

A vibrant market stall filled with fresh produce. In the foreground, a large wooden crate is overflowing with green and yellow citrus fruits, likely lemons or limes. To the left, there are bunches of ripe yellow bananas. In the background, other market stalls with colorful umbrellas and people can be seen, creating a bustling atmosphere.

Annual Report

2022

July 2022 - June 2023

IGES
Institute for Global
Environmental Strategies

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Looking back at IGES activities in FY2022, how did things go?

Takeuchi: The Eighth Phase of IGES' Integrative Strategic Research Programme (ISRP8) emphasises an integrated approach that looks at environmental, economic and social issues from a broader perspective. I realised that the importance of such an approach is increasingly being shared in domestic and international discussions.

One example of this was the "Third Global Conference on Strengthening Synergies between the Paris Agreement and the 2030 Agenda for Sustainable Development", held in July 2022 with IGES as a partner organisation. Participants from around the world, including the host United Nations agencies, shared the importance of synergies between climate action and the SDGs as well as the simultaneous realisation of a resource-circulating society and a society in harmony with nature. We also facilitated discussions based on concrete practices promoted by IGES especially in Asia. This was a great success.

Takahashi: Many IGES staff, including myself, supported the organisation of the G7 Ministers' Meeting on Climate, Energy and Environment in Sapporo in April 2023. The message of the communiqué adopted at



Left: TAKEUCHI Kazuhiko, IGES President/Right: TAKAHASHI Yasuo, IGES Executive Director

the Meeting and the subsequent G7 Hiroshima Summit, calling for the integrated realisation of a net-zero, nature-positive and circular economy, is exactly in line with the direction IGES aims to take.

Takeuchi: The International Forum for Sustainable Asia and the Pacific (ISAP2022), the annual forum of IGES, focused on integrated solutions, covering the overarching themes of synergies between climate action and biodiversity conservation as well as responses to major changes in the international political arena triggered by Russia's invasion of Ukraine.

Takahashi: To promote such an integrated approach, ISRP8 introduces common focal areas in which each research unit will collaborate. Details are provided in this annual report. In FY2022,

the second year of ISRP8, active communication among the units has been established and research activities designed to create impact are on track with various stakeholders.

Takeuchi: In addition, as an institution-wide initiative, a Japanese translation of a new report published by the Club of Rome "Earth for All," was launched at the end of 2022, 50 years after the international bestseller "The Limits to Growth". The report proposes extraordinary turnarounds for transformation within the limits of planetary boundaries and attracted worldwide attention. It was a good opportunity for IGES to share this new perspective with Japanese readers. It calls for transformation to a sustainable society, something that is closely related to our research activities.

Takahashi: Progress has been made on diversity and inclusion (D&I) within IGES. We have set up an internal task force to develop a staff-driven action plan. IGES is committed to become an organisation where staff members from diverse backgrounds can fully demonstrate their abilities. We are striving to create an environment that is compatible with the SDGs.

What are your expectations for FY2023?

Takeuchi: We are halfway through ISRP8. In addition to achieving the expected results, it will be important to further strengthen the implementation of an integrated approach. We are currently working on a book project on the integrated approach, which we hope to provide a theoretical and academic evidence base.

Takahashi: Important international processes will continue throughout FY2023, including the quadrennial SDG Summit and COP28. We will continue our efforts to create an impact that promotes transformation to a sustainable society by conducting dynamic research activities in line with domestic and international trends and needs, and disseminating research results in a timely manner.

Outline of IGES

What IGES Aims for

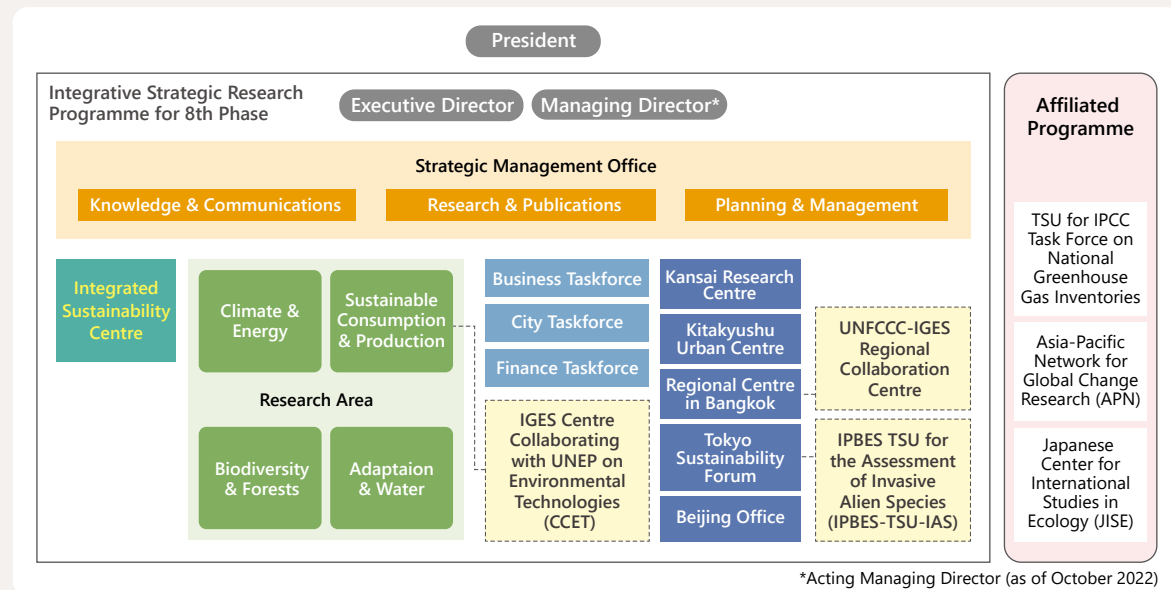
Vision Transition to a sustainable, resilient, shared and inclusive Asia-Pacific region and the world, where planetary boundaries are fully respected, a green economy is flexibly implemented, and the well-being of people is steadily improved.

Mission Act as an Agent of Change through conducting strategic research and operations, for generating impacts to move society towards a more sustainable and resilient future.

Value As a leading think tank on environment and sustainability in Asia and the Pacific, IGES conducts strategic research on pressing environmental issues such as climate change mitigation and adaptation, the creation of a sound material-cycle society and circular economy, and biodiversity conservation, and generates impact in policy formulation processes and debates through co-design, co-implementation, co-production and co-delivery with key stakeholders.

Research Activities

Based on the 8th Phase Integrative Strategic Research Programme (ISRP8, four years from July 2021), IGES is conducting strategic research in a wide range of research areas at our national and international bases. IGES established the Integrated Sustainability Centre to advance research aimed at materialising the concept of the Regional Circulating and Ecological Sphere (Regional CES), a localisation of the Sustainable Development Goals (SDGs). It also endeavours to strengthen solution-oriented research activities with an emphasis on integrated approaches by introducing common focal areas in which each research unit is motivated to co-work and collaborate.



*Acting Managing Director (as of October 2022)

Towards Impact Generation

To realise a sustainable resilient society, IGES actively engages in impact generation in an integrated manner. In ISRP8, the common focal areas are defined as priority areas where IGES will make efforts to enhance impact generation through co-work and collaboration beyond the research unit, with the institute setting a target of 30 successful impact cases annually. In addition, the IGES President established an award to promote and share outstanding impact cases.

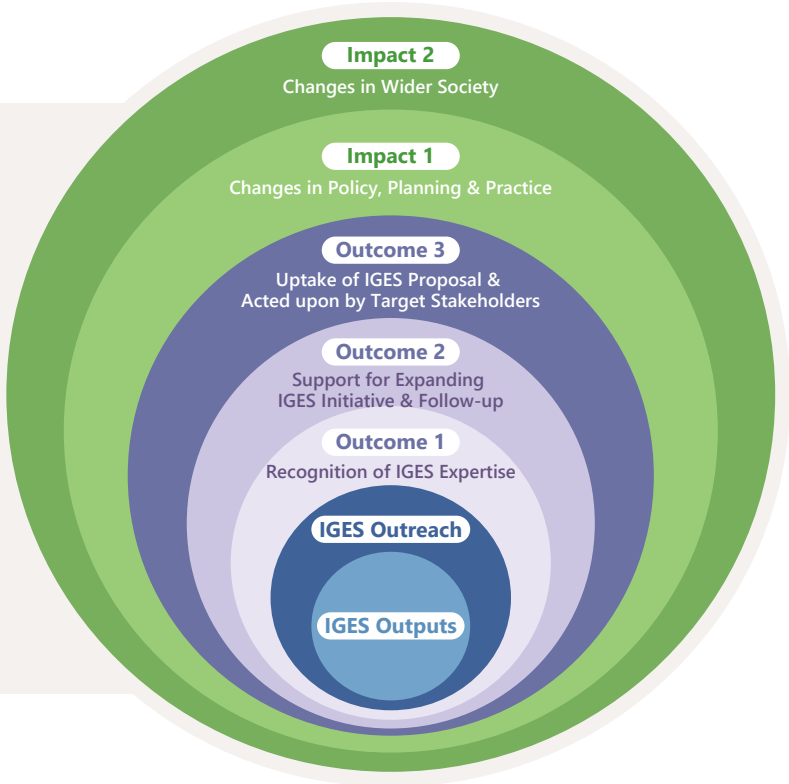
IGES Impact Generation Strategy

The generation of tangible products based on IGES strategic research (outputs) is the beginning of the results chain of the IGES impact generation strategy. Through timely and appropriate outreach coupled with relevant activities, outputs can lead to a higher level of results, namely outcomes, with wider recognition of IGES expertise and support for the expansion of its initiatives, thereby leading to the uptake of IGES proposals and positive actions taken by key stakeholders. These outcomes are considered building blocks for positive changes in the external world, such as those in policy, planning and practice (impact 1) , and eventually leading to subsequent changes in the wider society (impact 2).

Specific outcomes and impacts are expected to include "international process impacts" such as contributions to negotiations, "policy/institutional change impacts", "practical solution impacts", "media impacts", and "academic impacts" including high-quality academic publications and contributions to global assessment reports. There is a possibility that these impacts will emerge in a complex manner.

What is Impact?

- Impact**
Positive changes occurred in external world, amongst others on policy, planning and and/or practice.
- Outcome**
Positive actions taken by key stakeholders in response to IGES outputs and relevant activities.
- Output**
Tangible products based on IGES strategic reserach.



Strategic Outputs

Policy reports, Policy briefs, Briefing notes, Commentary/ op-eds, Submission to policy processes, etc.

International process impacts Contribution to negotiations, flagging emerging issues/ approaches	Policy/institutional change impacts Regional/sub-regional/ national strategies and operations
Practical solution impacts Solutions for key stakeholders and project implementing partners	Media impacts Media coverage, contribution to media reporting, etc.

Academic Outputs

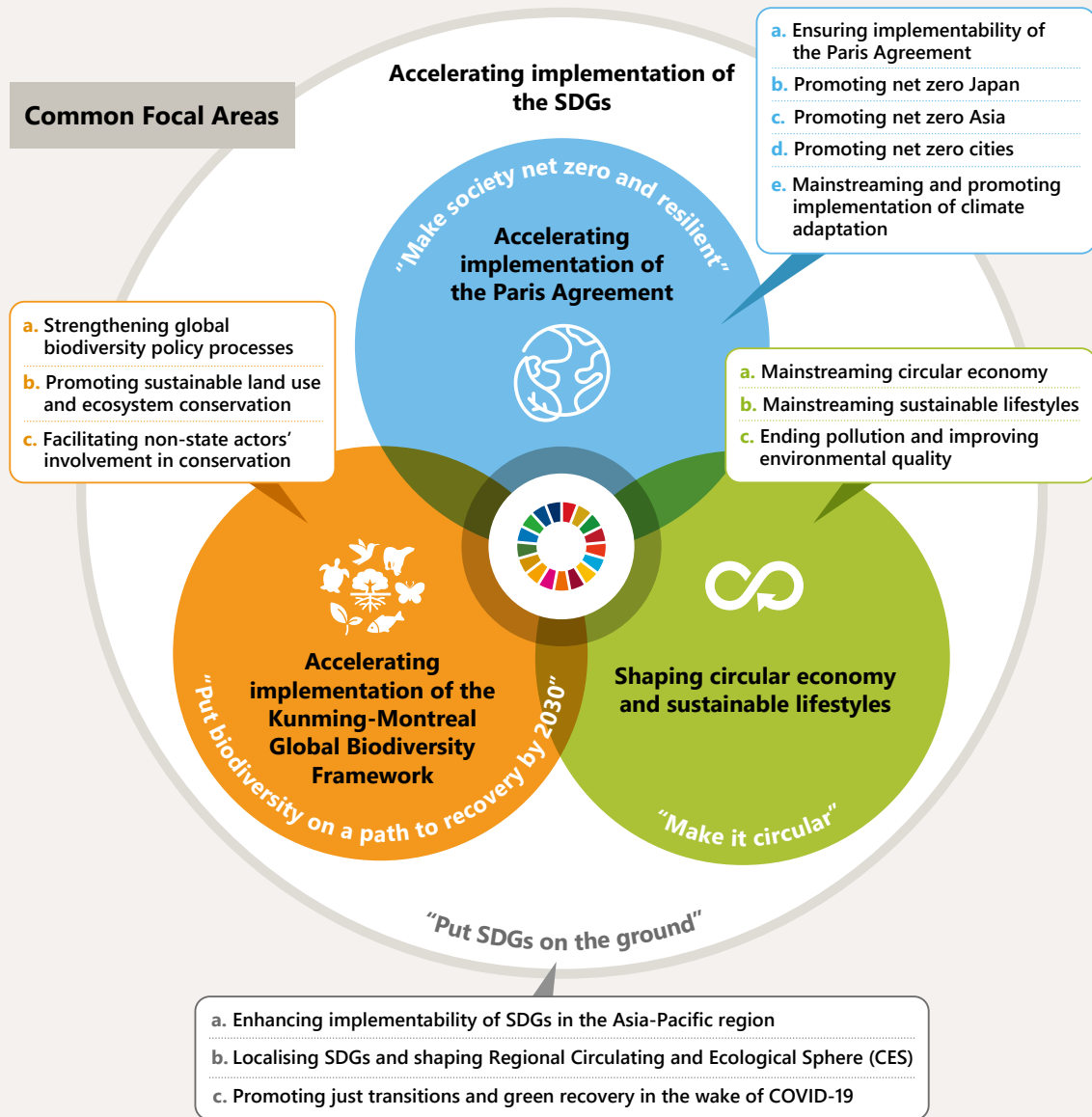
Peer-reviewed journal articles, Books and Book chapters, etc.

Academic impacts
 Quality academic publication, contribution to global assessment, etc.

**Integrated Approach:
Common Focal Areas**

ISRP8 introduces common focal areas in which each research unit works together to form a higher level of impact from research results. Common focal areas are identified by selecting key issues to be addressed, taking account of global, regional and domestic urgencies and priorities related to sustainable development as well as considering IGES' strengths. The Strategic Management Office (SMO) coordinates cross-cutting research activities and promotes the strengthening of the impact generating capacity of the organisation as a whole.

The two major components of the common focal areas are "focal areas" expecting greater impacts and synergistically engaged "sub-focal areas" utilising competent expertise and networks. In FY2022, IGES placed emphasis on research to accelerate the implementation of the Paris Agreement, SDGs and the Kunming-Montreal Global Biodiversity Framework, as well as for shaping circular economy and sustainable lifestyles.



Major Impact Cases in FY2022

The following are major impact cases in FY2022 where IGES research results and policy recommendations have brought changes in stakeholder behaviour, leading to the formulation and implementation of policies and plans to promote transformation toward a sustainable society.

