

CAI Newsletter

Clean Asia Initiative [CAI]

Implementing the Paris Agreement – Transformation to Low Carbon Society

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Implementing the Paris Agreement
— Transformation to Low Carbon Society

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Topic

COP21 Results: Agreements and Processes for Future Action

The 21st Session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) was held from November 30 to December 13, 2015, on the outskirts of Paris, France. At this conference, the Paris Agreement was adopted, which is a new legal framework for climate change. It has great historical importance that more than 190 countries from around the world agreed to a fair and effective framework applicable to all Parties under the UNFCCC.

From Japan, Prime Minister Abe attended the leaders' session which was held on Monday, November 30. Subsequently, the Minister of the Environment, Tamayo Marukawa, and others attended high-level consultations began on Sunday, December 6, which was the second week of the COP21. The representatives from Japan actively participated in the negotiation during the COP21.

The Paris Agreement stipulated shared objectives including holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels. In addition, in the Agreement, all Parties, including major emitters, shall communicate or update their reduction targets every five years, and shall report and be reviewed on their implementation in a common but flexible manner. It also states the establishment of the global goal on adaptation, engagement in adaptation planning process and implementation of actions as well as financial support not only from developed Parties but also voluntarily from developing countries, and mechanisms for global stocktake to assess the collective progress towards long-term goals every five years.

Japan's domestic response to the Paris Agreement was decided by the Global Warming Prevention Headquarters on December 22, 2015. First, in order to soundly address domestic measures aimed at achieving the 26% reduction targets by FY2030 indicated in Japan's Intended Nationally Determined Contribution (INDC), it will formulate a plan of global warming countermeasures by this spring. In addition, the government will formulate a governmental action plan that incorporates leading countermeasures in order to take the initiative in instituting these efforts. It will also strengthen national movements and promote cooperation between various different actors, transmit information, raise awareness, and incite actions in order to have various actors, such as local governments, companies, and the public, join forces to address global warming countermeasures. Japan will also promote adaptation measures based on the adaptation plan that was passed by the Cabinet in November last year. Japan will move forward with the preparations needed to sign and ratify, accept or approve the Paris Agreement, while also actively contributing to the development of detailed international rules for the implementation of the Agreement.

Up until today, Japan has provided support to developing countries. At the COP21, Prime Minister Abe announced the Actions for Cool Earth (ACE) 2.0 and declared that Japan will carry out climate-change-related projects in total around 1.3 trillion yen annually through both private and public financing in 2020. With regard to mitigation measures, Japan will promote international supports for formulating national greenhouse gas inventories, establishing Nationally Appropriate Mitigation Actions (NAMAs), and developing low-carbon societies through low-carbon technology deployment in developing countries by utilizing city-to-city collaboration and the Joint Crediting Mechanism (JCM).

When it comes to adaptation measures, Japan will capitalize on its experiences to provide support to developing countries in formulating their adaptation plans and assessing the impact of climate change. It will also share its knowledge via the Global Adaptation Network (GAN), the Asia Pacific Adaptation Network (APAN), and others to continue contributing to develop societies that are resilient to climate change. In addition, together with climate change countermeasures, there is also a need for countermeasures to air pollution and water pollution, which are growing increasingly severe, in developing countries. For this reason, Japan will make use of the co-benefits approach that simultaneously promotes countermeasures to environmental pollution and global warming to support initiatives for complex environmental problems in developing countries. This newsletter will introduce specific initiatives to implement the Paris Agreement.



Major elements in the Paris Agreement

- Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above preindustrial levels as a globally shared, long-term goal.
- Each party shall communicate or update its reduction target every five years, and report and undertake a review of its implementation in a common but flexible manner.
- Utilization of market mechanisms such as the Joint Crediting Mechanism (JCM).
- The importance of conserving and enhancing sinks, such as forests, and structures for reducing emissions from deforestation and forest degradation in developing countries.
- Establishment of the global goal on adaptation, engagement in adaptation planning process and implementation of actions.
- Providing financial resources not only from developed countries but also voluntarily from developing countries.
- The Importance of innovation is referred.
- Global stocktake of the implementation of the Agreement shall be undertaken every five years.
- Requirements for entering into force of the Paris Agreement (the number of Parties and the amount of total GHG emissions).

Major content on the COP21 decision

- The Paris Agreement will be open for signature in New York (UN Headquarters) from April 22, 2016, to April 21, 2017. A high-level signature ceremony for the Agreement will be convened on April 22, 2016. All Parties to the UNFCCC are invited to sign the Paris Agreement at the signature ceremony or at their earliest opportunity, and to deposit their respective instruments of ratification, acceptance, approval or accession, where appropriate, as soon as possible.
- Establishment of the Ad Hoc Working Group on the Paris Agreement (APA) for developing detailed rules for the implementation of the Paris Agreement.
- A facilitative dialogue to enhance the Intended Nationally Determined Contributions (INDC) will be convened in 2018.
- The IPCC is invited to provide a special report in 2018 on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways.
- Parties whose INDCs contain time frames up to 2025 or 2030 are requested to communicate or update their INDCs by 2020.
- Parties are invited to communicate their mid-century, long-term low greenhouse gas emission development strategies to the UNFCCC secretariat by 2020.
- All efforts of non-Party stakeholders' actions are welcomed, and the stakeholders are invited to scale up their climate actions.
- The importance of providing incentives for emissions reduction activities, including domestic policies and carbon pricing, is recognized.

