

# **Future Design and Action Plan for Innovative and Sustainable ASEAN-Japan Economic Co-Creation 2023 – 2033**

## **1. Background / Objective**

- At the Twenty-Eighth ASEAN Economic Ministers – Ministry of Economy, Trade and Industry (AEM-METI) Consultation in September 2022, the Meeting welcomed the Work Plan toward creating the Future Design and Action Plan of an Innovative Sustainable ASEAN-Japan Economic Partnership (hereinafter the Future Design and Action Plan).
- ASEAN Member States (AMS) and Japan hereby create a new action plan for the future of ASEAN and Japan economic cooperation (initially targeting 2033, the 60th Year of ASEAN-Japan Friendship and Cooperation), building-on the existing frameworks of ASEAN-Japan economic cooperation such as the Renewed ASEAN-Japan 10-year Strategic Economic Cooperation Roadmap (2016 – 2025) and the ASEAN-Japan Economic Resilience Action Plan, as well as ongoing initiatives, including the ASIA-Japan Investing for the Future Initiative (AJIF) and the ASEAN-Japan Economic Co-Creation Vision and reflecting the interests of both ASEAN and Japan.

## **2. Current situation and challenges for ASEAN and Japan**

ASEAN is increasing its presence as an epicenter of global economic growth. ASEAN also represents a dynamic growth center that will drive global economic development in the future. ASEAN is continuing to promote innovation by accelerating startup companies with leapfrogging growth patterns that solve social challenges in a wide range of fields, using digital technology. On the other hand, ASEAN is facing various social challenges caused by the rapid economic development. Many ASEAN Member States are entering a period of generational change, and there is an increasing need to consider the changes that the young generation will face in the next 20 years (e.g. changes in the relative positioning of the economic power of ASEAN Member States, declining birth rates and ageing populations)

Japan is the third largest economy in the world and has a mature economy and society with high technological capabilities in various fields including manufacturing, well-developed social infrastructure, and a social system. At the same time, because of its maturity, Japan faces economic challenges such as stagnant wages and GDP per capita, as well as social challenges such as a declining birthrate, aging population, and rural decline.

To achieve robust economic growth despite these social challenges, there are high expectations for Japan who is a pioneer in tackling social challenges and has already experienced solving social challenges that ASEAN is currently facing.

### 3. Designing the Future of ASEAN and Japan in 2033, and Beginning the Action to Achieve the Future Design

Notwithstanding such differences, the combined size of the ASEAN-Japan market consisting of approximately 800 million people provides a huge economic opportunity. To tap this potential, ASEAN and Japan will work together to improve and harmonize the business environment.

From this perspective, we will focus our efforts on the following four pillars.

#### **Pillar 1: Strengthening cyber-physical connectivity**

#### **Pillar 2: Co-creation of dynamic human capital**

#### **Pillar 3: Promoting open innovation beyond borders**

#### **Pillar 4: Realizing sustainability**

For each pillar, ASEAN and Japan will implement concrete actions to achieve desirable future as shared objectives (i.e., future designs) by 2033. These actions include those relating to rules for business environment and infrastructure development as well as actual projects for ASEAN and Japan to work on together. ASEAN and Japan are determined to co-create the future by implementing this Future Design and Action Plan as an ASEAN-Japan integrated growth strategy.

## Pillar 1: Strengthening cyber-physical connectivity.

### Promoting a digital economy

A trustworthy foundation for ASEAN-Japan business activities will be developed using digital technology and ASEAN-Japan business operators will do business smoothly under such a foundation.

#### 1. Creation of cases of digital technology for supply chain upgrading

- Specific examples of data sharing and linkage in the supply chain (use cases) need to be collected. To gain knowledge on which parts of the supply chain should be standardized and other issues, for its upgrading using digital technology. To this end, the AEM-METI Economic and Industrial Cooperation Committee (AMEICC)'s Supply Chain Upgrading Subsidy (which supports the introduction of equipment and demonstration of data sharing and linkage for visualization of the entire supply chain using digital technology) will be used to support projects for upgrading the supply chain in the ASEAN-Japan region. We would like to focus our efforts on core industries in ASEAN and Japan such as the automobile industry, the food sector that connects to food security, and initiatives that make the most effective use of resources.

[METI/ AMEICC]

#### 2. Establishment of a public-private study group for upgrading the supply chain of ASEAN-Japan

- Launch a group that includes key supply chain players and establish a roadmap for supply chain upgrading in the ASEAN-Japan region including areas to focus on, working with the Economic Research Institute for ASEAN and East Asia (ERIA) Centre for Digital Innovation and Sustainable Economy. [METI/ ERIA]

#### 3. Establishing roadmaps and policy recommendations for trade digitalization in ASEAN

• Analyze the infrastructure environment and various initiatives for trade digitalization in AMS and conduct qualitative and quantitative analysis about changes for the trade digitalization that would be brought by governmental policies, and prepare a proposal about ASEAN-wide policies which are necessary to draw up a road map toward trade digitalization and accelerate the installation of the trade digitalization system in AMS. [METI]

4. Support the Regional Digital Trade Transformation in ASEAN to contribute to the promotion of existing trade platforms and other regional mechanisms such as the ASEAN Single Window

- Promote and improve existing trade platforms and other regional mechanisms such as the ASEAN Single Window, and the electronic systems related to Certification and Custom Clearance through the conduct of business outreach activities and development of promotion materials to improve business and implementing agencies' understanding of these platforms and mechanisms. [ASEAN]
- Promote mutual acceptance of Certificates of Origin under existing Economic Partnership Agreements (EPAs) in electronic format, taking into account each country's laws and regulations, to further facilitate trade between ASEAN and Japan [METI]

Develop infrastructure that will serve as the foundation of the digital economy to realize a society in which digital technology is fully utilized as something that is within everyone's reach.