Further Development of the Kanagawa Decarbonisation Vision 2050, Jointly Prepared by Kanagawa Prefecture and IGES

- IGES and Kanagawa Prefecture published the Kanagawa Decarbonisation Vision 2050 in November 2021 as a joint study on the possible actions towards a decarbonised society.
- In FY2022, this Vision was incorporated into a variety of prefectural policies and actions. Kanagawa has included the Vision in its latest draft plans for global warming countermeasures, and designated Miura Peninsula as a decarbonisation model region to conduct research and implement model projects on DX. Furthermore, the Kanagawa Decarbonisation Portal website was launched based on the concept of the Vision. This was followed by the establishment of the Kanagawa Decarbonisation Promotion Council to materialise its decarbonisation strategy. Kanagawa has reorganised its structure to comprehensively and efficiently promote decarbonisation action, setting up a Decarbonisation

Strategy Headquarters Office. Furthermore, the Vision is referred to in the global warming action plans and environmental basic plans of the local municipalities across the prefecture.

- In parallel, the network between IGES and the local municipalities in Kanagawa has deepened. Specifically, IGES has become a member of the Yokohama Port Carbon-Neutral Port Council and the Yokohama Decarbonisation Innovation Council.

Focal Areas



Impacts



National Plastic Action Plan in Sri Lanka: A Practical Guide to Strategic Change in Managing Plastic Waste

- The UN Environment Assembly adopted a resolution in 2022 to create an international agreement to combat plastic pollution. However, developing countries like Sri Lanka face numerous challenges in tackling this problem.
- This case study comprises three phases starting from 2021, and highlights the collaboration between the IGES Centre Collaborating with UNEP on Environmental Technologies (CCET) and Sri Lanka’s Ministry of Environment (MOE) to develop and implement a National Action Plan (NAP) for Plastic Waste Management. This comprehensive NAP covers the entire life cycle of plastics.
- The first phase focused on gathering national plastic inventory data and information to implement the NAP goals. The subsequent phase highlighted technical assistance to strengthen policies, regulations and

institutional capacities. Notable initiatives included the establishment of a National Plastic Centre with the leadership of MOE and Central Environmental Authority and an inter-ministerial coordination committee. In addition to the introduction of the new sector-based regulations, pilot projects were launched to raise awareness and promote sustainable plastic practices in key sectors.

- The current third phase focuses on scaling up the pilot initiatives, building partnerships, fundraising efforts, and establishing monitoring and reporting mechanisms.

Focal Areas



Impacts



Key Regional Knowledge Player on Resource Efficiency and Circular Economy: Contribution to Adoption of G7's Circular Economy and Resource Efficiency Principles (CEREP) at G7 Summit and Environment Ministers' Meeting 2023

- Since the launch of the 3R Initiative by Japan in 2005, IGES has contributed to mainstreaming the agenda on waste, resource efficiency and circular economy in the G7 and G20 processes, which has been led by the Ministry of the Environment, Japan (MOEJ). In particular, in the G20 process, IGES made a significant contribution to develop and edit the G20 Report on Actions against Marine Plastic Litter which is published annually.
- In FY2022, IGES contributed to the compilation of the Circular Economy and Resource Efficiency Principles (CEREP) by MOEJ at the G7 Summit and the Ministerial Meeting on Climate, Energy and Environment held in Japan. Utilising its expertise in policy analysis in the field of resource efficiency and circular economy, IGES provided advice to MOEJ in compiling the opinions of the G7 countries.

Focal Areas



Impacts



Regional Think Tank for Policy Research on Preventing Plastic Pollution and Promoting Circular Economy in ASEAN+3 and Beyond

- IGES conducts policy research to contribute to the promotion of resource efficiency and circular economy in the Asia-Pacific region, including the ASEAN region. In the ASEAN region, the framework for regional cooperation on circular economy and plastics recommended in the report compiled by IGES in 2019 with support from the European Union was incorporated into an ASEAN Action Plan on Marine Litter formulated in 2021.
- In this context, IGES, in collaboration with the Economic Research Institute for ASEAN and East Asia (ERIA)'s Regional Knowledge Center for Marine Plastic Litter, hosted several expert working groups to regularly discuss policy issues and make concrete policy recommendations, and published reports that aim to build capacity on data-driven policymaking. IGES is also supporting the development of national action plans to combat marine plastics in Cambodia and Myanmar.
- Through these efforts, IGES has gained recognition as Asia's leading policy think tank with increasing recognition of its expertise. IGES is now trying to play a major role in encouraging synergies and linkages between various international cooperation by Japan, European countries and UN agencies.

Focal Areas



Impacts



Revision of Clean Wood Act – IGES’s Impact on a Japan’s National Policy-Making Process

- IGES has commissioned the largest number of projects in Japan for the operation of the Clean Wood Act (CWA), which was introduced in 2016, and the information collected by IGES has been provided to timber-related businesses and other stakeholders nationwide.
- IGES was twice invited as an expert to provide information and recommendations to the study group for the review of the CWA, and these recommendations were reflected in the "Five-year Review of the CWA." IGES was also responsible for the development of due diligence guidelines for confirming the legality of timber that was commissioned based on that review.
- The CWA was amended by the National Diet in April 2023, with several amendments proposed by IGES. The Act is the first law in Japan to require due diligence for businesses and can influence other policies on supply chain management including deforestation and human rights.

Focal Areas



Impacts



Japan Climate Leaders’ Partnership (JCLP) Successfully Shared a Sense of Urgency and Fostered Positive Momentum towards a Credible and Accountable Net-zero Transition in Japan

- Since 2012, IGES has served as the Secretariat for the Japan Climate Leaders' Partnership (JCLP), a coalition of businesses in Japan, and has supported progressive companies to lead a positive momentum towards net zero in business and to contribute to the progress of climate policies in Japan.
- In FY2022, JCLP sent a delegation to the UNFCCC COP27, where delegates had discussions and meetings with leaders and rule-setters from various sectors. Moreover, one of the co-chairs of JCLP worked as a member of the UN Secretary General’s High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities. The expert group released its recommendations on the credibility of net-zero emissions declarations at COP27. JCLP supported the release of the recommendations including the publication of a Japanese translation, as well as contributing to media coverage and recognition in Japan.
- JCLP actively engaged in policy advocacy. In FY2022, JCLP issued several policy proposals, participated in various councils/hearing held by the government, and exchanged views with policymakers.

Focal Areas



Impacts



Improved Environmental Quality in ASEAN Cities through Better Long-term City Planning and Higher Capacity to Implement Transformative Local Actions, Closely Linked to the SDGs

- IGES, through the SDGs Frontrunner Cities Programme, funded by the Japan-ASEAN Integration Fund (JAIF), has recently supported a total of 24 ASEAN cities in eight ASEAN member states to localise the SDGs through innovative ground projects.
- One of the outstanding cases has been in Luang Prabang UNESCO World Heritage city in Lao PDR. In cooperation with the local government, IGES has provided support to upgrade a formerly underutilised space alongside the town's central night market and turn it into a multi-purpose public park. The landmark development has created a green and dynamic public event space with a performance stage, business booths, sanitation and drainage facilities as well as energy-efficient LED lighting. The park has not only generated a significant number of new jobs and increased local income, but it has also boosted socio-cultural capital and enabled more large-scale group activities by local government and environmental protection volunteers.

Focal Areas



Impacts



Integrated Sustainability Centre (ISC)

Integration of climate change, circular economy, biodiversity and disaster risk reduction should be fully explored under the overarching framework provided by the SDGs. In this respect, ISC has been collaborating with UNDESA to promote synergies between sustainable energy and the SDGs. This is in line with international efforts to achieve socio-economic transformation towards decarbonisation. At the Asia-Pacific Forum on Sustainable Development (APFSD) in 2019, ISC presented a set of key messages corresponding to the six entry points of the Global Sustainable Development Report. In addition, ISC has started to pay more attention to the concept of “just transition.”

Helping Japanese Business on the Sustainable Development Goals (SDGs)

ISC promoted the integration of the SDGs into planning processes among Japanese businesses. In collaboration with the Global Compact Network Japan (GCNJ), ISC launched a new report that demonstrated progress on how Japanese businesses were working on SDG 5 (gender equality), 8 (work and human rights), 13 (climate change) and 16 (anti-corruption), and 12 (sustainable consumption and production). ISC is also leading the way in showing companies how work on emerging issues, such as supply chains and human rights. The SDGs GCNJ report has been cited in key policy documents such as Japan’s VNR.

Promoting Just and Inclusive Transitions in Asia

ISC published a paper and held a special session at ISAP on just transitions in Asia that explored the applicability of just transitions in Asia. The paper examines a diverse range of solutions centred on principles of inclusive, just and resilient societies in Asia. This work will be featured in new special issue of Sustainability Science in 2023.

Strengthening the Voluntary National Reviews (VNRs) and the Environmental Dimensions of the SDGs

ISC published a report with United Nations Environment Programme (UNEP) that evaluated 50 Voluntary National Reviews (VNRs) produced by countries in

the Asia-Pacific region between 2016 and 2021. The report includes recommendations on how VNRs can strengthen the implementation of the environmental dimensions of the SDGs, and is opening the door to work on emerging themes such as spillovers.

Enhancing Governance and Follow-Up and Review of the SDGs in Japan

In 2021, ISC was awarded a multi-year project that will build on recommendations offered to the Ministry of Foreign Affairs of Japan in 2020 on what Japan can learn from Europe and other regions in governing the SDGs. The project will focus on establishing an effective methodology for the follow-up and review process at the national and local levels. The recommendations are intended to complement previous suggestions on how Japan can enhance its multi-stakeholder engagement process and feed into Japan’s SDG guidelines, upcoming VNR and other SDG plans. This work is also creating opportunities to recommend reforms to countries outside Japan such as Denmark.



Providing an Academic Platform for Sustainability Studies

Sustainability Science, a peer-reviewed journal published by Springer, has been made a joint publication between IGES and the University of Tokyo. The editorial office has been relocated to IGES. IGES President Kazuhiko Takeuchi is the Editor-in-Chief and the Managing Editor is an IGES researcher. Sustainability studies encompasses interdisciplinary research integrating natural sciences, social sciences and humanities. The journal publishes six issues per year, including various special features covering timely topics, and in 2022 these topics included synergies and trade-offs among SDGs and targets, sustainability in agri-food systems, adaptation strategies and resilience building, and sustainable food and land use systems. In 2022, 14 IGES researchers served as editors and 20 served as reviewers, and IGES researchers published nine peer-reviewed articles in the journal.



Advancing Co-benefits in Southeast Asia and Japan

In 2022, ISC worked with the International Institute for Applied Systems Analysis (IIASA), the Asian Development Bank, Clean Air Asia, Stockholm Environment Institute, the National Institute for Environmental Studies, and United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) to promote policies and projects with co-benefits. Those activities are contributing to the development of New Haze-free Roadmap in Southeast Asia that can save at least 10,000 lives per year. ISC is also providing substantive inputs into a co-benefits action plan in Thailand and Philippines; and a new project funded by GIZ on a regional approach to co-benefits in Southeast Asia. In addition, ISC will begin working with three Japanese cities—Kawasaki, Niigata and Hachinohe—to incorporate health co-benefits in climate planning.

Contribution to the IPCC

ISC is contributing to discussions over the outline of Seventh Assessment Report of the IPCC Working Group Three—with an emphasis on synergies between climate change and sustainable development.

Integrated Policymaking Using IGES' SDG Interlinkages Methodology

ISC developed the SDG Interlinkages Tool (<https://sdginterlinkages.iges.jp/visualisationtool.html>) to facilitate integrated policymaking by identifying, quantifying and visualising SDG interlinkages. Covering 27 countries in Asia and Africa, the tool has been accessed from more than 190 countries and has been featured in voluntary national reviews (e.g. Indonesia and Ghana). With funding from Google's AI for Social Good Program, a novel methodology was developed to automate systematic reviews of causal links among the SDGs by using natural language processing techniques. The methodology was applied to co-generate knowledge on climate–SDG interlinkages and support stakeholder engagement in Lampung, Indonesia. The research results have been used to facilitate the integration of the SDGs into the development of



Workshop on the SDG synergies/trade-offs of climate action to engage stakeholders in integrated climate policymaking (Lampung, Indonesia)

long-term climate mitigation strategies at the subnational levels in Indonesia under the LoCARNet project.

Capacity Building Activities Using the IGES' SDG Interlinkages Methodology

ISC contributed to several educational and capacity building activities using the SDG Interlinkages Tool and macroeconomic modelling techniques. These include JICA's training programme for long-term strategies under the Paris Agreement, a JSPS seminar on understanding and addressing systemic risks from COVID-19, lectures at Hokkaido University, Japan and Indian Institute of Technology Bombay, and the UN Partnership for Action on Green Economy (PAGE) training programme on a green and fair economic transformation.

Contribution to the Group of Seven (G7)

ISC led the development of a T7 Policy Brief on putting societal well-being at the centre of G7 climate strategies. The brief was one of sixteen T7 Policy Briefs included in the Annex of the Think7 Japan Communiqué, and shared with Japan's Prime Minister Kishida to support discussions at the G7 Summit.

Long-term Scenario Analysis for Cities

ISC developed socioeconomic pathways for cities by downscaling the global shared socioeconomic pathways (SSPs). One application of this approach involved efforts to support a climate action plan for Da Nang City with support from MOEJ. The development process engaged local stakeholders in city departments. The result was the second edition of the Da Nang City Climate Action Plan, covering buildings, transport, energy, food and agriculture, water, waste management, and SDGs interactions. Another application of the SSPs involved working with Bhutan to analyse urban-rural elements in scenarios, estimate energy demand/supply capacity up to 2050 and analyse energy, food, water and health nexus.



Consultation meeting of local experts and policy-makers (Da Nang City, Viet Nam)

Advancing the Circulating and Ecological Sphere (CES)

Approach in Asia and Pacific

ISC collaborated with START International to establish a regional network to promote the CES approach in the Asia and Pacific region in October. In collaboration with CES-Asia consortium partners, ISC implemented projects in a number of cities, including Hachinohe in Japan, and Nagpur and Haridwar in India, to facilitate the co-development of the CES Action Programme. Research results have been published in five journals and a Springer CES book project was launched. ISC further collaborated with IGES Kansai Research Centre (KRC) and Asia-Pacific Network for Global Change Research (APN) on national workshops on the application of the CES approach in Indonesia, Thailand and the Philippines.

Contribution to the High-Level Policy Processes

ISC promoted the CES concept through important policy processes such as the G20, Global Climate and SDGs Synergy Conference, and HLPF. ISC also published a discussion note on the CES concept to facilitate discussion at the 3rd Global Climate and SDGs Synergy Conference.

Promoting the Water-Energy-Food Nexus

ISC has been implementing a collaborative international project and publishing articles on this theme with partner institutes in Japan, India and Bangladesh.

Support for “Decarbonisation Leading Areas” in Japan and Kuala Lumpur

ISC worked together with CTY, Tokyo Metropolitan Government (TMG), Saitama City (since April 2022), University Technology Malaysia (UTM), Sustainable Energy Development Authority (SEDA) Malaysia to support Kuala Lumpur in achieving zero carbon by 2050 and developing “Decarbonisation Leading Areas” in “Wangsa Maju.” An ISC researcher continues to serve as acting chair of the MOEJ’s Evaluation Committee on “Decarbonisation Leading Areas” in Japan.

The 3rd UN Climate and SDGs Synergy Conference in Tokyo Japan

ISC worked with other units to successfully compile the conference background note and organise the third global conference “Strengthening Synergies Between the Paris Agreement on Climate Change and the 2030 Agenda for Sustainable Development”, co-convened by UNDESA and UNFCCC, hosted by MOEJ, in partnership with UNU and IGES.



