

**IGES** Institute for Global Environmental Strategies



### **IGES** Institute for Global Environmental Strategies IGES Annual Report 2016

# Contents

1
3
4
14
20
24
27
28
30

## Foreword

The Institute for Global Environmental Strategies (IGES) was established under an initiative of the Japanese government in 1998 with the support of Kanagawa Prefecture. Since April 2012, IGES has been conducting practical policy research as a public interest incorporated foundation, aiming to realise sustainable development in the Asia-Pacific region.

This Annual Report covers FY2016 (from April 2016 to June 2017), the final year of the Integrative Strategic Research Programme for the Sixth Phase of IGES (ISRP6) which began in FY2013. Under the leadership of former Chair of the Board of Directors\*, Prof. Hironori Hamanaka, IGES in the Sixth Phase implemented a wide range of research activities and proposed policy recommendations on global challenges such as climate change, creation of a recycling-based society and conservation of biodiversity. These accumulated actions were highly evaluated and in the final month of the ISRP6 (June 2017), IGES was named Top Climate Think Tank in the Rest of the World outside of North America and Europe (absolute ranking) in the Climate Think Tank Ranking announced by the International Center for Climate Governance (ICCG), and was ranked seventh in global absolute ranking.



From the President Kazuhiko Takeuchi

From July 2017, the structure of the Institute was renewed under ISRP7 which was approved in May 2017. As the new President, I will do my utmost to fulfil the new research plan by continuing the work done so far and aiming to take the institute to the next level.

The international community concluded two historic agreements — the Paris Agreement and the 2030 Agenda for Sustainable Development including the Sustainable Development Goals (SDGs). Many countries have already established country commitments, including emission reduction targets under the Paris Agreement, and have begun practical efforts on SDGs. Even as uncertainty increases about the global political situation, it is not only national governments, but also non-state actors such as local governments and business that are beginning to take positive action. In order to move ahead with actions on these international agreements and ensure a shift to a decarbonised and sustainable society in harmony with nature, it is crucial for stakeholders in both developed and developing countries alike to strengthen collaboration and cooperation.

As we forge greater links with national and local governments, international organisations, research institutes, businesses, NGOs and local communities, we will work on practical and strategic policy research that reflects dynamically evolving global trends. IGES would like to further fulfill our role as a change agent to promote the necessary change to strengthen sustainability on a global scale.

Finally, I would like to express my sincere gratitude for your continued understanding and support for IGES research activities.

\*The title for the position of Chair of the Board of Directors was changed to President from 1 October 2017.



From the Executive Director **Hideyuki Mori** 

In FY2016, the final year of the Integrative Strategic Research Programme for the Sixth Phase, IGES made every effort to steadily achieve expected results in all its research areas, as well as strengthening cross-cutting and practical research activities to promote the implementation of the Paris Agreement and the 2030 Agenda for Sustainable Development, that includes the Sustainable Development Goals (SDGs), agreed upon by the international community.

Implementation of these agreements requires participation of diverse stakeholders as well as transformative changes in politics, business models and lifestyles. We need to jointly design and promote pathways to accelerate actions for change.

IGES was able to increase its impacts on international discussions and policies by publishing policy recommendations based on research results in the form of discussion papers, commentary, research reports and statements in a timely manner in relevant policymaking processes. IGES also actively disseminated knowledge and recommendations in cooperation with business networks and cities supportive of ambitious climate change policies, as well as working in partnership with networks of companies and organisations collaborating to realise a sustainable society.

IGES also held an annual international forum to exchange views on important policy issues in the Asia-Pacific region, deepening discussions with over 1,000 participants from Japan and overseas. Participants were able to forge mutual networks to try and find a path for the creation of a sustainable society.

We have reviewed how IGES carries out its research so we can stay ahead of global trends in a dynamically developing Asia-Pacific and the world. In FY2017 we launched the Integrative Strategic Research Programme for the 7th Phase. We will continue to carry out practical research activities in line with the needs of society, contributing towards the transition to a sustainable society in close collaboration with diverse stakeholders.

# **Outline of IGES**



### **Mission of IGES**

The Asia-Pacific region has seen rapid economic development and an accompanying intensification of environmental problems. In light of this, the mapping of a path to sustainable, low-carbon development, which achieves both environmental and developmental goals, is a pressing issue. IGES has cooperative relations with a broad range of stakeholders including international organisations, national and local governments, research institutes, businesses and NGOs, and intends to create strategies to achieve sustainable development as well as to contribute to policy formulation based on the needs of the Asia-Pacific region.

### **Research Activities**

Based on the Sixth Phase Integrative Strategic Research Programme (April 2013 - June 2017), advances have been made to clarify current emerging issues in the Asia-Pacific region and make progress with policy research for problem-solving, looking at environmental, economic and social aspects of sustainable development.



# **Research Highlights in FY2016**

April 2016-June 2017

### Recommendations for Effective Implementation of the Paris Agreement

At COP21, the Paris Agreement was adopted as a new climate framework for 2020 and beyond, in which all Parties would participate. Implementing this Agreement has become an urgent issue worldwide. IGES is promoting the implementation of the Paris Agreement at the international, national, regional and local levels, and is carrying out practical research and capacity development to promote global decarbonisation. IGES also disseminated research outcomes and recommendations in a timely manner through a series of discussion papers, etc., responding to major policy formation processes and discussions on international climate negotiations. In addition, as a key to the steady implementation of the Paris Agreement, IGES is paying attention to the role





played by diverse stakeholders including national governments and local governments, companies, investors and citizens. By supporting advanced cities and a network of Japanese companies willing to take ambitious action on climate change, IGES encouraged all stakeholders to engage in positive actions and cooperation. On the other hand, with the emergence of the Trump administration and the US decision to withdraw from the Paris Agreement, IGES carefully analysed emerging global movements impacting the climate change issue, and announced its own opinion through commentaries and statements. The Institute also gave timely updates on international trends related to climate change countermeasures by holding events in Japan such as reporting seminar on COP and media briefings, thereby promoting better understanding among relevant stakeholders.

### Extensive Research on the Sustainable Development Goals (SDGs)

Under the concept of "no one left behind", SDGs are a set of 17 goals and 169 targets to achieve a sustainable society. IGES focused on promoting initiatives through the participation of a wide range of stakeholders, and advanced cross-cutting research activities on SDGs. In addition to clarifying the status of efforts on SDGs in Asian countries and identifying what kind of social change is required, IGES published discussion papers, commentary and policy recommendations dealing with various themes, such as air pollution, adaptation to climate change, disaster risk reduction, role of cities and business, and the application of environmental data for SDGs global indicators. In Japan, the implementation guidelines for promotion of SDGs were announced in December 2016. As the focus on SDGs implementation increased, a questionnaire

survey was conducted in cooperation with Global Compact Network Japan, asking Japanese companies about their efforts with regards to the SDGs. As well as publishing a report summarising



SDGs policy report

the progress and issues, IGES actively promoted domestic dissemination activities, such as holding media briefings.



Opinion exchange with global experts on SDGs

### **Contribution to the International Discussion on Resource Efficiency**

Resource efficiency has been gaining attention as an important topic in the international policymaking process including the G7 Summit and the UN Environment Programme (UNEP) International Resource Panel. In addition to following up the process of the UNEP International Resource Panel, IGES provided research-based input such as contributing to issue preparation on resource efficiency at the G7 Environment Ministers' Meeting held in Toyama in May 2016. The institute also contributed to international discussions including the adoption of the Toyama Framework on Material Cycles. In addition, as part of the G7 Alliance, a forum for various stakeholders to share information on resource efficiency, a public workshop was held in Tokyo in December 2016 to discuss the ideal resource recycling system for a low-carbon society. Likewise, IGES contributed to the revision of the policy guidance on Extended Producer Responsibility (EPR) of the Organisation for Economic Co-operation and Development (OECD) published in September 2016 and was engaged in dissemination domestically through publication of a Japanese summary version of the revised guidance.

### Forging Stronger Collaboration and Partnerships

In FY2016, IGES concluded agreements with the following organisations and initiatives to strengthen partnerships for sustainable development of the Asia-Pacific region.