1. Fact-finding survey for 5G base station development using Open RAN (Radio Access Network) technology

- Conduct a fact-finding survey on Open RAN by ERIA (Economic Research Institute for ASEAN and East Asia) to deepen the understanding of Open RAN in AMS and promote the expansion of Open RAN. [METI/ ERIA]

## 2. Realization of cross-border payments with unified QR code -based payments

- Promote interoperability between the QR code -based payments of AMS and Japan's unified QR code -based payments (JPQR) to enable the use of domestic QR code payments in other countries, thereby contributing to increased tourism consumption and further promotion of cashless payments. [METI]

## 3. Promotion of digital settlement in ASEAN

- Promote the introduction of digital settlement in ASEAN countries, which will enable low-cost and real time settlement and enhance financial inclusion. Policy support including feasibility studies will be provided. [METI]

## 4. Support for digitalization of MSMEs

- Micro, small and medium-sized enterprises (MSMEs) are said to lag behind in the progress of digitization due to insufficient corporate strength and insufficient access to information. To solve this problem, the project will (i) develop a diagnostic tool to assess the digitalization of MSMEs, and (ii) formulate guidelines to support MSMEs using this tool. [JAIF]

## 5. Supporting the ASEAN Digital framework, such as the ASEAN Digital Master Plan 2025, to fill the digital gap in the ASEAN region

This effort will be realized in a way that supports ASEAN digital frameworks and agreement such as the ASEAN Digital Master Plan 2025 and the ASEAN Digital Economy Framework Agreement (DEFA), as well as the process of formulating a new Master Plan afterward. Further support will be provided from FY2023 for businesses focused on inclusive digitalization, such as SMEs and local entrepreneurs.

- As the need to improve end-user literacy has been identified, awareness promotion projects are planned. (i.e.) implementation of seminars and capacity building, targeting ASEAN end-users.
- Investment promotion projects (implementation of seminars, etc.) are planned in response to the identified lack of digital-related investment in AMS. [ASEAN-Japan Centre]

Cooperation with public finance institutions to strengthen connectivity.

Strengthen supply chain resilience including support by public finance institutions.

1. Enhancement of supply chain resilience through Japan Bank for International Cooperation (JBIC) operation

- To strengthen the resilience of Japanese companies' supply chains, JBIC supports Japanese companies' overseas expansion and provide financial assistance to foreign companies in the global market, including AMS, through the functional enhancements enabled by the amendment to the JBIC Act in 2023, and "Global Investment Enhancement Facility" established in July 2022. [Ministry of Finance (MOF)/ JBIC]

2. Expanding the scope of overseas investment insurance to cover risks throughout the supply chain by Nippon Export and Investment Insurance (NEXI)

Expand the scope of NEXI's overseas investment insurance to cover risks throughout the supply chain through the following actions:

- Simplifying the risk coverage for indirect investment
- Expanding the scope of transfer risk

- Expanding the definition of “business interruption for one month or longer”
- Adding the “decision to commence bankruptcy proceedings or other similar legal proceedings for the counterparty” to commercial risk events. [METI/ NEXI]

## Working towards free and fair trade and investment environments

Recognizing that ASEAN and Japan are trustworthy partners to build and strengthen resilient and reliable supply chains and, facilitate trade and investment of ASEAN-Japan including through promotion of steady implementation of the ASEAN-Japan Comprehensive Economic Partnership (AJCEP) Agreement, Regional Comprehensive Economic Partnership (RCEP) Agreement and other Economic Partnership Agreements (EPAs).

### 1. Realize free and open trade that EPAs aim for by supporting the implementation and promoting the use of EPAs

- Continue EPA implementation support by monitoring the utilization penetration rate, conducting seminars and events etc. [ASEAN-Japan Centre]
- Disseminate information through seminars, reports and individual consultations that contribute to the promotion of EPA utilization by corporation. [JETRO]
- METI will conduct ECOTECH projects to secure the implementation of RCEP Agreement in a transparent manner and promote utilization of the agreements. [METI]
- Gather requests from private companies for smooth implementation of the RCEP and AJCEP, conduct dialogue between private companies and the ASEAN Secretary-General, and contribute to the realization of the future aimed at by the ASEAN Comprehensive Recovery Framework (ACRF). [JETRO]

## Customs cooperation

Ensure proper and smooth trade procedures through capacity building of customs authorities in AMS.

### 1. Promoting cooperation for customs reform and modernization

- Japan will continue providing technical cooperation and capacity building for customs reform and modernization on various areas such as Human Resource Development Post Clearance Audit, Implementation of Rules of Origin, and other issues including the cooperation between customs administrations with other bodies for ASEAN Customs Officers in AMS. [MOF]

## Development of industries and supply chain for the next generation

Deepen dialogue and cooperation for each future-oriented sector in ASEAN and Japan, leading to strengthening industrial competitiveness and innovating infrastructures and supply chains for the next generation

### 1. Feasibility study of a satellite data utilization framework

- Creating satellite data utilization best practices by selecting countries and regions to prioritize and conducting focused demonstrations is expected to be effective for solving social challenges and industrial promotion in AMS and Japan. To identify such high-priority regions and countries for demonstrations, the potential of satellite data applications such as demand, applicability, and marketability shall be considered through projects by the ERIA Centre for Digital Innovation and Sustainable Economy. [METI]



## 2. Studying local structures to contribute to promotion of satellite data application industry in ASEAN

- Japanese companies have a variety of satellite data solutions and enabling technologies which can contribute to solving social challenges and promoting industry in AMS. However, they face problems due to their lack of channels of communication with local stakeholders such as experts, communities, and governments, and access to ground reference data to refine solutions. METI will consider establishing communities and support systems which include personnel and organizations familiar with local situations to contribute to promotion of the satellite data application industry in ASEAN by utilizing the technologies and solutions that Japan has cultivated to date. [METI]

## 3. Cooperation in the space technology sector

- Promote the space technology capabilities of ASEAN personnel through the ASEAN Research and Training Center for Space Technology and Applications (ARTSA) and regional networks. [ASEAN/ METI]
- Support the development of space industry/economy in ASEAN by engaging all relevant stakeholders especially the private sector.[ASEAN, METI]
- Leverage the utilization of innovative digital technology with space-based applications to solve issues such as poverty, social inequality, deterioration of natural resources, etc. [ASEAN/ METI]

## 4. Cooperation in the automobile sector

- Continue to engage in industrial cooperation initiatives such as through convening Automobile Industry Working Groups (WG) Meetings by AMEICC with participation from both the public and private sectors of AMS and Japan. The Automobile Industry WG discusses how to

improve competitiveness of ASEAN's automotive industry, and exchange information and view of each country's policy including xEVs and biofuels. [METI/ AMEICC]

## Introducing trusted infrastructure

Through the development of quality infrastructure and smart cities, we will simultaneously achieve solutions to social challenges and contribute to sustainable economic growth in AMS.