[Reference]

The 21st Session of the Conference of the Parties to the United Nations (UN) Framework Convention on Climate Change (COP21), The 11th Session of the Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol (CMP11) (Overall Summary and Evaluation), delegation from the Government of Japan (only in Japanese) <http://www.env.go.jp/press/files/jp/28727.pdf>

Speech by Prime Minister Abe at COP21 http://www.mofa.go.jp/ic/ch/page24e_000119.html

Statement by Tamayo Marukawa, Minister of the Environment of Japan, at COP 21 https://www.env.go.jp/annai/kaiken/h27/s1208/Statement_at_COP21_en.pdf

Decision 1/CP.21 "Adoption of the Paris Agreement" <http://unfccc.int/files/home/application/pdf/decision1cp21.pdf>

Japan Pavilion at the COP 21 Transformation! — Low carbon & climate resilient society

Significance of Holding the Japan Pavilion

Significance of Holding the Japan Pavilion

The 21st Session of the Conference of the Parties to the United Nations (UN) Framework Convention on Climate Change (COP21) and the 11th Session of the Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol (CMP11) were held on the outskirts of Paris, France, from November 30 to December 13. The Government of Japan set up an exhibition and event space called the Japan Pavilion while COP21 and CMP11 were being held. The Government of Japan, various Japanese institutes and organizations, researchers and others introduced and discussed their initiatives through numerous events under the theme of "Transformation! -Low carbon & climate resilient society-."

France, the chair country of COP21, set forth the Lima-Paris Action Agenda that was launched at COP20 in order to further intensify action by cities, the private sector, and civil society, as one of the pillars for COP21. Its aim was to contribute to presenting solutions by means of promoting major initiatives by leaders at the global, national, and local levels; forming partnerships with non-state actors, and showcasing how it encouraged action. Based on this background, the goals of the Japan Pavilion were to introduce Japan's contributions

concerning climate change countermeasures to the various stakeholders that gathered from all over the world, and to present new opportunities for communication that would lead to cooperation between those stakeholders by means of interaction and dialogue.

Overview of the Japan Pavilion – Setting the Overall Concept and the Sub-themes

We need to transform our society into low-carbon and resilient ones in order to prevent climate change and lead to a better future for future generations. The main theme of "Transformation! -Low carbon & climate resilient society-" mentioned above was established based on this perception. Under this main theme, four sub-themes of "Cities," "Forests," "Policies," and "Technology" were then established.

Moreover, the *mizuhiki* was adopted as the motif for the Japan Pavilion. *Mizuhiki* has been used for decorative string on presents in Japan since long ago, and here they evoke the ties and cooperation between stakeholders. In addition, for the sub-theme icons we developed images and messages that are uniquely Japanese, such as by decorating them with traditional Japanese color.

Main Contents of the Messages for the Sub-Themes (Cities, Forests, Policies, and Technology)

At the opening of the Japan Pavilion, Parliamentary Vice-Minister Oniki expressed his hope that, "the Japan Pavilion will not only allow Japan to get the word out on its initiatives, but also serve its role as a venue for the various stakeholders to gather and exchange information." During COP21 and CMP11, 32 events were held at the Japan Pavilion. A total of more than 1,000 people visited there, making it a rousing success. The contents of the messages for each sub-theme will be briefly described below by citing examples.

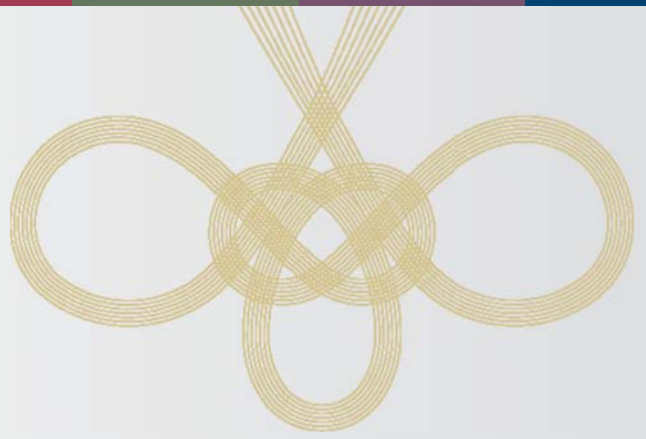


Mr. Oniki, Parliamentary Vice-Minister, MOEJ

From the perspectives of curbing emissions of greenhouse gases and the disasters, diseases, and other impacts that will occur because of climate change, it will be important

to make "Cities" low-carbon and furnish them with the ability to respond to the impacts from climate change. The Japan Pavilion designated December 2 as "Cities Day", and introduced the cases for developing low-carbon, resilient and sustainable societies by means of the Joint Crediting Mechanism (JCM).

