

JICA Global Agenda for No. 15 Digital for Development



Japan International Cooperation Agency (JICA) works toward the achievement of the Sustainable Development Goals (SDGs).

1. Objectives

The goal of the Global Agenda on “the Digital for Development” is to support developing countries to harness benefits, solve challenges, mitigate risks, and achieve positive transformation of their economies and societies through advancing digitalization. Capitalizing the power of the digitalization and data, JICA will support building a better society, which is sustainable, resilient and safe for all the people, and where each and every person can explore their diverse opportunities and values, thus improving one’s well-being¹.

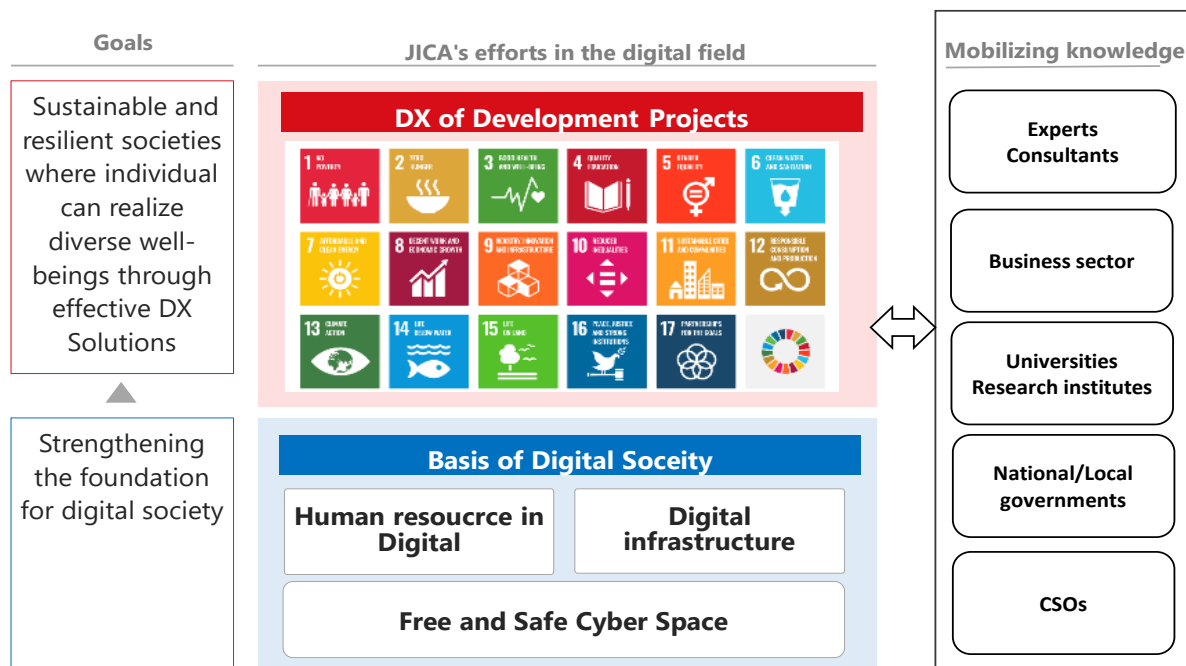
JICA intends to achieve the objective through two strategic thrusts:

- Increase the developmental and transformational impact of JICA’s support area and field through employing appropriate digital technologies and using data² (Supporting digitalization and Digital Transformation (DX³) of development projects).
- Develop the foundations for digitalization, including establishment of information and communication technology (ICT) infrastructure, as well as development of skilled human resources in developing countries. JICA intends to create ‘co-innovation ecosystem in the digital area,’ where both developing countries and Japan could benefit from, and to help build a safe and trusted digital space with the concept of data flow freely (Data Free Flow with Trust/DFFT).

¹ A society set forth in the Sixth Science, Technology, and Innovation Basic Plan to be created under the concept of Society 5.0.