IGES-TERI collaboration on launching Japan-India Stakeholders' matching platform



Research cooperation with UNESCAP

Date	Organisation
April 2016	UN Economic and Social Commission for Asia and the Pacific (UNESCAP) "Environmental research and dialogue"
April 2016	Secretariat of the Convention on Biological Diversity (SCBD) "Project Cooperation Agreement on the implementation of the capacity building project for the implementation of IPBES Asia Pacific Regional Assessment"
May 2016	Rockefeller Foundation 100 Resilient Cities "Platform partner to support resilience strategy formulation"
July 2016	The Energy and Resources Institute (TERI) "Research collaboration on launching Japan- India Stakeholders' matching platform"
September 2016	International Institute for Sustainable Development (IISD) "Collaboration on knowledge exchange"
October 2016	Tokyo City University "Research collaboration on environment in Asian region"
February 2017	Nagoya University "Implementation of the IUC-J project at IGES"
February 2017	IGES becomes 'Supporting Institution' of UNEP Finance Initiative (UNEP FI) to strengthen collaboration on sustainable finance.

### **Research Highlights Climate and Energy Area**

### **Outline of Research in the Sixth Phase**

IGES carried out strategic research towards the realisation of sustainable low-carbon societies in the Asia-Pacific region, and made recommendations for institutions and policies related to climate change at the international, regional and country levels.

### **Major Activities in FY2016**

#### **Climate and Energy Policy Analysis**

IGES analysed a voluntary framework for emissions reduction measures in the power sector, which accounts for approximately 40 percent of Japan's total carbon dioxide emissions, and released a discussion paper that highlights issues surrounding the decarbonisation of the power sector from midand long-term perspectives and the various risks involved in newly constructing coal-fired and gasfired power plants. This paper was covered in the media, including major newspapers. Furthermore, IGES advanced a comparative analysis on lowcarbon policies on the energy supply side in Japan, the United States, Europe and China. IGES also examined the ratchet-up mechanism considered to be key to the Paris Agreement, in terms of both the roles of the three elements of the ratchet-up process (consistency between long-term strategies



#### Launch of IGES Climate Twitter! @IGES Climate EN

In December 2016, IGES Climate Twitter (Japanese and English versions) was launched to disseminate updated information on climate change and the energy sector. Regular posts introduce not only IGES publications, event information and on-site comments from international climate negotiations, but also hot-off-the-press climate news from both Japan and around the world.

and nationally determined contributions (NDCs); the transparency framework; and the Global Stocktake) and the importance of linkages among the elements, and made a policy recommendation. In addition, based on the necessity for capacity building in all countries to translate targets into action when

implementing the Paris Agreement, IGES launched the Coalition on Paris Agreement Capacity Building in cooperation with climate experts in April 2016.



IGES side event at COP22

IGES side event at UNFCCC subsidiary bodies



COP22 reporting seminar



#### **Climate Finance and Market Mechanisms**

IGES conducted an analysis of the function and role of climate financing in the effective promotion of climate change measures in developing countries, and reviewed the latest trends in climate finance including contributions to the Green Climate Fund (GCF). Further, IGES provided technical expertise for institutional design of market mechanisms in developing countries in Asia aimed at effective greenhouse gas (GHG) emissions reductions. IGES prepared rulebooks and databases on market mechanisms, developed tools and a guidebook for calculation and verification of GHG emissions reductions, and implemented policy research on market mechanisms. These findings were provided to a wide range of stakeholders in the Asia-Pacific region. For the Joint Crediting Mechanism (JCM) which appropriately evaluates contributions to GHG emission reductions or removals from Japan in a quantitative manner, and uses them to achieve Japan's emission reduction target, IGES contributed to the implementation of monitoring, reporting and verification (MRV) of actual JCM projects, and launched a matchmaking platform on the IGES website targeting companies in Japan and JCM partner countries.

> JCM workshops above: Bangladesh below: Indonesia

## Contribution to actual emission reductions through the JCM

IGES, by utilising its technical expertise, contributed to implementation of actual JCM projects, and eleven MRV methodologies developed with the support of IGES, were officially approved by governments of Japan and JCM partner countries. Furthermore, IGES contributed to the official registration of twelve JCM projects and issuance of JCM credits from eight projects.





### **Selected Publications**

- Issue Brief "Assessing the Emission Impacts of Current Plans for Constructing and Retrofitting Thermal Power Plants in Japan: A Study on the Effectiveness of the Policy Mix in the Electricity Sector on Mid- and Long-term CO<sub>2</sub> Emissions"
- Working Papers
  - "Analysis of Financial Components of Intended Nationally Determined Contributions (INDCs) -Lessons for future NDCs"
  - "Empowering the Ratchet-up Mechanism under the Paris Agreement"
- "The Rise of Carbon Taxation in France: From Environmental Protection to Low-Carbon Transition"
- Discussion Papers
  - "Operationalizing the Paris Agreement Article 6 through the Joint Crediting Mechanism (JCM)"
  - "Can We Expect a Transformative Shift in International Capacity Building after Paris? Observations from Party Submissions"
- "IGES Climate Policy and Market Mechanism Status Report"
- "Reactions to the US decision to withdraw from the Paris Agreement"
- "New Market Mechanisms in CHARTS"
- "JCM in CHARTS" (for Viet Nam, Indonesia, Mongolia and Bangladesh)

7

# Research Highlights Sustainable Consumption and Production Area

# **Outline of Research in the Sixth Phase**

IGES conducted policy analysis from the perspective of sustainable consumption and production (SCP) including environmentally-sound waste management in cities, formation of effective recycling systems with a view of Asia as a whole, and improvement in resource productivity. Likewise, IGES made policy recommendations to stimulate lifestyle changes.

### **Major Activities in FY2016**

**Implementation and Promotion of Policy on SCP** IGES carried out research activities on effective approaches to encourage transitions to sustainable consumption and production (SCP) patterns and lifestyles. In addition to providing support in cooperation with the Ministry of the Environment for the Sustainable Lifestyles and Education Programme, part of the United Nations 10 Year Framework Programmes on Sustainable Consumption and Production, IGES worked on overall administration of the programme and various projects at the global, regional and national levels as a member of the Multi-Stakeholder Advisory Committee. In May 2016, the "Asia Pacific SCP Roadmap 2017-2018", a recommendation on promoting SCP in Asia drafted with cooperation from IGES, was adopted by the Asia Pacific Roundtable on SCP (APRSCP). From FY2016, IGES was involved in a variety of research activities and policy processes, including enhancement of collaborations with related institutions and networks in Japan and overseas and the initiation of a research project on "Policy Shift towards Sufficiency Approach To Achieve Needs Sufficiency under Resource and Environmental Constraints in Asia" (Theme Leading Organisation of Theme 3 of S-16 of Environment Research and Technology Development Fund).



10 Year Framework Copenhagen workshop

### Implementation and Promotion of Policy on the 3Rs

Policy formation on resource circulation and integrated waste management is gradually moving forward in the Asia-Pacific region, and improvements in policy implementation have become an urgent issue. IGES implemented research activities focusing on development of policy indicators and assessment tools suited to the needs of developing countries, relevance to 3R (reduce, reuse and recycle) policy, and linkages between climate change and improved waste management. IGES disseminated research outcomes in an effective and timely manner via active participation in international partnerships, including the Regional 3R Forum in Asia and the



Site visit at Da Nang, Viet Nam



Presenting the outcome of research at ISAP2016

#### Activities of the IGES Centre Collaborating with UNEP on Environmental Technologies

The Centre provided support for the UNEP International Environmental Technology Centre (IETC) and implemented activities on improved waste management in developing countries based on co-benefits between the climate issue and improved waste management. Specifically, IGES has applied its expertise toward supporting the development and implementation of waste management strategies at the national and city levels in Myanmar and Cambodia, and launched a new project in the Maldives. IGES released a policy report entitled, "Waste Management in Myanmar: Current Status, Key Challenges and Recommendations for National and City Waste Management Strategies", based on the outcomes of activities in Myanmar.