The Third UN Climate and SDGs Synergies Conference (Tokyo, Japan)

Contributions to Other IGES Areas

ISC contributed to several projects in other IGES areas. These include co-authoring a T7 Policy Brief on critical minerals and ADBI’s publications on the role of Japan in developing a hydrogen society in Asia, co-organising a webinar on hydrogen and reviewing Bangladesh’s draft Integrated Energy and Power Master Plan.

Eric ZUSMAN

Research Leader, Integrated Sustainability Centre



At IGES, foreign researchers account for about 30% of the total staff, making it an international organisation with a diverse staff. As an IGES researcher for more than 15 years, I have focused on many different areas of environmental policy in Asia. Recently, much of my work has concentrated on governance issues, and I contributed as one of the lead authors to Chapter 17 (accelerating transitions in the context of sustainable development) of the IPCC 6th Assessment Report. I am also currently involved in research on the synergies between climate change and health in cities. I am also interested in helping countries in Asia accelerate progress on the Sustainable Development Goals (SDGs).

Climate and Energy Area (CE)

With particular focus on the Asia-Pacific region, the Climate and Energy team (CE) is carrying out initiatives to facilitate the transition to decarbonised societies at the national and local levels. Specifically, CE 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.

Operationalisation of the Paris Agreement

CE contributed to the adoption of the decision on Article 6 rulebook, as well as negotiations for and implementation of the Global Stocktake (GST) under the Paris Agreement by participating in COP27 as members of Japanese delegation. IGES was appointed as the secretariat of the 'Paris Agreement Article 6 Implementation Partnership Centre,' which promotes the activities of the 'Paris Agreement Article 6 Implementation Partnership,' launched at COP27 to support capacity building with regard to Article 6 of the Paris Agreement. Utilising the knowledge and expertise gained through its support for international negotiations, CE continued to conduct a mutual learning programme for enhanced transparency in cooperation with the governments of Asian developing countries, focusing on reporting for Articles 6 and 13. In addition, CE organised several regional knowledge-sharing workshops for enhanced transparency in collaboration with major international partners, such as the UNFCCC Secretariat, the UNFCCC Regional Collaboration Centre (RCC) and the Global Support Programme implemented by the UNEP-DTU. Seeking opportunities to build capacity, IGES organised an international conference on Article 6 with UNFCCC secretariat and Ministry of the Environment, Japan (MOEJ). Furthermore, CE cooperated with the Japan Aerospace Exploration Agency (JAXA) to promote inputs from the Japanese satellite community into the GST. CE also played a key role in bridging science and international policy discussions, by co-implementing a regional independent global stocktake hub for non-state actors (iGST) in Southeast Asia.

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

CE contributed to implement the Joint Crediting Mechanism (JCM) which appropriately evaluates contributions to GHG emission reductions or removals by Japan, and applies them to achieving the national emissions reduction target. CE supported the development of eight MRV (monitoring, reporting and verification) methodologies. In addition, CE published the JCM-SDG best practices.

Impacts on Political and Social Debates on Carbon Pricing in Asia

Carbon pricing policy is taking shape in Asia, such as the implementation of national emissions trading schemes in China and the Republic of Korea. CE served as Japan's focal point for jointly implementing the seventh Forum of Carbon Pricing Mechanisms in Japan, Korea and China, and contributed to discussions on trilateral cooperation. CE conducted a timely overview and analysis of the design features and implementation progress of emissions trading schemes in China and the Republic of Korea. As a steering committee member, CE continued to support an initiative of Asia Society Policy Institute for expanding emissions trading schemes in Asia. The latest movement on carbon pricing for the transition toward net-zero in Asia was summarised and disseminated, thereby stimulating the mutual learning of policy development.

Climate Policy Development by Visualisation of Current Status

CE engages in analysis and visualisation of climate policies around the world in order to facilitate the further development of such policies. Particularly for Asia, CE conducted research on the risk of coal-fired power plants, publicly supported by Japan, to be stranded; a comprehensive study on policy practices and cooperation opportunities in oil and gas methane mitigation in Japan and ASEAN; cross-divisional joint research to develop a book on net-zero in Asia; research on technology co-innovation, to identify and propose alternative ways for strengthening technology collaboration among countries; research on critical minerals and the impact of supply and environmental spillover challenges on net-zero goals and, research on hydrogen economy in Asia and opportunities and challenges. Domestically, CE further carried out the simulation analysis of power grid system to achieve a zero-emission power system in Japan. CE contributed to the UNEP Emissions Gap Report 2021, as

well as representing Japan in Climate Transparency, a Germany-based research network for G20 countries. Likewise, CE provides the most up-to-date information through regular updating of the IGES Climate Databases on various topics.

To communicate national and international trends toward decarbonisation, CE launched the IGES Climate Change Webinar Series in April 2021 which has been conducted 49 times through June 2023, with a total of more than 12,000 people watching live.



Climate change webinar on COP27 report

Emma FUSHIMI

Editing Manager, Strategic Management Office

The work of editor at IGES encompasses a wide range of duties, from checking in-house English language emails, proofreading conference speeches and journal articles, editing international reports, and developing documents with a worldwide audience. Working from the local level in Hayama, up to the recent G7 Environment ministers' meeting in Sapporo, where I assisted in drafting the communique, my work gives me great satisfaction and ensures that my skills are always updated.



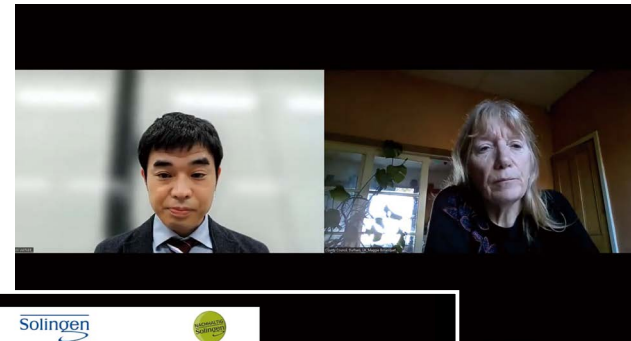
Sustainable Consumption and Production Area (SCP)

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.

Sustainable Lifestyles

Under the 1.5°C Lifestyle initiative, IGES worked with the citizens of three cities in Japan to develop visions for decarbonised lifestyles and societies. In Odate city, the project incorporated the citizens' wisdoms into the process of formulating the local government's action plan.

IGES contributed to the final year of the EU SWITCH-Asia programme Phase 2. It finalised the policy research in the textile sector in Cambodia and policy



Webinar on innovations in citizen engagement toward advancing the decarbonisation of cities and lifestyles

guidance for the seafood sector in Viet Nam. Capacity-building programmes were also conducted in both countries for government and industry stakeholders using the research findings.

IGES initiated two new projects on sustainable living in FY2022. One of them aims to apply behavioural science to the reduction of single-use plastic products. IGES selected four project partners from the Philippines, Viet Nam, Thailand and Indonesia to implement projects to reduce the use and disposal of plastic products. Another project is action research in Japan, aiming to develop local visions for sustainable food contributing to nature-positive and net-zero carbon.

Mainstreaming Circular Economy

IGES continued to be involved in key international processes on circular economy and resource efficiency, including G7 Ministers' Meeting on Climate, Energy and the Environment, G20 Resource Efficiency Dialogue, International Resource Panel (IRP), OECD, and Global Alliance on CE and RE (GACERE).

IGES contributed to drafting of G7's Circular Economy and Resource Efficiency Principles (CEREP). SCP continued to act as the leading institute to synthesise country-relevant information for G20 MPL report & G20 RE dialogue portal site development. It contributed to developing the T20 Policy Brief on Circular Economy and Global Supply Chain, and the OECD's review of the United States' country Environmental Performance.

IGES is involved in several governmental committees in Japan to discuss policy measures, Circular Economy indicators, and industrial standards on circular economy. IGES continued to serve as the secretariat of Japan Partnership for Circular Economy (J4CE) and organised two public-private dialogues to increase motivation in the private sector to take up circular business models. J4CE also updated its publication on case studies of circular business models.

Marine Plastics and Circular Economy

IGES continued its support to ASEAN and ASEAN member states' policy initiatives. IGES was engaged in National Plastic Action Plan Development in Myanmar and Cambodia and a total of six pilot cities were chosen for capacity development in evidence-based policy making for plastic pollution prevention.

As a member of the Technical Working Group of the ERIA's Regional Knowledge Centre on Marine Plastic Debris (RKC-MPD), IGES published a report on

"Building Data on the Plastic Value Chains in ASEAN Member States." It also co-organised a webinar on Extended Producer Responsibility (EPR). IGES agreed with ERIA and OECD to develop the Asia-version of Global Plastic Outlook as a flagship publication on policy evaluation.

IGES finalised a research in Viet Nam, Ghana, and Indonesia, on how multi-stakeholder dialogue and process could facilitate actions against marine plastic litter and Circular Economy policy formulation in the context of developing countries.

IGES also started to engage in International Negotiation Committee for Legally-binding Instruments for Plastic Pollution (INC) and organised a reporting session of INC1 at ISAP2022. SCP also contributed to Kanagawa Plastic Action Plan development.

IGES Centre Collaborating with UNEP on Environmental Technologies (CCET)

IGES Centre Collaborating with UNEP on Environmental Technologies (CCET) has continued in conducting evidence-based policy research, providing technical support, technical and capacity building to national and local governments, particularly Sri Lanka, Indonesia (Padang City), Myanmar and Cambodia to formulate national and sub-national action plans for managing municipal waste, including plastic waste and marine litter, healthcare and COVID-19 waste.

CCET also contributed to several globally-recognised knowledge products including Global Waste Management Outlook 2 by UNEP and ISWA, Assessment Report of Climate Impact of Black Carbon Emissions from Open Burning of Solid Waste, Training Needs Assessment Reports Towards Micro-Plastic Monitoring in Viet Nam and Sri Lanka. CCET conducted a series of training and capacity building and engaged in global policy dialogues such as Global Methane and Short-lived Climate Pollutants (SLCPs) Dialogue by CCAC and IPCC, global waste and chemicals pollution dialogues by IETC, Basel Rotterdam and Stockholm Convention Secretariat, and SAICM.

Through capacity development and technical support activities on waste management and plastic pollution prevention, CCET strengthened partnership with JICA, ADB and the World Bank enabling financing to implement the national and city waste management plans and innovative actions.



Student activities to clean up plastic pollution (left), Installing CCTV camera to monitor plastic waste in the city canals (right) (Galle, Sri Lanka)

Chika AOKI-SUZUKI

Senior Researcher/Deputy Director,
Sustainable Consumption and Production

Have you heard of the “triple planetary crisis”? It refers to the simultaneous crises we face today, climate change, biodiversity loss and pollution, caused by unsustainable consumption and production patterns. Since joining IGES in 2007, I have been involved in research on resource efficiency and circular economy to promote sustainable consumption and production. I have also expanded my career as a part-time university lecturer and a member of the Central Environmental Council.



Biodiversity and Forests Area (BDF)

Biodiversity and Forests team conducts problem-solving research and implementation in the Asia-Pacific region. BDF also aligns with and supports global biodiversity processes such as the Convention on Biological Diversity (CBD), the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and the New York Declaration on Forests.

Responsible Timber Trading (Revision of the Clean Wood Act)

IGES has been contributing to the operation and revision of Japan’s Clean Wood Act (Law Concerning the Promotion of the Distribution and Use of

Legally Logged Timber, etc.). The Clean Wood Act was revised in May 2023 based on discussions at the “Study Group on the Distribution and Use of Legally Harvested Timber, etc.” held in 2021, and IGES was invited to the Study Group twice to make recommendations. The “Review of the Clean Wood Act in Five Years (Summary),” which was based on the discussions in the study group, indicated the need for a guide to help businesses confirm legality in accordance with the Clean Wood Act. IGES was commissioned to prepare “Due Diligence Guidance for the Clean Wood Act,” a list of risk assessment-related information websites, and a hypothetical case study of legality verification. These reports are posted on the “Clean Wood Navi” website operated by the Forestry Agency.

Responsible Timber Trading (Timber Producing Countries)

IGES conducted country studies on legal frameworks for timber production and trade in Austria and Canada as a project commissioned by the Forestry Agency. The country reports will be uploaded on the Clean Wood Navi website of the Forestry Agency to assist Japanese businesses in checking the legality of timber products. In addition, with funding from ITTO, IGES conducted a project to analyse legal frameworks, timber supply chains, and practices of business entities in China and Viet Nam to promote legal and sustainable timber production and trade. The project produced a series of technical reports, two research papers for ITTO’s journal, and a seminar was held to present the findings. In addition, the project team was invited to give presentations in China and Viet Nam to share the survey results.

Through this project implementation, mutual understanding with ITTO was deepened. IGES concluded an MOU with ITTO to strengthen cooperation on the conservation and promotion of sustainable use of tropical forest resources, and has begun regular meetings with ITTO to explore further collaboration.

Supply Chain of Forest Risk Commodities

IGES conducted a study and analysis of supply chain structure and sustainability issues in palm oil production in Indonesia and coffee production in Viet Nam. Preliminary results of the study were compiled and published as an article in a food industry journal. The project has attracted praise, and requests for collaboration from another potential future partner, Climate & Company, a Germany-based outfit that works closely with the European Commission and is conducting supply chain studies in South America.



Oil palm plantation in Central Kalimantan



Collection of oil palm bunches grown by smallholders

Contribution to the International Process on Forests

The Forest Declaration Assessment Partners, of which IGES is a member, has published the 2022 Assessment Report, which reports on progress toward meeting global forestry goals. IGES also made a Japanese summary of the Assessment Report available to enhance understanding of the current status of the global deforestation problem in Japan.

JCM REDD+¹

IGES supported MOEJ by providing advice for a JCM REDD+ project. IGES was also invited by the FA to be a committee member to discuss JCM guidelines for afforestation and reforestation and provided our knowledge.

Contribution to International Biodiversity Processes

IGES staff continued working as experts on the IPBES nexus assessment and transformative change assessment. IGES also contributed to the external review of peer-reviewed documents for IPBES, TNFD and CBD. Some of these reviews provided the opportunity to suggest relevant IGES publications, which were subsequently cited in the reports. IGES also contributed to disseminating information on the IPBES and CBD processes and outcomes to Japanese audiences, including through the publication of a Japanese translations of the summary for policymakers of an IPBES thematic assessment report on the

sustainable use of wild species, as well as of a methodological assessment on values, and through an online public symposium on biodiversity. Finally, IGES staff have authored the biodiversity chapter to the 6th ASEAN State of Environment Report and produced a set of about 100 UNEP factsheets covering 20 Asian countries and seven multilateral environmental agreements.



Plenary session of CBD COP15 (Montreal, Canada)



Prof. Takeuchi presenting at CBD COP15 side event

Advisory Function to IPBES TSU

In FY2022 IGES completed its advisory role to the technical support unit (TSU) for the IPBES assessment on invasive alien species and their control. This TSU is hosted by IGES at the Tokyo Sustainability Forum. Its role is to coordinate the assessment and support the team of experts compiling the assessment report.

JICA Technical Cooperation Project: Development of Integrated Coastal Ecosystem Management System in the Republic of Mauritius

An IGES staff member continued to work in Mauritius as part of a JICA team responding to a heavy oil spill from the bulk carrier vessel, MV Wakashio. Based on the data collection survey conducted at that time, the team launched the JICA Technical Cooperation Project in January 2022, to support Mauritius in building an integrated coastal ecosystem management system to contribute to restoring the ecosystem in a resilient manner. IGES formerly evaluated and visualised the area's coastal ecosystem services to improve conservation and

¹ Reduction of Emission from Deforestation and forest Degradation, and Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks

monitoring plans and practices. More recent work intends to improve sustainability in the tourism sector by establishing a model village as a sustainable destination and introducing sustainable tours (e.g. coral plantation diving tours and mangrove kayaking). By doing so, it aims to prevent some “ecotourism” businesses from harming the coastal ecosystems, and attract sustainability-minded tourists. During FY2022, the IGES staff visited Mauritius three times and prepared the Ecotourism Action Plan to mobilise the necessary resources from the Mauritius Government and encourage them to implement required activities from 2023 onward.