² Utilization of digital technologies and data: This refers to technologies for acquiring, sending, receiving, and storing information, such as the Internet; information and communication technologies, such as remote sensing, sensors, and drones; data processing and analysis technologies, such as computers, big data analysis, and AI; and autonomous operation and control technologies, such as robotics.

³ Digital transformation (DX): This occurs when an organization (company) responds to rapid changes in the business environment and uses data and digital technology by transforming its products, services, and business models based on the needs of its customers and society, as well as by transforming its operations, organization, processes, and corporate culture and climate to establish a competitive advantage. (Guidelines for Promoting Digital Transformation published by the Ministry of Economy, Trade and Industry in 2018)



2. Current Developmental Challenges and Rational for Setting Objectives

(1) Analysis of Current Developmental Challenges

- **Increasing demand for digital technologies and data for development**

Digitalization of global economy, including developing countries, is rapidly accelerating due to the COVID-19 Pandemic. Use of data and digital technologies are becoming integral part of socio-economic activities and cost-effective tools for achieving the SDGs. According to the Political Declaration of the SDG Summit in 2019⁴, one of the ways to accelerate the SDGs is by “harnessing science, technology and innovation with a greater focus on digital transformation for sustainable development” and “investing in data and statistics for the Sustainable Development Goals.”

The COVID-19 Pandemic has worsened the economic conditions in the developing countries and significantly reduced the provisions of social services. Support in the area of digitalization is essential to mitigate the negative effects of the pandemic and to revitalize the economies and societies of developing countries within and after the pandemic.

⁴ <https://www.mofa.go.jp/mofaj/files/000520100.pdf>

- **Challenges in building a digital society**

Despite the increased demands for digitalization, Governments in developing countries are facing many challenges in building a digital society. Four major challenges are highlighted below:

Promoting conducive digital policies for socio-economic development

In order to promote digitalization in a country, conventional ICT policies alone may not be adequate to solve wider and ever more complex socio-economic challenges, and it may even lead to a decline in country's international competitiveness.⁵ Digitalization is not only about expanding access to information, facilitating communication and improving efficiency through ICT, but also about leveraging the power of ICT to enhance all level of socio-economic activities.⁶ This requires innovative policy mechanisms and agile implementation capabilities which include, among the others, creation of 'regulatory sandboxes.'⁷ Given the difficulties in acquiring profound understanding of digital technology and its application to one's own society, it is of paramount importance to strengthen the Government's and its stakeholders capacities to formulate and implement inclusive and context-specific policies to promote digitalization at all level of society.

Fostering human resources and industries for digitalization

Lack of digital literacy among people is becoming one of the major hindrances in accelerating the digitalization of the society and economy. Improving the people's knowledge and skills in the digital technologies¹⁰ is urgently needed to promote digitalization and resultant transformations without further widening the gap between countries.⁸ It is widely accepted fact that the private sector plays a significant role in digitalizing society and economy. However, relatively weak ICT private sector in developing countries is posing significant challenge for that. The private sector needs to be supplied with high-skilled human resources. It is also necessary to establish a conducive business environment that fosters new industries and encourages people, particularly the youth with innovative idea and knowledge, to start their own businesses and use digital technologies to solve socio-economic challenges in their communities and beyond.

⁵ World Economic Forum (2018) Insight Report, Our Shared Digital Future: Building an Inclusive, Trustworthy and Sustainable Digital Society.

⁶ World Bank (2016), World Development Report 2016: Digital Dividends. Washington, DC: World Bank.

⁷ World Economic Forum (2018) Insight Report, Our Shared Digital Future: Building an Inclusive, Trustworthy and Sustainable Digital Society.

⁸ World Development Report 2016: Digital Dividends. Washington, DC: World Bank. WDR 2016 team based on Research ICT Africa (various years). In Africa, seven out of ten people who do not use the Internet said they simply do not know how to use it, and almost four out of ten said that they do not know what the Internet is.

