendai City	0.751
20th	Kakuda City	0.752
21st	Iwanuma City	0.758
22nd	Ohira Village	0.765
23rd	Kesennuma City	0.776
24th	Tagajo City	0.784
25th	Shikama Town	0.789
26th	Ishinomaki City	0.800
27th	Osato Town	0.847
28th	Taiwa Town	0.853
29th	Higashi-Matsushima City	0.853
30th	Shiogama City	0.865
31st	Onagawa Town	0.887
32nd	Shiroishi City	0.968
33rd	Shichigahama Town	0.977
34th	Wakuya Town	1.025
35th	Osaki City	1.049



G3 Number of places for children to spend time outside school (number of elementary, junior high, and high school students per facility)

Ranking	Municipalities	Students
1st	Zao Town	316
2nd	Murata Town	487
3rd	Kesennuma City	524
4th	Kawasaki Town	525
5th	Ohira Village	527
6th	Shikama Town	533
7th	Kakuda City	581
8th	Osato Town	582
9th	Onagawa Town	598
10th	Taiwa Town	647
11th	Misato Town	677
12th	Yamamoto Town	684
13th	Marumori Town	765
14th	Kurihara City	780
15th	Matsushima Town	800
16th	Sendai City	919
17th	Watari Town	1,000
18th	Tome City	1,014

Ranking	Municipalities	Students
19th	Shibata Town	1,120
20th	Shiroishi City	1,126
21st	Natori City	1,206
22nd	Ogawara Town	1,319
23rd	Osaki City	1,352
24th	Shiogama City	1,408
25th	Minami-Sanriku Town	1,500
26th	Iwanuma City	1,536
27th	Kami Town	1,579
28th	Ishinomaki City	1,928
29th	Wakuya Town	2,024
30th	Shichigahama Town	2,662
31st	Tomiya City	2,932
32nd	Tagajo City	3,312
33rd	Rifu Town	3,362
34th	Higashi-Matsushima City	6,206
35th	Shichikashuku Town	—

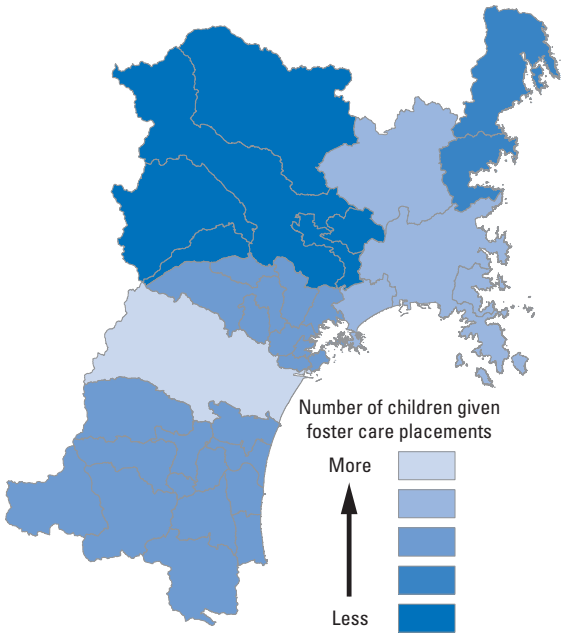


* No such facility in Shichikashuku

G4 Number of children given foster care placements

Ranking	Municipalities	—
1st	Sendai City	86
2nd	Ishinomaki City	37
2nd	Tome City	37
2nd	Higashi-Matsushima City	37
2nd	Onagawa Town	37
6th	Shiogama City	35
6th	Shiroishi City	35
6th	Natori City	35
6th	Kakuda City	35
6th	Tagajo City	35
6th	Iwanuma City	35
6th	Tomiya City	35
6th	Zao Town	35
6th	Shichikashuku Town	35
6th	Ogawara Town	35
6th	Murata Town	35
6th	Shibata Town	35
6th	Kawasaki Town	35

Ranking	Municipalities	—
6th	Marumori Town	35
6th	Watari Town	35
6th	Yamamoto Town	35
6th	Matsushima Town	35
6th	Shichigahama Town	35
6th	Rifu Town	35
6th	Taiwa Town	35
6th	Osato Town	35
6th	Ohira Village	35
28th	Kesennuma City	10
28th	Minami-Sanriku Town	10
30th	Kurihara City	8
30th	Osaki City	8
30th	Shikama Town	8
30th	Kami Town	8
30th	Wakuya Town	8
30th	Misato Town	8

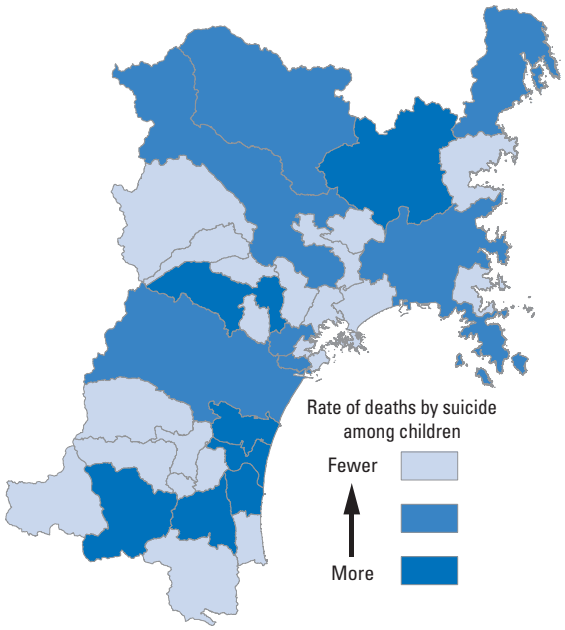


* For each Child Consulation Center jurisdiction

G5 Rate of deaths by suicide among children (aged under 18) (per 10,000 population)

Ranking	Municipalities	—
1st	Higashi-Matsushima City	0.00
1st	Zao Town	0.00
1st	Murata Town	0.00
1st	Kawasaki Town	0.00
1st	Ohira Village	0.00
1st	Shikama Town	0.00
1st	Osato Town	0.00
1st	Onagawa Town	0.00
1st	Misato Town	0.00
1st	Yamamoto Town	0.00
1st	Marumori Town	0.00
1st	Matsushima Town	0.00
1st	Shibata Town	0.00
1st	Ogawara Town	0.00
1st	Shiogama City	0.00
1st	Minami-Sanriku Town	0.00
1st	Kami Town	0.00
1st	Wakuya Town	0.00

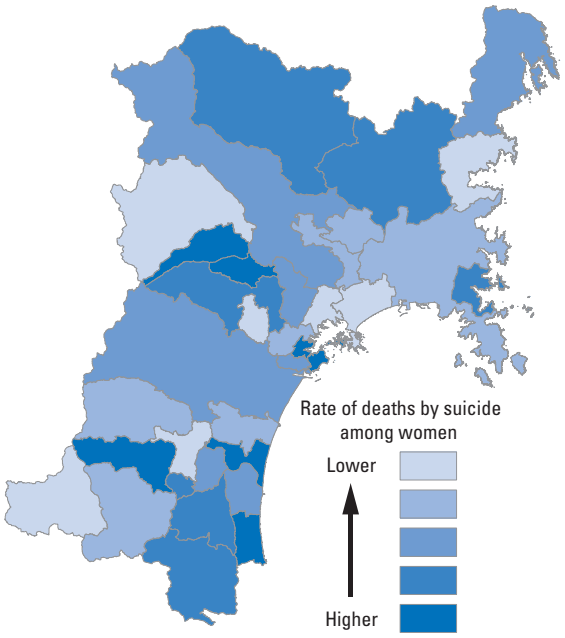
Ranking	Municipalities	—
1st	Shichigahama Town	0.00
1st	Tomiya City	0.00
1st	Shichikashuku Town	0.00
22nd	Ishinomaki City	0.17
23rd	Kurihara City	0.20
24th	Kesennuma City	0.21
25th	Osaki City	0.26
26th	Rifu Town	0.27
27th	Sendai City	0.29
28th	Tagajo City	0.33
29th	Taiwa Town	0.35
30th	Kakuda City	0.42
31st	Tome City	0.45
32nd	Iwanuma City	0.47
33rd	Natori City	0.62
34th	Shiroishi City	0.75
35th	Watari Town	1.03



G6 Rate of deaths by suicide among women (per 10,000 population)

Ranking	Municipalities	—
1st	Minami-Sanriku Town	0.00
1st	Shichikashuku Town	0.00
3rd	Murata Town	0.36
4th	Matsushima Town	0.53
5th	Tomiya City	0.60
6th	Kami Town	0.64
7th	Higashi-Matsushima City	0.68
8th	Wakuya Town	0.69
9th	Rifu Town	0.76
10th	Ishinomaki City	0.79
11th	Natori City	0.86
12th	Kawasaki Town	0.87
13th	Shiroishi City	0.88
14th	Misato Town	0.93
15th	Osato Town	0.94
16th	Sendai City	1.00
17th	Osaki City	1.03
18th	Watari Town	1.04

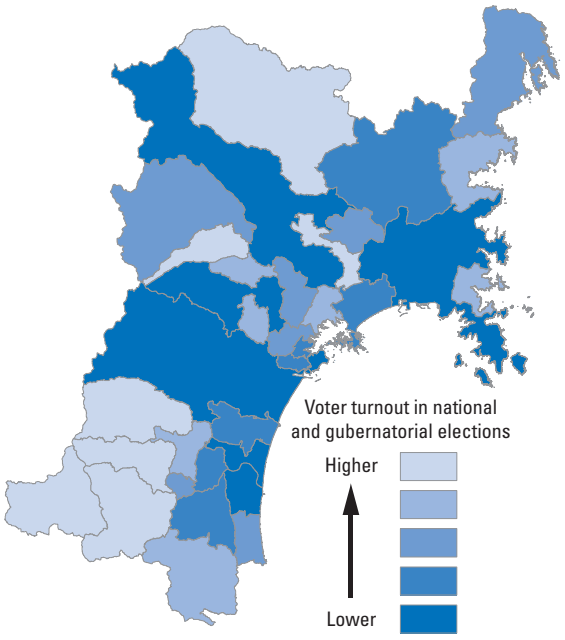
Ranking	Municipalities	—
19th	Shibata Town	1.04
20th	Kesennuma City	1.06
21st	Tagajo City	1.09
22nd	Marumori Town	1.12
23rd	Taiwa Town	1.15
24th	Onagawa Town	1.19
25th	Kakuda City	1.31
26th	Ogawara Town	1.32
27th	Kurihara City	1.32
28th	Tome City	1.33
29th	Shichigahama Town	1.46
30th	Iwanuma City	1.52
31st	Shiogama City	1.53
32nd	Yamamoto Town	1.60
33rd	Ohira Village	2.05
34th	Shikama Town	2.20
35th	Zao Town	2.24



H1 Voter turnout in national and gubernatorial elections

Ranking	Municipalities	%
1st	Shichikashuku Town	69.02
2nd	Shikama Town	61.40
3rd	Kurihara City	59.06
4th	Kawasaki Town	59.01
5th	Shiroishi City	58.83
6th	Zao Town	57.69
7th	Misato Town	57.07
8th	Minami-Sanriku Town	56.88
9th	Matsushima Town	56.86
10th	Murata Town	56.76
11th	Onagawa Town	56.42
12th	Marumori Town	56.18
13th	Tomiya City	55.64
14th	Ohira Village	55.01
15th	Osato Town	54.86
16th	Yamamoto Town	54.77
17th	Ogawara Town	54.69
18th	Wakuya Town	54.52

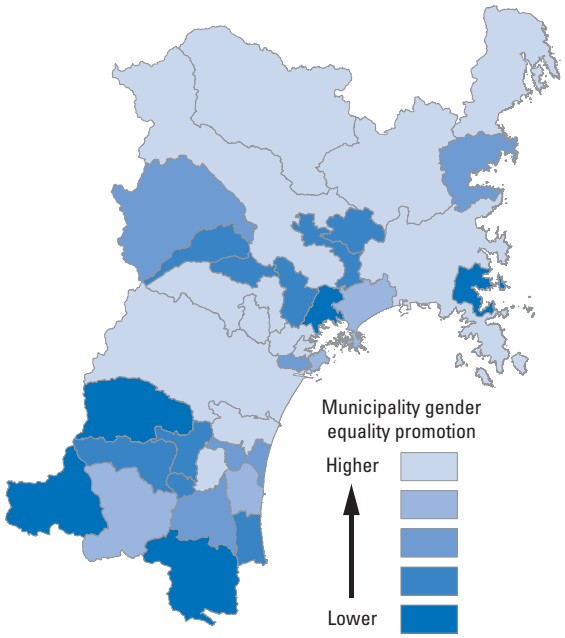
Ranking	Municipalities	%
19th	Kesennuma City	54.40
20th	Kami Town	54.01
21st	Rifu Town	53.98
22nd	Higashi-Matsushima City	53.63
23rd	Tagajo City	53.41
24th	Kakuda City	53.34
25th	Shibata Town	52.81
26th	Shiogama City	52.67
27th	Tome City	52.57
28th	Natori City	52.49
29th	Shichigahama Town	52.38
30th	Iwanuma City	51.52
31st	Sendai City	51.28
32nd	Taiwa Town	51.23
33rd	Watari Town	50.82
34th	Osaki City	50.21
35th	Ishinomaki City	49.33



H2 Municipality gender equality promotion (assessment by Indicator Team)

Ranking	Municipalities	Score
1st	Osaki City	95
1st	Ishinomaki City	95
3rd	Kurihara City	85
3rd	Tome City	85
3rd	Natori City	85
3rd	Sendai City	85
7th	Tomiya City	80
7th	Kesennuma City	80
7th	Rifu Town	80
7th	Shibata Town	80
7th	Shiogama City	80
7th	Taiwa Town	80
13th	Watari Town	75
14th	Shiroishi City	70
14th	Higashi-Matsushima City	70
14th	Shichigahama Town	70
17th	Minami-Sanriku Town	65
17th	Kami Town	65

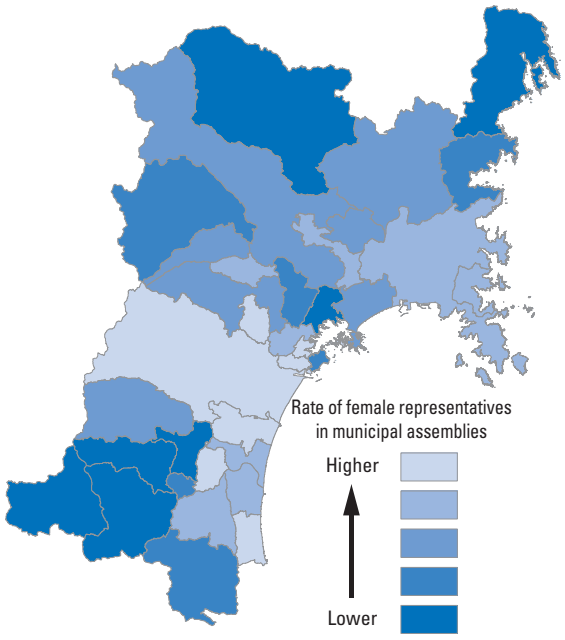
Ranking	Municipalities	Score
17th	Kakuda City	65
17th	Iwanuma City	65
21st	Tagajo City	60
22nd	Ohira Village	55
23rd	Zao Town	50
24th	Misato Town	45
24th	Murata Town	45
24th	Wakuya Town	45
27th	Shikama Town	40
27th	Osato Town	40
27th	Yamamoto Town	40
27th	Ogawara Town	40
31st	Shichikashuku Town	35
31st	Kawasaki Town	35
31st	Matsushima Town	35
31st	Onagawa Town	35
31st	Marumori Town	35



H3 Rate of female representatives in municipal assemblies

Ranking	Municipalities	%
1st	Shibata Town	33.3
2nd	Yamamoto Town	30.8
3rd	Natori City	23.8
4th	Sendai City	23.6
5th	Tomiya City	22.2
5th	Shiogama City	22.2
5th	Tagajo City	22.2
8th	Rifu Town	16.7
8th	Watari Town	16.7
8th	Iwanuma City	16.7
8th	Ohira Village	16.7
8th	Onagawa Town	16.7
13th	Ishinomaki City	13.3
14th	Kakuda City	12.5
14th	Misato Town	12.5
16th	Tome City	12.0
17th	Taiwa Town	11.1
17th	Higashi-Matsushima City	11.1

