National Plan of Action for the Implementation of the Global Framework on Chemicals - For a Planet Free of Harm from Chemicals and Waste

(Provisional translation)

April 2025

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Appendix A

Main contributions of relevant stakeholders toward National Plan of Action for the Implementation of the Global Framework on Chemicals (GFC)

Chapter 1. Introduction

The Global Framework on Chemicals (GFC) – For a planet free of harm from chemicals and waste - is a new framework that succeeds the Strategic Approach to International Chemicals Management (SAICM) adopted at the Fifth International Conference on Chemicals Management (ICCM5) in September 2023. The framework aims to prevent or, where prevention is not feasible, minimize harm from chemicals and waste to protect the environment and human health. This is a voluntary framework for the management of chemicals throughout their life cycles by multi-stakeholders (Governments, inter-governmental organizations, civil society, industries, academia, etc.) in multi-sectors (agriculture, environment, health, education, finance, development, construction, labor, etc.).

Following the adoption of the GFC, Japan established the “GFC Liaison Committee of Relevant Ministries and Agencies” within the government to develop a National Plan of Action for the GFC. The GFC National Plan of Action has been prepared based on discussions at the "Policy Dialogue on Chemicals and the Environment," a forum for the exchange of views among citizens, workers, business operators, finance, government officials, and academic experts, as well as opinions received through public comments.

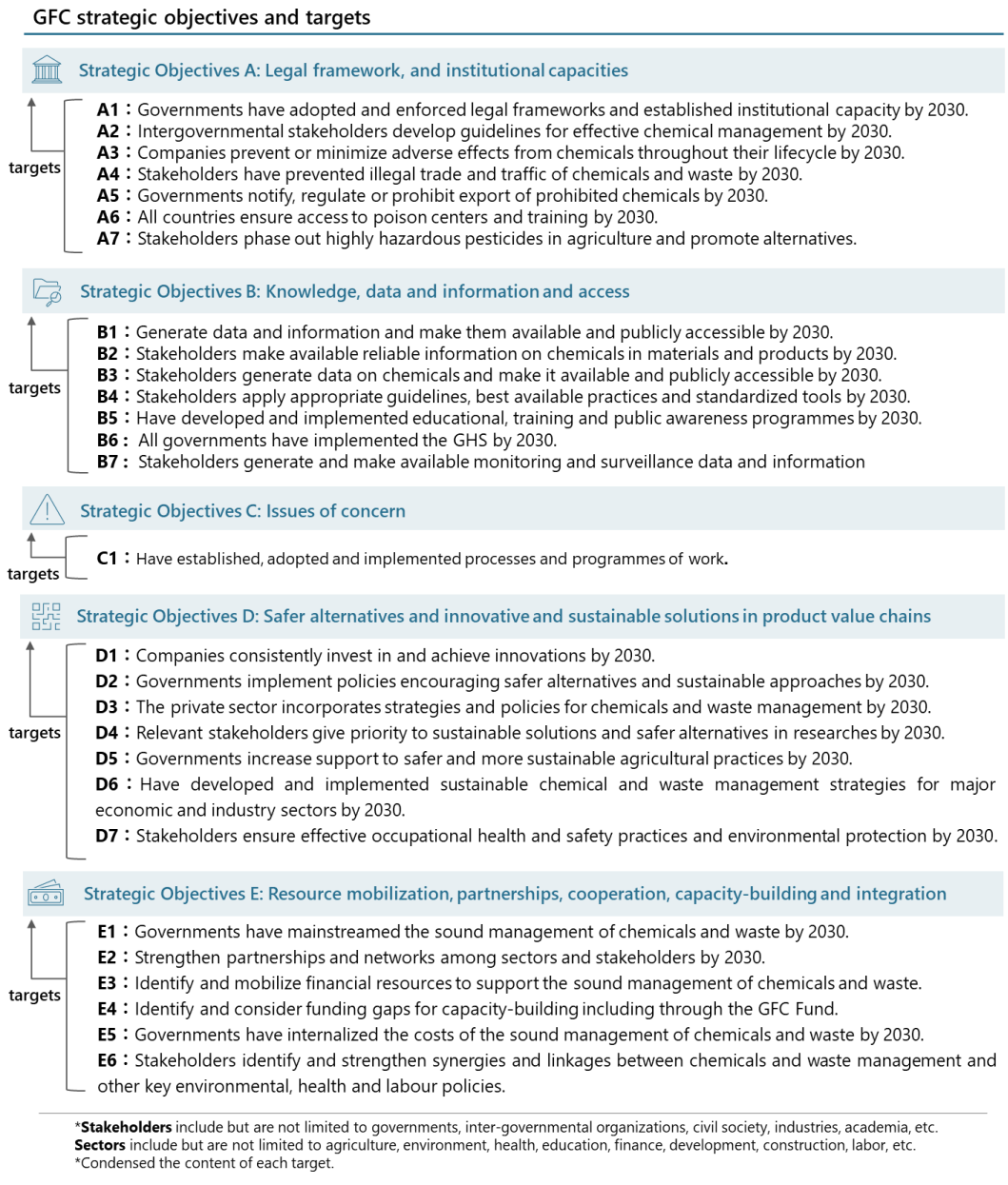
This National Plan of Action has been prepared taking into account the specific measures implemented in each sector related to the management of chemicals and the future direction to follow the GFC's principle of multisectoral approaches. This Plan comprehensively outlines the management of chemicals in Japan for their entire life cycles.

1. Background leading to the adoption of the GFC

In the Plan of Implementation adopted at the World Summit on Sustainable Development (WSSD) held in Johannesburg in 2002, the international goal was agreed, the so-called the WSSD 2020 Goal, "To achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment". The SAICM was adopted in 2006 as an international strategy and action plan to achieve this goal.

In response, various stakeholders, including governments, international organizations, industries and NGOs, have implemented various initiatives. The Japanese government developed the SAICM National Implementation Plan of Action in 2012 and set priority issues for the government to address in the following six areas: (1) promotion of scientific risk assessment, (2) risk reduction throughout the life cycle, (3) addressing emerging and uncertain issues, (4) further strengthening of safety and security, (5) promotion of international cooperation and coordination and (6) issues to be considered in the future. Based on these priority issues, the government has promoted the management of chemicals.

Despite some progress in these efforts, the Global Chemicals Outlook II report published by the United Nations Environment Programme (UNEP) in April 2019 and other relevant documents concluded that the WSSD 2020 Goal would not be achieved by 2020 and that more ambitious worldwide action by all stakeholders is urgently needed. Based on these reports, a new approach to chemicals management beyond 2020 had been discussed. As a result, a new framework for the management of chemicals, the "Global Framework on Chemicals - For a planet free of harm from chemicals and waste" was adopted at the ICCM5 in September 2023. The GFC includes five strategic objectives and 28 targets, covering issues for various sectors and stakeholders to address the management of chemicals throughout their life cycle (see schematic diagram below).



2. Overview of Japan's efforts in response to the GFC

In response to the adoption of the GFC, Japan set out comprehensive chemicals management policies in the Sixth Basic Environment Plan, which was approved by the Cabinet in May 2024, in line with the strategic objectives of the GFC;

a. Legal frameworks, institutional mechanisms and capacity building for the management of chemicals throughout their life cycle;
b. Ensuring that knowledge, data and information to enable informed decision-making and action are generated, available and accessible;
c. Addressing issues of concern;
d. Preventing and minimizing environmental risks through the development of safer alternatives and innovative and sustainable solutions in product value chains; and
e. Strengthening the implementation through effective resource mobilization, partnerships, cooperation, capacity-building and integration into relevant decision-making processes.

In addition, the Fifth Fundamental Plan for Establishing a Sound Material-Cycle Society, approved by the Cabinet in August 2024, also calls for the promotion of initiatives to make reliable information on chemicals in materials and products available throughout their life cycle and value chains as far as possible, taking into account the GFC.

At the international level, Japan has contributed to the implementation and promotion of the GFC by serving as the focal point for the Asia-Pacific region and as one of the co-chairs of the open-ended ad hoc group on measurability and indicators.

3. Procedures for developing the National Plan of Action for the Implementation of the GFC

The development of the National Plan of Action contributes to the coordination among relevant ministries and agencies related to the national policy on chemicals management in line with the GFC and is necessary to show the status of Japan's efforts to relevant stakeholders and to ensure the implementation of initiatives by stakeholders. The development of the National Plan of Action is also referred to in subsection B. "National Implementation" of Section VI. " Mechanisms to support implementation " of the GFC Framework Document.

Based on the above, an inter-ministerial GFC Liaison Committee was established in April 2024 to develop a more detailed National Plan of Action, taking into account the context of the GFC in the Sixth Basic Environment Plan. Meetings of the Committee were held in April, September and December 2024 for the development of the National Plan of Action, including work to comprehensively organize the actions of each ministry and agency related to the GFC.

In addition, taking into account that the GFC encourages multi-sectoral and multi-stakeholder participation in the development of the National Plan of Action, the government gathered views from relevant stakeholders through the Policy Dialogue on Chemicals and the Environment, which is a forum for the exchange of views and opinions among various stakeholders such as citizens, workers,

business, finance, governments and academia[1]. The draft National Plan of Action was published for public comment in February 2025.

4. The Scope of This Plan

The scope of the National Plan of Action is consistent with the Section II "Scope" of the GFC, as described below.