### **Selected Publications**

- "A Framework For Shaping Sustainable Lifestyles: Determinants and Strategies" (UNEP)
- "Extended Producer Responsibility: Updated Guidance for Efficient Waste Management" (OECD)
- Policy Report "Waste Management in Myanmar: Current Status, Key Challenges and Recommendations for National and City Waste Management Strategies"

- "International Policy Trends of Resource Efficiency/ Circular Economy – Focusing on the Policy Development of Europe" (Journal of Life Cycle Assessment)
- "Special Issue on Absolute Reductions in Material Throughput, Energy Use and Emissions" (Journal of Cleaner Production)
- "Socio-economic and Environmental Attributes of Waste Electrical and Electronic Equipment (WEEE) Recycling in Asia" (Matter: International Journal of Science and Technology)

Pacific, and the Climate and Clean Air Coalition. Likewise, IGES contributed to the revision of the policy guidance on Extended Producer Responsibility (EPR) of the Organisation for Economic Co-operation and Development (OECD) and was engaged in dissemination domestically through publication of a Japanese abridged version of the revised guidance. Additionally, IGES contributed to the mainstreaming of the resource efficiency agenda by following up the process of the UNEP International Resource Panel, and contributing issue preparation on resource efficiency to the G7 Environment Ministers' Meeting held in Toyama in May 2016. Likewise, IGES was actively involved in the G7 Alliance on Resource Efficiency, a forum for sharing best practices in resource efficiency carried out by a variety of stakeholders.



Workshop under the G7 Alliance

# Research Highlights Natural Resources and Ecosystem Services Area

### **Outline of Research in the Sixth Phase**

IGES conducted problem-solving research activities on integrated natural resource management to promote the conservation and sustainable use of natural resources in the Asia-Pacific region, focusing on forest conservation, climate change adaptation, water resources management and biodiversity conservation.

### **Major Activities in FY2016**

#### **Resilient Livelihoods**

With the broader aim on building resilient livelihoods, especially in areas with important ecosystem values and services, research was conducted on landscape and nexus approaches that can help with realising synergies and minimising trade-offs across sectors such as forestry, agriculture, energy and mining. In a research project on the contribution of satellite Earth observations to environmental management, IGES carried out research on how developing countries are using satellite imagery to develop reference emissions levels for REDD+. The research results were reported in a publication entitled, "Satellite Earth Observations and Their Impact on Society and Policy" (Springer).

#### **Forest Conservation**

REDD+, recognised within the Paris Agreement as an important instrument for combating climate change, has been included in the scope of activities for Japan's Joint Crediting Mechanism (JCM). IGES contributed to the development of guidelines for carbon accounting methodologies, safeguards and project design for REDD+ projects under the JCM.



Workshop on Indonesian forest management policy

IGES also carried out surveys in eight JCM partner countries and published the survey results on the readiness of the REDD+ programme in Indonesia. With the aim to promote legal and sustainable timber trade, a questionnaire survey on legal timber procurement targeting 5,000 domestic suppliers was conducted. Additionally, IGES conducted projects in Papua New Guinea, Lao PDR and Indonesia to promote locally-based forestry and strengthen forest management under the international NGO partnership, Responsible Asia Forestry and Trade (RAFT).

#### **Climate Change Adaptation**

IGES implemented a pilot project on land use for reducing climate change-induced flood risk in the Silang-Santa Rosa Sub-Watershed in the Philippines. Knowledge gained from the project was incorporated into the Santa Rosa local climate change action plan. IGES also conducted research activities on the possible links between climate change and state stability in Japan and other parts of Asia together with the German research institute, adelphi. Research results were released in a series of discussion papers and open seminars. IGES also conducted research on risk insurance, financial inclusion, climate changeinduced loss and damages, and approaches to integrate disaster risk reduction and adaptation. IGES shared the findings with and provided support to strengthen international networks such as the Asia Pacific Adaptation Network, the International Research Network for Low Carbon Societies and the International Centre for Integrated Mountain Development.



Open session on climate fragility (ISAP2016)

#### Water Resource Management

Focusing on sustainable wastewater management, which is a high priority issue for Asian countries, IGES explored options for the treatment of wastewater, reuse of the treated water, and recovery of materials. IGES serves as the Secretariat for the Water Environment Partnership in Asia (WEPA) through which policymakers from 13 Asian countries seek to generate and share knowledge to improve water resource management. Research results were widely disseminated via WEPA. Under WEPA, IGES conducted a study on piggery wastewater management in Viet Nam and shared the results with the government and other WEPA countries. IGES also implemented an APN project on research into the water-food-energy nexus. Under another project, in collaboration with project partners such as the Tokyo Institute of Technology progress was made towards creating an environmental conservation platform for Tonle Sap Lake in Cambodia.

#### **Biodiversity**

Through its engagement in the International Partnership for the Satoyama Initiative (IPSI) IGES contributed to the implementation of activities to enhance the sustainability and resilience of socioecological production landscapes and seascapes (SEPLS). IGES served as one of the IPSI Steering Committee members, contributed to the publication of the second thematic review of case studies on SEPLS and launched six short-term seed funding projects in SEPLS under the Satoyama Development Mechanism (SDM). Further, under the four-year GEF (Global Environment Facility) - Satoyama Project, IGES designed and began conducting a study on the values, traditional knowledge and governance of SEPLS with high biodiversity conservation value by reviewing 10 medium-scale projects funded under the project. As part of this project, IGES conducted training on resilience indicators. IGES also implemented a wide array of research and impact generation activities associated with the work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and to promote science-policy interfaces, ecosystem-based disaster risk reduction and business engagement in biodiversity conservation.



Training on resilience indicators (Thailand)

### **Selected Publications**

- Policy Brief
  - "Promoting the Landscape Approach in Asia-Pacific Developing Countries: Key Concepts and Ways Forward"
  - "SDGs, DRR and CCA: Potential for Strengthening Inter-linkages"
  - "Improving Irrigation Water Use Efficiency Holds the Key to Tackling Water Scarcity in South Asia: Technical Potential and Financing Options"
- Policy Report "Legality Risks and Risk Mitigation: A Guide for Buyers of Papua New Guinean Export Timber"

- Research Report
  - "Priority Practices for Addressing Noneconomic Loss and Damage Caused by Typhoons in Japan: Case Study of Nachikatsuura Town"
  - "Satoyama Initative Thematic Review. Vol. 2. Mainstreaming Concepts and Approaches of Socio-ecological Production Landscapes and Seascapes into Policy and Decision-making"
- Report "Indonesia REDD+ Readiness: State of Play March 2017"
- Working Paper "Groundwater WASH Nexus in Asian Cities: Hanoi, Kathmandu, Khulna"
- Book Chapter "Quantitative Assessment of the Earth Observation Data and Methods Used to Generate Reference Emission Levels for REDD+"
- "Climate Security in Japan Discussion Paper Series" (IGES/adelphi)
- Briefing Note "UNFCCC COP REDD+ Negotiations"
- Peer-reviewed Journal Article "Employing Crowdsourced Geographic Data and Multitemporal/multi-sensor Satellite Imagery to Monitor Land Cover Change: A Case Study in an Urbanizing Region of the Philippines"
- IPBES-JBF Sub-regional Dialogue Workshop Report on Indigenous and Local Knowledge (ILK) for South-East and North-East Asia Sub-region, Thailand
- Japanese Summary of the Summary for Policymakers for the IPBES Assessment Report on Pollinators, Pollination and Food Production

# Research Highlights Green Economy Area

### **Outline of Research in the Sixth Phase**

Transition to a green and inclusive economy requires developing countries to take up a green growth pathway which enables the creation of green jobs, the greening of investments made by the public and private sectors, adopting low-carbon and resourceefficient technologies and conserving natural capital while at the same time improving human well-being and eliminating poverty. IGES provided knowledge and analytical tools on the assessment of lowcarbon and green economy policies.