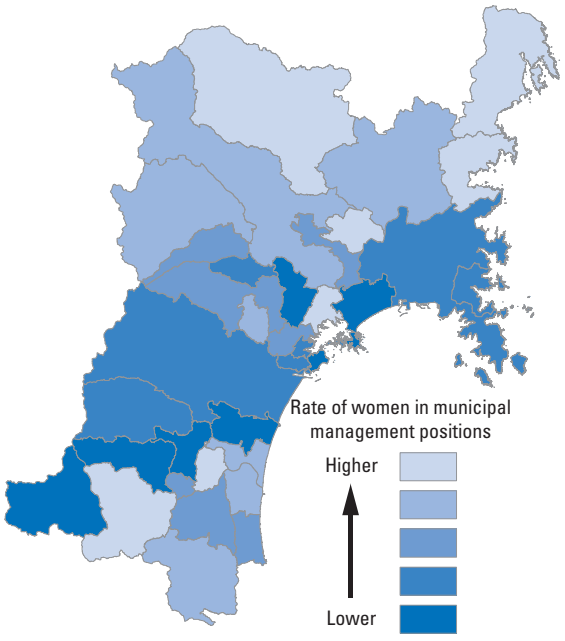
Ranking	Municipalities	%
19th	Osaki City	10.3
20th	Wakuya Town	7.7
20th	Shikama Town	7.7
20th	Kawasaki Town	7.7
23rd	Shichigahama Town	7.1
23rd	Osato Town	7.1
23rd	Marumori Town	7.1
26th	Ogawara Town	6.7
27th	Minami-Sanriku Town	6.3
28th	Kami Town	5.6
29th	Kesennuma City	4.2
30th	Kurihara City	0.0
30th	Shiroishi City	0.0
30th	Zao Town	0.0
30th	Murata Town	0.0
30th	Shichikashuku Town	0.0
30th	Matsushima Town	0.0



H4 Rate of women in municipal management positions

Ranking	Municipalities	%
1st	Matsushima Town	36.2
2nd	Wakuya Town	34.9
3rd	Kesennuma City	34.4
4th	Shiroishi City	32.6
5th	Minami-Sanriku Town	30.8
6th	Shibata Town	30.3
7th	Kurihara City	28.2
8th	Tomiya City	27.7
9th	Watari Town	27.0
10th	Iwanuma City	26.3
11th	Tome City	25.1
12th	Kami Town	25.0
13th	Marumori Town	24.1
14th	Osaki City	24.0
15th	Misato Town	22.2
16th	Ogawara Town	21.7
17th	Taiwa Town	21.4
18th	Kakuda City	21.2

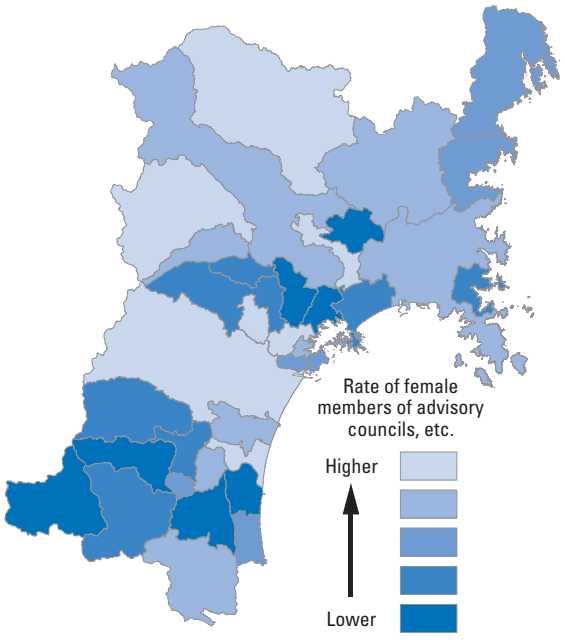
Ranking	Municipalities	%
19th	Rifu Town	21.1
20th	Yamamoto Town	18.8
20th	Shikama Town	18.8
22nd	Kawasaki Town	18.5
23rd	Ishinomaki City	16.9
24th	Shiogama City	16.7
24th	Ohira Village	16.7
24th	Onagawa Town	16.7
27th	Sendai City	15.5
28th	Tagajo City	13.3
29th	Natori City	10.6
30th	Murata Town	10.0
30th	Shichikashuku Town	10.0
32nd	Zao Town	9.5
33rd	Shichigahama Town	9.1
34th	Higashi-Matsushima City	2.6
35th	Osato Town	0.0



H5 Rate of female members of advisory councils, etc.

Ranking	Municipalities	%
1st	Kurihara City	55.5
2nd	Tomiya City	50.0
3rd	Kami Town	42.7
4th	Iwanuma City	35.6
5th	Sendai City	34.3
6th	Misato Town	34.0
7th	Rifu Town	33.7
8th	Shibata Town	33.5
9th	Marumori Town	32.0
10th	Shiogama City	31.6
11th	Natori City	31.3
12th	Shikama Town	30.3
13th	Ishinomaki City	28.6
14th	Tome City	28.3
14th	Osaki City	28.3
16th	Shichigahama Town	27.2
17th	Yamamoto Town	26.3
18th	Ogawara Town	24.7

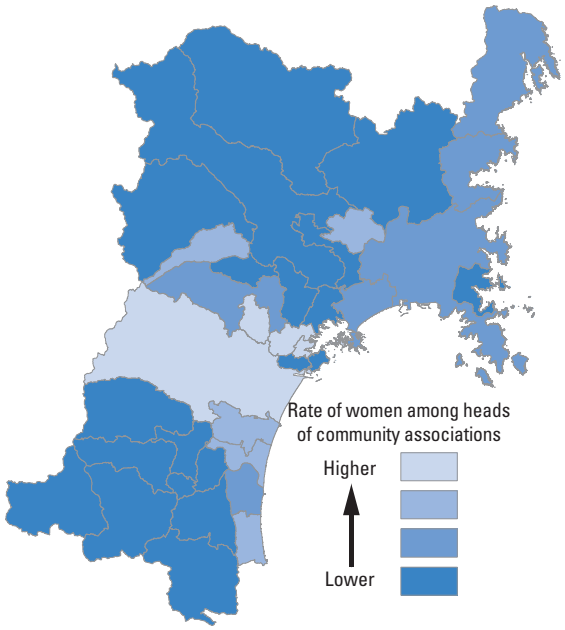
Ranking	Municipalities	%
19th	Tagajo City	24.4
20th	Kesennuma City	24.2
20th	Minami-Sanriku Town	24.2
22nd	Onagawa Town	24.1
23rd	Murata Town	23.6
23rd	Higashi-Matsushima City	23.6
25th	Taiwa Town	23.2
26th	Shiroishi City	22.9
27th	Kawasaki Town	22.8
28th	Ohira Village	22.5
29th	Osato Town	21.6
30th	Wakuya Town	20.2
30th	Kakuda City	20.2
32nd	Matsushima Town	19.5
33rd	Watari Town	19.0
34th	Shichikashuku Town	15.7
35th	Zao Town	14.2



H6 Rate of women among heads of community associations

Ranking	Municipalities	%
1st	Sendai City	11.3
2nd	Rifu Town	8.0
3rd	Shiogama City	6.7
4th	Tomiya City	6.4
5th	Wakuya Town	6.1
6th	Iwanuma City	5.1
7th	Natori City	4.9
8th	Yamamoto Town	4.3
9th	Shikama Town	4.0
10th	Kesennuma City	3.9
11th	Taiwa Town	3.2
12th	Minami-Sanriku Town	2.9
12th	Higashi-Matsushima City	2.9
14th	Ishinomaki City	1.8
15th	Watari Town	1.5
16th	Osaki City	1.4
17th	Kurihara City	0.8
18th	Tome City	0.7

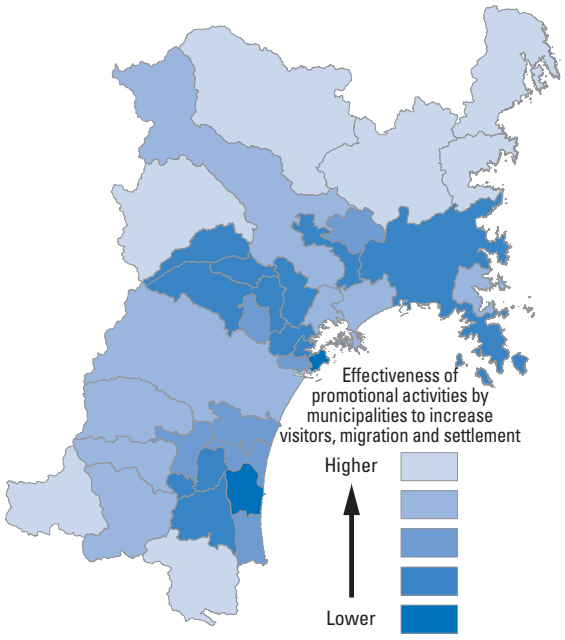
Ranking	Municipalities	%
19th	Kami Town	0.0
19th	Misato Town	0.0
19th	Shibata Town	0.0
19th	Marumori Town	0.0
19th	Shichigahama Town	0.0
19th	Ogawara Town	0.0
19th	Tagajo City	0.0
19th	Onagawa Town	0.0
19th	Murata Town	0.0
19th	Shiroishi City	0.0
19th	Kawasaki Town	0.0
19th	Ohira Village	0.0
19th	Osato Town	0.0
19th	Kakuda City	0.0
19th	Matsushima Town	0.0
19th	Shichikashuku Town	0.0
19th	Zao Town	0.0



J1 Effectiveness of promotional activities by municipalities to increase visitors, migration and settlement (assessment by Indicator Team)

Ranking	Municipalities	Score
1st	Kurihara City	86
2nd	Shichikashuku Town	84
2nd	Minami-Sanriku Town	84
2nd	Kesennuma City	84
5th	Tome City	82
6th	Marumori Town	80
7th	Kami Town	78
8th	Onagawa Town	76
9th	Kawasaki Town	74
10th	Shiroishi City	72
11th	Higashi-Matsushima City	70
12th	Sendai City	68
13th	Matsushima Town	66
14th	Zao Town	64
14th	Osaki City	64
16th	Tomiya City	62
16th	Yamamoto Town	62
18th	Natori City	60

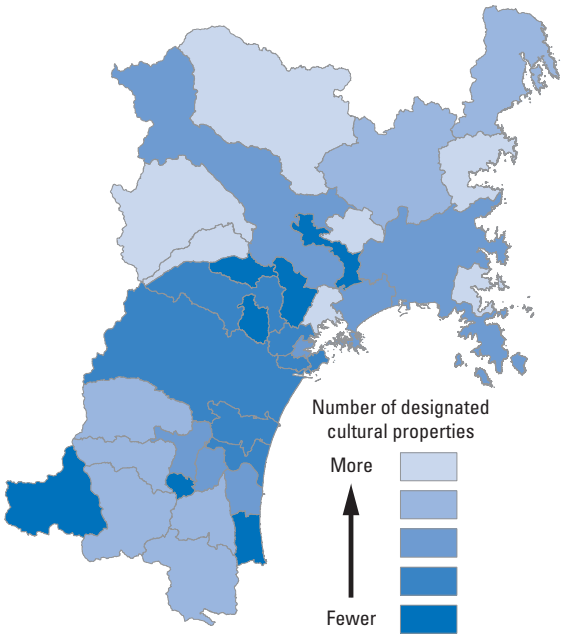
Ranking	Municipalities	Score
18th	Iwanuma City	60
20th	Tagajo City	58
20th	Murata Town	58
20th	Wakuya Town	58
23rd	Shiogama City	56
23rd	Ishinomaki City	56
23rd	Ogawara Town	56
23rd	Shikama Town	56
27th	Rifu Town	54
27th	Kakuda City	54
27th	Taiwa Town	54
27th	Osato Town	54
27th	Ohira Village	54
27th	Shibata Town	54
27th	Misato Town	54
34th	Shichigahama Town	50
35th	Watari Town	46



J2 Number of designated cultural properties (per 1,000 population)

Ranking	Municipalities	—
1st	Matsushima Town	1.969
2nd	Minami-Sanriku Town	0.642
3rd	Onagawa Town	0.532
4th	Kami Town	0.506
5th	Kurihara City	0.486
6th	Shikama Town	0.455
7th	Wakuya Town	0.394
8th	Kakuda City	0.394
9th	Kesennuma City	0.353
10th	Zao Town	0.352
11th	Tome City	0.301
12th	Shiroishi City	0.276
13th	Marumori Town	0.243
14th	Kawasaki Town	0.236
15th	Shiogama City	0.192
16th	Murata Town	0.190
17th	Osaki City	0.188
18th	Shibata Town	0.181

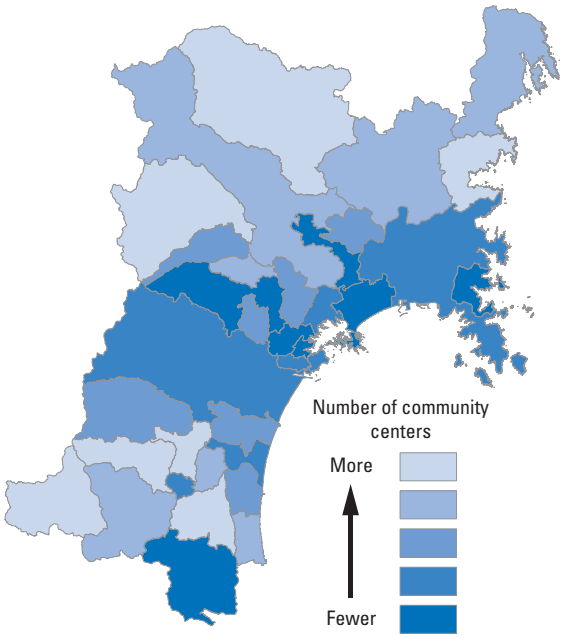
Ranking	Municipalities	—
19th	Higashi-Matsushima City	0.154
20th	Watari Town	0.152
21st	Ishinomaki City	0.151
22nd	Natori City	0.139
23rd	Tagajo City	0.113
24th	Shichigahama Town	0.112
25th	Sendai City	0.107
26th	Taiwa Town	0.070
27th	Iwanuma City	0.068
28th	Rifu Town	0.056
29th	Ogawara Town	0.042
30th	Misato Town	0.042
31st	Tomiya City	0.039
32nd	Shichikashuku Town	0.000
32nd	Yamamoto Town	0.000
32nd	Osato Town	0.000
32nd	Ohira Village	0.000



J3 Number of community centers (per 10,000 population)

Ranking	Municipalities	—
1st	Shichikashuku Town	7.65
2nd	Murata Town	6.45
3rd	Zao Town	4.32
4th	Kami Town	4.05
5th	Minami-Sanriku Town	3.57
6th	Kurihara City	3.22
7th	Kakuda City	3.14
8th	Shiroishi City	2.70
9th	Tome City	2.19
10th	Osaki City	2.17
11th	Kesennuma City	2.14
12th	Ohira Village	1.70
13th	Yamamoto Town	1.68
14th	Shibata Town	1.55
15th	Shikama Town	1.48
16th	Natori City	1.40
17th	Wakuya Town	1.28
18th	Osato Town	1.27

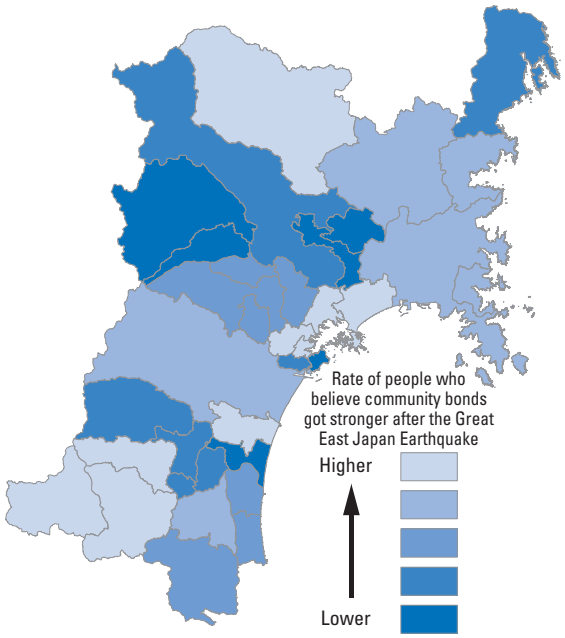
Ranking	Municipalities	—
19th	Watari Town	1.21
20th	Kawasaki Town	1.17
21st	Tomiya City	1.16
22nd	Shichigahama Town	1.10
23rd	Ogawara Town	0.84
24th	Ishinomaki City	0.78
25th	Matsushima Town	0.74
26th	Sendai City	0.55
27th	Tagajo City	0.48
28th	Iwanuma City	0.45
29th	Taiwa Town	0.35
30th	Rifu Town	0.28
31st	Shiogama City	0.19
32nd	Onagawa Town	0.00
32nd	Marumori Town	0.00
32nd	Higashi-Matsushima City	0.00
32nd	Misato Town	0.00



J4 Rate of people who believe community bonds got stronger after the Great East Japan Earthquake (questionnaire survey)