Developing conducive digital and information communication environment

Digitalization of society and economy requires conducive information and communication Infrastructure that serve as the foundation. In developing countries, however, the widening of the “digital divide,” the gap between individuals, households, businesses and other stakeholders who have access and who do not have access to Internet and mobile devices, is hindering the possibility of development.⁹ The ITU estimates that in the year 2021, 37% of the world’s population, or 2.9 billion people, still do not have access to the Internet, most of them in least developed countries (LDCs). Regionally, less than half of the population in Africa (33%) has access to Internet.¹⁰

The domestic digital divide is also widening. In developing countries, about 21% of households with income levels in the bottom 40% do not have access to cell phones and 71% do not have access to the Internet. Similarly, gender and age disparities are also pronounced, with men more likely to have access than women and the youth more likely than the elderly.¹¹

Cause of the digital divide is due to a combination of factors, including the lack of funds to develop the last one mile, lack of policies to encourage private sectors to enter into the telecommunications business with appropriate competition, lack of capacity to implement policies such as the establishment of a universal service fund to serve unprofitable areas, lack of user literacy to utilize digital services among the others.

Promoting free and safe cyberspace

With the progress of digitalization, all levels and actors of society have been connected to cyberspace. These include individuals, organizations/institutions, and to the critical economic and infrastructure systems. As a result, cybersecurity risks are becoming more prominent and growing threats. In the Global Risks Report published by the World Economic Forum, “unauthorized use or theft of data” and “cyber-attacks” are listed among the top five most likely global risks in 2018 and 2019.¹² In this context, the lack of cybersecurity capacity and associated human resources in each country increases the risk. There are urgent needs to improve response capabilities, such as the establishment of a national cybersecurity agency. Many organizations and businesses are also struggling to secure human resources and respond to these risks. It is said that there is a shortage of about 2 million cybersecurity personnel in the world as of 2019.¹³

⁹ World Bank (2016), World Development Report 2016: Digital Dividends. Washington, DC: World Bank.

¹⁰ ITU (2021) Facts and figures 2021: Measuring digital development
<https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2021.pdf>

¹¹ Measuring digital development – Fact and figures 2021 – International Telecommunication Union (2021)

¹² World Economic Forum (2019), The Global Risks Report 2019, 14th Edition.

¹³ A.T. Kearney (2018) Cybersecurity in ASEAN: Urgent Call to Action.

(2) Rational for Defining Objectives of the Global Agenda

The global agenda of the “digital for development” aims to provide effective solutions to solve the development challenges through the use of digital technologies and data in various areas of development initiatives, and enable developing countries to enjoy the benefits of the rapidly evolving digital technologies to realize digital transformations of their economy and society.

This global agenda also aims to support development of conducive digital and information and communication environment (infrastructure) in developing countries. It is an important foundation which would allow the developing countries to reduce the gaps in the digital divide, to safe-guard the cyber space, and to mitigate the risks associated with digitalization.

(3) Global Efforts to Advance Digitalization

● Efforts by international organizations and development partners

Traditionally, the International Telecommunication Union (ITU), as a specialized agency of the United Nations, has promoted telecommunications infrastructure development with the aim of bridging the digital divide in developing countries. Moreover, many other development partners such as the Organization for Economic Cooperation and Development (OECD), the World Bank and Regional Development Banks, various other UN and International/Regional organizations, bilateral agencies, and other donor organizations have been supporting the use of ICT in various different development fields and promoting innovation. Amidst the global spread of the COVID-19 pandemic, the need to use digital technologies to sustain economy and social activities have also increased substantially, and many aid agencies have been developing various digital collaborations initiatives to support the developing countries.