> 8. The scope of the Framework covers the life cycle of chemicals, including products and waste. The Framework promotes initiatives to enhance the sound management of chemicals and waste, takes due account of other chemicals and waste instruments that have been developed to date, and is flexible enough to take account of new instruments.
> 9. The Framework is multi-stakeholder and multi-sectoral in nature. It encompasses the involvement of all relevant sectors, including environment, health, agriculture, and labour, and stakeholders across the life cycle of chemicals at the local, national, regional, and global levels, as well as consideration of environmental and social aspects that are critical to the sound management of chemicals and waste.

Specifically, this National Plan of Action outlines the actions by the government, including efforts, as broad as possible, on the relevant domestic legislation, implementation of international agreements and the above-mentioned strategies/plans in line with the strategic objectives and targets of the GFC. Specific actions in the National Plan of Action are, in principle, policies and government projects. However, the Plan also describes the expected roles of local governments, businesses, citizens and private organizations. On the other hand, issues related to restrictions on military use of chemicals are excluded from the life cycle of chemicals covered by this Plan.

Additionally, taking into account that some targets under the GFC are to be implemented by stakeholders other than the national government, efforts to be made by these stakeholders, as consolidated in the Policy Dialogue on Chemicals and the Environment and organized in line with the strategic objectives and targets, are included in the Appendix A of this Plan. With regard to indicators, Japan will consider national indicators based on the discussion at the GFC, and incorporate them into this Plan.

[1] 20th and 21st Policy Dialogue on Chemicals and the Environment (November 2024 and February 2025)

Chapter 2. Japan's system for the chemicals management and the GFC

1. Japan's system for the chemicals management

(1) Major laws and regulations for the chemicals management

The following are the major laws and regulations on the chemicals management in Japan related to this National Plan of Action (listed based on the Appendix of the SAICM National Implementation Plan (September 2012)).

Work environment

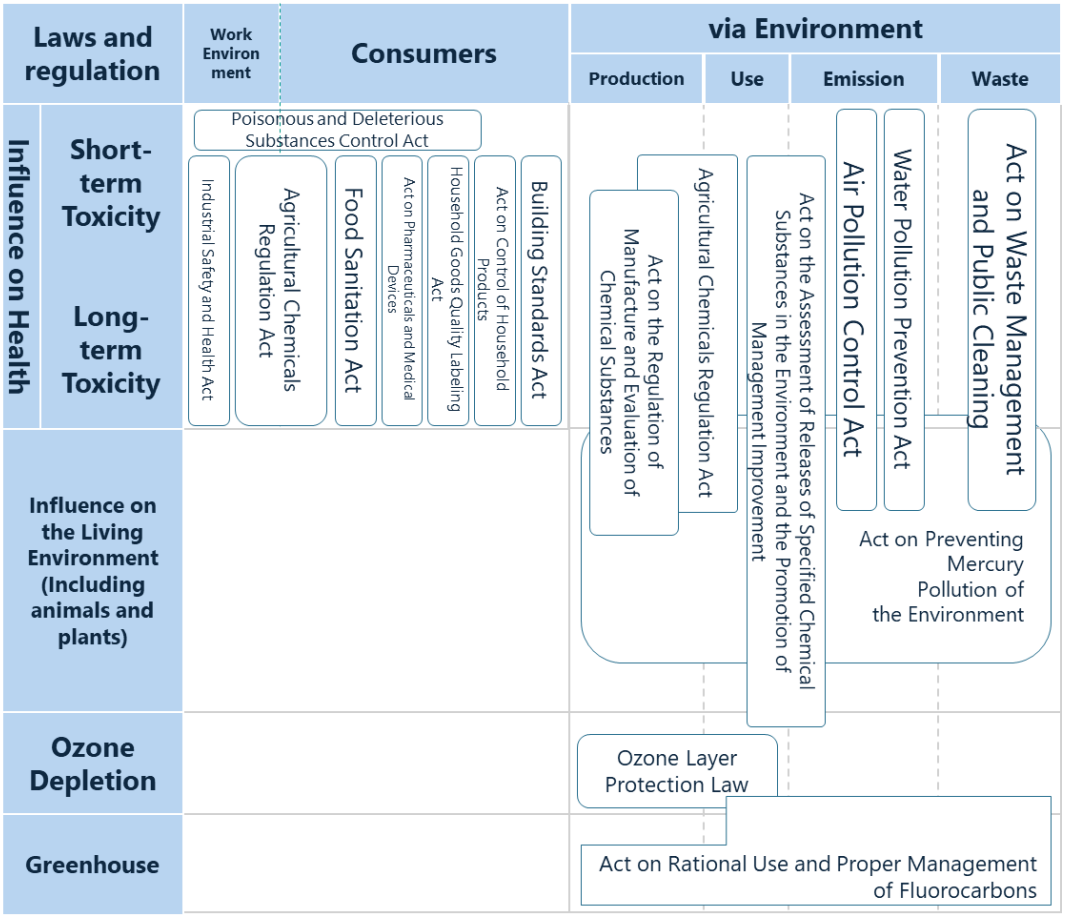
- Poisonous and Deleterious Substances Control Act
- Industrial Safety and Health Act
- Agricultural Chemicals Regulation Act

Consumers

- Poisonous and Deleterious Substances Control Act (reiterated)
- Agricultural Chemicals Regulation Act (reiterated)
- Food Sanitation Act
- Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices
- Household Goods Quality Labeling Act
- Act on Control of Household Products Containing Harmful Substances
- Building Standards Act

via Environment

- Act on the Regulation of Manufacture and Evaluation of Chemical Substances
- Act on the Protection of the Ozone Layer Through the Control of Specified Substances, etc. and Other Measures
- Act on Rational Use and Proper Management of Fluorocarbons
- Agricultural Chemicals Regulation Act (reiterated)
- Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement
- Air Pollution Control Act
- Water Pollution Prevention Act
- Act on Preventing Mercury Pollution of the Environment
- Act on Waste Management and Public Cleaning



(2) Compliance with international agreements

Among the international agreements related to chemicals management that Japan has joined, key agreements relevant to this National Plan of Action are as follows.

- Recommendations on the Transport of Dangerous Goods (TDG)
- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)
- 1978 Protocol to the International Convention for the Prevention of Pollution from Ships 1973 (Marpole Convention)
- Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention)
- ILO Chemicals Convention, 1990 (NO.170)
- Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade (PIC Convention)
- Stockholm Convention on Persistent Organic Pollutants (POPs Convention)

- International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention)
- Minamata Convention on Mercury (Minamata Convention)
- Globally Harmonized System of Classification and Labelling of Chemicals

2. Existing strategies and plans related to the GFC

The following existing strategies and plans pertain to the management of chemicals within the scope of this Plan. While these relevant strategies and plans were considered during the development of this Plan, this Plan aims to complement and support their implementation, avoiding any duplication.

The Basic Environmental Plan

Based on Article 15 of the Basic Act on the Environment (Act No. 91 of 1993), the Sixth Basic Environment Plan, approved by the Cabinet in May 2024, designates " comprehensive measures against chemicals" as one of the priority areas. The Plan also states that “Going forward, Japan will advance its chemicals management policies as approaches contributing to the achievement of the five strategic objectives agreed in the GFC”.

The Fundamental Plan for Establishing a Sound Material-Cycle Society

In accordance with Article 15 of the Basic Act on Establishing a Sound Material-Cycle Society (Act No. 110 of 2000), the Fifth Fundamental Plan for Establishing a Sound Material-Cycle Society, approved by the Cabinet in August 2024, emphasizes that “in order to prevent chemical pollution in the transition to a circular economy, it is essential to continuously and properly manage chemicals and waste throughout their entire life cycle - from upstream to downstream of products and materials containing chemicals including their recycling stages.

The National Biodiversity Strategy and Action Plan of Japan 2023-2030

In accordance with Article 6 of the Convention on Biological Diversity and Article 11 of the Basic Act on Biodiversity (Act No. 58 of 2008), and based on the Kunming-Montreal Global Biodiversity Framework, the "The National Biodiversity Strategy and Action Plan of Japan 2023-2030", approved by the Cabinet in March 2023 as the 6th Strategy, includes an Action-oriented target “Reduce pollution (control emissions with the objective of reducing the impact on biodiversity to an appropriate level taking into account carrying capacity), and prevent and reduce the negative impacts of invasive alien species (e.g., reduce the rate of establishment of invasive alien species by 50%)” to facilitate chemicals management.

Occupational Safety & Health Program

Based on Article 6 of the Industrial Safety and Health Act (Law No. 57 of 1972), the 14th

Occupational Safety & Health Program formulated in March 2023 identifies "promotion of measures to prevent health problems caused by chemicals." as one of its priority issues. In particular, the Program outlines the efforts of the government and business operators and output/outcome indicators for "measures to prevent health problems caused by chemicals" and "measures to prevent health problems caused by asbestos and dust".

MIDORI Strategy for Sustainable Food Systems

The MIDORI Strategy for Sustainable Food Systems developed by the Ministry of Agriculture, Forestry and Fisheries in May 2021, includes "50% reduction in risk-weighted use of chemical pesticides by 2050" as a Key Performance Indicator (KPI) and Target related to chemicals management.

National Implementing Plan for Preventing Environmental Pollution of Mercury and Mercury Compounds

This Plan was developed in October 2017 in accordance with Article 20 of the Minamata Convention on Mercury and Article 3 of the Act on Preventing Mercury Pollution of the Environment (Act No. 42 of 2015).

The National Implementation Plan of Japan under the Stockholm Convention on Persistent Organic Pollutants

This Plan was developed in accordance with Article 7 of the Stockholm Convention on Persistent Organic Pollutants. The Plan is regularly revised in line with the development of the Convention (the latest revision was published in March 2025).

Government Plan to Reduce Dioxin Levels Resulting from Business Activities in Japan

Based on Article 33 of the Act on Special Measures against Dioxins (Act No. 105 of 1999), this Plan was developed in September 2000. It was revised in June 2005 and August 2012.