Ranking	Municipalities	%
1st	Higashi-Matsushima City	73.2
2nd	Matsushima Town	71.4
3rd	Shiogama City	66.7
4th	Rifu Town	64.0
5th	Kurihara City	63.3
6th	Natori City	58.3
7th	Shichikashuku Town	57.7
7th	Zao Town	57.7
7th	Shiroishi City	57.7
10th	Kakuda City	56.3
10th	Ishinomaki City	56.3
10th	Onagawa Town	56.3
13th	Minami-Sanriku Town	56.0
14th	Tome City	55.0
14th	Sendai City	55.0
16th	Tomiya City	54.5
17th	Yamamoto Town	52.9
18th	Ohira Village	52.4

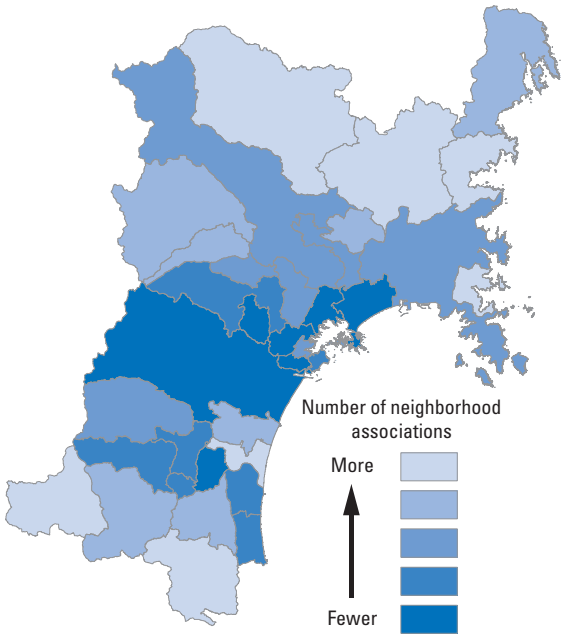
Ranking	Municipalities	%
18th	Osato Town	52.4
18th	Taiwa Town	52.4
21st	Watari Town	51.9
21st	Marumori Town	51.9
23rd	Osaki City	46.9
24th	Kesennuma City	41.9
25th	Shibata Town	40.5
26th	Tagajo City	38.7
27th	Murata Town	37.8
27th	Kawasaki Town	37.8
27th	Ogawara Town	37.8
30th	Iwanuma City	36.8
31st	Kami Town	36.0
31st	Shikama Town	36.0
33rd	Wakuya Town	28.1
33rd	Misato Town	28.1
35th	Shichigahama Town	28.0



J5 Number of neighborhood associations (per 1,000 population)

Ranking	Municipalities	—
1st	Marumori Town	7.48
2nd	Minami-Sanriku Town	5.51
3rd	Shichikashuku Town	5.27
4th	Onagawa Town	5.22
5th	Iwanuma City	4.05
6th	Tome City	3.88
7th	Kurihara City	3.80
8th	Shikama Town	3.72
9th	Natori City	3.56
10th	Kami Town	3.46
11th	Shiroishi City	3.38
12th	Kesennuma City	3.29
13th	Kakuda City	3.26
14th	Wakuya Town	3.11
15th	Shiogama City	3.07
16th	Osaki City	2.82
17th	Osato Town	2.76
18th	Misato Town	2.72

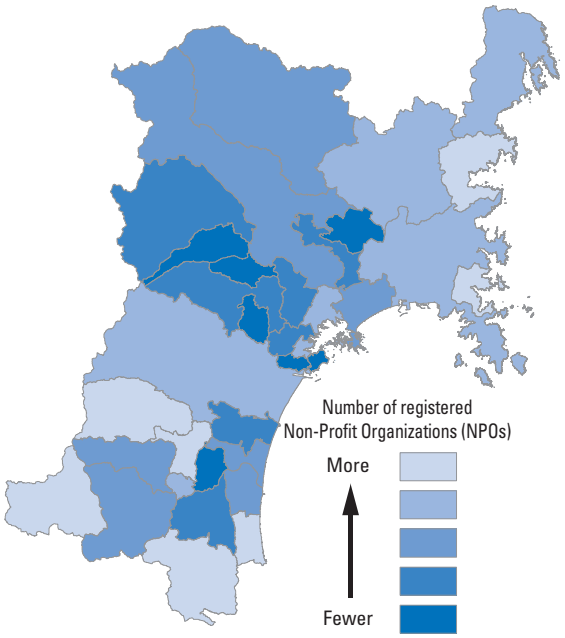
Ranking	Municipalities	—
19th	Ishinomaki City	2.69
20th	Kawasaki Town	2.54
21st	Ohira Village	2.36
22nd	Taiwa Town	2.18
23rd	Watari Town	2.03
24th	Murata Town	1.96
25th	Zao Town	1.95
26th	Yamamoto Town	1.90
27th	Shichigahama Town	1.89
28th	Ogawara Town	1.82
29th	Higashi-Matsushima City	1.77
30th	Sendai City	1.30
31st	Shibata Town	1.12
32nd	Tomiya City	0.90
33rd	Matsushima Town	0.87
34th	Tagajo City	0.73
35th	Rifu Town	0.69



J6 Number of registered Non-Profit Organizations (NPOs) (per 1,000 population)

Ranking	Municipalities	—
1st	Onagawa Town	1.774
2nd	Shichikashuku Town	0.803
3rd	Yamamoto Town	0.766
4th	Minami-Sanriku Town	0.734
5th	Marumori Town	0.649
6th	Kawasaki Town	0.591
7th	Murata Town	0.569
8th	Ishinomaki City	0.475
9th	Kesennuma City	0.471
10th	Matsushima Town	0.454
11th	Sendai City	0.394
12th	Ogawara Town	0.381
13th	Shiogama City	0.365
14th	Tome City	0.354
15th	Shiroishi City	0.337
16th	Kurihara City	0.329
17th	Higashi-Matsushima City	0.308
18th	Osaki City	0.306

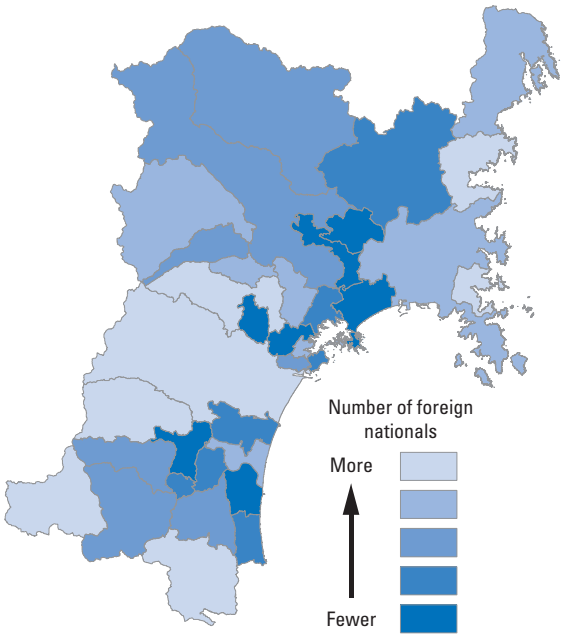
Ranking	Municipalities	—
19th	Iwanuma City	0.293
20th	Watari Town	0.274
21st	Zao Town	0.264
22nd	Osato Town	0.257
23rd	Natori City	0.252
24th	Misato Town	0.252
25th	Kami Town	0.230
26th	Kakuda City	0.215
27th	Taiwa Town	0.211
28th	Rifu Town	0.197
29th	Ohira Village	0.174
30th	Shichigahama Town	0.168
31st	Shibata Town	0.155
32nd	Tomiya City	0.154
33rd	Shikama Town	0.152
34th	Wakuya Town	0.131
35th	Tagajo City	0.129



J7 Number of foreign nationals (per 1,000 population)

Ranking	Municipalities	—
1st	Onagawa Town	38.54
2nd	Shichikashuku Town	28.07
3rd	Kawasaki Town	16.47
4th	Minami-Sanriku Town	15.74
5th	Taiwa Town	15.38
6th	Marumori Town	14.95
7th	Sendai City	12.81
8th	Ohira Village	12.25
9th	Osato Town	11.49
10th	Shiogama City	10.69
11th	Kesennuma City	10.23
12th	Ishinomaki City	9.55
13th	Kami Town	8.97
14th	Iwanuma City	8.83
15th	Kurihara City	8.64
16th	Kakuda City	7.75
17th	Shiroishi City	7.20
18th	Shikama Town	6.90

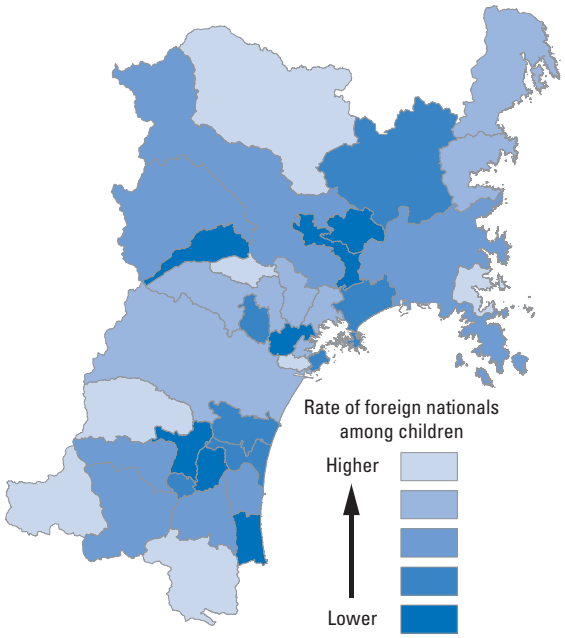
Ranking	Municipalities	—
19th	Tagajo City	6.65
20th	Zao Town	6.54
21st	Osaki City	6.46
22nd	Shichigahama Town	5.76
23rd	Ogawara Town	5.53
24th	Natori City	5.53
25th	Tome City	5.41
26th	Matsushima Town	5.33
27th	Shibata Town	4.93
28th	Yamamoto Town	4.93
29th	Watari Town	4.80
30th	Murata Town	4.62
31st	Rifu Town	4.60
32nd	Tomiya City	4.54
33rd	Wakuya Town	4.02
34th	Higashi-Matsushima City	3.75
35th	Misato Town	3.30



J8 Rate of foreign nationals among children (per 1,000 population)

Ranking	Municipalities	%
1st	Shichikashuku Town	4.706
2nd	Marumori Town	1.753
3rd	Onagawa Town	1.739
4th	Tagajo City	1.532
5th	Kawasaki Town	1.237
6th	Ohira Village	0.847
7th	Kurihara City	0.835
8th	Osato Town	0.831
9th	Sendai City	0.786
10th	Minami-Sanriku Town	0.763
11th	Kesennuma City	0.552
12th	Shiogama City	0.452
13th	Taiwa Town	0.450
14th	Matsushima Town	0.436
15th	Ishinomaki City	0.399
16th	Shiroishi City	0.387
17th	Osaki City	0.363
18th	Kakuda City	0.322

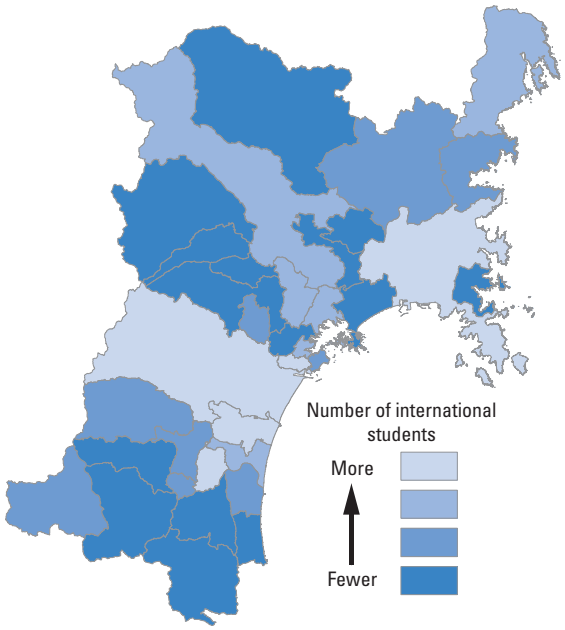
Ranking	Municipalities	%
19th	Kami Town	0.319
20th	Zao Town	0.290
21st	Watari Town	0.287
22nd	Iwanuma City	0.278
23rd	Tomiya City	0.261
24th	Ogawara Town	0.256
25th	Natori City	0.253
26th	Shichigahama Town	0.199
27th	Higashi-Matsushima City	0.185
28th	Tome City	0.155
29th	Shibata Town	0.143
30th	Yamamoto Town	0.126
31st	Rifu Town	0.096
32nd	Shikama Town	0.088
33rd	Murata Town	0.000
33rd	Misato Town	0.000
33rd	Wakuya Town	0.000



J9 Number of international students (actual number)

Ranking	Municipalities	—
1st	Sendai City	4,915
2nd	Tagajo City	44
3rd	Shibata Town	20
4th	Ishinomaki City	16
5th	Natori City	11
6th	Matsushima Town	9
7th	Kesennuma City	6
7th	Osaki City	6
9th	Shiogama City	5
10th	Osato Town	4
10th	Iwanuma City	4
12th	Shichikashuku Town	2
12th	Kawasaki Town	2
14th	Minami-Sanriku Town	1
14th	Watari Town	1
14th	Tomiya City	1
14th	Ogawara Town	1
14th	Shichigahama Town	1

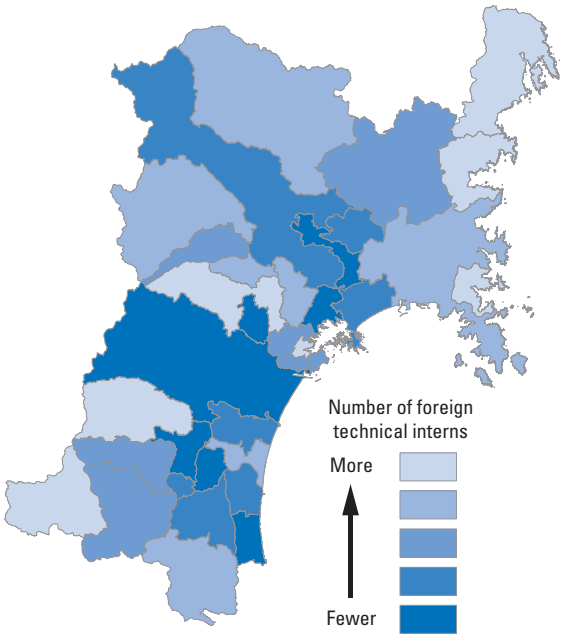
Ranking	Municipalities	—
14th	Tome City	1
14th	Murata Town	1
21st	Marumori Town	0
21st	Onagawa Town	0
21st	Ohira Village	0
21st	Kurihara City	0
21st	Taiwa Town	0
21st	Shiroishi City	0
21st	Kakuda City	0
21st	Kami Town	0
21st	Zao Town	0
21st	Higashi-Matsushima City	0
21st	Yamamoto Town	0
21st	Rifu Town	0
21st	Shikama Town	0
21st	Misato Town	0
21st	Wakuya Town	0



J10 Number of foreign technical interns (per 1,000 population)

Ranking	Municipalities	—
1st	Onagawa Town	31.89
2nd	Shichikashuku Town	12.03
3rd	Kawasaki Town	11.29
4th	Minami-Sanriku Town	10.92
5th	Taiwa Town	7.97
6th	Kesennuma City	6.54
7th	Shiogama City	6.31
8th	Ishinomaki City	5.46
9th	Osato Town	4.98
10th	Marumori Town	4.88
11th	Iwanuma City	4.60
12th	Kurihara City	4.24
13th	Ohira Village	4.14
14th	Kami Town	4.05
15th	Shikama Town	3.30
16th	Shiroishi City	2.64
17th	Rifu Town	2.09
18th	Zao Town	2.01