In terms of securing communications and strengthening the digital infrastructure, the ITU, the World Bank, the GSM Association, and the World Economic Forum have taken the lead in developing the Digital Development Joint Action Plan to promote support in this area. In addition, various donors (ADB,¹⁴ USAID,¹⁵ GIZ,¹⁶ KOICA¹⁷, and others) have accelerated the use of digital technologies in all areas of development. There are also moves to innovate and improve support approaches through using digital technologies. The G7 Cornwall Summit held in June 2021 also confirmed the need for countries to work together while upholding the common values of an open society. It recognized that future frontiers of

¹⁴ Asian Development Bank (2018) <https://www.adb.org/sites/default/files/institutional-document/486741/strategy-2030-main-document-ja.pdf>

¹⁵ USAID Digital Strategy (2020-24)

https://www.usaid.gov/sites/default/files/documents/15396/USAID_Digital_Strategy.pdf

¹⁶ BMZ (2019)

https://www.bmz.de/en/publications/type_of_publication/strategies/Strategiepapier459_01_2019.pdf

¹⁷ KOICA (2016) https://www.koica.go.kr/koica_en/3431/subview.do

the global economy and society, from cyberspace to outer space, will determine the future prosperity and well-being of people for decades to come.

(4) Priority Policies of the Government of Japan

● Efforts to digitalize the Japanese society

As digitalization progresses in the international community and developing countries, there is also an urgent need for Japan to accelerate the digitalization and digital transformation of its economy and society. In the Fifth Science and Technology Basic Plan approved by the Cabinet in January 2016, the Japanese Government proposed “Society 5.0¹⁸” as the ideal society to be pursued. In May 2017, the Ministry of Economy, Trade and Industry (METI) released its New Industrial Structure Vision,¹⁹ which analyzes Japan’s industrial competitiveness in the digital society and outlines its direction. Among private sectors, the Nippon Keidanren (Japan Business Federation) announced “Society 5.0: A Future Created Together” in November 2018, and the New Growth Strategy²⁰ in November 2020. Furthermore, the Japanese government established the Digital Agency in September 2021, which will serve as a command center to strongly promote the digitalization of society as a whole.

● Efforts to build a free and safe cyberspace

Japan has been leading the discussion in the international community to build a free and secure cyberspace.²¹ At the Ise-Shima Summit held in May 2016, the G7 Principles and Actions on Cyber was adopted, setting forth security and stability in cyberspace.²² At the 2019 annual meeting of the World Economic Forum, Japan introduced the concept of Data Free Flow with Trust (DFFT), noting that data has become a source of value creation. In November 2014, the Cyber Security Basic Law was enacted in Japan, and the Cabinet Cyber Security Center (NISC) was established in response. In the Capacity Building Support for Developing Countries in the Field of Cyber Security (Basic Policy)²³ approved by the Cabinet in 2015, NISC will actively provide various types of assistance, such as official development assistance (ODA), to support the governments of developing countries to build capacity to establish the cyber security and cyber incident response mechanisms.

¹⁸ Society 5.0: A concept first proposed in the Science and Technology Basic Plan approved by the Cabinet in January 2016. Society 5.0 is a human-centered society that sees both economic development and resolutions of social issues through a system that closely integrates cyberspace and the physical (real) space.

¹⁹ METI <https://www.meti.go.jp/press/2017/05/20170530007/20170530007.html>

²⁰ Keidanren <https://www.keidanren.or.jp/policy/index01.html>

²¹ MoFA https://www.mofa.go.jp/mofaj/ecm/ec/page22_003217.html

²² MoFA https://www.mofa.go.jp/mofaj/ecm/ec/page4_001562.html

²³ MoFA <https://www.mofa.go.jp/mofaj/files/000210150.pdf>

- **Efforts to expand Japanese digital technologies to the world**

The ICT Global Strategy²⁴ announced by the Ministry of Internal Affairs and Communications (MIC) in June 2020 sets the basic principle of promoting the digitalization of society as a whole and contributing to the achievement of the SDGs. Sharing Japan's Society 5.0 philosophy with the world and contributing to building a sustainable and inclusive society is one of the policies in the strategy. Using digital technologies from Japan to contribute to the achievement of SDGs in the world is one of the important components of the strategy.

3. Significance of JICA's Engagement in the Area

With digitalization accelerating in the world due to the COVID-19 pandemic, there is a growing need in the developing countries for assistance in this area. Cooperation in the digital field is highly relevant and necessary for the future growth of developing countries for the following reasons.

