

The Integrative Strategic Research
Programme of IGES for the Seventh
Phase (ISRP7)
External Review Report

April 2022

IGES

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I. Introduction to the Seventh Phase External Review

In order to ensure accountability for each research project and provide feedback to improve overall effectiveness, IGES has traditionally invited external experts to conduct a review at the end of each Phase.

The IGES external review examines to what extent studies and activities conducted in the Integrative Strategic Research Programme for the Seventh Phase (ISRP7) satisfied the original targets and intentions of the research, and what meaningful impacts have been made on important policy processes and targeted stakeholders. Also important is how achievements made and lessons learnt in the ISRP7 could be properly reflected into the implementation of the following/current Phase (ISRP8, FY2021-2024).

In recent phases at IGES, the scope of the external review has expanded significantly beyond research outputs to capture impact generation by incorporating more discussion on engagement with important stakeholders. Simultaneously, the review has been guided by the institute's Medium-to-Long Term Strategy 2016-2025 (MLS) approved by the IGES Board of Directors and Trustees in February 2016 with the following objectives:

- To elaborate the vision of IGES, reconfirming the basic principles prescribed in the Charter for the Establishment of IGES and its mission, taking into account the value proposition of the institute;
- To set medium-to-long term goals for priority research areas, with a view to making significant progress in contributing to social transition through fulfilling the IGES mission, taking into account global and regional trends related to each area;
- To establish organisational strategies to meet the medium-to-long term goals; and
- To provide directions for an enhanced institutional basis to support the implementation of the strategy.

With a vision for IGES to act as an agent of change to make Asia and the rest of the world more sustainable launched in the Sixth Phase (ISRP6), IGES continues to make efforts in generating impacts in ISRP7, especially by strengthening actions with key stakeholders, not only national governments but also local governments and the private sector, in meeting global targets such as the Sustainable Development Goals (SDGs) and the Paris Agreement. For this purpose, the following units were organised for ISRP7:

- Three Issue Areas: Climate and Energy (CE), Natural Resources and Ecosystem Services (NRE), and Sustainable Consumption and Production (SCP)
- Two Functional Centres: Centre for Strategic and Quantitative Analysis (QAC), and Centre for Sustainability Governance (SGC)
- Three Taskforces: City (CTY), Finance (FIN), and Business (BIZ)
- Five Satellite Offices: Kansai Research Centre (KRC), Kitakyushu Urban Centre (KUC), Bangkok Regional Centre (BRC), Beijing Office (BJG), and Tokyo Sustainability Forum (TSF)

At the same time, IGES renewed its operation and management mode that enables more efficient and effective support for the implementation of the ISRP7 by creating the Strategic Management Office (SMO) and each of the three sections therein setting institute-wide goals:

- SMO: Knowledge and Communications (KC), Research and Publications (RP), and Planning and Management (PM)

In the Seventh Phase external review, the reviews were conducted for both overall IGES (IGES as a whole) and each individual research unit, based on the self-evaluation reports prepared by IGES and other supporting documents in the period of November 2021 - February 2022. For the former, the SMO presented the institute-wide achievements in the review meeting and received comments, suggestions and oral evaluation from the reviewers. For the latter, each research unit received written review reports from one to three reviewers. This External Review Report contains the results of all the reviews above and will be presented at the IGES Board of Directors and Trustees meetings in May 2022.

The remainder of this report is comprised of the review procedure (Section II) and a summary of the review for both the institute overall and for individual units (Section III). Other related documents are included in Appendices: Arrangements made for the overall review meeting in February 2022 (Appendix A), written evaluation reports received by research units (Appendix B) and a Self-evaluation report by IGES (Appendix C).

II. Review Procedure

IGES prepared a self-evaluation report in which the results of the key achievements were summarised by the SMO (overall achievement) and each individual research unit (Appendix C). The report was developed based upon the mid-phase review conducted internally in March 2019 (review of FY2017 and FY2018) and the results reported in the FY2019 and FY2020 IGES Business Reports and other documents.

ISRP7 External Review Secretariat set up in SMO developed the Guidelines for external review procedures (Guidelines) in consultation with IGES management and shared them with research units and reviewers. A few suggested questions for the review were included to provide guidance in conducting reviews (Box 1).

Box 1: Suggested Questions for Reviewers by IGES

I. Overall

Mission, Strategy and Priorities

- Are we headed in the right direction? Are we taking the right approaches?

Impact & Outcome Generation

- Are we making overall impacts on international, regional, domestic policy processes?
- Are we responding to demands of policymakers & stakeholders?
- Are we partnering with the right stakeholders? Effective communications?
- Have we accomplished satisfactory quantity and quality of outputs?
- Have we used financial and human resources effectively?
- What should be done in ISRP8 in order to achieve more efficient and larger impact generation?

II. Group-specific

- Are we taking an effective influence strategy for intended impacts or outcomes?
- Are we responding to demands of targeted policymakers & stakeholders?
- Are we timely and effectively responding to the latest international and domestic trends/discussions?
- Are we contributing to agenda-setting in the field?
- Are we effectively promoting integrative solutions to target stakeholders?
- Are we partnering with the right stakeholders?
- Is there sufficient monitoring of progress/results?

In accordance with the Guidelines, the external reviewers were selected using the criteria below, and then approved by the management. The selection criteria are: (i) those who are independent and have neither held any position at IGES nor have been involved in any IGES projects in the ISRP7 (neutrality); (ii) those who are knowledgeable and professionally involved in the fields of sustainable development, environment or associated areas (familiarity with the topics); and (iii) those who hold positions to supervise or advise in the organisations (management experience).

The reviewers were provided with the self-evaluation report along with the ISRP7 plan that contains the basic approach and general scope of 4-year research activities by each research unit, as well as annual reports and other materials such as major publications as a reference.

For the overall review, IGES organised a review meeting (online) on 3 February 2022 attended by the reviewers, IGES management, representatives from SMO, and unit leaders. A presentation was made by IGES for discussion by the reviewers. The review meeting agenda suggested by IGES is shown in Appendix A. A summary of the meeting was prepared by the ISRP7 External Review Secretariat and reviewed by the reviewers for this report (Section III. 1.).

For the research unit review, the reviewers were requested to examine the materials that IGES provided and prepare a written evaluation report for this report (Appendix B). ISRP7 External Review Secretariat prepared the summary (excerpts) (Section III. 2.).

III. Results of the Review

1. Overall Review Results (Results of the Reviewers Meeting)

As was mentioned above, the External Review Meeting of the Integrative Strategic Research Programme of IGES for the Seventh Phase (ISRP7) was held online on Thursday, 3 February 2022, with the participation of four External Reviewers: Dr. Juichi Yamagiwa, Director-General of the Research Institute for Humanity and Nature; Prof. Monte Cassim, President of Akita International University; Prof. Kaoru Fujita, Senior Editor of Nikkei ESG and professor of Tohoku University Graduate School of Life Sciences; and Prof. Kensuke Fukushi, Vice Director and professor of the Institute for Future Initiatives, the University of Tokyo.

After the opening remarks by IGES President, Prof. Kazuhiko Takeuchi, Managing Director, Mr. Nobutoshi Miyoshi and four representatives from SMO gave presentations on the overview of ISRP7, impact generation, outputs, and overall operation and management including financial aspect. Dr. Yamagiwa chaired the question & answer and review sessions, and summarised the discussions.

The main topics of the question & answer session and discussion were as follows:

(1) IGES-wide Research Activities and Impact Generation

- How is IGES responding to various issues such as climate change, circular economy and biodiversity in a more integrated manner in the 8th Phase?
- In order to solve the various problems in an integrated way, it is generally important to increase overall circularity, prevent loss of biodiversity and promote an autonomous approach. IGES should consider how to integrate those aspects to build a better world and to pass it on to future generations. It would be good for IGES to use its intellectual resources to build an intellectual infrastructure to tackle a wide variety of issues and achieve its goals in the 8th Phase.
- It is commendable that IGES sets key performance indicators (KPIs) for operational and management targets and creates the IGES President's Awards to form high quality and high impact outcomes.
- What are the reasons why many IGES's projects are related to the SDGs and implemented in Asia, and what kind of projects has IGES conducted to induce the behavioural changes in Japan? IGES seems to be aware of the key issues in the business and financial sectors, but it should focus on important issues in the future such as ESG finance and discussions on standardisation. From the media's point of view, IGES newsletters should work on making article titles more attractive for a wider readership.

IGES made the following comments in response to the questions and suggestions:

- Promotion of integrated solutions is the overall goal for the 8th Phase. IGES aims to achieve this goal through a newly established research unit, namely the Integrated Sustainability Centre (ISC) which will play a leading role and collaborate with other units. We will pay closer attention to the perspectives of circularity, biodiversity and autonomy when addressing issues in an integrated manner.
- IGES aims to become a leading think tank in the Asia-Pacific region and is working closely with international organisations such as UNESCAP and the ASEAN Secretariat. In Japan, IGES has set up satellite offices in

Kitakyushu City (KUC) and Hyogo Prefecture (KRC) to work with local governments to develop decarbonisation visions and action plans for local communities in line with their needs. In the business sector, IGES is contributing to behavioural change in terms of corporate activities in Japan through JCLP's activities.

- In the area of finance, discussions by the Task Force on Nature-related Financial Disclosures (TNFD) and the creation of standards by ISO are in progress, and despite these topics being relatively new for IGES, it intends to contribute so that discussions are also actively conducted in Japan.

(2) Outputs

- Is there a dilemma whereby the more emphasis is placed on social impact, the less academic output is produced?
- Please tell us about the different types of publication and how they are categorised. The length of publication would depend on the strategy of when and how it is published. How does IGES plan such a strategy?

IGES made the following comments in response to the questions and suggestions:

- IGES tended to focus more on social impacts and implementation and less on academic contributions in the past, but since the beginning of the 7th Phase, staff members have been encouraged to make more academic contributions because academic robustness is essential for social impacts. The results of this are just beginning to show. IGES has also taken on the editorial office of Sustainability Science from the beginning of the 8th Phase amid concerns about the fragmentation of science. IGES hopes to make more academic contributions in the future.
- Staff members develop publications with two views: how the publication can effectively influence the policy processes, and provide policymakers with academic explanation/ support. Staff members consult with the Communication team on how to ensure their publications makes an impact on society.
- IGES strives to use a variety of media to maximise its impacts when disseminating messages. For example, short summary reports on the results of the UNFCCC COP26 and other international conferences are immediately disseminated, and brief summaries of longer policy reports are provided to make them easier to read.

(3) Overall Operation and Management

- What is the ratio of male to female staff, the ratio of female staff at management level, and to what extent junior and senior staff are active?
- IGES is supposedly paying attention to the financial value-added (FVA) of a project in business acquisition, but at the same time it should make sure that it does not overlook small but important projects.
- It seems that the number of foreign funds is increasing, but how flexible are they? Also, the volume of funds from the Ministry of the Environment (MOEJ) seems to be decreasing, is this temporary or does it mean that the relationship with the Ministry is becoming less relevant? The fact that research grants appear to be decreasing is not very good.
- How does IGES create projects that address various issues in an integrated manner?

IGES made the following comments in response to the questions and suggestions:

- The ratio of male and female staff in IGES is 48% and 52%, almost 50-50. The ratio of female staff in management positions is currently 23%, but IGES has set a target of increasing it to 30% in the 8th Phase. IGES's staffing is not based on a seniority, and the average ages of employees in three staff categories show no significant difference—they are 38, 45 and 51 years old for the associate staff, senior staff and principal staff categories, respectively. IGES has just started internal discussions on the further promotion of female and junior staff members from the viewpoint of diversity and inclusion.
- Although the FVA has been useful from the management perspective, it also encourages staff members to use their own abilities and in-house capacity to produce results as much as possible. IGES will continue to

actively engage in issues considered important to be involved in, taking into account past experience, and future potential.