Strategies for Promoting Environmental Research and Environmental Technology Development

The Fifth Strategy developed in August 2024 based on the Basic Environmental Plan aims at realizing an economic and social system that leads to well-being/high quality of life. The Plan lists "promotion of comprehensive risk assessment and management of chemicals and other substances" as a priority issue related to the chemicals management.

Japan’s National Action Plan on Sustainable Nitrogen Management

The United Nations Environment Assembly (UNEA) adopted a resolution on sustainable nitrogen management (Resolution 4/14) in 2019 and the Resolution 5/2 in 2022 encouraged Member States to develop national action plans on nitrogen management. Based on these resolutions, the National

Action Plan on Sustainable Nitrogen Management was developed in September 2024.

Chapter 3. Development of Specific Measures - Strategies for National Plan of Action

1. Fundamental principles

(1) Goal

Based on Chapter 2, the government will take action to achieve the vision, strategic objectives and targets of the GFC.

Vision of the GFC

To achieve "a planet free of harm from chemicals and waste for a safe, healthy and sustainable future."

Five strategic objectives and 28 targets

Strategic Objective A:	Legal frameworks, institutional mechanisms and capacities are in place to support and achieve the safe and sustainable management of chemicals throughout their life cycle. Seven targets linked to this objective are set.
Strategic Objective B:	Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions. Seven targets linked to this objective are set.
Strategic Objective C:	Issues of concern are identified, prioritized and addressed. One target linked to this objective is set.
Strategic Objective D:	Safer alternatives and innovative and sustainable solutions in product value chains are in place so that benefits to human health and the environment are maximized and risks are prevented or, where prevention is not feasible, minimized. Seven targets linked to this objective are set.
Strategic Objective E:	Enhanced implementation occurs through increased and effective resource mobilization, partnerships, cooperation, capacity-building, and integration into all relevant decision-making processes. Six targets linked to this objective are set.

In addition to the following principles and approaches set out in the GFC, implementation will be guided by the principles and approaches of the Rio Declaration on Environment and Development.

- **Knowledge and information**: There is expertise in and among regions and strong support for the sharing of knowledge, including traditional knowledge and Indigenous knowledge systems shared on the basis of free, prior and informed consent. The Framework promotes coordination and access to information for informed and science-based decision-making on chemicals and waste management. The implementation of the sound management of chemicals and waste at

all levels should be supported by the best available science.

- **Transparency**: Transparency is essential for ensuring informed and legitimate decision-making processes. The Framework supports transparency of information in all aspects of implementation. The ability to participate in decision-making processes, the encouragement of public awareness, and access to relevant information on chemicals and their use as well as to environmental information are fundamental to the protection of human health and the environment. Effective access to justice is important for people to have their voices heard, to exercise their rights and to challenge discrimination.
- **Human rights**: The implementation of the sound management of chemicals and waste contributes to the full enjoyment of human rights and human well-being and dignity.
- **Groups in vulnerable situations**: Exposure to chemicals and waste often disproportionately affects people in vulnerable situations, including children, youth, the elderly, persons with disabilities, women, workers, migrants, farmers, people living in poverty, and Indigenous Peoples and local communities. The implementation of the Framework should take these groups into consideration when protecting human health and the environment.
- **Gender equality**: Women are agents of change and are essential to addressing the issues of chemicals and waste. The Framework advances gender equality through women's full and equal participation and gender-inclusive approaches in all aspects of the implementation of the Framework, including in decision-making.
- **Preventive approaches**: Prevention is the hallmark of all activities aimed at reducing risks from chemicals and waste. A hierarchical approach consists of prioritizing primary prevention in order to prevent and, where prevention is not feasible, minimize exposure to hazards that may cause disease and injury or adverse impacts to the environment. Prevention of exposure to hazardous chemicals and their substitution contribute to intergenerational, social and environmental justice. The development and use of safe and sustainable chemicals are priorities for the sound management of chemicals and waste.
- **Just transition**: The shift to sustainable production can have unintended impacts on communities, health and livelihoods. A just transition towards an environmentally sustainable economy with the sound management of chemicals and waste contributes to the goals of decent work for all, social inclusion, protection of human rights and the eradication of poverty.
- **Collaboration and participation**: Networks, partnerships and mechanisms for technical cooperation are important for effective capacity-building, work on issues of common interest, and exchange of information, taking into account the circumstances of developing countries and their required capacity-building.

(2) Role of stakeholders

In order to foster initiatives to achieve the aforementioned goal, it is essential to cooperate among

various entities such as (1) the government, which is the implementing actor of this National Plan of Action, and (2) local governments, (3) citizens, (4) NGOs and NPOs, (5) academic and research institutions such as universities (6) labors, (7) businesses and others related to chemicals management. The expected roles of each entity are as follows.

a. Role of the government

The government will establish a foundation for multi-sectoral and multi-stakeholder initiatives by developing legal frameworks, strengthening dissemination, awareness-raising and education, and improving opportunities for dialogue and responses to issues for the sound management of chemicals that the GFC and this National Plan of Action will pursue.

b. Expected role of local governments

In addition to ensuring the stable enforcement of laws and local ordinances that take into account local conditions, local governments are expected to play a vital role in further promoting chemicals management throughout the life cycle by businesses, including small and medium-sized enterprises, promoting risk communication at the local level and responding to accidents and disasters.

c. Expected role of citizens

Citizens are expected to actively seek and understand accurate information on the risks of chemicals provided by various stakeholders through information sources such as labels. As consumers, they are also expected to take action to avoid risks from chemicals used in their daily lives by, for example by choosing products with lower health and environmental risks and disposing of waste properly.

d. Expected role of NPOs and NGOs

NPOs and NGOs are expected to plainly provide objective and accurate information and advice on chemicals. Additionally, they play a role in bridging the efforts of citizens, businesses, the national government, local governments and other stakeholders.

e. Expected role of academic and research institutions, such as universities

Academic and research institutions, such as universities, are expected to support policymaking and actions of various stakeholders in the sound management of chemicals by advancing academic and professional knowledge in chemicals management and providing objective and reliable scientific information in a straightforward manner.

f. Expected role of workers

To prevent health impacts and accidents at workplaces, workers are expected to comply with laws and regulations, ensure workplace safety and health and cooperate with business and other stakeholders in implementing measures to prevent labor accidents when engaging in work such as manufacturing or handling chemicals that may cause danger or health problems. Additionally, if there are potential safety risks or health concerns in the workplace, workers are expected to consult with their employers in advance and endeavor to prevent accidents.

g. Expected role of businesses

Businesses involving in the development, manufacturing, import, sale, use, disposal and recycling are expected not only to comply with relevant laws and regulations but also to voluntarily evaluate and manage chemicals, provide information, engage in dialogue with local communities and take prevention measures on occupational accidents. In particular, businesses are expected to take proactive action to ensure that information on the risks and hazardousness of chemicals and products, along with the necessary information to safely use them, is provided with relevant stakeholders, including consumers.

2. Specific measures to be taken

The followings are specific measures to be implemented by the government, taking into account the strategic objectives and targets of the GFC, as well as the future challenges identified in the latest progress review "Review Results on SAICM National Implementation Plan of Japan" (February 2020).

The key contributions of stakeholders, other than the national government, to the national implementation of the GFC are detailed in the Appendix of this document.

Strategic Objective A

Legal frameworks, institutional mechanisms and capacities are in place to support and achieve the safe and sustainable management of chemicals throughout their life cycle.

Target A1: By 2030, Governments have adopted and are implementing and enforcing legal frameworks, and have established appropriate institutional capacity to prevent or, where prevention is not feasible, minimize adverse effects from chemicals and waste as appropriate for their national circumstances.

Japan has been advancing chemicals management measures in line with the SAICM. Japan will continue to promote comprehensive chemicals management throughout their entire lifecycle by ensuring the proper management, examining and reviewing the efforts and standards using scientific knowledge that are continuously collected and organized, enhancing harmonization of legal frameworks with other countries, as well as strengthening cooperation and coordination among laws and regulations to minimize gaps.

The following is a list of measures to be taken in accordance with relevant laws and regulations.

Japan will continue the efficient implementation of the pre-screening for new chemical substances, screening evaluation for general chemical substances and risk assessments for priority assessment chemical substances in accordance with the "Act on the Regulation of Manufacture and Evaluation of Chemical Substances ", and the Ministry of Health, Labour and Welfare (MHLW), Ministry of

Economy, Trade and Industry (METI) and Ministry of the Environment (MOE) will oversee and manage progress accordingly.

Japan will continue to accelerate the improvement of voluntary chemicals management by businesses and prevent any impediments to environmental conservation by consistently publishing the results of the total chemical releases to the environment and the total amount transferred in waste and other materials reported by businesses, as well as the total chemical releases not subject to reporting estimated by the national government in accordance with the "Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement". The Pollutant Release and Transfer Registers (PRTR) system, which confirms release amounts, etc. of specific chemical substances in the environment, and the Safety Data Sheets (SDS) system, which provides information concerning the properties and the handling of specific chemical substances under the Act will be reviewed as necessary, based on the latest scientific findings and both domestic and international development.

The Basic Act on the Environment sets Environmental Quality Standards for air for 10 substances (excluding dioxins) from the perspective of protecting human health and establishes guideline values for 11 substances to mitigate health risks from hazardous air pollutants in the environment. For chemicals with established Environmental Quality Standards for air or guideline values, Japan will continue enhancing scientific knowledge for further evaluation. For those without established standards or guideline values, Japan will continue gathering and analyzing scientific knowledge while studying risk assessment methods to support the establishment of Environmental Quality Standards for air.