- **From the point of sustainable development (SDGs):**

There is an increasing need in the developing countries to take advantage of digital technology and data in various thematic areas. In order for Japan/JICA to respond to trusts from the developing countries and to help them achieve SDGs by 2030, it is essential for JICA to provide ODA support in the area of digitalization and Digital Transformation (DX). Moreover, cooperation in the area of human capacity and ICT infrastructure development is essential for building foundation for socio-economic development of the countries, and it needs to be a high priority within the development cooperation.

- **From the point of stable regional development:**

It is important to establish a safe and stable digital society with the international community. The Data Free Flow with Trust (DFFT) concept proposed by Japan is an important principle to promote stable and balanced development of the digital ecosystem with the international community. JICA will cooperate with developing countries to ensure sustained digital for development based on the principles of DFFT. It is hoped that the results of cooperation projects in these digital fields will lead to mutual development and strong partnership among the countries.

²⁴ https://www.soumu.go.jp/menu_news/s-news/01tsushin06_02000191.html

4. Contribution to the Objectives of the JICA's Global Agenda and Clusters

- One of the JICA's objectives is to help developing countries appropriately adapt to the digitalization of their economies and societies and support them to enjoy the benefits while reducing associated risks. Through using digital data to solve variety of socio-economic challenges, JICA supports our partner countries to build sustainable and resilient societies that ensure people's safety and well-beings, and where each individual can enjoy a variety of opportunities. These supports will also ensure achieving the mutual development between Japan and the developing countries. At the same time, through its collaborations, JICA will strengthen ties with our partner countries.
- In order to achieve the above objective, JICA will support two initiatives, "Increase development effectiveness and solve development challenges by promoting digitalization and digital transformation among development sectors (promoting DX in ODA projects)" and "Develop foundations for digitalization (infrastructure, institution, and human resource development)."

(1) Increase development effectiveness and solve development challenges by promoting digitalization and digital transformation among development sectors (promoting DX in ODA projects)

Basic concept

- In order to solve various different challenges in the developing countries, JICA will pursue new approaches and technologies based on DX in each area of its support that provide higher outcomes and value addition. JICA will promote DX for development with an awareness of its effectiveness as described in the following box.
- The cooperation cannot be unilateral transfer of existing knowledge. JICA will work with partner countries to help solve their challenges by exploring innovative approaches, and applying knowledge and technology from local, Japanese and global resources.

<p>Potential benefits of utilizing DX for development</p> <ul style="list-style-type: none">● <u>Responsiveness and preciseness (respond to challenges promptly with precision)</u>
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Digital technology enables individuals to exchange and consume data. This ability would give the individuals with unprecedented ability to conduct prompt and detailed actions based on each person's individual situation (e.g., rapid transmission of emergency warnings in the event of a disaster).

- **Comprehension and decisiveness (enable informed decisions)**

There are cases where decisions and plans have to be made without clear knowledge of the actual situations and conditions. By acquiring, accumulating, and analyzing data scientifically using AI and other digital tools, policies, planning, and monitoring could be made promptly and correctly with evidences (e.g., understanding the status of deforestation using satellite data, and understanding economic activities using mobile data obtained from cell phones).

- **Efficiency and accuracy (implement processes efficiently and accurately)**

By introducing digital technologies to automate and systematize manual tasks and procedures, it is possible to carry out the business processes more efficiently and accurately. (e.g., customs clearance, and administrative procedures through tax collection systems).

- **Inclusion and penetration (expand information access to underserved)**

Improvement in information and service access, mainly through the use of the Internet and mobile technologies, is playing a major role in delivering the necessary goods and services to people and promoting people's participation in a society. Situations often occur where goods and services cannot be delivered and people cannot participate in socio-economic activities due to spatial and social isolation but digitalization and digital technologies offer high potential of increasing development effectiveness by expanding the services to the previously underserved areas (e.g., telemedicine services and financial services for rural areas using ICT technology).