### 1. Realization of Smart Cities

- Promote the cooperation for developing countries to solve the various challenges (urban transportation, etc.) that cities and regions in AMS face by strengthening the relationship with Japanese public and private organizations such as Japan Association for Smart Cities in ASEAN (JASCA). [MOFA/ Japan International Cooperation Agency (JICA)]
- Support AMS' effort to promote urban transportation/urban traffic management using smart technologies through JICA's technical cooperation projects such as “Project for Implementation of Smart City Approach to Solve Urban Issues in Siem Reap” in Cambodia and “Project on Sustainable Urban and Transport Management in Luang Prabang” in Lao PDR. [MOFA/ JICA]
- Japan supports smart city development through the formulation of master plans, feasibility studies, NEDO international demonstration projects and other policy measures [METI]

### 2. Establishment of a remote maintenance management network for long span bridges

- Establish a remote maintenance network for long span bridges in AMS, exchange information periodically among AMS and Japan, and establish a platform for solving the problems. [MOFA/ JICA]
- Install remote monitoring equipment on two to three bridges in each country, mainly long span bridges and special bridges which were constructed with Japan's assistance, and install equipment that can enable bridge monitoring from both the administrative entities in each country and some entities in Japan (e.g., Honshu-Shikoku Bridge Expressway Company Limited). [MOFA/ JICA]
- Conduct knowledge co-creation programs for AMS in Japan and/or in other countries on monitoring equipment operation and maintenance of long span bridges and special bridges.[MOFA/ JICA]

### 3. Promote implementation of the G20 Principles for Quality Infrastructure Investment

- Following the G20 Principles for Quality Infrastructure Investment, Japan will continue to actively support the dissemination and implementation of quality infrastructure investment through public-private partnerships, ensuring transparency, openness, economic efficiency in view of life-cycle cost, and debt sustainability, consistent with the economic and development strategies of each country and region, in order to support the self-sustaining development of AMS. [MOFA]

## Ensuring trust in cyber-physical space

To ensure trust in cyber-physical space, which is the foundation of the digital economy, the ASEAN region will strengthen its capacity in cyber security.

### 1. Support for capacity building regarding cybersecurity in industrial control system

•METI continues to provide practical cybersecurity exercises for government agencies and industries in the Indo-Pacific region including ASEAN. The cybersecurity exercises aim to raise awareness on the importance of cybersecurity in ASEAN, improve reliability in cyberspace, and enhance the resilience of energy infrastructure and supply chains in the manufacturing industry. The interoperability of standards and schemes related to software and Internet of Things (IoT) devices are also discussed to realize the cybersecurity. [METI]

## 2. Support for the ASEAN-Japan Cybersecurity Capacity Building Centre (AJCCBC)

•The AJCCBC was established in Thailand with the support of Japan. Japan will cooperate with the AJCCBC to train cybersecurity specialists, who are in short supply in the ASEAN region. Specifically, the AJCCBC will organize cybersecurity training programs, training for local tutors and cybersecurity competitions for young talent to develop a variety of cybersecurity human resources in the region. [MOFA/ JICA]

## 3. Understanding the actual situation of cybersecurity in supply chain

•By understanding the flow of supply chains within the ASEAN region and finding the vulnerable areas and countries, METI can provide effective capacity building support in those areas and countries with high priority. Through this effort, METI aims to enhance cybersecurity in the ASEAN region in a comprehensive manner. [METI]

## 4. Improving cybersecurity in the energy resource aggregation sector

•In FY2023, METI will promote the formulation of cybersecurity guidelines and the development of demonstration facilities for the Energy Resource Aggregation Business (ERAB), mainly in Malaysia. In FY 2024 and thereafter, METI will expand this effort to other AMS, and try to enhance cybersecurity in new energy area. [METI]

#### 5. Creating an ASEAN cyber public health census system

- Malicious communications exist in cyberspace, and cyberattacks (unauthorized access, site falsification, loss of confidential information, etc.) targeting government agencies and private companies are increasing. Under these circumstances, we will work to create a system to investigate and understand the presence of malicious communications, bot-enabled servers, and IoT devices in cyberspace as an indicator to assess the public health of ASEAN cyberspace. [ERIA]

### Pillar 2: Co-creation of dynamic human capital

Promoting exchange of human capital to co-create innovation.

Promote exchanges between the next generation leaders of the ASEAN and Japan, especially the younger generation, and encourage co-creation by new innovations.

#### 1. Building a network of young entrepreneurs of ASEAN and Japan

- Select young entrepreneurs and business leaders of ASEAN and Japan, and then hold an annual Young Business Leaders' Summit and Z-Generation Business Leaders' Summit to promote circulation of ASEAN and Japanese human capital. [METI/ AMEICC]

#### 2. Entrepreneurship development program in Asia

• Implement an entrepreneurship development program by dispatching selected participants such as entrepreneurs and innovators in Japan to emerging countries in Asia. In the prior program conducted in Japan, senior entrepreneurs, and venture capital (VC) firms who are expanding their businesses globally provide participants with input on mindsets and skills. In addition to that, we will dispatch the participants who passed the second selection to Indonesia and Singapore and connect them with the local ecosystems through not only lectures and mentoring by local accelerators but also allow them to pitch to local VC firms. [METI]

Promote exchanges between next generation leaders regarding the environment and contribute to raising awareness and capacity building of the ASEAN-Japan region.

1. Establishment of ASEAN-Japan Youth Environmental Leaders Network (AJYELN)

• Establish a network of young environmental leaders aged 18-25 years old from ASEAN and Japan, who will continue to promote educational awareness and conduct capacity building of youth leaders on issues such as marine plastic waste, microplastics, and related environmental concerns in the region. It will partner with existing youth organizations in ASEAN and Japan in consolidating this network and collaborate with environmental institutions in providing the educational training and capacity building of youth leaders. [ASEAN-Japan Centre]

Networking of researchers and promoting innovation

Promote exchanges of researchers from both ASEAN and Japan through various initiatives including international joint research and make progress in co-creation of innovations, leading to solving social challenges and realizing a sustainable society.