### **Major Activities in FY2016**

#### **Transition to a Green Economy**

To support policymaking at the national and sectoral levels on the transition to a green economy, IGES provided quantitative impact assessment on



Global Green Growth Week 2016

green economy policy and contributed to relevant policy processes of the United Nations Environment Programme (UNEP), under the Partnership for Action on Green Economy (PAGE). IGES is engaged in the International Labour Organization (ILO)'s Green Jobs project and contributed to the policy formulation in Indonesia by carrying out a labor market impact assessment for Indonesia's Nationally Determined Contributions (NDC). Under a Global Green Growth Institute (GGGI) project, IGES contributed to the development of outcome-level indicators to measure the progress of Mongolia's National Green Development Policy. A total of 43 indicators are proposed to the government of Mongolia for final adoption.

#### Research and Development on Quantitative Methodologies and Tools

IGES developed the SDG Interlinkages and Data Visualisation Web Tool (Version 1.0) as a practical tool supporting SDG integration and policy coherence. 17 SDGs and 169 targets inherently connect with each other forming an indivisible network from a systemic perspective. Understanding the interlinkages between SDG targets is an essential prerequisite for practising policy integration which helps minimise conflicts, avoid trade-offs and seek synergies between SDGs and among their targets. The web tool, available online for free allows the users to visualise the interlinkages between SDG targets, explore and download indicator-level data for nine Asian countries (Bangladesh, Cambodia, China, India, Indonesia, Japan, Korea, the Philippines and Viet Nam), and compare performance over time.



Launch of the Global Calculator in Japanese



SDG Interlinkages and Data Visualisation Web Tool (Version 1.0)

#### **Business Initiatives towards a Green Economy**

Focusing on the role of business in the introduction of ambitious climate change policies, IGES in cooperation with a network of leading businesses for which IGES serves as secretariat, actively made proposals and carried out related activities from a business standpoint on policies that contribute to the realisation of a green economy. IGES demonstrated the importance of the climate change issue through dialogues with decision-makers and release of policy recommendations and statements in key situations such as COP22 and the United States' declaration of withdrawal from the Paris Agreement, and received coverage in a number of media. The works have expanded activities linked to international actions, including forming a partnership with The Climate Group, an international non-profit organisation that organises international business initiatives to facilitate renewable energies, energy efficiency and electro-mobility.



Pre-meeting for COP22

### Knowledge Platform for the Realisation of Low-Carbon Societies

IGES hosts the secretariats of two research networks, the International Research Network for Low Carbon Societies (LCS-RNet) and the Low Carbon Asia Research Network (LoCARNet), as open networks of researchers and research organisations facilitating the formulation and implementation of science-based policies for low-carbon societies and low-carbon development. LCS-RNet, composed of 16 research institutes from seven countries, has been promoting policy dialogues between research communities and policymakers as well as knowledge-sharing towards realising low-carbon societies. In FY2016, LCS-RNet launched new initiative - Japan-France and Japan-Germany bilateral partnership projects on long-term scenarios and long-term strategies. Meanwhile, LoCARNet has facilitated policy dialogues, knowledge-sharing and capacity development towards the development and strengthening of research communities in Asia.

LCS-RNet annual meeting © Wuppertal Institute







Meeting on collaboration between Japan and France on long-term climate strategies

### **Selected Publications**

- SDG Interlinkages and Data Visualisation Web Tool (Version 1.0) (accessible at https://sdginterlinkages.iges.jp/)
- Research Report "Sustainable Development Goals Interlinkages and Network Analysis: A Practical Tool for SDG Integration and Policy Coherence"
- Working Paper "Review of the SDG Index and Dashboards: An Example of Japan's Global Ranking Results"
- "Project Report on the Assessment of the Labour Market Implications of Indonesia's Nationally Determined Contributions" (International Labour Organization)
- "Indicators for Mongolian National Green Development Policy: Review and Proposal" (Global Green Growth Institute)
- "Post Paris Agreement Progress Report of the International Research Network for Low Carbon Societies (LCS-RNet)"
- "Carrying out the Paris Agreement: Role of Research Communities in Supporting Scientific Climate Policy" (Journal of Renewable and Sustainable Energy)

# Research Highlights Integrated Policies for Sustainable Societies Area

# Outline of Research in the Sixth Phase

IGES worked to promote the transition to sustainable societies through socially inclusive processes by conducting strategic policy research on the Sustainable Development Goals (SDGs); inter-city cooperation for low carbon development; and the co-benefits of integrated climate change and development policies. IGES provided timely analytical inputs and recommendations to policymakers based on research outcomes involving each of the above themes.

### **Major Activities in FY2016**

#### Sustainable Development Goals (SDGs)

IGES has analysed the progress and challenges on the SDGs in Asia and advanced research on measures to facilitate SDG implementation. At the International Forum for Sustainable Asia and the Pacific (ISAP) in July 2016, IGES released a series of papers on the "readiness conditions" for implementing the SDGs at the national level in four Asian countries (Bhutan, India, the Philippines and South Korea), and underlined the roles played by different actors and agencies in implementation. Further, focusing on the role of business in SDG implementation, IGES held an open meeting to introduce examples of leading

#### **Innovative SDG Initiatives in Asia**

At ISAP held by IGES in July 2016, discussions took place on SDG initiatives in Asian countries. An overview of the present state of affairs was given based on research outcomes presented by IGES on the states of implementation at the national level, and the need for fundamental transformation of socioeconomic systems and the cooperation of diverse stakeholders in the promotion of SDGs was emphasised. Further, the view that simple technologies born out of grassroots initiatives are in most cases effective in achieving SDGs, with South-South cooperation as a key word, was pointed out.



initiatives in SDGs from Japanese companies. On the same theme, IGES published a report entitled, "SDGs and Business in Practice: Early Actions by Japanese Private Companies", that highlighted good practices and challenges to mainstreaming the SDGs into core business practices based on questionnaires and interviews with Japanese companies. In addition, IGES contributed to furthering understanding the SDGs through a capacity building programme targeting staff of overseas offices of the Japan International Cooperation Agency (JICA) in Asia.

#### **City Support for Low Carbon Development**

IGES worked with policymakers in the cities of Bandung and Semarang, Indonesia to implement activities focused on achieving co-benefits (the benefits from simultaneously mitigating air pollution and reducing greenhouse gas (GHG) emissions) in the transport sector. A capacity development training on "eco-driving" (an economical, environmentally friendly and safe method of driving) was held in October 2016 in Bandung as part of the Indonesian government's Green Transportation programme. Additionally, IGES conducted a joint study in Bogor on climate change and energy policy with the National Institute for Environmental Studies (NIES) and the Bogor Agricultural University. Focus group discussions were held with diverse stakeholders to discuss priority issues for the city's sustainable low carbon development, such as a bus rapid transit system and environmentally sound buildings, and challenges to policy implementation were identified.



Workshop in Semarang, Indonesia

#### **Co-benefits Approach in Asia**

Based on cooperation with international networks and partner organisations such as the Asia Pacific Clean Air Partnership (APCAP) and the Climate and Clean Air Coalition (CCAC) to reduce shortlived climate pollutants (SLCPs), IGES carried out research activities to encourage policymakers to integrate climate change measures and development objectives. Responding to a request from the United Nations Environment Programme Regional Office for Asia and the Pacific (UNEP ROAP), IGES serves as the coordinating lead author of an assessment report on air pollution in Asia, which will be published in 2018. Likewise, IGES participated in a research project of the Asian Development Bank (ADB) that is helping to bring co-benefits in the form of new jobs, cleaner air, and sustainable fuels to women in Cambodia, Lao



Capacity development training on "eco-driving"

PDR and Viet Nam. E-learning video materials were released on the topic of initiatives to mainstream the gender perspective into the implementation of policy and measures to mitigate climate change, and practical guideline for policymakers were published.