Mainstreaming Biodiversity Conservation and Sustainable Management in SEPLS

IGES and partners supported five more projects to demonstrate the value and potential of socio-ecological production landscapes and seascapes (SEPLS) around the world. The total number of such projects since 2013 has now grown to 59. A new Satoyama Development Mechanism (SDM) website was developed to facilitate interactive information exchange between the project implementers, the SDM Secretariat and a general audience. In addition, the SDM project results were publicised in a variety of ways, including at side-events at CBD-COP15 Part 2 and ISAP2022.

Contribution to the Development of a New ISO Standard on Biodiversity

The International Organization for Standardization (ISO) set up a technical committee (TC331) on biodiversity in 2020 and the Government of Japan decided to actively participate in the process. IGES took on the role of secretariat for a domestic mirror committee, in collaboration with Japan Standards Association (JSA). The work involved an analysis of concerned documents, a compilation of inputs from concerned organisations and experts in Japan and submission to the ISO technical committee, as well as knowledge-sharing among concerned stakeholders and the public. Japan’s responses to the three working groups on terminology, and measurement and monitoring, and strategic sustainable use have already been established in cooperation with relevant organisations, and IGES is preparing to lead the national response to a remaining working group on protection and conservation that are scheduled to be established in the future.

Business and Biodiversity

IGES became a Forum member of the Taskforce on Nature-related Financial Disclosures (TNFD). Relating to this, IGES worked with MOEJ and others, to

promote business engagement in this process. IGES also worked with Keidanren (Japanese Business Federation) Committee on Nature Conservation (KCNC) to conduct a survey of Keidanren member companies on their efforts in contributing to the new GBF and TNFD. The survey clarified potential contributions of businesses in different sectors to the new GBF targets and the progress of their responses to the emerging TNFD framework.

Integration of Traditional and Modern Bioproduction System for a Sustainable and Resilient Future under Climate and Ecosystem Changes (ITMoB)

The ITMoB project, a 3-year cooperative research project, aims to explore scenarios/pathways for a sustainable and resilient future under climate and ecosystem changes by assessing various ecosystem services provided by bioproduction systems under multiple future scenarios. The project focuses on integration of traditional and modern bioproduction systems such as home gardens, agroforestry, plantation, aquaculture and urban agriculture in Japan, the Philippines and Indonesia. In FY2022, the project organised international conferences and workshops, training seminars and summer school, stakeholder meetings, and field surveys.

Abandonment and Rebound: Societal Views on Landscape and Land-use Change and Their Impacts on Water and Soils (ABRESO)

The overarching goal of the ABRESO project is to develop a global transdisciplinary platform. It is envisioned as a network of people, sites, tools and ideas, to better understand the impacts of land abandonment on sustainability of soil and water resources. Land abandonment and subsequent land use or land cover change can have profound implications for water resources, as the changing fabric of the Critical Zone (CZ) dictates changes in infiltration, runoff and the delivery of sediment and nitrogen to groundwater and surface waters. In FY2022, the project organised a workshop, stakeholder meetings, field surveys and online survey.

Designing Sustainable Future Scenarios through Multiple Value Criteria

This project aims to develop a new system for local evaluation and build local future scenarios to explore local sustainability at three research sites in Japan. In FY2022, IGES conducted preliminary field surveys to design future scenarios and quantify the value of subsistence food production (self-production and gifts from others) that is exchanged without market transaction.

Development of an Integrated Assessment Model linking Biodiversity and Socio-Economic Drivers, and its Social Application (S-21)

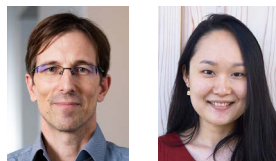
The objective of this study is to develop an integrated assessment model integrating biodiversity, climate change, and other socioeconomic factors for future scenario analysis, and quantitatively estimate the impacts of response options for climate change mitigation and adaptation, and biodiversity conservation and restoration under different future scenarios. In addition, this integrated assessment model will be applied at the national and local scales. In FY2022, IGES led designing research institutional arrangement and research components and methods to make a full-fledged 5-year research project from FY2023. This project is led under the Environment Research and Technology Development Fund.

Advocating Accurate, Nuanced Science Communication

In a recent *BioScience* article André Mader, Erin Kawazu and co-authors argued against the assumption that land change necessarily increases zoonotic disease spillover risk. They showed that such claims are not supported by the primary science, but have overwhelmed the media narrative and even secondary scientific sources. The article outlined possible consequences of simplistic messaging, advocated accuracy and nuance to account for the complexity of ecosystems, and recommended ways to improve science communication. It attracted considerable interest and was picked up by 12 different news outlets and featured on the *BioScience* podcast.

For details, please visit:

<https://academic.oup.com/bioscience/article/72/11/1099/6691424>



IGES
Close up

Adaptation and Water Area (AW)

To contribute to the realisation of a resilient and sustainable society, particularly in the Asia-Pacific region, AW will promote initiatives focusing on climate change adaptation and water environment measures. For climate change adaptation, AW will actively participate in international negotiations and policy processes and make policy proposals. AW will keep abreast of global efforts on adaptation and identifying international policy needs. Based on the

findings, AW will work on priority issues on adaptation, including promotion of AP-PLAT, research on the integration of adaptation measures with disaster prevention, climate mitigation measures, and biodiversity conservation, and work on locally-led adaptation (LLA), indigenous and local knowledge (ILK) systems, and transboundary adaptation. Regarding measures to conserve water environment, AW will actively promote WEPA's efforts as its secretariat to improve water environment governance in the Asia-Pacific region. In addition, AW will promote the deployment and proper management of decentralised wastewater treatment systems in the ASEAN region through a project funded by the Japan-ASEAN Integration Fund and address the issue of microplastics in rivers.

AP-PLAT Partnership Collaboration and Development of AP-PLAT Capacity Development Contents

AW, in collaboration with relevant organisations, led development of the Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT) partnership for enhancing adaptation action by regional stakeholders. AW took the lead in holding an AP-PLAT Plenary meeting to discuss its future development. The meeting was attended by 52 representatives from various organisations, including government agencies, international organisations, research institutes, universities and private companies. Consequently "AP-PLAT Framework for Action 2023-2025" was adopted. With regard to capacity development activities under the AP-PLAT, IGES also supported holding the AP-PLAT Capacity Development Regular Meeting, which resulted in the adoption of "Strategy for AP-PLAT Capacity Development Program 2023-2025". IGES also produced guidebooks on compound and cascading disaster risk tailored in Bangladesh and Nepal. IGES also conducted the capacity development programme in these countries, utilising the e-learning material "Building resilience to compound and cascading disaster risks" developed in the previous year.



Workshop on compound and cascading disaster risks in Bangladesh (Dhaka, Bangladesh)

Contribution to Global Assessment Report

A researcher from the AW team worked as a lead author for Chapter 3, “Future interactions across the nexus of the thematic assessment of the interlinkages among biodiversity, water, food and health (nexus assessment)”, of the IPBES Nexus assessment report. In FY2022, the Second Order Draft of the assessment was prepared and now is under review. In particular, the contribution from AW is to showcase the nexus from water as an entry point in this assessment report. Researchers from AW are contributing as lead and/or coordinating lead authors for different chapters of the Global Environment Outlook 7 (GEO 7) of UNEP as a part of IGES-wide contribution.

Contribution to International Climate Change Adaptation Processes

The international discussion on climate change adaptation has become increasingly active in recent years. IGES participates as a member of the Japanese government delegation at meetings held under the UN Framework Convention on Climate Change (UNFCCC) and provides support for international negotiations related to adaptation; at the 58th Subsidiary Body in June 2023, AW supported the Ministry of the Environment and engaged in negotiations on the Global Goal on Adaptation and other adaptation-related agendas. AW has also been following activities including high-level dialogues and relevant organisational activities on individual key themes (locally-led adaptation, disaster management, ecosystem, food systems, etc.). Through following international trends on adaptation and their development, AW made recommendations to the Ministry of the Environment on the future contribution of Japan in the field of adaptation. IGES researchers are engaged with the Adaptation Without Boundaries initiative, World Adaptation Science Program (WASP) and UNEP Global Adaptation Gap Report 2023 contributing to various assessment reports and policy briefs.

Synergy between Mitigation and Adaptation towards a Resilient Net-zero ASEAN

As part of the IGES-led research project on Synergies between Climate Change Mitigation and Adaptation (1CN-2206: Environment Research and Technology Development Fund), AW leads the implementation of sub-theme 3 “Research on transition strategies for promotion of renewable energy and harmonious adaptation toward climate neutrality.” The research aims to make recommendations on transition strategies for adaptation that harmonise with the transition to carbon neutrality, centered on renewable energy, concerning

key adaptation and industrial sectors in major ASEAN countries. In the first year of the study, the main adaptation elements and sectors to be considered in the transition to a society centered on renewable energy were identified, and a basic review of national adaptation plans (NAPs) and legal and institutional frameworks was conducted to prepare for fieldwork in the second and subsequent years.

Socio-hydrological Perspective of Climate Change Adaptation: Comparative Study in Large Riverine Islands in India, Bangladesh and Viet Nam

Amidst rapid global changes and the unfavourable environmental conditions they induce, communities in isolated riverine islands are affected due to their poor adaptive capacities. Among their main vulnerabilities are their water resources. Using a socio-hydrological approach, AW explored how the nexus of human well-being and water relations can be applied to improve adaptive measures to maintain hydrological cycles along with managing local water needs. This is a three-year project. In FY2022, socio-hydrological models were used to quantify feedbacks between water resources and communities at multiple scales with the aim of expediting stakeholder participation for the sustainable management of those resources. AW published 16 peer reviewed journal articles, three book chapters, and one conference proceedings under this project. The APN secretariat was very impressed with AW's outstanding project outputs.

Locally Led Adaptation (LLA)

AW has increased engagements on Locally Led Adaptation (LLA), which has been receiving increased attention since the 2021 Climate Summit, and especially after the Global Commission on Adaptation launched eight Principles on LLA. In this context, AW and APN jointly started a project on developing a model case of Locally Led Adaptation (LLA) as a direct contribution to the AP-PLAT capacity-building pillar covering South Asia (Nepal), South East Asia (Viet Nam) and the Pacific (Fiji). AW and APN co-organised a session on “Localization of NDCs through community-led “adaptation innovation” in the Asia-Pacific region: Needs and pathways” at the Gobeshona Global Conference on LLA on 31 March 2023. In the meantime, AW is exploring possibilities of regional partnership with renowned international initiatives and institutions such as Global Center on Adaptation (GCA)'s Global Hub on LLA, LLA Community of Practice as a new LLA endorsing organisation, and initiated discussion on developing JAIF project.

Addressing Transboundary Climate Change Risks

AW's work on transboundary climate change risks (TBRs) has been carried out under NIES-IGES *Suishinhi* project, JSPS-ICSSR project, and IGES SRF projects mainly in collaboration with the Adaptation Without Boundaries (AWB) initiative, and several national partners in South and Southeast Asia. AW published a chapter on global supply chains showcasing how supply chains are making local risks global and suggesting ways to mitigate the TBRs in the context of supply chains, for the EU DG CLIMA Flagship report on transboundary climate change risks. AW already received an expression of interest to engage in the subsequent flagship report.

A peer-reviewed journal article on regional droughts and implications for drought forecasting and early warning was also published. AW is developing a compendium of case studies on transboundary climate risks that highlight the factors resulting in TBRs under various contexts to be finalised during 2022–2023.

Water Environmental Management in Asia

As secretariat for the Water Environment Partnership in Asia (WEPA), AW has been contributing to the improvement of the water environment in Asian countries for over a decade. In FY2022, the WEPA annual meeting was held in Siem Reap, Cambodia, and government officials from 13 countries participated in the meeting. In addition, AW continuously supported WEPA Action Programs in Cambodia and Myanmar, and Lao PDR in order to promote concrete actions for improving water governance in each country.



The 18th annual meeting of WEPA (Siem Reap, Cambodia)

Integrated River Basin Management in ASEAN Countries

IGES, in collaboration with the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), is currently implementing a regional project pertaining to the State of River Basin (SORB) Reporting for river basins in ASEAN countries, with the objective of promoting the effective implementation of integrated river basin management (IRBM) in the region. Under this project, the team is currently developing a standardised and harmonised set of indicators for assessing the performance of IRBM programmes and initiatives, paving the way for the establishment of the Guidelines for State of River Basin Reporting System in ASEAN nations. This project's outputs will also provide a valuable tool for promoting sustainable water management and monitoring progress toward achieving the Sustainable Development Goals in the ASEAN region. These results will also facilitate the successful and efficient implementation of the GEF/UNDP/ASEAN Project on Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of IRBM in ASEAN Countries.

Strengthening Capacity Development for Local Governments in ASEAN to Tackle Microplastics and Water Pollution through Decentralised Domestic Wastewater

In 10 ASEAN Member States (AMSs) over the past two decades, the proportion of households with access to improved sanitation facilities, such as septic tanks, has increased dramatically. However, sanitation involves more than just toilets. Consideration must be given to the entire sanitation service chain, including how to safely manage, treat, dispose of, and reuse treated wastewater and sludge, either on-site or off-site; using a centralised or decentralised system. Under a new initiative funded by the Japan - ASEAN Integration Fund entitled: "Strengthening Capacity Development for Local Governments in ASEAN to Tackle Microplastics and Water Pollution through Decentralized Domestic Wastewater Management Approach", AW is currently collaborating closely with the ASEAN Secretariat and AMSs to facilitate the establishment of a regional platform for the strengthening of scientific and practical knowledge exchange, policy dialogues, and capacity development for local governments and relevant multi-stakeholders in ASEAN countries on decentralised wastewater management, which will eventually contribute to the achievement of relevant goals. A practical guidebook titled "ASEAN's Journey Towards Sustainable Sanitation: A Practical Guide to Decentralized Wastewater

Management” is currently being developed based on the results of a multi-benefit “SDG6 Model City” pilot project currently being implemented in Bauang Municipality, La Union, the Philippines. This guidebook is expected to trigger a comprehensive transformation of the domestic wastewater sector in ASEAN countries on multiple levels. In addition, a series of technical capacity building workshops are being held for relevant stakeholders in ASEAN cities. Moreover, the project also facilitates the development and instruction of a standardised and harmonised protocol for monitoring microplastics in sewage treatment plants and receiving water bodies in ASEAN nations, which is an urgent and essential matter.

Nagisa SHIIBA

Policy Researcher, Adaptation & Water

I joined IGES in 2021, and have been mainly involved in research activities in the field of climate adaptation. I participated in the UNFCCC COP as a member of the Japanese delegation to support the negotiations. One of the in-house activities that I am engaged in is the Eco-Action Committee. At IGES, there are various opportunities both internally and externally from the early stage of our careers. I think this is one of the appeals of IGES.



IGES
Close up

Business Taskforce (BIZ)

BIZ 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.

BIZ has been appointed as the Secretariat of Japan Climate Leaders’ Partnership (JCLP), a coalition of business in Japan, and has supported progressive companies to lead a positive momentum towards net zero in business and to contribute to the progress of climate policies in Japan¹.

Empowering Business Coalition

JCLP has continued to expand in FY2022 and its membership increased from 216 to 242 (net increase of 26 companies).

Decarbonisation of Business Practices

JCLP cooperated with Climate Group to support the participation of Japanese companies in RE100², EV100³, and EP100⁴. The number of RE100 companies increased by eight in one year, now with a total of 80 companies. The total volume of electricity use⁵ is about 6.1% of total electricity demand in Japan.