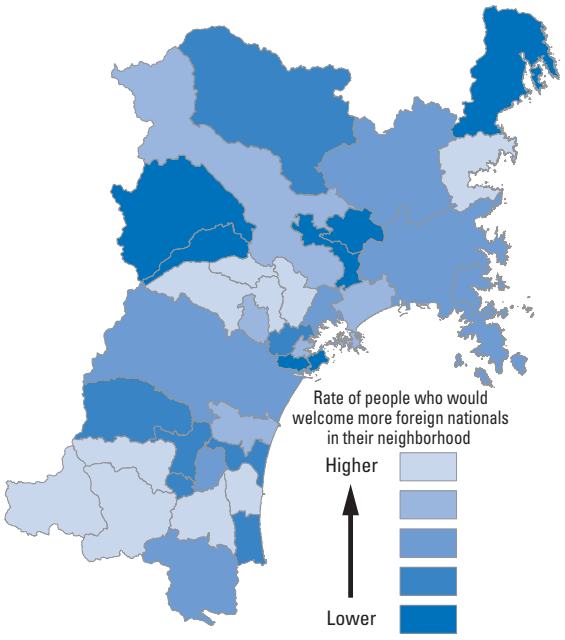
Ranking	Municipalities	—
19th	Tome City	1.77
20th	Shichigahama Town	1.73
21st	Tagajo City	1.71
22nd	Kakuda City	1.70
23rd	Ogawara Town	1.56
24th	Natori City	1.44
25th	Osaki City	1.33
26th	Higashi-Matsushima City	1.26
27th	Wakuya Town	1.23
28th	Watari Town	1.16
29th	Tomiya City	1.12
30th	Murata Town	0.85
31st	Sendai City	0.85
32nd	Shibata Town	0.72
33rd	Misato Town	0.63
34th	Yamamoto Town	0.59
35th	Matsushima Town	0.53



J11 Rate of people who would welcome more foreign nationals in their neighborhood (questionnaire survey)

Ranking	Municipalities	Index
1st	Kakuda City	50.7
2nd	Shichikashuku Town	42.3
2nd	Shiroishi City	42.3
2nd	Zao Town	42.3
5th	Minami-Sanriku Town	40.0
6th	Watari Town	38.5
7th	Osato Town	38.1
7th	Ohira Village	38.1
7th	Taiwa Town	38.1
10th	Shiogama City	34.6
11th	Natori City	33.3
12th	Higashi-Matsushima City	31.7
13th	Osaki City	31.3
14th	Tomiya City	31.2
15th	Tome City	30.0
16th	Matsushima Town	28.6
17th	Sendai City	27.4
18th	Ishinomaki City	26.5

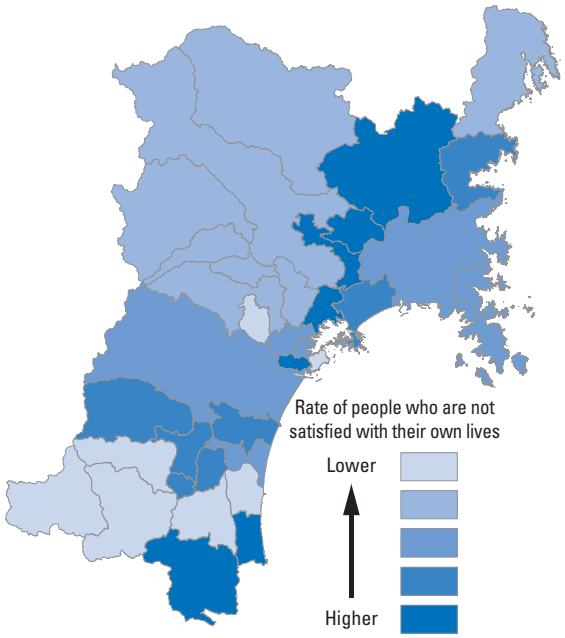
Ranking	Municipalities	Index
18th	Onagawa Town	26.5
20th	Marumori Town	25.9
21st	Shibata Town	24.3
22nd	Rifu Town	24.0
23rd	Yamamoto Town	23.5
24th	Kawasaki Town	22.2
24th	Ogawara Town	22.2
24th	Murata Town	22.2
27th	Iwanuma City	21.1
28th	Kurihara City	20.0
29th	Kesennuma City	18.6
30th	Tagajo City	17.0
31st	Kami Town	16.0
31st	Shikama Town	16.0
33rd	Wakuya Town	12.5
33rd	Misato Town	12.5
35th	Shichigahama Town	12.0



K1 Rate of people who are not satisfied with their own lives (questionnaire survey)

Ranking	Municipalities	%
1st	Kakuda City	0.0
1st	Shichigahama Town	0.0
3rd	Watari Town	3.8
3rd	Shiroishi City	3.8
3rd	Zao Town	3.8
3rd	Shichikashuku Town	3.8
7th	Tomiya City	3.9
8th	Shikama Town	4.0
8th	Kami Town	4.0
10th	Kesennuma City	4.7
11th	Taiwa Town	4.8
11th	Osato Town	4.8
11th	Ohira Village	4.8
14th	Osaki City	5.0
14th	Kurihara City	5.0
16th	Shiogama City	5.1
17th	Iwanuma City	5.3
18th	Rifu Town	6.0

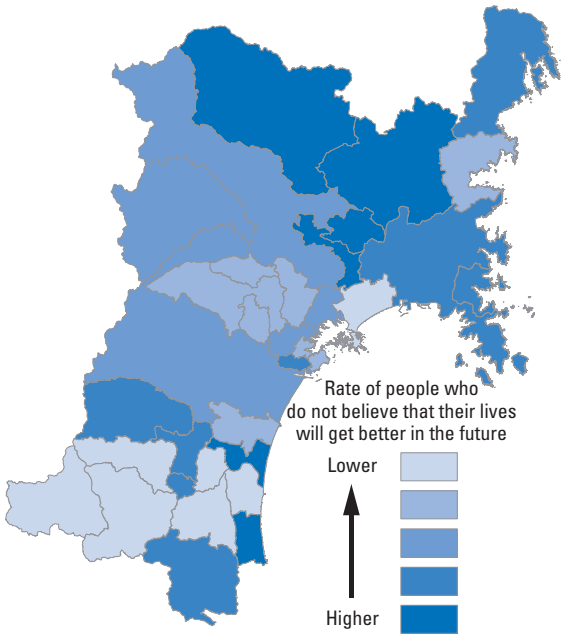
Ranking	Municipalities	%
19th	Ishinomaki City	6.3
19th	Onagawa Town	6.3
21st	Sendai City	6.6
22nd	Natori City	7.1
23rd	Higashi-Matsushima City	7.3
24th	Minami-Sanriku Town	8.0
25th	Shibata Town	8.1
26th	Ogawara Town	8.9
26th	Murata Town	8.9
26th	Kawasaki Town	8.9
29th	Tagajo City	9.4
29th	Wakuya Town	9.4
29th	Misato Town	9.4
32nd	Marumori Town	11.1
33rd	Tome City	11.7
34th	Yamamoto Town	11.8
35th	Matsushima Town	17.9



K2 Rate of people who do not believe that their lives will get better in the future (questionnaire survey)

Ranking	Municipalities	%
1st	Watari Town	9.6
2nd	Shibata Town	10.8
3rd	Shiroishi City	11.5
3rd	Zao Town	11.5
3rd	Shichikashuku Town	11.5
6th	Higashi-Matsushima City	12.2
7th	Kakuda City	12.5
8th	Shiogama City	12.8
9th	Natori City	13.1
10th	Taiwa Town	14.3
10th	Osato Town	14.3
10th	Ohira Village	14.3
13th	Tomiya City	15.6
14th	Shichigahama Town	16.0
14th	Minami-Sanriku Town	16.0
16th	Sendai City	16.3
17th	Matsushima Town	17.9
18th	Rifu Town	18.0

Ranking	Municipalities	%
19th	Osaki City	18.8
20th	Shikama Town	20.0
20th	Kami Town	20.0
22nd	Kesennuma City	20.9
23rd	Ishinomaki City	21.3
23rd	Onagawa Town	21.3
25th	Marumori Town	25.9
26th	Tagajo City	26.4
27th	Ogawara Town	26.7
27th	Murata Town	26.7
27th	Kawasaki Town	26.7
30th	Tome City	27.5
31st	Iwanuma City	27.6
32nd	Kurihara City	28.3
33rd	Wakuya Town	31.2
33rd	Misato Town	31.2
35th	Yamamoto Town	41.2



Reference Materials 2: Profiles of Municipalities in Miyagi Prefecture

In order to highlight the main human security issues that each municipality in Miyagi Prefecture needs to address, this section presents profiles and radar charts for every municipality.

These radar charts show the municipalities' rankings in the Life, Livelihood, and Dignity indices (see Chapter 3, 3-4), as well as subjective measures of Self-fulfillment and Social Connectivity. Self-fulfillment compares residents' self-evaluations taken from the questionnaire, while Social Connectivity compares municipalities based on the strength of the ties between residents, as well as people's vulnerabilities in terms of their feelings of isolation (see Chapter 3, 3-5).

It should be noted that the goal of this study is not to rank municipalities. Rather, it aims to visualize the position of each municipality within Miyagi Prefecture and to highlight the issues that each of them must tackle. The shape of the pentagon in the radar charts is therefore more important than its total area.

The profiles also describe the priority issues to be addressed by each municipality, based on the relative ranking of indicators. However, these issues are not necessarily exhaustive. Readers are encouraged to refer to the full list of indicators to get a comprehensive picture.

Population data is as of August 31, 2022. Land area data is from the Geospatial Information Authority of Japan's *Planimetric Reports on Land Area by Prefectures and Municipalities in Japan*.

At the top right corner, data is given on the following.
(1) Overall Index ranking; **(2)** Population (as of August 31, 2022); **(3)** Estimated population in 2035; and **(4)** Land area (km^2).

• Urban areas

Sendai City

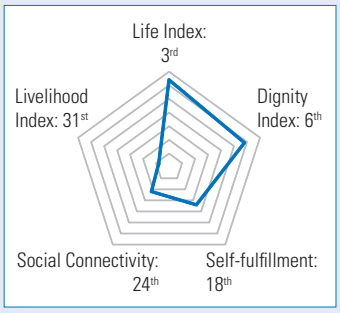
(1) 5th **(2)** 1,068,129 people **(3)** 1,015,478 people **(4)** 786.4 km^2

Overall Evaluation

Sendai's ranking of 31st in the Livelihood Index is low compared to those for the Life (3rd) and Dignity (6th) indices. Self-fulfillment and Social Connectivity are both around average at 18th and 24th respectively. Life and Health indicators are high, as is health awareness. The rate of people aged 65 and over with a job is low. Improvements to issues involving children and education are a priority. The number of reported cases of bullying is high, and non-attendance at school is a serious problem. There are also many children on waiting lists for nurseries and a high rate of recipients of school attendance support. The number of consultations at Child Welfare Centers and the rate of households receiving livelihood protection allowance are the highest in the prefecture. Other issues involve the city's living environment, such as housing adapted for the elderly, floor space per residence, the rate of owner-occupied households, the number of cars owned, and the number of reported criminal offenses. The picture in terms of gender is good, including promotion of gender equality and rate of women among assembly members, members of advisory councils, and heads of community associations. Election turnout is low. The international character of the city is high, with high numbers of foreign residents and international students, but there are relatively few neighborhood associations.

Relationship between the Municipality's Comprehensive Plan and the SDGs

The city's slogan is "Towards a New City of Trees that Continues to Take on Challenges — the Greenest City SENDAI." Numerical targets are limited, and there are no numerical targets for reducing child poverty, bullying, or non-attendance at school. We hope that efforts will be made to incorporate the human dignity aspect of the SDGs into specific goals.



Priority Issues

Rate of households receiving livelihood protection allowance, coverage of children's medical expenses, rate of recipients of school attendance support, bullying, non-attendance at school, places for children to spend time outside school

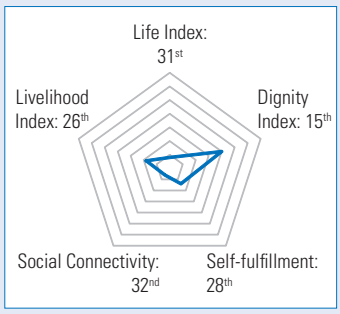
Ishinomaki City

(1) 29th **(2)** 137,392 people **(3)** 107,494 people **(4)** 554.6 km²

Overall Evaluation

Ishinomaki's ranking of 31st in the Life Index, 26th in the Livelihood Index, and 15th in the Dignity Index places it around the middle overall. Self-fulfillment (28th) and Social Connectivity (32nd) are relatively poor. Both average life expectancy at birth (31st for men and 30th for women) and Healthy Life Expectancy (HALE) are low (24th for men and 14th for women). The situation is good in terms of the number of physicians, obstetricians and gynecologists, exercise habits, etc. A high proportion of children come from single-parent households. There is a large proportion of low-income households and a high rate of people fully exempted from national pension contributions. Employment rates for women and the elderly are low. Although there are many children's homes, both the number of consultations at Child Welfare Centers and the rate of households receiving livelihood protection allowance are high. The city has the most annual hours of sunshine and generates the largest amount of renewable energy in the prefecture. Despite the fact that the number of deaths and the rate of damage to housing due to natural disasters are high, the rate of seismic reinforcement for public facilities that serve as disaster prevention centers has not reached 100%. There is an emphasis on gender equality, and the number of children given foster care placements is high. Election turnout is low. Community ties are strong, and there are many NPOs and foreign technical interns.

Relationship between the Municipality's Comprehensive Plan and the SDGs



Ishinomaki's slogan is "To create a vibrant Ishinomaki that capitalizes on food, a city where young people can take on new challenges." Projects such as the SDGs Future City are limited to the environmental sphere, offering little in terms of addressing the dignity of women and children.

Priority Issues

Disaster recovery, seismic reinforcement of public facilities that serve as disaster prevention centers, population decline, promoting inward migration and settlement, rate of people getting regular health checks, rate of households receiving livelihood protection allowance, places for children to spend time outside school

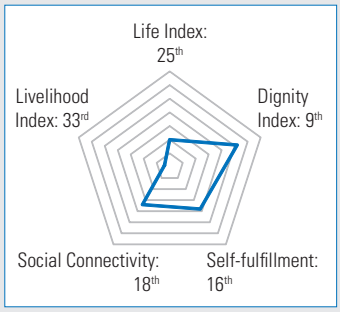
Shiogama City

(1) 29th **(2)** 52,697 people **(3)** 42,409 people **(4)** 17.4 km²

Overall Evaluation

Shiogama ranks poorly in the Livelihood Index (33rd) and Life Index (25th), but high in the Dignity Index (9th). Self-fulfillment and Social Connectivity are both around average at 16th and 18th, respectively. Average life expectancy at birth is relatively low for both men and women (32nd for men and 25th for women), but HALE is high (8th for men and 13th for women). The fertility rate is low, and the unmarried rate for women is high. The rate of children in single-parent households and the rate of households comprised of single elderly people are high, as are annual medical expenses per capita. There are issues with employment, such as the high unemployment rate and the low rate of people aged 65 and over with a job. The rate of non-attendance at school is on the high side. The number of opportunities for lifelong learning is the highest in the prefecture. There is an urgent need to improve the ICT education environment in elementary and junior high schools. Both the rate of households receiving livelihood protection allowance and the number of consultations at Child Welfare Centers are high. The sewage treatment rate is high, and the number of drunk driving violations is low. The volunteer firefighter sufficiency rate is the lowest in the prefecture. There is an emphasis on gender equality, with high rates of women among municipal assembly members and heads of community associations. Issues of concern are the number of consultations on child abuse and the suicide rate among women. Community ties are strong.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The city's slogan is "A port town that values individuality, where delicious food and smiles abound. A city of food, a wealth of new attractions, and the sea, stretching out towards the future." However, the city's basic vision does not contain any explicit statements relating to human dignity.

Priority Issues

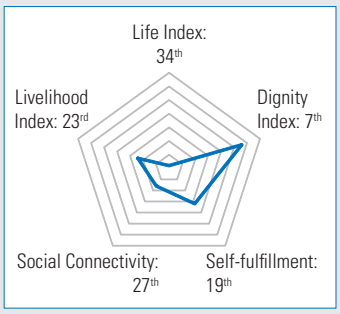
Population decline, promotion of inward migration and settlement, expansion of employment opportunities, rate of households receiving livelihood protection allowance, non-attendance at school, places for children to spend time outside school, ICT education environment, volunteer firefighter sufficiency rate, rate of people getting regular health checks, rate of smoking among adults

Kesennuma City

(1) 27th **(2)** 59,316 people **(3)** 43,466 people **(4)** 332.4 km²

Overall Evaluation

Kesennuma ranks 34th in the Life Index, which is extremely low, and 23rd in the Livelihood Index. However, it ranks high in the Dignity index at 7th. Self-fulfillment (19th) and Social Connectivity (27th) are relatively low. Both life expectancy (35th for men and 31st for women) and HALE (28th for men and 22nd for women) are low. The number of deaths and damage to housing caused by natural disasters is extremely high. The working-age population and the rate of inward migration are low, while the rate of elderly people is high. A high proportion of children come from single-parent households. There are high rates of low-income households and people fully exempted from national pension contributions. The employment rate among women is low. Kesennuma is a leader in ESD education. It has published figures for cases of non-attendance at school and put in place stronger measures to combat it. There are many consultations at Child Welfare Centers, and the rate of applicants for special nursing facilities is high. The sewage treatment rate is low. Both the volunteer firefighter sufficiency rate and the rate of seismic reinforcement of public facilities that serve as disaster prevention centers are low. Although the city performs well in promoting gender equality and the percentage of women in management positions, there are few female assembly members. Its promotional activities to increase migration and settlement are very effective. There are high numbers of foreign technical interns.