New E-learning video on climate and gender

### **Selected Publications**

- Policy Brief "Strengthening the Linkages Between Air Pollution and the Sustainable Development Goals"
- Discussion Paper Series "Starting Strong on the SDGs in Asia" (Readiness in Bhutan, the Philippines, South Korea, and India)
- Discussion Paper "Taking Action on the Sustainable Development Goals"
- Issue Brief "Follow-up and Review of the Sustainable Development Goals: Building on, and Breaking with, the Past"
- Policy Guidelines "Mainstreaming Gender into Climate Mitigation Activities" (Asian Development Bank)
- "SDGs and Business in Practice: Early Actions by Japanese Private Companies"



2016 Annual Report 15

## **Research Activity Facilities & Units**

### Activities at IGES Satellite Offices

#### • Kansai Research Centre

The Kansai Research Centre (KRC) carries out research focused on actions taken by the private sector, in particular businesses that promote environmental and energy conservation measures, under the theme of "Business and the Environment". Specifically, KRC contributes to actual reduction in greenhouse gas (GHG) emissions in developing countries by promoting the transfer and diffusion of low-carbon technologies (LCTs). KRC also conducts policy analysis on corporate carbon performance in cooperation with case study countries and local governments in Asia.

### International Transfer and Dissemination of Low-Carbon Technologies

In FY2016, KRC secured large-sized contracts from the Ministry of the Environment of Japan as a continuation of the technology assessment (TA) project conducted in FY2015. Under the TA project, KRC's research/area focus was substantially expanded to include countries in Asia, East and Central Europe, Small Island Developing States (SIDS), etc. which was an opportunity for KRC to extend its collaboration with other Areas, within IGES, and with leading regional and international organisations such as the Asian Institute of Technology (AIT), the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS), the Regional Environmental Center for Central and Eastern Europe (REC), the International Renewable Energy Agency (IRENA), etc. For instance, the following achievements in FY2016 could be reported:



Workshop on international transfer of LCTs in Thailand



IRENA training programme (site visit in Hyogo)

- Successful engagement of, and matchmaking among, relevant stakeholders from Japan and overseas, in IGES' activities in Fiji, Hungary, India, Japan, Poland, Thailand and Viet Nam;
- A Japan-India technology matchmaking platform, named JITMAP, was initiated by IGES and TERI to promote mutually beneficial engagement between Japanese and Indian stakeholders in clean energy;
- The capacities of around 30 experts from India, 24 Government Officials from Asia, and 12 Government Official from SIDS were enhanced through three training programmes;
- Feasibility studies were carried at eight Indian companies, two Thai companies and three Vietnamese companies. Those feasibility studies were coupled with four awareness workshops;



Site visit in India

 KRC's researchers have been invited to share their experiences/outputs at high level events in Japan and overseas (Korea, Germany, Denmark, etc.).

#### Policies toward the Diffusion of Low-Carbon Technologies

Using the Hyogo Grant, KRC carried out research on business initiatives and policy measures, particularly economic approaches (e.g. carbon taxing, emissions trading schemes), designed to promote the innovation and diffusion of low-carbon technologies. Analysis was carried out at the industrial sector level (e.g. China's cement sector and Korea's petrochemical sector) to clarify diffusion trends in each industrial sector, mitigation effects and the policy frameworks required. The results of that research were reflected in various publications and high quality journals, as well as at outreach presentations at various conferences in Japan and overseas.

#### **Selected Publications**

- Policy Brief "Carbon Pricing to Accelerate the Diffusion of Low Carbon Technology in China"
- Discussion Paper "Considering Stakeholders' Matchmaking as Innovative Business Models to Promote Low Carbon Technology Transfer"
- "A Survey on Impediments to Implementing in Low Carbon Technologies of the Petrochemical Industry in Korea" (Journal of Cleaner Production)
- Commissioned Report "Technology Assessment Project for CO<sub>2</sub> Emission Reduction in Overseas in FY 2016"

#### **O** Kitakyushu Urban Centre

The IGES Kitakyushu Office was established in 1999 and has carried out a range of activities, including primarily the Kitakyushu Initiative for a Clean Environment in cooperation with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and City of Kitakyushu. In 2010, the office was renamed as the Kitakyushu Urban Centre (KUC) and currently conducts research to promote local governmental initiatives to realise sustainable cities.

#### Policy Research on the Formation of Low Carbon Resilient Cities

As a pre-event to the G7 Kitakyushu Energy Ministerial Meeting held in Kitakyushu in May 2016, KUC supported a symposium on local energy production. KUC also released an issue brief targeted at the Ministerial Meeting on the significance of establishment of local energy companies and key points for new market entries, entitled "Involvement of the Local Government in the Local Production for Local Consumption of Energy: Case Consideration of Local Energy Companies, including the City of Kitakyushu". Furthermore, capacity building on transitioning to low-carbon utilising the Joint Crediting Mechanism (JCM) was advanced based on city-to-city partnerships in Asia. In January 2017, based on an example of an actual partnership, KUC co-organised an open seminar for opinion

exchange among local governments in Japan, Asian cities, companies and research institutes aimed at knowledge sharing.



Symposium on local energy production

### Action Research on Efficient Use of Local Resources

KUC supported integrated solid waste management at the national and local government level in Asian cities (Cebu, Philippines; Map Ta Phut Industrial Estate and Rayong, Thailand; Surabaya, Indonesia; Mandalay, Myanmar). This support from IGES led to actual policy formation. In Cebu, the Special Waste Management Bylaw received council approval (the first in the country), and in Myanmar, the Ministry of Natural Resources and Environmental

#### Waste Management Workshop Utilising City-to-city Collaboration

IGES held Japan-based training workshops in January 2017 in Kitakyushu and Fukuoka on the topic of waste management, a shared issue for all Asian cities. The workshop intertwined lectures, site visits and discussions to build understanding. Participants from six Asian countries created and presented waste management action plans arranged to suit the respective contexts of their cities and countries.



Conservation (MONREC) and the Mandalay City Development Committee (MCDC) developed waste management strategies and action plans at both the national and city level. Likewise, in line with bilateral cooperation with the Philippines on the 3Rs and environmentally sound treatment, support was given to the implementation of the Guidelines on Waste to Energy (WtE) Technologies for Municipal Solid Wastes formulated by the Philippines government.

#### **Collaboration with Partners in Kitakyushu**

KUC, together with the City of Kitakyushu and the Kitakyushu International Techno-Cooperative Association (KITA), is in charge of operations of the Kitakyushu Asian Center for Low Carbon Society. KUC engages in collaboration with universities, NGOs and private companies to disseminate initiatives on sustainable cities to cities in developing countries. Furthermore, as a part of city-to-city collaboration between Kitakyushu and Mandalay in Myanmar, KUC conducted environmental classes targeting primary school students in Mandalay city. Additionally, KUC has concentrated efforts on local environmental education, including active participation in various environmental events and lectures.



Environmental lesson in Mandalay, Myanmar

#### **Selected Publications**

- Policy Brief "Barriers for Implementation of the Philippine National Solid Waste Management Framework in Cities"
- Policy Report "Waste Management in Myanmar: Current Status, Key Challenges and Recommendations for National and City Waste Management Strategies"

#### • Regional Centre

IGES Regional Centre in Bangkok (BRC) is one of the overseas offices of IGES and has served as a hub for networks and partnerships in the Asia-Pacific region since its establishment in 2011. It focuses on four areas – climate change adaptation, mitigation,

environmental safeguards, and sustainable cities – and manages relevant networks for knowledge sharing, as well as implements relevant projects in close collaboration with various supporting organisations and national and sub-national governments.

#### **Climate Change Adaptation**

Serving as the Regional Hub for the Asia Pacific Adaptation Network (APAN), a part of the Global Adaptation Network (GAN), BRC disseminates information to facilitate the formulation and implementation of adaptation plans by national governments. BRC has also been operating the knowledge management component of the US Agency for International Development (USAID) five-year "Climate Change Adaptation Project Preparation Facility for Asia and the Pacific" project. In collaboration with APAN, BRC has supported the "APAN Exchange Series on Adaptation," designed to encourage opinion exchanges via email among government officials of countries in the region, and has advanced initiatives in capacity development on adaptation. Additionally, in cooperation with the Regional Resource Centre for Asia and the Pacific (RRC.AP), BRC has supported the "Climate Change Asia" capacity development programme that promotes the creation of a low-carbon Asia, and has implemented practical trainings targeting government officials. Likewise, from FY2016, BRC undertook a JICA-funded research project on integration of disaster risk reduction and climate change adaptation in the Association of Southeast Asian Nations (ASEAN).