The Air Pollution Control Act regulates emissions of, for example, soot and smoke from factories. The government has been conducting surveys on air pollutant emissions from point sources and how prefectures are enforcing the Act to better understand the state of emissions and the notification on facilities stipulated under the Act as part of efforts to prevent air pollution.

Based on the Basic Environment Act, Environmental Quality Standards for water have been designated for 27 items (excluding dioxins) for the protection of human health and 13 items for the conservation of the living environment in public water bodies. The standard values have also been set for 28 items for groundwater. Based on factors such as environmental detection levels and potential combined effects, certain substances are designated as "monitoring items" - not immediately subject to Environmental Quality Standards but requiring continued data collection on their presence in public water bodies. Standard values, guideline values and regulated items must be regularly revised and updated based on sound scientific judgment. The government will continue its efforts to add or revise items as needed.

The Water Pollution Prevention Act sets effluent and permeated groundwater standards for 28 hazardous substances in wastewater and water that has permeated underground discharged from factories or workplaces with specified facilities that discharge polluted water or wastewater. These standards apply to water released into public water bodies, and any discharge or permeation that does not comply with these standards are prohibited. Facilities that use or store hazardous substances must comply with structural standards and conduct regular inspections to prevent groundwater contamination. In addition, local governments enforce strict guidance to ensure that non-compliant businesses meet the required standards. These efforts will continue to be implemented effectively.

Environmental Quality Standards for soil contamination cover 29 items (excluding dioxins) under the Basic Act on the Environment. These standards are established to align with Environmental Quality Standards for water and groundwater pollution, aiming to prevent health risks from groundwater consumption as well as the requirements for designated areas for measures under the Act to Prevent Soil Contamination on Agricultural Land, aiming to preserve food-producing functions. Japan will continue to review the soil environmental standards including adjustments to standard values and the addition of new items taking into account advancements in scientific knowledge and changes in soil contamination condition.

Under the Soil Contamination Countermeasures Act, each prefecture and designated municipalities specified by the Act's administrative ordinance monitor the status of soil contamination caused by designated hazardous substances. The collected data is compiled as information to support future soil contamination countermeasures. Based on these findings, Japan identifies challenges and consider improvement measures to promote the sound management of environmental risks. Additionally, efforts are made to ensure the appropriate transportation and management of contaminated soil and to promote its proper treatment. These initiatives will continue to be implemented effectively.

Agricultural Chemicals Regulation Act stipulates that by establishing the registration system for agricultural chemicals, only those chemicals which are recognized as effective and safe for human health and the environment based on the latest scientific knowledge can be manufactured, sold and used, in accordance with mandatory usage standards. All the registered pesticides are periodically re-evaluated the safety based on the latest scientific knowledge. The ministries involved work together to ensure that only pesticides that have been confirmed for their safety based on the latest scientific knowledge.

Under the Act to Prevent Soil Contamination on Agricultural Land, prefectural governors may designate areas where contamination is detected through continuous monitoring as agricultural soil contamination control areas. This designation aims to prevent and eliminate soil contamination of agricultural land caused by three specified hazardous substances, which are defined to protect human

health and prevent the inhibition of agricultural crops and other products. For those designated areas, a countermeasure plan is developed and measures such as soil dressing are implemented. In addition, efforts to advance knowledge on specified hazardous substances and other substances are ongoing. Japan will continue to improve these measures consistently.

The Act on Preventing Mercury Pollution of the Environment prohibits the manufacture of specified mercury-using products, the use of mercury or mercury compounds in specific manufacturing processes, the primary mercury mining and the gold extraction using mercury and mercury compounds. The Act also provides guidance on the storage of mercury and mercury compounds, as well as the management of mercury-containing recyclable resources, and requires reporting on the status of the storage and management.

The Act on Special Measures against Dioxins promotes measures against unintentionally generated dioxins. Japan is implementing reduction measures in line with the national reduction plan, while also surveying pollution levels, identifying emission sources and preparing emission inventories to support dioxins reduction efforts. Through these actions, the government monitors the progress toward the plan's targets and conducts comprehensive evaluations. Japan remains committed to advancing these measures in an appropriate manner.

The Industrial Safety and Health Act requires business operators to take measures to prevent chemical exposure to ensure workers' safety and health. In 2022, the Act and related laws and regulations were revised to introduce "Autonomous Management" where business operators conduct risk assessments and select and implement appropriate exposure prevention measures. To ensure the smooth implementation of these measures, relevant systems will be continuously improved.

The Poisonous and Deleterious Substances Control Act regulates poisonous and deleterious substances to protect health and hygiene. In addition to defining these substances, the Act stipulates a registration system for "manufacturer, importer, or seller of a poisonous or deleterious substances" and standards for labeling on containers, procedures for sales (transfer), measures to prevent theft, loss and leakage as well as transportation and disposal. To prevent improper distribution or leakage of these poisonous or deleterious substances, the Act also provides guidance to business operators in cooperation with local governments. Japan will continue to review and revise substances subject to regulation based on new findings and deliberations at the Pharmaceutical Affairs Council as necessary.

The Building Standards Act sets technical standards for building materials and ventilation equipment used in living spaces for formaldehyde and chlorpyrifos - two of the Volatile Organic Compounds (VOCs) for which the MHLW sets indoor concentration guidelines.

The MHLW has convened a study group on to address issues related to sick house (indoor air pollution) and has established indoor concentration guideline values for 13 VOCs, including formaldehyde. Japan will continue to collect domestic and international information such as the latest findings and consider setting indoor concentration guideline values.

The Act on Maintenance of Sanitation in Buildings defines the management of building environmental sanitation standard for formaldehyde as the concentration of the chemical in indoor air.

Additionally, the School Environmental Health Standards under the School Health and Safety Act set standard values for 6 VOCs such as formaldehyde in schools.

The Act on the Protection of the Ozone Layer Through the Control of Specified Substances, etc. and Other Measures regulates the manufacturing of chlorofluorocarbons (CFCs) and other substances to protect the ozone layer through international cooperation while paying attention to the potential impact on the climate. Following the adoption of the Kigali Amendment to the Montreal Protocol in 2016, the Act was amended in 2018 to promote the phase-out of CFCs by regulating the domestic production and import of CFC substitutes. In addition, the Act on Rational Use and Proper Management of Fluorocarbons requires to implement measures to rationalize the use and the proper management of fluorocarbons to reduce their emission into the atmosphere of fluorocarbons, which have a serious impact on global warming. In June 2019, the Act was amended to ensure the recovery of fluorocarbons during the disposal of commercial refrigeration and air-conditioning equipment. Through these measures, Japan will continue to promote the reduction in emission of fluorocarbons.

The Act on Waste Management and Public Cleaning defines “waste, with explosive, toxic, infectious, or other properties that are likely to cause damage to human health or the living environment" as specially controlled wastes. The Act also establishes specific treatment standards and enforces stricter regulations compared to ordinary wastes.

The Law Concerning Special Measures against PCB Wastes outlines requirements to ensure the timely disposal of PCB wastes, including the obligation to dispose of such wastes within the designated period. Highly concentrated PCB wastes are being treated at five treatment facilities operated by the Japan Environmental Storage & Safety Corporation (JESCO). JESCO is accelerating the early treatment of PCB waste by assisting prefectures and cities in the investigation for excavating unreported equipment to the prefectural and city governments, while also public awareness activities for storage operators and others. In addition, MOE, JESCO, prefectures and cities, METI, business associations, and other related organizations are collaborating to complete the treatment of equipment containing PCBs in use. Furthermore, regarding low-concentration PCB waste, Japan is certifying detoxification treatment and exploring technical methods to ensure treatment by the specified deadline in the Law (March 2027). Japan remains committed to steadily implement these measures.

The Consumer Safety Act collects information on accidents related to consumer affairs from relevant agencies and establishes the "Accident Information Data Bank System" where anyone can search for and access information on various accidents including those involving chemicals, aiming to provide information for preventing chemicals accidents. Japan will continue to collect and provide relevant information on an ongoing basis.

The Act on Control of Household Products Containing Harmful Substances aims to protect public health by regulating household products that contain hazardous substances, focusing on health and hygiene. In relation to this, the "Selection Scheme for Substances to be Considered" has been established - a screening procedure based on toxicity and exposure potential. This procedure is being used to identify substances that need to be evaluated for appropriate use in household products.

Furthermore, information on serious product accidents believed to be caused by chemicals is promptly shared with consumers in cooperation with the Consumer Affairs Agency and other relevant ministries and agencies. Additionally, Japan compiles and publicizes cases of health hazards linked to household products, encourages business operators to take product safety measures and alerts consumers to these measures to prevent health risks associated with the use of household products. Japan will continue to steadily implement these measures.

The Household Goods Quality Labeling Act establishes regulations aiming to make the labeling of household goods relating to their quality fair and appropriate so that the interests of general consumers can be protected. Specifically, the Act requires that certain household products be labeled with information on ingredients and usage precautions. To ensure proper labeling, the Act also requires the annual monitoring and guidance on labeling, which includes awareness-raising through websites and guidebooks, reviewing labeling standards as needed, and conducting on-site inspections by local governments. Japan will continue to ensure proper labeling and revise it as necessary in accordance with the Household Goods Quality Labeling Law.

The Food Sanitation Act establishes regulations to ensure food safety from the perspective of public health. A positive list system has been in place for food apparatus, containers and packaging made of synthetic resin, permitting only substances that have undergone safety evaluation. In addition, standards for heavy metals have been set for each material of apparatus, containers and packaging. Japan will continue to ensure food safety through the safety evaluation of chemicals contained in food apparatus, containers, and packaging based on scientific knowledge.