- Although it is difficult to generalise the contents of overseas funds, IGES has been trying to select funds that give as much flexibility as possible. One reason why the number of projects funded by MOEJ is smaller in the 7th Phase is that IGES received projects with large-scale outsourcing contents in the 6th Phase, but IGES has been awarded with the projects where it can make a significant contribution in the 7th Phase, and the number of projects from MOEJ was not necessarily on a downward trend. As for research grants, such as *Suishin-hi* and *Kaken-hi* at IGES, these projects often take time to prepare, and it is expected that IGES will acquire and implement more of such projects in the 8th Phase.
- The formation of projects with integrative approaches has only just begun, and while we recognise that there may not be many funds through the compartmentalised public sector that match to our intention, IGES is already taking new initiatives by making effective use of internal research funds to promote integrative approaches. An example is a project based on the concept of Regional Circulating and Ecological Sphere (Regional-CES) which has already been implemented for several years in Asian countries in collaboration with a US institution. It is also vital for IGES to propose such approaches in the projects to funders.
- IGES has been promote integrative approaches by working with targeted stakeholders on cross-cutting issues in collaboration with other units of IGES, thereby gaining experience particularly in ASEAN countries and Asian cities. The contribution to the preparation of the ASEAN environmental reports by IGES is one such example.

(4) Chair's Summary

In conclusion, Dr. Yamagiwa made the following summary of the discussion:

- The reviewers understand that IGES's strategy is to achieve transformative change by linking issues in a variety of fields and putting solutions. IGES will be able to make an impact on the real world by further deepening its relationship with stakeholders and its collaboration with the financial, business and industrial sectors, and establishing many contacts with society. In addition, IGES is also making an impact on the academic front like a pair of wheels in its activities. Looking at the examples of international city-to-city cooperation projects and the collaboration with local governments, it seems that IGES has managed to carry out social implementation and certain impacts have been realised.
- However, more could have been done when it comes to dissemination of results and messaging. There is room for more cooperation with the media and effective use of social networking services.
- As in the past, maintaining international networks and links with academia, as well as with policymakers at both national and local levels, will become a further strength of IGES in the future.
- IGES should continue to actively strengthen cooperation with the Asian region, especially with ASEAN countries. In doing so, it is important to collaborate with other Japanese institutions (JICA, embassies in those countries, etc.) that may have an active role in the region. It is regrettable that there were no concrete examples of such collaboration or strategies introduced in the presentation.
- In terms of outputs, the results are considered to have been successful, and it is commendable that there is good collaboration not only with academia but also with the real world for social implementation. The need for indicators, for both quantitative and qualitative, to measure the impact on society has also been a topic often discussed in academic circles, and it important to conduct a self-evaluation or develop an evaluation to assess the contributions to transformative change or engagement with local governments.
- Regarding of funding, it is commendable that IGES has been able to acquire international funds in spite of COVID-19 situation. However, it is important to understand how flexibly such international funds can be used, and it is hoped that IGES will make continued effort.
- It is very important that IGES creates an environment where women can play an active role, and it is commendable that the ratio of male and female staff is almost 50-50. However, the key is the ratio in the executive level, and we hope that IGES can do more to improve this.
- IGES gave its self-evaluation in the upper-middle range, but the reviewers generally felt it could be even slightly higher.

Lastly, the Executive Director, Mr. Yasuo Takahashi, thanked Dr. Yamagiwa for moderating and summarising the session and extended his gratitude to reviewers for their invaluable comments and suggestions. He concluding with the following comments:

- IGES will work hard to respond to reviewers' comments and suggestions to overcome the challenges and achieve its goals for the 8th Phase.
- IGES has been involved in various international platforms and has concluded MOUs with UNESCAP and ADB. The institute has also recently established a close relationship with the ASEAN Secretariat through the implementation of several projects. IGES will continue to strengthen its ties with domestic stakeholders and act as a bridge for them to connect with international networks and activities, making most of its unique position.
- As a change agent, IGES will strive to make a stronger contribution, recognising that this coming decade until 2030 will be crucial and decisive for determining sustainable society in the future.

2. Research Unit Review

In this section, the main comments and suggestions received from the external reviewers are extracted and organised by the ISRP7 External Review Secretariat. The reviewers generally noted that IGES engaged in a wide range of activities and shared favourable evaluation and constructive suggestions to individual research units (Section (1) – (6)). The reviewers also provided their views and suggestions on the overall approaches and management of IGES as a whole. Please refer to the original written review reports by the external reviewers for detailed valuable comments and suggestions (Appendix B).

(1) Climate change-related activities (CE)

Main comments and suggestions

- Due to the appropriateness of the set mission at the beginning, the Climate and Energy group (CE) was able to make considerable level of impact in the real world in the right timing.
- The CE team also successfully engaged key countries in Asia, including China and Korea, to develop their respective emission mitigation strategies and policies.
- As for the webinars, it is stated in the self-evaluation report that 9617 people in total attended the webinars so far. Assuming that most of them were affiliated to private companies and local governments, it can be said that the CE team has made substantial contribution in engaging non-state actors in actions towards net-zero emission society. In addition to the webinar referred to above, the team has published books, peer-reviewed papers, policy briefs, issue briefs, working papers, commentaries, submissions to the UNFCCC secretariat, newsletters and databases, both in English and in Japanese.
- The CE team succeeded in securing sufficient financial resources to conduct all the planned activities.
- Meanwhile, limited human resource is a concern. It is surprising to see so many activities being conducted when compared by number of expert staffs allocated to the CE team. Regular replacement of research staffs put extra burden onto other staffs. Therefore, it is recommended that the IGES board members take care of the staffs' working hours so that the staffs do not overwork, and ensure high-quality working conditions.
- Overall, the CE team's achievement is very high. Their output is balanced, policy-relevant and timely. They should be highly appreciated for what they have done in the ISRP7.
- Collaboration with some other teams in IGES, such as those dealing with biodiversity, business sector and cities, would continue to be important when conducting research related to climate change policy implementation. At the same time, collaboration with experts and stakeholders outside IGES would also work effectively to be able to make changes in the real world.
- Topic-wise, the focus on operationalizing the Paris Agreement market mechanisms and NDC support made full sense. It is surprising that the role of MRV/transparency where IGES has been excelling in the past was not defined as core topic.
- A key topic for IRSP8 should be monitoring, reporting and verification (MRV) of national climate change action as well as international carbon markets, linked to the Global Stocktake due in 2023. This should be

differentiated into the three aspects (Interpreting and refining international rules, National level and Activity level) and be differentiated into structural input, data provision and capacity building, with the target groups UNFCCC entities, multilateral institutions, national and municipal governments, private sector entities and NGOs.

- ♦ With regard to the diversification of funds, IGES should strive to mobilize international funds in the context of the capacity building initiatives for Article 6, in collaboration with internationally leading institutions like UNFCCC RCCs (especially through the BRC), UNEP-DTU, Perspectives Climate Research and GGGI. Likewise, it can increase its role in transparency-related capacity building in the context of CBIT, ICAT, NDC-P and similar programmes.
- ♦ A strategic plan to coordinate between CE, CTY, FIN and BIZ departments should be developed, given the strong synergies that can be harnessed between these departments. Issues to be taken up could be blending of Article 6 and international public climate finance, city-level and private sector pilots for Article 6, interactions and alignment between national, city and private entity level MRV systems. Another cross-cutting topic could be promotion of negative emissions technologies.
- ♦ One thing is evident and is extremely important for creating impact- establishing deep collaborations. The IGES climate and energy team has been successful in engaging with many stakeholders around the world to contribute to the debate as well as create high impact initiatives. This is something that should be continued.
- ♦ An important that was not so explicitly mentioned, but would be an important part of the global debate in the future is the 'Global Stocktake Process'. Along with the themes already mentioned by the IGES team, they can also reflect if they want to impact the GST process and debate in the next phase of its research.
- ♦ As IGES engages more and more with the developing world, be it India, countries in south east Asia, or those in Africa and Latin America, it would be useful to embed and frame its research with the development context of these economies to even further the impact if IGES's research.

(2) Natural resources ecosystem services-related activities (NRE)

Main comments and suggestions

- ♦ NRE unit supported policymakers by providing science-based research results for international, regional, and domestic policy in the fields of climate change adaptation, water, biodiversity, and forestry. Various studies on land and natural resources have positively impacted the establishment of landscape and ecosystem management policies and plans.
- ♦ To continuously maintain these excellent results during the ISRP8 period, I would like to recommend quantitatively analyzing the ISRP7 period results of the Adaptation and Water unit and the Biodiversity and Forests unit to set goals for increase and maintenance in performance and then proceed with work.
- ♦ Even if the NRE unit divides into two units (Adaptation and Water, Biodiversity and Forests) during the ISRP8 period, I recommend cooperating with both units. Also, two units have to consider the task priorities to achieve the IGES mission and strategy. I want to recommend conducting an annual survey on the needs of policymakers and to discover tasks suitable to the policy and the evaluation of the usability of the NRE reports and papers published in ISRP7. As the demand for policies for managing and restoring the carbon absorption source ecosystem (e.g., forests, wetlands) is soaring to transform a carbon-neutral society, I hope to discover the relevant policy tasks and share the information needed by the international community
- ♦ The AW team conducted a wide range of activities and substantially contributed to the ISRP7's mission. The team's activities are highly relevant to ISRP7. In particular, the team's activities supported Asian countries to increase the capacities of CCA and wastewater management to make resilient and sustainable societies. Limited activities for two areas of nexus of food, water, and energy; and climate-fragility risks were found.
- ♦ The team adapted the effective approach of networking these countries, which is useful for generating and sharing practices of resolving the issues of adaptation and WRM. Also, the team produced various documents.
- ♦ The unit goals encapsulate the work done by NRE well. However, I understand that strategizing is made difficult because NRE struggles to keep up with the number of small-to-medium-sized projects that they are requested to do. This means that they are often in a state of reactive planning instead of proactive planning.
- ♦ I was impressed by NRE's dedication to effectively responding to the latest international trends and discussions, for example, by tapping into international processes like the CBD and IPBES. Similarly, at the domestic level, examples like their work on the Clean Wood Act show that they are aware of where their work

is relevant. This could also contribute to agenda-setting in the field.

- ♦ Overall, NRE seems to be full of dedicated staff who are not afraid of hard work. I expect the two new units formed out of NRE will have the same ethic. With ongoing support from their superiors at IGES, these units have the potential to raise the profile and reputation of IGES in their areas of work. I hope IGES provides encouraging support for its research staff to produce qualified scientific outputs and conduct outreach activities.

(3) Sustainable consumption and production-related activities (SCP)

Main comments and suggestions

- ♦ I think IGES SCP team is headed in the right direction with the right approach. Leap forward and stability as the face of Asian region toward the transition to a circular economy, focus on the plastic problem as a new global issue, and practical efforts for lifestyles and social systems with a view to shifting to a decarbonized society confirm the correctness of the direction. On the other hand, there are initiatives of different levels and genres, from policy to education, from world affairs to Asian and regional cases, but there is an impression that their relationships and positions are not well organized. The resilience to proceed several activities while running is important, but I think it would be better to take this opportunity to organize different projects and consider future strategies.
- ♦ I would like to highly evaluate SCP concept making and related activities as it is establishing its position as a hub not only in Japan but also in Asia.
- ♦ (In this way,) impact and outcome generation can be highly evaluated as a whole, but on the other hand, in terms of recognition from a wide range of people, I think there is space for improvement, including access to WEB sites and SNS. It is also important to shift a wide range of consumers toward sustainable consumption and lifestyle.
- ♦ I think there is a space to delve into the mission of influencing the policy process. There seems to be various patterns, but I think that knowledge to develop models has been accumulated from success experiences and failures. I would like to expect such discussion as well.