First, Kitakyushu City introduced its cases of supporting development of low-carbon cities. Hai Phong, Vietnam, which is a sister city to Kitakyushu, is using the "Kitakyushu Model" and formulate a Green Growth Promotion Plan in order to maintain economic development while still promoting reductions of greenhouse gas emissions. It formulates specific JCM projects in line with this plan. At this side event, cases in Surabaya, Indonesia, Pasigdan, Malaysia, and Rayong, Thailand, were also introduced as examples to which the "Kitakyushu Model" was applied for promoting low-carbonization in other Asian cities.



In addition, a side event named "Lessons from Asia Low Carbon Cities: Initiatives in Iskandar Malaysia and Putrajaya" was held by the National Institute for Environmental Studies (NIES), the University of Technology, Malaysia, and others. This side event introduced the fact that draft low-carbon society action plans, which was applied to Japan, Kyoto City, and Shiga Prefecture, were also being applied to the Iskandar development region, Putrajaya City, and Ho Chi Minh City. At this side event, the Mayor of Putrajaya and the Iskandar Regional Development Authority of Malaysia also introduced that the Tokyo Metropolitan Government's Building Energy/Carbon Emission Monitoring and Reporting System has been applied to Putrajaya as Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme; to the Iskandar development region as Energy Monitoring & Reporting System (EMRS) for Existing Buildings, and these programme and system will be implemented from the next year. These positive cases showed how good practices by Japanese local governments to achieve low-carbon societies were being deployed to Asia.

Conservation of "Forests" is also an important challenge. Forests not only play an essential role as sinks for carbon dioxide, but are also important in terms of conserving biodiversity and improving the quality of life for local residents who are economically dependent on forest resources. "JICA Day," which was held on December 1, introduced initiatives focused on "Forests." On that Day, the Japan International Cooperation Agency (JICA) and the Japan Aerospace Exploration Agency (JAXA) held a side event entitled "System for Monitoring of Tropical Rainforest -Initiative for Improvement of Forest Governance-." This side event pointed out that there is enormous interest from countries with tropical rainforests in monitoring illegal logging using observation data from ALOS-2 (DAICHI-2). It also expressed that, based on this interest, JICA and JAXA will jointly establish the "System for Tropical Forest Monitoring" and contribute to global tropical forest conservation by using satellite technology.

Moreover, it is "Policies" and "Technology" that promote and support such initiatives. Since the early 1980s, Japan has been promoting cooperation to help Asian countries properly cope with climate change in a systematic and ongoing manner from a long-term perspective. Policymaking which deals with nature in the form of climate change should be done based on accurate scientific information. Based on this concept, Japan

has focused its efforts on formulating a scientific foundation for climate policies in Asian countries. The Institute for Global Environmental Strategies (IGES) held a side event entitled "Making an Integrated Approach to Air Pollution and Climate Change a Reality in Asia." This side event indicated that reducing short-lived climate pollutants (SLCPs) would make it possible to mitigate both the serious air pollution and global warming in Asia simultaneously and over a short period of time. Meanwhile, it introduced that there were challenges such as integration of science and policies and capacity building for carrying out field research.

Furthermore, Japan has built the JCM, actively transferring superior low-carbon technologies to developing countries, and has also offered comprehensive support for improving the capacity of developing countries to cope with climate change by making use of other schemes as well as the JCM. On December 8, the 3rd JCM Partner Countries' High-level Meeting was held in the Japan Pavilion. The meeting gathered together representatives of the 16 countries that signed the JCM. Following some opening remarks by the Minister of the Environment, Japan, Tamayo Marukawa, the participants welcomed the progress made with the JCM, and it was announced that they would continue working together to implement the JCM.



JAPON
PAVILION at the COP21/CMP11
Transformation! - Low carbon & climate resilient society -

The side events introduced above are just some examples of the events held in the Japan Pavilion. Information on other side events in the Japan Pavilion that could not be introduced here is available at the following URL. It would be our pleasure if you take a look at the details.