Target A4: By 2030, stakeholders have effectively prevented all illegal trade and traffic of

chemicals and waste.

Measures in Japan to effectively prevent all illegal trade and transaction of chemicals and waste are based on the following two international agreements.

Japan enacted the "Act for the Control of Export and Import of Specified Hazardous and Other Wastes" (Act No. 108 of 1992, hereinafter referred to as the "Basel Act") to ensure the implementation of the Basel Convention. In 1993, Japan deposited its letter of accession to the Convention, which came into effect for Japan in the same year. Since then, Japan has promoted the compliance with the obligations of the Convention through the proper enforcement of the Basel Act and by ensuring that export/import businesses are well informed about the relevant laws and regulations. Japan will continue to enforce the Basel Act appropriately and ensure that all concerned parties are fully aware of its provisions.

Japan ratified the Rotterdam Convention in 2004, and it entered into force in Japan in September of the same year. In addition to the chemicals listed in Appendix III of the Convention, Japan has fulfilled its obligations regarding chemicals that are prohibited or severely restricted.

Target A5: By 2030, Governments work towards notifying, regulating or prohibiting the export of chemicals they have prohibited nationally, in line with their international obligations.

Japan is a party to the international agreements listed in Chapter 2, Section 1 (2). Efforts toward the major international agreements among them, in addition to the Basel Convention and the Rotterdam Convention described in the previous section.

Japan ratified the Stockholm Convention in August 2002, and necessary measures have been in place in the Act on the Regulation of Manufacture and Evaluation of Chemical Substances, the Agricultural Chemicals Regulation Act, the Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices and Foreign Exchange and Foreign Trade Act to regulate the manufacture, import, export and use of substances subject to the elimination and restriction under the Convention. Article 7 of the Convention stipulates that each Party shall transmit its implementation plan to the Conference of the Parties within two years of the date on which this Convention enters into force for it. Japan developed a national implementation plan in June 2005 and has been implementing the obligations of the Convention. Furthermore, the national implementation plan is revised as needed, including the addition of substances to the Convention decided by the Conference of the Parties to the Convention, which is held every two years. Japan will continue to

consistently implement the obligations of the Convention.

In relation to the Minamata Convention, Japan enacted the Act on Preventing Mercury Pollution of the Environment in June 2015 and amended other related laws and regulations to ensure the accurate and smooth implementation of the Convention. The Foreign Exchange and Foreign Trade Act requires approval for the import or export of specific mercury, mercury compounds and mercury-using products. After the Convention entered into force in August 2017, Japan developed National Implementation Plan for Preventing Environmental Pollution of Mercury and Mercury Compounds, in October of the same year. Based on this plan, various measures have been put in place. Japan will continue to fulfill the obligations under the Convention through the Act and other related laws and regulations, while promoting efforts in line with the national implementation plan.

Target A6: By 2030, all countries have access to poison centers equipped with essential capabilities to prevent and respond to poisoning, as well as access to training in chemical risk prevention and clinical toxicology.

In Japan, the Japan Poison Information Center, a public interest objected foundation, serves as the country's poison center. The center provides emergency response services to the public and medical institutions through emergency telephone service for poisoning cases, conducts educational activities, such as distributing video materials to prevent poisoning accidents and undertake awareness-raising activities such as training. The center's activities cover a wide range, from near-miss incidents, such as accidental ingestion at home, to accidents and disasters at chemical factories.

In addition, the database containing information on poisoning, poisoning cases and related literature is established for medical institutions and fire departments to provide information on response and treatment in acute poisoning accidents.

Japan will continue to collect information on poisoning, update the public database and conduct training and other activities.

Target A7: By 2035, stakeholders have taken effective measures to phase out highly hazardous pesticides in agriculture where the risks have not been managed and where safer and affordable alternatives are available, and to promote transition to and make available those alternatives.

As described above, Agricultural Chemicals Regulation Act stipulates that by establishing the registration system for agricultural chemicals, only those chemicals which are recognized as effective and safe for human health and the environment can be manufactured, sold and used, in accordance with mandatory usage standards.

Strategic Objective B

Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions.

Target B1: By 2035, comprehensive data and information on the properties of chemicals are generated and made available and accessible.

To promote chemical management in Japan, the National Institute of Technology and Evaluation (NITE) has established and operates the NITE Chemical Risk Information Platform (NITE-CHRIP) and the Japan CHEmicals Collaborative Knowledge database (J-CHECK). These platforms provide a comprehensive online database containing information on the properties of chemicals, hazard and risk assessment results and GHS classification data, including data and information from foreign countries and international organizations. Accessible to anyone via the internet, these databases enable citizens, business operators, the national government, local governments and other stakeholders to share accurate information on chemicals and to communicate with one another.

Japan will continue to enhance the system's functionality and convenience by updating and improving its integration with external systems, while facilitating communication and promoting data utilization. Japan will also support the sharing of chemical information in materials and products across the value chain and supply chain by providing information on laws and regulations.

Target B2: By 2030, stakeholders make available, to the extent possible, reliable information on chemicals in materials and products throughout the value chain.

Based on the Fundamental Plan for Establishing a Sound Material-Cycle Society, Japan will further promote appropriate information sharing while balancing material recycling and chemical management.

In the manufacturing industry, information transfer on chemicals in products across supply chains is currently exchanged between companies using communication tools such as chemSHERPA and IMDS. Japan will explore establishing a new information transmission platform sharing across companies and industries for the transmittable product environmental infomation. This platform will reflect not only accurate and prompt information on chemicals in products but also data on resource recycling, including parts reuse and recycled materials. Furthermore, Japan will consider introducing a framework for handling chemical information as part of the framework and initiatives to verify product sustainability information throughout the product lifecycle. In addition, Japan will strive to enhance chemical management skills in companies and industries from a soft aspect, for example, by

leveraging industry guidance documents on the management of chemicals in products.

Under the Act on Waste Management and Public Cleaning, when industrial waste treatment and disposal is outsourced, the waste generator is required to provide the treatment and disposal contractor with the necessary information for proper treatment and disposal (including details on hazardous substances, if any). implementation of extended producer responsibility, the utilization of waste data sheets (WDS) and the accurate identification of chemicals in waste via the established information-sharing infrastructure proper waste treatment and disposal and resource circulation.

Target B3: By 2035, stakeholders generate data on the production of chemicals, including the use of chemicals in materials and products, in addition to data on emissions and releases of chemicals and waste to the environment, making these data available and publicly accessible.

The PRTR system established under the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement aims to encourage business operators to voluntarily improve chemical management and prevent any hindrance in preserving the environment. With regard to Class I Designated Chemical Substances (those chemicals recognized to continuously exist in the environment of a considerably wide area, and may pose a risk of being injurious to human health or a risk of impeding the inhabitation or growth of plants and animals), businesses are required to report the amount of release into the environment and the amount transferred into wastes. The government publishes the aggregate results of these reports, along with the estimates of release not subject to reporting.

Data on releases and transfers collected through the PRTR system will continue to be made publicly available while ensuring accuracy and reliability and will be used for risk assessments and other purposes. In addition, risk assessment results based on release and transfer data will be shared with business operators to allow for feedback on further improvements in self-management. Furthermore, by utilizing this information and data gathered from environmental monitoring, Japan will prepare in advance to prevent damage in the event of a disaster.

Target B4: By 2035, stakeholders apply appropriate guidelines, best available practices and standardized tools for hazard and risk assessment and chemical and waste management.

In Japan, the government is leading the following efforts regarding the hazard and risk assessment of chemicals, as well as appropriate guidelines and tools for chemicals and waste management.

In conducting chemical evaluations, to ensure the reliability of test results, Japan is verifying the conformity of test facilities with the GLP criteria established by the OECD through document reviews and on-site inspections within the framework of GLP under each relevant law. Japan will

continue to ensure the reliability of test results by confirming that testing facilities comply with GLP standards, while also promoting the international harmonization of testing facilities

Additionally, the OECD has developed and published standard test methods (test guidelines) for chemicals to ensure the reliability of test data for new chemicals and promote the mutual acceptance of data among countries. These test methods have been widely adopted by the member states. In evaluating chemicals under the Act on the Regulation of Manufacture and Evaluation of Chemical Substances and other relevant laws, Japan will continue to promote evaluations based on reliable data and facilitate international harmonization of test methods by reviewing test methods as necessary, taking into account the development and review of the "OECD Guidelines for the Testing of Chemicals".

The government has conducted initial environmental risks to prevent undesirable effects on human health and ecosystems through environmental pollution caused by chemicals. In this assessment, substances with potentially high environmental risks are identified. The results are then provided to relevant departments responsible for chemicals management, thereby facilitating more detailed assessments and appropriate measures and advancing efforts contributing to the reduction of environmental risks. Japan will appropriately grasp the OECD and other organizations' studies on various toxicity test methods and assessment methods and incorporate new knowledge to enhance the understanding of environmental risks.