- **Integration and amalgamation (facilitate innovative integration of different socio-economic areas and domains)**

The effectiveness of DX is not limited to improving different developmental areas and domains. It would allow people to share and utilize data across different developmental areas and domains. DX also enable creation of effective solutions to different developmental challenges through

amalgamation and integration of different idea, data, and bringing in innovative approaches (e.g., smart cities).

DX also has the potential of ensuring **transparency** in implementing policies and measures, as well as enabling citizens' inclusive participation in the governance processes.

Utilizing digital technologies to create new values in development projects

(1) Promotion of digital technologies and data in different developmental areas and domains

Increase development effectiveness of each developmental areas and domains through utilization of digital technologies. At each phase of project formulation and implementation, starting from identification of needs, project formation, project planning and design, to project execution, consider the possibility of utilizing digital technology and data for more effective implementation.

(2) Implementation of innovative problem-solving approaches through DX

Identify JICA's overall direction of using digitalization in each Global Agenda to develop innovative approaches of developmental support to achieve greater outcomes. Based on the results of trials and demonstrations, JICA strives to build a new development cooperation model.

Use of digital technology and digital data follow following evolutionary stages. Appropriate use of digital technologies depends on the nature and circumstances of challenges to be addressed:

- **Digitization:** Conversion of analog information into digital format to improve the efficiency of solving challenges
- **Digitalization:** Use of digital technology and digital data to improve the existing processes and allow quality and scale of solving challenges
- **Digital Transformation:** Use of digital technology and digital data to induce new problem-solving approaches (transformation)

Strengthening partnerships in DX

To promote DX, it is essential to seek out, acquire, and deploy effective and appropriate technologies and knowledge. JICA actively exchanges knowledge and ideas by collaborating with various different partners, including governments, public organizations, private sectors, research institutes, and CSOs.

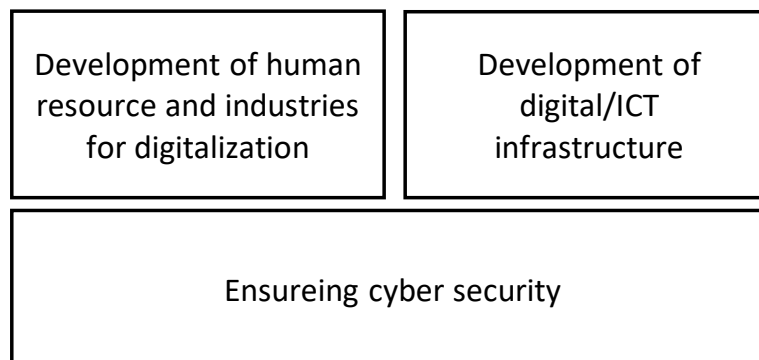
Strengthening human resource networks using digital technologies

To sustain and grow variety of human resource networks, which have been fostered through JICA's past developmental support, utilize variety of online tools for interactions/partnerships to strategically and effectively strengthen JICA's human resource networks.

(2) Develop foundations for digitalization (infrastructure, institution, and human resource development)

Basic Concept

- JICA supports the establishment of a foundation for digitalization, which include human resource, institution, and infrastructure development. This is to ensure that developing countries can enjoy the benefits of digitalization while reducing the risks associated with digitalization. Strengthening cyber security to ensure the safety of the digital space is also a key issue that JICA actively supports in.
- JICA recognized that the support for digital infrastructures development is important as it creates a foundation for ecosystem in which partner countries can flourish together. Through supporting cooperation projects in this area, JICA works to create a free and safe digital space which would ensure achieving socio-economic interaction and mutual development.



Details of Support

(1) Fostering leaders in the digital field through human resources and industries development

JICA supports the development of human resources and industries that play leading roles for the development and implementation of digital technologies in each country. In Southeast and South Asia, ICT and digital-related industries are getting prominence, and JICA will continue to provide support for creating IT-engineers in these countries to enable

further digitalization. These regions have strong socio-economic ties with Japan. The support aims to create capable human resources who could spearhead interactions and partnerships between different regions, and to create mutual growth opportunities.