► <http://cop21-japanpavilion.jp/en/>

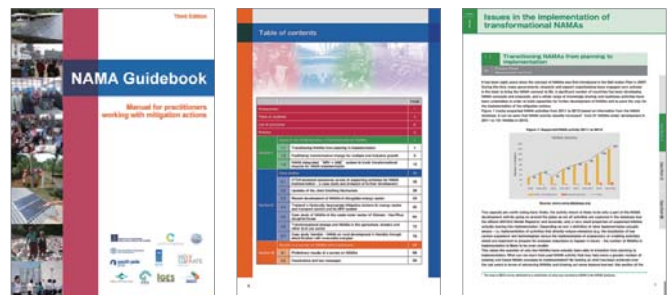
Supporting the formulation of the basis for NAMAs in developing countries

Policy Support via NAMA Guidebook

01 What is the NAMA Guidebook?

The NAMA Guidebook was created through cooperation with various countries aiming to share the knowledge acquired through the formulation of the Nationally Appropriate Mitigation Actions (NAMAs) implemented by various countries with project practitioners. The guidebooks contain information like the elements of NAMAs, their formulation approach, and case studies from Asia and around the world. Low-carbon growth is an important concept for developing countries to avoid carbon lock-in and the “middle-income trap,” in which economic growth stagnates. NAMAs are an important tool for combining sustainable development with low-carbon growth. The first edition of this guidebook introduced the general concept of NAMAs, ways of approaching NAMAs, and mitigation efforts. The second edition contained discussions related to NAMA efforts, technology transfers, and the contents of Biennial Update Reports (BURs). For the third edition that was published in 2015, in light of the fact that the implementation of Transformational NAMAs has now become essential for creating low-carbon, resilient societies, this contained content that focused on these Transformational NAMAs. In addition, by way of case studies the third edition introduces the NAMA implementation support projects by

the Climate Technology Centre and Network (CTCN) under the UNFCCC, the Joint Crediting Mechanism (JCM), innovative NAMA activities in the agriculture and forest sectors, NAMA activities in the energy sectors in Mongolia and Thailand, a NAMA case study in the waste sector in Viet Nam, and NAMA activities for rural development using renewable energy in Namibia. What is more, the Overseas Environmental Cooperation Center, Japan (OECC), which oversees the publication of the NAMA Guidebook, conducts surveys on the JCM partner countries designed to clarify the challenges they are currently facing, and then includes the results from these in the guidebook. This is done to help developing countries overcome the obstacles that face them in transitioning from the NAMA planning stage to the implementation stage.



02 Usage Status of the NAMA Guidebook

The NAMA Guidebook is currently being used in a number of different places. For example, it has been used as one of the teaching materials at capacity building courses at the Climate Change International Technical and Training Center (CITC) of the Thailand Greenhouse Gas Management Organization (TGO) and the United Nations Development Programme (UNDP). Furthermore, lectures that use the case studies

listed in the NAMA Guidebook are given in the courses to discuss measures against global warming held by the Japan International Cooperation Agency (JICA). It has also been used at workshops in host countries and training in Japan related to projects to discover JCM cases. In addition, the guidebook is also introduced on the websites of the NAMA Partnership (<http://www.namapartnership.org/>) and the South Pole Group (<http://www.thesouthpolegroup.com/>) and is widely used.

[Reference]
 NAMA Guidebook (3rd Edition)
http://www.oecc.or.jp/pdf/NAMA+Guidebook_Third+Edition.pdf

Workshop on Greenhouse Gas Inventories in Asia (WGIA)

01 What is the WGIA?

National greenhouse gas inventories (inventories on greenhouse gas emissions and removals, hereafter referred to as "inventories") are inventories that numerically express the amount of greenhouse gases emitted and removed by the country in question as a whole. Under the United Nations Framework Convention on Climate Change (UNFCCC), all of the signatory country parties are obligated to submit their inventories to the Conference of the Parties (COP).

The Workshop on Greenhouse Gas Inventories in Asia (WGIA) is a workshop that has been held every fiscal year since FY2003 by the Ministry of the Environment of Japan and the National Institute for Environmental Studies with the goals of improving

the accuracy of inventories of countries in the Asian region, while also promoting cooperative relations in the Asian region related to Measurement, Reporting and Verification (MRV).

In FY2015, the 13th Workshop on Greenhouse Gas Inventories in Asia (WGIA13) was held in Bali, Indonesia from August 4 to August 6 together with the Ministry of Environment and Forestry of Indonesia with the participation of a total of 108 people including government officials and researchers from 13 participating countries (including Japan), and representatives from international organizations.

The United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP), and others have also taken part in the WGIA to date, while developed countries, such as the United States and Australia, have taken part as observers.

WGIA13 participating countries	Brunei, Cambodia, China, India, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Republic of Korea, Thailand, Vietnam
International organizations, etc.	Technical Support Unit of the IPCC Task Force on National Greenhouse Gas Inventories (IPCC TFI-TSU), Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC), Food and Agriculture Organization (FAO), etc.



02 Good Practices for WGIA

The workshop contributes to capacity building for MRV in non-Annex I countries by sharing MRV-related information focused primarily on information concerning the preparation of inventories among the countries participating in the workshop. Moreover, MRV experts, who are administrative officials overseeing the preparation of inventories and the people in charge of the preparation in each participating country as well as resource persons from international organizations and the like, gather at this workshop once a year. They have built up a network related to MRV by

sharing information among the gathered experts. Through this network, they have intensified cooperative activities at venues outside of the workshop. Furthermore, WGIA offers mutual learning sessions in which two or three countries participating in the session can mutually learn about each of their inventories in detail through exchanging opinions with each other. The mutual learning sessions have made it possible for them to learn in greater depth about specific good practices of and challenges for partner countries.