Efforts are underway to develop and utilize new evaluation methods such as Quantitative Structure-Activity Relationships (QSAR) while strengthening international collaboration within the framework of the OECD and other organizations. The MHLW is conducting research on the practical application of QSAR and categorical approaches for assessing chemical effects on human health, funded by the MHLW Science Research Grant and other sources. Meanwhile, the METI is working to expand the application of methods to evaluate the degradability or accumulation of untested substances by leveraging existing data on previously tested chemicals in the assessment of new chemicals. Japan also developed AI-SHIPS, an AI-powered system that predicts toxicity by analyzing the structural properties of chemicals and estimating their toxic mechanism in vivo. Furthermore, Japan has developed an AI-powered QSAR model (AI-QSAR) to predict degradability. To improve the efficiency and sophistication of risk assessments, Japan introduced a comprehensive degradability assessment based on Weight of Evidence (WoE) using various sources of information, including biodegradability beyond other than statutory test methods, knowledge on similar substances and QSAR prediction. The MOE and the National Institute for Environmental Studies have been developing KATE, a QSAR model for evaluating the ecotoxicity of chemicals. The model is publicly available on its website, and integrated KATE into the OECD's QSAR Toolbox via the API (Application Program Interface). Japan will continue our effort to actively promote studies on the

development and utilization of these assessment methods.

Japan will continue gathering knowledge and conducting trial assessments on the effects of multiple chemicals (known as “combined effects assessment”), with a focus on structural similarities and common mechanism of action. Based on the framework of the staged assessment proposed by WHO/IPCS, Japan will develop guidance for evaluating multiple substances in various risk assessments conducted under the environmental administration. The government will integrate these findings into existing risk assessment systems to enhance multi-substance assessments.

Target B5: By 2030, educational, training and public awareness programmes on chemical safety, sustainability, safer alternatives and the benefits of reducing chemical and waste risks have been developed and implemented, taking into consideration a gender-responsive approach.

Since FY2003, the MOE has dispatched Chemicals Advisors to provide objective information and advice on chemicals in response to requests from citizens, businesses, and the local governments. These advisors serve as interpreters at risk communication events organized by local governments, offering neutral and reliable information on chemicals to both citizens and businesses, thereby contributing to strengthening risk communication within local communities. However, the number of dispatched Chemicals Advisors has declined since the program’s inception. Japan will further enhance the program in collaboration with relevant stakeholders and support local risk communication efforts while also taking into account a gender-responsive approach.

The MHLW has strengthened the chemicals management system by introducing an autonomous management framework in which business operators conduct risk assessments, make appropriate selections and implement measures to prevent exposure through revision of laws and regulations related to the Industrial Safety and Health Act in 2022. As part of these efforts, Japan will promote the proper management of chemicals, including the training of chemical managers, who are required to be appointed.

The METI supports research conducted by young researchers at universities and public research institutes to cultivate and train experts with policy knowledge to further promote the sound management of chemicals. In addition, to enhance understanding of laws and regulations related to chemicals management, the METI collaborates with relevant organizations to organize "Chemicals Management Seminars" for business operators handling chemicals.

The NITE conducts an online course every year for individuals new to chemicals management.

This course provides an overview of the Act on the Regulation of Manufacture and Evaluation of Chemical Substances, along with other chemical-related laws and regulations, risk assessment, GHS classification, and the use of software to estimate chemical properties for providing necessary knowledge for chemicals management. The NITE also compiles new information on the websites of relevant organizations regarding trends in chemicals management and regulatory revisions in Japan and abroad. This information is published weekly on the websites of related organizations and is promptly distributed through the “NITE Chemical Management Weekly Newsletter (referred to in Japanese as NITE Chem Maga” service. In addition, the government share risk assessment results based on release and transfer data collected through the PRTR system with business operators and exchange views with them to support and encourage further improvements in self-chemicals management.

Japan will continue to promote risk communication and improve information accessibility to enhance public understanding of chemicals and their environmental risks.
A "Chemical Substance Fact Sheet", which compiles key information on chemicals has been prepared and published on the MOE's website for easy understanding. The content will be updated as needed. Besides, the Information on Chemicals Retrieval Support Website (ChemicoCo) is available, providing a system that enables direct access to reliable databases based on chemical names and other relevant information.

The data on releases and transfers collected through the PRTR system is compiled and published annually. The "PRTR Data Map Display System" is publicly available, allowing users to search for individual business sites on a map and access their respective data. Similarly, the "PRTR Map Data" is open to the public, providing a visual representation and analysis of chemical release amounts into the environment, as well as estimated atmospheric concentrations. Additionally, Japan has developed and published public awareness materials, including the "Guidebook for Citizens to Interpret PRTR Data," which explains PRTR data in an accessible way to help the general public understand and utilize it. Japan will continue implementing these initiatives.

Target B6: By 2030, all Governments have implemented the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in all relevant sectors as appropriate for their national circumstances.

Regarding the GHS, the MHLW, METI and MOE etc are primarily implementing relevant initiatives. The UN GHS Subcommittee is revising the UN GHS documents based on scientific findings. In turn, Japan is revising the Japanese Industrial Standards (JIS) as necessary to align with these updates for domestic response. Furthermore, Japan is collecting information on physicochemical

hazards, health and environmental hazards for chemicals that are either not yet classified under the GHS or need updates, while using hazard and toxicity information owned by private sectors. The government uses the GHS classification as a reference, and the results are published on the NITE website under the "GHS General Information ". Besides, NITE-Gmiccs, a support system for GHS mixture classification and creation of labels and SDSs, has been established and is available on the same website and on the internet. This system will respond to the revision of the UN GHS documents, the updates to the JIS and the standardization and digitalization efforts led by the MHLW. Furthermore, in order to facilitate the classification of mixtures under GHS, NITE-Gmiccs is also working with the private sector to develop GHS classifications for general-purpose chemicals with low hazard potential. In addition to various learning resources related to GHS that can be used by businesses, the site provides content to promote understanding of GHS pictograms among consumers, including children. On another website, guidance on risk assessment methods for consumer products for GHS labeling is provided to support product manufacturers.

The MHLW has established the "Workplace Safety Website," which provides information on GHS model labels and model SDSs, case studies of chemical-related accidents and tools to support the implementation of risk assessments.

Industry associations are working on developing voluntary GHS labeling guidelines to ensure communication of information to consumers. The government will support small and medium-sized enterprises by promoting the use of the chemicals advisor system.

Target B7: By 2030, stakeholders generate, to the extent possible, and make available comprehensive and accessible monitoring and surveillance data and information on concentrations and potential exposure sources of chemicals in humans (disaggregated by sex, age, region, other demographic factors, and other relevant health determinants as feasible), other biota and environmental media.

The government will work towards comprehensive and accessible monitoring of chemical concentrations in and potential sources to exposure in humans, other organisms, and environmental media. This will involve the collection and preparation of relevant data and information, as well as the efficient use of various types of monitoring methods.

Research on the Environmental Status of Chemicals has been conducted since FY1974 through three different systems, each serving a distinct purpose. This research covers multiple environmental media, including water, sediment, organisms and air, across various regions of Japan to assess the presence of chemicals in the general environment. The results provide essential data for exposure

assessments when designating chemicals for control under the Act on the Regulation of Manufacture and Evaluation of Chemical Substances and the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement. Looking ahead, the MOE will continue to conduct surveys on chemicals in response to requests from departments responsible for chemical regulations, as well as monitor chemicals subject to the Stockholm Convention to track the situation.

For chemicals that may impact human health through the ingestion from the environment, it is essential to continuously monitor the levels of chemicals in the human body to gather foundational information for environmental risk assessment and risk management. To this end, monitoring surveys of chemicals in biological samples (such as blood, urine, etc.) are conducted to take measures against the effects of chemicals on the human body.

This survey can identify the exposure levels of chemicals in humans. This enables the identification of chemical risks of concern, the formulation of risk assessments and management measures, the prevention of health hazards and understanding of the effectiveness of policies on chemicals management. The government will continue to monitor biological samples, focusing on chemicals that are likely to accumulate in humans, thereby conducting a comprehensive analysis of the accumulation and changes over time and providing valuable information to support efforts on chemicals management.

In recent years, there has been increasing concern about the impact of chemicals in the environment on children's physical and mental health. To address this, Japan has conducted a large-scale, long-term cohort study involving 100,000 parent-child pairs, known as the "Japan Environment and Children's Study" (JECS), to identify environmental factors affecting children's health. This initiative leads to establishing a proper risk management system, creating a safe and secure environment for raising children and contributing to efforts to combat the declining birthrate.

Since January 2011, Japan has been recruiting participants for JECS at 15unit centers nationwide. By the end of March 2014, registered participants reached its target of 100,000 and thus the recruitment was completed. Starting from FY2014, the government began intensifying follow-up surveys for children born during the study and conducting chemical analysis of biological samples. In addition to the follow-up surveys, a detailed survey is also being conducted, targeting about 5,000 individuals selected from the 100,000 participants in the national survey. This detailed survey involves the collection of environmental samples, health assessments and biological sample collection by physicians, as well as mental and developmental health surveys.

Japan participates in meetings of the International Working Group Meeting on Large-Scale Birth Cohort Studies to actively engaging in collaboration and cooperation on research with European countries and others conducting similar studies.

In the future, Japan will further promote the dissemination of research results to society through

the publication of academic papers and the public information outreach. Japan will also continue engaging in international cooperation. By understanding the impact of environmental factors such as chemicals in the environment on children's health, the government will continue conducting a large-scale, long-term birth cohort study involving approximately 100,000 parent-child pairs. This will help to establish a proper risk management system and create a safe and secure environment for raising children.

In addition, the government will promote environmental research on chemical countermeasures at research institutes, including environmental research laboratories of local governments. At the same time, the government will promote the steady and efficient implementation of environment-related surveys, such as various types of monitoring, and the systematic organization and management of accumulated survey data.