In addition, JCLP published the “Virtual PPA Guidance for Commodity Futures Act,” which was examined through collaboration between companies on the demand and supply sides of renewable energy, and contributed to the adoption and dissemination of this method in Japan, and ultimately to the diffusion of renewable energy.

JCLP, IGES, ICLEI, Green Purchasing Network (GPN) and Japan Network for Climate Change Actions (JNCCA) have been running the steering committee of “RE Action”, an initiative for SMEs, municipalities, educational institutions and medical institutions, to declare their commitment to 100% renewable electricity by 2050. In FY2021, RE Action expanded its membership from 269 to 328 (net increase of 59 organisations).

JCLP and RE Action held their first symposium, which had been postponed due to the COVID-19 pandemic, to introduce advanced case studies of leading organisations to businesses, media, renewable energy companies, government ministries, and others. Kahori Miyake, co-chair of JCLP, spoke of the significance of working with large corporations, and Tadamori Oshima, special advisor to JCLP, expressed his determination to create a flow of political support for such initiatives. It also served as an opportunity for various stakeholders to unite and take action.

1 Since 2012, IGES has been appointed by JCLP as its Secretariat.

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

3 International business initiative aims to drive the transition to electro-mobility.

4 International business initiative pledged to double the energy productivity of businesses.

5 Reference figures include overseas offices.

Policy Engagement

JCLP has been committed to active policy engagement with the support of BIZ, which is the Secretariat of JCLP.

Specifically, BIZ supported the decision and dissemination of recommendations by JCLP for a fundamental transformation, including concrete policies for a transition towards decarbonisation, increased public awareness of climate science, and support for international negotiations. Examples of JCLP statements include: "Statement on the Transition to Zero Emission Commercial Vehicles (9 June, 2023)," "Statement Calling for Revitalization of Scientific Research to Clarify the Link between Extreme Weather and Climate Change (17 April, 2023)," "Policy Statement for the G7 Sapporo Ministers' Meeting on Climate, Energy and Environment and the Hiroshima Summit (28 March, 2023)," "Statement on the Growth-Oriented Carbon Pricing Architecture (1 November, 2022)" and "Statement on Ensuring Diversity of Renewable Energy Options (26 July, 2022)."

In addition, two JCLP parliamentary exchange meetings were held to inform diet members of the existence of companies that are proactive about decarbonisation and to promote the exchange of ideas and opinions.

Moreover, the High-level Group of Experts on Net Zero Emissions Commitments of Non-State Entities, organised by the UN Secretary-General and with the participation of JCLP Co-Chair Kahori Miyake, released its recommendations on the credibility of net zero emissions declarations at COP27. BIZ supported the release of the recommendations and participation in the review meeting, as well as translating the recommendations into Japanese and contributing to media coverage and recognition in Japan.

Furthermore, JCLP participated in the following meetings and committees to encourage progress in climate policy.

- "中央環境審議会 総合政策部会" at MOEJ
- "炭素中立型経済社会変革小委員会" at MOEJ
- "カーボンプライシングの活用に関する小委員会" at MOEJ
- "再エネ実装専門家ボードコアメンバー" at Tokyo Metropolitan Government



UN experts group with the participation of JCLP Co-Chair released its recommendations on the credibility of net zero emissions declarations at COP27



JCLP statement delivered to Vice Minister of the Environment (second from the right)

City Taskforce (CTY)

CTY 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.

Supporting SDG Localisation through Voluntary Local Reviews (VLRs)

In FY2018, CTY supported three Japanese municipalities, namely Shimokawa Town (Hokkaido), Toyama City, and Kitakyushu City to produce the Voluntary Local Review (VLR) reports that were the first VLRs in the world together with the VLR of New York City. In FY2019, CTY supported the VLR report of the City of Hamamatsu. CTY 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).

A new development on the SDG study in FY2022 includes a study on follow-up and review (FUR) of the SDGs at subnational level under the Environment Research and Technology Development Fund (ERTDF). Through interviews with leading cities in Europe and Japan and literature review, CTY is exploring opportunities and challenges of SDG localisation through the lens of FUR. This study continues until FY2024, and an interim finding of the study was included in the Research Report "State of VLR 2023".

Sharing Lessons and Providing Support towards Zero-carbon Cities

CTY has been supporting city-to-city collaboration projects such as "T2KLLCS" (Tokyo to Kuala Lumpur Low Carbon System) since 2019. This collaboration focused on sustainable building policies in KL and won the C40 Bloomberg Philanthropy Award (Building a Climate Movement) in October 2022. In FY2022, this collaboration was strengthened by the participation of the City of Saitama and extend its focus to decarbonisation at the neighbourhood level. CTY also contributed to promotion of zero carbon cities in Japan through the Carbon Mapping Project, a commission project of MOEJ in which needs of the local governments, especially small and medium-sized local governments in the development and implementation of their zero carbon policy, in collaboration with other units at IGES, such as KUC and KRC. The Zero Carbon City International Forum 2023 was also organised through collaboration between the Ministry of the Environment, Japan, Office of Special Presidential Envoy for Climate, United States of America, and ICLEI in March 2023 to share experiences of leading cities in climate actions.

Finance Taskforce (FIN)

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, FIN is engaged in policy research and recommendations as well as capacity building. Specific areas of focus are sustainable finance (e.g. ESG investment), financial disclosure on sustainability, responses to business opportunities, and positive impact.

Research and Enabling Environment Improvement for Advancing ESG Finance

FIN has been engaged in commissioned work on green bonds from the Ministry of the Environment of Japan (MOEJ) since April 2017. In FY2022, FIN

carried out the following activities related to MOEJ's policies on green financial products.

- Contribution to the revision of the Guidelines for Green Bonds, etc.: In July 2022, MOEJ released the "Green Bond and Sustainability-Linked Bond Guidelines" and "Green Loan and Sustainability-Linked Loan Guidelines". FIN contributed to finalising these revised guidelines. In addition, it supported the preparation of materials for the Study Group on Green Finance, which discusses scaling up and quality improvement of sustainable finance, organised by MOEJ. FIN also attended various international conferences on sustainable finance to gather information, including the 27th Conference of Parties of the United Nations Framework Convention on Climate Change (COP27) where FIN contributed to a seminar on sustainable finance at the COP27 Japan Pavilion organised by MOEJ and the Organisation for Economic Cooperation and Development (OECD), as a cooperation organisation.
- Dissemination of information through the website "Green Finance Portal": Since 2018, FIN has served as part of the secretariat of the MOEJ website "Green Finance Portal" and has disseminated information on international market trends, the ICMA and LMA trends mentioned above, and good practices of overseas green financial products. In FY2022, FIN worked to enhance this information and introduce overseas examples of green financial products in areas (e.g. biodiversity) where proceeds have not been allocated in Japan, in an effort to broaden the sector of green financial products in the domestic market.

Shifting Financial Flows to Decarbonization Efforts in Japan

In order to mobilise the huge amount of funding required to deliver on the climate goals and to implement the SDGs, it is essential to build sustainable financial systems in which the financial sector, including banks, investors and other service providers, will shift finance and investments to greener and more sustainable options. In FY2022, FIN focused on mainly two activities for this purpose:

- Stakeholder engagement through a new partnership with the Climate Bonds Initiative: In FY2022, FIN entered into a strategic partnership signing an MOU with the Climate Bonds Initiative (CBI) for the purposes of delivering engagement activities in Japan. As part of this initiative, IGES agreed on a part-time secondment of an IGES-FIN staff to CBI starting

in September 2022 to manage CBI engagement activities in Japan. The engagement strategy for FY2022, developed based on detailed stakeholder analysis, has a three-pronged approach. The first pillar focuses on policy influence through engagement with policymakers. Transition finance industry roadmap reviews under the Ministry of Economy, Trade and Industry (METI) and the design of the forthcoming GX economic transition bond by the Japanese government have been identified as priority areas. The second pillar focuses on technical assistance to industry financing practices, working in cooperation with underwriters and verifiers. The third pillar focuses on support and engagement with investors to increase their visibility and influence toward the mobilisation of credible climate finance. Key activities delivered included a focused engagement and outreach week targeting the aforementioned stakeholders by CBI CEO Sean Kidney and a three-day transition finance online training session delivered to Japanese financial institutions.

- Regional ESG finance: FIN collected and consolidated information on ESG good practices by members of Principles for Financial Action towards a Sustainable Society which many local banks join, in order to identify challenges and opportunities to enhance ESG finance at the local level, under commissioned work by MOEJ. FIN continued its work on initiatives and activities aimed to promote ESG regional finance, such as how to integrate ESG finance into the SDGs certification system in Kitakyushu, and on how to assess and report on impact on SDGs by local banks including Shiga Bank, which promotes ESG finance for local environmental conservation and decarbonisation efforts by companies.

Green & Low Carbon Technology Transfer between Middle East & North Africa and Japan

Since FY2021, FIN explored the need and feasibility through IGES Strategic Research Fund (SRF) to foster Japan-Middle East and North Africa (MENA) cooperation toward green economies. This research work was initiated in a partnership with the Islamic Development Bank (IsDB -Multilateral Development Bank) and the Gulf Research Center (GRC: Think Tank), targeting Saudi Arabia, Egypt and Tunisia. FIN then agreed to continue its collaboration and proceeded with practical steps toward establishing a Japan-MENA Business Matching Platform to facilitate green and low-carbon technology transfer. In FY2022, FIN extended the partnership to include the Regional Center for Renewable Energy and Energy Efficiency (RCREEE), the

inter-governmental organisation across pan-Arab countries, and held side events at TICAD8 and COP27 among key stakeholders to discuss the necessity and feasibility of the Platform. Currently, FIN is collecting necessary data about “Seeds” in Japan and “Needs” in the targeted MENA countries in terms of technologies, policies, financing schemes, networks, etc. related to green business development, while preparing to launch the Platform at COP28 (UAE, 2023).

Financing for Decarbonisation at the City Level

In May 2021, the EU and Japan announced a Green Alliance to accelerate the transition toward a climate-neutral, circular and resource efficient economy over the next decade. Under this Alliance, IGES co-hosted with the Delegation of the EU to Japan the “EU-Japan 100 Cities Dialogue on Climate Change Action” event in January 2023. In the event, as one of the sessions, best practices and solutions were shared on financing city-level decarbonisation projects and activities. As part of MOEJ’s commissioned work, IGES, as project leader, coordinated to develop a JCM model project to introduce renewable energy at the factory level and a business matching framework under the framework of city-to-city cooperation between Yokohama City and Da Nang City, Viet Nam. IGES also made policy recommendations toward decarbonisation in Da Nang including raising the level of ambition of energy efficiency and conservation and renewable energy targets.



Climate change webinar on finance flow related to the discussion at COP27



IGES President Awards for Best Impact and Best Publication

IGES President has established annual awards to recognise outstanding research activities and results. In FY2022, the “Mountain View Award” for the best impact case went to “Key Regional Knowledge Player on Resource Efficiency and Circular Economy: Contribution to Adoption of G7’s Circular Economy and Resource Efficiency Principles (CEREP) at G7 Summit and Environment Ministers’ Meeting 2023.” The “Ocean Breeze Award”, which recognises outstanding publication, was jointly given to two IGES-led T7 policy briefs, namely “Critical Minerals for Net-Zero Transition: How the G7 Can Address Supply Chain Challenges and Socioenvironmental Spillovers” and “Putting Societal Well-Being at the Core of G7 Climate Strategies: Entry Points and Enabling Reforms.”

IGES Satellite Offices

Kansai Research Centre (KRC)

The Kansai Research Centre (KRC) carries out research focusing on actions taken by the private sector, including businesses that promote environmental and energy-conservation measures, under the theme of “Business and the Environment”. Specifically, KRC conducts analysis on corporate environmental behaviours in cooperation with case study countries and local governments, and develops policy recommendations for specific strategies to promote sustainable business practices in Asia by promoting the application of low-carbon and co-benefit technologies to developing countries through research on environmental and energy-saving technologies of businesses.

Low-carbon/Environmental Technology Transfer in India

KRC has been promoting technology transfer of Japanese low-carbon technologies (LCTs) to Indian companies through the Japan-India Technology Matchmaking Platform (JITMAP), which was launched in 2016 with The Energy and Resources Institute (TERI) with support from MOEJ. From FY2021, activities have been extended to environmental technologies such as air pollution management. In January 2023 a seminar was held at the Japan-India

Environment Week in New Delhi for introducing JITMAP activities as well as superior performance and life cycle cost advantages of Japanese environmental technologies to government agencies, experts such as energy assessors, and business people. A seminar was held with the aim of promoting the diffusion of the technology through the introduction of case studies of the introduction of the technology. The JITMAP activities were also presented at an exhibition booth which was visited by the Minister of the Environment, Akihiro Nishimura. In February 2023, a seminar on ‘Promotion of Japan-India Cooperation in Environmental Technology’ was held in Pune, Maharashtra, for government agencies and business people from Maharashtra to exchange views on how Japan, India and JITMAP should cooperate to overcome environmental problems such as air pollution in Maharashtra. The outcomes of this seminar and JITMAP activities were published in the newsletter of SAMEEESHKA, a platform for small and medium enterprises in India.

Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) Works

MOEJ has launched the Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) to promote the overseas expansion of high-quality environmental infrastructure. In FY2022, with the full cooperation of TERI, KRC contributed to the preparations for the Japan-India Environment Week in New Delhi in January 2023, and a survey was conducted to identify technical assistance projects in the field of air pollution.

Regional Circulating and Ecological Sphere (Regional-CES) Projects

The Hokusetsu Satoyama Regional-CES Project is an initiative aimed at revitalising the local economy by effectively utilising local resources for the Hokusetsu area (Takarazuka City, Kawanishi City, Inagawa Town, Sanda City) in Hyogo Prefecture. In FY2022, the Hokusetsu Satoyama Regional Circulating and Ecological Sphere Forum 2023 - Exciting Satoyama in the Future - was held at Tokurinji Temple in the Hokusetsu region, to promote this project to a wider audience. The forum was also broadcasted online. In addition, KRC held national workshops in three Asian countries to promote the concept of Regional-CES with the support of the Asia-Pacific Network for Global Change Research (APN). In October 2022, a national workshop entitled “Promotion of the Regional Circulation and Symbiosis Sphere (Regional-CES) Concept for Resilient and Sustainable Communities in Thailand” was held in Bangkok, and a national workshop entitled “Strengthening Urban-Rural Linkages for Localisation of the SDGs through Integrated Regional Planning and Inclusive Action” was held in Depok, Indonesia, in May 2023.



Regional-CES National Workshop in Thailand

Contribution to Environmental Policy of Hyogo Prefecture and Local Municipalities

The active participation of local governments and non-governmental actors is essential to realising a long-term decarbonised society, which requires coordinated governance at various levels. In FY2022, the Hyogo RE100 project was implemented to collect basic information on the actual status of renewable energy introduction by small and medium-sized enterprises and to support the launch of the “Hyogo RE100” website as an information dissemination tool. In addition, the Awaji City Renewable Energy Promotion Study was carried out for promoting consensus building and zoning for the introduction of renewable energy in a way that pursues benefits for the region, such as conservation of the local environment, regeneration and effective utilisation of devastated farmland and revitalisation of the local economy. In February 2023, Hyogo Prefecture, Kobe University, Sumitomo Mitsui Banking



Hyogo Prefecture, Kobe University, Sumitomo Mitsui Banking Corporation, Kobe Shimbun and IGES signed a collaborative partnership agreement for promoting decarbonisation in Hyogo Prefecture

Corporation, Kobe Shimbun and IGES signed a collaborative partnership agreement with the aim of promoting decarbonisation in Hyogo Prefecture, and with this partnership collaborative initiatives on themes such as utilisation of carbon footprint are ongoing.