JICA's past cooperation in Southeast Asian countries are bearing fruit now, and the development of human resources in digital domains in Southeast Asian countries has progressed to the point where several of these countries have become premier destinations for software offshore development. South Asian countries are also developing high skilled IT human resources who can play an active role not only in their own countries but also in the international market.

JICA's support in the area is not only concentrated in Asia but in other regions as well. Africa, for example, are strengthening its nascent digital-related industries to become next digital powerhouse. JICA has been and is working actively in African countries to support employment creation through building and promoting ICT related industries. Specifically, JICA is focusing on creating and strengthening ICT-related startup ecosystems, and work together with the government and private sectors in the country to support and to foster these companies. JICA's support has fostered many companies that provided variety of innovative digital services that contribute to the solid development of the country.

The development of advanced human resources who can lead the ICT and digital fields in developing countries is also important. JICA will support creating human resources with advanced knowledge of ICT, digital technology, and space technology mainly in Asia and Africa through the cooperation of postgraduate student programs.

(2) Development of ICT infrastructure

To develop a well-balanced, safe and stable ICT environment, JICA provides support to strengthen national ICT infrastructure and associated capacity development. JICA has been providing policy support, institutional capacity building support, and financial assistance to those countries, mainly in Asian countries, which had challenges in operation of ICT infrastructure and adequate private sector investment. The support in the area is expected to continue based on the required needs of the supporting countries.

In terms of policy and institutional support, JICA provides capacity support to governments and related organizations to implement appropriate ICT infrastructure development. Although most ICT infrastructures are developed by the private sector, JICA addresses challenges that require concerted public support, such as the elimination of the digital divide and creation of ICT networks that support critical social services such as disaster response/management communications. Specifically, in partnership with private sector investments, financial cooperation mechanisms are available when needs for public support are apparent.

(3) Realization of a free and secure digital society (cyber security cluster)

In order to promote digitalization in developing countries, it is indispensable to create a free and secure digital society. Recognizing that this requires concerted public and private sector efforts, and that ODA support can best fulfill its role as a catalyst for coordination and cooperation among nations, JICA's Global Agenda sets cooperation on cyber security as a special cluster.

Purpose

Since digital technologies are intimately linked to people's daily lives and socio-economic activities, the threats from cyber-attacks are becoming more severe. While the benefits of cyberspace is growing, inadequate protection of cyberspace have resulted in serious breach of privacy and financial damages and loss of competitiveness. In addition, attacks on critical social infrastructures could inflict serious damages to the real world and increase the national security risks.

Moreover, since the impact of cyber space can transcend national borders, cyber incidents that occur in one country could affect other countries. It is essential to establish cooperation among countries and realize the secure digital society for all.

Objectives of the cluster

JICA advocates the values of building a free and secure digital society and strengthening the ability to respond to cyber security in Asia-Pacific and other regions. The goal is to ensure cyber security in the regions and to realize safe use of cyber space that are the foundation for socio-economic activities.

Details of Support

In order to build a free, fair and secure digital environment, which is the foundation of socio-economic activities, JICA supports the improved security capability in cyber space through technical cooperation projects and cyber-security issue-specific training programs. Specific support will be provided to (1) formulate a cyber-security policy, system, and strengthen the capacity of relevant organizations, (2) enhance various incident response measures (including security measures for organizations and domestic critical infrastructure), (3) establish a public-private partnership, (4) raise the cyber security literacy of the general public, and (5) promote international cooperation in cyber-security. Cooperation will be provided to countries in accordance with each country's situation and the security in cyberspace will be strengthened in a balanced way throughout different regions.

I. Initial stage

Support formulation of necessary strategies and policies, and the development of institutional mechanism (e.g., capacity building for the establishment of specialized institutions) (1) (4)

II. Enhancement stage

Support development of public and private sector cyber security personnel and increase of the response capability of cyber security related organizations (2), (3) and (4)

III. Self-reliance stage

Foster external cooperation and international collaboration (5)

5. Strategic Approaches for the Global Agenda and Cluster

(1) Strengthening partnerships with private sector and related organizations/agencies

- When promoting digitalization, JICA places importance on partnerships among public institutions, private companies, and NPOs/NGOs in the client countries, Japan, and other countries that have best examples of using digital technology and data in various fields.

