



# 2019

July 2019 - June 2020  
**Annual Report**



**IGES** Institute for Global  
Environmental Strategies



# Contents

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<b>Foreword</b> .....	<b>1</b>	<b>Research Activity Facilities &amp; Units</b> .....	<b>26</b>
<b>Outline of IGES</b> .....	<b>3</b>	Activities at IGES Satellite Offices .....	<b>26</b>
<b>Research Highlights in FY2019</b> .....	<b>4</b>	Activities at Other Facilities .....	<b>33</b>
<b>&lt;Issue Research Areas&gt;</b>		<b>Strategic Management Office (SMO)</b> .....	<b>38</b>
Climate and Energy Area .....	<b>6</b>	<b>Appendix</b> .....	<b>43</b>
Natural Resources and Ecosystem Services Area .....	<b>8</b>	Financial Statements .....	<b>44</b>
Sustainable Consumption and Production Area .....	<b>12</b>	About IGES .....	<b>46</b>
<b>&lt;Functional Centres&gt;</b>			
Strategic and Quantitative Analysis Centre .....	<b>16</b>		
Sustainability Governance Centre .....	<b>18</b>		
<b>&lt;Stakeholder Taskforces&gt;</b>			
City Taskforce .....	<b>20</b>		
Finance Taskforce .....	<b>22</b>		
Business Taskforce .....	<b>24</b>		

# 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 2012, IGES has been conducting practical policy research as a public interest incorporated foundation, aiming to realise sustainable development in the Asia-Pacific region.

Fiscal year 2019 (July 2019–June 2020), highlighted in this annual report, is the third year of IGES's 7th Phase Integrative Strategic Research Programme (ISRP7). Under the ISRP7, IGES has carried out a wide range of research activities spanning global issues such as climate change mitigation and adaptation, the creation of a sound material-cycle society and circular economy, and conservation of biodiversity, and disseminated recommendations for inclusion in policy formation processes. We have also made a start on a concept for our 8th Phase Integrative Strategic Research Programme.

The continuing spread of the novel coronavirus (COVID-19) around the world since early 2020 has shaken the foundations of our economic and social systems, lifestyles and values today. The impacts on vulnerable populations is particularly devastating, threatening social stability and sustainability itself, and further widening gaps. To date, the international community has taken a variety of steps to transform itself into a sustainable society, such as with responses to escalating climate change and by engaging in the Sustainable Development Goals (SDGs). Seizing this moment as a critical opportunity to redesign society so we can build back better from COVID-19 and move forward together, the international community must reshape the vision of a sustainable and resilient society in harmony with nature and create a pathway for a fair and inclusive transition together.

As the world turns to face this major challenge, IGES would like to play an even more robust role as an “agent for change” in promoting actions for the transformation into a sustainable society by taking advantage of our strengths in co-producing knowledge in collaboration with various stakeholders, and in solution-oriented research that integrates complex and interrelated challenges.

Finally, I would like to request your continued understanding and support of IGES's research activities.



President, IGES  
**Kazuhiko Takeuchi**

IGES, in its 7th Phase Integrative Strategic Research Programme (ISRP7, FY2017– FY2020), is engaged in research activities in the three issue areas of Climate and Energy, Natural Resources and Ecosystem Services, and Sustainable Consumption and Production, with its two functional centres for Strategic and Quantitative Analysis and Sustainability Governance, and three stakeholder taskforces on City, Finance and Business. The institute also has satellite offices in Tokyo, Kansai, Kitakyushu, Bangkok and Beijing to promote various activities with key partners based in these cities.

Under the ISRP7, IGES has focused on cross-cutting research to effectively implement the Paris Agreement and Sustainable Development Goals (SDGs), both important international trends for global environmental issues, and has actively promoted collaboration with a diverse set of stakeholders, including national and local governments, international organisations, research institutes and NGOs. The institute has also developed highly flexible research activities to respond appropriately to urgent issues, such as its prompt launch of research related to the novel coronavirus (COVID-19).

In FY2019, IGES carried out strategic research activities with a focus on key policy formation processes and continued to disseminate information to meet the needs of a wide range of stakeholders. Specifically, the institute worked on policy messages and recommendations, contributing to the frameworks for discussion on the occasion of a series of important international processes, including the United Nations Climate Change Summit in September 2019, the 25th Conference of the Parties (COP25) to the United Nations Framework Convention on Climate Change (UNFCCC) in December 2019, and the Asia-Pacific Forum on Sustainable Development (APFSD) in May 2020. IGES also worked on introducing a domestic audience in Japan to globally-influential environmental reports along with its own research findings. Through these strategic activities, IGES could enhance its impacts on domestic and international debate as well as policy formation. IGES is also compiling the outcomes from its pioneering and unique research activities, including an analysis on Japan's Net-Zero Society 2050 and carbon-free lifestyles, as well as studies on actions taken by Japanese companies for mainstreaming the SDGs, which have been very well received.

Although the spread of COVID-19 has limited traditional work styles, IGES is strengthening its operations and information dissemination activities by making use of webinars and other online tools. IGES will continue to further promote practical research activities to meet social trends and needs both in Japan and overseas, and will actively deliver policy recommendations and solutions for the transition to a sustainable society.



Executive Director, IGES  
**Hideyuki Mori**



# 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, achieving a balance between environmental and developmental goals is a pressing issue, and the mapping of paths to sustainable societies that operate in harmony with nature is required. While maintaining cooperative relationships with a wide array of stakeholders including national and local governments, international organisations, universities, research institutes, businesses and NGOs, IGES intends to form strategies to achieve sustainable societies and to contribute to policy formulation based on the needs of the Asia-Pacific region.

## Research Activities

FY2019 was the third year of the 7th Phase Integrative Strategic Research Programme (July 2017–June 2021), and hinged upon the coordination of the Strategic Management Office, IGES continued to engage in policy research for problem-solving in the three issue areas of Climate and Energy, Natural Resources and Ecosystem Services, and Sustainable Consumption and Production, with its two functional centres for Strategic and Quantitative Analysis and Sustainability Governance, three stakeholder taskforces on City, Finance and Business, as well as at its domestic and overseas satellite offices.

### FY2019 Organisational Chart



# Research Highlights in FY2019

July 2019-June 2020

In close collaboration with diverse stakeholders, IGES aims to generate “impact” that facilitates the transition towards realising sustainable societies. In its 7th Phase Integrative Strategic Research Programme (ISR7), which began in FY2017, we set our target to have 25 successful cases annually. We could attain the target both in FY2017 and FY2018, with 25 cases in FY2017, 36 cases in FY2018, and 35 cases in FY2019.

In FY2018, IGES set up the “Mountain View Award”, awarded to the team with the “best impact” case. The award promotes impact generation and allows good impact cases to be shared within the institute. Four cases selected as finalists for the award are outlined below.

1

## The Development of the National Action Plan on Sustainable Consumption and Production for the Period 2021 – 2030 in Viet Nam

Since early 2019, a team from IGES has worked closely with the Government of Viet Nam (GoV) through the Ministry of Industry and Trade of Viet Nam (MOIT), and took the lead in guiding GoV through the process of developing and drafting a National Action Plan on Sustainable Consumption and Production (SCP) for the period of 2021 – 2030, comprehensively covering various areas of enhancing SCP in Viet Nam. The National Action Plan is the key guiding policy document on SCP policies and activities and was approved by the Prime Minister of Viet Nam on 24 June 2020.

3

## Newly Establishing “RE Action” Initiative, Mobilising Demand Side Signal for Renewable Energy

“RE Action” is a new initiative to promote 100% renewable energy use, encouraging organisations such as businesses, local governments, schools and universities, and hospitals who express intentions and carry out actions to convert their current energy use to 100% renewables.

IGES became one of the consortium members of “RE Action”, together with the Japan Climate Leaders’ Partnership (JCLP) for which IGES serves as the Secretariat, the Green Procurement Network (GPN), and ICLEI Japan. The initiative was launched in October 2019, endorsed by the Climate Group (TCG), founder and organiser of RE100\*. As of April 2020, more than 60 organisations, the Ministry of the Environment and the Ministry of Foreign Affairs, as well as six local governments are participating in the initiative.

\*International business initiative committed to 100% renewable power, working to massively increase corporate demand for and delivery of renewable energy.

## 2

## Supporting the Development of National and Sub-national Waste Management Strategies Provided Policy Directions towards Improving Sustainable Waste Management and Resource Efficiency in Asia and the Pacific

Waste management is a cross-cutting issue that affects many aspects of the environment, economy and society in Asia and the Pacific. The IGES Centre Collaborating with UNEP on Environmental Technologies (CCET) has been assisting national and sub-national governments in the region in developing waste management strategies and action plans, and enhancing technical and institutional capacities for moving from end-of-pipe solutions to integrated resource management. The main achievements in FY2019 are highlighted here:

- Myanmar National Waste Management Strategy and Master Plan was officially adopted by the cabinet and promulgated as a presidential decree in January 2020. This national strategy was developed with the full support of CCET starting from gap analysis to strategy development, with participation from all stakeholders in the country.
- It is crucial to engage younger generations from an early age with regards to behaviour and lifestyle changes through effective environmental education for sustainable development. In this context, the “Ecology Note – Towards a Clean, Green and Beautiful Bhutan –” an environmental education tool, was developed by the National Environment Commission (NEC) with technical support of CCET. The contents of the Ecology Note were integrated into the official science curriculum at primary schools in Bhutan, in collaboration with the Royal Education Council (REC).

## 4

## Contributing to the Promotion of IPCC’s Special Reports to a Japanese Audience through IGES’s Strategic Communications and Network

IGES organised a panel session at the IGES COP25 debriefing seminar on IPCC’s three special reports, namely, the Special Report on 1.5 degrees (SR1.5), the Special Report on Climate Change and Land (SRCCL) and the Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC), released in 2018-2019, inviting a couple of Japanese Lead Authors (LAs) as panelists. Also, in time for the COP25 debriefing seminar, IGES released two handbooks on SRCCL and SROCC respectively, composed of interviews to LAs, briefing notes by IGES researchers, and FAQs for a Japanese audience. In addition, IGES facilitated collaboration among many research units in the creation of the Japan Broadcasting Corporation (NHK) BS1 Special programme “The Climate Crisis ~ Warnings from the IPCC Special Reports” (broadcast in January 2020), becoming a major information source for the programme. For this TV programme, IGES was acknowledged alongside the IPCC at the top of the end credits.

Research Highlights: Issue Research Areas

# Climate and Energy Area

## Outline

With particular focus on the Asia-Pacific region, IGES is carrying out initiatives to facilitate the transition to decarbonised societies at the national and local levels. Specifically, the institute looks towards strengthening climate and energy-related strategies and policies, and engages in international climate negotiations, bilateral and multilateral cooperation, carbon pricing initiatives, market-based mechanisms, and the development and maintenance of databases.

## Major Activities in FY2019

### Operationalisation of the Paris Agreement

At the international level, IGES made timely proposals for the operationalisation of the Paris Agreement, including presentations at various

key international conferences (e.g. COP25) and submission of IGES's view to the UNFCCC. IGES also contributed to the creation of the UNDP's National GHG Inventory Capacity Database as a leading implementing institute. At the regional level, IGES provided capacity building support to the governments of Asian developing countries for the implementation of the "Paris Rulebook", including the enhanced transparency framework.

### Materialisation of GHG Emission Reductions and Contribution to SDGs through Implementation of the JCM

IGES contributed to implementation of the JCM which appropriately evaluates contributions to GHG emission reductions or removals by Japan, and applies them toward achievement of Japan's emission reduction target. IGES supported the development of 20 MRV (monitoring, reporting and verification) methodologies. In addition, the first publication was developed with analysis of the inter-linkage between the JCM and SDGs. This publication aims to clarify how the JCM contributes to SDGs targets. Toward further understanding and implementation of the JCM, IGES developed guidebooks for the JCM in selected partner countries reflecting their respective rules and organised the JCM annual assembly workshop, inviting all JCM partner countries to ensure better understanding of

the corresponding adjustment and Article 6 of the Paris Agreement.



JCM Workshop (Tokyo, Japan)

### Impacts on Political and Social Debates on Carbon Pricing in Asia

Carbon pricing policy is taking shape in Asia, such as the introduction of emissions trading schemes in China and the Republic of Korea. IGES served as Japan's focal point for implementing the fourth Forum of Carbon Pricing Mechanisms in Japan,



Asian Transparency Workshop (Bangkok, Thailand)



Korea and China, and contributed to discussions on the trilateral cooperation. IGES conducted timely overview and analysis of the design features and implementation progress of emissions trading schemes in China and the Republic of Korea. An original policy study was also carried out to check the function of carbon market through cost pass-through to electricity prices. The research articles on emissions trading schemes were published in international journals, thereby stimulating policy development.



4th Forum of Carbon Pricing Mechanisms in Japan, Korea and China (Guangdong Province, China)

### Climate Policy Development by Visualisation of Current Status

IGES engages in analysis and visualisation of climate policies around the world in order to facilitate the further development of such policies. Particularly for Asia, IGES completed analysis on coal transition management for 2°C/1.5°C goals in China and India, and a comparative study on low-carbon policy in Japan, Korea and China. IGES also made recommendations for Revising Japan's Nationally Determined Contribution, as well as contributing

to two chapters of the UNEP Emission Gap Report 2019. Likewise, IGES provides the most up-to-date information through regular updating of the IGES Climate Databases on various topics.