Next Generation Capacity Development Projects

KRC planned, drafted and moderated the six-day “Hyogo High School Environmental and Future Leaders Development Project” organised by Hyogo Prefecture and the Hyogo Environmental Advancement Association. A total of 29 participants from 10 high schools in the prefecture took part in the programme, which included lectures by experts, group discussions and site visits to renewable energy projects. In the final session, each group presented its message to society on a wide range of themes, including solar sharing, Satoyama in the near future, high-tech countryside and environmental taxation. In addition, KRC collaborated with the Kobe University’s Econo-Legal Studies (ELS) programme to a series of lectures with 12 sessions on the theme of a decarbonised society in the first semester of FY2022.



Yugo TANAKA

Research Manager, Kansai Research Centre



My research interests include energy systems and public policy. I engage in projects aiming to nurture future leaders to solve environmental issues both for high school students in Hyogo prefecture and for college students in Kobe University where the Kansai Research Centre is located. Also, I work on the promotion of the regional circulating and ecological sphere model project in the Hokusetsu and the Awaji area in Hyogo Prefecture. In addition to promoting these local collaborations, I actively participate in a wide range of research activities both in our office and at the IGES headquarters, including the development of a decarbonisation roadmap for Japan to be in line with the 1.5C climate target. My work gives me great opportunities to promote both research and practical implementation.

Kitakyushu Urban Centre (KUC)

The Kitakyushu Office was established in 1999 in the City of Kitakyushu, which made the transition from a city known for pollution to an environmentally-advanced city, aiming to become the world’s environmental capital. In 2010, the office was renamed as the Kitakyushu Urban Centre (KUC) and currently conducts practical research activities with Asian cities to promote local governmental initiatives to realise sustainable cities in the areas of low-carbon and resilient cities, sound waste management, and green growth and sound urban environmental management.

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

In light of the increasing number of commitments to zero-carbon declared by cities in Japan, KUC conducted a needs survey for zero-carbon cities in Kyushu on action plan development and implementation. Based on the results, KUC studied the best approach for supporting local governments and how to effectively implement an urban carbon mapping tool. In addition, considering the fact that residents must make lifestyle changes to transition to a zero-carbon city, KUC conducted awareness-raising activities for youth and encouraged further dialogue with local stakeholders in Kitakyushu and Kagoshima by holding a “1.5 °C Lifestyle Workshop”, with a view to creating a template of the workshop that can be deployed in other municipalities. Besides this, KUC participated in individual projects (i.e. collaboration projects between Hai Phong City – Kitakyushu City; Koror State – Kitakyushu; Soc Trang – Hiroshima Prefecture) as part of MOEJ’s “City-to-City Collaboration Project for a Zero Carbon Society” (22 projects were adopted in FY2022). This project



The Kagoshima 1.5°C Lifestyle Workshop

aims to take zero/low-carbon technologies and know-how accumulated in Japanese cities and deploy them overseas under the framework of city-to-city collaboration. Zero-carbon scenario development using the Asia-Pacific Integrated Model (AIM) was also conducted regarding the Hai Phong City-Kitakyushu City collaboration. KUC has been playing a role of this project platform continuously since FY2013, and has contributed to maintaining momentum toward the realisation of a zero-carbon society at the city level in Japan and internationally.

Evolving Sustainable Waste Management Practices

With the aim of building a resource-circulating society at the city level, KUC provided various activities. Specifically, IGES was commissioned by UN-Habitat to be an implementation partner of the Healthy Oceans Clean Cities Initiative (HOCCI), a project to reduce marine plastics in six model cities in the Philippines. Among other activities, KUC was responsible for the development of three national-level policy papers, education materials, and coordination with Calapan and Davao cities for the preparation of their action plans for marine litter reduction and pilot project concept notes. In addition, a feasibility study on the establishment of a resource-circulating model targeting plastic waste in Samet Island, Thailand was initiated under funding from the Alliance to End Plastic Waste (AEPW). KUC also supported the development of a national action plan for reducing marine plastic litter in Myanmar and Cambodia as part of the Japan-ASEAN Integration Fund (JAIF). KUC assisted a project in charge of conducting waste surveys and capacity building in three cities in Cambodia. Furthermore, KUC established a network and trust with key EU players in the Circular Economy field and contributed to organising a World Circular Economy Forum 2022 High-level Side Event in collaboration with Holland Circular Hotspot. Lastly, KUC is participating in the JICA Partnership Programme in Davao City to properly implement a waste disposal process in collaboration with the city and local residents in a coastal area where municipal solid waste collection, transportation and recovery are not properly carried out. In Japan, KUC contributed to organising the “Kitakyushu Circular Economy Vision Promotion Commission” which is a local platform in transition to a circular economy.



Keynote speech by video at the Kitakyushu Circular Economy Vision Promotion Council (collaboration with the Holland Circular Hotspot)

Promoting Green Growth and Localising the Sustainable Development Goals (SDGs)

KUC has been organising the Kitakyushu SDGs Training programme annually since 2019, which is an English-speaking programme to learn and observe actual SDGs good practices on the local ground. For FY2022, the 4th SDGs Training Programme was organised for 10 international university students in March 2023, in Kitakyushu City and Goto City. The students learned about the Frontrunner Practices of Creating Synergy Effects of Renewable Energy under the Zero Carbon Cities framework. KUC has been engaging in the OECD's SDGs localisation programme, "A Territorial Approach to the SDGs," with Kitakyushu City acting as one of the pilot cities. KUC served as the local team for Kitakyushu City and contributed to the development of a good practice collection, "Tool Kit" and 5th anniversary publication. Moreover, KUC has begun to co-implement a new SDGs Business Verification Survey with Private Sector of the Japan International Cooperation Agency (JICA), Disseminating Japanese Technologies to Extinguish Forest and Peatland Fire using Environment Friendly Soap-based Fire Fighting Foam in Central Kalimantan Province, Indonesia with a leading SDGs company in Kitakyushu City, Shabondama Soap Ltd. As a new initiative, KUC led a discussion with the City of Kitakyushu to design a newly establish SDGs Certificate Programme (tentative title), which promotes SDGs management at local SMEs and sustainable finance at local financial institutes. KUC also served as a local member of several local committee meetings and provided lectures and workshops for an increasing number of schools, universities, civic organisations, and private companies across a wide range of stakeholders in Kyushu.



The 4th Kitakyushu SDGs Training Programme

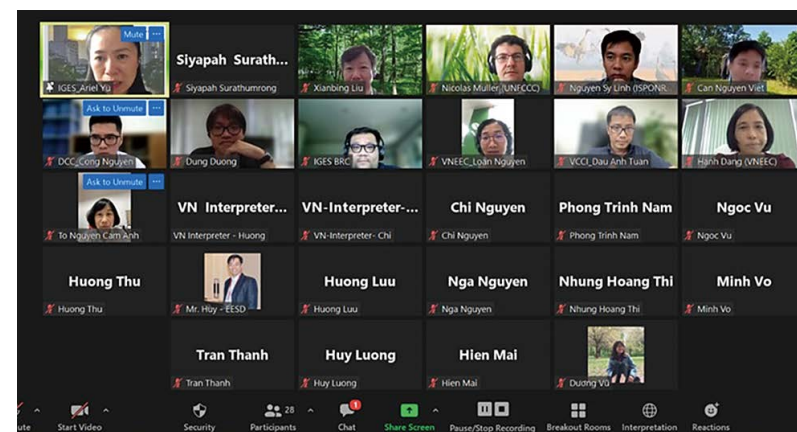
Regional Centre in Bangkok (BRC)

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 implements 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) provides multifaceted support to facilitate the implementation of the Paris Agreement. RCC organised two webinars to support the publication of NDC and LT-LDS Synthesis Reports. Regarding climate finance, RCC has been implementing several Needs-Based-Finance projects in a number of subregions, including ASEAN, Asian LDCs, Central Asia and South Caucasia. On market mechanisms, RCC assists the countries in the Asia-Pacific region to enhance capacity for the implementation of Article 6 and supports ASEAN countries, Pakistan, and Mongolia in exploring the options for utilising carbon pricing instruments. RCC has also played a more prominent role for monitoring, reporting and verification (MRV) networks in South East and South Asian countries, and has paired with partners to organise a series of virtual workshops on the Enhanced Transparency Framework and existing MRV mechanisms.



Webinar on climate change mitigation

Climate Change Adaptation

The project on Disaster Risk Reduction by Integrating Climate Change Projection into Floods and Landslide Risk Assessment (ASEAN DRR-CCA Phase 1, 2018-2021) output contributed to the regional and global efforts on disaster risk reduction, including its Contributing Paper to the Global Assessment

Report 2022 (GAR2022) and two guidelines endorsed by ASEAN countries. Project website [<http://aseandrr.org>].

The proposed continuation project extends from ASEAN DRR-CCA Phase 1, designed to widen the application of methodologies and approaches to integrate CCA impacts into river designs in selected case study areas, as well as to develop specific risk assessment outputs relevant for specific priority vulnerable sectors for further aiding in better risk communication. The concept was succeeded in the AADMER Work Programme 2021-2025 as Priority Programme 1: Risk Assessment and Monitoring - aimed to enhance ASEAN capacities to forecast, assess and monitor multiple risks using science-based, climate-responsive, and innovative approaches as well as strengthen ASEAN systems on multi-hazard early warning and risk communication.

In FY2022, BRC focused mainly on (1) facilitating coordination of mutual cooperation among AMS and pilot host countries, (2) facilitating the review and appraisal of Phase-2 to ensure link with the new ASEAN Work Programme, (3) supporting joint meeting and other opportunities for increased interaction, cooperation and publicity namely: a) 41st ASEAN Committee on Disaster Management Meeting, b) 10th ASEAN Ministerial Meeting on Disaster Management (AMMDM) and ASEAN Day on Disaster Management (ADDM), 17-20 Oct 2022, Bangkok, c) Thematic Capacity Development Workshop – Insights into Mainstreaming Disaster Risk Reduction in Urban Centers, 6 Sep 2022, d) Open Session of the ACDM Working Group Meeting, 15 Feb 2022, e) ASEAN Secretariat – IGES Meeting, 26 Aug 2022 and f) ISAP Thematic Track 3, 29 Nov 2022.

In addition, BRC contributed to Capacity Development Program of the Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT) together with AW. Under MOEJ commissioned work, BRC prepared a document entitled “Strategy for AP-PLAT Capacity Development Program 2023-2025” in order to define the direction of future activities, and developed two e-learning modules. BRC also organised AP-PLAT capacity development regular meeting with partner organisations to enhance networking activities. For outreach activities, AP-PLAT sessions were organised at COP27 and Water Security and Climate Change Conference.

Localising the SDGs in ASEAN Cities

In FY2022, the project proposal for the ASEAN SDGs Frontrunner Cities Phase 2 (SDGs-FC 2) was approved by Japan’s Ministry of Foreign Affairs with funding from the Japan-ASEAN Integration Fund (JAIF). From Sep 2022 – Jan 2023, the project team initiated the project by preparing for the 1st Regional (Inception) Workshop, which was eventually co-organised with the Government of Malaysia on 10 -11 Jan 2023 in Seberang Perai, Penang, Malaysia. The Workshop also included the 1st Project Steering Committee meeting which endorsed the proposed project activities by 12 cities in eight ASEAN Member States, as well as common priority topics for future regional activities, regional monitoring & evaluation framework/indicators and follow up activities. Subsequently, the project team focused on one-on-one consultations with each National and City-level Project Focal Points to develop full-fledged Project Action Plans for implementation in FY2023.

Environmental Compliance and Enforcement and Sustainable Consumption and Production (SCP)

In FY2022, AECEN took proactive approaches and engaged in discussions with its partners, including USEPA, Environment and Climate Change Canada, IUCN World Congress, AELERT, UNEP, European Network of Prosecutors for the Environment (ENPE), Environmental Law Institute (ELI), and other enforcement networks to strengthen long-term collaboration through the quarterly International Network for Environmental Compliance and Enforcement (INECE) Leadership Group meetings, while also identifying new partners, including local governments and academia. AECEN also led fundraising for environmental compliance and enforcement, environmental governance, and marine plastic pollution projects, including the APAC Sustainability Seed Funded through the Asian Venture Philanthropy Network to implement the “Zero Plastic Waste Island (Closed Island Plastic Recycling System)” Project, Asia Gender Equality Fund to “Support Women’s Empowerment through Improved Environmental Compliance and Governance and Technological Support in Samut Sakhon,” Combating the Input for Marine Litter in the Greater Mekong Region for “Marine Debris Framework - Regional Hubs around the Globe” (Marine:DeFRAG) programme funded by the German government, a Global Environment Facility (GEF)-funded project on “Plastic Waste Management and Behaviour Change in Thailand,” and a WWF project “Accelerating and Scaling up City-level Best Practices from Asia for the Global Plastic Treaty Recommendations.”

Tokyo Sustainability Forum (TSF)

The Tokyo Sustainability Forum (TSF) aims to facilitate impact generation with various stakeholders, particularly those based in Tokyo. It hosts the IPBES Technical Support Unit and is co-located with the ICLEI-JAPAN. The Forum also works in collaboration with the Biodiversity and Forests Area and the City Taskforce.

IPBES Technical Support Unit

TSF continued to host the IPBES Technical Support Unit for the Assessment of Invasive Alien Species (TSU-IAS), and supported its work, including the development of a thematic assessment report on invasive alien species.

Support for Preparations to Hold the 2nd Asia Parks Congress

The 2nd Asia Parks Congress was held in Kota Kinabalu, Malaysia in May 2022, and TSF was commissioned by MOEJ to draft a presentation by the government of Japan. TSF also set up a working group on "Nature-based Solutions (NbS)", including preparations for the draft NbS promotion guidebook, and conducted survey of trends in meeting of protected areas abroad etc.

Contribution to the Development of a New ISO Standard on Biodiversity

In cooperation with the Japanese Standards Association (JSA), IGES manages the National Mirror Committee, whose operation is a prerequisite for Japan's participation as a voting country in the Technical Committee on Biodiversity (TC 331) run by the ISO. The TSF, together with the BDF, analyses ISO documents, liaises with related organisations, supports discussions at ISO plenary meetings, and assists with voting and decision-making to support the discussions of National Mirror Committee and ensure effective voting.

Maintenance and Improvement of the Office Environment

Efforts were made to maintain and improve the office environment to facilitate the activities of Tokyo-based IGES Management, Senior fellows and Fellows, adapting to changing conditions with the COVID-19 pandemic.



MOU ceremony with the International Centre for Integrated Mountain Development (ICIMOD)

Beijing Office (BJG)

<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 (currently the Ministry of Ecology and Environment 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 Co-benefits of Better Air Quality and CO₂ Reduction in China through Model Projects

The "Japan-China inter-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 period of cooperation (Phase 1) ended in FY2018. From FY2019, a new cooperation project (Phase 2) started based on the "Agreement between the Ministry of the Environment, Japan, and the Ministry of Ecology and Environment of the People's Republic of China on cooperation to implement research 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. In line with the policies of cooperation in Phase 2 shown below, IGES carried out model projects and research from FY2019 through coordination with stakeholders and local governments in Japan and China. The results of Phase 2 were highly appreciated by both Japan and China in the summary at the Japan-China joint conference convened in February 2022, and Phase 2 was concluded successfully.

In FY2022, in order to deploy good results obtained from some of the model projects implemented in China, IGES engaged in discussion and coordination with relevant parties in Japan and in third countries (Indonesia, Malaysia etc.), to consider the possibilities of developing model projects using the Joint Crediting Mechanism (JCM) scheme. IGES also conducted site surveys at candidate companies in Indonesia and Malaysia for implementation of model projects.



Food residue fermenter planned to be spread in Indonesia and Malaysia

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)

Major activities of the model projects etc. implemented in Phase 2 are as follows.