(4) Functional Centre-related activities (QAC, SGC)

Main comments and suggestions (QAC)

- ♦ The strategic operation of IGES by placing a priority on networking with key stakeholders including non-state actors is effective to strengthen impact generation on the ground. However, project-based or event-based collaborations are not enough to exert substantial impacts. Long-term and strategic partnerships with relevant stakeholders, particularly international organizations, governmental organizations at local levels and the business sectors, need to be further strengthened.
- ♦ The establishment of the Strategic and Quantitative Analysis Centre (QAC) in IGES Phase 7 and its operation through quantitative analysis, development of tools and promotion of their applications through working with various stakeholders (including international and regional organizations, academia, and governmental organizations at the national, provincial and city levels) were demonstrated successful to strengthen the science-policy interface. It was very impressive that QAC, with only five researchers and within four years, not only developed various advanced tools (such as the SDG interlinkages tool and the SSPs models for cities) but also put them into practice with a couple of cases. The SDG interlinkages online tool is a comprehensive and advanced tool and I believe it can be used in various ways to facilitate the discussions on synergies and conflicts among various development areas. In Phase 8, the applications of the tools or methodologies developed by QAC should be carried on and strengthened further through the implementation of IGES key impact generation cases
- ♦ With rapid development in ICT and AI and their applications in the environmental field, new methodologies, such as AI and big data should be further explored in supporting strategic research and better serving the

needs of evidence-based policy-making.

- ♦ SDG linkage analysis would be unique approach, and it would be useful for policy-making in inter-regional, national as well as local levels, while it seems to be based on qualitative data and it would be unclear how this approach includes quantitative data. Japan's net-zero emission project and Power system analysis for high voltage transmission lines would provide quite useful output in quantitative way and effective for future policy-making. SSPs cities project would generate effective quantitative outputs for city scale policy-making and planning along with several focus actions,
- ♦ Considering focus actions from 5th to 8th, QAC should focus on quantitative data-related activities. The research field of "Data science and/or big data analytics", which has been rapidly emerging, might be helpful for considering the next phase.

Main comments and suggestions (SGC)

- ♦ The Centre seems to have excellently achieved the impacts/outcomes which was intended at the beginning of the period. It is highly commendable that the Centre worked closely with the Japanese government (Ministry of the Environment and Ministry of Foreign Affairs) as well as businesses to develop research that leads to policy recommendations and solutions for sustainable development practices in a timely manner.
- ♦ Overall, it is fair to say that the Centre's activities were in line with IGES's Seventh Phase missions and were carried out effectively. The definition of mission, strategy, and priorities in subjects and actions were appropriate, and the Centre was able to produce excellent impacts and outcomes that meet its initial aims. Based on this assessment, the following recommendations can be suggested for further development of research in this area in the Eighth Phase.
 - To pursue more inclusive and integrated governance, it is important to work with a variety of stakeholders who have not always been considered as major actors in traditional environmental governance, including grass-roots civil society organizations, youths, women, indigenous people, and so on.
 - If governance research at IGES continues to emphasize inclusion in the Eighth Phase, it would be better to consider expanding its scope toward development goals regarding poverty, hunger, health/welfare, education, and gender although these have not been regarded as immediate components of environmental governance and the Centre's Seventh Period activities did not cover them substantially.
- ♦ The research topic of SGC, i.e., governance processes for sustainability, faces the particular challenge that much of the conventional academic social science research on this topic does not always align well with the mental frameworks, languages and needs of the relevant decision-making communities. Facilitated and guided by the overall IGES partnership strategy, however, SGC managed well to achieve substantial progress in this area by partnering with the most influential institutions on specific topics to which SGC could make very critical contributions.
- ♦ In addition to the successful partnerships with relevant international institutions (UNEP, ADB, etc.) and business organizations, SGC has developed through national case studies important relationships with a large set of researchers and decision makers in many countries and cities in Asia, including Thailand, Philippines, Indonesia, Mongolia, and China. This did not only position IGES prominently on the Asian science-policy landscape, but it also provided a nucleus for forming an international Asian research community on governance issues in Asia.
- ♦ Furthermore, SGC has gained exceptional experience on transforming results from academic social science research on governance into insights that are useful and appreciated by decision makers, which is now well-respected in the international research community. At the same time, following the IGES partnership strategy, SGC has developed an impressive array of communication channels with national and international policy communities. Together, these two aspects provide a unique asset, which should be used to enhance the input to policy making that could be delivered by the social science community in Asia.
- ♦ SGC's work clearly indicates the critical importance of governance for sustainability, and the guidance that social science research could provide to decision making processes. While a lot has been achieved, more should be done, building on the assets that have been built up by SGC over the last years. In particular, I would recommend a focus on further enhancing the salience of social science research results for decision making.

(5) Taskforce-related activities (CTY, FIN, BIZ)

Main comments and suggestions (CTY)

- ♦ Given the growing importance of non-stakeholders, especially local authorities and communities, in achieving decarbonisation and the SDGs, the work of the units in the 7th phase is useful.
- ♦ Voluntary Local Review could be a practical tool for local governments to develop and implement plans for low carbon/carbon neutral.
- ♦ The approach to accumulate case studies is good and outputs targeted at policy/decision makers is important as a research institute. However, it is better to develop more academic outputs to get wider audience and more policy impacts.
- ♦ Synergies with the work of other researchers should be strengthened.
- ♦ In general, local governments is weak in financial resources. The weakness of local finances is a structural challenge. It is expected to unit to study this issue to address this difficult issue.
- ♦ It is worthwhile to get international funds such from the World Bank and the Asian Development Bank, but it takes a few years to get it. Strategies to obtain such international funds is in need. It is better to start considering strategies and take actions now for the 9th phase.

Main comments and suggestions (FIN)

- ♦ Judging from the diversity and quality of IGES activities and the Finance Taskforce's publications, there is a good balance of breadth and depth in policy research. The research output of the Finance Taskforce is reflective of the effective use of human resources, ability to adapt to new demands, and expertise in addressing complex areas of finance. However, there is a growing need to improve its capacity building and gain deeper knowledge about increasingly complex issues such as derivatives and structured finance.
- ♦ There is evidence of significant participation by the Finance Taskforce to concerted efforts on green finance, climate transition finance, and sustainable finance. The strong involvement in the revision and preparation of guidelines for green bonds and green loans reflects the strong contributions to environmental strategies adopted by the Japanese government and international organizations. To help shape the domestic and global policy agenda more effectively however, there is a need to remain at the forefront of new policy thinking and set the right direction of collective efforts in the field of green finance.
- ♦ It may be necessary to reinforce the capacity of the Finance Taskforce, in terms of human resources, to address the new policy challenges posed by the expected growth of new energy finance. In its continuous quest for knowledge about trends in green finance, the Taskforce may explore avenues for future research and impact generation in green sukuk finance.
- ♦ To understand the shifting dynamics at the intersection of interdependent forces, it is imperative that accurate information about the emergence of new risks to the environmental and economic systems is regularly gathered and correctly assessed. New research priorities will depend on new opportunities in green finance, fintech, and decentralized finance that may emerge at the crossroads of environmental, technological, and financial changes. Thus, a forward-looking approach is crucial to identify the primary sources of policy uncertainty in a fast-changing world, to anticipate and seize new opportunities for strategic partnerships.
- ♦ The overall mission of IGES is found in ISRP7 but it is recommendable that each group and unit has its specific mission in line with the IGES's overall mission (including Finance Taskforce).
- ♦ The intended impacts and outcomes, while valid, might have been too ambitious in the hind sight, considering the fact that FIN was a newly established unit in IGES ISRP7. Largely, they do not seem to be achieved. Nonetheless, FIN produced substantial impacts and outcomes in the ISRP7 period. First, FIN assisted MOEJ with publishing the 2020 edition of the Green Bond Guidelines and Green Loan and Sustainability Linked Loan Guidelines as well as operationalizing the Green Finance Portal. Secondly, FIN published several publications on sustainable finance policies in Japan and EU, financial sector reforms for sustainable development, and sustainable business practices. Those publications made good contributions to accumulating a body of knowledge on the subject matter among the community of sustainable financing.
- ♦ Overall, FIN has successfully built its foundation of operation from the scratch by building its institutional capacity and the network with key actors in the field. FIN has also made some important intellectual contributions in the field of sustainable finance, and thereby started building its reputation as a player in the ecosystem of the sustainable finance industry. FIN needs to identify its objectives; whose thinking, mindsets and/or behaviours does FIN intend to change in what way? After that, FIN needs to develop influencing strategies.

Main comments and suggestions (BIZ)

- ♦ First and foremost, I would like to express my respect for the Taskforce and its precise and passionate work in serving as the secretariat of JCLP. The Taskforce encouraged JCLP to lead a positive momentum towards net-zero in business and to contribute to the progress of climate policies in Japan. The scale of the JCLP has grown dramatically over the course of the 7th phase, leading to an increased presence and voice of progressive companies. (On RE100) Some significant achievements were made in the previous phase. Since 2017, the number of companies participating in RE100 has increased to 56. (On RE Action) The initiative of JCLP member companies to participate in RE100 has successfully encouraged other Japanese companies to join RE100. Various contributions made by BIZ in the previous phase were highly appreciated. However, there is a long way to go to achieve the 1.5°C target which JCLP aims at.
- ✦ Japan Climate Leaders Partnership ("JCLP") has been committed to active policy engagement with the support of BIZ and the sense of urgency regarding climate change has been gradually shared among Japanese businesses. BIZ has strong networks with various domestic and international organisations. BIZ has obtained well-balanced funds from both domestic and international sources to ensure stable business operations.

(6) Satellite office-related activities (KRC, KUC, BRC, BJG)

Main comments and suggestions (KRC)

- ♦ KRC works in collaboration with Hyogo Prefecture, where it is located, on various occasions and has established good partnerships with prefectural residents, businesses and academic institutions in the prefecture, and is considered to achieve steady results.
- ♦ Throughout the period of the ISRP7, KRC has strengthened its partnership with Hyogo Prefecture to build a decarbonised society in the region, and it is commendable that it has steadily fulfilled its role through building good relationships with stakeholders in the prefecture and providing quality inputs. In particular, KRC has had an effective impact in translating national targets into concrete measures for implementation by the region, municipalities and residents. In the ISRP8, in addition to further collaboration with the relevant prefectural organisations, projects to further promote citizen participation are also expected to be implemented to make a further contribution to building a decarbonised society in the region.
- ♦ Whilst it is unfortunate that the low-carbon technology transfer aspect has been scaled back, it is hoped that more developments in this area will be made in the future.
- ♦ It is expected that KRC will continue to actively implement further dissemination activities using webinars, while building on the existing face-to-face and other connections.
- ♦ It may be necessary to publish the results of such activities [Regional Circular and Ecological Sphere Project in Hokusetsu region with Hyogo Prefecture] in reports and disseminate information in order to horizontally develop them as projects related to decarbonisation in collaboration with local governments.
- ♦ It is commendable that the KRC has made the best efforts possible in fundraising and project management in ISRP7 despite its limited staff and budget. At the same time, it is hoped that KRC will make greater efforts not only to raise funds, but also to find out how the centre can make a distinctive contribution to future projects, and how it can take advantage of its location in Hyogo to work with the prefecture and local governments in its own unique way in ISRP8.