[Reference]
Website of the Greenhouse Gas Inventory Office of Japan, National Institute for Environmental Studies
<http://www-gio.nies.go.jp/wgia/wgiaindex-j.html>

Japan's Adaptation Plan and International Cooperation

— Implementation Support

1 Japan's National Plan for Adaptation

Context

According to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), increase of global mean surface temperature for 2081-2100 relative to 1986-2005 is projected to likely be in the ranges, 0.3°C to 4.8°C. There are two types of global warming measures (addressing climate change issues), which are mitigation and adaptation. Mitigation is to limit greenhouse gases emissions and that it the top priority measure. If we cannot avoid its impact even after mitigation, we should take the adaptation measure to control the nature and our society against the impact. The risks of global warming that are becoming apparent in recent years vary among countries and regions, therefore, there is no particular adaptation measures that are effective to everywhere in the world. We have to implement appropriate adaptation measures such as enacting legislation and setting in place social systems that are suited to each region.

What is National Adaptation Plan in Japan?

Since July 2013, the Central Environment Council has discussed about climate change impacts, and it formulated the "Climate Change Impact Assessment Report" in March 2015. In the Climate

Change Impact Assessment Report, the impacts of climate change in Japan were classified into seven sectors, 30 categories, and 56 sub-categories. Based on over 500 items of literature regarding projections of climate change and its impacts, expert judgment was applied on the basis of scientific findings to make assessments of impacts from the perspectives of significance, urgency, and confidence.

Based on the results, National Plan for Adaptation to the Impacts of Climate Change was decided by the Cabinet on November 27, 2015. In order to progress policies and measures for adaptation to climate change impacts systematically and comprehensively, the government formulated the first National Plan for Adaptation to the Impacts of Climate Change, which was spearheaded by the Ministry of the Environment, Japan, and advanced jointly with the relevant ministries and agencies. It indicates the direction of efforts as Japan in order to respond to the current and future impacts from climate change. Part 1 presents basic concepts, such as the vision for society and basic strategies. Part 2 presents measures to be implemented over the next ten years through the cooperation of the relevant ministries and agencies in seven sectors, including agriculture, forests/forestry, fisheries, natural disasters, life of citizenry, and industrial/economic activities. Part 3 establishes basic measures for research and studies, the promotion of efforts in the regions, and international measures.

National Plan for Adaptation to the Impacts of Climate Change

<p>Basic concept (Part 1)</p> <p>■ Vision of society By promoting adaptation measures to climate change impacts, to build a secure, safe and sustainable society that is able to minimize and avoiding damage for life of citizens, properties, economics, and natural environment due to its impacts, and to be resilient against damage.</p>	<p>■ Basic strategy</p> <ol style="list-style-type: none"> 1) Mainstreaming adaptation into government policies 2) Enhancement of scientific findings 3) Promotion of understanding and cooperation through sharing and providing information on climate-related risks 4) Promotion of adaptation in local regions 5) Promotion of international cooperation and contribution <p>■ Period Considered with long-term perspective till the end of 21st century, showing the basic direction in about coming 10 years.</p>	<p>■ Basic approach</p> <ul style="list-style-type: none"> ● Adaptation will be promoted by using an adaptive approach that involves a repeated cycle of conducting ongoing observation, monitoring, and projection of climate change and its impacts, implementing regular assessments of impacts, considering and implementing adaptation measures, monitoring the state of progress, and making revisions as required. ● An assessment of climate change impacts is to be implemented and formulated approximately every five years, and the Plan is to be revised as required.
<p>Sectoral measures (Part 2)</p> <p>■ Agriculture, Forests / Forestry, Fisheries ● Impacts: e.g. Declining ratio of first-class rice due to high temperature; Poor coloring of apples and other fruits ● Adaptation: e.g. Development and diffusion of high-temperature-resistant varieties of rice; Switch to superior colored varieties of fruit</p> <p>■ Water Environment / Water Resources ● Impacts: e.g. Changes in water temperatures, water quality; Increases in drought due to increases in the number of rainless days and decrease in the total amount of snowfall ● Adaptation: e.g. To promote measures to reduce the loads flowing into lakes and marshes; To promote efforts to formulate drought response timelines</p> <p>■ Natural Ecosystems ● Impacts: e.g. Changes in vegetation distribution and expansion of wildlife distribution due to increase in temperature and shift in days of snow-melting earlier ● Adaptation: e.g. To ascertain the changes in ecosystems and species by using monitoring; To conserve and restore healthy ecosystems with high climate change resilience</p>	<p>■ Natural Disasters / Coastal Areas ● Impacts: e.g. Increasing frequency and intensity of water disasters, sediment-related disasters, and storm surge disasters due to increasing heavy rainfall and typhoons ● Adaptation: e.g. Steady facility improvements and maintenance; Promotion of urban development with consideration of disaster risks; Formulation of hazard maps and evacuation plans</p> <p>■ Human Health ● Impacts: e.g. Increases in heat stroke; Expansion of the suitable habitat for vectors of infectious diseases ● Adaptation: e.g. Awareness raising regarding prevention and treatment</p> <p>■ Industrial / Economic Activity ● Impacts: e.g. Impacts on business production activities and leisure; Increasing insured losses ● Adaptation: e.g. To promote efforts by businesses in collaboration between public and private sectors; Development of adaptation technologies</p> <p>■ Life of Citizenry and Urban Life ● Impacts: e.g. Damage to infrastructure and critical services ● Adaptation: e.g. To enhance disaster prevention functions of distribution/logistics, ports and harbors, railways, airports, roads, water supply infrastructure, waste treatment facilities, and traffic safety facilities</p>	<p>Basic and international measures (Part 3)</p> <p>■ Observation and Monitoring, Research and Studies ● Enhancement of observation systems (e.g. ground observation, ships, aviation, and satellites) ● Advancement of modeling technologies and simulation technologies</p> <p>■ Sharing and providing information related to climate risk e.g. Climate change adaptation information platform</p> <p>■ Promotion of adaptation in region e.g. Implementation of model projects that assist the formulation of adaptation plans in local governments; Development of obtained results to other local governments</p> <p>■ International measures ● Support for developing countries (e.g. assistance of climate change impact assessments and formulation of adaptation plans) ● e.g. Contribution to human resource development through international networks such as the Asia Pacific Adaptation Network (APAN)</p>