## Selected Publications

- "Lessons Learned for Future Transparency Capacity Building under the Paris Agreement: A Review of Greenhouse Gas Inventory Capacity Building Projects in Viet Nam and Cambodia" (Journal of Cleaner Production)
- "The Sociopolitical Dynamics of Coal Transition in India" (International Studies, April 2020)
- "Features and Prospect of China's National GHG Emissions Trading Scheme" (Carbon Management, Volume 11(2), 155-167)
- "An Analysis of the Interactions between Electricity, Fossil Fuel and Carbon Market Prices in Guangdong, China" (Energy for Sustainable Development, Volume 55, 82-94)
- "Chapter 2 Global Emissions Trends and G20 Status and Outlook" and "Chapter 4 Bridging the Gap – Enhancing Mitigation Ambition and Action at G20 Level and Globally" (UNEP Emission Gap Report 2019)
- Discussion Paper "The Current Status and Prospects for Coal Industry Transition in China"
- Discussion Paper "Joint Crediting Mechanism (JCM) Contributions to Sustainable Development Goals (SDGs)"
- Discussion Paper "Impact of COVID-19 on Japan and India: Climate, Energy and Economic Stimulus"
- Discussion Paper "Current Status and Outlook of China's Climate Change Policy after COVID-19" (in Japanese)
- "Prospects of International Negotiations toward the Paris Rulebook" (in Japanese)
- "IGES Recommendations for Revising Japan's Nationally Determined Contribution (NDC)"
- "IGES Submission of Views on Common Tabular Formats for the Information Necessary to Track Progress Made in Implementing and Achieving NDCs"
- "Stocktake for Raising the Climate Ambition"
- "JCM in CHARTS (for Bangladesh, Cambodia, Indonesia, Lao PDR, Myanmar, Mongolia, the Philippines, Thailand and Vietnam)"
- "IGES NDC Database"
- "IGES BUR (Biennial Update Report) Database"
- "IGES JCM Database"
- "IGES CDM Project Database"
- "IGES List of Grid Emission Factors"
- "IGES Kyoto Units Transfer Database"
- "IGES Kyoto Units All Transaction Data for the First Commitment Period"
- "Potential Supply of Pre-2020 CERs"

# Natural Resources and Ecosystem Services Area

## Outline

IGES conducts 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 FY2019

### Pilot on Participatory Watershed Management

IGES and partners helped local governments in the Philippines to develop more resilient land-use and climate change action plans through a scenario analysis and impact assessment process. Impacts of land-use change and climate change on flooding, water quality, and habitat quality were assessed using GIS and modeling software. Development of a training guidebook is underway.

### Contribution to International Biodiversity Processes

IGES staff contributed (through authorship) to the IPBES Thematic Assessment of the Sustainable Use of Wild Species, (through research and secondment) to the Assessment of Invasive Alien Species and Their Control, and (through chapter scientist role and

contributing authors) to the IPCCs sixth assessment report. IGES also led the production of the Japanese translation of the IPBES Global Assessment Report on Biodiversity and Ecosystem Services Summary for Policy Makers, which is now available on the IPBES official website.

### Establishment of Environmental Conservation Platform of Tonle Sap Lake

IGES has worked closely with the Tokyo Institute of Technology, Institute of Technology of Cambodia and various other partners in Cambodia and Japan

to develop a water environment analytical tool for Tonle Sap Lake (TSL) and establish an environmental conservation platform of Tonle Sap Lake through the elucidation of the lake and the tools development. A policy guidebook for policymakers, the main output of the SATREPS project, has been developed and launched, reflecting results from the research and delivering key messages to policymakers for better conservation and management of Tonle Sap Lake.

### Landscape Restoration Research

IGES and partners quantified the changes in



Field investigation in Tonle Sap Lake under the SATREPS project

ecosystem services due to community-based afforestation in Kenya. A field survey and questionnaire were completed, while a spatial analysis and modelling are ongoing. The results of this work are being fed into a much larger proposal, connecting this work with other efforts in Ghana.

### **Mainstreaming Biodiversity Conservation and Sustainable Management in Priority SEPLS**

IGES and partners supported another six projects to demonstrate the value and potential of socio-ecological production landscapes and seascapes (SEPLS) around the world. The results were broadcast in a variety of ways, including a self-assessment report of the Satoyama Development Mechanism (SDM) projects and the Satoyama Initiative Thematic Review Report vol. 5 on the multiple values associated with sustainable use in SEPLS.



Reforestation activity in a Ramsar site, Ouémé Valley, Benin, by the local community under the Satoyama Development Mechanism

### **Plausible Alternative Futures of Island Mangroves in the Asia-Pacific Region**

IGES and partners have been working on developing scenarios in changing mangrove ecosystem services to promote proactive landscape and seascape planning in India, Japan, Taiwan, the Philippines and Fiji. The results in the form of spatial outputs are important to operationalise the ecosystem based disaster risk reduction concepts in the study areas.

### **Responsible Timber Trading**

IGES and partners are working to provide information on timber legality risks and mitigation measures to support the implementation of Japan's Clean Wood Act. Literature reviews, trade analyses, interviews and field observations were conducted in timber producing countries, Papua New Guinea and Solomon Islands and timber importing countries, UK, Netherland and Germany. Additionally, summaries for a website managed by the forestry agency to facilitate implementation the Act and a public seminar were prepared. IGES has reviewed and assessed the Japanese Clean Wood Act contracted by Chatham House. IGES and partners also studied impact of the Clean Wood Act by investigating implementation of legal checks by timber business entities in Japan by questionnaire and interview surveys. IGES supported the Forestry Agency to advise their founded project to FAO to develop "Timberlex", an aggregation site on timber-related law and regulation.

### **JCM REDD+**

IGES supported MOEJ to advise on a project proponent for a JCM REDD+ project to develop a methodology and project design document.

### **Regional/Local Circulating and Ecological Sphere (Regional/Local-CES)**

IGES and START International Inc. (START) are collaborating to promote the Regional/Local Circulating and Ecological Sphere (Regional/Local-CES) concept in South Asia and Southeast Asia. Together with partners, IGES and START are elaborating the Regional/Local-CES concept through analysis of best practices and proposal of pathways for the creation and operationalisation of regional CES in various contexts. Based on this collaborative work, one journal paper and one research report on the Regional/Local-CES have been developed.

### **Urban Water, Energy and Food Management Innovation**

IGES closely worked with Keio University, University of Michigan, Delft University of Technology, Qatar University and Queen's University Belfast to conduct collaborative research to advance design-leading practices across the water-energy-food nexus in cities and develop user-friendly decision-making tools and systems. A case study was conducted and based on the results, a book chapter has been produced and a prototype FEW Print Tool was developed.

### **Adaptation Communication of Indigenous and Local Knowledge(ILK) in Hindu Kush Himalayan (HKH) Region**

IGES in collaboration with ICIMOD started a project on adaptation communication focusing on identification and promotion of ILK for climate change adaptation (CCA) in HKH region. IGES organised a regional workshop, which was the first of its kind, at ICIMOD to discuss the framework of

adaptation communication, conducted field trials of adaptation with the involvement of community radios, and submitted a book chapter. IGES further jointly developed an APN capacity building project in collaboration with Himalayan University Consortium (HUC), of which IGES is a strategic regional partner, ICIMOD, research institutes and government agencies in HKH to advance the concept and support adaptation communication of ILK in the HKH.

### **Integrated Decentralised Domestic Wastewater Management in ASEAN**

IGES has been working closely with all ASEAN Member States to implement a regional initiative to promote policy dialogues and capacity building of multi-stakeholders on integrated decentralised domestic wastewater management in ASEAN countries (2018–2020). A series of lectures have been presented by IGES to more than 60 representatives



Performance evaluation of decentralised wastewater treatment systems

from all ASEAN countries attending a one-week capacity development and training course held in Tsukuba International Congress Center. In addition, as one of the outcomes from this initiative, a “Regional Policy Roadmap Towards the Achievement of Integrated Domestic Wastewater Management” for ASEAN is being developed and will be launched in due course.

### **Water Environmental Management in Asia**

As secretariat for the Water Environment Partnership in Asia (WEPA), IGES has been contributing to the improvement of the water environment in Asian countries for over a decade. In FY2019, the WEPA annual meeting was conducted in Bangkok with the participation of government officials from 10 countries.

### **Socio-hydrological Perspective of Climate Change Adaptation in Large Riverine Islands: Comparative Study from India, Bangladesh and Vietnam**

This proposed work strives to explore how the nexus of human–water relations can be applied to improve adaptive measures to maintain hydrological cycle along with managing local water needs. For FY2019, we have accomplished the following work under this project: 1) a kick-off workshop was organised to finalise the work plan, methodology and deliverables with all collaborators; 2) a field survey was made in India and Bangladesh to fix sampling locations, supervise installation of hydrological parameter monitoring instruments, and focus group discussions; and 3) secondary data was collected to set-up the hydrological modelling.

### **Assessment of Business Impacts on Biodiversity**


This research project aims at the development of biodiversity indicators, an economic valuation method for ecosystem services and a model for assessing business impacts on biodiversity, in order to support the execution of biodiversity mainstreaming policy led by MOEJ.

## **Selected Publications**

- “Environmental Changes in Tonle Sap Lake and its Floodplain: Status and Policy Recommendations”
- “Adaptation communication of indigenous and local knowledge: How to mobilize community radio in the Hindukush Himalayan region?”
- “A managed aquifer recharge scheme involving intentional flooding of rice fields and payment for ecosystem services in Kumamoto, Japan” (Exemplary case studies of sustainable and economic managed aquifer recharge)
- “A river basin approach for the coordinated implementation of water related targets in Sustainable Development Goals (SDGs)” (Water, Climate Change and Sustainability)
- “Effective Models for Payment Mechanisms for Forest Ecosystem Services in Papua New Guinea, Philippines and Thailand”
- “Forest Certification: More Than a Market-Based Tool, Experiences from the Asia-Pacific Region”
- “Priority Practices for Addressing Non-economic Loss and Damages Caused by Cyclones in Bangladesh: Case Study of Koyra”



- "Assessment of Climate-Induced Long-term Water Availability in the Ganges Basin and the Impacts on Energy Security in South Asia"
- "National Efforts in Adaptation Planning"
- "Exploring Futures of the Hindu Kush Himalaya: Scenarios and Pathways"
- "Water-Energy-Food Nexus: A Provision to Tackle Urban Drought"
- "Transboundary Impacts of Climate Change in Asia: Making a Case for Regional Adaptation Planning and Cooperation"
- "Governing the Water-Energy-Food Nexus Approach for Creating Synergies and Managing Trade-offs"
- "Participatory approach for enhancing robust water resource management: case study of Santa Rosa sub-watershed near Laguna Lake, Philippines" (Water)
- "Monitoring effect of spatial growth and land surface temperature in Dhaka" (Remote Sensing)
- "Multi-temporal remote sensing data to monitor responses of terrestrial ecosystem to climate variations in Ghana" (Geocarto International)
- "Hydrological simulation for future prediction of water quality of Adyar River, Chennai, India" (International Journal of Environmental Research and Public Health)
- "Implications of urban expansion on land use and land cover: towards sustainable development of Metro Manila, Philippines" (GeoJournal)
- "Citizen science and invasive alien species: An analysis of citizen science initiatives using information and communications technology (ICT) to collect invasive alien species observations" (Global Ecology and Conservation)
- "Hydrochemical assessment of groundwater quality of Mokopane area, Limpopo, South Africa using statistical approach" (Water)
- "Utilizing geospatial information to implement SDGs and monitor their progress" (Environmental Monitoring and Assessment)
- "Population-Urbanization-Energy nexus: A review paper" (Resources)
- "Combined Fuzzy-AHP and GIS for groundwater quality assessment in An Giang province of Vietnam" (Geosciences)
- "Numerical quantification of current status quo and future prediction of water quality in eight Asian Mega cities: Challenges and opportunities for sustainable water management" (Environmental Monitoring and Assessment)
- "Sustainability Assessment of the Groundwater Quality to Achieve Urban Water Security in the Western India" (Applied Water Science)
- "Effect of Land use changes on water quality in an ephemeral coastal plain: Khambhat City, Gujarat, India" (Water)
- "Applying Urban Nexus Approach for Achievement of Sustainable Development Goals (SDGs)"
- "Urban Nexus Approach: Integrating and Strengthening City Efforts towards National and Local Climate Actions"
- "Accelerating Septage Management – A Key Factor to facilitate the Achievement of Sustainable Development Goal 6 in Asia" (in Japanese)
- "Invasive alien species and local communities in socio-ecological production landscapes and seascapes: A systematic review and analysis"
- "Mapping the Current Understanding of Biodiversity Science–Policy Interfaces"
- "Understanding the multiple values associated with sustainable use in socio-ecological production landscapes and seascapes (SEPLS)"
- "Managing Socio-ecological Production Landscapes and Seascapes for Sustainable Communities in Asia: Mapping and Navigating Stakeholders, Policy and Action"



Research Highlights: Issue Research Areas

# Sustainable Consumption and Production Area

## Outline

IGES conducts 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 makes policy recommendations to stimulate lifestyle changes.

## Major Activities in FY2019

### New Initiatives under the 10YFP Sustainable Lifestyles and Education Programme

IGES has been working on establishing model cases of SCP through conceptualisation and operationalisation of long-term sustainable living within the limits of one planet.

As the coordination desk of the Sustainable Lifestyles and Education (SLE) Programme of the United Nations' 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP), IGES supports eight new projects aiming to facilitate sustainable lifestyles and livelihood at city and community level (IGES has supported 24 projects in total since 2016). To

facilitate sustainable education, IGES coordinated Global Search for Sustainable Schools in nine countries, showing the cases of making schools the centres for collaboration of local teachers, students and community members in learning and working on sustainable lifestyles and livelihoods.

To examine possible future lifestyles for long-term sustainable living within the limits of one planet, IGES continued its work on 1.5 Degree Lifestyles project aiming at creating at least six cases of scenario co-creation for low-carbon and resilient living in collaboration with both Japanese and global local governments including Yokohama city and Kyoto city.

The COVID-19 pandemic has had tremendous impacts on these ground-level projects. Due to the lockdown and travel ban, their key activities, such as face-to-face workshops and other collaborative actions were restricted. IGES has supported the ground-level projects to seek a way forward, e.g. online communication, changing of schedules and activity plans and contracts. For the 1.5 Degree Lifestyles project, IGES has collaborated with experts to develop a methodology for an online scenario-building workshop.

### Regional SCP Policy and Research Hub

IGES aims to establish itself as a regional SCP policy and research hub in collaboration with regional stakeholders.

As the leading organisation for the theme of "Policy Design and Evaluation for SCP in Asia and the Pacific" (S-16: Environment Research and Technology Development Fund), IGES took the lead in developing a policy brief titled "Six Proposals for Future Policies towards Circular Economy and Society" which was a part of an official policy brief series by T20, the think-tank process of G20.

IGES also contributed to several special sessions of academic conferences including a special session on evidence-based policymaking at ISIE 2019 organised in Beijing, a special session on SDGs at Sustainable Build Environment Conference 2019, as well as carrying out capacity development in ASEAN countries through a seminar on SCP policy instruments organised by GIZ in Bangkok in October.