1	[Shenyang City] Research on measures for reduction of particulate matter emissions by utilising crop residues
2	[Chongqing city, Shanghai city, and Sino-Japan Friendship Center for Environmental Protection] Model project on measures to control small-scale distributed sources of air pollution in the restaurant industry
3	[Guangdong province] Model project on reduction of VOC emissions from manufacturers
4	[Xi'an city] Research on measures in priority areas to reduce ozone pollution over wide areas
5	[Sino-Japan Friendship Center for Environmental Protection] Building a platform to introduce Japanese VOC technologies and incorporating them into China Ecological & Environmental Technology Transformation (CEETT)



Technology (highly efficient tenter) planned to be spread in Indonesia

Affiliated Programmes

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 Software¹ 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 FY2022, TSU worked extensively in developing the software through drafting specifications for the updates, contracting the software company and testing beta versions of the software, as well as developing supporting tools, such as the Users' Guidebook and add-ons. TSU has attended a number of events to present the software.

Management of IPCC Emission Factor Database (EFDB)

The IPCC EFDB² is a database of emission factors and other parameters. By using this database, national experts can find nationally appropriate values to develop national GHG inventories in accordance with the IPCC inventory guidelines. In FY2022, TSU continued enhancing the usefulness of the database by collecting data, organising relevant expert meetings, including data meetings in all sectors, and supporting the EFDB Editorial Board, as well as implementing, managing and developing activities to improve the database and increase its use.

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

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

Production of Reports to Supplement or Refine the IPCC Inventory Guidelines

TSU had concluded 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, in FY2021 with virtually holding the 3rd expert meeting in April 2022. Therefore, the TSU did not plan any specific activities during FY2022 to prepare for production of the Methodology Report on SLCF when its business plan for FY2022 was submitted in May 2022. However, in accordance with the agreement by the IPCC reached at its 57th Session in September 2022, TSU worked to collect nominations of experts from IPCC member governments, etc. for selection of invitees to the Scoping Meeting for the Methodology Report on SLCF which will be held during FY2023.

The TSU organised an Expert Meeting on Use of Atmospheric Observation Data in Emission Inventories in September 2022, and produced a report with relevant outcomes of the expert meeting. The outcomes of the meeting will inform the future refinement of the IPCC Inventory Guidelines.

Furthermore, TSU worked on corrigenda for the 2006 IPCC Guidelines and their 2019 Refinement.

Collaboration with Other Organisations

In FY2022, TSU continued cooperation with other organisations on inventory-related matters such as the National Institute for Environmental Studies (NIES) of Japan and the Global Forest Observation Initiative (GFOI). For example, TSU contributed its support to inventory-related capacity building programmes implemented by the NIES by participating to the 19th and 20th Workshops on Greenhouse Gas Inventories in Asia, and provided a test exercise at GFOI plenary on how to use the IPCC Inventory Software for reporting GHG emissions and removals from UNFCCC REDD+ activities.

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



IPCC Expert Meeting on use of atmospheric observation data in emission inventories (September 2022, Geneva, Switzerland)



21st Editorial Board Meeting for the IPCC EFDB (May 2023, Christchurch, New Zealand)

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, in the following areas: climate; biodiversity and ecosystems; air, land, coasts and oceans; food, water and energy; risk and resilience; and human dimensions. Through research, capacity development, science-policy interactions and stakeholder engagement, APN contributes towards a dynamic and responsive Asia-Pacific community effectively addressing global change and sustainability through innovative and transdisciplinary research and capacity development activities.

Collaborative Regional Research Programme (CRRP)

To contribute to the development of policy options that respond to global change from the scientific perspective in the Asia-Pacific region, the 49th Steering Committee Meeting of APN approved funding to support nine

regional research proposals under the Collaborative Regional Research Programme (CRRP). These were selected from the APN FY2021 Call for Proposals for support in FY2022.

Scientific Capacity Development Programme (CAPaBLE)

To build the scientific capacity in research on global change and sustainability in developing countries, the 49th Steering Committee Meeting of APN approved funding to support 10 proposals under the Scientific Capacity Development Programme (CAPaBLE). These were selected from the APN FY2021 Call for Proposals for support in FY2022.

Direction and Activities of APN

i. Subregional Committee Meetings and Proposal Development

Training Workshops

Subregional committees (Temperate East Asia, Southeast Asia, South Asia and the Pacific) have been established to discuss challenges, as well as research and capacity development needs common to the subregion. Three subregional committees planned to hold their committee meetings in FY2019, FY2020 and FY2021; however, they were postponed due to the COVID-19 pandemic. In FY2022, with the easing of travel restrictions, the 10th South Asia Subregional Committee (SA-SRC) Meeting was held in person in Sri Lanka in November 2022, and the 13th Southeast Asia Subregional Committee (SEA-SRC) Meeting was held in person in Thailand in May 2023. The Proposal Development Training Workshop (PDTW), which aims to develop the capacity of early-career professionals to compete for research funding, was held back-to-back with the SA-SRC Meeting and the SEA-SRC Meeting, respectively.

ii. Enhancing Strategic Relationships with Relevant Organisations

To enhance strategic relationships with global change and sustainability organisations, the Collaborative Framework for Scientific Cooperation was signed with the North Pacific Marine Science Organization (PICES) in February 2023 and developed a collaborative research agenda. In addition, the Memorandum of Understanding (MOU) with the Alliance of International Science Organizations (ANSO) was signed as the basis for joint activities between the two organisations in March 2023. APN made courtesy calls to the Asia office of the Stockholm Environment Institute (SEI) in Thailand in October 2022, and to the National Research and Innovation Agency of Indonesia (BRIN), the United States Global Change Research Program (USGCRP) and the National Science Foundation (NSF) in May 2023.

iii. Collaborative Projects with IGES

With APN funding, two projects are currently underway. The first is with APN and IGES-KRC on Regional-CES in the Philippines, Thailand and Indonesia. The second is with IGES-BRC and IGES-HQ on Locally Led Adaptation in the Asia-Pacific region that is expected to contribute to the capacity development component of AP-PLAT.

Contribution at Environmental Forums

i. Contribution at International Science-Policy Forums

APN attended the UNFCCC COP27 in Sharm El Sheikh, Egypt, in November 2022 and had the opportunity to chair, moderate and present at two side events, including an event at the Japan Pavilion with AP-PLAT, IGES and NIES, titled "Formulation and Implementation of National Adaptation Plans (NAPs) in the Asia Pacific – Establishing a System to Promote Adaptation Towards the Achievement of the Global Goal on Adaptation (GGA)." APN also made presentations and contributed to discussions in a number of other international forums held in person/online/hybrid.

ii. Joint Activities with the Hyogo Prefectural Government

APN and the Hyogo Prefectural Government, which hosts the Secretariat and provides operational support to APN, jointly organises annual forums to raise awareness of environmental issues among the residents of Hyogo Prefecture. In FY2022, APN and the Graduate School of Disaster Resilience and Governance, University of Hyogo, jointly organised a hybrid-style session on "Climate Change and Disaster Reduction" at "Bosai Kokutai 2022" in HAT Kobe in October 2022. In addition, APN and the Hyogo Prefectural Government jointly organised a hybrid-style seminar on "SDGs International Forum for Realising a Decarbonised Society" in Kobe in December 2022.



52th Steering Committee (SC)



13th Southeast Asia Subregional Committee (SEA-SRC) Meeting



SDGs International Forum for Realising a Decarbonised Society (Kobe)

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 FY2022, JISE implemented the following activities, including training and information collection and provision on forests, nature regeneration and ecology.

Research Projects

On the international research front, JISE, with external grants, planted pot seedlings of the local potential natural vegetation component species identified through ongoing vegetation surveys and forest conservation research mainly in Malaysia and Kenya, investigated their growth behaviour, analysed the growth data of regenerated forests based on the planting data obtained, and published the results in international journals and at the Ecological Society of Japan. In order to promote the restoration of degraded forests and the support to the reforestation of village forests, JISE identified useful tree species that contribute to local reforestation and specifically promoted the breeding of local seedlings in consideration of biodiversity, in collaboration with IGES Biodiversity and Forests Area (BDF). In Lao PDR, JISE developed and implemented an analytical method for elementary school children's experience of nature and their relationship with living organisms, and worked to support learning programmes and collect drawing data for approximately 2,400 children at 41 elementary schools. In the Philippines, JISE focused on reforestation activities that had been carried out in collaboration

with ethnic minorities and their supporters at a former mine development site, and worked to evaluate the benefits gained by the residents.

On the domestic front, JISE carried out research on environmental conservation forests, which included comparative studies of natural vegetation and secondary vegetation, as well as studies to develop quantitative evaluation methods for the disaster mitigation functions of vegetation resources, particularly fire protection functions. Some outputs of the above-mentioned research were presented at various domestic academic meetings as well as being published in the "JISE REPORT."

In addition to the above, JISE conducted other projects commissioned by private companies, local governments and non-profit organisations. These included vegetation surveys and planning for forest and nature restoration, technical instruction in tree planting as well as vegetation monitoring surveys in forest and nature restoration areas in several prefectures including Nagano, Akita and Iwate.

Capacity Building

JISE conducted an Environmental Study programme to promote understanding of the immediate environment through observation of nature and living creatures. Based on the practice of project, JISE developed teaching materials and programmes to promote environmental understanding, and published the results in the journal. From the viewpoint of preventing the spread of COVID-19 infection, the first half of FY2022 was held online, with many children participating, and in the second half of the fiscal year, face-to-face learning sessions in the open air were resumed. In addition, research staff members participated as instructors in hands-on classes at elementary schools in Yokohama City and as part of the Akishima City environmental activity leader training course.



Environmental study programme (Kawasaki)

Interaction

JISE Open Forum was held online in June 2023 under the title “Research and Practical Approaches to Global Warming” aiming to provide an opportunity to reconsider global warming from both ecological and engineering perspectives. The theme of the open workshop was “Creating Satoyama in Cities: Nature Positive and Future Green Public Policies based on local practices.” The speakers were JISE researchers and external parties, who reported and discussed their past activities in the region. In both cases, online presentations were used to attract participants from a wide range of fields, including students, business representatives, and residents of remote areas.



Open workshop (Kawasaki)

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 reports field surveys and practical activities for ecosystem conservation.

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

IGES has been hosting the technical support unit for the IPBES assessment of invasive alien species and their control (IPBES-TSU-IAS) since February 2019 at TSF. The TSU has functioned as an extension of the IPBES secretariat that is headquartered in Bonn, Germany. The purpose of the TSU has been to support and assist in the coordination of the IPBES invasive alien species assessment, including drafting the assessment report.

The IPBES assessment of invasive alien species 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 to 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 2023¹.

IPBES-TSU-IAS has been providing support to the overall coordination for drafting work on the assessment report including the planning of the assessment timeline, organisation of author meetings, and managing references and data. In FY2022, the TSU supported the Secretariat at the 9th session of the IPBES Plenary (IPBES-9; July 2022, Bonn, Germany) and organised the fourth SPM meeting (October 2022; Santiago, Chile and online). Additionally, it coordinated with the assessment experts in responding to comments received in the additional SPM review which took place between July and September 2022. The TSU then submitted a draft assessment report to be considered for approval at IPBES-10 (August–September 2023).

Funding for TSU operations is provided by the UNEP Trust Fund, matched by contributions from the Ministry of the Environment, Japan.

¹ approved and accepted at the 10th session of the IPBES Plenary (IPBES-10; August to September 2023, Bonn, Germany).



Fourth SPM meeting (photo: Claudio Concha Avello)

FY2022 List of Major Publications

Flagship/Priority Publications

- Policy Report “SDGs Progress Report 2023: Concrete Actions by GCNJ Companies and Organisations in Japan” (Japanese version)
- Policy Report “SDGs Progress Report 2022: Survey Results on the Efforts of GCNJ Companies and Organisations”
- T7 Policy Brief “Putting Societal Well-Being at the Core of G7 Climate Strategies: Entry Points and Enabling Reforms”
- T7 Policy Brief “Critical Minerals for Net-Zero Transition: How the G7 Can Address Supply Chain Challenges and Socioenvironmental Spillovers”

Timely Publications

- Book Chapter “Overcoming the Climate Crisis and Achieving the SDGs: After COVID-19 and the Russian Invasion of Ukraine” (A World in Crisis, a World in Progress: Growing Better Together)
- Issue Brief “Environmental and Sustainability Implications of the Ukraine War for East and South Asia: Sustainability and Decarbonisation Should Be Accelerated Not Paused”
- T7 Issue Paper “Integrated Approach for Well-Being, Environmental Sustainability, and Just Transition”

SDGs Area

- Research Report “Strengthening the Environmental Dimension of the Voluntary National Reviews in Asia-Pacific: Lessons Learned and Ways Forward”
- Peer-reviewed Article “ASEAN Countries’ Environmental Policies for the Sustainable Development Goals” (Environment, Development and Sustainability)

Climate Area

- Peer-reviewed Article “Low-Carbon Lifestyles beyond Decarbonisation: Toward A More Creative Use of the Carbon Footprinting Method” (Sustainability)

- Peer-reviewed Article “Nature-based Solutions for Climate Change Adaptation: A Systematic Review of Systematic Reviews” (Nature-Based Solutions)
- Peer-reviewed Article “National GHG Inventory Capacity in Developing Countries – A Global Assessment of Progress” (Climate Policy)
- Peer-reviewed Article “Implications of Regional Droughts and Transboundary Drought Risks on Drought Monitoring and Early Warning: A Review” (Climate)

Waste Management Area

- Peer-reviewed Article “Assessing Economy-wide Eco-efficiency of Materials Produced in Japan” (Resources, Conservation and Recycling)
- Policy Report “Building Data on the Plastics Value Chain in ASEAN Member States”
- Book Chapter “Microplastics in Wastewater Treatment Plants” (Current Developments in Biotechnology and Bioengineering: Advances in Biological Wastewater Treatment Systems)

Biodiversity Area

- Peer-reviewed Article “Exploring Bioproduction Systems in Socio-ecological Production Landscapes and Seascapes in Asia through Solution Scanning Using the Nature Futures Framework” (Sustainability Science)
- Peer-reviewed Article “Transformative Change of Paddy Rice Systems for Biodiversity: A Case Study of the Crested Ibis Certified Rice System in Sado Island, Japan” (Agroecology and Sustainable Food Systems)
- Peer-reviewed Article “Messaging Should Reflect the Nuanced Relationship between Land Change and Zoonotic Disease Risk” (BioScience)

Submissions to Policy Process

- “Da Nang City Climate Action Plan - A Conceptual Framework for Sectoral Climate Actions”
- “Action Plan on Integrated Solid Waste Management in Padang City (2023-2030)”
- “IGES Submission to the First Global Stocktake”

- Japanese translations of CCET guideline series on intermediate municipal solid waste treatment technologies (“Composting” and “Waste-to-Energy Incineration”)

Briefing Notes

- “The Post-2020 Global Biodiversity Framework (GBF) and CBD COP15” (English and Japanese versions)
- “An Overview of IPBES-9 and the 2022-2023 Intersessional Period for IPBES”
- “First Global Stocktake (GST) of the Paris Agreement: Results of the Second Technical Dialogue and Negotiation Session at COP 27” (Japanese version)
- “Preliminary Report: The Results of COP27 on ‘Adaptation’ and ‘Loss and Damage’” (Japanese version)
- “Comments on the Results of the Environmental Part at the G20 Joint Environment and Climate Ministers’ Meeting” (Japanese version)

Japanese Translations

- Club of Rome “Earth for All: A Survival Guide for Humanity” (commercial publication by Maruzen)
- UNEP “Emission Gap Report Executive Summary”
- UNEP “Adaptation Gap Report Executive Summary”

For more details on IGES publications, please visit:
<https://www.iges.or.jp/en/pub>

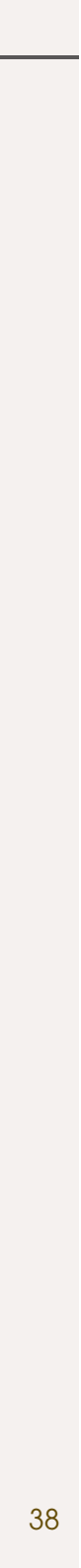
Contributions to Local Communities

IGES introduced its research activities at lectures and seminars held for members of the local community and provided easy-to-understand commentary on global environmental issues such as climate change and SDGs. IGES also dispatched speakers to local junior and senior high schools and offered lectures at universities to provide support for integrated environmental studies and higher education in the local community.