#### **Climate Change Mitigation**

With the United Nations Framework Convention on Climate Change (UNFCCC) Regional Collaboration Centre set up within the Bangkok Regional Centre, IGES supports formulation of climate policy in each country, such as creation of carbon trading schemes including the Clean Development Mechanism and preparation of Intended Nationally Determined Contributions (INDCs). BRC also provided support for the development of standardised baselines for the grid emissions factors in Mongolia and the Philippines, and implemented low-carbon technology assessment projects in Thailand and Viet Nam.

#### **Environmental Safeguards**

The BRC serves as the secretariat for the Asian Environmental Compliance and Enforcement Network (AECEN) that promotes effective compliance and enforcement with regards to environmental laws and regulations in Asia. The BRC has provided the most up-to-date information on environmental impact assessment (EIA) in Asian countries through renewal of the AECEN website. BRC also conducts capacity development for practitioners related to EIA, holding regional technical working group meetings on EIA on four occasions annually, targeting five countries in the Lower Mekong Sub-region. Likewise, BRC supports the formulation of regional guidelines for promoting public participation in EIA. Additionally, preparations for the establishment of a new regional network under AECEN, the Asian Environmental Impact Assessment Network (AEIAN), were advanced.



Multi-stakeholder model cities team building

#### **Sustainable Cities**

The Eighth High Level Seminar on Environmentally Sustainable Cities (ESC) was held in February 2017 in Chiang Rai, Thailand. As the secretariat, BRC developed the programme and managed the event. Linked to this seminar, initiatives toward achievement of the respective environmental targets of 40 cities in eight countries are underway within the ASEAN ESC Model Cities Programme implemented by BRC. In addition to the conventional areas of waste management, water sanitation and air pollution, new issues such as green energy, environmentally sound tourism and city resilience have been incorporated. Each city will evaluate its environmental performance with local indicators associated with the Sustainable Development Goals (SDGs) and share knowledge with other cities through mutual learning facilitated by the programme.



ESC High Level Seminar

# Beijing Office <IGES Sino-Japan Cooperation</li> Project Office>

The Beijing Office was set up within the Sino-Japan Friendship Center for Environmental Protection of the Ministry of Environmental Protection of China in 2006 as a base to facilitate the implementation of research activities in China. The office conducts a variety of studies and research activities based on bilateral cooperation with China, as well as multilateral cooperation (including international organisations).

### Research Activities in the Area of Water Environment

The Beijing Office participated in a Japan International Cooperation Agency (JICA) project on rural wastewater treatment technology system and the creation of management systems. In cooperation with other joint implementing organisations, a draft policy recommendation was compiled on rural wastewater treatment.

#### **Research Activities in the Area of Air Pollution**

As the overall coordination platform of the "Japan-China Inter-city Cooperation", a programme that engages in air pollution control measures in China based on central and local government cooperation between both countries, IGES promoted Japan-China cooperation by organising seminars, dispatching experts, holding training sessions in Japan, and implementing joint researches and model projects. Especially, a model project was launched between Fukuoka Prefecture and Jiangsu Province, aiming at emission reduction of air pollutants (such as VOCs) and  $CO_2$  from textile dyeing factories and at the same time improving productivity of the factories (co-benefit approach).



Japan-China Inter-city Cooperation Seminar on air pollution control (October 2016, Kitakyushu)

About 150 people participated in the seminar from central and local governments of Japan and China involved in the framework "Japan-China Inter-city Cooperation," and from research institutes and private companies.



IGES invited representatives of the Sino-Japan Friendship Center for Environmental Protection and held consultations with relevant Japanese agencies. (October 2016, Tokyo)

### **Activities at Other Facilities**

#### • IPCC TFI Technical Support Unit (TSU)

Established within IGES in 1999, TSU supports the activities of the Intergovernmental Panel on Climate Change (IPCC) Task Force on National Greenhouse Gas Inventories (TFI). The TFI develops and promotes the IPCC Guidelines and relevant tools for the estimation and reporting of national greenhouse gas emissions and removals. The TFI is overseen by a Task Force Bureau (TFB).

On the basis of the decision of the IPCC at its 43rd session on 11-13 April 2016 in Nairobi, Kenya, and following four Expert Meetings for Technical Assessment of IPCC Inventory Guidelines organised by TSU (two of which were in FY2015 and two were, back-to-back, in April 2016 in Wollongong, Australia), TSU held a Scoping Meeting to prepare an outline of the Methodology Report to refine the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines). It took place in Minsk, Belarus, from 29 to 31 August 2016. The conclusions of this Scoping Meeting were agreed by the TFB, and submitted to the IPCC for consideration at its 44th Session on 17-20 October 2016 in Bangkok, Thailand.

At this session, IPCC decided to prepare a Methodology Report with the title "2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories" (2019 Refinement). Its main goal is to provide an updated and sound scientific basis for supporting the preparation and continuous improvement of national GHG inventories. It will have the same structure as the 2006 IPCC Guidelines, and will be used in conjunction with the 2006 IPCC Guidelines. It will be completed in May 2019.

Following this decision, the TFB started selection of authors for the 2019 Refinement, and the TSU assisted TFB in this process. Among 328 nominations received from national focal points and IPCC observer organisations, 190 experts were selected in accordance with the Principles Governing IPCC Work.

The TSU organised the first Lead Author Meeting for the preparation of 2019 Refinement, in Bilbao, Spain, on 7-9 and 12-14 June 2017. It also organised the Meeting of Coordinating Lead Authors (CLAs) and Steering Group members for 2019 Refinement, in Busturia, Spain, on 10 June 2017. At these meetings, the authors started their work to draft the 2019 Refinement. The TSU will assist them throughout this project which will continue until May 2019.



One of the breakout groups at the first Lead Author Meeting in Bilbao

The TSU also continued its other activities supporting users of the IPCC Guidelines through distribution and promotion of the 2006 IPCC Guidelines and related materials including the IPCC Emission Factor Database (EFDB) and the IPCC Inventory Software. Work on improving the EFDB continued with expert meetings for data collection and a meeting of the editorial board. Work on improving the IPCC Inventory Software also continued by rectifying bugs and inclusion of worksheets to implement Tier 2 methods for some categories under Energy, Industrial Processes and Product Use, Waste Sectors.



Participants of waste breakout group at Emission Factor Database Meeting in Bali

Besides the meetings related to the work on 2019 Refinement mentioned above, the TSU organised the following meetings in FY2016:

- 28th Meeting of the TFB, Minsk, Belarus, 1-2 September 2016
- 14th Editorial Board Meeting for the IPCC Emission Factor Database, Bali, Indonesia, 13-16 December 2016
- 13th Meeting on Data for the IPCC Emission Factor Database (Agriculture, Forestry and Other Land Use Sector), Bali, Indonesia, 14-15 December 2016
- 14th Meeting on Data for the IPCC Emission Factor Database (Waste Sector), Bali, Indonesia, 14-15 December 2016
- IPCC Expert Meeting to collect EFDB and Software users' feedback, Kitakyushu, Japan,14-17 March 2017



Participants of the IPCC Expert Meeting in Kitakyushu

The TSU contributed its support to inventory-related capacity building programmes implemented by the United Nations Framework Convention on Climate Change (UNFCCC) by providing technical expertise and inventory-related materials developed by the IPCC TFI, at three regional workshops (for the Latin American and Caribbean region in June 2016, for the Asia-Pacific and the Eastern European region in September 2016, and for the Africa region in April 2017).

In addition, the TSU contributed to other international meetings related to GHG emissions/removals by providing presentations and serving as keynote speaker, such as:

- Expert Forum for Producers and Users of Climate Change-related Statistics organised by the UNECE Steering Group on Climate Change-Related Statistics
- Workshop on GHG Inventories in Asia (WGIA)
- Joint meeting of EIONET and UNECE Task Force on Emission Inventories and Projections
- Meetings of Global Forest Observation Initiative

#### • Asia-Pacific Network for Global Change Research (APN)

The APN is an inter-governmental network whose mission is to foster global change research in the Asia-Pacific region, increase the participation of developing countries in that research and to strengthen interactions between the scientific community and decision-makers. In April 2004, the APN Secretariat came under the administrative umbrella of IGES, although the Inter-Governmental Meeting (IGM) of APN remains as the policy and decision-making body. The 22nd IGM was held in April 2017, in Delhi, India.