As a part of the consortium operating the EU SWITCH-Asia SCP Facility, IGES has contributed to the development of a national SCP action plan in Viet Nam. Based on this achievement, IGES has been preparing new projects in Cambodia, Myanmar and Viet Nam.

**Contribution to Mainstreaming Circular Economy, Resource Efficiency, and the 3Rs**

To contribute to putting resource efficiency and circular economy onto the central agenda for emerging economies in the region, IGES engaged in key international processes to support the Japanese government such as G7 (Group of Seven), G20, Organisation for Economic Co-operation and Development (OECD) Working Party on Resource Productivity and Waste (WPRPW), UNEP International Resource Panel (IRP), and ASEAN.

IGES supported G20-related agenda-setting on marine plastic litter and circular economy through the G20 preparatory process, the G20 Environment and Energy Ministers' Meeting, and the G20 Resource Efficiency Dialogue. Along with this role to support MOEJ for G20 Japan Presidency, IGES took on the main editorial role for developing a G20 Report on Actions Against Marine Plastic Litter: First Information Sharing based on G20 Implementation Framework on Marine Plastic Litter as well as developing and maintaining the portal site on G20 Actions and Progress on Marine Plastic Litter.

As a part of an EU-funded project, IGES took the lead in publishing a key policy report for circular economy and plastic pollution in ASEAN member states titled "Circular Economy and Plastics: A Gap-Analysis in ASEAN Member States" in October 2019.

In December 2019, IGES successfully completed the 1st phase of a JICA project to support Da Nang city to implement model projects for source separation and the 3Rs which resulted in Da Nang city's

decision to expand community-level 3R activities to the whole city from mid-2019.

**IGES Centre Collaborating with UNEP on Environmental Technologies (CCET)**

CCET, in collaboration with UNEP-International Environmental Technology Centre (IETC), has been assisting national and sub-national governments in Asia and the Pacific in developing waste management strategies and action plans, and enhancing technical and institutional capacities for moving from end-of-pipe solutions to integrated resource management.

CCET supported six Asian countries (Maldives, Sri Lanka, India, Myanmar, Cambodia and Indonesia) in developing national/sub-national waste

management strategies and action plans. National Waste Management Strategy and Master Plan of Myanmar, City Waste Management Strategy and Action Plan of Phnom Penh and Mandalay Cities, as well as Regional Waste Management Strategy for Region 6 and 7 in Maldives were officially endorsed and published. In FY2019, CCET expanded its project support in national processes to develop plastic waste action plans in Sri Lanka and Indonesia, and drafting of a city waste management strategy in Negombo city in Sri Lanka, as well as a plastic waste management strategy for Hyderabad in India.

In collaboration with the Japan Society of Material Cycles and Waste Management, the National Institute for Environmental Studies (NIES) and Okayama University, a series of technical guidelines



Stakeholder workshop for city waste management strategy (Negombo, Sri Lanka)



for MSW treatment technologies are being prepared. One set of guidelines on waste-to-energy and incineration has already been developed and published. Another two guidelines, one on mechanical biological treatment (MBT) and the other on composting will be published in FY2020.

With the involvement of the South Asia Co-operative Environment Programme (SACEP) and all eight member countries in the region, the Roadmap

for Sustainable Waste Management and Resource Circulation in South Asia, 2019-2030 was developed. This Roadmap was officially approved and adopted by the member countries at the 15th Meeting of the Governing Council of SACEP, 3-6 Nov 2019 in Dhaka, Bangladesh. CCET is further expanding its network with sub regional governmental organisations such as the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) for efficient and effective dissemination of its activities.

With the outbreak of COVID-19, CCET immediately began collaborating with UNEP-IETC and other international and national partners to develop a policy report on safe management of medical waste under the COVID-19 pandemic. This report is due to be published as a UN Report, which serves as valuable information for consideration and development of action plans in developing countries and economies in transition, so that they can better handle medical waste management beyond the COVID-19 recovery.



Empowering informal sector, especially women, is important in waste management (Hyderabad, India)



## Selected Publications

- Policy Process “A Roadmap for Sustainable Waste Management and Resource Circulation in South Asia, 2019-2030”
- Policy Process “National Waste Management Strategy and Mater Plan for Myanmar, 2018-2030”
- Policy Process “National Plastic Waste Reduction Strategic Actions for Indonesia”
- Policy Process “Ecology Note Towards a Clean, Green and Beautiful Bhutan”
- T20 Policy Brief “Six Proposals for Future Policies towards Circular Economy and Society”
- Policy Report “Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle-Income Countries”
- Policy Report “Circular Economy and Plastics: A Gap Analysis in ASEAN Member States”
- Policy Report “G20 Report on Actions against Marine Plastic Litter: First Information Sharing based on G20 Implementation Framework”
- Policy Report “State of Municipal Solid Waste Management in Negambo City, Sri Lanka”
- Technical Report “CCET Guideline on Waste to Energy (Incineration)”
- Technical report “1.5°Cライフスタイルー脱炭素型の暮らしを実現する選択肢ー日本語要約版”
- Discussion Paper “Society and Lifestyles in 2050: Insights from a Global Survey of Experts”
- Discussion Paper “Sustainable Lifestyle Policy and Practice: Challenges and Way Forward”
- Book Chapter “Apprehending Food Waste in Asia: Policies, Practices and Promising Trends” (Routledge Handbook of Food Waste)
- Book Chapter “Policy Responses to Plastic Pollution in Asia: Summary of a Regional Gap Analysis” (Plastic Waste and Recycling, Elsevier)
- Book Chapter “Status of Solid Waste Management in Myanmar: Key Challenges and Opportunities” (Sustainable Waste Management Challenges in Developing Countries, IGI Global)
- Peer-reviewed Article “持続可能な消費と生産 (SCP) に関する国際政策動向” (日本LCA学会誌)
- Peer-reviewed Article “ライフスタイルのイノベーションへ向けたEBPM” (環境分野におけるエビデンスに基づく政策立案に向けて, 環境経済・政策研究)
- Peer-reviewed Article “Food Waste in Bangkok: Current Situation, Trends and Key Challenges” (Resource, Conservation, Recycling)
- Peer-reviewed Article “Technology Foresight for Social Good: Social Implications of Technological Innovation by 2050 from a Global Expert Survey” (Technological Forecasting and Social Change)
- Peer-reviewed Article “Challenges and an Implementation Framework for Sustainable Municipal Organic Waste Management using Biogas Technology in Emerging Asian Countries” (Sustainability)
- Non Peer-reviewed Article “廃棄物処理を原動力とした地域活性化の可能性” (月刊INDUST 2020年6月号)

Research Highlights: Functional Centres

# Strategic and Quantitative Analysis Centre

## Outline

The Strategic and Quantitative Analysis Centre (QAC) functions as a hub to promote science-policy linkage for achieving sustainable development. It contributes in creating value-added knowledge through strategic research and quantitative policy assessment so as to provide practical policy recommendations, helping informed policymaking and problem-solving in developing countries in Asia and the Pacific and beyond. The Centre looks to support policy assessment at the regional, national and subnational levels by identifying appropriate indicators, and working on filling in the data gaps and data analysis. Work is also done on applying quantitative analysis tools and integrated assessment models to critical topics such as those covered by Sustainable Development Goals (SDGs), including SDG integration and policy coherence, water-energy-food nexus, low-carbon and green economy pathways, green investment and green jobs, climate policy, carbon pricing, trade and the environment in collaboration with key partners.

## Major Activities in FY2019

### Integrated Policymaking through the Applications of IGES SDG Interlinkages Tool

Supported by IGES Strategic Research Fund, IGES

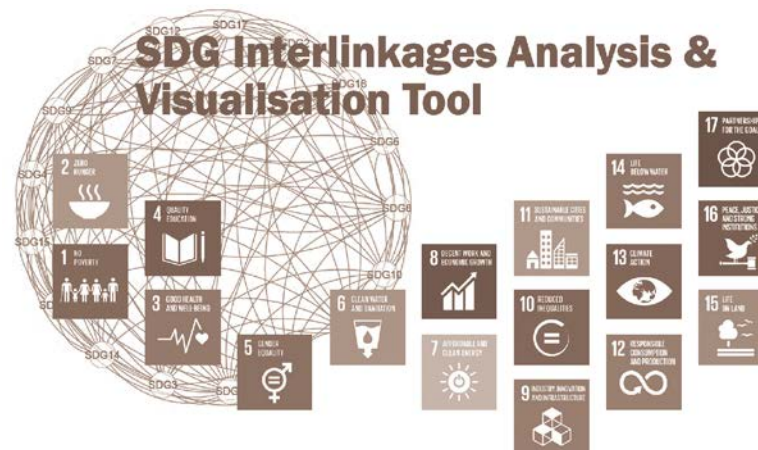
developed the pioneering SDG Interlinkages Tool covering 27 countries in Asia and Africa (<https://sdginterlinkages.iges.jp/visualisationtool.html>).

At the international level, United Nations Department of Economic and Social Affairs (UNDESA) included the Tool as an example of SDG integration in the 2020 Handbook for Voluntary National Review (VNR), and Economic and Social Council (ECOSOC) selected the Tool as a good practice for the High Level Political Forum 2020 Exhibition. The Tool was used to support UNDESA's VNR capacity building on SDG integration into national development planning (2019).

Through the collaborations with relevant stakeholders at the national, sectoral and sub-national levels, the Tool was applied to support the development of: i) the national action plan for sustainable consumption and production (2021–2030) in Viet Nam; ii) a chapter on SDG interlinkages included in the national SDGs Roadmap and the VNR 2019 in Indonesia, and iii) a case study on provincial SDG planning in West Java (Indonesia) as well as provide inputs to the discussions on the development of national industrial action plan in Bangladesh.

### Net-zero Emissions Reports and Activities

In December 2019, IGES organised a dialogue on



climate policies related to the mid-century strategies and carbon pricing between relevant stakeholders in Japan and the EU under the Strategic Partnerships for the Implementation of the Paris Agreement (SPIPA) project. During the event, IGES demonstrated that scenario analysis and modelling is a powerful means to support the design of long-term strategies due to its capability to evaluate the opportunities and risks of regions and businesses in a society which is heading towards decarbonisation. Under this project, IGES will strengthen its partnership with the EU and the German Society for International Cooperation (GIZ).

In June 2020, IGES published a research report, "A Net-Zero World-2050 Japan", which provides a vision for achieving net-zero greenhouse gas emissions in Japan supported by solid social, energy and technological assumptions based on a comprehensive review of various studies and reports. This research report has been used as the



Research report  
"A Net-Zero World-2050 Japan"

basis supporting the implementation of several activities aiming for achieving a decarbonised society: i) IGES conducted a scenario analysis of the industrial cluster in Kawasaki city for achieving a net-zero emissions society; ii) IGES has been supporting the development of a vision on net-zero emissions in Kanagawa prefecture, which will be continued as a key activity in FY2020; iii) In a collaborative effort between units, IGES has been working on a scenario analysis for achieving net-zero emissions in Asia; iv) Due to the important role of renewable energy in achieving a net-zero emissions society in Japan, QAC and Climate and Energy Area have been working on a simulation analysis of Japan's power systems. The work will be continued in FY2020.

#### Development of a Regional Strategy on Climate Mitigation and Adaptation in ASEAN

As part of the Japan-ASEAN Integration Fund (JAIF) project on the assessment of the state of climate change in the Association of Southeast Asian Nations (ASEAN) region, IGES prepared an Inception Report which includes the methodology and framework for developing a regional strategy for climate actions on mitigation and adaptation. The first regional meeting was held in June 2020 convening external partners of ASEAN, relevant think tanks and the ASEAN Working Group on Climate Change (AWGCC) national focal points. IGES developed a summary report of the meeting. The final report will be launched at the ASEAN Summit in 2021.

#### Shared Socioeconomic Pathways (SSPs) for Cities: Methodology Development and Applications

One major area of interest is on how climate

policies can be integrated into development planning and implementation at the local levels. Methodologies for integrating scientific evidence into long-term development planning are urgently needed. Analysing the future development of cities is challenging due to the uncertainties. One of the QAC researchers has developed the socioeconomic pathways at the urban scale previously for Tokyo by downscaling the global-scale Shared Socioeconomic Pathways (SSPs) developed by the climate change research community (O'Neil et al., 2017). The local scale SSPs can play a significant role in the process of developing sustainable development strategies and their implementations including on-going case studies in Bhutan, Da Nang City, Viet Nam, and Japan Built Environment.

## Selected Publications

- Research Report "A Net-Zero World –2050 Japan"
- Commissioned reports on the country studies of SDG integration into national development planning in Ethiopia, Lao PDR and Tanzania
- Peer-reviewed Article "Challenges and Potential Solutions for Sustainable Urban-Rural Linkages in a Ghanaian Context" (Sustainability 2020, 12, 507)
- Discussion Paper "Closing the SDG Gaps for Building a Resilient and Sustainable Asia in the COVID-19 Recovery Era"
- Peer-reviewed Article "Evaluation of Long-term Urban Transitions in a Mega-city's Building Sector" (Sustainable Cities and Society, 47)

Research Highlights: Functional Centres

# Sustainability Governance Centre

## Outline

IGES worked to promote forms of governance that can enable the integration of multiple development objectives into development plans under SDGs and the Paris Agreement. Some of the work of the Sustainability Governance Centre (SGC) focused chiefly on how national governments, businesses and other actors can collaborate on the SDGs. An additional stream of research explored how cities can govern low-carbon transitions. A third area of study focused on governance that can promote the co-benefits between climate change and other

development priorities. In each of these project areas, the SGC provided timely recommendations on the governance reforms required to make links across issues and move down a sustainable low-carbon development path in Asia.

## Major Activities in FY2019

### Business and the Sustainable Development Goals (SDGs)

In 2019, IGES continued its collaboration with the Global Compact Network Japan (GCNJ) and launched a new report that discussed opportunities

for environmental, social and governance (ESG) investment in Japan. This report underlined that ESG investment and financing and the increase in sustainable financial products can help set science-based targets to achieve ambitious goals under the SDGs and the Paris Agreement.