2 Overseas Cooperation concerning Adaptation

International Initiatives

Japan contributes to the human resources development of adaptation by utilizing international networks it supports, by sharing knowledge and by providing financial support to these countries.

Global Adaptation Network (GAN)



The GAN is a global network proposed by UNEP. Japan supports inter-regional knowledge sharing activities in order to build climate resilience of vulnerable communities, ecosystems and economies through the mobilization of knowledge for adaptation.

Asia-Pacific Network for Global Change Research (APN)

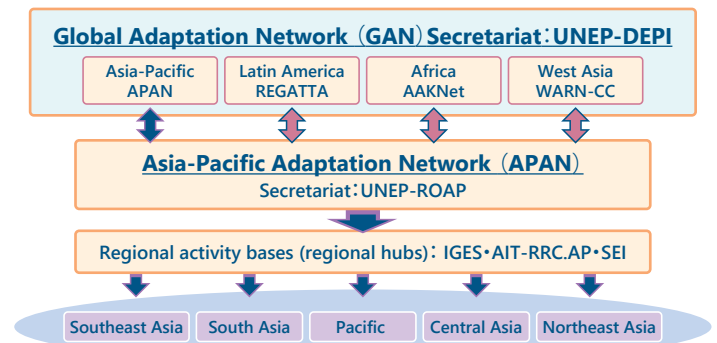


The APN is an inter-governmental network consisting of 22 Asia-Pacific countries. The APN is meant to provide competitive funds for regional joint researches and capacity building projects to enhance scientific capacity with priority given to climate change adaptation.

Asia-Pacific Adaptation Network (APAN)



The APAN is a network under GAN in the Asia-Pacific region, to which Japan has provided support since its inception. APAN has been instrumental in strengthening the adaptive capability of countries in the region by identifying adaptation needs through forums and sub-regional meetings, and by providing capacity building workshops.



Source: MOFA Website (<http://www.mofa.go.jp/files/000062532.pdf>)

Case Study

Making land-use climate-sensitive

A pilot to integrate climate change adaptation and mitigation

While synergies among climate change adaptation and mitigation (CCA&M) policies clearly exist, little common understanding has been established on how to introduce CCA&M policies in an integrated manner. A holistic approach to land-use planning and management at the local level can help meet this challenge. To test this idea, with support from the Ministry of the Environment, Japan, the Institute for Global Environmental Strategies and the University of the Philippines at Los Baños launched a pilot project with local governments in the Philippines in 2014. This pilot project is developing and testing an approach to integrate CCA&M at the local level, especially in land-use planning and management, by analyzing risks and setting out countermeasures, including utilizing ecosystem services, in a river basin context.

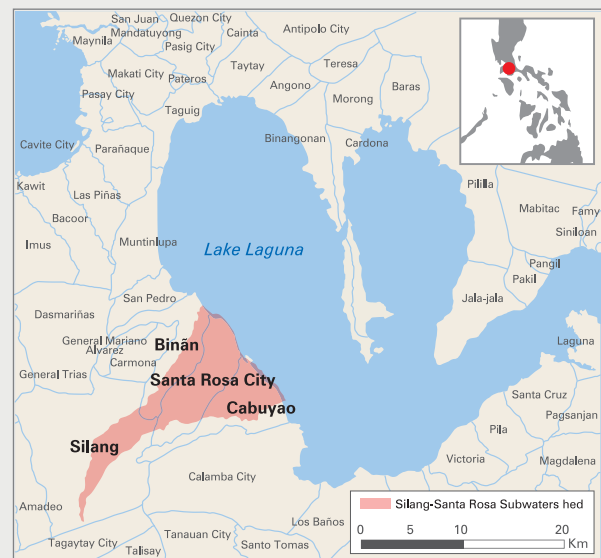
The study area is the Silang-Santa Rosa subwatershed, which is located about 40 km south of Manila, the national capital, and adjacent to Lake Laguna, the largest lake in the country. Because of rapid urbanization and industrialization, a vast area of land in the subwatershed, especially the cities of Santa Rosa and Biñan, has been converted for industrial use in the past two decades. Population growth, land-use change, and climate change have altered the water resources in the river basin in ways that have