Main comments and suggestions (KUC)

- ♦ KUC has implemented a diverse set of projects in the area of sustainable cities, working to create impacts and output results through outreach activities, such as publications and trainings, to generally positive outcomes. The office's active cooperation in planning and implementing is making policies and projects of the City of Kitakyushu highly positive and effective.
- ♦ Great value is placed on KUC's efforts in diversifying funding sources and its track record in acquiring funding from overseas from such organisations as UN-HABITAT and AEPW. Human resources in KUC are being effectively utilised, with IGES/KUC researchers demonstrating their full potential as members of committees in locally-affiliated organisations and as joint participants with the city in global meetings organised by international organisations and agencies.
- ♦ KUC's overall performance in the 7th Phase has been outstanding. Recommendations for the 8th Phase are

described below.

- The City hopes that KUC will take initiative in communicating information on city-related and IGES/KUC activities by strengthening functions to disseminate information in an agile manner.
 - the City of Kitakyushu expects that required preliminary basic research functions will be enhanced to identify promising projects and assess project implementation, and would like IGES to share as needed the information that only they can provide from experience due to its close involvement in a number of overseas projects in the field.
 - We would also like to see IGES/KUC to further development of greater collaboration with local universities, companies and other organisations.
 - the City of Kitakyushu would like IGES/KUC to develop proactive policy proposals on the diverse issues that the city will be working on in the future.
- ♦ KUC builds partnerships with citizen groups, private organizations, and academic institutions under strong cooperation with Kitakyushu City, and is active not only in cooperation with local cities in Kyushu but also in cooperation projects with Asian cities.
 - ♦ However, it is presumed that there will be encountered some difficulties to proceed and continue some research projects due to limited human resources. Since IGES has abundant specialized human resources in the organization, it will be required to strengthen cooperation with KUC more than ever.
 - ♦ The Kitakyushu Urban Centre (KUC) has continued a steady role in the three major areas of decarbonized cities, urban circular economy, and localization of SDGs in the IGES 7th Integrated Strategic Research Plan. Even in Minamata City, a small city in the Kyushu region, the three areas are also major issues, and there are many things to learn from Kitakyushu City and KUC. For many small and medium-sized cities in the Kyushu region, the efforts and achievements of Kitakyushu City and KUC are of great interest. It is highly expected to develop the activities in 8th terms based on 7th terms activities of KUC.

Main comments and suggestions (BRC)

- ♦ The approach of BRC to heavily engage with governments and international organizations is fine but has limitations – BRC could also engage with scholarly and research communities that sets agenda for actions. BRC has to work in between the ‘knowledge’ and ‘action’. In the nutshell, the priorities of BRC were good- in the future, the focus and subtopics within these may be worthwhile to re-look. BRC has been successful in working with key institutions such as UNFCCC, EU, ASEAN secretariat and other organizations, including decision makers in ASEAN countries.
- ♦ BRC activities are largely network based. It appears to have a strong thrust on engagement, networking, working with government and intl organization, and preparing documents targeting events. The outputs from BRC are policy dialogues, reports, PR materials, seminars and workshops, contribution to report of UN agencies, speech to conferences, guidelines, mentoring, and others. These are important for decisions makers. Lots of inputs have been made, especially for ASEAN-processes for governments. Its presence and communication to outside these events and own partners to the scholarly and research community and society seems a bit weak.
- ♦ BRC’s achievements are very good within its constraints of human resources. BRC is engaged with governments, intergovernmental organizations and other stakeholders. Its outputs have contributed to policy makers at different levels, ASEAN to individual countries to city governments. IGES is unique institute and it can do more.
- ♦ BRC could carefully look how IGES can benefit ‘more’ from UNFCCC-RCC, SWITCH-ASIA, ASEAN DRR/CCA and platforms. BRC is recommended to develop BRC-led activities in different network-based initiatives in addition to serving as secretariat of initiatives. BRC could get engaged in bigger and agenda-setting issues of sustainability, touching into scholarly front too and operate in more new and innovative areas. I strongly recommend BRC to think of a new research-policy based initiative on ‘resources efficient cities’ looking at food, water, energy, materials etc. in cities together.
- ♦ A wide range of publications produced by IGES has contributed to the works of ASEAN in many different ways. Some are providing practical recommendations on how the member states should address the pressing issues they are facing now, and some offer bold and long term solution that the member states can always go to for inspirations and radical changes. A good example of the latter is the State of Climate Change Report that IGES worked hand in hand with ASEAN Secretariat to develop.
- ♦ During the 7th Integrated Strategic Research Program, IGES has implemented a wide range of capacity building activities for ASEAN, enabling its member states to have a better knowledge of the focused areas and

sufficient capacity to make good progress on key priorities. It is highly encouraged that these capacity building programs should continue, especially for the Mekong countries that are still catching up.

- ♦ Pilot project is another form of impact generation. At the moment, IGES produces practical and high quality research and provide capacity building programs, so that professionals from the member states can deploy these skills in their line of works. These pilot projects can also help the member states to make effective use of their limited resources.
- ♦ IGES should also consider working with ASEAN Secretariat or the member states to establish a joint platform, focusing on issue of common interest and concern.
- ♦ Going forward, it is about time for IGES to consider formalizing its partnership with ASEAN through a Memorandum of Understanding (MOU), which outlines all the key priority areas that it wants to work with the ACDM, the ASOEN and other sectoral bodies.

Main comments and suggestions (BJG)

- ♦ In the process of implementing the projects, IGES Beijing Office with the International Department of our Centre [Sino-Japan Friendship Centre for Environmental Protection] fully played coordinating role and promoted concrete tasks. Especially, IGES Beijing Office played a key role in dispatching the Japanese experts and inviting the Chinese parties to Japan for research.
- ♦ MOEJ, as the orderer of the projects, is very much satisfied with their performances and ingenuity as well as quality of their works and outputs, especially while having to face a lot of difficulties due to the period of COVID-19 pandemic.

Appendix A

List of External Reviewers

and

Review Meeting Agenda for the Overall Review of ISRP7

Appendix A: List of External Reviewers and Review Meeting Agenda for the Overall Review of ISRP7

List of External Reviewers for Overall Review (Alphabetical order)

- (Chair) Dr. YAMAGIWA Juichi
Director-General, Research Institute for Humanity and Nature
(山極壽一 総合地球環境学研究所 所長)
- Prof. Monte CASSIM
President, Akita International University
(モンテ・カセム 国際教養大学 学長)
- Prof. FUJITA Kaori
Professor, Tohoku University, Graduate School of Life Sciences (Cross Appointment) /Nikkei BP Intelligence Group, Senior Editor
(藤田香 東北大学大学院生命科学研究科 教授／日経 BP 総合研究所 日経 ESG シニアエディター)
- Prof. FUKUSHI Kensuke
Vice Director/Professor, University of Tokyo, Institute for Future Initiatives
(福士謙介 東京大学未来ビジョン研究センター 副センター長・教授)

Review Meeting Agenda

Date: Thursday, 3 February 2022, 14:00-17:00

Venue: IGES Headquarters, Hayama/Online

- 14:00 Opening remarks
Prof. TAKEUCHI Kazuhiko, President, IGES
 - 14:05 Presentation by IGES
 - Overview of ISRP7
MIYOSHI Nobutoshi, Managing Director, IGES
 - Impact generation
OTSUKA Takashi, SMO-KC
 - Outputs
Mark ELDER, SMO-RP
 - Overall operation and management
SANO Daisuke and KIDO Megumi, SMO-PM
 - 15:30 Q&A/Discussion
 - 16:20 Concluding comments by the Chair (Dr. YAMAGIWA)
 - 16:30 Closing remarks
TAKAHASHI Yasuo, Executive Director, IGES
- ♦ Moderator: MIYOSHI Nobutoshi, Managing Director, IGES
 - ♦ Language: Japanese (simultaneous Japanese/English interpretation provided)

Materials provided to the External Reviewers

- Self-evaluation report prepared by IGES (Appendix C of this report)
- ISRP6
- IGES Annual report (FY2017-FY2020)

Appendix B

List of External Reviewers for the Research Unit and Their Written Review Reports of ISRP7

Appendix B: List of External Reviewers for the Research Unit and Their Written Review Reports of ISRP7

List of External Reviewers for Research Unit

Unit	Name	名前	Organisation/Position	所属/肩書
CE	Dr. Vaibhav Chaturvedi		Fellow, Council for Energy, Environment and Water (CEEW), India	
CE	Dr. Kameyama Yasuko	亀山 康子	Director, Social Systems Division, National Institute for Environmental Studies (NIES)	国立環境研究所 社会システム領域／領域長
CE	Prof. Axel Michaelowa		Department of Political Science, University of Zurich	
NRE	Prof. Ishiwatari Mikio	石渡 幹夫	JICA/Visiting professor, Dept. of International Studies, Graduate School of Frontier Sciences, the University of Tokyo	東京大学大学院新領域創成科学研究科 国際協力専門員(兼任)客員教授
NRE	Dr. Sung Ryong Kang		General Manager International Cooperation Dept. Korean National Institute for Ecology (NIE)	
NRE	Dr. Toma Takeshi	藤間 剛	Director, International Strategy Department, Planning Division, Forest and Forest Product Research Institute (FFPRI)	森林総合研究所 企画部 国際戦略科長
SCP	Ms. Laksmi Dhewanthi		Vice President of UNEA and Senior Advisor to the Minister of Environment and Forestry of Indonesia	
SCP	Dr. Asari Misuzu	浅利 美鈴	Associate Professor, Graduate School of Global Environmental Studies, Kyoto University	京都大学大学院地球環境学堂 准教授
QAC	Dr. Miao Chang		Associate Professor, Director of the Division of Environmental Management & Policy, School of the Environment, Tsinghua University, China	
QAC	Prof. Murayama Takehiko	村山 武彦	Professor, School of Environment and Society, Tokyo Institute of Technology	東京工業大学 環境・社会理工学院 教授
SGC	Dr. Markus Amann		Independent consultant	
SGC	Prof. Mikami Naoyuki	三上 直之	Associate Professor, Institute for the Advancement of Higher Education Research Division for Higher Education, Hokkaido University	北海道大学高等教育推進機構 准教授
CTY	Prof. Thomas Elmqvist		Professor, Stockholm Resilience Centre, Stockholm University	
CTY	Prof. Sudo Tomonori	須藤 智徳	Professor, College of Asia Pacific Studies, Ritsumeikan Asia Pacific University	立命館アジア太平洋大学 アジア太平洋学部 教授