### Strengthening the Environmental Dimensions of the SDGs

In 2019, IGES worked with the Asian Development Bank to conclude a project helping countries to improve their performance on the environmental dimensions of the SDGs. The project is setting the stage for an e-learning class that will help spread knowledge to other countries.

### Shaping the Regional Agenda on the SDGs

In 2019, IGES developed a set of key messages corresponding to the six entry points of the Global Sustainable Development Report. The messages were shared and well received at the Asia Pacific Forum on Sustainable Development.

### Co-benefits Approach

This year, IGES led a team of authors in the publication of the Asian Co-benefits Partnership's White Paper entitled "Implementing Solutions to Climate Change and Air Pollution in Asia: Mobilising Finance, Strengthening Policies and Building



International Forum for Sustainable Asia and the Pacific (Yokohama, Japan)



Capacities". IGES also worked with the Alliance for Financial Inclusion on high-profile report on financial inclusion and climate change. That report

has since led central banks to take actions that will ensure that efforts to make finance more inclusive are not undermined by climate change.



ACP-IIASA joint international workshop (Tokyo, Japan)



International meeting on IBAQ (Tokyo, Japan)

## Selected Publications

- Policy Report "ESG時代におけるSDGsとビジネス～日本における企業・団体の取組み現場から～"
- Submission to Policy Process "持続可能な開発目標(SDGs)実施指針(改定版)の骨子に関する意見"
- Commentary "Assessing the HLPF Four Years On: Enhancing Integration, Linking Processes, and Strengthening Political Leadership"
- Submission to Policy Process "Key Messages on Accelerating Progress on the SDGs in the Asia-Pacific Region Prepared for the Asia Pacific Forum for Sustainable Development (APFSD)"
- Commissioned Report "Circulating and Ecological Economy -- Japan's Vision for Realisation of Decarbonisation and SDGs"
- Policy Report "Inclusive Green Finance: A Survey of the Policy Landscape"
- Policy Report "Implementing Solutions to Climate Change and Air Pollution in Asia: Mobilising Finance, Strengthening Policies and Building Capacities"
- Book Chapter "Managing Air Pollution in Asia: Towards a Multi-Benefit, Multi-Source Strategy" (Global Environment Outlook 6 for Industry in Asia-Pacific)
- Book Chapter "Enabling Purposive Experimentation in the Transport Sector, the Case of BRT Improvement and CNG Conversion in Semarang, Indonesia" (Sustainability and the Automobile Industry in Asia: Policy and Governance)
- Peer-reviewed Article "Modelling of Sectoral Emissions of Short-lived and Long-lived Climate Pollutants under Various Control Technological Strategies" (Science of the Total Environment)

## Research Highlights: Stakeholder Taskforces

# City Taskforce

### Outline

IGES co-creates solutions and promotes policies and strategies for low-carbon/carbon neutral, resilient and sustainable societies with stakeholders in Asian cities, including those in Japan. In collaboration with other regional and international organisations and networks, IGES facilitates the sharing of solutions and strategies among like-minded cities, and contributes to enhancing implementation capacity at the city level.

### Major Activities in FY2019

#### Supporting SDG Localisation through Voluntary Local Reviews (VLRs)

In FY2018, IGES supported three Japanese cities, namely Shimokawa town (Hokkaido), Toyama city, and Kitakyushu city to produce the Voluntary Local Review (VLR) reports that are the first VLRs in the world together with the VLR of New York city. In FY2019, IGES supported the VLR report of the City of Hamamatsu, which the Mayor of Hamamatsu city launched at an event at the SDG Summit held in New York in September 2020. IGES also published the Shimokawa Method for Voluntary Local Review (VLR) that shows practical steps for the VLR based on the experience of VLR of Shimokawa town, as a

reference material for local governments interested in conducting their VLR.

IGES provides showcases for SDG actions by local governments through the “VLR Lab,” an online platform of VLR launched in March 2019 in collaboration with partner organisations including the United Cities and Local Governments Asia-Pacific (UCLG ASPAC). By the end of July 2020, VLR reports of 16 cities around the world have been included on the platform. IGES published the State of the VLR 2020 that extracted lessons from the VLRs of 14 cities in Asia, North and South America and EU.



“Taiyo Juken SDG Report 2019” was launched at HLPF2019 (New York, US)

In addition to the support for voluntary reviews of the SDGs by local governments, IGES also assists in the voluntary review of SDG actions of small companies in Japan thereby contributing to local sustainability. The review report “Taiyo Juken SDG Report 2019” was launched at HLPF2019 in July 2019 in New York as the world first voluntary review report of SMEs (small and medium enterprises).

IGES also contributed to information-sharing and capacity development on SDG localisation through the ASEAN SDGs Frontrunner Cities Programme, the Asia Pacific Mayors Academy led by the UNESCAP and UNHABITAT, and side events on VLRs at the 7th Asia Pacific Urban Forum (in Penang, October 2019) and the 10th World Urban Forum (in Abu Dhabi, February 2020).

#### Sharing Lessons and Providing Support towards Zero-carbon Cities

IGES supported city-to-city collaboration projects between Kawasaki-Riau (Indonesia), Kawasaki-Jakarta (Indonesia), and Tokyo-Kuala Lumpur (Malaysia) aiming to bring co-benefit impacts to cities. Under the collaboration project of Tokyo-Kuala Lumpur (KL), Tokyo’s building energy efficiency and renewable energy policy schemes and programmes were shared to support the development of

sustainable building policy framework for KL, which contribute to the goals set by KL's Low Carbon Society Blueprint 2030. In addition to the city-to-city collaboration project, IGES developed a low-carbon society scenario towards 2050 in Jakarta in collaboration with Bandung Institute of Technology, Indonesia.

IGES also continued to contribute to the China-Japan-Korea Joint Research on Decarbonisation of Cities endorsed at the 20th Tripartite Environment Ministers Meeting among China, Japan and Republic of Korea (TEMM 20) in Suzhou, China, in June 2018. A report of good practices towards decarbonisation and sustainable cities in cities in the three countries was produced and a report on the progress of the research project "Good Practices towards Decarbonisation and Sustainable Cities"



Tokyo-KL collaboration workshop (Kuala Lumpur, Malaysia)

was presented at the TEMM 21 held in Kitakyushu, Japan, November 2019 and launched at UNFCCC-COP25 held in Madrid, Spain in December 2019.

### Contributing the Discussion of Climate and SDG Synergy Approach

IGES contributed to the discussion of climate and

SDG synergy approach through events such as one at the UNFCCC-COP25 entitled "Climate and SDGs Synergy Approach: Achieving Decarbonised Societies and Securing Human Wellbeing", which was a follow-up event of the first Climate and SDGs Synergy Conference organised by UNDESA and UNFCCC Secretariat in Copenhagen, Denmark in April 2019.




COP25 side event on climate and SDGs synergy approach (Madrid, Spain)

## Selected Publications

- "Hamamatsu City Voluntary Local Review 2019"
- "Taiyo Juken SDG Report 2019"
- "Shimokawa Method for Voluntary Local Reviews"
- "State of the Voluntary Local Reviews 2020: Local Action for Global Impact in Achieving the SDGs"
- "Good Practices towards Decarbonization and Sustainable Cities"
- "Long-term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050"





Research Highlights: Stakeholder Taskforces

# Finance Taskforce

## Outline

Delivering on the SDGs and commitments under the Paris Agreement requires mobilising and shifting large amounts of public and private capital. To achieve low-carbon and climate resilient sustainable development, IGES is engaged in policy research and recommendations as well as capacity building. Specific areas of focus are responsible investment (e.g. ESG investment), financing options, financial disclosure on climate-related risks, responses to business opportunities, and financial flows related to SDGs.

## Major Activities in FY2019

### Green Bond Knowledge Platform

IGES has been engaged in commissioned work on green bonds from the MOEJ since April 2017. MOEJ has strongly supported the issuance of green bonds in Japan through development of the Green Bond Guidelines, support for demonstration projects, subsidy programmes and a knowledge platform. Since April 2018, IGES has served as the secretariat

of a knowledge platform on green bonds, which was expanded to become the green finance portal from April 2020.

IGES has collected and consolidated information on the status of the global green bonds market, green bond guidelines in various countries and regions, good practices on green bonds, case studies of controversial green bonds, definition and taxonomy of green projects, types of green bonds and green financial products, and so forth. IGES was also selected as an Advisory Council member of the International Capital Markets Association (ICMA) in October 2019. ICMA drafted and now updates the Green Bond Principles. This has enabled access to information on crucial developments regarding green bonds and has proven useful in establishing networks and relationships with stakeholders in the finance industry. It has also built a partnership with Climate Bonds Initiative, a globally reputable non-profit organisation focused on green bonds, in collecting information, connecting experts, and engaging in outreach for the platform through networking. IGES has also supported MOEJ in a

secretariat role regarding the revision process of the Green Bond Guidelines (initially established in 2017) and in the drafting process of the Green Loan and Sustainability Linked Loan Guidelines. The revised Green Bond Guidelines and the new Green Loan and Sustainability Linked Loan Guidelines were released in March 2020.

### Sustainable Finance

In order to mobilise the huge sums of funds required for implementing the SDGs, it is essential to build sustainable financial systems in which the financial sector, including banks, investors and other service providers, will shift their finance and investments to greener and more sustainable options. For example, the EU has taken the lead, developing the EU Action Plan on Sustainable Finance in March 2018. IGES has been following global trends on sustainable finance, including the EU Action Plan, and identifying specific areas for its analytical work.

In FY2019, IGES also conducted research work on identifying and comparing best practices for policies on sustainable finance both in the EU and



Japan under the “Strategic Partnership to Implement the Paris Agreement: Japan-EU Policy Dialogue on Climate Change” and organised an event at Europa House in October 2019. The event brought together representatives from Japanese industry, EU authorities and experts on sustainable finance for a stakeholder dialogue. An IGES Policy Paper, “Japan EU Comparative Analysis on Sustainable Finance Policy” was drafted, completion forthcoming in early FY2020. Furthermore, interviews with Japanese corporates participating in the Global Compact

Network Japan were conducted in collaboration with Sustainability Governance Centre, and the results were published in the publication “SDGs and Business in the Era of ESG – Actions by Companies and Organisations in Japan.” Two commentaries were also written this fiscal year. More specifically, IGES received a media interview request in regard to the commentary, “Japan’s Sustainable Finance Initiatives: Recent Developments and Challenges,” allowing for an opportunity to share recent insight as a result of recent work with media.

## Selected Publications

- Policy Report “SDGs and Business in the Era of ESG – Actions by Companies and Organisations in Japan”
- Commentary “Japan’s Sustainable Finance Initiatives: Recent Developments and Challenges”
- Commentary “Impact Reporting in Green Bonds: Current Practice and Harmonization”



EU-Japan seminar on sustainable finance (Tokyo, Japan)



# Research Highlights: Stakeholder Taskforces

## Business Taskforce

### Outline

IGES has continued its activities to generate outcomes and impacts by supporting highly motivated businesses in Japan, specifically targeting the promotion of climate change and decarbonisation policies in businesses in Japan.

### Major Activities in FY2019

#### Developing Momentum for Decarbonisation in Japanese Industry

As the secretariat of the Japan Climate Leaders' Partnership (JCLP), a group for companies that develop and publish ambitious recommendations,



Dialogue of JCLP member companies with Prince Charles during his visit to Japan (October 2019)

IGES has proactively organised a total of 10 events, including Symposium on Renewable Energy with 500 participants and the JCLP delegation to Climate Week NYC. Through these dialogues between JCLP companies and overseas experts, as well as by delivering key information mainly to the Japanese industrial sector, IGES has contributed to developing a momentum for decarbonisation among businesses in Japan. In particular, IGES has catalysed the movements by Japanese businesses to decarbonise their own business through RE100, and established a wide recognition for RE100. As a result, there has been substantial growth in companies declaring to switch to 100% renewable energy.



Dialogue with the UN Secretary General's team during JCLP delegation to Climate Week NYC 2019 (September 2019)

#### Expansion of the Corporate Network of JCLP

JCLP has rapidly expanded in size during FY2019. Its 102 members as of April 2019, have grown to 140 members as of April 2020 (37% growth from the previous year). As a result, as a measure of significance in the Japanese business sector, the joint sales figures of JCLP members are approximately 15% of sales for all Japanese companies.

#### Supporting Decarbonisation by Businesses

In cooperation with The Climate Group, IGES has supported the applications of Japanese companies for RE100<sup>1</sup>, EV100<sup>2</sup>, and EP100<sup>3</sup> memberships as the JCLP secretariat. As a result, a total of 17 companies have newly joined RE100, EV100, and/or EP100 initiatives, thereby accelerating efforts toward decarbonisation by businesses. In addition, IGES has supported global recognition of Japanese companies taking decarbonisation actions, through sharing their activities to overseas network. As a result, AEON's case study was highlighted in RE100 Annual Report, and RICOH was appointed as a member of RE100 Advisory Council.

#### Promoting Expansion of Renewable Energy in Japan

In October 2019, IGES and JCLP, together with ICLEI Japan, and Green Purchasing Network launched

“RE Action”, a new initiative in Japan for SMEs, educational institutions, medical institutions, and local governments to declare switching to 100% renewable electricity by 2050. This is a complimentary initiative to RE100, both of which will create demand for renewable energy in Japan. Since its launch, the number of members has reached 62 (0.79TWh electricity consumption) as of April 2020.

### Policy Engagement

JCLP has participated in the following committees that encourage recommendations for ambitious policy engagement from a corporate perspective: Policy Development Working Group of the Central Environment Council, and Subcommittee on Carbon Pricing (Ministry of the Environment). IGES has supported participation as the JCLP secretariat.