Relationship between the Municipality's Comprehensive Plan and the SDGs

The vision for the city's development incorporates the SDGs, under the slogan "A prosperous local community connected to the world." However, there is little reference to human dignity or using the SDGs to transform society.

Priority Issues

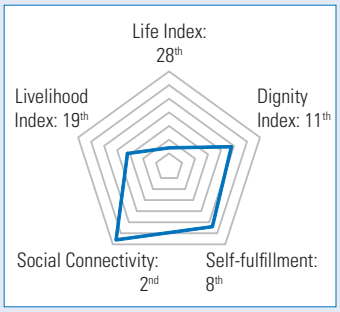
HALE (men and women), promotion of migration and settlement, increasing rate of elderly people, economic revitalization, employment opportunities for women, seismic reinforcement of public facilities, sewage treatment rate, places for children to spend time outside school

Shiroishi City

(1) 18th **(2)** 32,173 people **(3)** 25,888 people **(4)** 286.5 km²

Overall Evaluation

Shiroishi's position of 28th in the Life Index is low, but its ranking is around average for the Livelihood Index (19th) and the Dignity Index (11th). Self-fulfillment and Social Connectivity are strong, at 8th and 2nd, respectively. Both average life expectancy (19thfor men, 19th for women) and HALE (12th for men, 24th for women) are around average. The rate of unmarried men is high. Medical expenses per capita and the number of teeth lost as of age 12 are high, while the rate of people getting regular health checks is low. There are high rates of low-income households and people fully exempted from pension contributions. Improvement of the ICT education environment remains an issue to be addressed. There is a positive picture in terms of Long-Term Care Insurance contributions and the rate of applicants for special nursing facilities. The amount of electricity generated from renewable sources and the number of cars owned per capita are high. Turnout in elections is high, as is the percentage of women in managerial positions. Conversely, there are high numbers of consultations on child abuse and high rates of death by suicide among children. There are no women assembly members or heads of community associations. Community ties are strong.



Relationship between the Municipality's Comprehensive Plan and the SDGs

The city's motto is "Shiroishi: a place where people and communities shine to create new values together." The goal is to create sustainable, multi-functional self-governance, but the number of quantitative targets is limited. The emphasis on building communities that engender a sense of pride and attachment to one's hometown, as well as on co-existence between multiple generations and cultures, is commendable.

Priority Issues

Population decline, declining number of children, increasing rate of elderly people, promotion of migration and settlement, regional disparities, employment opportunities, child abuse, places for children to spend time outside school, the proportion of women among municipal assembly members and community association heads

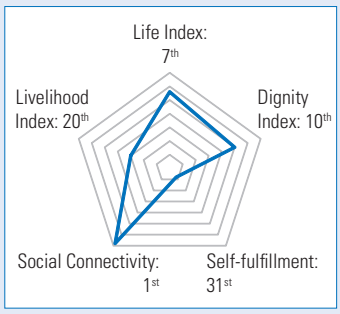
Natori City

(1) 7th **(2)** 79,623 people **(3)** 80,769 people **(4)** 98.2 km²

Overall Evaluation

Natori ranks highly in the Life and Dignity indices, at 7th and 10th respectively, but somewhat low in the Livelihood Index (20th). Self-fulfillment is low at 31st, but Social Connectivity is the strongest in the prefecture. Relatively speaking, men perform better than women in average life expectancy (10th for men, 14th for women) and HALE (7th for men, 16th for women). The fertility rate is high, and the proportion of children and people of working age out of the total population is high. The population is growing with a high rate of inward migration, and the rate of elderly people is low. There are many deaths and injuries due to traffic accidents. Health awareness is good, with high levels of people engaging in habitual exercise. There is a high rate of regular employees among employed persons. There are no schools designated as UNESCO Schools. The rate of applicants for special nursing facilities is high. The volunteer firefighter sufficiency rate is low, and there are many reported criminal offenses. There is a strong focus on the promotion of gender equality, with high numbers of women assembly members, but the proportion of women in municipal management positions is low. The rate of deaths by suicide among children is high. Community ties are strong.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The city's slogan is "Vibrant. Our beloved Natori — building together for the future." The city's Comprehensive Plan relates goals in each area to the relevant SDGs, quantifies outcome targets, and lists issues and problems. It also emphasizes a society of coexistence that recognizes diversity. However, the main areas of concern are fiscal and environmental.

Priority Issues

Declining numbers of children, support for childcare, eliminating waiting lists for nurseries, disaster prevention and mitigation, volunteer firefighters, employment opportunities for women and the elderly, number of deaths and injuries due to traffic accidents, women in municipal management positions, rate of deaths by suicide among children

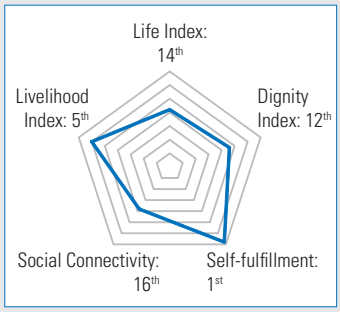
Kakuda City

(1) 8th **(2)** 27,444 people **(3)** 23,282 people **(4)** 147.5 km²

Overall Evaluation

Relative to its high position of 5th in the Livelihood Index, Kakuda ranks around average in the Life and Dignity indices at 14th and 12th, respectively. Self-fulfillment is the highest in the prefecture, but it ranks 16th in Social Connectivity. Men's average life expectancy (26th for men, 11th for women) and HALE (29th for men, 19th for women) are low. The health environment is positive, with low amounts paid for National Health Insurance per capita and low rates of lost teeth among children aged 12. The fertility rate is low. The rate of low-income households is high, and the average monthly amount of household purchases is low. There is a low rate of recipients of school attendance support, and many schools are designated as UNESCO Schools. Educational expenditure per capita is low. There is a low rate of households receiving livelihood protection allowance and a low rate of applicants for special nursing facilities. The volunteer firefighter sufficiency rate is good. There is a high rate of death by suicide among children. There are few female members of advisory councils, etc., and none serving as heads of community associations. There is a high proportion of people who would welcome an increase in foreign residents.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The city's slogan is "Kakuda, a city of rural exchange where people and communities flourish and all kinds of individuality can shine through." There is a policy to reflect the goals of the SDGs in the city's Comprehensive Plan, with an emphasis on eliminating domestic violence, early detection of child abuse, and prevention of bullying. It is commendable that the city has set a numerical target for reducing non-attendance at school (1.43%→1.0%).

Priority Issues

HALE (men), inward migration and settlement, employment opportunities, childcare support, local healthcare, female members of advisory councils, female heads of community associations

Tagajo City

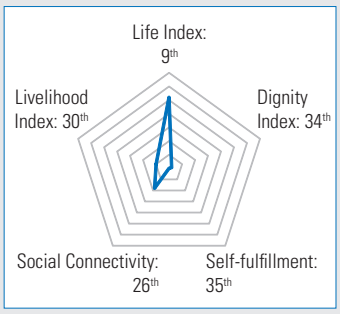
(1) 25th **(2)** 62,128 people **(3)** 52,741 people **(4)** 19.7 km²

Overall Evaluation

Tagajo ranks high on the Life Index (9th), but very low on the Livelihood Index (30th) and the Dignity Index (34th). At 35th, its score for Self-fulfillment is the lowest in the prefecture. At 26th, Social Connectivity is also weak. For women, average life expectancy (8th for men, 30th for women) and HALE (13th for men, 25th for women) are low. The fertility rate is high, as is the rate of inward migration. The proportion of children and people of working age out of the total population is high. The number of general hospitals and clinics per capita is low. Health awareness is good, with high levels of people engaging in habitual exercise. Overall, there is a high rate of regular employees among employed persons, but the rate for women is low. Labor productivity is low. There are many children on waiting lists for nurseries. There are a good number of children's homes and facilities for the elderly. Conversely, the rate of households receiving livelihood protection allowance is high, with few nursing care workers and livelihood protection allowance caseworkers. There is limited housing adapted for the elderly. The volunteer firefighter sufficiency rate is low. Although there is a high proportion of female representatives in the municipal assembly, there are no women among heads of community associations. There are few neighborhood associations and NPOs.

Relationship between the Municipality's Comprehensive Plan and the SDGs

The city's slogan is "Tagajo, a historic city nurturing the future — mutual support, learning, and growth —a beautiful Tagajo bringing smiles to citizens." A policy is in place to reflect the SDGs.



Priority Issues

Promotional activities to increase visitors, migration and settlement, support for childcare, rate of households receiving livelihood protection allowance, places for children to spend time outside school, female heads of community associations, volunteer firefighter sufficiency rate

Iwanuma City

(1) 9th **(2)** 43,760 people **(3)** 41,369 people **(4)** 60.5 km²

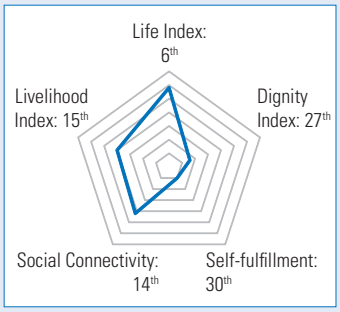
Overall Evaluation

Compared to its positions in the Life and Livelihood indices (6th and 15th), Iwanuma ranks low in the Dignity Index at 27th. Self-fulfillment is low at 30th, but Social Connectivity is around average (14th). Women's life expectancy (8th for women, 3rd for men) and HALE (21st for women, 15th for men) are low relative to men. The proportion of children in the population is high while the rate of elderly people is low. The proportion of working age out of the total population is high. There is good coverage of children's medical expenses, high rates of habitual exercise, and low rates of smoking among adults, suggesting a high level of health awareness. However, there are many deaths and injuries due to traffic accidents.

The rate of regular employees among employed persons is high, as is the rate of people with disabilities among employees. The financial capability index is also high. There is a good environment for ICT education in elementary and junior high schools, and there are many opportunities for lifelong learning. The student obesity rate (at 6th grade of elementary school) is low. There are few livelihood protection allowance caseworkers, and the number of children's homes is an issue to be addressed. The rate of female members of advisory councils, etc. is high. There are high rates of death by suicide among both children and women. Election turnout is low. There are many neighborhood associations.

Relationship between the Municipality's Comprehensive Plan and the SDGs

The city's slogan is "Iwanuma, an advanced, healthy, and happy city bursting with love." The city's Comprehensive Plan includes quantified indices for happiness, health, and livability. However, looking beyond the pursuit of safety, happiness, and peace of mind, there is little content relating to individual dignity.



Priority Issues

Reconstruction, safety and security, support for childcare, rate of recipients of school attendance support, places for children to spend time outside school

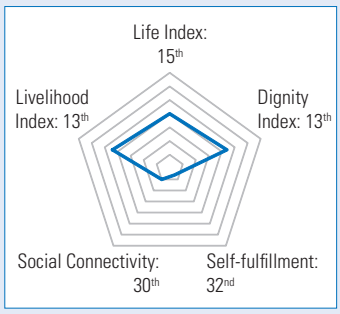
Tome City

(1) 12th **(2)** 75,199 people **(3)** 62,595 people **(4)** 536.1 km²

Overall Evaluation

There is a good balance in Tome's rankings across the Life (15th), Livelihood (13th), and Dignity (13th) indices, but Self-fulfillment and Social Connectivity are low at 32nd and 30th, respectively. Both average life expectancy (23rd for men, 20th for women) and HALE (30th for men, 20th for women) are around average. Per capita medical costs are low, the rate of people getting regular health checks is high, and coverage of children's medical expenses is extensive. However, there are few doctors and the rate of death by suicide is high. Agricultural and fishery output is high. There is a high rate of low-income households and relatively few regular employees among employed persons. Employment rates for women and those aged 65 and over are high. The financial capability index is low. There are many opportunities for lifelong learning, and many facilities for the elderly. The volunteer firefighter sufficiency rate is low. There are few consultations on child abuse, but the rate of death by suicide among children is high. Promotional activities to communicate the city's appeal are highly effective.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The city's slogan is "Sustainable development through collaboration with citizens — Tome: a comfortable city bursting with smiles and a rich natural environment." City policies are linked to the SDGs. It has obtained FSC certification with the aim of achieving sustainable forestry. Targets to be achieved have also been revised, and particular emphasis is placed on the human rights of men and women and the eradication of domestic violence and bullying.

Priority Issues

HALE (especially for men), population decline, declining numbers of children, clustering of city functions, lack of doctors (obstetrics/gynecology/pediatric clinics), rate of deaths by suicide among children, full-time caseworkers, difficult fiscal situation

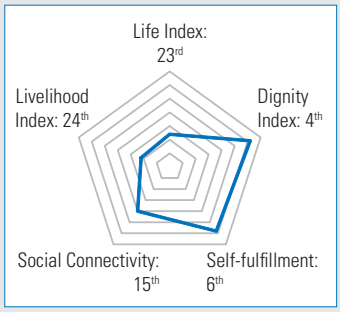
Kurihara City

(1) 15th **(2)** 63,745 people **(3)** 48,036 people **(4)** 805.0 km²

Overall Evaluation

Although Kurihara ranks low in the Life (23rd) and Livelihood indices (24th), it ranks 4th in the Dignity Index. Self-fulfillment and Social Connectivity are 6th and 15th, respectively. Both average life expectancy (29th for men, 21st for women) and HALE (11th for men, 23rd for women) are around average. Coverage of children's medical expenses is extensive. However, there are various issues in terms of health, such as few doctors, high medical expenses per capita, and low rates of habitual exercise. Other major issues include a high rate of unmarried men, a small working-age population, a high percentage of households consisting of a single elderly person, and an aging population with fewer children. The rate of regular employees among employed persons is low. There are many low-income households, with a high rate of households receiving livelihood protection allowance, while labor productivity and the financial capability index are low. The city generates a large amount of electricity from renewable sources, but the sewage treatment rate is low, as is the rate of seismic reinforcement of public facilities that serve as disaster prevention centers. Although there are many women in municipal management positions and municipal advisory councils, there are no female representatives in the municipal assembly. Promotional activities to communicate the city's appeal are highly effective. There are many designated cultural properties, community centers, and neighborhood associations.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The city's slogan is "Citizens will build a Kurihara they want to live in — creating an ideal living space in harmony with our precious natural environment." There is a policy to reflect the SDGs in the city's basic plan.

Priority Issues

Population decline, declining numbers of children, increasing rate of elderly people, rate of unmarried men, clustering of city functions, promotion of migration and settlement, rate of households receiving livelihood protection allowance, seismic reinforcement of public facilities that serve as disaster prevention centers, women assembly members

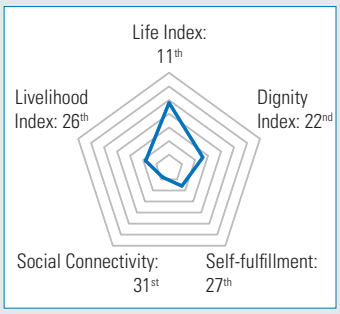
Higashi-Matsushima City

(1) 21st **(2)** 39,042 people **(3)** 33,841 people **(4)** 101.3 km²

Overall Evaluation

At 11th, Higashi-Matsushima ranks high in the Life Index, but low in the Livelihood and Dignity indices (at 26th and 22nd, respectively). Self-fulfillment and Social Connectivity are low, at 27th and 31st, respectively. The Great East Japan Earthquake flooded 65% of the city's built-up area and caused extensive damage to people and buildings. The city performed better in HALE (9th for men, 10th for women) than average life expectancy (24th for men, 21st for women). The rate of unmarried men is low, and the fertility rate is high. The situation is favorable in terms of number of doctors, coverage of children's medical expenses, and rates of habitual exercise. However, the rate of people getting regular health checks is the lowest in the prefecture. The rate of people with disabilities among employees is high, but the employment rate among women is low. Although the number of cars owned is high, per capita CO_2 emissions are low. There are many drunk driving violations. There are many consultations at Child Welfare Centers regarding child abuse, and very few places for children to spend time outside school. The percentage of women in municipal managerial positions is low. Community ties are strong.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The city's slogan is "A sustainable, prosperous, and livable Higashi-Matsushima — aiming to be a leader in regional revitalization." It is enthusiastic about promoting and advocating community development in line with the core objective of the SDGs, as shown by its selection as an SDGs Future City in 2018 and its Smart Disaster Prevention Eco-Town Project. Its targets have been quantified.