Unit	Name	名前	Organisation/Position	所属/肩書
FIN	Prof. Nabil Maghrebi		Vice President, Professor, Faculty of Economics, Department of Economics, Wakayama University	和歌山大学副学長 経済学部経済学科 教授
FIN	Mr. Sato Ichiro	佐藤 一郎	Deputy Director General, JICA Tohoku Center	JICA 東北センター次長
BIZ	Ms. Miyake Kahori	三宅 香	Chief Sustainability Officer, AEON Co., Ltd. Co-Chairman, Japan Climate Leaders' Partnership (JCLP)	イオン株式会社 環境・社 会貢献担当 責任者 日本気候リーダーズ・パート ナーシップ(JCLP)共同代 表
BIZ	Mr. Sato Junichi	佐藤 潤一	European Climate Foundation, Japan Country Director	
KRC	Prof. Kurasaka Hidefumi	倉阪 秀史	Professor, Graduate School of Social Sciences, Chiba University	千葉大学大学院 社会科学 研究院 教授
KRC	Mr. Suga Noriaki	菅 範昭	Director General, Environmental Management Bureau, Department of Agriculture and Environment, Hyogo Prefecture	兵庫県農政環境部 環境管理局長
KUC	Mr. Arima Takanori	有馬 孝徳	Executive Director, Overseas Environmental Project Department/Kitakyushu Asian Center for Low Carbon Society, Environment Bureau, City of Kitakyushu	北九州市環境局アジア低炭 素化センター環境国際部環 境国際部長兼アジア低炭素 化センター担当部長
KUC	Dr. Koga Minoru	古賀 実	Director of the Minamata Environmental Academia	水俣環境アカデミア所長
BRC	Prof. Shobhakar Dhakal		Vice President for Academic Affairs (VPAA) of Asian Institute of Technology (AIT)	
BRC	Mr. Kung Phoak		Secretary of State, Ministry of Foreign Affairs and International Cooperation of Cambodia (Former Deputy Secretary General of ASEAN for the ASEAN Socio-Cultural Community)	
BJG	-	-	Ministry of the Environment, Japan	環境省
BJG	-	-	Sino-Japan Friendship Centre for Environmental Protection	日中友好環境保全センター

Notes:

- CE: Climate and Energy; NRE: Natural Resources and Ecosystem Services; SCP: Sustainable Consumption and Production; QAC: Centre for Strategic and Quantitative Analysis, SGC: Centre for Sustainability Governance; CTY: City Taskforce; FIN: Finance Taskforce; BIZ: Business Taskforce; KRC: Kansai Research Centre; KUC: Kitakyushu Urban Centre; BRC: Regional Centre in Bangkok; BJG: Beijing Office.
- Reviewers listed in alphabetical order for each Unit.
- Review for the Tokyo Sustainability Forum was not conducted independently and included in the whole IGES review.
- As for the review of Beijing Office, it was replaced with a letter of evaluation from the Sino-Japan Friendship Centre for Environmental Protection and the Ministry of the Environment of Japan, the client of the Beijing Office.

Attachment 1**Suggested review report form**

Reviewer's name	Vaibhav Chaturvedi
Review meeting date (if held)	
Review report submission date	20/02/2011

1. Mission, strategy and priorities

The priorities and associated strategy of the IGES climate and energy team is well set for another high impact future. The priorities are related to review of NDCs/ ratcheting up systems, carbon market operationalisation, building capacity for NDC, and engagement with non state actors. All these would be very useful contribution in the international and national climate debate.

2. Impact & outcome generation

The impact of IGES's climate and energy team is clear- on the Article 6 and transparency process, actual emission reduction projects through the JCM, empirical analysis related to carbon markets, the CDM and CER flow database, and other aspects of the global energy and climate debate. The list of outcomes in terms of papers and engagements is also impressive.

3. Effectiveness of use of financial and human resources

Given the financial budget, the impact and reach is impressive. One important thing was highlighted- that frequent team changes were a challenge. This point is absolutely critical because the strategy can be delivered only if there is high caliber human resource in the team. However, the resource management section of the self evaluation report doesn't give a lot of information about human resource and focuses mainly on financial resources. The IGES climate and energy team has to ensure that there are no unforeseen 'HR shocks' for the team that can impede its march. Having depth in the research team is absolutely important for the institution.

4. Overall evaluation and recommendations for the 8th Phase

One thing is evident and is extremely important for creating impact- establishing deep collaborations. The IGES climate and energy team has been successful in engaging with many stakeholders around the world to contribute to the debate as well as create high impact initiatives. This is something that should be continued.

An important that was not so explicitly mentioned, but would be an important part of the global debate in the future is the 'Global Stocktake Process'. Along with the themes already mentioned by the IGES team, they can also reflect if they want to impact the GST process and debate in the next phase of its research.

A suggestion for the next phase- the self assessment reflects many important things like mitigation, adaptation, co-benefits, tech, resource circulation, etc. However, it doesn't frame climate policy within the context of development for the developing economies. As IGES engages more and more with the developing world, be it India, countries in south east Asia, or those in Africa and Latin America, it would be useful to embed and frame its research with the development context of these economies to even further the impact if IGES's research.

Overall, the reports show the impressive progress main by the IGES climate and energy team and it is well set to continue to deliver on its promise.

Attachment 1

Suggested review report form

Reviewer's name	Yasuko Kameyama
Review meeting date (if held)	No meeting held
Review report submission date	14 January 2022

1. Mission, strategy and priorities

The missions were clearly stated in the Integrative Strategic Research Programme for the 7th Phase (ISRP7). All of them were appropriate and timely. Particularly, operationalisation of the Carbon Market Mechanism under the Paris Agreement was an important agenda for Japan to make substantial contribution in negotiation towards finalizing the Paris Agreement rule book. It was also important for the Japanese government to be able to utilize its Joint Crediting Mechanism (JCM). In addition, capacity building for NDC readiness in selected Asian countries was essential for many developing countries in Asia to develop their respective emission reduction strategies towards 2030 as well as for 2050.

Engagement of non-state actors, especially business sector, has become increasingly important in recent years. Japanese business sector was relatively slow in realizing global systemic game change towards net zero emission, but it made a rapid transition to incorporate new notions such as ESG investments, TCFD, and net-zero finance. The business sector as well as local governments publicized their willingness to aim at net-zero by 2050 even before then Japanese PM Suga announced Japan's target of net-zero.

Five-year ratcheting up of nationally-determined contributions (NDCs) was considered as the key agenda at the time of adoption of the Paris Agreement in 2105, because level of NDCs was left up to respective countries' decisions, and it was clear that total amount of NDCs for the years beyond 2020 exceeded global greenhouse gas emission to reach the long-term goal of 2C° or 1.5C°. However, this research question's importance declined as non-state actors such as local government and business sector voluntarily set their own emission reduction targets and renewable energy targets, such as those known as science-based targets (SBTs) and RE100. There was less need for the Paris Agreement to negotiate new rules to ratchet up countries' emission reduction. It was a bottom-up process that changed national governments' targets to get closer to pathway towards the long-term temperature goal. The IGES CE team was flexible in responding to the real world transition, and shifted its priority missions in an effective manner.

2. Impact & outcome generation

Due to the appropriateness of the set mission at the beginning, the Climate and Energy group (CE) was able to make considerable level of impact in the real world in the right timing. COP26 in November 2021 succeeded in finalizing the Paris Agreement rule book by reaching an agreement in Article 6-related decisions. It is widely acknowledged that Japanese negotiators contributed in formulation of the agreement, and it is also well-known that IGES supported the Japanese delegation on this agenda. Simultaneously, IGES conducted a series of webinars regarding Article 6 in Japanese, which were popular among Japanese business sector and other related stakeholders. The webinars

were effective for the Japanese stakeholders to understand how JCM and Article 6 of the Paris Agreement could affected Japanese mitigation actions.

The CE team also successfully engaged key countries in Asia, including China and Korea, to develop their respective emission mitigation strategies and policies. It is acknowledged that holding dialogue workshops in these countries for many years was effective in developing mutual understanding and reliability between the CE team and their counterparts in Asia. Accumulation of IGES's effort to nurture excellent relationship between individuals in respective countries in Asia is the key for success. I am particularly struck by the statement in the self-evaluation report that said "the suggestions based on CE team's empirical analysis of the functioning mechanism of pilot carbon market were referred to by China in design and implementation of its national emissions trading scheme. This proves the fact that IGES effectively supported Chinese government's policy making to implement climate mitigation policies.

As for the webinars, it is stated in the self-evaluation report that 9617 people in total attended the webinars so far. Assuming that most of them were affiliated to private companies and local governments, it can be said that the CE team has made substantial contribution in engaging non-state actors in actions towards net-zero emission society.

The CE team has effectively utilized various means to disseminate information regarding their activities. In addition to the webinar referred to above, the team has published books, peer-reviewed papers, policy briefs, issue briefs, working papers, commentaries, submissions to the UNFCCC secretariat, newsletters and databases, both in English and in Japanese. By publishing these documents in a timely manner, the CE team was able to influence Japanese decision making as well as multilateral negotiation under the UNFCCC. It is also highly appreciated that the team maintain high academic quality to be able to publish peer-reviewed journal papers.

3. Effectiveness of use of financial and human resources

The CE team succeeded in securing sufficient financial resources to conduct all the planned activities. This is equal to say that many funders highly recognize outputs by the CE team. According to its self-evaluation report, the team gathered more than JPY 13 billion of external fund during the 7th Phase. It is highly evaluated that some of those fundings were from international institutions including the World Bank Group and Humboldt-Viadrina Governance Platform GmbH. Due to the team's high academic quality, it has also been able to obtain JSPS academic funding sources. All these collected financial resources were effectively allocated to maximize the team's outputs.

Human resources were also effectively utilized. Because IGES is expected to outreach both in English and in Japanese, research staffs were responsible for their native language most of the time. Meanwhile, limited human resource is a concern. It is surprising to see so many activities being conducted when compared by number of expert staffs allocated to the CE team. Regular replacement of research staffs put extra burden onto other staffs. Therefore, it is recommended that the IGES board members take care of the staffs' working hours so that the staffs do not overwork, and ensure high-quality working conditions. COVID-19 affected people's working style all over the world in the last two years. I hope the IGES staffs were able to utilize remote working and online meetings to be able to use their working hours effectively.

4. Overall evaluation and recommendations for the 8th Phase

Overall, the CE team's achievement is very high. Their output is balanced, policy-relevant

and timely. They should be highly appreciated for what they have done in the ISRP7.

It goes without saying that climate change would remain as one of priority areas in global environmental agenda. It is also clear that, by summarizing what has been assessed above, the CE teams members have overwhelming capacity to continue their activities concerning climate change policies. It is highly recommended that the CE team to be maintained and scaled up in the 8th phase. Its missions, strategies and priorities may continue evolving during the 8th phase, but the CE team has ability and knowledge to adapt to the evolving policy needs in a flexible manner.

Collaboration with some other teams in IGES, such as those dealing with biodiversity, business sector and cities, would continue to be important when conducting research related to climate change policy implementation. At the same time, collaboration with experts and stakeholders outside IGES would also work effectively to be able to make changes in the real world. Possible collaborators include experts in academic institutions, business sector, and officials in national and local government, both inside and outside Japan.

Now that many countries have already pledged net-zero goals, the next agenda in terms of mitigation is going to be policy implementation needed to reach the goal. Energy transition, phasing out fossil fuel combustion, forest conservation, etc. will be widely debated at multilateral meetings. While aiming at net-zero emission, synergies and trade-offs with other values must also be taken into consideration. This includes nexus between net-zero emission and biodiversity as well as nature conservation, nexus between energy-food-water, and coordination with COVID-19 related social responses.

Adaptation and loss and damage will also be more important agenda during the next phase. Building resilience in Japan as well as in Asian countries is called for. As for loss and damage, responses to support displacement of people, and humanitarian aid at the time of natural disasters will be important themes in the next phase. Effective financial institutions under UNFCCC and Paris Agreement to support adaptation and loss and damage will become one key negotiating agenda.