The Stockholm Convention requires parties to the Convention to monitor the presence, levels and trends in the environment at the national and international levels (Article 11) and to evaluate the effectiveness on the basis of the survey results (Article 16). As part of this project, domestic monitoring surveys of air, water, sediment and organisms are conducted to determine the current state of contamination and track changes over time for 32 groups of Persistent Organic Pollutants (POPs), excluding dioxins. The results are compiled and published annually in the report "Chemicals in the Environment". In addition, high-frequency monitoring of POPs has been conducted at Cape Hendo (Okinawa Prefecture) regarded as a key location in East Asia. Reports summarizing these results are regularly submitted to the Convention Secretariat for use in evaluating the effectiveness of the Stockholm Convention. Domestic monitoring of dioxins is conducted in accordance with the Act on Special Measures against Dioxins.

Japan has selected Cape Hetomisaki in Okinawa Prefecture and the Oga Peninsula in Akita Prefecture as background sites, which are not directly influenced by domestic sources to contribute to international negotiations on the Minamata Convention and to develop regional mercury countermeasures. Japan has also carried out surveys of mercury concentrations in the air (background concentrations) at Cape Hetomisaki since FY2007 and at the Oga Peninsula since FY2014. The data collected from these surveys have been published annually since FY2010.

Strategic Objective C
Issues of concern are identified, prioritized and addressed.

Target C1: Processes and programmes of work including timelines are established, adopted and implemented for identified issues of concern.

Strategic Objective C of the GFC calls for identification, prioritization and response to issues of concern. The relevant procedure for this has been outlined in the Appendix of the GFC text. Until the next International Conference on Chemicals Management, the GFC will continue to address emerging policy issues and other issues of concern that had been addressed by the SAICM, and thus the government will continue to address these issues in moving forward.

In addition, through the "Policy Dialogue on Chemicals and the Environment" and other opportunities for engagement and dialogue with citizens and industry, Japan will gather and analyze issues on chemicals that are of concern to each entity. This will help deepen understanding and promote measures that contribute to addressing these issues.

The primary issues of concern, some of which have already been addressed, will be tackled as follows:

- With regard to PFAS (generic name of per- and polyfluoroalkyl substances), including PFOS (Perfluorooctanesulfonic acid) and PFOA (Perfluorooctanoic acid), based on the “Future Direction of Responses to PFAS” (discussed in the "Expert Meeting on Comprehensive Strategies for PFASs" in July 2023), the government will strengthen the environmental monitoring and enhance scientific knowledge for safety and security.
- Regarding the endocrine-disrupting effects of chemicals, under EXTEND2022, efforts will be made to develop testing methods to be used and contribute to the establishment of international standard testing methods within the OECD. The government will accelerate testing and evaluation, including conducting tests and assessments using newly established methods, and advance the identification of substances that raise concerns about harmful effects. Targeted substances will include pesticides and PPCPs (pharmaceuticals and personal care products) such as pharmaceuticals, while aiming to propose evaluation methods for endocrine-disrupting effects with a focus on how they can be incorporated into the risk management system's evaluation framework.
- Regarding nanomaterials, the government will actively participate in initiatives such as those by the OECD and work to accumulate knowledge on their environmental risks. Additionally, the government will strive to enhance our understanding of advanced materials, microplastics and related chemicals.
- For such a pharmaceuticals present in the environment (PPCPs), the government will focus on their impact on organisms in the environment, enhance knowledge on ecological toxicity and environmental occurrence and advance environmental risk assessments. This will include a perspective on cumulative effects, considering substances with similar mechanisms or structures, as well as their metabolites.
- Regarding antimicrobial resistance (AMR), based on the commitment made in the G7 Sapporo Climate, Energy, and Environment Ministers' Meeting (2023) Joint Communique to continue

efforts to fill knowledge gaps, Japan will collect basic information on the residual status of antimicrobial agents in the environment. In addition, investigations focusing on their impact on human health and organisms in the environment will be promoted.

Strategic Objective D

Safer alternatives and innovative and sustainable solutions in product value chains are in place so that benefits to human health and the environment are maximized and risks are prevented or, where prevention is not feasible, minimized.

Target D2: By 2035, Governments implement policies that encourage production using safer alternatives and sustainable approaches throughout the life cycle, including the best available techniques, green procurement and circular economy approaches.

The government will continue its ongoing efforts to minimize risks to human health and environmental risks throughout the entire lifecycle of chemicals, such as production, use, recycling and disposal. Additionally, chemicals management in Japan has traditionally been based on legal compliance and voluntary initiatives by individual companies. In recent years, there has been a growing trend where institutional investors, such as those involved in ESG (Environmental, Social, and Governance) investing, regard a company's environmental considerations as a key factor in investment decisions. To ensure that companies with advanced chemical management practices are properly evaluated, Japan will develop mechanisms such as setting evaluation indicators, providing incentives for companies to strive for better environmental performance.

From this perspective, Japan will make efforts to promote environmentally friendly design, substitution of chemicals with more environmentally friendly alternatives, support initiatives in green and sustainable chemistry, provide risk assessment support (e.g., development of exposure assessment frameworks during recycling), assist with voluntary control and ensure the proper management of existing stockpiles in the market, aiming for the proper management of chemicals through their entire processes from production to disposal. The government will further improve coordination with relevant stakeholders' efforts.

The "Act on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities" was implemented in April 2001 as one of the specific acts under the Basic Act on Establishing a Sound Material-Cycle Society. This Act emphasizes the importance of both "supply-side efforts" (such as the supply of recycled goods) and "demand side efforts" for the establishment of a sound material-cycle society. The Act aims to build a sustainable society with reduced environmental impact, including the reduction of chemical risks, by setting items necessary to promote the procurement of eco-friendly goods and services by the national and local governments, providing information on such

goods and promoting transition to demand for other eco-friendly goods and services.

The government has established a fundamental policy to promote the procurement of eco-friendly goods and services. Accordingly, all organizations, including national agencies and independent administrative institutions, are required to set annual procurement targets for such goods and services and publish their results every fiscal year to ensure the effective promotion of the procurement of eco-friendly goods and services.

Target D4: By 2030, relevant stakeholders give priority to sustainable solutions and safer alternatives to harmful substances in products and mixtures, including in consumer products, in their research and innovation programmes.

Based on the "Promotion Strategy for Environmental Research and Environmental Technology Development" (decided by the Minister of the Environment in August 2024), the MOE has identified five key areas and 16 priority issues for research and technology development to be focused on over the next approximately five years in the environmental sector. Within the "resource circulating area," the priority issue "ensuring sustainable and proper disposal of waste in response to changes in social structure" focuses on advancing technologies for the proper management and treatment of hazardous waste including POPs and used products, as well as advancing chemicals management technologies that inhibit resource circulation. In the "safety assurance area," the priority issue "promotion of comprehensive risk assessment/management of chemicals" involves research program aimed at developing appropriate risk assessment schemes, including the use of AI and other technologies, to quickly respond to substitutes and functional evolution.

Target D5: By 2030, Governments implement policies and programmes to increase support to safer and more sustainable agricultural practices, including agroecology, integrated pest management and the use of non-chemical alternatives, as appropriate.

In order to establish sustainable food systems in harmony with the environment, the MAFF developed the "MIDORI Strategy for Sustainable Food Systems" in May 2021 to achieve increased productivity and sustainability in the agriculture, forestry, fisheries and food industries through innovation. The strategy sets 14 KPIs to be achieved by 2050, including on reducing greenhouse gas emissions, reduction of the use of chemical fertilizers and pesticides and expanding the area of organic farming.

Under the "Act on Promotion of Environmental Burden Reduction Business Activities for Establishing Environmentally Harmonized Food Systems" came into effect in July 2022, a certification system for plan has been established to support producers working on reducing environmental burden, such as greenhouse gas emissions and the use of chemical fertilizers and

pesticides, as well as businesses promoting the spread of technologies that contribute to reduce environmental burden. In addition, the MAFF will introduce requirements for all subsidized projects that all eligible recipients such as producers and enterprises need to implement efforts to reduce environmental burden. To enhance consumer understanding of efforts producers are making to reduce environmental burden and encourage informed choices, the MAFF will promote the "visualization" of these initiatives.

Target D6: By 2030, sustainable chemical and waste management strategies have been developed and implemented for major economic and industry sectors that identify priority chemicals of concern and standards and measures, such as the chemical footprint approach, to reduce their impact and, where feasible, their input along the value chain.

Japan developed the Sixth Basic Environment Plan in May 2024, which includes key policies for chemicals management and is being simultaneously implemented. Among the key policies, issues of concerns in Japan have been identified, and future strategies for addressing these issues have been developed.

In August 2024, Japan developed the Fifth Fundamental Plan for Establishing a Sound Material-Cycle Society to promote policies that contribute to the establishment of a resource circulation-oriented society. One of these measures, "thorough resource circulation throughout the entire lifecycle through cooperation among businesses," includes initiatives to reduce the risks of harmful substances being mixed with recycled raw materials. This involves exploring measures for risk reduction across the entire lifecycle, including collaborating on chemicals management during the upstream manufacturing phase, as well as efforts to ensure the availability of reliable information about the chemicals in materials and products across the entire lifecycle and value chain.

Target D7: By 2030, stakeholders implement measures and strive to ensure effective occupational health and safety practices as well as environmental protection measures in all relevant sectors and throughout the supply chain.

Under the Industrial Safety and Health Act, measures have been implemented to prevent exposure to chemicals for preventing occupational accidents and health problems of workers at workplaces. In 2022, the Act and related laws and regulations were revised to introduce “Autonomous Management" where business operators conduct risk assessments and select and implement appropriate exposure prevention measures. To ensure the steady implementation of these measures, a system for chemicals managers was introduced. In the future, to smoothly implement new chemicals management measures in the workplace, efforts will be made to further develop the related systems and standards.

Strategic Objective E

Enhanced implementation occurs through increased and effective resource mobilization, partnerships, cooperation, capacity-building, and integration into all relevant decision-making processes.