1. Science and Technology Research Partnership for Sustainable Development (SATREPS)

- Strengthen international scientific and technological cooperation between Japan and developing countries, create innovation through the resolution of global issues, improve scientific and technological standards, and develop capacity. [Ministry of Education, Culture, Sports, Science and Technology (MEXT)/ JST]
- Promote international collaborative research aimed at solving global issues as part of science diplomacy, which aims to promote mutual development of science and technology and diplomacy. [MEXT/ JST]
- Contribute to the international community's pursuit of sustainable development by promoting collaborative research between Japanese and developing country researchers in four fields of study: Environment / Energy, Bioresources, Disaster Prevention and Mitigation, and Infectious Diseases Control\*. [MEXT/ JST]

(\*Transferred to the Japan Agency for Medical Research and Development (AMED) from Japan Science and Technology Agency (JST) in FY2015.)

(\*Collaboration with MOFA, JICA, AMED)

## 2. e-ASIA Joint Research Program (e-ASIA JRP)

- Public funding agencies of participating countries in the East Asia Summit aim to enhance the research and development capabilities of science and technology in the region, focusing on Southeast Asia, and address common regional issues through promoting multinational collaborative research and academic exchanges involving three or more countries.
- Promote multinational research collaboration that focuses on the regional relevance of research, mutual benefits of collaborative research, and effectiveness of exchange through activities such as joint calls for proposals, networking through workshops, and information exchange on science and technology policies.

- Each funding agency supports collaborative research through joint funding based on an equal partnership.
- Fields of cooperation: Materials (Nanotechnology), Alternative Energy, Agriculture (food), Disaster Risk Reduction and Management, Advanced Interdisciplinary Research towards Innovation, Environment (Climate Change, Marine Science), and Health Research (Infectious Diseases, Cancer). [MEXT/ JST]

### 3. Japan-ASEAN Science, Technology, and Innovation Platform (JASTIP)

- Establish an all-Japan, all-ASEAN platform for cooperation on science and technology and innovation.
- With the aim of accelerating research promotion that drives sustainable development, which is a common goal of ASEAN and Japan, under the close cooperation of ASEAN and Japan, international collaborative research joint laboratories are established in Thailand, Indonesia, and Malaysia to promote collaborative research, develop human resources, form research platforms, and implement research results in society.
- Fields and the corresponding countries where the joint laboratories are established are: the Environment and Energy (Thailand), Bioresources and Biodiversity (Indonesia), and Disaster Prevention (Malaysia). [MEXT/ JST]

### 4. Sakura Science Exchange Program

- Invite youth from Asian and other countries and regions to Japan for short-term stays.
- Through close collaboration between industry, academia, and government, providing opportunities for outstanding youth from around the world to experience Japan's cutting-edge science and technology, engage in joint research and training, and achieve the following objectives:
  1. Foster and secure talented individuals who can contribute to science and technology innovation.
  2. Promote international brain circulation.



3. Establish continuous collaboration, cooperation, and exchange between educational and research institutions in Japan and other countries and regions.
4. Strengthen friendly relations between Japan and other countries and regions, which can also contribute to science and technology diplomacy. [MEXT/ JST]

#### 5. ASEAN-Japan Multi Stakeholder Strategic Consultancy Forum (AJMSSCF)

- Provide a bridging platform for the social implementation of research projects between ASEAN and Japan (established under the “Japan-ASEAN STI for SDGs Bridging Initiative”).
- Facilitate the social implementation of scientific and technological seeds by bringing together diverse stakeholders, including industry, to share and discuss research findings from ASEAN and Japan. [MEXT/ JST]

#### 7. Promoting the implementation of the ASEAN Innovation Roadmap (AIR)

- Enhance the ASEAN innovation ecosystem to be optimized for everyone and to achieve ASEAN community building and goals.
- Promote inclusive innovation for MSME competitiveness in ASEAN
- Attain ASEAN Community Building and UN SDGs through Science, Technology and Innovation solutions and establish a vibrant ecosystem for innovations comprising tool, services, and products [ASEAN]

#### 8. Building an ASEAN Regional Research Infrastructure Strategy (RRI)

- Promote greater opportunities for interdisciplinary research that is both intra-ASEAN and between ASEAN and Japan

• Strengthen ASEAN's ability to respond to global challenges and meet the regional demand in ASEAN for knowledge transfer and capacity building

• Provide the scientific community in ASEAN with access to state-of-the-art RRI internationally. [ASEAN]

9. Enhancement of capacity building among ASEAN and Japanese researchers through ASEAN Talent Mobility (ATM)

• Share best practices on the innovation value chain of knowledge among ASEAN and Japanese researchers. [ASEAN]

Developing next generation industrial human capital

Develop industrial human resources of the next generation

1. Implementation of tests to evaluate Japanese-language proficiency and provision of Japanese-language learning materials for foreign nationals aiming to reside in Japan mainly for work

• The Japan Foundation helps workers from the ASEAN region improve their Japanese-language proficiency through initiatives such as the steady implementation of the Japan Foundation Test for Basic Japanese (JFT-Basic) and the Japanese-Language Proficiency Test (JLPT), both of which can be used when applying for the Specified Skilled Worker (i) residency status, as well as the provision of learning materials in various languages designed to acquire the basic Japanese communication skills needed for daily life and working in Japan. [MOFA/ Japan Foundation]

2. Developing high-level human resources and maintaining and strengthening university networks in ASEAN

- JICA has continued its support toward AUN/SEED-Net (ASEAN University Network/Southeast Asia Engineering Education Development Network) (commonly known as “AUN/SEED-Net”). (AUN/SEED-Net is a network consisting of 26 universities from 10 AMS and 18 Japanese universities)
- AUN/SEED-Net was established in 2001 and has been supported by the government of Japan through JICA since 2003. Japan has been contributing to the development of highly skilled human resources in the ASEAN region, human connectivity between the ASEAN region and Japan, and the promotion of the Free and Open Indo-Pacific (FOIP).
- From March 2023, the partnership with AUN (ASEAN University Network) will be further strengthened. AUN/SEED-Net will promote joint research, joint educational programs, industry-academia collaboration, and provide scholarships to study in Japan which will strengthen the connectivity between ASEAN universities and Japanese universities. [MOFA/JICA]

### 3. Comparative research with Asian countries to improve the quality of education and teaching methods of STEM (Science, Technology, Engineering, Mathematics) education and inquiry-based study