Flood damage in Silang-Santa Rosa subwatershed, Philippines (photo by E.C. Creencia)

negatively impacted the availability of drinking water, public health, and food security, and are also associated with large weather-related natural disasters such as floods and landslides.

The pilot project emphasizes the need for a holistic approach to land-use planning and management by local governments in the Philippines that incorporate climate change mitigation and adaptation strategies.



Silang-Santa Rosa subwatershed, Philippines

Collaboration among local government agencies at the river basin/watershed level is critical to an effective response to weather-related disasters, especially flooding, which are expected to become more pronounced with climate change. With support of the pilot project, the local governments have created a preliminary list of priority measures, considering the necessity and feasibility of each measure based on available data and information.

- Strengthened zoning, development control, and building codes;
- Riverbank reinforcement, dredging, and river cleaning;
- Information dissemination and public awareness;
- Run-off mitigation;
- Introduction of green space, green building, and urban agriculture;
- Relocation of informal settlers; and
- Strict law enforcement.

International Workshop for Climate Change Adaptation

Needs and challenges for designing and implementing climate actions

"The Workshop for Capacity Building on Climate Change Impact Assessments and Adaptation Planning in the Asia-Pacific Region: Needs and Challenges for Designing and Implementing Climate



Actions" was held on 1-2 October 2015 in Bangkok, Thailand, by the Asia Pacific Adaptation Network (APAN) and the Ministry of the Environment of Japan (MOEJ), organized by the Institute for Global Environmental Strategies (IGES). This workshop aimed to identify the current status of and needs for adaptation planning and climate change impact assessments at the national level in the Asia-Pacific region.

Under the difficult situation that a few countries have a completed National Adaptation Plan (NAP), it is urgent to understand various needs and challenges on the NAP process and climate change impact assessments. In response to that, this workshop provided a platform for knowledge sharing and capacity building on the current status and needs for designing and implementing adaptation planning and climate change impact assessments. The participants included representatives of ministries of the environment of 14 countries in the Asia-Pacific region (Bangladesh, Bhutan, Cambodia, Fiji, Indonesia, Malaysia, Mongolia, Myanmar, Nepal, the Philippines, Samoa, Sri Lanka, Thailand and Vietnam), as well as representatives of international organizations, development partners, expert practitioners and academic researchers.

[Reference]
<http://www.asiapacificadapt.net/events/workshop-capacity-building-climate-change-impact-assessments-and-adaptation-planning-asia>

Support for Climate Change Impact Assessments in Mongolia

MOEJ is carrying out the FY2015 Project to Support Climate Change Impact Assessments in Mongolia based on a memorandum of environmental cooperation between Japan and Mongolia from May 2015. As part of this, it is offering support for climate change impact assessments that focus on contributing to adaptation planning for Mongolia in cooperation with government agencies, research organizations and others on the Mongolian side (Implemented in Japan by a consortium of MOEJ, Nikken Sekkei Civil Engineering Ltd and Chuo University). It conducts research and lay a foundation for instituting projects to support impact assessments in Mongolia, particularly for sectors such as agriculture, livestock, and water

resources for which the impacts from climate change will presumably be significant.

In September 2015, a scoping workshop and meeting of policy makers comprised of experts from both the Japan and Mongolia were held in Ulaanbaatar, where vulnerabilities related to climate change and challenges that must be resolved from each sector were discussed. This clarified the impacts on crops from the drop in agricultural irrigation as a result of advancing high temperatures and aridification in the future, as well as the impacts on livestock activities as a result of changes to pasture land and increases in the amount of snowfall.



Scoping Workshop by researchers



Conference with policy makers

Promoting the Co-Benefits Approach

The co-benefits approach is an initiative that simultaneously promotes environmental pollution control and climate change measures. It has been increasingly recognized internationally, as evidenced by the fact that it was incorporated into the declaration from the 2008 Hokkaido Toyako Summit. What is more, the Hatoyama Initiative states that the validity of the co-benefits approach must be fully taken into consideration when providing support to mitigation actions of developing countries. The co-benefits approach effectively achieves environmental pollution control and measures for cutting greenhouse gas emissions at the same time, and Japan has been promoting this approach as a policy tool, primarily for developing countries in Asia. The Ministry of the Environment of Japan (MOEJ) is mainly working on bilateral cooperation, multilateral cooperation, and on developing assessment methods.