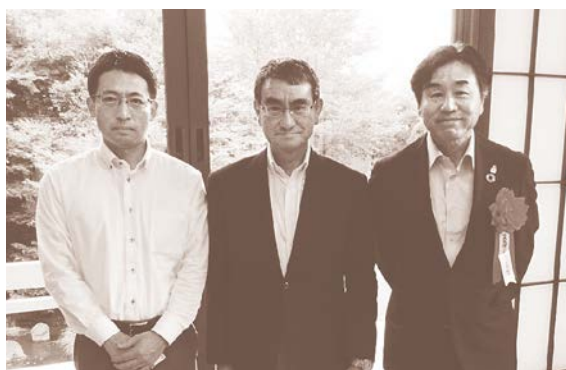
In addition, JCLP has conducted dialogues with the Minister of the Environment and the Vice Minister of Economy, Trade and Industry. Dialogue

participants have communicated corporate efforts along with their strong motivation to decarbonise, calling for more ambitious deployment of policies. JCLP has published four policy statements/recommendations, which IGES has contributed as the secretariat. Furthermore, in addition to regular information sharing with MOEJ as in the past, IGES, as the JCLP secretariat has supported coordination to strengthen relation with Ministry of Economy, Trade and Industry (METI) and agreed to organise regular dialogue with JCLP from FY2020. JCLP was invited to present at a meeting by Group of LDP members on Renewable Energy, which again IGES supported in its coordination as the JCLP secretariat.

- 1 International business initiative committed to 100% renewable power, working to massively increase corporate demand for and delivery of renewable energy.
- 2 International business initiative aims to drive the transition to electro-mobility.
- 3 International business initiative pledged to double the energy productivity of businesses.

## Selected Publications

- Recommendations from JCLP for Japan’s Long-term Growth Strategy Under the Paris Agreement (by JCLP)
- Proposal from Corporate Consumers Aiming to Sourcing 100% Power from Renewable Electricity (by 20 RE100 Members in Japan)
- Position Statement on Introduction of New Basic Transmission Fees to Power Suppliers (by JCLP)
- Position Statement on Japan’s Nationally Determined Contribution (NDC) to Reduce Greenhouse Gas Emissions (by JCLP)
- Japanese translation of Mission Possible Report by Energy Transition Committee
- Climate Leaders’ Signal
- JCLP Website



JCLP receive recognition for year 2019 from the Foreign Minister, for its policy engagement activities (July 2019)

# 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 GHG emissions in developing countries by promoting the transfer and diffusion of low-carbon technologies (LCTs).

In FY2019, with support from MOEJ and Hyogo Prefecture, KRC conducted research activities mainly on three fronts in collaboration with other research groups within IGES, as well as leading regional and international organisations.

### Low-carbon Technology Transfer in India and Thailand

Through the Japan-India Technology Matchmaking Platform (JITMAP) network, KRC has been promoting technology transfer of compressed air systems and steam management systems to Indian companies. With the cooperation of the Energy and Resources Institute (TERI) and Japanese companies, simple

energy-saving diagnoses were conducted at local companies to which the technology may be applied, and the results were shared with the companies as well as with other potential end-users at workshops. The application status of recommended equipment and operation methods was also investigated in the companies that have been diagnosed in the past, which revealed cases where energy savings of about 30% were achieved.

In Thailand, energy management report data for the past ten years of 20 anonymous companies (chemical, metal, paper/pulp, textile, food processing) were obtained from the Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy. Analysis was carried

out on how much energy efficiency had improved with respect to the production. As a result, it was found that five to six companies showed a certain improvement trend, while others showed a flat or irregular tendency. DEDE collects such reports from more than 9,000 designated factories and buildings every year, but does not perform this type of analysis. This issue was pointed out at the policy dialogue with the DEDE officials, and KRC recommended to promote the energy conservation efforts of each company by evaluating and publishing the analysis results. In cooperation with DEDE, inspection training for about 20 energy managers of buildings was also organised in a commercial building in Bangkok which achieved significant energy savings.



Simple energy-saving diagnoses of Indian companies



### Regional Circular and Ecological Sphere Model Project in Hokusetsu Region

In cooperation with the Hyogo Prefectural Government Hanshin-kita Regional Office and the Global Warming Countermeasures Division of the Agricultural Policy and Environment Department, KRC coordinated with the concerned parties of three municipalities in the Hokusetsu region and created a regional circular and ecological sphere (CES) plan centered on the conservation of satoyama in the region. Under the plan, through the forest management of prefectural-owned environmental forests utilising local environmental NGOs and forest volunteer groups, the felled woody biomass will be processed into firewood and chips, and then will be used as fuel for heating and hot water supply in local public facilities and welfare facilities; the plan aims to build such a supply system. It was also planned to install share cycles and green slow mobility (public transportation by electric cars of four or more passengers at less than 20 km/h) along Nose Electric Railway, which runs through the area,

to improve convenience for residents and tourists along the line. The aim is to increase the number of people who interact in the region and to revitalise the local economy.

### Disaster Risk Assessment Training for ASEAN Officials in Charge of Disaster Prevention and Climate Change

Since October 2018, KRC and IGES Regional Centre in Bangkok have been carrying out a disaster risk assessment project by incorporating the climate change impact in ASEAN supported by the Japan-ASEAN Integration Fund (JAIF). Under the project, KRC managed a two-week training in October-November 2019 in Japan. A total of 22 officials in charge of disaster prevention, meteorology/hydrology, rivers, forest management, etc. from nine ASEAN countries participated in the training, and learned about Japan's sabo (erosion control) and flood prevention measures and risk assessment methods in consideration of climate change.



Learning visits to sabo and flood control facilities



Information exchange meeting between Hokusetsu and Kameoka Regional-CES projects

### Collaborative Lesson of Decarbonised Society at Kobe University

In collaboration with Econo-Legal Studies (ELS), Kobe University, in the first half of FY2020, KRC held a subject research course on the theme of a decarbonised society which consists of 12 lectures. For undergraduate and graduate students of the faculties of economics and law, an overview was shared detailing actions taken at a country level, such as carbon tax and emission trading schemes, as well as actions by private companies, local governments, and civic groups, towards the

formation of a decarbonised society. The policies and actions necessary for the formation of a decarbonised society were discussed and the main message is being compiled to be submitted to the director in charge of environment and the president of Kobe University.

### Selected Publications

- FY2019 MOEJ Commissioned Report on CO<sub>2</sub> Emissions Reduction Technology Assessment and Verification Project
- Japan-India Technology Matchmaking Platform (JITMAP) Brochure
- Hokusetsu Regional CES project website (<https://hokuces.jp/>)
- Presentation on Disaster Risk Reduction by Integrating Climate Change Projection into Flood and Landslide Risk Assessment at the International Disaster Reduction Alliance (DRA) Forum 2020

## Kitakyushu Urban Centre

The Kitakyushu Urban Centre (KUC) is located in the City of Kitakyushu, which has gone from being a byword for pollution to one of Japan's pre-eminent environmental cities, and is now aiming to become a SDGs frontrunner city. KUC currently conducts practical research activities with cities in Asia and the Pacific to promote local governmental initiatives to realise sustainable cities in the areas of resource circulation, zero-carbon, green growth, and localisation of the SDGs.

### Mainstreaming Low-carbon and Resilient Policies into Urban Planning and Implementation

KUC has been functioning as a MOEJ-led platform to facilitate city-to-city collaboration activities between Asian and Japanese cities for creating low-carbon societies in Asia since FY2013. KUC supported the implementation of 17 projects under this City-to-City Collaboration Programme in FY2019. Also, KUC directly participated in various projects such as the Kitakyushu-Davao collaboration project, and supported Davao City government to create GHG inventory and a list of mitigation options to be included in a local climate change action plan (LCCAP). Moreover, KUC supported the Climate Change International Technical and Training Center (CITC) in Thailand in the development of a training curriculum for climate change laws and regulations as a JICA technical expert team member. In addition, together with the Climate and Energy team of IGES, KUC conducted comprehensive reviews on GHG inventories of developing countries submitted to



Training on city-to-city collaboration for creating Low-carbon society

UNFCCC/COP. The work was done by IGES and the Greenhouse Gas Management Institute, and the result was published as UNDP's "Global Database of National GHG Inventory (GHGI) Capacity in Developing Countries".

### Evolving Sustainable Waste Management Practices

KUC supported various national governments (Philippines, Malaysia and Bangladesh) and local governments (Davao City, Balikpapan City and Bandung City) in the improvement of waste management policies, plans and practices. Specifically, KUC contributed to the development of waste-to-energy guidelines as well as the Department Administrative Order on waste-to-energy technologies for the national governments of Malaysia and the Philippines respectively. KUC has also been an implementation partner of the World Bank to design a policy framework as well as implementation arrangements on Extended Producer Responsibility (EPR) targeting plastic waste in Bangladesh. In addition, KUC provided technical guidelines to operate the Takakura composting method in Bandung City. The corresponding operational manual was published in English and Bahasa Indonesia, and will be used as the Standard Operational Procedure (SOP) of composting centres in Bandung. KUC also worked as a mediator to facilitate the transition of applying appropriate system and technologies to Asian cities together with City of Kitakyushu, including support for Nishihara Corporation to initiate a pilot project of municipal solid waste composting business with PT Pupuk Indonesia in Balikpapan City. KUC explores new opportunities to improve plastic waste

management in Asian cities in collaboration with other international donors (e.g. UN-Habitat, Toyota Foundation, and Alliance to End Plastic Waste). KUC has contributed to accelerating the transition of cities to the circular economy by developing the “Kitakyushu Circular Economy Vision”. This vision sets out the future direction for eco-industry located in Kitakyushu City under an initiative by the private sector in collaboration with academia and the city government.

### Promoting Green Growth and Sound Urban Environmental Management (Localising the Sustainable Development Goals (SDGs) in Kitakyushu City and Kyushu Region)

KUC has been acknowledged as a practitioner of SDGs localisation, and researchers have been invited as speakers on several key international programmes such as Local 2030 of High-Level Political Forum (HLPF) 2019, UN-DESA’s Expert Group Meetings on the sub-national reviewing processes of the Voluntary Local Reviews (VLRs), and the OECD’s Territorial Approach to the SDGs for launching the synthesis report and local indicator web-tool at the World Urban Forum 2020 in Abu Dhabi. On the



The 10th World Urban Forum 2020  
(Abu Dhabi, United Arab Emirates)



Kitakyushu SDGs Training Programme

domestic front, KUC acted as the Vice-Chair of the Kitakyushu City SDGs Council, provided lectures on the SDGs to local schools, companies and other organisations (conducted about 10 times in FY2019). KUC also launched its own initiative, the Kitakyushu SDGs-Training Platform which includes work on developing a website (<https://sdgs-kitakyushu.iges.jp/en>) and a pilot training programme held in October 2019 in English, which charged a fee for participation. KUC has been acting as a chief advisor in JICA’s verification survey on an environmentally-friendly soap-based fire-extinguishing agent for forest and peatland fire in Indonesia in collaboration with a local SME, Shabondama Soap Co., Ltd., University of Kitakyushu, and the City of Kitakyushu. This initiative is listed under the Kitakyushu City’s SDGs Future City actions.

#### Selected Publications

- “Takakura Composting Method (TCM) as an Appropriate Environmental Technology for Urban Waste Management”  
(International Journal of Building, Urban, Interior and Landscape Technology (BUILT) Volume (Issue): 13-2019)

- “Opportunities of Overseas Expansion of Plastic Resource Circulation System” (Journal of Environmental Information Science, No. 48-3, 2019)
- “History and Development of Water Business Overseas Development in Kitakyushu” (KIGS commissioned product in Japanese)
- “Operation Manual for Small-to-Medium Scale Compost Centres Using the Takakura Composting Method” (IGES training and learning material in English/Bahasa Indonesia)
- “Creating Sustainable, Zero-Carbon Societies through City-to-City Collaboration” (MOEJ commissioned product in Japanese and English)
- “Article on COP25 and UNFCCC”  
(Annual publication of Kitakyushu Japan and German Association, July 2020)

### Regional Centre

IGES Regional Centre in Bangkok (BRC) has served as a hub for networks and partnerships in the Asia-Pacific region since its establishment in 2011. It focuses on priority issues including climate change mitigation, adaptation, environmental safeguards and sustainable cities, and manages relevant networks for knowledge sharing, as well as implementing relevant projects in close collaboration with various supporting organisations and national and sub-national governments.

#### Climate Change Mitigation

The UNFCCC-IGES Regional Collaboration Centre (RCC) is supporting efforts to substantially scale up



climate finance to contribute to the objectives of the Paris Agreement and has implemented several Needs-Based-Finance projects in a number of subregions, including ASEAN, Asian LDCs, Central and North Asia, and Polynesia. Additionally, the RCC continues to provide support for the Clean Development Mechanism (CDM) and standardised baselines in the Asia-Pacific region and assists ASEAN countries and Pakistan in exploring the potential of carbon pricing instruments. The RCC has also increased MRV capacity building under a project on Article 6 of the Paris Agreement and transparency, and has reached out to non-state actors for their contributions under the Global Climate Action Agenda.

### Climate Change Adaptation (CCA)

The ASEAN project on Disaster Risk Reduction (DRR) by integrating Climate Change projection into flood and landslide risk assessment targets long-term positive impact and aims to make meaningful progress in improving institutional mechanisms and integration of DRR and CCA into local development plans through close inter-ministerial/agency coordination in each of the ASEAN Member States. The project equips government (and wider stakeholders in ASEAN) with accurate planning, technical skills-application of risk/hazard maps integrating future climate change projection and early warning services, with the ultimate goal of improving how the impacts of natural disasters and climate change are handled.

To date, 10 out of 11 planned activities have been carried out, including field exercises, data-collection and hands-on training. Learning visits and regional

workshops have been marked completed while remaining activities include the finalisation of its guideline, technical reports and regional seminar – to be completed by/before December 2020.

In addition, in anticipation of the launch of Asia-Pacific Adaptation Information Platform (AP-PLAT), BRC not only supported the operation of Climate Change Asia (CCA) for adaptation project proposal development for Asia-Pacific countries in cooperation with the Asian Institute of Technology (AIT) Regional Resource Centre for Asia and the Pacific (RRC.AP), it also organised a session as a side event on AP-PLAT at Asia Pacific Climate Week (APCW) in Bangkok in September 2019.

### Localising the SDGs in ASEAN Cities

The 2nd Regional Workshop of the ASEAN SDGs Frontrunner Cities Programme (SDGs-FC) was reported to the 18th ASEAN Working Group on Environmentally Sustainable Cities (AWGESC). The 3rd Regional Workshop (initially planned in March 2020) in Manila, Philippines was postponed due

to Covid-19. However, 'National SDGs Workshops' managed to be convened in Cambodia, Indonesia, Lao PDR, Malaysia, Thailand and Viet Nam. A total of 26 cities' innovative policies/practices relating to the 3Rs (i.e. organic waste management and reducing single-use plastics), multi-purpose green public spaces and low-carbon cities (MRV, building energy efficiency etc.) were supported with pilot project grants and then highlighted in reports, showcase videos for dissemination to the world stage social media, publications (national/city priority SDGs reports) and website.