- Asian Development Bank (ADB), ERIA, and IGS (Institution for a Global Society, Inc.) will conduct joint research to evaluate the inquiry skills of students in multiple Asian countries and analyze the factors behind those skills. [METI]

### 4. Vocational training on industrial electronics in CLMV

- Improve the quality of Technical and Vocational Education and Training (TVET) and generating skilled workers in CLMV by developing an international common standard curriculum in industrial electronics and providing vocational training using electronics that meet the standards. [JAIF]

#### 5. Creating opportunities for learners in ASEAN and Japan

- Develop human resources in ASEAN and Japan through industry-academia collaborative programs, internship programs, job fairs and other means by leveraging the knowledge and expertise of highly-skilled professionals in ASEAN and Japan. [METI]

#### 6. Promote cooperation for responsible business conduct in supply chains

- In cooperation with the International Labour Organization, Japan will continue to engage in technical cooperation by conducting projects providing support and training for enhancing local labor conditions and working on skills development, with the aim of promoting industrial development and responsible business conduct in ASEAN countries. Japan will also raise awareness, including through dialogues, and encourage businesses to engage in responsible practices. [METI]

Pillar 3: Promoting open innovation beyond borders.

Creating an innovation ecosystem of ASEAN and Japan

Increase two-way investment between ASEAN and Japan and facilitate cross-border collaboration among companies in ASEAN and Japan, especially startups. In addition, develop necessary business environment such as protecting intellectual property so that innovations created through such collaboration can be properly protected and utilized.

These will facilitate the smooth functioning of the cycle of innovation creation, protection, and utilization, and realize a virtuous circle of the innovation ecosystem in ASEAN-Japan.

1. Promote co-creation of businesses through the Asia Digital Transformation (ADX) Promotion Program and ASEAN-Japan Co-Creation Fast

Track Initiative

Promote co-creation of business projects by ASEAN and Japanese companies which address social challenges by providing support measures in line with each project's phase; project structuring, demonstration, and business boost-up. Specifically, it includes;

- Conduct matching/networking pitch events etc. for creating new co-creation projects in collaboration with ASEAN government agencies to encourage networking among startups, large companies, VC firms and government agencies, and to accelerate global open innovation of ASEAN and Japanese companies.
- Support joint demonstration projects of ASEAN and Japanese companies solving social challenges utilizing innovative technologies. Further budgetary support is to be provided especially for startups, to accelerate business boost-up through collaboration with VC firms. [METI/AMEICC]

2. Japan External Trade Organization (JETRO)'s support for foreign companies entering the Japanese market and expanding their business in Japan

- Provide a one-stop service to support foreign/foreign-affiliated companies including startups in the ASEAN region to establish and expand their bases in Japan. JETRO also provides various types of support, such as providing information about Japanese markets and procedures for establishment of a base, offering temporary free office spaces, and providing networks for the government and local authorities.

- Support foreign/foreign-affiliated companies for materializing investment plans in Japan through assistance with business feasibility studies for commercialization in Japan and invitations to visit the regions. [METI/ JETRO]

### 3. Support for cross-border collaborations between Japanese and foreign companies through JETRO, etc.

- Support cross-border collaborations between Japanese and foreign companies, including startups through (i) Japan Innovation Bridge (J-Bridge), which is a business platform for the creation of international open innovation, and (ii) acceleration programs for fostering startups which aim at solving local social challenges in the ASEAN region. [METI/ JETRO/ AMEICC]

### 4. Strengthening the connectivity of innovation eco-systems

- Strengthening connectivity between innovation eco-systems of both ASEAN and Japan, as well as building networks with key innovation eco-system players in AMS will increase two-way investment and cross-border collaboration, leading to the generation of a virtuous cycle. To this end, networking, and pitch events among eco-systems in both AMS and Japan will be held with support from JETRO and other organizations. [METI/ JETRO]

### 5. Support to startups through JBIC operation

- Through the amendment of the JBIC Act, JBIC strengthens its support for overseas expansion of Japanese startups, with a focus on growing areas such as digital and green technology. [MOF/ JBIC]

## 6. Establishing High Quality IP Services

- To appropriately protect innovations as intellectual properties (IP) amid the accelerated development of advanced technologies including AI/IoT and green technologies and new DX (digital transformation)-based business for resolving social challenges and creating sustainable economy and society, it is necessary not only to organize the IP regulatory framework, but also to adapt the IP regulatory framework swiftly and adequately to these new technologies and businesses and establish high-quality IP services for ensuring the stable protection of these technologies and business as IP rights. To this end, the Japan Patent Office (JPO) and ASEAN IP Offices will further strengthen cooperation through Heads of IP Offices Meetings for sharing expertise and knowledge and human resources development related to the procedures of the IP regulatory framework by utilizing ERIA IP research studies in these new technologies and business. [METI]
- Through organizing seminars or other means, the JPO provides practical anti-counterfeiting know-how to enforcement body officers, including customs and police officers, of countries where counterfeit products may be manufactured, imported, or transited to collectively combat manufacturing, importation, or transit of counterfeit products to ensure effective IP enforcement. [METI]

## 7. Supporting overseas startups and promoting collaboration with Japanese companies

- NEXI will provide insurance for the loans to overseas startups mainly in Asia and introduce a mechanism to generate and facilitate future business opportunities between overseas startups and Japanese companies in collaboration with J-Bridge of JETRO. [METI/ NEXI]
- Aim to realize a flexible insurance scheme for overseas startups who might find it difficult to take risks. [METI/ NEXI]
- Promote collaboration between overseas state-owned enterprises and Japanese companies by leveraging finance with NEXI's LEAD Initiative. As an example, NEXI has been considering facilitating the collaboration scheme between Indonesia PLN and Japanese companies based on the MOU between NEXI and PLN. [METI/ NEXI]

#### 8. Support for building a startup ecosystem through Japan Centers (Cambodia and Laos)

- Through the Japan Center's network of local companies, we aim to build a local startup ecosystem by matching various local startups with Japanese investors and Japanese technology to support new innovations. For example, in Cambodia, the Cambodia-Japan Cooperation Center will serve as a platform to provide accelerator programs for local startups, leveraging the network of JETRO, the Japanese Business Association of Cambodia, and the World Association of Overseas Japanese Entrepreneurs Phnom Penh, etc. [MOFA/ JICA]

#### Pillar 4: Realizing Sustainability

Achieving carbon neutral society and promoting energy transition through initiatives such as the realization of Asia Zero Emission Community concept and others

Accelerate a clean, sustainable, equitable, economical, and just energy transition toward carbon neutrality/net zero emissions in the Asian region. Also support companies' contributions to global environmental protection, including decarbonization.