Priority Issues

Promoting disaster recovery, population decline, declining numbers of children, increasing rate of elderly people, participation in UNESCO Schools, places for children to spend time outside school, drunk driving violations, adaption of housing for the elderly, women in municipal management positions

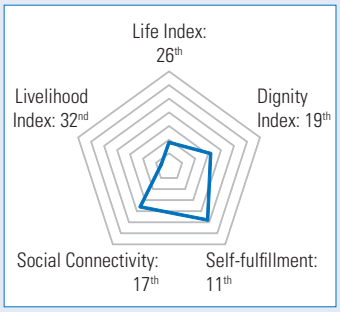
Osaki City

(1) 31st **(2)** 125,988 people **(3)** 117,643 people **(4)** 796.8 km²

Overall Evaluation

Osaki ranks 26th in the Life Index and 32nd in the Livelihood Index, which is low, but 19th in the Dignity Index, which is around average. Both Self-fulfillment (11th) and Social Connectivity (17th) are slightly higher. Average life expectancy at birth (33rd for men and 26th for women) is relatively low, but HALE (26th for men and 18th for women) is around average. Coverage of children's medical expenses and rates of habitual exercise remain issues to be addressed. A large number of Miyagi Prefecture Regional Revitalization Plans have been approved for the municipality, and the employment rate among women is high. There are many children on waiting lists for nurseries, and the rate of recipients of school attendance support is high. There are many children's homes, and also many consultations at Child Welfare Centers. The rate of households receiving livelihood protection allowance is high, as is the rate of persons requiring long-term care. The volunteer firefighter sufficiency rate is high, but the rate of seismic reinforcement of public facilities that serve as disaster prevention centers is low. Residences adapted for the elderly, car ownership, and the sewage treatment rate are low. Gender equality initiatives are substantial. The number of consultations regarding child abuse is the highest in the prefecture.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The city's slogan is "Osaki, the treasure city — always Osaki, someday Osaki." Osaki's farmland has been recognized as a Globally Important Agricultural Heritage System for sustainable rice paddy farming. The municipality emphasizes "hometown studies" which aim to foster a sense of affection towards the local area, and has also established a children's fund. However, awareness of issues relating to human dignity is still poor.

Priority Issues

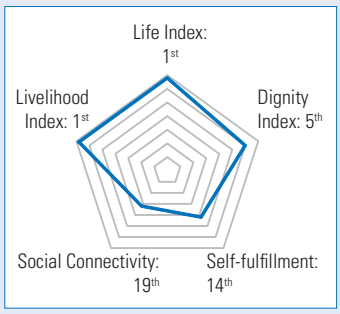
Promotional activities to increase visitors, inward migration and settlement, the rate of households receiving livelihood protection allowance, children on waiting lists for nurseries, consultations at Child Welfare Centers, consultations regarding child abuse, rate of school attendance support recipients, seismic reinforcement of public facilities that serve as disaster prevention centers, more caseworkers

Tomiya City

(1) 1st **(2)** 52,258 people **(3)** 58,051 people **(4)** 49.2 km²

Overall Evaluation

Tomiya ranks first in both the Life and Livelihood indices, and also high (5th) in the Dignity Index. However, rankings of 14th and 19th for Self-fulfillment and Social Connectivity respectively show a disconnect between residents' subjective perceptions and the objective data. Both average life expectancy (4th for men, 1st for women) and HALE (2nd for men, 15th for women) are high. The proportion of children and people of working age relative to the total population is low, as are the unmarried rate, the rate of households comprised of a single elderly person, and the rate of children in single-parent households. There is a high level of health awareness in terms of the rate of people getting regular health checks, the smoking rate, and rates of habitual exercise. Both the rate of low-income households and rate of people fully exempted from national pension contributions are the lowest in the prefecture. Employment rates for women and the elderly are high, and the financial capability index is positive. Labor productivity and the rate of regular employees among employed persons are low. There are no children on waiting lists for nurseries or recipients of school attendance support. All elementary and junior high schools in the city are designated as UNESCO Schools. There are few places for children to spend time outside school, and few opportunities for lifelong learning. CO_2 emissions per capita are relatively low and the sewage treatment rate are good. The rates of female assembly members, advisory council members, and community association heads are also high. There are few designated cultural properties, neighborhood associations, or NPOs.



Relationship between the Municipality's Comprehensive Plan and the SDGs

Tomiya's slogan is "Japan's number one city that people want to live in." It is a pioneering participant in UNICEF's Child Friendly Cities and Communities initiative. It has also implemented a low-carbon hydrogen technology demonstration project and shows a strong interest in the SDGs.

Priority Issues

Rate of regular employees, places for children to spend time outside school, lifelong learning, neighborhood associations, NPOs

• Katta County

Zao Town

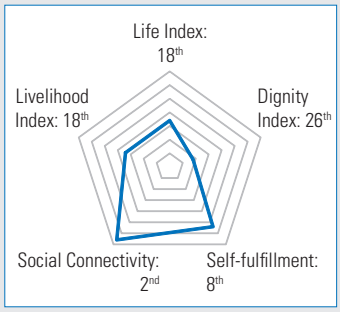
(1) 20th **(2)** 11,357 people **(3)** 9,432 people **(4)** 152.8 km²

Overall Evaluation

Zao ranks around the middle on the Life Index (18th) and the Livelihood Index (18th), and low on the Dignity Index (26th). However, both Self-fulfillment (8th) and Social Connectivity (2nd) are high. Average life expectancy (18th for men, 15th for women) is around average, but men's HALE (31st for men, 4th for women) is an issue. Per capita medical costs are low, and coverage of children's medical expenses is good. The proportion of people of working age is low, and the rate of deaths by suicide is high. There are no obstetrics/gynecology clinics. The rate of smoking among adults is high. The town has the lowest rates of employment in the prefecture for women, the elderly, and people with disabilities. The rate of school attendance support recipients is high. The environment for elderly people is good, with low Long-Term Care Insurance contributions, and although there are many people in need of long-term care, there are also high numbers of nursing care staff. The rate of applicants for special nursing facilities is high. CO_2 emissions per capita are high, and the sewage treatment rate is low. The rate of deaths by suicide among women is the prefecture's highest, there are few women on advisory councils or in municipal management positions, and there are no female assembly members or community association heads.

Relationship between the Municipality's Comprehensive Plan and the SDGs

The slogan of the town's Comprehensive Plan is "Zao, a one-of-a-kind town always full of love." The SDGs are used to promote the creation of a resource-recycling community. However, there is a lack of specific detail regarding goals for groups such as children and the elderly.



Priority Issues

HALE (especially for men), population decline, promoting migration and settlement, rate of elderly people, rate of school attendance support recipients, rate of deaths by suicide among women, number of women among municipal assembly representatives, advisory council members, municipal managers, and community association heads

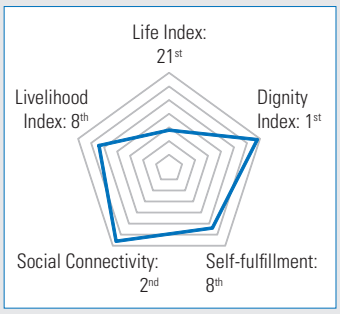
Shichikashuku Town

(1) 6th **(2)** 1,278 people **(3)** 822 people **(4)** 263.1 km²

Overall Evaluation

Shichikashuku's position of 21st on the Life Index is low, but it ranks high on the Livelihood Index (8th), and the highest in the prefecture on the Dignity Index (1st). Self-fulfillment (8th) and Social Connectivity (2nd) are also high. Average life expectancy (13th for men, 10th for women) is around average, but men's HALE (35th for men, 1st for women) is an issue. The rate of people getting regular health checks is high, coverage of children's medical expenses is extensive, and rates of smoking among adults are low, indicating a high level of health awareness. The proportion of children and people of working age relative to the total population is the lowest in the prefecture, while the proportion of households comprised of a single elderly person is the highest. The rate of people requiring long-term care is the highest in the prefecture, but there are also many facilities for the elderly available. The town has few annual hours of sunshine. Turnout in elections is the highest. There are few consultations regarding child abuse. There are no women in the municipal assembly or among the heads of community associations, and the percentage of women on advisory councils and in municipal management positions is also low. Promotional activities to communicate the town's appeal are highly effective. There are many community centers and neighborhood associations.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's goal is to become a "Small but sustainable town that gets full marks for livability, where people can experience affluence and happiness." Although the municipal plan aligns with the relevant SDGs, the goals lack specific detail and there is insufficient emphasis on dignity.

Priority Issues

Population decline, rate of elderly people, inward migration and settlement, HALE (men), rate of livelihood protection allowance recipients, obesity among students, gender equality, drunk driving violations

• Shibata County

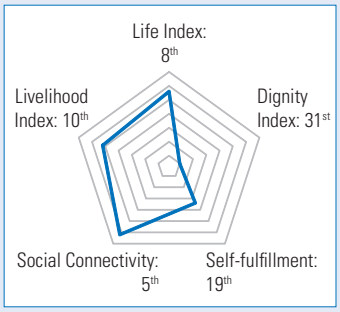
Ogawara Town

(1) 11th **(2)** 23,616 people **(3)** 22,079 people **(4)** 25.0 km²

Overall Evaluation

Ogawara ranks 8th in the Life Index and 10th in the Livelihood Index, but 31st in the Dignity Index. Self-fulfillment is around average at 19th, but Social Connectivity is strong at 5th. Both average life expectancy (7th for men, 3rd for women) and HALE (10th for men, 2nd for women) are high. Per capita medical costs are low, and coverage of children's medical expenses is extensive. The rate of unmarried women is high, as is the overall unemployment rate. There are many UNESCO Schools and a good environment for ICT education. There are many children on waiting lists for nurseries, the rate of recipients of school attendance support is high, and educational expenditures per capita are the lowest in the prefecture. The long-term care environment is favorable, with low contributions for Long-Term Care Insurance, a low rate of people requiring long-term care, and a low rate of applicants for special nursing facilities. There are issues in terms of promoting gender equality, such as no female heads of community associations. There are few designated cultural properties or neighborhood associations. The municipality achieved 2,500 days without a traffic fatality in 2020.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's slogan is "An innovative town where people, the community, and cherry blossoms are in full bloom — Ogawara, generous and resilient, long into the future." The town's Comprehensive Plan includes references to people in vulnerable situations and social inclusion for creating a sustainable community but does not have a strong focus on human rights and dignity.

Priority Issues

Curbing population decline, promoting inward migration and settlement, children on waiting lists for nurseries, rate of school attendance support recipients, places for children to spend time outside school, promoting gender equality, female heads of community associations

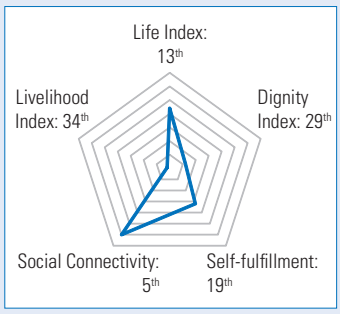
Murata Town

(1) 34th **(2)** 10,297 people **(3)** 8,857 people **(4)** 78.4 km²

Overall Evaluation

Relative to its position of 13th in the Life Index, Murata performs poorly in the Livelihood Index (34th) and the Dignity Index (29th). Self-fulfillment is around average at 19th, but Social Connectivity is strong, ranking 5th. Both average life expectancy (16th for men, 9th for women) and HALE (5th for men, 17th for women) are around average. There is a high rate of inward migration, but a low fertility rate, leading to a decline in population. Coverage of children's medical expenses is extensive. There are large numbers of deaths and injuries due to traffic accidents. There are issues with employment, such as a high overall unemployment rate, but there is a high rate of people with disabilities among employees, as well as a high rate of people aged 65 and over with a job. There are few opportunities for lifelong learning, and few facilities for the elderly. The town generates relatively little electricity from renewable sources, and the rate of seismic reinforcement of public facilities that serve as disaster prevention centers is the lowest in the prefecture. There are also many drunk driving violations. The rate of death by suicide among women is low. There are no female assembly members or community association heads, and the proportion of women in municipal management positions is also low. There are many community centers and NPOs.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The motto of the town plan is "Murata, a town where people can live in peace and abundance: peace of mind, prosperity, and livelihoods." Although it stresses that the SDGs will be reflected in the town's planning principles and measures, the main focus is on safety and security, economic revitalization, and overcoming its fiscal crisis.

Priority Issues

Population decline, promoting inward migration and settlement, opportunities for lifelong learning, female assembly members, female heads of community associations, women in municipal management positions, rate of seismic reinforcement of public facilities that serve as disaster prevention centers, drunk driving violations

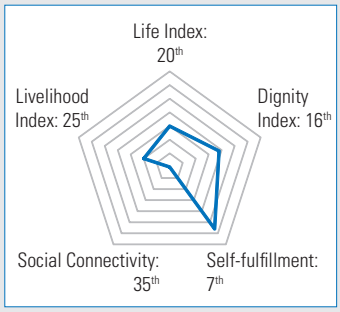
Shibata Town

(1) 22nd **(2)** 37,037 people **(3)** 35,201 people **(4)** 54.0 km²

Overall Evaluation

Shibata's rankings of 20th in the Life Index, 25th in the Livelihood Index, and 16th in the Dignity Index, place it around the middle overall. Self-fulfillment is high at 7th, but Social Connectivity is at 35th, the lowest in the prefecture. Women's life expectancy (9th for men, 27th for women) and HALE (20th for men, 27th for women) are low. The rate of unmarried men is high, and there is little inward migration. The rate of people with disabilities among employees and the rate of people aged 65 and over with a job are both good. The proportion of working women out of the total workforce is large, but the proportion of these in regular employment is small. There are many children on waiting lists for nurseries, and the rate of recipients of school attendance support is high. There are no schools designated as UNESCO Schools. Contributions for Long-Term Care Insurance are low and few people require long-term care. The rate of applicants for special nursing facilities, the number of facilities for the elderly, and the number of nursing care staff are the lowest in the prefecture. The volunteer firefighter sufficiency rate and the rate of seismic reinforcement of public facilities that serve as disaster prevention centers are both low. Although there is a high proportion of women in the municipal assembly and in municipal management positions, there are no female heads of community associations. There are few neighborhood associations or NPOs.

Relationship between the Municipality's Comprehensive Plan and the SDGs



Shibata town's vision for its future is "A town of flowers where smiles abound, and pride and affection grow." The four strategies to address industrial and population decline in the town's Comprehensive Plan include the relevant SDGs.

Priority Issues

HALE (particularly women), rate of regular employment, children on waiting lists for nurseries, school attendance support recipient rate, facilities for the elderly, number of nursing care staff, volunteer firefighter sufficiency rate, rate of seismic reinforcement of public facilities that serve as disaster prevention centers, female heads of community associations

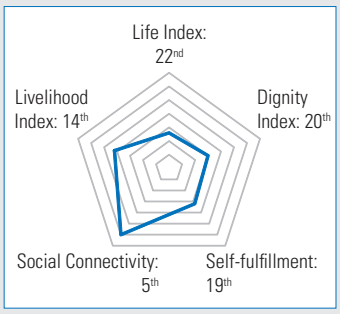
Kawasaki Town

(1) 19th **(2)** 8,315 people **(3)** 6,497 people **(4)** 270.8 km²

Overall Evaluation

Kawasaki performs well in the Livelihood Index at 14th, but ranks slightly lower in the Life and Dignity indices, at 22nd and 20th respectively. Self-fulfillment is around average at 19th, but Social Connectivity is strong, at 5th. Men's life expectancy (25th for men, 5th for women) and HALE (32nd for men, 12th for women) are low. The unmarried rate for women is low, but the fertility rate is also low, and children make up a small share of the total population. The rate of inward migration is low, and the rate of population decline is high. The rate of deaths by suicide and the rate of smoking among adults are both high. Per capita income, labor productivity, and the financial capability index are all low. The rate of regular employees among female employees is the highest in the prefecture, and the rate of people with disabilities among employees is also high. There are no children on waiting lists for nurseries, but obesity among students (6th grade of elementary school) is a problem, and improvements are needed in ICT education. There are no schools designated as UNESCO Schools. The number of consultations at Child Welfare Centers is low. Contributions for Long-Term Care Insurance are high, and there are few facilities for the elderly. The amount of electricity generated from renewable sources is low. There are numerous issues in terms of gender equality; for example, there are no female heads of community associations.

Relationship between the Municipality's Comprehensive Plan and the SDGs



Kawasaki's motto is "A 'hot' (trendy) town in harmony with nature." The main focus is on security and safety, including livelihood support, employment opportunities, the fiscal base, and healthcare measures to cope with a declining population, with little consideration given to dignity.