Involvement of non-state actors, particularly business sector, will continue to be important. Rapid technology diffusion, including technologies related to transportation sector, materials such as iron an steel and cement, building sector, and energy career, is indispensable to aim at 1.5 C°

Attachment 1

Suggested review report form

Reviewer's name	Axel Michaelowa
Review meeting date (if held)	NA
Review report submission date	January 4, 2022

1. Mission, strategy and priorities

IGES' 2016-2025 strategy aims at transformative research and transformation research. While I would like to note that the definition of transformation is highly contested given different interests, the direction is sensible if IGES is able to define clearly how it interprets transformation. This remains somewhat unclear, despite the vision of ISRP7 referring to global decarbonisation that "requires complete transformation of the global economy". The formal text of the vision however speaks of "transition" instead of transformation. In that text, the term "green economy is flexibly implemented" would deserve clarification. Does it mean that the policy instruments for transition towards a green economy shall be as flexible as possible? Or is "flexible" another term for "efficiency"? The definition of transformative research in the ISRP7 Annex is rather broad and difficult to operationalize. What are new paradigms /regimes? To what degree are international "talking shops" really meaningful (one could see the Paris Agreement bottom up regime as a paradigm shift from the top-down Kyoto Protocol, but will it be more effective – this remains unclear!). Integration of disciplines and transdisciplinarity is just good research practice but in my view not necessarily transformational.

The 2016-2025 strategy also defines the aspirational goal of IGES becoming one of the top 10 institutes in the world by 2025 as a leading agent of change. This target is very ambitious and should be defined more clearly, applying benchmarks (e.g. research productivity per staff – peer reviewed papers / citation frequency per paper). Here the strategy should also become clearer whether "top" is defined relative to pure research institutes or think tanks. The "agent of change" principle suggests the latter, which would mean that a different set of indicators should be applied (survey with policymakers regarding the relevance of IGES activities, media coverage, including social media). ISRP7 operationalizes the target by stating that IGES should reach rank 20 in the global think tank ranking (I assume it means the "environment" category of the "Global Go To Think Tank Index" published annually by the Think Tanks and Civil Societies Program Lauder Institute, University of Pennsylvania; this should be clarified). I would like to note that the ranking on this index is not consistent with the actual visibility of the institution in climate policy, and the ranking exhibits strange feature like listing the IPCC Secretariat as a "think tank", which is clearly wrong.

The ISRP7' mission statement scales down the target to be "a prominent institute in the region", which is more realistic. While this statement still talks about "conducting strategic research", the explanatory text elaborates IGES' wish to become a "facility for interactive knowledge generation with key stakeholders, in which practical knowledge is obtained and disseminated". This is a very "applied" wording, again reinforced by the "value proposition" of ISRP7 "generating and disseminating practical knowledge for problem solving". IGES management needs to decide whether it wants to be an applied institution (think tank following the model of the World Resources Institute (WRI), not focusing on peer reviewed literature but on application of research results from other entities) or an institution doing policy-relevant but original research. The elements of "strategy 1" under ISRP7 suggest the former, as none of the elements strategic policy research to capacity building, timely introduction and translation of key documents, organising timely

briefing sessions, and development of useful databases and analytical tools suggest the former.

ISRP7 repeatedly mentions “strategic networking/partnership with key stakeholders in the world”. The type of networks should be elaborated more clearly. Are these research networks, or policy networks, or both? Are these transnational networks or “hub and spoke” networks to institutions in key countries?

The strategy does not clearly define whether the research should focus on international issues outside Japan (which the institute’s name “Institute for *Global* Environmental Strategies” seems to suggest) or also activities inside Japan. The ISRP7 mentions impacts from abroad on Japan and defines a special focus on Asia-Pacific. Given that Japan’s international relations focus on this region, this approach is sensible.

Topic-wise, the focus on operationalizing the Paris Agreement market mechanisms and NDC support made full sense. The promotion of stakeholder engagement seemed a bit “fluffy”, as non-state actors are very diverse. It is surprising that the role of MRV/transparency where IGES has been excelling in the past was not defined as core topic.

ISRP7 aims at diversification of funding sources. This aim is highly important as dependency on one source can be very dangerous for an institution.

2. Impact & outcome generation

IGES follows a clear results chain nicely elaborated in Fig. 1 of the Annex to ISRP7. This is better than in many other think tanks I know. The 2016-2025 strategy focuses on achieving impacts or at least outcomes, with the former relating to policy proposal implementation, implementation of guidelines, use of tools, network operation and pilot projects. This generally makes sense, but it should be noted that basic research often takes a long time to generate an impact. The annual target of 20-25 cases of impacts or outcomes during ISRP7 may have generated issues regarding the relevance of an output /impact that differ significantly. The aim to increase written outputs from 80 to 100 lumped together policy and research papers, which are categories differing significantly in terms of input needs (the former being less resource-intensive than the latter). It is unclear how it relates to the separate target of 30 peer-reviewed journal papers per year (is that one a sub-target, or not?).

The clear absence of a citation target is surprising, it would have been better to have a specific citation target looking at policy relevance (e.g.; citation of IGES work in IPCC Assessment Reports).

3. Effectiveness of use of financial and human resources

From the ISRP7, the choice of office locations in Japan beyond the HQ and overseas and their specialisations did not really become clear.

While it is noted that translated reports have a high readership in Japan, the cost implications need to be carefully studied. Translations should generate sufficient funding to not only pay the staff translating a document but also cross-subsidize other activities.

The frequent changes in staffing in the context of JCM is noted.

4. Overall evaluation and recommendations for the 8th Phase

The stated aim of reaching a rank in the top 20 of the “environment” category of the "Global Go To Think Tank Index” has been missed by IGES by a wide margin, it only reached rank 39 in the 2020 edition. However, the relevance of the Index is contested and it may be appropriate not to include a rank target in ISRP8.

It is no surprise that the outcome/impact targets could be reached given they were defined in a way that can be interpreted in different ways. I note that two of the front-runners in FY2020 relate to action in Japan (circular economy, 100% RE) where the international aspect is unclear.

The significant increase in peer-reviewed articles is commendable; it needs to be seen how this can be sustained if a fully applied policy think tank strategy is undertaken in ISRP8. Citation intensity has remained constant which is good as it shows the increased number of articles is not reducing their relevance.

The amount of resources put in translations of documents should be carefully checked to prevent that it drains resources. Moreover, a survey should be undertaken to understand who reads these translations, and whether an increased proficiency in English among target groups in Japan may lead to a lower relevance of translations in the future.

The website is rich in resources and attracts many users, IGES should further build on this strength.

Social media uptake (number of followers) is relatively low and should in the future be benchmarked against comparable institutions.

ISRP8 should clearly aim at the “WRI style think tank model” which is a translator of research but does not do own basic research.

A key topic for IRSP8 should be monitoring, reporting and verification (MRV) of national climate change action as well as international carbon markets, linked to the Global Stocktake due in 2023. This should be differentiated into the three aspects:

- Interpreting and refining international rules
- National level
- Activity level,

and be differentiated into structural input, data provision and capacity building, with the target groups UNFCCC entities, multilateral institutions, national and municipal governments, private sector entities and NGOs.

IGES should build on its globally recognized strength of providing high quality databases for international carbon market mechanisms. Here, it should enter into closer collaboration with UNEP-DTU to prevent duplication of database work.

With regard to its cities taskforce and KUC, IGES could try to team up with ICLEI, C40 and other city

associations to generate a global database on city-level mitigation action.

IGES should also build on its high visibility as host of the IPCC-NGGIP programme. It should explore links between national GHG inventories and methodologies for international carbon markets, especially in the context of the reporting under Article 6 and the ETF.

Peer-reviewed papers in the climate area should primarily build on use of the data in IGES' databases.

A senior researcher from IGES should try to become member of the global policy-oriented research network "Climate Strategies" (CS). This requires contacting a member of CS to nominate the researcher. CS so far only has one Japanese member, Emi Mizuno, so the chance of having the nomination accepted is high, especially if the candidate would be a female.

With regard to the diversification of funds, IGES should strive to mobilize international funds in the context of the capacity building initiatives for Article 6, in collaboration with internationally leading institutions like UNFCCC RCCs (especially through the BRC), UNEP-DTU, Perspectives Climate Research and GGGI. It could support the development of baseline and monitoring methodologies under Article 6.2 in the context of the JCM and bring in lessons in the rulemaking under Art. 6.4. Here, it should try to harness private sector funding from entities eager to engage in Art. 6.

Likewise, it can increase its role in transparency-related capacity building in the context of CBIT, ICAT, NDC-P and similar programmes. IGES should also selectively reach out for supporting MRV of private sector entities that have a high reputation, e.g. those engaging in the Science-based Target Initiative (SBTI).

With regard to staffing, a mentoring and tenure track system for promising young staff is recommended to reduce fluctuation and accelerate internal capacity development in new topics (e.g. MRV and carbon market methodologies for negative emission technologies).

A strategic plan to coordinate between CE, CTY, FIN and BIZ departments should be developed, given the strong synergies that can be harnessed between these departments. Issues to be taken up could be blending of Article 6 and international public climate finance, city-level and private sector pilots for Article 6, interactions and alignment between national, city and private entity level MRV systems. Another cross-cutting topic could be promotion of negative emissions technologies.

External Reviews of the Integrative Strategic Research Programme of IGES for the Seventh Phase (ISRP7): Adaptation and Water

Reviewer's name	Mikio Ishiwatari
Review meeting date (if held)	
Review report submission date	January 31, 2022

1. Mission, strategy and priorities

ISRP7 covers the following key concepts for the entire IGES activities, and the underlined parts are considered to be related to the activities of Adaptation and Water team (AW):

“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, especially in Asia and the Pacific.

Value proposition: A strategic research institute located in Asia, experienced in generating and disseminating practical knowledge for problem solving, through strategic networking/partnership with key stakeholders in the world, for global transition to sustainability and resilience.

Strategies

Strategy 1: Constructive relationship with key stakeholders

Strategy 2: Securing sufficient funds” (Source: ISRP7, 2017)

Since the mission, strategy, and priorities of AW are included in various documents and not clearly stated independently, I have restructured them from relevant documents and provided comments by examining AW's activities as follows.

- (i) **Goal:** Underlined parts are considered as goals related to AW in the Natural Resources and Ecosystem Services (NRE) goal “Conduct problem-solving research activities on integrated natural resource management to promote the conservation and sustainable use of natural resources in the Asia-Pacific region, focusing on forest conservation, climate change adaptation, water resources management and biodiversity conservation” (source: NRE mid-phase review 2019)

Comments:

- Various AW activities contributed to “move society toward more sustainable and resilient future” of the ISRP7 Mission through promoting conservation and sustainable use of natural resources focusing on climate change adaptation (CCA) and water resources management.
- The goal is generally consistent with the key concepts of ISRP7. The goal should have included “resilience”, which the Mission of ISRP7 stresses as “towards a more

resilient future”. Making a resilient society should be a key goal for AW.

(ii) Strategies and value proposition: strategic networking/partnership

Comments: Networking is regarded as AW’s uniqueness and useful for generating and disseminating practical knowledge among countries in the region. AW has contributed to strengthen the following networks: (a) adaptation in Asia Pacific Adaptation Network (APAN), (b) waste water management in PODiWM, (c) flood and landslide management in ASEAN, and (d) water environmental governance in Water Environment Partnership in Asia (WEPA).

(iii) Priority subjects and actions: Selected for AW activities from NRE’s ones (Source: ISRP7 Self-Evaluation Report)

1. Sectoral integration: (1) Integrating adaptation into government policy especially at the local level, (2) Integrating adaptation and DRR, (3) Nexus of food, water and energy, (4) governance of groundwater and other water resources
2. Building local institutions
3. Governance
4. Technology development
5. Climate-fragility risks

Comments:

- a. It is unclear why adaptation is integrated into government policy “especially at the local level”. The policies of national governments also play key roles in adaptation, such as technical and financial support to local governments or communities. AW activities cover supporting the national governments to formulate legislation and policies and strengthen their capacities.
- b. Various AW’s projects covered 2. building local institutions of adaptation and water management, 3. water governance, and 4. developing technology of water management.
- c. Activities for 1-(3) “nexus of flood, water and energy” and 5 “climate-fragility risks” were limited. While the moveable NEXUS funded by the Belmont Forum may include the activities for 1-(3), the details of the NEXUS have not been provided.

