

JICA's Position Paper on SDGs: Goal 12

Goal 12: Ensure sustainable consumption and production patterns

1. Recognition of the present situation

(1) Why are ensuring sustainable consumption and production patterns necessary?

Human beings have historically used 83% of land areas on earth for habitation, agriculture, and industry. According to the Millennium Ecosystem Assessment¹, 60% of the earth's ecosystems have deteriorated in quality or are used in an unsustainable manner. It is clear that we need to change human production and consumption patterns. At the G7 Toyama Environment Ministers' Meeting held in 2016, it was stated that Sustainable Consumption and Production (SCP) was a challenge for all countries, and a declaration was made on the necessity to further examine coordination for SCP.

The targets of Goal 12 involve the fields of natural resource management, food waste, management of chemicals and wastes, and environmental education. To realize SCP, increased resource efficiency and emissions reductions are necessary in all relevant fields. In the field of waste, the amount of global waste discharge has been increasing year by year due to population increase and economic growth. It is estimated that the annual amount of waste discharge will increase to 14.87 billion tons by 2025 from 10.47 billion tons in 2010². The amount of waste discharged from developing countries accounts for 56% of global waste³, and can create various problems in these countries due to underdeveloped collection and transportation methods and open dumping without treatment. In addition, emerging countries have problems of resource wasting due to mass consumption. Support provided based on the experience of Japan will be important more than ever. The amount of chemicals produced in emerging countries has been increasing, but systems to control chemicals have not been developed sufficiently. In the field of agriculture, approximately one-third of annual production is lost during the process from production to sale. In order to satisfy food demands in a sustainable manner, it is important to reduce such loss.

(2) International initiatives

In 1992, it was stated in Agenda 21 adopted at the United Nations Conference on Environment and Development that each country needs to develop policies and strategies to improve unsustainable consumption and production patterns. In 2012, *10-Year Framework of Programmes on Sustainable Consumption and Production Patterns* was adopted at the United Nations Conference on Sustainable Development (Rio+20), with the goal of establishing low-carbon lifestyles and social systems throughout the world. In addition, as described above, the necessity of SCP initiatives

¹ The Millennium Ecosystem Assessment is a global project which was established in 2001 under the initiative of the United Nations, with the aim of conducting scientific assessment of ecosystems and providing the information to each government. It is also called the global ecosystem diagnosis.

² Masaru Tanaka (2011) "FY 2011 Environmental White Paper"

³ World Bank (2012) "WHAT A WASTE"

was declared at the G7 Toyama Environment Ministers' Meeting.

(3) Japan's efforts

Since the period of rapid economic growth, Japan has carried out various initiatives, such as promotion of proper collection, transportation, recycling, and final disposal, through collaboration among the state and local governments, private enterprises, and residents. It has promoted the establishment of discharge standards as the End of Pipe method and reflection of the concept of 3R (Reduction of waste generation and Reuse and Recycling of resources and products) in policies ahead of other countries.

In June 2000, the Fundamental Law for Establishing a Sound Material-Cycle Society was promulgated as a law to promote a recycling society causing less environmental burden. Concerning hazardous chemicals, a diplomatic conference on the Minamata Convention on Mercury, which controls the manufacturing, import and export of mercury and products using mercury, was held in Kumamoto in 2013, and the convention was adopted and signed.

Today, sustainable city initiatives are promoted through resource and energy efficiency, and attention is paid to the reduction of waste volume during the production process and the development of industries engaged in waste recycling. In addition, efforts are made to develop eco-friendly products and to utilize waste-to-energy. Since Goal 12 involves the whole concept from corporate activity to civic life, it is one of the SDGs which Japanese enterprises and civil society are proactively working on the most, along with promoting a sharing economy and reduction of food waste.

(4) JICA's strengths

Based on Japan's experience of overcoming environmental pollution, and the outstanding experience of waste management operation by local governments, JICA has provided support for improvement measures on a case-by-case basis, focusing on the establishment of Integrated Waste Management System. Support has been provided for: introduction of cleaner production, strengthening of chemicals management, and establishment of a system to implement waste management.

Developing countries have intangible problems, such as a lack of personnel and organizational capacity, as well as tangible problems, such as insufficient equipment and infrastructures. With its strength in providing support through appropriate schemes corresponding to individual problems, JICA has provided support for comprehensive waste management, for example, support for the development of national policies, technical cooperation for capacity strengthening, and financial support for the development of waste disposal sites and other facilities. In the fields of civic involvement and environmental education, cooperation between local governments and civil society organizations in various countries are promoted through the JICA Partnership Program, and volunteer activities through collaboration with local governments. In the field of agriculture, JICA has made diverse efforts against food losses in previous cooperation in order to improve post-harvest treatment and distribution systems. Cooperative achievements substantially contribute to the reduction of post-harvest losses. In terms of science and technology contributing to

SCP, JICA has provided support for research and development on environmental conservation in developing countries through Science and Technology Research Partnership for Sustainable Development (SATREPS). There are many Japanese small-to-medium enterprises (SMEs) with technology and knowledge contributing to SCP, such as technology for energy saving, recycling, and incineration, and know-how on the operation of intermediate treatment facilities and final disposal sites. JICA promotes the use of Japan's excellent technology in developing countries through various projects containing public-private collaboration schemes.