Priority Issues

A rapid decline in population and an increase in the rate of elderly people, inward migration and settlement, smoking rate among adults, ICT education environment, facilities for the elderly, promoting gender equality, female heads of community associations

• Igu County

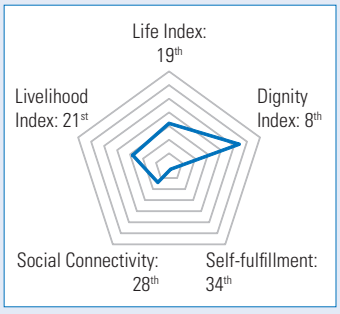
Marumori Town

(1) 14th **(2)** 12,323 people **(3)** 8,566 people **(4)** 273.3 km²

Overall Evaluation

Marumori ranks around the middle of the Livelihood (21st) and Life (19th) indices, but towards the top of the Dignity Index (8th). Self-fulfillment and Social Connectivity are both low, at 34th and 28th, respectively. Both average life expectancy (17th for men, 16th for women) and HALE (14th for men, 7th for women) are around average. The proportion of children and people of working age relative to the total population is low, while the unmarried rate for men, the rate of elderly people, and the rate of households comprised of a single elderly person are high. The number of deaths by suicide is high relative to the population. Per capita income is low, as is the financial capability index. The ICT education environment is good, and there are many opportunities for lifelong learning. The student obesity rate is high. There are substantial challenges in the field of nursing care: the rate of people requiring long-term care is high, but there are few facilities for the elderly or nursing care staff. The volunteer firefighter sufficiency rate is high. The sewage treatment rate is low. There are few community centers, and the municipality has various issues in terms of promoting gender equality, such as no female heads of community associations. Promotional activities to communicate the town's appeal are highly effective. There are many neighborhood associations and NPOs. There is also a high rate of foreign residents in the population.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's slogan is "Marumori, a prosperous and vibrant town where people and communities shine." The town's plans for recovery and reconstruction contain little from the perspectives of discrimination, gender equality, and other aspects of dignity.

Priority Issues

Recovery from severe typhoon damage. Severe population decline, declining numbers of children, increasing rate of elderly people, settlement of young people, rate of deaths by suicide, obesity among students, facilities for the elderly, sewage treatment rate, promoting gender equality

• Watari County

Watari Town

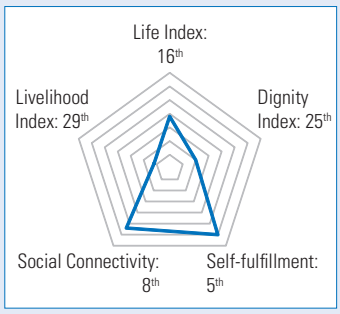
(1) 25th **(2)** 33,343 people **(3)** 26,834 people **(4)** 73.6 km²

Overall Evaluation

Although it ranked 16th in the Life Index, Watari performed poorly in the Livelihood Index (29th) and the Dignity Index (25th). Self-fulfillment and Social Connectivity are both high, at 5th and 8th, respectively. HALE (31st for women, 18th for men) for women is poor compared to average life expectancy (22nd for women, 14th for men). The fertility rate and rate of inward migration are low. Children make up a fair proportion of the total population, and the rate of elderly people is not particularly high. The healthcare environment is good, and levels of health awareness are high. The lack of obstetrics/gynecology clinics needs to be addressed. The unemployment rate is low, but so are the rates of regular employees among the employed and working women out of the total female population. Watari suffered extensive damage in the Great East Japan Earthquake, with 48% of the town inundated by water. The amount of electricity generated from renewable sources is high, and the rate of housing adapted for the elderly is very high. Election turnout is low. The rate of deaths by suicide among children is the highest in the prefecture. There are few female members of advisory councils and similar bodies.

Relationship between the Municipality's Comprehensive Plan and the SDGs

The town's slogan is "A town that connects people to mountains, rivers, oceans, and farmland through time." Although community development is being undertaken in line with the core objective of the SDGs, there does not seem to be a strong commitment to generating new ideas from the town's existing policies. The town's councils for the promotion of human rights education and building children's futures are commendable.



Priority Issues

Completion of disaster recovery, HALE (especially for women), employment opportunities, ICT education environment in elementary and junior high schools, UNESCO Schools, rate of deaths by suicide among children, female members of advisory councils and similar bodies

Yamamoto Town

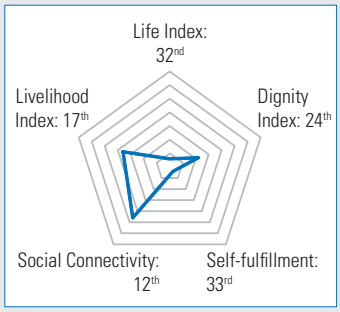
(1) 33rd **(2)** 11,792 people **(3)** 8,854 people **(4)** 64.6 km²

Overall Evaluation

Yamamoto ranks 32nd in the Life Index, which is low, but around average in the Livelihood (17th) and Dignity (24th) indices. Social Connectivity is reasonably strong at 12th, but Self-fulfillment is low (33rd). Average life expectancy (5th for men, 28th for women) and HALE (19th for men, 28th for women) present an issue for women. The unmarried rate is high, the proportion of children and people of working age relative to the total population is low, and the rate of households comprised of single elderly people is high. A high proportion of children come from single-parent households. The Great East Japan Earthquake caused extensive damage to lives and homes. The rate of deaths by suicide is high, and there are also many deaths and injuries due to traffic accidents. Medical expenses per capita are the highest in the prefecture. Per capita income is low, but labor productivity is high. There are issues with employment, such as the unemployment rate and the rate of people with disabilities among employees. Many people require long-term care, and there are many applicants for special nursing facilities. The rate of deaths by suicide among women is high, and there are several issues in terms of promoting gender equality.

Relationship between the Municipality's Comprehensive Plan and the SDGs

The town's slogan is "Sparkling Yamamoto! A town full of smiles created by everyone — building a small but vibrant town full of individuality." The town's policies are not linked to the SDGs, and there is no focus placed on bullying, child abuse, people with disabilities, or human rights education.



Priority Issues

Completion of the disaster recovery plan, population decline, increasing rate of elderly people, promoting inward migration and settlement, unmarried rate, deaths and injuries due to traffic accidents, healthcare expenditures, rate of people with disabilities among employees, rate of deaths by suicide among women, promoting gender equality

• Miyagi County

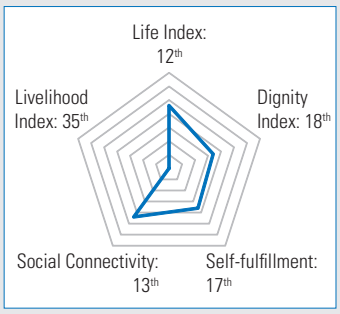
Matsushima Town

(1) 27th **(2)** 13,389 people **(3)** 10,606 people **(4)** 53.6 km²

Overall Evaluation

Matsushima ranks 12th in the Life Index and 18th in the Dignity Index, but is at the bottom of the Livelihood Index (35th). Self-fulfillment and Social Connectivity are around average at 17th and 13th, respectively. Average life expectancy (15th for men, 6th for women) and HALE (4th for men, 3rd for women) are good. The unmarried rate is high, while the fertility rate and rate of inward migration are low. The proportion of children and people of working age relative to the total population is low, while the rate of households comprised of a single elderly person is high. The Great East Japan Earthquake caused extensive damage to lives and homes. Medical expenses per capita are high. There are many deaths and injuries due to traffic accidents. The unemployment rate is high, while the employment rate for women, the rate of regular employees among female employees, and the rate of people aged 65 and over with a job are all low. The rate of school attendance support recipients is the highest in the prefecture, and there are few opportunities for lifelong learning. Although there is a substantial proportion of women among municipal management staff, there are no female assembly members or community association heads, and the proportion of women on advisory councils and similar bodies is also low. There are many designated cultural properties.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The motto underlying the town's development efforts is "Upholding and creating history and culture," while its vision for the future is "Matsushima, a beautiful town where people gather, learn, work, and smile." While emphasis is placed on the welfare and education of children, the elderly, and people with disabilities, there is little attention paid to gender perspectives and the prevention of violence against children.

Priority Issues

Population decline, declining numbers of children, increasing rate of elderly people, stable employment, support for childcare, school attendance support recipient rate, lifelong learning, promoting gender equality, number of women among municipal assembly representatives and advisory council members, attracting tourists

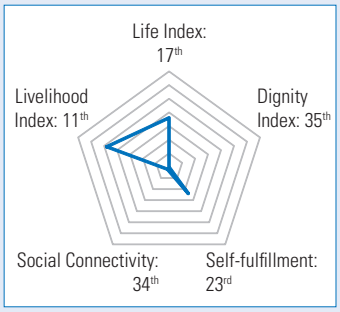
Shichigahama Town

(1) 24th **(2)** 18,065 people **(3)** 14,426 people **(4)** 13.2 km²

Overall Evaluation

Shichigahama ranks 17th in the Life Index and 11th in the Livelihood Index, which is around average, but is at the bottom (35th) of the Dignity Index. Self-fulfillment is around average at 23rd, but Social Connectivity is weak, at 34th. Both average life expectancy (11th for men, 33rd for women) and HALE (22nd for men, 34th for women) present an issue for women. The fertility rate is low. The rate of households comprised of a single elderly person is low. There are few clinics and doctors, and a high level of tooth loss among children aged 12. There are few deaths and injuries due to traffic accidents. Per capita income and the average monthly amount of household purchases are low. The rates of regular employees among female employees and of people with disabilities among employees are low. The levels of nursing care staff are low. Both the rate of housing adapted for the elderly and the sewage treatment rate are the highest in the prefecture. There are many consultations regarding child abuse, and few places for children to spend time outside school. The rate of deaths by suicide among women is high, and there are few women in municipal management positions.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's slogan is "Building a comfortable and livable town where people can live with dignity in harmony with the sea." Although the SDGs are used to guide long-term development, the focus is on increasing the number of visitors, reconstruction, land use, etc., with limited attention paid to the dignity of children and women.

Priority Issues

Population decline, overcoming the contraction of the local economy, recruiting human resources, improving employment (particularly among women and people with disabilities), smoking rate among adults, number of teeth lost among 12-year-olds, consultations on child abuse, places for children to spend time outside school, women in municipal management positions

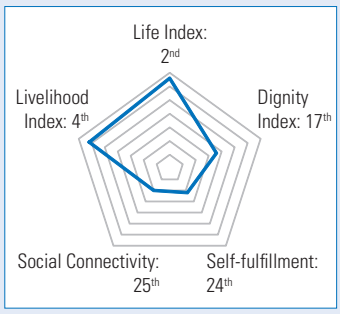
Rifu Town

(1) 2nd **(2)** 36,004 people **(3)** 36,959 people **(4)** 44.9 km²

Overall Evaluation

Rifu ranks highly in both the Life (2nd) and Livelihood indices (4th), but around the middle of the Dignity Index (17th). Self-fulfillment and Social Connectivity are both low, at 24th and 25th respectively. Both average life expectancy (1st for men, 4th for women) and HALE (3rd for men, 11th for women) are high. The unmarried rate is low, and inward migration is high. The proportion of children and people of working age relative to the total population is high, while the rates of children in single-parent households and households comprised of a single elderly person are low. Health awareness is high, and there is a low rate of deaths by suicide, but there are many deaths and injuries due to traffic accidents. The rate of regular employees among female employees is low. There are many opportunities for lifelong learning. There is a favorable situation in terms of people requiring long-term care, the rate of applicants for special nursing facilities, and the number of nursing care workers. The rate of housing adapted for the elderly is low, and there are many reported criminal offenses. There are many women on advisory councils and among heads of community associations. There are few places for children to spend time outside school, and few neighborhood associations.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's slogan is "Go further, Rifu, take on challenges! A town where everyone's dreams can come true." The relevant SDGs are given in an easy-to-understand manner for each policy in the town's Comprehensive Plan, and numerical targets have also been set. Its efforts to promote gender equality, human rights education, and multicultural co-existence are also commendable. The town works with citizens and engages with their opinions.

Priority Issues

Inward migration and settlement, industrial development, death and injuries caused by traffic accidents, regular employment rate among female employees, places for children to spend time outside school, children's homes, neighborhood associations

• Kurokawa County

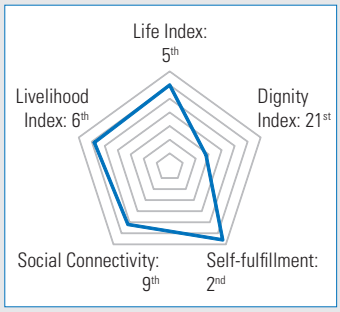
Taiwa Town

(1) 4th **(2)** 28,271 people **(3)** 27,399 people **(4)** 225.5 km²

Overall Evaluation

Taiwa ranks highly in both the Life (5th) and Livelihood indices (6th), but around the middle of the Dignity Index (21st). Self-fulfillment and Social Connectivity are strong, at 2nd and 9th respectively. HALE (25th for men, 33rd for women) is a problem relative to average life expectancy (6th for men, 17th for women). The unmarried rate is low, and the fertility rate is high. The proportion of children and people of working age relative to the total population is high, while the rates of children in single-parent households and households comprised of a single elderly person are low. The healthcare environment and the rates of habitual exercise are among the best in the prefecture. Per capita income is high, as is labor productivity and the financial capability index. There is a high rate of people with disabilities among employees. There are many opportunities for lifelong learning. The number of consultations at Child Welfare Centers is high, as are contributions for Long-Term Care Insurance. The town generates a large amount of electricity from renewable sources, but per capita CO_2 emissions are also high. Election turnout is low. The rates of deaths by suicide among children and women are high, and there are many consultations on child abuse. There are few community centers. With many foreign residents and technical interns, the town has a strong international character.

Relationship between the Municipality's Comprehensive Plan and the SDGs



Taiwa's slogan is "To build a town where everyone can continue to live with pride and affection." The town's Comprehensive Plan is mainly concerned with stability of employment, safety and security, and inward migration and settlement.

Priority Issues

Business expansion, stability of employment, revitalization, support for childcare, consultations at Child Welfare Centers, consultations regarding child abuse, rate of deaths by suicide among children, CO_2 emissions per capita

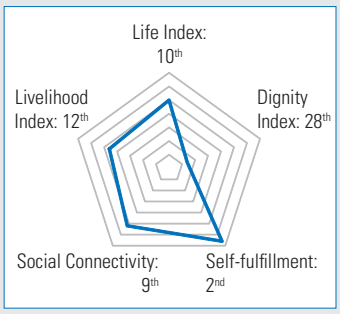
Osato Town

(1) 12th **(2)** 7,784 people **(3)** 6,224 people **(4)** 82.0 km²

Overall Evaluation

Compared to its positions in the Life and Livelihood indices (10th and 12th), Osato ranks low in the Dignity Index, at 28th. Self-fulfillment and Social Connectivity are both high at 2nd and 9th, respectively. Both average life expectancy (20th for men, 18th for women) and HALE (17th for men, 29th for women) are around average. The unmarried rate is low, the rate of inward migration is high, and the working-age population is high. The health and medical care environment is good, but the rate of smoking among adults is high. The rate of people with disabilities among employees is high, but the rate of regular employees among female employees is low. The student obesity rate (at 2nd grade of junior high school) is high. Improvement of the ICT education environment remains an issue to be addressed. There are high numbers of facilities for the elderly and nursing care staff, but contributions for Long-Term Care Insurance are high, and there is a high rate of applicants for special nursing facilities. CO_2 emissions per capita are high. There are issues in terms of promoting gender equality, with no women in municipal management positions or among heads of community associations, and a low rate of female members of advisory councils and similar bodies.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's slogan is "Self-reliance — build a town where everyone can think and act on their own initiative to create the future." Development plans emphasize job creation, inward migration and settlement, health, and measures to address the declining number of children. Examples of the SDGs in practice include a "super healthcare city" provided through partnerships with the private sector and the promotion of inward migration through a rent-to-own type of housing rental system.

Priority Issues

Population decline, inward migration and settlement, job creation, rate of regular employees among female employees, ICT education environment, CO_2 emissions per capita, promoting gender equality, women in municipal management positions and on municipal advisory councils

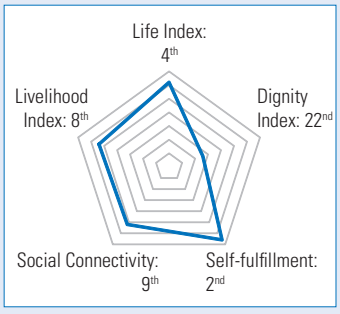
Ohira Village

(1) 3rd **(2)** 5,702 people **(3)** 4,855 people **(4)** 60.3 km²

Overall Evaluation

Ohira ranks high in the Life Index (4th) and Livelihood Index (8th), but low in the Dignity Index (22nd). Self-fulfillment and Social Connectivity are relatively good at 2nd and 9th respectively. HALE (1st for men, 32nd for women) is a problem for women relative to average life expectancy (12th for men, 13th for women). The unmarried rate is low and the fertility rate is high, with high levels of inward migration. The proportion of children relative to the total population is high, and the rate of households comprised of a single elderly person is low. The healthcare environment is good, with high rates of habitual exercise, but the rate of smoking among adults is also high. There is a large number of deaths and injuries due to traffic accidents. The rate of people with disabilities among employees is low. There are many facilities for the elderly, but contributions for Long-Term Care Insurance, the rate of persons requiring long-term care, and the rate of applicants for special nursing facilities are all high. CO_2 emissions per capita are high. The volunteer firefighter sufficiency rate is low. There are many drunk driving violations, and many reported criminal offenses. The rate of deaths by suicide among women is high.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The village's slogan is "Ohira, the Manyo village, strides into a new era — Building a community where everyone can support each other and live with smiles on their faces." The focus of the town's Comprehensive Plan is on clean energy, and there is little concerning human dignity. Efforts to pass on local culture, education to foster a love of the local area, and the mobilization of private and resident organizations are commendable.