#### 1. Cooperation with Asian countries through Asia Zero Emission Community (AZEC) Ministerial Meeting and AZEC Senior Officials Meeting (SOM)

- Development, demonstration, and deployment of decarbonization strategies, plans, businesses and technologies such as energy efficiency, and conservation renewables, hydrogen, ammonia, energy storage systems, bioenergy, and carbon capture, utilization and storage (CCUS). [METI]



- Financial support for investments and access to transition financing for the decarbonization infrastructure including the power grid and the development of clean energy supply chains, including for critical minerals and materials. [METI]
- Development of and capacity building toward interoperability of standards of decarbonization technologies, and strengthening of human resource capacity in this area. [METI]
- Support the realization of a decarbonized society by compiling information on Japanese companies and products related to carbon neutrality, building a local network for business matching, exchanging opinions with local governments, industries, and Japanese companies. [JETRO]
- Hold pitch events by startups in the GX field, and support collaboration between Japan companies in the relevant field and startups in signatory countries in collaboration with JETRO and overseas government agencies.[JETRO]
- Support business missions and local marketability surveys for projects related to carbon neutrality and for ones among countries participating in the Asia Zero Emission Community (AZEC) that contribute to overseas expansion in the infrastructure field. [JETRO]
- Support investment for green industrial estates and green industries in ASEAN region, not only in production processes but also in the products itself, including products for developing renewable energy or re-manufacturing materials (Such as solar panels, green hydrogen, electric or hydrogen vehicles, etc.). [METI]

## 2. Promotion of energy transition through the Asia Energy Transition Initiative (AETI)

- Support for formulating energy transition roadmaps and hosting business matching events towards carbon neutrality for ASEAN countries.
- Expand and update the "Asia Transition Finance Guidelines (ATF Guidelines)" through operations and discussions of the ATF Study Group (ATF SG) to secure sufficient access to finance for transition-related projects.

- Expand and update the List of Transition Technologies for development and deployment by adding more technologies under its scope.
- Access the US\$10 billion public-private finance for energy transition-related projects.
- Support for human resource development, knowledge sharing and rule-making on energy transition for 1,000 people in Asian countries. [METI]

### 3. Promotion of the Joint Crediting Mechanism (JCM)

- Increase the JCM partner countries up to around 30 worldwide by 2025.
- Revise JCM guidelines in line with the Paris Rulebook on Article 6 of the Paris Agreement.
- Promote the implementation of large-scale projects and the formulation of JCM projects financed by the private sector.
- Financial support for feasibility studies and demonstration projects for JCM project development [METI/ MOFA]

### 4. Promotion of the Cleaner Energy Future Initiative for ASEAN (CEFIA)

- Promote the dissemination of decarbonization technologies on energy efficiency and conservation and renewable energy and support the establishment of related policies and systems (e.g., technical standards and energy efficiency labels), through the implementation of flagship projects in partnership with private companies.
- Share the achievements of CEFIA's activities and obtained knowledge with governments and private companies of ASEAN countries through the CEFIA Government-Private Forum. [METI]

## 5. Facilitate GX (Green Transformation) in accordance with ASEAN circumstances

- Establish GX energy policy research function in our universities while conducting historical research on energy policy history and electric power entities in ASEAN countries
- Develop core human resources in developing countries who can make appropriate value judgments and choices in energy policy through the GX long-term training program (master's program in energy policy, transition economic model analysis, and electric utility management, etc.). This also contributes to strengthening the network.
- Introduce the GX policy and next generation decarbonization technologies (hydrogen, ammonia, CCS/CCUS, next generation nuclear and fusion, ocean thermal energy conversion, zero emission vehicles, etc.)
- Support for developing a long-term energy transition master plan up to the mid-21st century, in collaboration with GX long-term trainees.
- Promote R&D and social implementation of next-generation decarbonization technologies through the Science and Technology Research Partnership for Sustainable Development (SATREPS) and technical cooperation (collaboration with the Japan Science and Technology Agency (JST) and New Energy and Industrial Technology Development Organization (NEDO))
- Provide recommendations on policies, organizational structures, and investment projects to facilitate implementation of the master plan and support neighboring countries to consider their potential contribution to decarbonization
- Promote the Mekong Power Pool to facilitate clean energy integration as part of ASEAN supporting grid code improvement and grid operation capacity enhancement for proper planning and operation of the entire grid system. [MOFA/ JICA]

#### 6. Cooperation for diverse critical mineral resource supply chains

- In order to deepen cooperation on important mineral resources, we will share information on mineral resources with each country through our embassies and other channels, and exchange information to develop a basis for rationalizing policies on strategic mine development, processing/refining with the aim to attract more investments and increase the value chain in each country as well as in the region. We also aim to implement recycling and reuse of mineral resources. [MOFA]

#### 7. Enhancement of support for new technology projects for decarbonization

- Revise NEXI's insurance policy for Loan Insurance for Natural Resources and Energy to widen the target scope and include hydrogen and ammonia.
- Collaboration in the fields of new technologies such as hydrogen and Carbon dioxide Capture and Storage (CCS) based on the MOU between NEXI and the Japan Organization for Metals and Energy Security (JOGMEC). [METI/ NEXI]

#### 8. LEAD Initiative

- Utilize NEXI's LEAD initiative to support projects in AMS that are working on energy transition and decarbonization, and promote cooperation between governments, state-owned enterprises, etc. of each country and Japanese companies with decarbonization-related technologies. [METI/ NEXI]

#### 9. Environmental Technology and Human Resource Development in Binh Duong Province, Vietnam

• In cooperation with local governments in the Kansai area (Osaka City, Sakai City, etc.) and Team E-Kansai,\* we will continuously implement projects such as holding seminars, dispatching experts, and inviting the parties involved from Binh Duong Province to Kansai, for the transfer of the expertise on regulations, operational standards and enforcement systems, the environmental technology of Kansai companies, and to develop the human resource for Binh Duong Provincial People's Committee, the Department of Natural Resources and Environment, Industrial Zones Authority, industrial park public developers, and so on. [METI]