Main Lecture Activities by IGES Researchers

2022		
13 July	Econo-Legal Studies (ELS) Programme, Kobe University, IGES Kansai Research Centre	Lecture “Efforts of the Regional Zero Carbon Working Group in University Coalition for Carbon Neutrality and Efforts of Overseas Universities”
29 July	Hoshigaoka Citizen Center (Kitakyushu City)	Summer programme, SDGs workshop for primary school students
10 August	Kanagawa Environmental Research Center	“Basic Study about Climate Change” Lecture and training programme for school teachers in Kanagawa Prefecture
11 and 13 August	IGES-JISE, Hayama Shiosai Museum, Yokosuka City Museum	Observation study session “The Mysterious World Seen Through a Microscope”
16 August, 19 September, 23 October	IGES, hataori LLC,	Kagoshima 1.5°C Lifestyle Workshop
22 September	Fukuoka Prefectural Kokura High School	Field research “Comprehensive Study Time”
1 October	Hyogo Prefecture, Hyogo Environmental Advancement Association	Hyogo High School Environmental and Future Leaders Development Project (individual presentations/workshops)
5 October	Kanagawa Environmental Research Center	FY2022 Environmental Study Leader Training Workshop “Global Trends and What We Can Do to Build a Decarbonised Society”

8 October	Kanagawa Prefectural Museum of Natural History, JISE	Nature observation "Autumn Plants in Satoyama"
22 October	IGES-JISE	Environmental study programme "Wonders of Living Creatures"
18 November	Kawasaki Municipal Minami-Ikuta Junior High School	Lecture for integrated study class time (course on careers and lifestyles)
19 November	Hyogo Prefecture, Hyogo Environmental Advancement Association	Hyogo High School Environmental and Future Leaders Development Project (lectures/ workshops)
25 November	Kitakyushu City, Kyushu International University	Lecture at Kitakyushu City culture school
17 December	Hibikino Community Center (Kitakyushu City)	Lecture "SDGs: Current Status and Challenges of Global Warming"
23 December	Kanagawa Prefectural Sagami-hara-Yaei Senior High School	Dispatch of guest lecturer for "Ecosystem Recovery after the Japanese Cargo Ship Grounding Accident off the coast of Mauritius"
2023		
6 February	Kitakyushu City ESD Promotional Culture School for Seniors	Lecture "Discovering Slovenia - a New World created with a Circular Economy"
17 February	IGES Kansai Research Centre	The Hokusetsu Satoyama Regional Circulating and Ecological Sphere Forum 2023 –Exciting Satoyama in the Future–
6–10 March	IGES Kitakyushu Urban Centre, NPO Satoyama Active Viewers of Sustainable Society	The 4th Kitakyushu SDGs Training Programme
7 March	Futaba Pre-School (Zushi City)	SDGs lecture for children and teachers
26 March	Hayama City Hall Policy Division	Hayama Ethical Symposium –To the Future We Want–
26 June	University of Kitakyushu	Lecture on Urban Environments





Appendix

Financial Statements (FY2022)

Balance Sheet (Summary)

Unit: 1,000 yen

ASSETS	5,470,945	LIABILITIES	1,500,439
CURRENT ASSETS	1,682,534	CURRENT LIABILITIES	1,041,744
NON-CURRENT ASSETS	3,788,411	NON-CURRENT LIABILITIES	458,695
(ASSETS FOR BASIC FUNDS)	(250,000)	NET ASSETS	3,907,506
(RESTRICTED ASSETS)	(3,307,725)	RESTRICTED NET ASSETS	2,492,927
(OTHER NON-CURRENT ASSETS)	(230,686)	UNRESTRICTED NET ASSETS	1,477,579

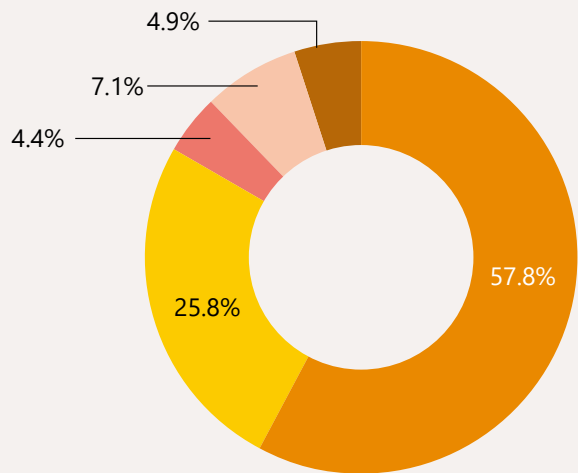
Statement of Activities (All IGES)

Unit: 1,000 yen

		Accounting for Project for public interest purpose				Incorporated accounts	FY2022 Total	FY2021 Total
		Strategic Research*1	IPCC/TSU	APN	JISE			
I Changes in unrestricted net assets								
Operating activities	Revenues and gains	2,740,829	217,646	256,740	57,576	216,415	3,468,890*2	3,266,492
	Expenses and losses	2,743,267	217,646	285,988	57,576	216,415	3,500,575*2	3,130,480
Non-operating activities	Revenues from non-operating	162	0	0	681	0	162	681
	Expenses and losses from non-operating	2,101	0	0	0	1	2,102	136
II Changes in restricted net assets								
Total changes in restricted net assets		△4,260	△27,913	0	△40,174	0	△72,347	8,768
Net assets at end of year		1,187,556	217,816	307,897	2,177,952	79,284	3,970,506	4,076,477

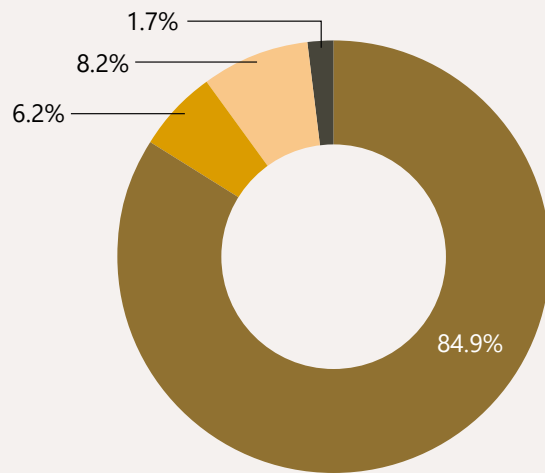
*1 For IGES research activities and dissemination of research outcomes *2 Including internal transactions

Contents of revenues and gain



	Unit: 1,000 Yen
Contract revenue	2,005,630
Contribution*1	893,291
Grants	151,511
Subsidies for office lease	246,595
Income and others	171,863
Total	3,468,890

Expenses and losses



	Unit: 1,000 Yen
Strategic research*2	2,959,682
IPCC/TSU	217,646
APN	285,988
JISE	57,576
<Internal transactions>	△20,316
Total	3,500,575

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

List of Funding Sources

Contribution	Ministry of the Environment Government of Japan		
Grants from Local Government	Hyogo Prefecture Kanagawa Prefecture Kitakyushu City	Research Grants	Japan Science and Technology Agency Japan Society for the Promotion of Science
Contracts and Grants			
Major Domestic Organisations		Major Overseas Organisations	
AEON Environmental Foundation Asia Center for Air Pollution Research (ACAP) Japan Environmental Sanitation Center Awaji City Environmental Defense Fund Forestry Agency Hyogo Environmental Advancement Association Japan Aerospace Exploration Agency (JAXA) Japan Climate Leaders' Partnership (JCLP) Japan International Cooperation Agency (JICA) KEIDANREN (Japan Business Federation) Kitakyushu City Ministry of Foreign Affairs of Japan Ministry of the Environment Government of Japan Mitsubishi Research Institute, Inc. Mitsubishi UFJ Research and Consulting Co., Ltd. National Institute for Environmental Studies, Japan (NIES) Natural Parks Foundation Nomura Research Institute, Ltd. Odate City Overseas Environmental Cooperation Center, Japan (OECC) Sado City The Japan Research Institute, Limited The University of Tokyo		Alliance To End Plastic Waste Asian Development Bank (ADB) Association of Southeast Asian Nations (ASEAN) Clean Air Asia Climate Bonds Initiative ClimateWorks Foundation Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) EPRD Office for Economic Policy and Regional Development Ltd.* GFA Consulting Group GmbH* INTEGRATION International Management Consultants GmbH* International Tropical Timber Organization (ITTO) KR Foundation Ricardo Energy & Environment United Nations Environment Programme (UNEP) United Nations Framework Convention on Climate Change (UNFCCC) United Nations Human Settlements Programme (UN-Habitat) UNU Institute for the Advanced Study of Sustainability (UNU-IAS)	

*Trustee of EU funds for implementation of IURC programme

(in alphabetical order, as of 30 June 2023)

Contributors (organisations)

We would like to express our deepest gratitude for your warm support. All contributions will be used for various activities to realise sustainable development in the Asia-Pacific region.

RICOH LEASING COMPANY, LTD.

THE SHIZUOKA CHUO BANK, LTD.

LOGISTEED, Ltd.

Fuyo Zero Carbon City Support Program

(In order of receipt)

Affiliate Memberships

Foundations/Companies

Asahi Research Center Co., Ltd.

ATGREEN Co., Ltd.

Biso Co. Ltd.

DOWA ECO-SYSTEM Co., Ltd.

Fujitsu Ltd.

J World Travel Co., Ltd.

Kawasaki City

NTT DATA INSTITUTE OF MANAGEMENT

CONSULTING, Inc.

Overseas Environmental Cooperation Center (OECC)

SHIMIZU CORPORATION

Sompo Japan Insurance Inc.

Tokio Marine & Nichido Fire Insurance Co., Ltd.

TOKYO GAS CO.,LTD

NGOs

International Climate Development Institute (ICDI)

Japan Environmental Technology Association (JETA)

Japan Sustainable Investment Forum (JSIF)

(in alphabetical order, as of 30 June 2023)

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 2023)	Number of Staff	Non-Japanese Staff*
Strategic Research	163	46
Projects for Public Interest other than Strategic Research	22	7
General Administration	19	0
Total	204	53

*Out of total staff for each category

IGES Headquarters and Offices

Headquarters

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan
E-mail: iges@iges.or.jp URL: www.iges.or.jp/en

Kansai Research Centre

East Bldg. 5F, Disaster Reduction and Human Renovation Institution, 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan

Kitakyushu Urban Centre

International Village Center 3F, 1-1-1, Hirano, Yahatahigashi-ku, Kitakyushu, Fukuoka, 805-0062, Japan

Regional Centre in Bangkok

604 SG Tower 6F, 161/1 Soi Mahadlek Luang 3, Rajdamri Road, Patumwan, Bangkok, 10330, Thailand

Tokyo Sustainability Forum

Shinbashi SY Bldg. 4F, 1-14-2, Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan

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

IPCC TFI Technical Support Unit (TSU)

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

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

Japanese Center for International Studies in Ecology (JISE)

(Until September 2023) Shinyokohama Daiichi Bldg. 3F, 2-14-27, Shinyokohama, Kohoku-ku, Yokohama, Kanagawa, 222-0033, Japan
(From October 2023) 2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan

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

Officers and Others (As of July 2023)

Trustees

- Prof. Xuemei Bai Distinguished Professor, Urban Environment at Fenner School of Environment and Society, Australian National University
- Dr. Matthew Michael McCandless Associate Vice-president and Managing Director (Manitoba), International Institute for Sustainable Development (IISD)
- Prof. MIMURA Nobuo Specially Appointed Professor, Global and Local Environment Co-creation Institute (GLEC), Ibaraki University
- Dr. Wijarn Simachaya President, Thai Environment Institute (TEI)
- Mr. SUZUKI Masaki Advisor, AEON Financial Service Co.,Ltd.
- Prof. TAKAMURA Yukari Professor, Institute for Future Initiatives (IFI), The University of Tokyo
- Dr. YOSHITAKA Mari Fellow, (Sustainability), Mitsubishi UFJ Research and Consulting Co., Ltd.; Visiting Professor, College of Arts and Sciences, The University of Tokyo; Part-time Lecturer, Graduate School of Media and Governance, Keio University; Representative Director, Virtue Design

Directors

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Project Professor, Institute for Future Initiatives (IFI), The University of Tokyo
- Mr. TAKAHASHI Yasuo Executive Director, Institute for Global Environmental Strategies
- Prof. ISHII Naoko Executive Vice-President, Professor at the Institute for Future Initiatives (IFI), Director for the Center for Global Commons, The University of Tokyo
- Mr. NISHIZAWA Keiji Director-Chairman, Sompo Japan Insurance Inc.
- Prof. OTSUKA Tadashi Professor, Law School and Faculty of Law, Waseda University
- Prof. Dr. Miranda A. Schreurs Professor, Chair of Environmental and Climate Policy, Bavarian School of Public Policy, Technical University of Munich

Auditors

Mr. HASEGAWA Ken Lawyer
Mr. YASUDA Hiroyuki Certified public accountant

Honorary Advisors

Ms. KAWAGUCHI Yoriko Visiting Professor, Musashino University; Fellow, Institute for Global Affairs; Former Member of the House of Councilors; Former Minister of Foreign Affairs; Former Minister of the Environment, Japan
Prof. KOMIYAMA Hiroshi Chairman of the Institute, Mitsubishi Research Institute, Inc; President Emeritus, the University of Tokyo
Mr. MURAYAMA Tomiichi Former Prime Minister; Senior Advisor, Global Environmental Action (GEA)
Dr. Emil Salim Chairman, Advisory Council to the President of Indonesia; Former State Minister for Population and Environment, Indonesia
Dr. Stephan Schmidheiny Honorary Chairman, Executive Committee, World Business Council for Sustainable Development
Mr. Achim Steiner Former Executive Director, United Nations Environment Programme

Counsellors

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Mr. Lucas Assunção Head of Trade, Environment and Sustainable Development Branch, United Nations Conference on Trade and Development (UNCTAD)
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Mr. FUKUKAWA Shinji Advisor, Global Industrial and Social Progress Research Institute
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Prof. MORISHIMA Akio Former President of the Institute for Global Environmental Strategies
Dr. NISHIOKA Shuzo Former Executive Director of the National Institute for Environmental Studies
Mr. OKADA Yasuhiko Attorney at Law, Partner, Kitahama Partners (Tokyo Office)
Mr. OKAJIMA Shigeyuki Chairman, Japan Environmental Education Forum
Mr. SASAKI Masamine Former President, The Japanese Association for Conservation of Architectural Monuments
Dr. SUEMATSU Hiroyuki Specially Appointed Professor, Tokyo NODAI Research Institute (TNRI), Tokyo University of Agriculture; Visiting Professor, Institute for Future Initiatives (IFI), The University of Tokyo
Dr. Monthip Sriratana Director, Climate Change Research Center, National Research Council of Tabucanon 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)

International Tropical Timber Organization
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)
The Energy and Resources Institute (India)
VTT Technical Research Centre of Finland (Finland)
World Resources Institute (USA)
Worldwatch Institute (USA)
Wuppertal Institute for Climate, Environment and Energy (Germany)



IGES Annual Report 2022

Published by Institute for Global Environmental Strategies
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