China

Supporting Co-benefits for Low-carbon Society in China

As a result of the massive growth in energy consumption in China following its industrialization and urbanization, since 2007 it has surpassed the United States to become the world's largest emitter of greenhouse gases (CO₂). Air and water pollution now pose problems for the country. Based on the Memorandum of Understanding on Cooperation in Co-benefits Research and Model Project signed with China in December 2007, Japan started cooperation projects in 2008. In Phase 2, which began in 2011, co-benefit were examined from measures to cut NOx emissions, which were subject to total volume controls in China's 12th

Five-Year Plan, as well as the introduction of sewage treatment technology at a cement factory. Together with this, capacity building is conducted by preparing guidelines and holding seminars. In FY2014, officials from China's central government and local governments were invited to Japan, where training was held. New input was provided to the officials from China regarding Japanese technologies and policies that are conducive to cutting NOx and GHG, and information was shared in order to support the discovery of feasible co-benefit technologies and for screening policies that could be deployed within China.



Indonesia

Co-benefits Type Wastewater Treatment at a Fish Processing Factory in Indonesia

Indonesia has set the target of cutting its emissions of greenhouse gases by 26% relative to 2005 levels by the year 2020, including for its agricultural, forestry, and fisheries sectors. At the same time, Indonesia has a thriving fisheries industry, yet many plants are required to adopt the appropriate wastewater treatment measures. Since untreated wastewater is being discharged into rivers and the ocean, appropriate wastewater treatment measures have come to present a challenge. Japan has been promoting cooperation with Indonesia based on bilateral co-benefits cooperation concluded between the environmental ministers of the two countries in December 2007 (updated in September 2011 and July 2015). This project aims to promote co-benefit wastewater treatment measures at marine product processing plants, calculate the effects of reducing greenhouse

gas emissions and the water quality improvement for the wastewater, build capacity for environmental management measures in Indonesia, and offer policy suggestion. A number of challenges have been pointed out with respect to introducing wastewater treatment facilities for the marine products processing industry. These include the introduction costs, the insufficient know-how concerning wastewater treatment techniques, and the fact that they do not have enough connection with engineering companies for wastewater treatment. What is more, many of the companies in the marine products processing industry are small in size. As a result, it has been considered that it will be necessary to examine countermeasures from perspectives such as having several plants jointly carry out wastewater treatment.



Mongolia

Promoting Co-benefits for Environmental Pollution Control in Mongolia

Mongolia is largely dependent on coal for supplying the energy to generate power and heating its buildings and so forth. In the capital city of Ulaanbaatar, which has seen remarkable population growth in recent years, air pollution in winter resulting from the burning of coal has become a serious problem. MOEJ is promoting the implementation of the Joint Crediting Mechanism (JCM) as a way to promote partnerships over low-carbon development with Mongolia. The goals of the project include improving the coal-fired Heat Only Boilers (HOBs), which is a type of heating equipment made in Mongolia that is installed in middle schools within the city of Ulaanbaatar, as well as

calculating the environmental improvement effects obtained via supporting capacity building for facility maintenance and management. It also has the goal of offering policy advice on co-benefit environmental management measures that contribute to cutting emissions of greenhouse gases and improving air pollution in Mongolia. In FY2014, it improved smoke-duct related equipment, such as those in air heaters, and calculated the co-benefit results from this. It also prepared HOB operation, maintenance, and management guidelines (draft), and engaged in capacity building through operating training sessions and training in Japan on the basis of these guidelines.



Partner countries of the Joint Crediting Mechanism

Japan has held consultations for the JCM with developing countries since 2011. As of January 2016, Japan has established the JCM with sixteen countries (Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar and Thailand).



The JCM Portal Sites

In order to provide support for large-scale JCM projects, the Ministry of the Environment of Japan (MOEJ) has established websites for business and local governments mainly to provide information about partner countries, cities and domestic stakeholders. For more detailed information, please visit the websites listed below.

Ministry of the Environment's Web Portal for Low Carbon Development in Asia

<http://www.env.go.jp/earth/coop/lowcarbon-asia/english/>

Main information

- Trends in international negotiations and related systems
- Governmental agencies in Asian countries
- Low-carbon/environmental policies in Asian countries
- Governmental support systems for overseas business development



Business Collaboration Support Website for Low Carbon Development in Asia

<http://lowcarbon-asia.org/english/>

Main information

- Introducing low-carbon technologies developed by Japanese companies
- Consultation services for overseas expansion
- Consultation information that offers support for the development of eco-businesses overseas



Web Portal for Low Carbon Development in Asia (Information for Local Governments)

<http://www.env.go.jp/earth/coop/lowcarbon-asia/english/localgov/>

Main information

- Support measures for international environmental cooperation
- International networks and collaborative activities of local governments
- Consortium information with businesses
- Information on projects regarding low carbon development in Asia



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