### Environmental Compliance and Enforcement

In 2019, AECEN, in partnership with the International Network for Environmental Compliance and Enforcement (INECE) and the United States Environmental Protection Agency (USEPA), facilitated the Environmental Governance Twinning Programme between the Taiwan Environmental Protection Administration (EPA Taiwan) and the Viet Nam Ministry of Natural Resources and the Environment (MONRE).



National SDGs workshops in Cambodia, Indonesia, Lao PDR, Malaysia, Thailand and Viet Nam



In addition, AECEN has been promoting and sharing the series of EIA articles (Phase 4–5) through the Asia Environmental Impact Assessment Network to increase capacity and knowledge sharing of government officials of AECEN member countries as well as other practitioners worldwide.

### Sustainable Consumption and Production (SCP)

Launched in 2007, the EU SWITCH-Asia programme has achieved more than a decade of progress on SCP in 24 countries in the region. A launch event to introduce the SWITCH-Asia programme in Central Asia was held on 5 July 2019 in Bishkek, Kyrgyzstan. In addition, the launch event for SWITCH-Asia new grants projects in Central Asia was organised on 3 March 2020.

Since 2019, IGES is assisting the SCP Facility on the implementation of activities in Lao PDR and Viet Nam, following multi-stakeholder dialogues in those countries. The SCP Facility together with IGES provided technical support to the Ministry of Industry



Sustainable and equitable shrimp production and value chain development in Viet Nam (SusV) © SWITCH-Asia

and Trade (MoIT) of Viet Nam in the development of its National Action Plan on SCP 2021-2030. The National Action Plan was approved by Viet Nam's Prime Minister in June 2020. In addition, IGES conducted the assessment of the state of SCP in Lao PDR and presented its results during the Multi-Stakeholder Consultation conducted in the country.

In line with the SWITCH-Asia Communication Strategy, the SCP Facility officially launched the new SWITCH-Asia website. Since July 2019, 175 knowledge products have been designed, produced and published on the SWITCH-Asia website, and promoted to target audiences.

### Global Environment Outlook (GEO)

GEO-6, UN Environment's flagship report, aims to help policymakers to deliver on the environmental dimensions of the SDGs and Multilateral Environmental Agreements (MEAs). BRC took the lead preparing an e-book of the GEO-6 Industry in Asia Pacific in FY2018. In FY2019, a launch session for this publication, "Asian Industrialisation as a Source of Emerging Pollutants and Environmental Impacts" was organised at ISAP2019.

### Selected Publications

- Report on Green Climate Fund Existing Portfolio
- Report on Financial Landscape for Improving Energy Efficiency in Thailand
- Report on Inclusive Green Finance
- 4 showcase videos of ASEAN SDGs Frontrunner Cities
- 2nd Interim Progress Report of the ASEAN SDGs Frontrunner Cities Programme

- Report on Environmental Governance Twinning Program for Viet Nam Ministry of Natural Resources and Environment
- Sustainable Housing: Addressing SCP in the Housing Sector (Scoping Study/Switch Asia)
- Addressing SCP in the Fashion and Apparel Sector (Scoping Study/Switch Asia)
- Current State of SCP in Lao PDR (Background Document/Switch Asia)
- Current State of SCP in Viet Nam (Background Document/Switch Asia)
- 2nd Interim Project Progress Report on Disaster Risk Reduction by Integrating Climate Change Projection into Risk Assessment
- Global Assessment Report on Disaster Risk Reduction 2019 (GAR-19) Contributing Paper: An Assessment of Mainstreaming Climate Change Concerns into Institutions and Policies for Disaster Risk Reduction in ASEAN
- 4 showcase videos of ASEAN project on Disaster Risk Reduction (DRR) by integrating Climate Change projection into flood and landslide risk assessment

### Beijing Office <IGES Sino-Japan Cooperation 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).

### Promoting the Co-benefits of Better Air Quality and CO<sub>2</sub> Reduction in China through Model Projects

The “Japan-China city- to-city cooperation project” was started in FY2014 to improve air quality in China, based on the existing relationship of friendship cities between Japan and China, and aimed at promoting Japan-China cooperation mainly by

capacity building. This cooperation (Phase 1) ended in FY2018. From FY2019, new cooperation (Phase 2) started based on the “Agreement between the Ministry of the Environment, Japan, and Ministry of Ecology and Environment of the People’s Republic of China on cooperation to implement researches and model projects to improve air quality,” which was signed by the Ministers of the Environment of Japan and China at the Tripartite Environment Ministers Meeting among Japan, China and Korea (TEMM) in June, 2018. The policies of cooperation in Phase 2 are as shown below. In FY2019, IGES

focused on coordination with stakeholders and local governments in Japan and China, and also on starting up new model projects. IGES started seven projects below.

### Selected Publications

- Serial columns in “Kankyo Shimbun” (every month)
- Serial columns in “Global Net” magazine (every two months)
- Columns in “EIC Net” (irregular)

#### Policies of Cooperation in Phase 2

When deciding specific content for cooperation, research and model projects should be selected and implemented so as to fulfill the conditions shown below:

- 1 Impact given to policies and contribution to better air quality
- 2 Co-benefits of GHG reduction
- 3 Contribution of Japanese environmental technologies and facilities
- 4 Possibilities of horizontal development in China and development to Asian countries (third countries)

#### Model Projects Started in FY2019

- 1 Model project on energy saving and reduction of air pollutants using new technology to recover and reuse exhaust heat
- 2 Model project on PM reduction countermeasures using residual stems from crops
- 3 Model project on countermeasures against small-sized decentralised sources of pollution in the restaurant industry
- 4 Model project on reduction of VOC emissions from manufacturers
- 5 Model project on CO<sub>2</sub> reduction by recycling household waste
- 6 Model project on energy-saving and reduction of air pollutants in spinning, weaving and dyeing manufacturers
- 7 Model project on countermeasures in priority areas to reduce ozone pollution



Model facility for oil smoke and odour treatment set up in Shanghai Academy of Environmental Sciences



Model facility for recycling household waste set up in Jinghai District, Tianjin City

## ○ Tokyo Sustainability Forum

The Tokyo Sustainability Forum (TSF) aims to facilitate impact generation with various stakeholders, particularly those based in Tokyo. It hosts the IPBES Technical Support Units and is co-located with the office of ICLEI Japan. The Forum implements the Japan Biodiversity Fund (JBF) IPBES Capacity Building Project and also works in collaboration with the Natural Resources and Ecosystem Services Area and the City Taskforce, respectively.

### IPBES Technical Support Units

TSF continued to host the IPBES Technical Support Units for the Regional Assessment for Asia and the Pacific (TSU-AP) and for the Assessment of Invasive Alien Species (TSU-IAS), and supported their work, including the uptake of the IPBES regional assessment report for Asia-Pacific and the development of a thematic assessment report on invasive alien species.

### IPBES Capacity Building Project

As part of the JBF IPBES Capacity Building Project started in April 2016, TSF organised the Northeast



EIA technical training in Myanmar

Asia and the Southeast Asia sub-regions meetings of the science-policy dialogue based on the IPBES regional assessment report. TSF also created the summary report of the results of the entire project.

### International Collaboration on Environmental Impact Assessment (EIA)

In order to promote international collaboration on EIA among Asian countries, and commissioned by the Ministry of the Environment of Japan, TSF conducted research on EIA systems and their implementation in Bangladesh and India, developed an information platform for the Asia EIA Network, and held EIA technical training seminars in Myanmar.

### IGES Evening Forum

To strengthen cooperation between IGES and related organisations including the Ministry of the Environment, TSF launched “IGES Evening Forum”, a forum for cross-cutting exchanges of views. The two forums were held in collaboration with the Natural Resources and Ecosystem Services Area and the City Taskforce.

### Function as a Satellite Office in Tokyo

TSF assisted IGES staff with meeting support and provided administrative support to the IGES President, Managing Director, and Senior Fellows/Fellows based in Tokyo for implementing their activities.

### Selected Publications

- “Project Report on Promoting Asian Regional Collaboration on EIA”
- “EIA Guidebook for Japanese Companies (Bangladesh, India)”

## Activities at Other Facilities

### ○ Technical Support Unit (TSU) for the Intergovernmental Panel on Climate Change (IPCC) Task Force on National Greenhouse Gas Inventories (TFI)

The TSU for IPCC TFI provides scientific, technical and organisational support to the TFI under the supervision of the TFI Bureau (TFB) to fulfil the following two objectives.

- To develop and refine an internationally-agreed methodology and software for the calculation and reporting of national greenhouse gas (GHG) emissions and removals;
- To encourage the widespread use of this methodology by countries participating in the IPCC and by signatories of the United Nations Framework Convention on Climate Change (UNFCCC).

### Development, Maintenance and Improvement of IPCC Inventory Software

The IPCC Inventory Software<sup>1</sup> helps inventory compilers to estimate emissions and removals of greenhouse gases according to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines). In FY2019, the TSU organised an expert meeting to collect feedback from the software users, which helped improve the software. The TSU released an improved version, 2.691, with extended capacity for Tier 2 methods to estimate emissions from livestock. In addition,

the TSU continued to provide technical support to users. In December 2019, IPCC signed an agreement with UNFCCC for the further improvement of the software that the TSU will be implementing in the FY2020 and beyond.

1 <http://www.ipcc-nggip.iges.or.jp/software/index.html>



Expert meeting to collect EFDB and software users' feedback (October 2019, Hayama)

### Management of IPCC Emission Factor Database (EFDB)

The IPCC EFDB<sup>2</sup> is a database of emission factors and other parameters whereby national experts can find nationally appropriate values to develop national GHG inventories in accordance with the IPCC inventory guidelines. In FY2019, the TSU continued enhancing the usefulness of the database by collecting data, organising relevant expert



17th meeting of the EFDB Editorial Board and 17th data meeting for EFDB (November 2019, Osaka)

meetings, including data meeting on agriculture, and supporting the EFDB Editorial Board, as well as implementing other activities to improve the database.

2 <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>

### Production of Reports to Supplement or Refine the IPCC Inventory Guidelines

At the 49th Session in May 2019, the IPCC adopted/accepted a Methodology Report entitled the "2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories" (2019 Refinement). In FY2019, the TSU did the final copy-edit and published the 2019 Refinement at the IPCC TFI webpage. The TSU also worked on corrigenda for the 2006 IPCC Guidelines. In addition, the TSU has implemented outreach activities for the Methodological Reports, such as through the organisation of side-events at UNFCCC COP 25 (December 2019), and participation at other international events. Furthermore, the TSU has started preparatory work to produce a new Methodology Report on estimation of short-lived climate forcers (SLCF) emissions, following the decision taken by the IPCC at its 49th Session.

### Collaboration with Other Organisations

In FY2019, the TSU continued cooperation with other organisations on inventory-related matters. For example, the TSU contributed its support to inventory-related capacity building programmes implemented by the UNFCCC and the National Institute for Environmental Studies (NIES) by sending programme officers as resource persons and providing inventory-related materials developed by the IPCC TFI.

The TSU also collaborated with other projects in IGES, where possible, on matters relating to estimation of greenhouse gas emissions and removals.

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

APN is an intergovernmental network that aims to promote collaborative research and to develop the capacity of scientists, practitioners and others, especially in developing countries, on areas such as climate change, biodiversity and ecosystems, changes in atmospheric, terrestrial and marine domains, and adaptation and resilience. By supporting research and capacity development, APN assists in the development of policy that contributes to sustainable development and low-carbon society.

### Collaborative Regional Research Programme (CRRP)

APN provided support to international collaborative research projects approved for FY2019 funding projects at the 41st Steering committee (SC) meeting.

### Scientific Capacity Building and Enhancement for Sustainable Development in Developing Countries (CAPaBLE) Programme

APN provided support to capacity building activities for early-career scientists, practitioners, and others mainly in developing countries for activities approved for FY2019 funding projects at the 41st SC meeting.

### International Forum/Symposium/Workshop

i. Task Force Meeting for Drafting 4th Strategic Phase Report and 5th Strategic Plan



APN established the Task Force (TF: composed of APN members, etc.) to draft the 4th Strategic Phase Report and the 5th Strategic Plan. The first TF meeting was held in July 2019, and the second TF meeting was held in January 2020, both in Kobe. Although APN had originally planned to launch the 4th Strategic Phase Report and 5th Strategic Plan in June 2020, it was postponed due to the COVID-19 pandemic.

#### ii. Sub Regional Committee (SRC) Meeting

To develop a project that serves the policy needs of member countries, APN holds subregional committee (SRC) meetings in each region, i.e., Temperate East Asia (TEA), Southeast Asia (SEA), and South Asia (SA), to discuss the regional research priorities and capacity development needs that are common within those areas. In FY2019, the SEA-SRC meeting was held in November 2019 in Phnom Penh, Cambodia, and the TEA-SRC meeting was held in January 2020 in Kobe, Japan. In addition, the SA-SRC meeting was supposed to be held in April 2020 in Islamabad, Pakistan, and the Scoping workshop to establish the Pacific SRC was supposed to be held in March 2020 in Hawaii, USA, but both meetings were postponed due to the COVID-19 pandemic.



SEA-SRC meeting (November 2019, Phnom Penh)

#### iii. Proposal Development Training Workshop (PDTW)

APN had planned a Proposal Development Training Workshop in April 2020 in Islamabad, Pakistan, to develop the capacity of early-career scientists to compete for research funding. However, it was postponed due to the COVID-19 pandemic. The theme of the workshop was “Climate-Smart Agriculture.”

#### iv. Activities Jointly Organised and Conducted with Hyogo Prefectural Government

Since the Hyogo Prefectural government is providing continuous support to APN, APN holds a seminar called “Hyogo Activities” every year especially for the residents of Hyogo prefecture. The seminar aims at disseminating and raising awareness of issues on global change. In FY2019, APN, in collaboration with Kobe University and International EMECS centre, held a seminar on “Biodiversity of coastal seas and restoring the environment” at Kobe University in February 2020. Along with researchers from overseas, local high school students and university students also joined the seminar and presented their research and environmental activities.