(2) Strengthening Human resource networks in the digital field

- In order to advance effective collaboration and cooperation in the digital field, it is important to strengthen human network in the digital field. One of the examples of JICA's works in creating the human network is to build a network of foreign students and participants of the JICA international postgraduate program/co-creation program, and other related people in the digital fields as expert group to support JICA's DX cooperation in the respective countries.

(3) Utilizing Space Technology

- When utilizing digital technologies, it is important not to set limit to the technologies used on Earth, but also aeronautical and space technologies that enable continuous, remote observation and communication of a wide area, such as the use of data from satellites, electronic reference points, and unmanned aerial vehicles (UAVs). These technologies should be understood and utilized not only by the government agencies in charge of space but they should be open to wider government agencies and institutions, as well as other public, academia, and private sector organizations and users.

6. Other Considerations

(1) Consideration based on the situations of client countries and government

- Support for the use of digital tools in the client country should be based on an understanding of government policies, legal framework, and public acceptance. Due considerations will be given for fundamental human rights, rule of law and governance, and consolidation of democratization that has been prescribed under Japan's Development Cooperation Charter.

(2) Consideration for disparities and gender

- It should be noted that there exist wide disparities in many countries in terms of access to information, ICT infrastructure and services (digital divide). When supporting countries to promote digitalization, these disparities should be taken into consideration to avoid expanding potentially negative effects, such as further widening of the gap. It should also be noted that distortions in the "rule-sets" for data collection, analysis, use, and resultant decision-makings could lead to invisible biases, which may further contribute to the developmental disparities.
- There is also a concern that the promotion of digitalization may widen the gender divide, if not implemented with care. In light of the current challenges of the gender digital divide,²⁵ such as women's ownership of smartphones being 26% lower than men's and internet usage being 11% lower than men's, JICA's support in the digitalization must incorporate a gender perspective.²⁶ More specifically, it is necessary to include efforts to correct the gender gap for the access and use of digital devices, to actively promote the capacity development of women in the digital field, and to expand women's leadership in the digital sector. It is also necessary to pay

²⁵ <http://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf>

²⁶ https://w20japan.org/pdf/digital_equity%20_policy_biref_w20%20Japan_final.pdf

attention to the negative aspects of digitalization, such as the increase in gender-based violence using the cyberspace and potential use for human trafficking.

(3) Consideration for the role of the private and public sectors

- Private sector is increasingly gaining prominence, not only as a driver for economic development but also as an important partner for social development. As technologies evolve at an extremely rapid pace, many innovative services are being offered by the private sectors. In many instances, private sectors not only provide private services, but they also provide important public services to fill the gap which the government could not fulfill. The gap between public support and the activities of the private sector should be taken into consideration and create effective PPP model. In particular, emphasis should be placed on the use of private sector funds to supplement the government resources as well as to strengthen the roles of the public sector to create a conducive environment to support private sector activities.

What is the JICA Global Agenda?

JICA's cooperation strategies for global issues. JICA, with its partners, aims to show global impacts realizing the goals set under JICA Global Agenda. JICA Global Agenda and its goals will be shared among partner countries and various actors, enhancing dialogue and collaboration, therefore, maximizing the development impacts. Through these efforts, JICA will comprehensively contribute to the achievement of the SDGs by 2030 as well as realize Japan's Development Cooperation Charter which focus on "human security," "quality growth," and "addressing global challenges".



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Japan International Cooperation Agency (JICA) is an international cooperation organization that is centrally responsible for the implementation of bilateral assistance among Japan's Official Development Assistance. JICA cooperates with about 150 countries and regions around the world.

https://www.jica.go.jp/english/our_work/thematic_issues/index.html