2. Impact & outcome generation

Impacts related to AW has been selected from NRE intended impacts as follows:

2. Integration, 3. Community resilience, 4. Increased provision of scientific data, knowledge and tools, 5. Improved water quality (source: NRE mid-phase review, 2019)

In addition, since there is no list of AW’s activities, I have selected the following 6 projects as AW’s major projects from various documents provided to evaluate AW’s activities:

Project 1 “ASEAN Project on Disaster Risk Reduction (DRR) by Integrating Climate Change Projection into Flood and Landslide Risk Assessment”

Project 2 “Establishment of Environmental Conservation Platform of Tonle Sap Lake

(SATREPS)”

Project 3 “Asia Pacific Adaptation Network (APAN)”

Project 4 “Water Environment Partnership in Asia (WEPA)”

Project 5 “Policy Dialogue and Network Building of Multi-stakeholders on Integrated Decentralized Domestic Wastewater Management in ASEAN Countries (PODiWM)”.

Project 6 “Management of urban water-energy-food system (Belmont Forum)”

Comments: AW accomplished satisfactory quantity and quality of outputs from these projects in line with intended impacts as follows:

2. **Integration:** Project 1 contributed to integrate CCA with DRR in ASEAN countries. The project developed the approaches of including effects caused by climate change into risk management of flood and landslide disasters. Project 3 contributed to integrate CCA into policies, strategies, and plans through networking countries in the Asia and Pacific region. While Project 6 may have supported improving nexus of water-food-energy, the details of the project have not been provided.
3. **Community resilience:** Project 1 strengthened the capacity of local governments in ASEAN countries by formulating the guidebooks of land management and risk management and training local government officials.
4. **Scientific data, knowledge and tools:** Project 2 developed scientific and administrative capacity for water environmental management.
5. **Water quality:** Project 4 improved water environmental governance. For example, the project supported Sri Lanka to include the provisions of protecting groundwater from industrial discharge in the National Environmental Act and Indonesia to formulate the guidelines of managing effluent discharge. Project 5 strengthened policies, capacities, and technology to implement domestic wastewater management.

Outputs

Comments: AW published some 400 peer-reviewed journal articles, books, book chapters, policy briefs and other types of publication during ISRP7. The average number of publications per staff member is more than 30, which can be evaluated as significant achievement.

3. Effectiveness of use of financial and human resources

Comments: Reviewing effectiveness is quite difficult, since I could not find enough information on staff and budgets. In AW, 13 researchers and managers are working (Source: IGES website). Annual budget for one project ranges from 10 to 50 million JPY (Source: AD/FW team report, 2021). I found that these staff numbers and budgets match with the scale of project activities.

4. Overall evaluation and recommendations for the 8th Phase

Overall evaluation: The AW team conducted a wide range of activities and substantially contributed to the ISRP7’s mission. The team’s activities are highly relevant to ISRP7. In

particular, the team's activities supported Asian countries to increase the capacities of CCA and wastewater management to make resilient and sustainable societies. Limited activities for two areas of nexus of food, water, and energy; and climate-fragility risks were found.

The team adapted the effective approach of networking these countries, which is useful for generating and sharing practices of resolving the issues of adaptation and WRM. Also, the team produced various documents.

Recommendations for the 8th Phase

- **Follow-up support:** The projects have produced useful outputs. Based on these, follow-up support for completed activities, even on a small scale, would be useful to resolve the issues of adaptation and water resources management further.
- **DRR:** To strengthen DRR capacities further, activities should develop the methodologies of assessing risks that local governments and communities can use with limited capacities.
- **Nature-based solutions (NbS) or Green infrastructure:** NbS is expected to resolve multiple issues including DRR, climate change adaptation, and mitigation. The solutions are often cost-effective as well. Activities for promoting NbS should be enhanced in the Asia and Pacific region. The Japanese traditional methods of flood protection using natural materials of woods and stones, can be a good reference for developing countries.
- **Evaluation:** Evaluation was difficult due to the limited information available. Monitoring mechanisms should be developed. These include baseline data, monitoring indexes, clear targets, and datasets on human resources and finance.
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IGES NRE Review Report

Review's Name	Sung-Ryong Kang
Review meeting date	2022. Jan. 6 th (Thursday)
Review report submission date	2022. Jan. 24 th (Monday)

1. Mission, strategy, and priorities

During ISRP7, the NRE unit appears to have pushed its work towards implementing the IGES mission and strategy. In addition, the right approach implements the mission and strategy by selecting the task priorities. In particular, the research results utilized critical international and regional networks and processes. The deciding eight priorities that seemed suitable for carrying out the IGES mission. During ISRP8, when selecting strategy and priorities to implement the IGES mission, it would be good to conduct a demand survey to international organizations and domestic and international organizations.

2. Impact & outcome generation

I think the NRE unit supported policymakers by providing science-based research results for international, regional, and domestic policy in the fields of climate change adaptation, water, biodiversity, and forestry. Various studies on land and natural resources have positively impacted the establishment of landscape and ecosystem management policies and plans. It also appears to have provided the necessary data for policy development by providing scientific data, knowledge, and tools for biodiversity conservation and climate change adaptation. In addition, supporting IPBES Planetary negotiations and supporting the Technical Support Unit of IPBES Invasive Alien Species assessment to support the Japanese government's participation in IPBES continuously seem to be examples of active response to the demands of policymakers & stakeholders. Moreover, the NRE unit has established partnerships with stakeholders in a goal-oriented manner and

effectively carried out work. The "The Moveable NEXUS (funded by the Belmont Forum)" project promoted with Keio University, University of Michigan, Delft University of Technology, Qatar University, and Queen's University Belfast is considered an excellent example of successful collaboration with several stakeholders.

The NRE unit has published more reports and academic papers than any other IGES unit. Thus, I think NRE has achieved satisfactory results quantitatively and qualitatively. In particular, it is imposing to publish 16 publications in the natural capital and system services field. To continuously maintain these excellent results during the ISRP8 period, I would like to recommend quantitatively analyzing the ISRP7 period results of the Adaptation and Water unit and the Biodiversity and Forests unit to set goals for increase and maintenance in performance and then proceed with work. The NRE published about 240 publications by about 20 researchers, on average, more than ten publications per researcher. I think the NRE unit significantly influenced policy support and academic promotion by efficiently managing human resources and budget.

The world is paying attention to climate change and biodiversity issues. Therefore, ISRP8 recommends that it is necessary to research to develop policies at the Global-Regional-National level on climate change and biodiversity issues. Consequently, it is required to establish a platform of ①monitoring→②assessment→③strategy development→④ policy recommendation. In addition, it is recommended to assign the projects promoted by the Adaptation and Water unit and the Biodiversity and Forests unit to 4 categories and build a more efficient and influential system by establishing sustainable connectivity between the four category projects.

3. Effectiveness of the use of financial and human resources

I was able to find several results below. NRE's international, regional, and domestic projects appear to have utilized a strategy of effectively collaborating with stakeholders to achieve the

intended impacts and outcomes. The project was promoted to respond timely and effectively to the latest domestic and international trends, and related results were published in academic journals and reports. The NRE unit has contributed a lot to the agenda-setting of various global, regional and domestic projects. Efforts were made to find an integrated solution for the current problems with the targeted stakeholders. The NRE selected the appropriate stakeholders and established partnerships. Also, the NRE has implemented sufficient monitoring of business progress and results.

4. Overall evaluation and recommendations for the 8th Phase

Even if the NRE unit divides into two units (Adaptation and Water, Biodiversity and Forests) during the ISRP8 period, I recommend cooperating with both units. Also, two units have to consider the task priorities to achieve the IGES mission and strategy. I want to recommend conducting an annual survey on the needs of policymakers and to discover tasks suitable to the policy and the evaluation of the usability of the NRE reports and papers published in ISRP7. By analyzing the most valuable fields among IGES achievements, I hope that the two units will select the priority they need to choose and focus on in ISRP8 and actively interact with the right stakeholders and partners.

As the demand for policies for managing and restoring the carbon absorption source ecosystem (e.g., forests, wetlands) is soaring to transform a carbon-neutral society, I hope to discover the relevant policy tasks and share the information needed by the international community. It will also be necessary to devise an organizational system that can shift thinking for the innovative changes required for adaptation to climate change and protect biodiversity loss. I recommend the IGES may consider establishing a system that can effectively identify and support developing Asian countries' needs by establishing an ecosystem conservation knowledge-sharing platform.

Review of IGES ISRP-7 for Natural Resources and Ecosystem Services (NRE) Unit

Reviewer's name: TOMA Takeshi, FFPRI-Japan

Review meeting date (if held): 28 January 2022

Review report submission date: 6 February 2022

I had read the self-review report before the meeting and interviewed NRE members. Based on these, I have reviewed NRE's activities and achievements as follows;

Initial minor inputs

- On pg 32, "increased support," etc. The 3rd bullet needs to mention timber in the ITTO name.
- Next page resource management fundraising forgot to add some zeros in the amount of funding.

1. Mission, strategy, and priorities

NRE and its offshoot units have been heading in the right direction. The unit goals encapsulate the work done by NRE well. However, I understand that strategizing is made difficult because NRE struggles to keep up with the number of small-to-medium-sized projects that they are requested to do. This means that they are often in a state of reactive planning instead of proactive planning. I understand the increasing pressure for researchers and unit leaders to source external funding. I recommend that IGES create an enabling environment for NRE staff to propose comprehensive, large-scale projects to help NRE achieve its strategic goals.

2. Impact & outcome generation

NRE seems to be balancing commissioned work with a publication output that is higher than any other unit in IGES, in absolute terms and on average per person. Such NRE's focus on publications is a necessary long-term investment in the organization's reputation and should be supported.

NRE seems to impact international, regional, domestic policy processes, although it is difficult to measure such effects. Several different NRE projects and activities are aimed at these different levels. Focusing on the broader international level is an investment in the organization's reputation, while concentrating on more substantial local and national efforts is also essential.

NRE was responding to the demands of policymakers & stakeholders in a practical sense because many of their projects were commissioned by such policymakers & stakeholders. They also made efforts to make scientific publications more accessible to such people by producing policy brief versions of these. I noticed that NRE's staff have struggled with internal processes for providing policy briefs that slow down such attempts. IGES's internal process for producing policy briefs shall be revised to encourage staff to make them. As a reader of NRE's publication, I acknowledged timely news alerts through SNS by NRE staff.

NRE has established some crucial partnerships and should continue looking for future partnership options. Communication could be improved slightly but is also heading in a good direction.

As mentioned above, NRE seems to have outperformed the rest of IGES regarding the number of outputs. Many of these are also high quality, but NRE staff have told me that they would like to focus more on quality outputs in the future, even if it is at the expense of some of the outputs.

3. Effectiveness of use of financial and human resources

It seems like NRE has used financial and human resources effectively, judging by the fact that staff is generally committed to many more working days per year than the actual total number of days. Beyond that, however, it is difficult to determine the efficiency level, although again outputs indicate that it is high.

NRE staff have mixed feelings about the large unit forming two smaller and more focused units. To make ISRP8 successful, they will need to work together and support each other to achieve more efficient and significant impact generation.