Seminar “Biodiversity of coastal seas and restoring the environment” (February 2020, Kobe)

#### Others

APN had planned the 24th Intergovernmental Meeting (IGM) and Scientific Planning Group (SPG) Meeting in June 2020 in Dhaka, Bangladesh. However, these meetings were postponed due to the COVID-19 pandemic.

#### 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. In FY2019, JISE implemented the following activities to promote its projects, including training, and information collection and provision on forests, nature regeneration and ecology.

#### Research Projects

On the international research front, JISE conducted basic and practical research projects aimed at the regeneration of tropical forests mainly in Malaysia, Kenya, Lao PDR and Cambodia, which were partially supported by external research grants. The projects promoted hands-on activities for reforestation and nature restoration by using ecological approaches to clarify floristic composition and structure of natural forests and growth conditions of planted trees and raised seedlings, and by providing technical support for school children to learn about biodiversity in educational institutions. In addition, JISE strengthened mutual cooperation with the IGES Natural Resources and Ecosystem Services (NRE)

Area, and promoted research on ecosystem services evaluation and utilisation of forestry resources aiming at regeneration of Satoyama forests in Lao PDR as well as a research on restoration of degraded forests in Southeast Asia. Furthermore, JISE started a joint study with domestic/international NPOs to restore old sites of mine development in northern Philippines and identified a common theme for future activities.

On the domestic front, JISE carried out vegetation surveys for maintaining disaster-prevention coastal forests (Kyushu region), research on vegetation restoration of hardwood plantations in forest control/public works sites and around urban rivers (Fukui), ecological surveys on environmental protection forests (Tokyo and Yokohama), and phytosociological reviews on the vegetation classification system of Japanese forests. Some outputs of the above-mentioned research projects were presented at various domestic academic meetings, as well as being published in the annual bulletin "Eco-Habitat", the "JISE REPORT" and newsletters.



Field survey on degraded forests in Lao PDR

In addition to the above, JISE conducted other activities on forest regeneration and contributed to the promotion of nature restoration in domestic regions through projects commissioned by private companies, local governments and non-profit organisations. These included vegetation surveys and planning for forest and nature restoration, as well as technical instruction in tree planting in several prefectures including Akita, Iwate, Gunma, Shizuoka, Okayama and Hiroshima.

### Capacity Building

As capacity development projects aimed at developing skilled personnel for environmental conservation, JISE carried out outdoor environmental study programmes (i.e. ecology classes for adults and children, three events, in July and August 2019) in collaboration with Hayama Shiosai Museum, and a vegetation survey training session in October 2019. In addition, JISE has continued its collaboration with the Kanagawa Prefectural Government, holding a joint ecology seminar with the Kanagawa Yokohama Mitsuike Park and co-organising the Youth Science and Technology Festival with the Kanagawa Institute



Ecology class at Yokohama Sankeien Garden

of Industrial Science and Technology (KISTEC). Furthermore, JISE responded to requests from other local governments, educational institutions, and non-profit organisations, and provided technical instruction and guidance in their environmental educational programmes for various generations from infants to elderly people. With the support of an external subsidy, JISE also invited a mission from the forestry section of Luang Prabang Province, Lao PDR to conduct technical training on forest conservation in January 2020, in cooperation with local governments, private companies, universities, NPOs and IGES-NRE.

### Interaction

JISE conducted an Open Seminar in January 2020, entitled "Afforestation and international cooperation in Asia - what to overcome and what to aim for: Practical cases - challenges and prospects under SDGs". The Forum introduced cases of overseas afforestation activities promoted in collaboration with various stakeholders, and emphasised the importance of practical activities for achieving the Sustainable Development Goals (SDGs).

### Dissemination and Public Awareness

To disseminate news of JISE's activities and for public relations purposes, JISE distributed newsletters (three issues a year) highlighting its own activities as well as the efforts of various organisations in environmental conservation. JISE also published its annual bulletin "Eco-Habitat: JISE Research" and the occasional publication "JISE REPORT" (two issues), which contained both domestic and international research results related to ecology and practical activities for ecosystem conservation.

## ● Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Technical Support Unit for the Regional Assessment for Asia and the Pacific (TSU-AP) Technical Support Unit for the Assessment of Invasive Alien Species (TSU-IAS)

IGES has been hosting the technical support unit for the IPBES TSU-AP since 2015 at the Tokyo Sustainability Forum (TSF). Additionally, the IPBES TSU-IAS was also set up at TSF in February 2019. These TSUs have functioned as extensions of the IPBES secretariat that is headquartered in Bonn, Germany. The purpose of the TSUs has been to support and assist in the coordination of these two IPBES assessments, including the drafting of the respective IPBES assessment reports.

### IPBES Asia-Pacific Regional Assessment

In order to promote the uptake of the IPBES Regional Assessment Report on Biodiversity and Ecosystem Services for Asia and the Pacific and its Summary for Policymakers which were approved in March 2018, the IPBES TSU-AP contributed to uptake events in the Asia-Pacific region including a subregional science-policy dialogue workshop organised under a capacity building project funded by the Japan Biodiversity Fund (October 2019 in Bangkok).

### IPBES assessment of invasive alien species

The IPBES thematic assessment of invasive alien species and their control was launched in May 2019. In this project, around 90 experts selected from more than 40 countries are working on the scientific assessment of the status and trends of invasive alien species, their impacts on biodiversity and socio-economy, and policies or measures for their prevention and management. The final report and its summary for policymakers will be published in 2023. IPBES TSU-IAS has been providing support to the selection of the expert group of the assessment, organisation of author meetings, and drafting of the assessment report. In August 2019, the TSU organised the first author meeting in Tsukuba, Japan. Additionally, it contributed to the organisation of a dialogue workshop between authors and representatives of Indigenous Peoples and Local Communities in November 2019 in Montreal, Canada.

Funding for TSU operations is provided by the UNEP Trust Fund, matched by contributions from the Ministry of the Environment of Japan. Further, the TSU is operated in collaboration with entities including the United Nations University (UNU) and Asia-Pacific Network for Global Change Research (APN).



First author meeting of the IPBES assessment of invasive alien species (Tsukuba, Japan)

### About IPBES

IPBES is an intergovernmental body established in 2012 with the objective to strengthen the interface between science and policy related to biodiversity and ecosystem services. IPBES has four functions, scientific assessment, capacity building, knowledge generation and policy support. These functions are the pillars of IPBES' efforts to ascertain the status and trends of global biodiversity and

ecosystem services, the drivers of change, and the impacts on human wellbeing. To date, IPBES has produced a thematic assessment of pollination and pollinators, a methodological assessment of scenarios and models, four regional assessments, a thematic assessment of land degradation and restoration and, most recently, a general global assessment. These outputs are expected to not only assess the state of progress in meeting the global biodiversity targets under the Convention on Biological Diversity as well as the SDGs, but also to contribute to policymaking at various levels, from local to international.

# Strategic Management Office (SMO)

## Outline

The Strategic Management Office (SMO) is made up of three sections: Planning and Management; Knowledge and Communications; and Research and Publications, and carries out comprehensive coordination of IGES research activities, as well as effectively promoting strategic research and the impact generation of outputs.

## Major Activities in FY2019

### Facilitation of Cross Unit Collaboration

SMO played a facilitation role in encouraging cross unit collaboration in major international processes or events including the United Nations Climate Action Summit, the 25th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP25), the Asia-Pacific Forum on Sustainable Development (APFSD) and the High-level Political Forum on Sustainable Development (HLPF).

Furthermore, at the preparation stage of these international processes, there was consolidation of IGES key messages and media briefings; during the events, participation and arranging side events and information dissemination and sharing through SNS; and then after the events, publication of

commentaries, translation of key documents, and seminars on insights and interpretation of these processes and events. In this way, IGES focused on disseminating results on multiple levels.

### Strengthening Domestic Outreach

With the release of the Special Report on Climate Change and Land and the Special Report on the Ocean and Cryosphere in a Changing Climate, two special reports issued by the Intergovernmental Panel on Climate Change (IPCC) in 2019, together with the Special Report on 1.5°C released the previous year, the SMO held a panel discussion at a post-COP25 reporting seminar that included Japanese researchers who had contributed as lead authors (LA). Likewise, for this reporting seminar, SMO created and released handbooks comprised of author interviews, briefing notes and FAQs.

Furthermore, SMO actively published the Japanese translations of major reports in the environmental field, such as the executive summary of the "Global Sustainable Development Report 2019" issued by the United Nations, and the "Transforming the Energy System: And Holding the Line on Rising Global Temperatures" issued by the International Renewable Energy Agency (IRENA). Translated outputs were very popular, accounting for six of the top 25 downloaded outputs in FY2019, pointing

to the great demand for Japanese translations of important reports such as these. SMO will continue in the future to introduce key documents with high international impact to the Japanese audience, together with IGES outputs.

### Increased Domestic and International Media Coverage

In FY2019, focus was placed on increasing the number of website articles based on support and encouragement for each research unit, continued implementation of media briefings, and proactive development and acquisition of external media coverage. As a result, media coverage and inquiries increased. In addition to indirect media coverage, opportunities were acquired to participate in and contribute as an importance source of information in influential major media outlets and programmes, such as a long-standing business column "Keizai Kyoshitsu" in the Nikkei Shimbun newspaper and a television special on NHK's BS1 satellite channel. Regular publication of the IGES e-newsletter and an increased audience through social media have contributed to an increase in website access through those channels. In August 2019, a complete renewal of the IGES website was concluded in an aim to increase landing pages and enhance the internal search function. Consequently, monthly average pageviews increased to 69,507 in FY2019



as compared to 68,039 in FY2018, as increased information posted on the website resulted in a rise in web access. As for publication downloads, in contrast to monthly averages of 18,489 in FY2017 and 23,493 in FY2018, a remarkable rise was seen in FY2019 to 49,693.

### Overall Coordination in Impact Accountability Efforts

At the beginning of FY2019, SMO held a series of meetings with research units to collect potential cases for impacts, and subsequently, a further series of meetings was held with each unit for

monitoring and reviewing, whereupon 35 cases for high level impacts were specified (see p.4-5 for details of four particularly excellent cases). Through this monitoring and reviewing of impact cases, information was gathered during the past fiscal year from the World Resources Institute (WRI), the

## The Eleventh International Forum for Sustainable Asia and the Pacific (ISAP2019)

The International Forum for Sustainable Asia and the Pacific (ISAP) brings together internationally-engaged experts, governments, international organisations, businesses and NGO representatives to engage in discussions on sustainable development from the viewpoint of the Asia-Pacific region. At ISAP2019, jointly organised in July 2019 by IGES and the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS), there were plenary sessions on the four main topics of “climate change”, “SDGs”, “the role of consumers to bring about change in consumption and production” and “linkages between science and policy”, and thematic track sessions were held based on the overall theme, “Inclusive transformation: multi-stakeholder collaboration driving the world towards a circulating and ecological economy”. The number of participants from both Japan and overseas reached around 1,000.



## Post-COP25 Reporting Seminar

In December 2019, IGES held a post-COP25 reporting seminar entitled “New Benchmarks: 1.5°C, 2050 and Net Zero”. At this seminar, IGES researchers presented some of the first reports summarising the international negotiations on the Paris Rulebook, and introduced updates on Nationally Determined Contributions (NDCs) and activities by non-governmental stakeholders. Further, representatives from Japanese businesses, local governments, and youth who had taken part in COP25, were invited to give their impressions and take-aways from the event, and speak about their planned future actions, as well as their expectations of Japan’s long-term strategy. About 450 participants attended the seminar.

Stockholm Environment Institute (SEI), and the International Institute for Sustainable Development (IISD). The results of this information collection were used for improving the IGES internal system.

### Flagship Research

IGES conducts flagship research focusing on strategically important policy agendas in the Asia-Pacific region and involving various research units. In FY2019, SMO implemented cross-cutting research on climate change and the Sustainable Development Goals (SDGs), and a research report entitled “Net Zero World 2050 Japan - Draft Proposal” in the

climate issue area, and “Mainstreaming the SDGs in Business: Actions by Companies and Organisations in Japan” and “SDGs and Business in the ESG Era: Actions by Companies and Organisations in Japan” (Japanese version) in the SDGs issue area, were published to engage in timely outreach for major policy processes.

### 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.

## Selected Publications

- “Comprehensive Handbook on IPCC Special Report on Climate Change and Land” (in Japanese)
- “Comprehensive Handbook on IPCC Special Report on the Ocean and Cryosphere in a Changing Climate” (in Japanese)

## Selection and Award for Best Publication

In FY2018, with the purpose of promoting research activities and sharing outstanding research results, the IGES President established the Ocean Breeze Award. The seven publications selected as finalists for the award in FY2019 are listed below, and the research report “Net Zero World 2050 Japan - Draft Proposal” (Japanese version) and peer-reviewed article “Can Japan Enhance Its 2030 Greenhouse Gas Emission Reduction Targets? Assessment of Economic and Energy-related Assumptions in Japan’s NDC” were selected as the best publications.

- Research Report “Net Zero World 2050 Japan - Draft Proposal” (In Japanese. The English translation is expected in FY2020.)
- Policy Report “SDGs and Business in the ESG Era: Actions by Companies and Organisations in Japan” (Japanese version) / “Mainstreaming the SDGs in Business: Actions by Companies and Organisations in Japan”
- Policy Report “Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle-Income Countries”
- Peer-reviewed Article “Food Waste in Bangkok: Current Situation, Trends and Key Challenges” (Resources, Conservation and Recycling)
- Peer-reviewed Article “Lessons Learned for Future Transparency Capacity Building under the Paris Agreement: A Review of Greenhouse Gas Inventory Capacity Building Projects in Viet Nam and Cambodia” (Journal of Cleaner Production)
- Peer-reviewed Article “Can Japan Enhance Its 2030 Greenhouse Gas Emission Reduction Targets? Assessment of Economic and Energy-related Assumptions in Japan’s NDC” (Energy Policy)
- Peer-reviewed Article “Citizen Science and Invasive Alien Species: An Analysis of Citizen Science Initiatives Using Information and Communications Technology (ICT) to Collect Invasive Alien Species Observations” (Global Ecology and Conservation)

- United Nations “Global Sustainable Development Report 2019 (Executive Summary)” (Japanese translation)
- IRENA “Transforming the Energy System – And Holding the Line on Rising Global Temperatures”(Japanese translation)
- Policy Report “Assessment of the G20 Countries’ Concrete SDG Implementation Efforts: Policies and Budgets Reported in Their 2016–2018 Voluntary National Reviews”

### **Promoting Research on the Implications of COVID-19 for the Environment and Sustainability**

In response to the global pandemic of COVID-19 and challenges on recovery, IGES published its position paper “Implications of COVID-19 for the Environment and Sustainability” in May 2020, and has been actively promoting cross-unit research on COVID-19 for the transition to a sustainable and resilient world with the “Triple R Framework” consisting of response, recovery, and redesign.