• We will have a business matching fair to provide environment-related technologies that meet the demands of companies and public institutions in Binh Duong Province, and aim to solve environmental issues in Vietnam. [METI]

\* *Team E-Kansai/Kansai-Asia Environmental and Energy-Saving Business Promotion Forum: A platform composed of about 190 companies, mainly in Kansai, that have excellent technologies in fields such as water treatment, waste treatment, air pollution prevention, and energy conservation, aiming to expand overseas to Asian countries.*

#### 10. Support through JBIC operation

• Through the Sustainability Window under the Global Investment Enhancement Facility established in July 2022, JBIC will contribute to global environmental preservation, including in ASEAN countries, by supporting Japanese companies' overseas operations related to renewable energy, energy efficiency, energy conservation, etc. [MOF/ JBIC]

#### Accelerating decarbonization of supply chains

As CO2 emissions in manufacturing process of each product will determine the competitiveness of companies with manufacturing bases in AMS in the future, ASEAN and Japanese government agencies will jointly provide strong support for the decarbonization of the companies'

supply chains by encouraging green investment, particularly in energy efficiency and conservation and renewable energy, to create sustainable supply chains.

#### 1. Human resource development in industrial parks toward carbon neutrality

• As carbon neutrality is a common goal for many firms, METI will support firms including SMEs in ASEAN which participate in the global supply chain through human resource development in collaboration with industrial park developers and local training facilities. Japan supports the provision onsite and online training programs to the workers and managers of firms, and potential trainers in ASEAN about how to achieve decarbonization through taking advantage of related technologies including CO2 visualization, energy and resource saving, and renewable energy. [METI]

#### 2. Financial support to adopt facilities to develop carbon neutral sites in ASEAN

• Japan supports the adoption of facilities necessary to achieve carbon neutrality or even net carbon negative\* factories and industrial parks in ASEAN through financial support such as grants and loans. Showcasing these carbon neutral sites with state-of-the-art decarbonization technologies will foster understanding about what to do toward carbon neutrality in ASEAN. [METI]

*\* Some Japanese firms are trying to achieve carbon negative factories through transferring energy saving technology and knowhow to business partners and facilitating investments in offsite renewable energy leading to greater reduction of CO2 emissions outside their factories than the factories' own emissions.*

#### 3. Support establishment of institutions for energy user to invest in renewable energy and procure green electricity

• Japanese public and private sectors provide various types of support for actions of AMS with knowledge transfers and capacity building for quickly improving the environment for energy consumer's investment and procurement of renewable energy, which leads to a more sustainable global supply chain. [METI]

## Realizing a circular economy (CE)

In accordance with implementation plan for the Framework for Circular Economy for the AEC and the working program, we promote CE transition in a more holistic way through close coordination and cooperation between ASEAN and Japan.

Enhance reskilling and upskilling of workers and establish the foundation of resource recovery, leading to the sustainable employment.

Realizing sustainable economic growth by strengthening the creative business models and investment for the circular economy such as ESG (Environment, Social, Governance).

### 1. Research, analysis, and policy recommendations on Used Electrical and Electronic Equipment (UEEE) and E-waste

• To improve our common understanding of the value-chains and supply-chains of UEEE and E-waste, we will work closely with ERIA as a hub to conduct research and analysis based on the whole-of-value-chain approach, showing the different situation in each AMS. This also includes best practices in the appropriate collection and sorting of E-waste, barriers to the import and export of UEEE and remanufactured goods, standards for UEEE products and remanufactured goods, and mapping of the supply chain and costs of managing UEEE and E-waste. The study will also make policy recommendations necessary to resolve these issues. [METI]

### 2. Capacity building for UEEE and E-waste

- Conduct capacity building among ASEAN economies' regulators, policy makers and other relevant entities, especially the UEEE industry and E-waste management sector, to improve their understanding of a circular economy for e-waste including technical regulations and conformity assessment procedures being implemented on second-hand and remanufactured goods. [METI]

### 3. Promoting transparency on circularity along entire value chains

- Make policy recommendations to deepen common understanding of the necessity of establishing circular economy information distribution platforms that encourage the distribution of data on circularity using digital technology, including the calculation and display of carbon footprints and material footprints based on life cycle assessment and quality assurance of products and materials.
- Create use cases to promote the sharing and utilizing of data on circularity and measuring circularity along entire value chains. At the same time, requirements for common data formats, interfaces for mutual collaboration among platforms, etc., and comparable metrics that will serve as the foundation for the distribution of circularity data, will be developed. [METI]

### 4. Management on plastic pollution including monitoring

- Japan and UNEP will be working towards plastic pollution management in the Mekong River Basin through enhancing tools and protocols for assessment and monitoring capabilities with the Mekong River Commission (MRC) and strengthening national and local waste management systems. The project will start in April 2023. This project builds on the achievements made through Counter MEASURE I and II, as well as the Promotion of Community Resilience Against Plastic Pollution and Climate Change in Mekong River Basin project. [MOFA]
- Conduct research on the amount of marine litter and microplastic pollution of fish, etc., and strengthen capacity on the development and dissemination of fishing gear that prevents it being lost or dumped. [JAIF]



- Implement a pilot project in a Philippine coastal city to construct an innovative community-based urban decentralized wastewater treatment system and monitor microplastic emissions. Lessons learned from the implementation of the pilot project will be shared within ASEAN, and a Regional Guidebook on Sustainable Decentralized Wastewater Management for ASEAN Resilient and Green Cities and a Microplastics Monitoring Plan will be developed. [JAIF]

#### 5. Cooperation in ASEAN cities with activities addressing cross-cutting issues related to the SDGs

- Targeting leading ASEAN cities with activities addressing cross-cutting issues related to the SDGs, such as (i) marine plastic litter from ships, etc., (ii) urban resilience (food and water security, circular economy, community empowerment, economic sustainability, etc.) related to green recovery and (iii) achieving energy transition and decarbonization for manufacturing industries (water and energy resilience, sustainable consumption, and production, etc.). Focusing on these themes, the project will conduct research for local training needs assessment, organize training and awareness-raising events at the community level, develop locally tailored training and educational tools and materials, implement small- and medium-scale pilot projects in the field and prepare action plans and activity reports for participating cities. [JAIF]