Priority Issues

HALE (especially for women), deaths and injuries caused by traffic accidents, smoking rate among adults, rate of people with disabilities among employees, ICT education environment, lifelong learning, special nursing facilities, drunk driving, number of reported criminal offenses, rate of deaths by suicide among women

• Kami County

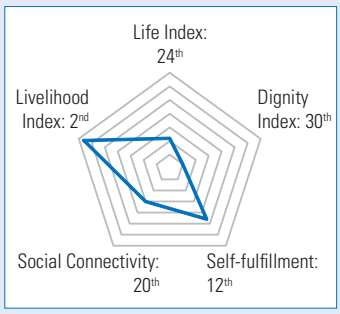
Shikama Town

(1) 17th **(2)** 6,407 people **(3)** 5,707 people **(4)** 109.3 km²

Overall Evaluation

Shikama performs well in the Livelihood Index, coming in 2nd, but is low in the Life and Dignity indices, at 24th and 30th respectively. Self-fulfillment and Social Connectivity are around average, at 12th and 20th respectively. Both average life expectancy (27th for men, 34th for women) and HALE (34th for men, 35th for women) are pressing issues. The unmarried rate among women is low. Children make up a relatively large share of the total population, but the rate of children in single-parent households is also high. There are few households comprised of a single elderly person, the rate of people getting regular health checks is high, and the rate of smoking among adults is low. However, levels of habitual exercise are poor. The rate of deaths by suicide is Miyagi's highest. Shikama has the largest agricultural and fishery output in the prefecture, but per capita income is low. The financial capability index is low. There are many opportunities for lifelong learning. The student obesity rate (at 2nd grade of junior high school) is high. The rate of applicants for special nursing facilities is high. There are also many drunk driving violations. There are issues in terms of promoting gender equality, and the rate of deaths by suicide among women is high.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The principle underlying the Comprehensive Plan is "Community development that makes the most of the goodness, strength, and beauty of the countryside." There is an emphasis on support for childcare, measures for elderly people, and promoting settlement. The promotion of human rights education that teaches respect for human beings, as well as "Shikama Studies" to learn about local traditions, is commendable. However, efforts relating to the dignity of women and children are still insufficient.

Priority Issues

HALE (both men and women) rate of deaths by suicide (especially among women), support for childcare, obesity among students, promoting gender equality, drunk driving, promoting settlement, active PR initiatives from the perspective of the wider geographic area

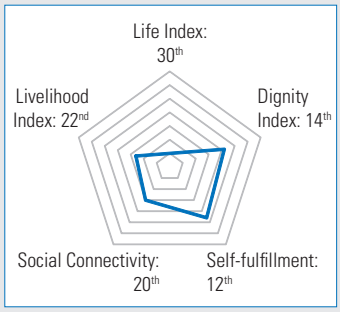
Kami Town

(1) 23rd **(2)** 21,907 people **(3)** 16,605 people **(4)** 460.7 km²

Overall Evaluation

Kami's position of 30th in the Life Index is low, but it is around average at 22nd in the Livelihood Index and 14th in the Dignity Index. Self-fulfillment and Social Connectivity are around average at 12th and 20th, respectively. Compared to average life expectancy (28th for men, 24th for women), HALE is low (33rd for men, 30th for women). The unmarried rate is low for women, but relatively high for men. The proportion of children and people of working age relative to the total population is low and the rate of elderly people is high. Habitual exercise and the average number of steps taken daily are low. The female employment rate and the rate of people aged 65 and over with a job are positive, but rates of regular employees among employed persons and people with disabilities among employees are low. The student obesity rate is high (both in the 6th grade of elementary school and the 2nd grade of junior high school). There are few facilities for the elderly and low levels of nursing care staff. There is a high proportion of women on advisory councils, but no female heads of community associations. Publicity activities to attract visitors have had a strong impact. There is a focus on music and the arts, with many designated cultural properties and community centers.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's slogan is "A people- and nature-friendly town where good will, resources, and funds circulate: symbiosis, collaboration, and self-governance." The town's Comprehensive Plan uses the SDGs as a driving force, displaying the SDGs logo on economic and environmental initiatives and collaborating with a variety of stakeholders. However, there are still insufficient efforts towards addressing the dignity of children.

Priority Issues

HALE, habitual exercise, daily steps taken, job creation, promoting settlement, rate of people with disabilities among employees, facilities for the elderly, nursing care staff

• Toda County

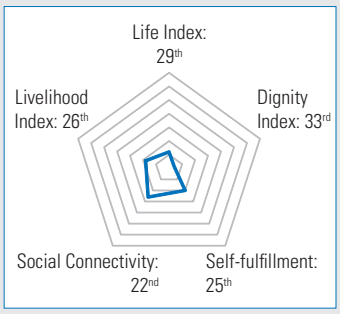
Wakuya Town

(1) 35th **(2)** 14,997 people **(3)** 12,253 people **(4)** 82.2 km²

Overall Evaluation

Wakuya is ranked low in all the indices: 29th in Life, 26th in Livelihood, and 33rd in Dignity. Self-fulfillment and Social Connectivity are around average, at 25th and 22nd respectively. Compared to HALE (23rd for men, 9th for women), average life expectancy is low (34th for men, 35th for women). The fertility rate is low, and the rate of elderly people is high. A high proportion of children come from single-parent households. There are low levels of habitual exercise. There are many consultations at Child Welfare Centers. The situation in terms of the rate of applicants for special nursing facilities is positive, but there are few facilities for the elderly. There is a low rate of housing adapted for the elderly and a low sewage treatment rate. The rate of seismic reinforcement of public facilities that serve as disaster prevention centers is low. There are many drunk driving violations. There are many consultations regarding child abuse, and few places for children to spend time outside school. Although there are relatively many women among municipal management staff, there are few female members of advisory councils. The town has many designated cultural properties.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's slogan is "Wakuya, home of golden flowers and exchange - a town of shining health that draws on nature and history." The principal goals of the town's Comprehensive Plan are increasing visitors, inward migration, and settlement, support for childcare, and the development of historical heritage. The promotion of gender equality is not a priority.

Priority Issues

Increasing visitors, inward migration and settlement, consultations at Child Welfare Centers, places for children to spend time outside school, facilities for the elderly, housing adapted for the elderly, rate of seismic reinforcement of public facilities that serve as disaster prevention centers, drunk driving, female members of municipal advisory councils

Misato Town

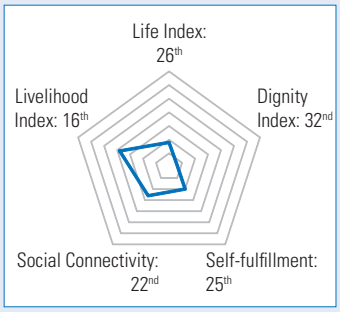
(1) 32nd **(2)** 23,566 people **(3)** 18,610 people **(4)** 75.0 km²

Overall Evaluation

Relative to its position of 16th in the Livelihood Index, Misato ranks low in the Life Index (26th) and the Dignity Index (32nd). Self-fulfillment and Social Connectivity are both low, at 25th and 22nd respectively. Compared to HALE (16th for men, 5th for women), average life expectancy is low (30th for men, 29th for women). The proportion of children and people of working age relative to the total population is low and the rate of elderly people is high. Health awareness is an issue to be addressed, with low levels of habitual exercise. Labor productivity and the financial capability index are low. The student obesity rate (at 2nd grade of junior high school) is high, and there are few opportunities for lifelong learning. The levels of nursing care staff are low. The amount of electricity generated from renewable sources is low. There are many drunk driving violations. There is a high proportion of women on advisory councils, but no female heads of community associations.

Relationship between the Municipality's Comprehensive Plan and the SDGs

The town's slogan is "A town that develops people with a richness of spirit, where local industries thrive, and where one can lead an active and vibrant life." Its Comprehensive Plan was drawn up with reference to the SDGs but includes few numerical targets. It is commendable that the town is pursuing a society of mutual community harmony in terms of addressing bullying and non-attendance at school, providing support for the elderly, and prohibiting discrimination against people with disabilities. However, there is little content relating to the dignity of women.



Priority Issues

Declining numbers of children, increasing rate of elderly people, population decline, settlement of young people, industrial development, habitual exercise, enhancement of the educational environment (e.g., UNESCO Schools), drunk driving, financial capability index

• Oshika County

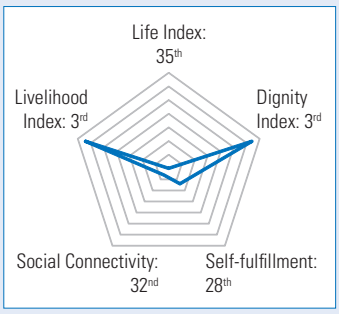
Onagawa Town

(1) 16th **(2)** 6,014 people **(3)** 4,022 people **(4)** 65.4 km²

Overall Evaluation

Onagawa ranks at the bottom of the Life Index (35th), but high in both the Livelihood (3rd) and Dignity (3rd) indices. Self-fulfillment and Social Connectivity are both low, at 28th and 32nd respectively. Both average life expectancy (21st for men, 23rd for women) and HALE (21st for men, 26th for women) are around average. The unmarried rate among women is high, and the rate of inward migration is low. The proportion of children relative to the total population is low, but the rate of elderly people is high. A high proportion of children come from single-parent households. The rate of deaths by suicide is high, and relative to population, the number of deaths and damage to housing caused by natural disasters is the highest in the prefecture. The rate of smoking among adults is high. Although per capita income is high, there is also a high rate of low-income households. There are high rates of student obesity and school attendance support recipients. Other issues include a high number of consultations at Child Welfare Centers, a high rate of households receiving livelihood protection allowance, a high rate of persons requiring long-term care, and relatively few facilities for the elderly. There are many drunk driving violations, and a large number of consultations regarding child abuse. The town works actively to communicate its appeal and values. The number of foreign residents and technical interns as a proportion of the population is the largest in the prefecture.

Relationship between the Municipality's Comprehensive Plan and the SDGs



Onagawa's motto is "A town that binds life and livelihoods together." The goal of the town's Comprehensive Plan is to build a sustainable town that can provide government services commensurate with a small community. There is an emphasis on education aimed at fostering a love for the local area.

Priority Issues

Reconstruction and disaster prevention, ensuring nuclear power plant safety, increasing visitors, inward migration and settlement, regeneration of fisheries, smoking rate among adults, facilities for the elderly, promoting gender equality

• Motoyoshi County

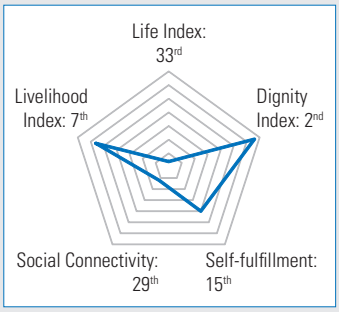
Minami-Sanriku Town

(1) 10th **(2)** 12,073 people **(3)** 8,349 people **(4)** 163.4 km²

Overall Evaluation

Minami-Sanriku ranks near the bottom of the Life Index (33rd) but high in both the Livelihood (7th) and Dignity (2nd) indices. Self-fulfillment is around average at 15th, but Social Connectivity is weak, at 29th. Men's average life expectancy (22nd for men, 7th for women) and HALE (27th for men, 6th for women) are low. The unmarried rate is high, inward migration is low, and the proportion of children and people of working age relative to the total population is low. The town has suffered extensive damage to lives and homes as a result of natural disasters. The healthcare environment, including the number of clinics and doctors, remains an issue. Although per capita income is high, there is also a high proportion of low-income households. Issues in terms of employment include the proportion of regular employees and people with disabilities among employees. The financial capability index is Miyagi's lowest. The student obesity rate (at 6th grade of elementary school) is the highest in the prefecture. There is a need to improve the sewage treatment rate. Promotional activities to communicate the town's appeal are highly effective. There are many designated cultural properties, neighborhood associations, and NPOs. There are high numbers of foreign residents and technical interns.

Relationship between the Municipality's Comprehensive Plan and the SDGs



The town's motto is "Forests, countryside, oceans and people — Minami-Sanriku, a town where life unfolds." In the Comprehensive Plan, the SDGs are mainly seen as a means of achieving a "circular" society, and there is little in terms of dignity or a gender perspective. Efforts to pass on the experience of the disaster through the Minami-Sanriku Memorial Park and lessons about local culture are commendable.

Priority Issues

Reconstruction, disaster prevention, increasing visitors, inward migration and settlement, promoting employment (especially regular positions and jobs for people with disabilities), support for childcare, rate of people getting regular health checks, healthcare environment, sewage treatment rate, financial capability index

Afterword

Interest in the SDGs is high in Japan, and it is gratifying to see that efforts to create sustainable local communities are gaining momentum throughout the country. However, there is a tendency in some quarters to think that just by mentioning the SDGs and pinning an SDGs badge to their chest, they have achieved the goals in some way. The key is to understand the ultimate objective of the SDGs, and to take steady steps to move as close as possible to the ideal of "no one left behind."

Along with environmental and economic sustainability, which many municipalities and businesses already pursue, the SDGs aim to reduce poverty, inequality, discrimination, and isolation, and to create a society in which even the most vulnerable can live with pride and human dignity. In Japan, major challenges to fulfilling the SDGs remain, such as eradicating bullying and child abuse, improving the position of women in political and corporate policy-making, not pressuring women to take their husband's name after marriage, protecting victims of domestic violence, and ensuring dignity with respect to menstruation. Other issues which need to be addressed include promoting social participation by elderly people and people with disabilities, establishing the legal status of LGBTQ people, regulating hate speech, improving the treatment of foreign technical intern trainees and immigration detainees, and eliminating statelessness.

The COVID-19 pandemic, which began in early 2020 and continues to this day, has upended people's lives. As a result of mass closures of schools, restrictions on school activities, and the suspension of business by many companies, the year 2021 saw new highs in non-attendance at school, bullying cases, child abuse, domestic violence, and suicides among women and minors. In particular, single mothers and those in non-regular employment experienced severe difficulties. We must remind ourselves that there is an enormous amount of work to be done to make Japan a society where all people are treated with respect and as human beings of intrinsic value.

We began our work on developing municipality-level indicators for Miyagi Prefecture as a follow-up to *SDGs and Japan*. At the time, some people questioned this choice. It was argued that in an area where a major disaster had thrown peoples' lives into chaos, and where the recovery process was still underway even ten years later, to evaluate figures from only the outsiders' viewpoints could produce heavily biased outcomes. It was also argued that the unique characteristics of the region should be taken into account. To avoid unilaterally imposing views from outside, we tried to find out as much as we could about the issues facing local communities and their perspectives. I would like to thank the authors who provided articles on specific issues, as well as many organizations and individuals in Miyagi Prefecture, including local governments, civic groups, the Miyagi Co-op, and universities, who provided us with advice and cooperation. For this volume, we asked people working on the ground in Miyagi Prefecture to write about specific case studies. I am confident that their vivid and moving experiences of the Great East Japan Earthquake and the COVID-19 pandemic will serve as a valuable guide for those working in other regions. I would like to express my sincere appreciation to all contributors.

Yoichi Mine (Executive Director, JICA Ogata Sadako Research Institute for Peace and Development) and Shinya Kawamura (Designated Senior Assistant Professor, Chubu University) took on huge responsibilities, the former serving as co-editor and the latter managing the data indexing and mapping. Illustrator Maki Onodera contributed wonderful pictures for Chapter 1, 1-2 and "Create human security indicators for your own town!" I would also like to thank Haruka Nagashima of Akashi Shoten, the editor who was in charge of the original Japanese edition of this book, for his understanding and consideration.

The greater significance of creating Human Security Indicators is that they can help the residents of local communities, in partnership with local governments, organizations, and businesses, to address local priorities from the perspective of those who have been left behind. I sincerely hope that unique local indicators will be developed in every part of the world, involving local citizens as the driving force.

December 2022

Yukio Takasu

Indicator Team Representative
Human Security Forum

Index