2. Priority targets

Through the implementation of projects which take into account resource efficiency and sustainability in a cross-sectoral manner and give consideration to the use of Japan's proven knowledge and technology, JICA will contribute to Goal 12 as a whole and particularly focus on the following targets based on its cooperative achievements and strengths.

[Target relating to overall SCP]

12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

[Targets relating to reduction in the generation and release of wastes and chemicals]

12.4 By 2020, achieve environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with established international frameworks, and significantly reduce releases to air, water and soil in order to minimize their adverse impacts on human health and the environment⁴

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse⁴

[Target relating to environmental education and public awareness]

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature⁵

[Target relating to reduction of food losses]

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including

⁴ Also contribute to the Target 11.6 "By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management"

⁵ Also contribute to the Target 4.7 "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development"

post-harvest losses

[Target relating to strengthening of scientific and technological capacity]

- 12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

3. Priority efforts to achieve goals

(1) Reduction in the generation and release of wastes and chemicals

In order to minimize adverse impacts of wastes and chemicals, it is necessary to properly manage the entire lifecycle of products including production, transportation, consumption, disposal, treatment, and reuse. Problems of wastes and chemicals to be addressed are different depending on each country's economy. Therefore, cooperation will be provided after investigating challenges according to a product's lifecycle and the state of waste disposal, and considering priority according to existing capacity and challenges. In countries where urbanization is increasing, there is an urgent need to improve public sanitation through appropriate collection and disposal of waste. In countries where industrialization is increasing, reduction of environmental burden and prevention of environmental pollution are required through proper disposal and management of hazardous wastes. In countries where the economy has developed and the consciousness of civil society has matured, it is necessary to shift to a phase aimed at establishing a recycling society through promotion of recycling. In this manner, phased approaches will be promoted according to development level.

In addition, the realization of Integrated Solid Waste Management (ISWM) is necessary. ISWM considers wastes as resources and integrates resource management into waste treatment. Towards that realization, support will be provided for the establishment of legal systems, development of plans, capacity development of organizations and human resources, and activities related to 3R in central and local governments of a project's target country. Furthermore, based on a country's economic, technical, and other conditions, sharing and introduction of technology for recycling and energy recovery as well as technology contributing to measures against climate change will be promoted.

(2) Environmental education and increasing public awareness

In order to secure a productive life for future generations, address various issues arising from development activities, and realize sustainable consumption and production and lifecycle in harmony with nature, it is necessary to promote the proactive participation and cooperation of citizens and local communities to solve issues through changes in their consciousness. Systematic environmental education will be promoted at local communities and schools to raise environmental awareness. This education will facilitate acquisition of knowledge on the issues as well as a shift to specific subsequent actions.

(3) Reduction of food waste

As part of expanding and strengthening food value chains, efforts will be made to reduce post-harvest losses through improving farm management, promoting mechanization, modernizing post-harvest treatment facilities and transportation systems, and introducing agricultural product processing facilities. In addition to these efforts, support will be provided for intangible measures including strengthening agricultural cooperatives and educational activities for reducing losses, such as pre- and post-harvesting handling, post-harvest treatment, handling at the distribution phase, and sales.

(4) Strengthening of scientific and technical capacity

To address environmental issues in developing countries, it is expected that the science and technology of Japanese research institutions and private enterprises will contribute as much as possible. In the fields of waste treatment, 3R/recycling technology, sewage treatment, biomass fuel, and waste-to-energy, JICA will promote the introduction of proven private sector technology and products through projects containing public-private collaboration schemes. Joint research and development through SATREPS will also be promoted.

(5) Cross-sectoral efforts

By deepening collaboration with local governments, private enterprises, and civil society with knowledge on the efforts described above, Japan's knowledge and technology will be utilized in developing countries, and the promotion of sustainable procurement will be examined in order to contribute to the promotion of Goal 12 in Japan as well. The scope of Goal 12 has developed beyond the conventional concept of production and consumption. JICA will continuously promote a recycling society by supporting development of a national 3R policy, with which it has achieved success in previous cooperation, as well as work to reflect basic principles of SCP in national policies and action plans. JICA will also make efforts to participate and disseminate information at international conferences and other occasions.