Target E1: By 2035, Governments have mainstreamed the sound management of chemicals and waste through implementation in all relevant sectoral plans, budgets and development plans and development assistance policies and programmes.

In various national plans and policies related to chemicals management, efforts based on the GFC for the sound management of chemicals and waste will be made as the mainstream. So far, the Sixth Basic Environment Plan and the Fifth Basic Plan for the Promotion of a Recycling-Based Society have reflected chemicals-related measures based on the GFC within their frameworks.

Specifically, in future plans related to chemicals, the measures will be based on the GFC. In alignment with Target B5, efforts will include the development of brochures to help understand the GFC, as well as organizing seminars and other educational activities. These initiatives will aim to raise awareness and educate enlighten stakeholders about the GFC, thereby promoting the mainstreaming of GFC-related efforts in chemicals management across different sectors.

Target E2: By 2030, partnerships and networks among sectors and stakeholders are strengthened to achieve the sound management of chemicals and waste.

To strengthen implementation through integration into all decision-making processes related to chemicals management, the government will mainstream the sound management of chemicals and waste in various national plans and initiatives, while also strengthening partnerships and networks.

Opportunities for participation and communication among various stakeholders will be provided through initiatives such as the "Policy Dialogue on Chemicals and the Environment," while also working to build networks. Additionally, efforts will be made to promote capacity-building and environmental education related to chemicals management, as well as to enhance understanding of chemicals and environmental risks through initiatives by different stakeholders and collaboration among them.

Furthermore, through the " Network for Strategic Response on International Chemical Management" established by the MOE, efforts will continue to build public-private networks with private companies and other entities, while facilitating the information sharing and exchange of

opinions on the understanding regarding chemical regulations in foreign countries, as well as for the harmonization of regulatory frameworks.

Target E3: Adequate, predictable and sustainable financial resources from all sources needed to support achieving the sound management of chemicals and waste are identified and mobilized in alignment with the vision, strategic objectives and targets of the Framework in all sectors by and for all stakeholders, including by leveraging private finance and promoting innovative and blended-finance schemes.

It is essential to mobilize the necessary funds, both public and private, for the sound management of chemicals and waste in line with the strategic objectives.

Domestic measures

Municipalities are comprehensively responsible for the management of municipal waste, while the national government provides grants for the development of waste treatment facilities, recycling facilities and final disposal sites installed by municipalities to promote proper waste management.

Additionally, for industrial waste, businesses are required to take necessary measures to ensure that the entire process, from generation to disposal, is carried out appropriately until the disposal is completed. In cases where businesses engage in improper waste management, and local governments (such as prefectures) are required to take corrective actions, there is a system in place to provide financial support for the necessary costs involved in addressing these issues.

International efforts

Through multilateral and bilateral frameworks for technical cooperation, the Japan International Cooperation Agency (JICA) and various ministries and agencies have implemented projects for the sound management of chemicals and waste across various regions of the world.

Multilateral cooperation

The Basel Convention, the Stockholm Convention and the Rotterdam Convention (the three chemicals and waste-related conventions) share a common objective of regulating hazardous chemicals and waste to prevent environmental pollution, thereby cooperation and coordination among them have been advancing. Specifically, efforts are made to improve the efficiency of the secretariat functions and the activities of subsidiary bodies, strengthen collaboration among regional centers and promote coordinated implementation of the Conventions within each Party. The government will continue to cooperate for the efficient implementation of these three Conventions.

The government will continue to promote efforts to strengthen the chemicals management in other

countries, including developing countries where chemicals management is lagging, as well as to enhance international coordination in chemicals management by sharing our experience. In particular, to prevent health damage and environmental pollution caused by chemicals, the government is advancing various frameworks and partnerships, including the POPs Monitoring Project in East Asian Countries and the Asia-Pacific Mercury Monitoring Network (APMMN), the Tripartite Policy Dialogue on Chemicals Management in China, Japan and Korea, the UNEP Mercury Partnership and Initiative on Fluorocarbons Life Cycle Management (IFL). Through these initiatives the government is providing technical support, actively disseminating information and engaging in international joint efforts based on our experience and technologies. These efforts aim to promote the proper management of chemicals, harmonize relevant systems and methodologies and establish cooperative frameworks. In addition, based on the "ASEAN-Japan MIDORI Cooperation Plan" proposed by Japan and adopted at the ASEAN-Japan Ministers of Agriculture and Forestry Meeting, the MAFF is promoting cooperation to build a robust and sustainable agriculture and food system backed by increased productivity and sustainability by leveraging Japan's technologies and experience including on the reduced use of chemical fertilizers and pesticide. Following the establishment of the "ASEAN-Japan Resource Circulation Partnership on E-waste and Critical Minerals" at the ASEAN-Japan Ministerial Dialogue on Environment and Climate Change, the government will support the development of legal frameworks for the collection and treatment of e-waste to reduce pollution caused by hazardous chemicals resulting from improper treatment and recycling practices in the informal sectors.

As a follow-up to TICAD VI, the Ministry of the Environment, JICA and other entities launched the "African Clean Cities Platform" in 2017 to promote public and private investment and contribute to the achievement of the Sustainable Development Goals (SDGs) by sharing knowledge and experiences on municipal waste in African countries and enhancing human and institutional capacity. In addition, under the "JICA Clean City Initiative," JICA is supporting waste management and pollution prevention not only in Africa but also in developing countries more broadly.

Furthermore, the government will actively participate and collaborate in the Science -Policy Panel on Chemicals, Waste, and Pollution Prevention, which is currently being considered by the Open-ended Working Group for establishment leading up to 2025.

Bilateral cooperation

As an examples of JICA's projects related to the sound management of chemicals, technical cooperation projects have been implemented primarily in Southeast Asian countries to support the development of chemicals management systems and strengthen capacity for addressing specific substances, such as mercury. Likewise, JICA has conducted issue-specific training programs on topics such as the establishment of chemicals management systems, mercury countermeasures and proper treatment and disposal of hazardous wastes.

For example, in Indonesia, JICA has been implementing the technical cooperation project,

"Mercury Management Capacity Development Project," since 2024, aiming to strengthen the government's capacity to formulate and implement mercury management policies and to monitor mercury. In the field of waste management, the "African Clean Cities Platform", a cooperation initiative with African countries, was launched in 2017 to promote information sharing, human resource development and project formulation, including the management of hazardous wastes.

In addition, MOE has implemented projects to support environmental risk management through bilateral cooperation with Southeast Asian countries, specifically working on the introduction of the PRTR system. The METI has also carried out bilateral cooperation with Southeast Asian countries under the framework of the ASEAN Sustainable Chemical Safety Initiative and has established the “ASEAN-Japan Chemical Safety Database,” which includes lists of regulated chemicals in ASEAN countries operated by the NITE.

Target E4: Funding gaps for the implementation of sound management of chemicals and waste are identified and considered for capacity-building, including through the Global Framework on Chemicals Fund.

The government is implementing various partnerships and support activities for the sound management of chemicals and waste through bilateral frameworks. Specifically, as mentioned in Target E3, Japan is advancing capacity-building activities through technical support based on our experience and technologies, active information dissemination and international collaboration to promote the sound management of chemicals, harmonization of relevant regulations and methodologies and to establish cooperative framework. Within these activities, the government are also identifying and addressing challenges and funding gaps necessary to implement the sound management of chemicals and wastes.

Target E5: By 2030, Governments have taken measures to put in place policies to internalize the costs of the sound management of chemicals and waste through different approaches.

In Japan, the basic principles for creating a circular society are defined by two concepts: "responsibility of waste generators" and "extended producer responsibility". The primary responsibility to reduce environmental impacts associated with waste treatment and disposal must lie with the waste generator. The concept of “responsibility of waste generators” refer to the idea that those who generate waste must properly manage and dispose of it at their own responsibility, which is one of the fundamental principles of waste management and recycling policies. The concept of “extended producer responsibility” refers to the idea that producers bear a certain level of responsibility for their products not only during the stages of resource input, product manufacturing and use but also after their products become waste. By incorporating these principles into policies,

Japan is working to internalize the costs associated with the proper management of waste.

Target E6: By 2030, stakeholders identify and strengthen, as appropriate, synergies and linkages between chemicals and waste management and other key environmental, health and labour policies, such as those related to climate change solutions, biodiversity conservation, human rights protection, universal health coverage or primary health care.

The government will work on mainstreaming the sound management of chemicals and waste, including its alignment with this plan, while also exploring efforts that leverage synergies between other key environmental policies, such as climate change measures and biodiversity conservation, as well as public health and labor policies.

For example, the government will establish a study group composed of experts in domestic chemicals management and biodiversity to explore measures to promote chemicals management that contributes to a nature positive in view of facilitating pollution reduction from chemicals and pesticides as outline in the National Biodiversity Strategy and Action Plan of Japana 2023-2030. In addition, taking advantage of the international movement on chemicals management and the broader application of chemical regulations across various industries, the MHLW and the Japan Industrial Safety and Health Association, in collaboration with the MOE and the METI launched the "Chemical Substance Management Month" in April 2024 to raise awareness on the importance of the chemicals management and establish chemicals management activities. The first event was held in February 2025, with subsequent events taking place every February.

Chapter 4. Review and revision of the National Plan of Action for the Implementation

The progress of the National Plan of Action for the Implementation should be reviewed at meetings of the GFC Liaison Committee of Relevant Ministries and Agencies, and the results should be made publicly available.

Once the mechanisms for taking stock of progress of the GFC is adopted at the International Conference of the GFC in 2026, this National Plan of Action may be revised based on those mechanisms, with updates to its content as necessary.