In FY2016, APN supported research projects on global change research and capacity building activities through the core programmes of APN, "Annual Regional Call for Research Proposals (ARCP)" and "Scientific Capacity Building and Enhancement for Sustainable Development in Developing Countries (CAPaBLE)". Additionally, APN continued to support research projects and capacity development activities under its "Climate Adaptation Framework" and "Low-carbon Initiative Framework". Responding to the Paris Agreement, and in order to address the technology transfer needs of APN developing country members, APN held a Scoping Workshop on Technology Transfer in Kobe, Japan, and discussed the establishment of a new framework for this important topic. As to activities contracted by the Waste Management and Recycling Department of the Ministry of the Environment Japan, APN as an implementing organisation, held the "2nd International Workshop on Waste Management and the 3Rs" in Delhi, India, with the participation of policymakers and scientists from South Asian countries as well as Japanese companies working in the area of waste management and recycling.



Scoping Workshop on Technology Transfer in Kobe



Second International Workshop on Waste Management and the 3Rs

#### • Japanese Center for International Studies in Ecology (JISE)

JISE primarily carries out field surveys and practical research to restore and reconstruct ecosystems and biodiversity from local to global levels aiming to realise societies based on sustainable development from the perspective of plant ecology. JISE also promotes projects, including trainings and information collection and provision on forests, nature regeneration and ecology.

In FY2016, on the international research front, JISE conducted practical research aimed at the regeneration of tropical forests. Vegetation surveys and tree-planting were carried out and guidance provided on these activities in Malaysia, Kenya, Cambodia and Lao PDR. Likewise, research on plant communities to ascertain potential natural vegetation in the monsoon forest of eastern Thailand was advanced as fundamental research on tropical forests.



Planting site in Kenya

On the domestic front, JISE engaged in research contributing to the preservation of biodiversity from the standpoint of ecology. An analysis of the causes of invasion of non-native species in rivers as viewed from the perspective of the catchment environment was carried out. A survey was conducted on the growth of the "Great Forest Seawall," that was planted aiming to prevent disasters like the Great East Japan Earthquake of 2011, and surveys and research were conducted on potential natural vegetation to put in place a disaster prevention maritime forest in the Tokai and Kinki regions where large earthquakes are forecasted. In an effort to improve Japan's plant classification system, surveys on rare plant communities were conducted and the classification system for evergreen broad-leaved forest was reorganised. Furthermore, surveys were conducted in Tochigi Prefecture on cool-temperate forest for forest regeneration on degraded land. The outcomes of the above domestic research projects were released targeting the research community at meetings of the Society of Vegetation Science in Osaka and the Ecological Society of Japan in Tokyo and in the "Eco-Habitat" bulletin. JISE also promoted release of information to the general public via newsletters and forums.

Based on collaborations with private companies, local governments and non-profit organisations, other activities advanced by JISE include making proposals and providing guidance on forest and nature regeneration across the country, including Akita, Miyagi, Nagano, Fukui, Shizuoka, Aichi and Hyogo Prefectures, as well as conducting the field surveys that form the bases for these efforts. Further, adaptive management was implemented through monitoring of forest and nature regeneration sites planted under the guidance of the Center.

As capacity development projects contributing to environmental protection, JISE carried out a series of lectures for the general public on the "Wisdom, Technology and Understanding to Protect and Develop Greenery". Likewise, JISE held outdoor environmental study programmes and ecological trainings (basic/applied level courses) to promote nature study and regeneration. The JISE Environmental Forum entitled, "Forest-building and Disaster Prevention: the function and expected role of forests", was held in June 2017, where indepth discussions took place on the present state of disaster prevention forests to address tsunami and fire risks, as well as their function and related issues. Additionally, JISE engaged in active international exchanges and public awareness campaigns, including organising tree-planting in Cambodia.



Survey on creation of maritime forest for tsunami disaster prevention (Wakayama Prefecture, September 2016)

### • Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Technical Support Unit for the Regional Assessment for Asia and the Pacific (TSU-AP)

IGES hosts the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Technical Support Unit for the Regional Assessment for Asia and the Pacific (IPBES-TSU-AP). IPBES is administered by the United Nations Environment Programme (UNEP). Of all functions of the IPBES Secretariat (Bonn, Germany), this TSU, set up within the IGES Tokyo Office in 2015, serves as a supporting institution in the drafting of the report on the IPBES Regional Assessment for Asia and the Pacific. Sub-regions of Northeast Asia, Southeast Asia, South Asia and West Asia, as well as Oceania are to be covered in this assessment. Aiming for assessment report adoption at the sixth session of the IPBES Plenary to be held in 2018, the TSU provides support for around 140 experts in the writing process, author meetings and preparation of the assessment report. In August 2016, the Second Author Meeting was held in Bonn, Germany, following participation by authors in regional assessments and land degradation and restoration (LDR) assessment. The Third Author Meeting was organised in July 2017 at the United Nations University (UNU) Headquarters (Aoyama, Tokyo). Funding for the TSU operations is provided by the UNEP Trust Fund, as well as contributions from the Ministry of the Environment of Japan. Further, the activities of the TSU are supported by entities including the National Institute for Environmental Studies (NIES) and UNU.

#### >> About IPBES

IPBES was established in April 2012 under the auspices of the United Nations Environment Programme (UNEP), United Nations Educational, Scientific and Cultural Organization (UNESCO), Food and Agriculture Organization (FAO) and United Nations Development Programme (UNDP), with the objective to strengthen the interface between science and policy related to biodiversity and ecosystem services. The four functions, scientific assessment, capacity building, knowledge generation and policy support, are the pillars of IPBES' effort to ascertain the status of biodiversity and ecosystem services, the drivers of change, and the impacts on human well-being. Due to its similarity to the IPCC in the field of climate change, IPBES is sometimes referred to as "biodiversity's equivalent to the IPCC." At present, regional assessments (under-mentioned), as well as land degradation and restoration (LDR) assessment and global assessment are underway.

#### >> Regional Assessment

The regional assessment is one of the deliverables of the 2014-2018 IPBES work programme, and is underway in four regions of the world (Asia Pacific, Africa, Americas, Europe and Central Asia). The regional assessments constitute a core deliverable for the fulfilment of the "scientific assessment" function, out of the four functions of IPBES. Outcomes are expected not only to assess the state of progress in meeting the Aichi Biodiversity Targets under the Convention on Biological Diversity, and SDGs, but also to contribute to policy-making at the regional level.



Second Author Meeting for the regional and LDR assessments (August 2016, Bonn, Germany)

#### >> Contributions by IGES

IGES's contributions to IPBES are not limited to hosting the TSU-AP. IGES has prepared and released an abridged translation in Japanese of the Summary for Policymakers for the "IPBES Assessment Report on Pollinators, Pollination and Food Production." Moreover, IGES has received support from the Japan Biodiversity Fund, managed by the Secretariat of the Convention on Biological Diversity, to implement the "JBF Capacity Building Project for the IPBES Asia-Pacific Regional Assessment." In FY2016, IGES has organised dialogue workshops on indigenous and local knowledge in Chiang Mai (Thailand), Whangarei (New Zealand), and Dhulikhel (Nepal), and the "Second Workshop on IPBES Scenarios and Models" at IGES Headquarters.

# **Strategic Operations**

### **Overview**

The Programme Management Office (PMO) plays a central role in carrying out strategic operations designed to promote strategic research and to bolster the impact generation of research outcomes. It develops the overall research strategy for IGES and coordinates internal research activities in an integrated manner. In this way, IGES carries out effective input into critical policy processes through each strategic operation function, including flagship research, all-IGES activities, knowledge management, capacity development and education, quality management of research outputs, networking and outreach.