## Contributions to Local Communities

IGES introduced its research activities at lectures and seminars held for the local community and provided easy-to-understand commentary on global environmental issues, such as climate change and the Sustainable Development Goals (SDGs). As part of the institute's cooperation with local school education, IGES also provided support for workplace learning experiences at Hayama Junior High School and integrated environmental studies for high school students.

### Main Lectures by IGES Researchers

2019		
27 July	Environmental Study Meeting "Life in the wild is fascinating: Join the professor to find out about the living creatures around you"	Sankeien Garden (Yokohama City)
3 August	Kanagawa Institute of Industrial Science and Technology (KISTEC) Youth Science and Technology Festival 2019 "Fun with pollen"	KSP Hall (Kawasaki City)
10 August	Environmental Study Meeting "Taking the temperature of the city"	Yokohama Harbor View Park, Kanagawa Museum of Modern Literature, other (Yokohama City)
17 August	Environmental Study Meeting "Observe all kinds of creatures at the seaside"	Hayama Shiosai Museum (Hayama Town)
26 August	1st Climate Change Adaptation Seminar (jointly organised by Kanagawa Prefecture and IGES)	Kanagawa Labor Plaza (Yokohama City)
4 September	Kawasaki City Climate Change Action Supporters Workshop	Takatsu Civic Center (Kawasaki City)
10 September	Environmental Practitioners Seminar (Yokohama Environmental Conservation Council) "SDGs and business: Tips for putting ideas into practice"	Yokohama Symposia (Yokohama City)
15 October	2nd Climate Change Adaptation Seminar (jointly organised by Kanagawa Prefecture and IGES)	Odawara Ohoribata Convention Hall (Odawara City)
25-27 October	Vegetation Survey Training "The first step in exploring the environment"	Yokohama Municipal Midori Public Hall, Kanagawa Prefectural Shikinomori Park, Shin-Yokohama Hall (Yokohama City)

14 November	Visiting lecture at Kawasaki Municipal Sakado Elementary School	Kawasaki Municipal Sakado Elementary School (Kawasaki City)
23 November	Environmental Study Meeting "Life in the wild is fascinating: Become a professor of all living creatures by observing a variety of living things!"	Ushikubo Park, Nakagawa-nishi Center (Yokohama City)
9 December 13 December	Lectures for students in the Learning Activity Consortium for Kanagawa Prefectural High Schools	Kanagawa Prefectural Yokohama Seiryō High School (Yokohama City)
2020		
13 January	Kawasaki City Climate Change Action Supporters Workshop	Takatsu Civic Center (Kawasaki City)
27 January	Zushi Kaisei Senior High School: Integrated studies on the SDGs in different countries	Zushi Kaisei Senior High School (Zushi City)
31 January	Study Meeting of the Kanto Region Global Warming Countermeasures Promotional Committee	Kanagawa Prefecture Tokyo Office, Todofuken Center (Chiyoda Ward, Tokyo)
3 February	Seminar "Prospects for a carbon-free society: Thoughts on a zero-emission society in 2050" (jointly organised by Kanagawa Prefecture and IGES)	Large Conference Hall, Kanagawa Prefectural Building (Yokohama City)
8 February	Environmental Course 2020 "Environment and vegetation"	Kanagawa Prefectural Mitsuike Park (Yokohama City)



Seminar "Prospects for a carbon-free society: Thoughts on a zero-emission society in 2050" (jointly organised by Kanagawa Prefecture and IGES)



Workplace learning experience (Hayama Junior High School)





## Appendix



# Financial Statements (FY2019)

## Balance Sheet (Summary)

Unit:1,000 yen

<b>ASSETS</b>	<b>5,003,363</b>	<b>LIABILITIES</b>	<b>1,144,251</b>
CURRENT ASSETS	1,375,144	CURRENT LIABILITIES	748,741
NON-CURRENT ASSETS	3,628,219	NON-CURRENT LIABILITIES	395,510
(ASSETS FOR BASIC FUNDS)	(250,000)	<b>NET ASSETS</b>	<b>3,859,112</b>
(RESTRICTED ASSETS)	(3,166,572)	RESTRICTED NET ASSETS	2,489,017
(OTHER NON-CURRENT ASSETS)	(211,647)	UNRESTRICTED NET ASSETS	1,370,095

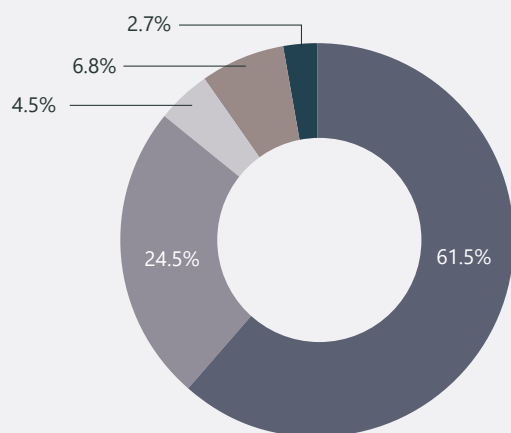
## Statement of Activities (All IGES)

Unit:1,000 yen

		Accounting for Project for public interest purpose				Incorporated accounts	FY2019 Total	FY2018 Total
		Strategic Research*1	IPCC/TSU	APN	JISE			
<b>I Changes in unrestricted net assets</b>								
Operating activities	Revenues and gains	2,789,988	154,245	292,116	59,732	243,066	3,516,634*2	3,576,474
	Expenses and losses	2,862,218	154,245	276,359	59,732	243,066	3,573,107*2	3,570,376
Non-operating activities	Revenues from non-operating	195	0	9	404	0	599	782
	Expenses and losses from non-operating	0	0	0	0	0	0	3,014
<b>II Changes in restricted net assets</b>								
Total changes in restricted net assets		8,499	14,980	0	△48,781	0	△25,302	△39,642
Net assets at end of year		<b>1,123,691</b>	<b>148,877</b>	<b>263,626</b>	<b>2,243,567</b>	<b>79,351</b>	<b>3,859,112</b>	<b>3,940,288</b>

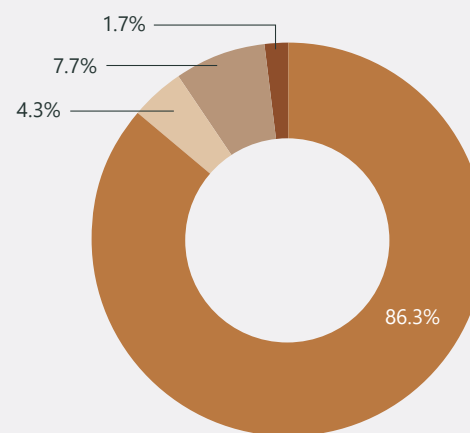
\*1 For IGES research activities and dissemination of research outcomes \*2 Including internal transactions

### Contents of revenues and gain



	Unit: 1,000 Yen
Contract revenue	2,162,360
Contribution*1	862,183
Grants	156,948
Subsidies for office lease	240,521
Income and others	94,621
<b>Total</b>	<b>3,516,633</b>

### Expenses and losses



	Unit: 1,000 Yen
Strategic research*2	3,105,284
IPCC/TSU	154,245
APN	276,359
JISE	59,732
<Internal transactions>	△22,513
<b>Total</b>	<b>3,573,107</b>

\*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 2020)

	Number of Staff	Non-Japanese Staff*
Strategic Research	157	44
Projects for Public Interest other than Strategic Research	25	9
General Administration	21	1
<b>Total</b>	<b>203</b>	<b>54</b>

\*Out of total staff for each category

## 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

East Bldg. 5F, Disaster Reduction and Human Renovation Institution, 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan  
Tel: +81-78-262-6634 Fax: +81-78-262-6635

### ● Kitakyushu Urban Centre

International Village Center 3F, 1-1-1, Hirano, Yahatahigashi-ku, Kitakyushu, Fukuoka, 805-0062, Japan  
Tel: +81-93-681-1563 Fax: +81-93-681-1564

### ● Beijing Office (IGES Sino-Japan Cooperation Project Office)

Room No. 1114, 11F, Sino-Japan Friendship Center for Environmental Protection, No. 1 Yuhuananlu, Chaoyang District, Beijing, 100029, China  
E-mail: [beijing-office@iges.or.jp](mailto:beijing-office@iges.or.jp)

### ● Regional Centre

604 SG Tower 6F, 161/1 Soi Mahadlek Luang 3, Rajdamri Road, Patumwan, Bangkok, 10330, Thailand Tel: +66-2-651-8794, 8795, 8797, 8799 Fax: +66-2-651-8798

### ● IPCC TFI Technical Support Unit [TSU]

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan  
Tel: +81-46-855-3750 Fax: +81-46-855-3808

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

East Bldg. 4F, Disaster Reduction and Human Renovation Institution, 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan  
Tel: +81-78-230-8017 Fax: +81-78-230-8018

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

Shinyokohama Daiichi Bldg. 3F, 2-14-27, Shinyokohama, Kohoku-ku, Yokohama, Kanagawa, 222-0033, Japan Tel: +81-45-548-6270 Fax: +81-45-472-8810

### ● Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Technical Support Unit (TSU)

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

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Mr. Hiroyuki Yasuda	Certified public accountant



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Mr. Achim Steiner	Former Executive Director, United Nations Environment Programme
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Mr. Masamine Sasaki	Former President, The Japanese Association for Conservation of Architectural Monuments
Dr. Monthip Sriratana Tabucanon	Director, Climate Change Research Center, National Research Council of Thailand (NRCT)

(in alphabetical order)

## Signatory Organisations and Institutions of the Charter for the Establishment of IGES Total: 48

### National Administrative Organisations (16)

Department of the Environment, Water, Heritage and the Arts (Australia)  
Ministry of Environment (Cambodia)  
Environment Canada (Canada)  
Ministry of Environmental Protection (China)

Ministry of Environment and Forests (India)  
State Ministry of Environment (Indonesia)  
Ministry of the Environment (Japan)  
Ministry of Environment (Korea)  
Water Resources and Environment Administration (Lao P.D.R.)  
Ministry of Natural Resources and Environment (Malaysia)  
Ministry of Nature and the Environment (Mongolia)  
Ministry of Environment, Science and Technology (Nepal)  
Ministry for the Environment (New Zealand)  
Department of Environment and Natural Resources (The Philippines)  
Ministry of Natural Resources and Environment (Thailand)  
Ministry of Natural Resources and Environment (Viet Nam)

### International Organisations (6)

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United Nations Centre for Regional Development  
United Nations Economic and Social Commission for Asia and the Pacific  
United Nations Environment Programme  
United Nations Institute for Training and Research  
United Nations University Institute for the Advanced Study of Sustainability

### Research and Academic Institutions (26)

Asia-Pacific Centre for Environmental Law (Singapore)  
Center for International Environmental Law (USA)  
Earth Council (Costa Rica)  
Global Industrial and Social Progress Research Institute (Japan)  
Indira Gandhi Institute of Development Research (India)  
Institute of Development Studies, University of Sussex (UK)  
Institute of Southeast Asian Studies (Singapore)  
Institute of Strategic and International Studies (Malaysia)  
International Academy of the Environment (Switzerland)  
International Global Change Institute, Waikato University (New Zealand)  
International Institute for Applied Systems Analysis (Austria)  
International Institute for Environment and Development (UK)  
International Institute for Sustainable Development (Canada)  
Korea Energy Economics Institute (Korea)  
Korea Environment Institute (Korea)  
National Institute for Environmental Studies (Japan)  
Potsdam Institute for Climate Impact Research (Germany)  
Sino-Japan Friendship Center for Environmental Protection (China)  
Stockholm Environment Institute (Sweden)  
Thailand Development Research Institute Foundation (Thailand)  
Thailand Environment Institute (Thailand)  
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## **Institute for Global Environmental Strategies**

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan

Tel: +81-46-855-3700 Fax: +81-46-855-3709

E-mail: [iges@iges.or.jp](mailto: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**

East Bldg. 5F, Disaster Reduction and Human Renovation Institution, 1-5-2,

Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan

Tel: +81-78-262-6634 Fax: +81-78-262-6635

### **Kitakyushu Urban Centre**

International Village Center 3F, 1-1-1, Hirano,

Yahatahigashi-ku, Kitakyushu, Fukuoka, 805-0062, Japan

Tel: +81-93-681-1563 Fax: +81-93-681-1564

### **Beijing Office**

[IGES Sino-Japan Cooperation Project Office]

Room No. 1114, 11F, Sino-Japan Friendship Center for Environmental Protection,

No. 1 Yuhuananlu, Chaoyang District, Beijing, 100029, China

E-mail: [beijing-office@iges.or.jp](mailto:beijing-office@iges.or.jp)

### **Regional Centre**

604 SG Tower 6F, 161/1 Soi Mahadlek Luang 3, Rajdamri Road, Patumwan,

Bangkok, 10330, Thailand

Tel: +66-2-651-8794, 8795, 8797, 8799 Fax: +66-2-651-8798

### **IPCC TFI Technical Support Unit [TSU]**

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan

Tel: +81-46-855-3750 Fax: +81-46-855-3808

### **Asia-Pacific Network for Global Change Research [APN] Secretariat**

East Bldg. 4F, Disaster Reduction and Human Renovation Institution, 1-5-2,

Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan

Tel: +81-78-230-8017 Fax: +81-78-230-8018

### **Japanese Center for International Studies in Ecology [JISE]**

Shinyokohama Daiichi Bldg. 3F, 2-14-27, Shinyokohama, Kohoku-ku,

Yokohama, Kanagawa, 222-0033, Japan

Tel: +81-45-548-6270 Fax: +81-45-472-8810

### **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services [IPBES] Technical Support Unit [TSU]**

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