#### 6. Transition finance for a circular economy

- Develop a Circular Economy Incentive Framework to support the CE transition (fiscal and non-fiscal incentives)
- Encourage the development of new insurance products that reduce transaction risks/costs for circular products [ASEAN]

#### 7. Cooperation on Recycling

- Enhancing knowledge and experience for AMS and Japan to gain a better understanding of circular economy business models in order to apply a circular economy approach.
- Harmonize standards, regulations, and requirements for extending product life, such as for: (a) recycled materials; (b) recyclability and reparability of products, including labelling; (c) eco-design services and voluntary eco-labelling; (d) information on chemical and material composition of products; (e) phasing out hazardous substances from products; and (f) recycling of secondary materials.
- Identify and review standards and regulations related to materials and waste for recycling or reuse, energy recovery, secondary raw materials, refurbishment, and remanufacturing [ASEAN/ METI]

#### 8. Reverse logistics

- Map government institutions, industry players, and other relevant stakeholders in ASEAN responsible for reverse logistics
- Identify current practices, mechanisms and regulations on reverse logistics in AMS for products/materials related to the transportation sector (e.g., secondary materials, used materials, waste, and scrap from vehicles, aircraft, and the shipping industry) with a view to harmonizing these standards and regulations [ASEAN]

#### Improving the well-being of people

To address the current and future health challenges of AMS, Japan will provide efficient and advanced medical and healthcare services that are tailored to the actual conditions of each AMS and realize healthy and prosperous lives for people.

#### 1. Networking for efficient matching with partners (local distributors etc.) and key persons (medical institutions and doctors etc.)

•Collaborate with an international organization (ERIA) to establish an organization similar to Medical Excellence Japan (MEJ), an industry-government-academia medical collaboration organization, in each country to strengthen cooperation with key persons, contribute to institutional development to improve local medical standards and promote the international expansion of the health industry (health management, etc.), which is expanding in Japan. [METI]

2. Gathering timely local information (local medical needs and industry trends or regulations) and institutional arrangements (improvement of business environments such as deregulation and insurance coverage)

From FY 2023 onward, particular emphasis will be placed on the following initiatives:

- Establish a network with key persons in Vietnam (already established MEV (Vietnam) in July 2022 as the first country) and identify priority areas for development of regulations or guidelines.
- Establish a network in a second country (India), prepare to do so in a third country, and expand from the country where MExx was established to a third country. [METI]

3. Holding events to raise awareness of the innovative value of “Software as a Medical Device” (SaMD)

SaMD has the value of not only improving the efficiency and sophistication of medical care, but also reducing medical costs. Therefore, it is expected to contribute to the realization of a sustainable economic society and become a pillar of growth for the medical device industry in the future.

- ASEAN and Japan collaborate to hold joint events (exhibitions and pitch events, etc.) to gain recognition for the values of SaMD and promote its introduction. Furthermore, these events sample the unmet needs of each country leading to develop new SaMD that contributes to solving social challenges. [METI]

#### 4. Examination of the approval process and policy proposals for timely market launching in ASEAN and Japan

SaMD is characterized by a short product lifecycle for development and improvement, unlike conventional medical devices. If each country's regulations for SaMD are not harmonized, it may discourage investment in research and development for SaMD, as a result, leading to delays in accessing innovative medical care for people in each country.

- Therefore, ASEAN and Japan summarize recommendations for rational market introduction. This will allow AMS to reap the innovative value from SaMD by expanding the reference country system and the realization of single reviews. [METI]

#### 5. Verifying a world-leading business model through demonstration projects of SaMD

- Early social implementation of SaMD accelerates product improvement by utilizing its feedback and increases product value by accumulating evidence of its usefulness.
- Therefore, ASEAN and Japan will work together to accumulate evidence and build a database that can explore new values. As a result, ASEAN will become the base for SaMD development in the world and attract investment of SaMD research and development. [METI]

#### 6. Promotion of healthcare in Japan and the ASEAN region using digital technology

- Assist in developing policies on telemedicine and data protection, and build capacity to improve the skills of healthcare professionals using digital healthcare services and related healthcare professionals and etc. [ASEAN-Japan Centre]

## 7. Sharing health and wellness economy of ASEAN

- Foster the sharing of best practices for a wellness economy (including wellness tourism, elderly services, trade in health products, etc.) in ASEAN in the post-pandemic context. This will include policy papers, webinars, and workshops on innovative approaches in addressing issues concerning but not limited to the ageing population, mobility of ASEAN health professionals, health services, and digital transformation towards the enhancement of health systems in the region. It will involve private service providers, professionals, non-profit agencies, government agencies, academia, and advocacy groups. [ASEAN-Japan Centre]

Realize resilient societies in ASEAN and Japan by preparing for and ensuring sustainable responses against future disasters, pandemics, and climate change.

### 1. Cooperation for disaster resiliency

Deployment of Japanese technology and knowledge related to disaster management and prevention etc. to ASEAN.

- Japan will continue to support technical cooperation for developing capacity and sharing knowledge, technology and innovation related to disaster risk management and climate change adaptation in accordance with the ASEAN-Japan Work plan on Disaster Management 2021-2025 and the Sendai Framework for Disaster Risk Reduction 2015-2030. [Cabinet Office Disaster Management]
- Implement awareness programmes on climate change, natural disasters, and other shocks and their relevance to a CE for ASEAN producers. [Cabinet Office Disaster Management]

## 2. Promotion of adaptation business in Asia region

- Together with the UN-Habitat Regional Office for Asia and Pacific, Japan aims to develop climate-resilient cities in the Asian region, utilizing adaptation technologies by Japanese private companies. [METI]

## 4. Review / Follow-up

ASEAN and Japan will conduct an annual progress review, follow-up of this Future Design and Action Plan through ASEAN Senior Economic Officials – Ministry of Economy, Trade, and Industry (SEOM-METI) Meetings and report them at the annual AEM-METI Consultation.

Also, ASEAN and Japan look forward to jointly working to pursue these future-oriented efforts of the Future Design and Action Plan in an expeditious and steadfast manner, that are amended as necessary to appropriately reflect changing global circumstances and our respective pathways, as an ASEAN-Japan integrated growth strategy in the context of realizing the ASEAN-Japan Economic Co-Creation Vision.