#### **Flagship Research**

IGES conducts flagship research focusing on strategically important policy agendas in the Asia-Pacific region and involving all research areas. In FY2016, flagship research was advanced on the topics of governance and effective policy implementation, as well as a sustainable future scenario study.

#### **All-IGES Activities**

#### City Task Force

IGES disseminated results and recommendations from various research related to cities at major international forums including the United Nations Conference on Housing and Sustainable Urban Development (HABITAT) III and the 22nd Conference of the Parties to the UNFCCC. Further, IGES expanded cooperation with networks related to international organisations, local governments and cities, and strengthened support for initiatives and city-to-city partnerships on urban issues in developing countries. IGES co-organised a Parallel Session on the "Role of Cities" at the G7 Toyama Environment Ministers' Meeting in May 2016, where advanced city initiatives were introduced and indepth discussions took place on the importance of cooperation among diverse stakeholders.



Parallel Session at G7 Toyama Environment Ministers' Meeting



Presentation from City Task Force

#### Finance Task Force

IGES carried out research activities on the topic of policy to mobilise funds required for sustainable development from the private sector. Outcomes on the impacts from recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and enhanced integration of climate-related risks into the risk management and financial accounting of the banking sector were disseminated. Furthermore, IGES was accepted as a Supporting Institution of the United Nations Environment Programme Finance Initiative (UNEP FI) in February 2017, strengthening our collaborative relationship with UNEP FI.

#### **Knowledge Management**

IGES carried out improvements aimed at the management and utilisation of knowledge for IGES as a whole. IGES renewed its public database of IGES publications and research information, thereby significantly enhancing accessibility of data, userfriendliness and interoperability.

#### **Capacity Development and Education**

IGES developed a training programme targeting stakeholders in cooperation with the Japan International Cooperation Agency (JICA), the Thailand Greenhouse Gas Management Organization (TGO) and the Korea Environment Institute (KEI). Furthermore, E-learning materials were developed related to a joint project with the Asian Development Bank (ADB) on reflecting a gender perspective on climate policy and a preservation project on satoyama environments.



E-learning video on climate change policy and gender

#### **Quality Management of Research Outputs**

IGES implements the "clean production" method of quality management, starting from the planning stages throughout the entire research and writing process of publications. Additionally, IGES actively incorporates internal and external reviews from impartial and diverse perspectives, aiming to enhance the quality of IGES publications.

#### Networking

IGES advances cooperation with institutions and networks both in Japan and overseas engaged in research activities related to sustainable development, and disseminates research outcomes through collaboration with a variety of stakeholders. In FY2016, new partnerships were launched with the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Tokyo City University, the International Institute for Sustainable Development (IISD) and the UN Environment Programme Finance Initiative (UNEP FI).

# Information Dissemination and Outreach Activities

IGES disseminates research outcomes, publications, commentaries and policy recommendations in a timely manner and coordinated with international debate and policymaking processes through websites dedicated to cross-cutting research on climate change and SDGs, as well as the E-Newsletter (7,200 subscribers). Right after COP22, IGES promptly held a seminar in Tokyo, where IGES researchers, businesses and local government representatives that participated in COP22 reported on conference outcomes and future developments. IGES also strengthened information dissemination in the media and received wide coverage via a range of media outlets on IGES' knowledge, recommendations and commentary by researchers focusing on COP22 negotiations, climate policy trends in various countries and SDGs.



COP22 reporting seminar



Seminar for media on climate change issues

#### International Forum for Sustainable Asia and the Pacific (ISAP)



IGES organises ISAP once a year, where experts, businesses, governments, international organisations and NGO representatives working on urgent issues in the Asia-Pacific region gather under one roof to engage in opinion exchange. At ISAP2016 held in Yokohama in July, lively discussions took place on measures to effectively implement the outcomes of the 2030 Agenda for Sustainable Development, including Sustainable Development Goals (SDGs), and the Paris Agreement, with more than 1,000 participants.



### **Contributions to Local Communities**

IGES actively participated in lectures and various events held for the people of our local community, introducing IGES research activities and providing easy-to-understand commentary on global environmental issues. IGES also collaborated on local school education by assisting in the integrated studies and workplace experience of students from two junior high schools, one in Hayama Town where IGES headquarters is located, and another in Yokosuka City.



Lectures by IGES researchers

Main Lectures by IGES Researchers



Integrated studies and workplace experience of students

31 August 2016	UNU Global Seminar on Global Society and the Rule of Law	Hayama
25 November 2016	Lecture on Global Warming and SDGs	Yokohama
10 December 2016	Shonan Village Academia Café Integral Lecture on Food Safety	Yokosuka
28 January 2017	Shonan Village Academia Lecture on Climate Change	Hayama
4 March 2017	Dialogue with Hayama Mayor on Food Safety	Hayama
31 May 2017	Seminar on SDGs	Yokohama

#### **Events & Exhibitions**

3 May 2016	Shonan Village Festival 2016	Hayama
28-29 May 2016	Kanagawa Eco 10 Festa 2016	Yokohama
3 May 2017	Shonan Village Festival 2017	Hayama



# Appendix

## Financial Statements (FY2016)

#### **Balance Sheet (Summary)**

#### Unit:1,000 yen

Unit:1,000 yen

ASSETS	4,560,068
CURRENT ASSETS	1,181,206
NON-CURRENT ASSETS	3,378,862
(ASSETS FOR BASIC FUNDS)	(250,000)
(RESTRICTED ASSETS)	(3,003,484)
(OTHER NON-CURRENT ASSETS)	(125,378)

LIABILITIES	718,185
CURRENT LIABILITIES	450,004
NON-CURRENT LIABILITIES	268,181
NET ASSETS	3,841,883
NET ASSETS RESTRICTED NET ASSETS	<b>3,841,883</b> 2,556,624

#### **Statement of Activities (All IGES)**

Accounting for Project for public interest purpose FY2016 FY2015 Incorporated Strategic Research\*1 accounts Total Total JISE IPCC/TSU APN I Changes in unrestricted net assets 2,965,516 166,392 318,851 76,167 377,716 3,885,689\*2 Revenues and gains 3,503,089 Operating activities Expenses and losses 2,891,780 190,320 353,501 76,167 377,716 3,868,322\*3 3,443,664 Revenues from 0 0 0 0 0 0 52,234 Non-operating non-operating activities Expenses and losses 4,639 47 0 258 1.931 6.875 0 from non-operating II Changes in restricted net assets Total changes in restricted net assets 15,770 0 0 (46,781) 0 (31,011) 32,373 206,963 2,348,366 **3,841,882**\*4 Net assets at end of year 1,062,353 131,262 79,626 3,862,402

\*1 For IGES research activities and dissemination of research outcomes \*2, 3, 4 Including internal transactions





\*1 Including contribution for IPBES-TSU \*2 Including incorporated accounts

# **About IGES**

#### Background

- January 1995: Establishment of IGES recommended by the Japanese Prime Minister's Advisory Group on the Global Environment in the Twenty-First Century.
- April 1996: Final report on the proposed functions, organisational structure and other aspects of IGES issued by the Discussion Group on Comprehensive Environmental Studies and Education, former Environment Agency of Japan.

#### March 1998: Establishment of IGES

April 2012: Transition to a public-interest incorporated foundation

Personnel (As of 30 June 2017)		(Short-term)	(Non-Japanese)	
Research Employees	Strategic Research Project	91	(11)	(36)
	Projects for Public Interest other than Strategic Research	18	(2)	(9)
Administrative Employees	General Administration	33	(15)	(4)
	Research Support	34	(13)	(6)
	Projects for Public Interest other than Strategic Research	8	(1)	(0)
Total		184	(42)	(55)

\*Subtotal in brackets for employees under short-term contract and non-Japanese employees.

#### **IGES Headquarters and Offices**

#### Headquarters

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan Tel: +81-46-855-3700 Fax: +81-46-855-3709 E-mail: iges@iges.or.jp URL: http://www.iges.or.jp/

#### Tokyo Sustainability Forum

Shinbashi SY Bldg. 4F, 1-14-2, Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan Tel: +81-3-3595-1081 Fax: +81-3-3595-1084

#### Kansai Research Centre

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