I was impressed by NRE's dedication to effectively responding to the latest international trends and discussions, for example, by tapping into international processes like the CBD and IPBES. Similarly, at the domestic level, examples like their work on the Clean Wood Act show that they are aware of where their work is relevant. This could also contribute to agenda-setting in the field.

Regarding monitoring progress and results, NRE seems to struggle with having to respond to many and frequent requests to conduct small-to-medium commissioned work that is relatively short-term. This prevents them from building a strategy for the kind of work they would like to do. This situation, they tell me, is exacerbated by the need to find increasing amounts of external funding from one year to the next. IGES needs to support NRE in getting larger and longer-term projects so that NRE's staff will not be exhausted by fragmented, small, and short-term projects.

4. Overall evaluation and recommendations for the 8th Phase

Overall, NRE seems to be full of dedicated staff who are not afraid of hard work. I expect the two new units formed out of NRE will have the same ethic. With ongoing support from their

superiors at IGES, these units have the potential to raise the profile and reputation of IGES in their areas of work. I hope IGES provides encouraging support for its research staff to produce qualified scientific outputs and conduct outreach activities.

Suggested review report form

Reviewer's name	Laksmi Dhewanthi Director General of Climate Change Control The Ministry of Environment and Forestry Indonesia
Review meeting date (if held)	
Review report submission date	April 12, 2022

1. Mission, strategy and priorities

It is commendable that IGES SCP group utilizes phased approach for meeting different priorities in less developed, emerging and developed economies to facilitate the transition to sustainability. Its research and action focuses on sustainable lifestyle, circular economy, plastics and integrated solid waste management are appropriate. It is necessary to further strengthen activities for sustainable lifestyle and business model development to support sustainable practices of different stakeholders.

2. Impact & outcome generation

- In the past 10 years, through its involvement to 10YFP, APRSCP, RIO+20, and SWITCH-Asia, IGES SCP Group has played an essential role for mainstreaming SCP policy agenda both in Asia and the Pacific region and at global level.
- IGES is becoming resourceful in supporting national and local governments to develop their capacity to manage waste management, recycling, and plastic pollution by directly involving into national processes as seen in the activities of CCET and its engagement with 10YFP.
- Along this development, the quality and timeliness of publication has been improved in a significant manner. IGES SCP group was very good in collaborating with relevant organizations in its publication to be impactful, such as 1.5 degree lifestyle report with SITRA, Co-creating sustainable lifestyles 24 stories report with UNEP based on IGES involvement to 10YFP, G20 Report on marine plastic debris, or E-READI Plastics and Circular Economy report with EU and ASEAN. I also noticed that SCP group is increasingly contributing to academic research and publications on SCP policy research.
- Overall, SCP group is in a right direction in contributing to policy and research activities on SCP.

3. Effectiveness of use of financial and human resources

Diversity in human resources and financial resources would be a strength for SCP in operating in collaboration with emerging economies as well as with major international players in addition to Japanese government. There is no specific comments on financial on financial and human resources.

4. Overall evaluation and recommendations for the 8th Phase

- Further collaboration with ASEAN and ASEAN member states to tackle existing and emerging challenges for transition to sustainability. Expecting IGES to be a policy think-tank central to collaboration between

ASEAN member states, global processes, and Japan. Yet, country specific driven is need to taks into account.

- Interpreting and implementing international/global agreements and decisions into national and local actions.
- More emphasis is necessary in engagement with promoting collaboration between private and public sectors.
- Seeking further collaboration between Japan, UN agencies and respectives stakeholders.
- Expectation in research contributing to regional and local specific version of circular economy which can be applied to the context of Asia and the Pacific region.

Attachment 1

Suggested review report form

Reviewer's name	Misuzu Asari
Review meeting date (if held)	
Review report submission date	21 Jan 2022

1. Mission, strategy and priorities

I think IGES SCP team is headed in the right direction with the right approach. Leap forward and stability as the face of Asian region toward the transition to a circular economy, focus on the plastic problem as a new global issue, and practical efforts for lifestyles and social systems with a view to shifting to a decarbonized society confirm the correctness of the direction.

I would also like to commend the fact that the team is accelerating their efforts toward a great reset even in the difficult situation of COVID-19.

On the other hand, there are initiatives of different levels and genres, from policy to education, from world affairs to Asian and regional cases, but there is an impression that their relationships and positions are not well organized. The resilience to proceed several activities while running is important, but I think it would be better to take this opportunity to organize different projects and consider future strategies.

2. Impact & outcome generation

Once again, I am surprised at the many outcomes and appealing opportunities. Almost all outcomes can be evaluated as high-quality level.

In particular, I would like to highly evaluate SCP concept making and related activities as it is establishing its position as a hub not only in Japan but also in Asia. However, in Japanese society, it is considered that SCP should become more on the mainstream. I would like to expect that outcomes including the world's leading movements will be reached out and stimulate wider range of stakeholders.

The “1.5-Degree Lifestyles” is a powerful tool that conveys medium- to long-term directions to many stakeholders, such as the 2050 decarbonized society. However, the road to this achievement and the required changes are not easy. I would like the team to continue to collaborate with many stakeholders, draw a roadmap for achievement, and consider effective policy proposals.

With regard to plastics, among many movements, the team have identified a theme of specialization, took an effective approach, and at the same time built an effective network. In the future, plastic problems, countermeasures and discussions will be divided and integrated in several directions, but it will be necessary to increase their expertise and expand their networks with that in mind.

Regarding the activities in Asian countries and regions, I would like to evaluate the fact that steady efforts are done while keeping higher policies in mind. I understood that the effort to keep trust of local partners has led to steady results.

In this way, impact and outcome generation can be highly evaluated as a whole, but on the other hand, in terms of recognition from a wide range of people, I think there is space for improvement, including access to WEB sites and SNS. It is also important to shift a wide range of consumers toward sustainable consumption and lifestyle. And there is a wealth of knowledge and educational tools for that, but it has not reached sufficient. Push-type information transmission and efforts to work on different networks are also required. I

hope that effective connections will be identified and effectively disseminated through networks such as educational parties and green purchasing organizations.

3. Effectiveness of use of financial and human resources

Accurate evaluation is difficult because detailed information on finances and human resources is not known to me, but as a whole, it is considered that the projects are efficiently operated with limited and fluctuating human resources. As far as I know, the team has excellent and highly motivated human resources, and I evaluate that they are engaged in ambitious activities and lead to effective results. In addition to the development of their own organization (IGES), I would like to highly appreciate its contribution to the academic society and domestic and international networking. I hope that an open and vibrant organizational culture will continue in the future.

4. Overall evaluation and recommendations for the 8th Phase

As a whole, both the results and the process can be highly evaluated.

However, since I do not have information on how the planning, sharing of results and discussions is done within the team, it was better that the information on communication within the team was also summarized at the report.

I think there is a space to delve into the mission of influencing the policy process. There seems to be various patterns, but I think that knowledge to develop models has been accumulated from success experiences and failures. I would like to expect such discussion as well.

Attachment 1

Suggested review report form

Reviewer's name	Chang Miao
Review meeting date (if held)	
Review report submission date	January 14, 2022

1. Mission, strategy and priorities

As an environmental think tank located in Asia, IGES correctly set her mission as an “Agent of Change” to promote the transition to a sustainable, resilient and inclusive Asia-Pacific region through co-design, co-production and co-dissemination processes for generating value-added knowledge and practical cases on impact generation. Working with the two wheels of quality policy research and strategic operation together, IGES have made remarkable contributions to impact generation on relevant policy processes at the international, regional, national and subnational levels particularly related to two global agenda, namely climate change and the 2030 Agenda for Sustainable Development including the SDGs.

The strategic operation of IGES by placing a priority on networking with key stakeholders including non-state actors is effective to strengthen impact generation on the ground. However, project-based or event-based collaborations are not enough to exert substantial impacts. Long-term and strategic partnerships with relevant stakeholders, particularly international organizations, governmental organizations at local levels and the business sectors, need to be further strengthened. Except for joint publications, projects and events, IGES can explore other mechanisms, such as working as an environmental advisory body to these organizations which enables IGES to participate deeply in their routine works and provide effective and continuous assistance to integrate environmental considerations into their key decision-making processes. Policy-making and lifestyles usually follow habitual practices or patterns, which changes require deep and fundamental influences on institutions and mindset. IGES now created 20-30 practical cases each year for impact generation which is a good direction. However, many of the cases were small-scale and one year-based which are difficult to generate the impact at the level required for making a change. To strengthen influences on institutions, mindset and daily practices, IGES may need to reduce the scope but concentrate on supporting a couple of key cases (such as 5-6) with continuous implementation throughout the phase (4 years) aiming at mid-to-long term and fundamental influences rather than fragmenting its resources to small-scale and one-year cases. With these 5-6 well-designed cases, IGES can integrate internal resources across units and apply an integrated approach by combining various methodologies and internal expertise to implement the cases. Through the implementation of these key cases, IGES can brand these cases and the integrated approach to make them scalable and replicable in other places in the region.

This can further link with IGES SRF which supports strategic research work and IGES flagship publications. Now IGES SRF supports multiple small-scale projects each year which can be systematically integrated into a limited number of comprehensive projects linking with the implementation of impact generation cases. Based on the results from SRF-funded projects and the implementation of the impact generation cases, IGES can use SRF more effectively by publishing quality and practical flagship publications each year to strengthen impact generation. The flagship publications can also echo the heated topics of that year in major international and regional policy processes and can be disseminated in relevant events related to those policy processes.

2. Impact & outcome generation

The establishment of the Strategic and Quantitative Analysis Centre (QAC) in IGES Phase 7 and its operation through quantitative analysis, development of tools and promotion of their applications through working with various stakeholders (including international and regional organizations, academia, and governmental organizations at the national, provincial and city levels) were demonstrated successful to strengthen the science-policy interface.

It was very impressive that QAC, with only five researchers and within four years, not only developed various advanced tools (such as the SDG interlinkages tool and the SSPs models for cities) but also put them into practice with a couple of cases.

The SDG interlinkages online tool is a comprehensive and advanced tool and I believe it can be used in various ways to facilitate the discussions on synergies and conflicts among various development areas. The tool and its methodology also influenced many other academic works in this area and received certain recognitions from some international organizations (DESA, ESCAP, etc.). I think the tool should be further extended to the city level that will attract more users and policy practitioners. Though the tool was used in a couple of cases in Bangladesh, Indonesia and Viet Nam demonstrating its practical values, I think IGES should brand this tool and further promote its applications through the development of the key cases for impact generation at the national and sub-national levels (see my previous comments on impact generation cases) throughout the whole period in Phase 8.

The ASEAN Climate Change Report was a comprehensive work with high impact. It is very impressive that IGES was successfully coordinated ten think tanks, as well as relevant national governmental organizations in ASEAN, for the preparation of the report which was successfully launched timely before and during COP 26. I believe the report will have a great potential to continuously impact on NDCs and climate action plans in ASEAN countries in the coming years. IGES may need to follow up on integrating the scenarios/visions provided in the report into national climate policy making in ASEAN.

Building visions and scenarios on achieving net-zero emissions by 2050 is a timely topic and I am happy to see that IGES has worked on this front focusing on the Japan's case at both national and city levels. It was impressive to see that many Japanese media featured IGES work in their coverage. I think how to land the visions and scenarios provided by the report on the ground and make them the guiding principles for making local climate action plans remains a task for Phase 8. Expanding the work in more cities in Japan and outside of Japan through working with other stakeholders, particularly the business sectors, can be further strengthened.

In addition, QAC published a lot of outputs including peer-reviewed papers in journals with high impact factors. The presentation of the SSPs models for cities at IPCC Cities and the inclusion in the TWI 2050 reports were also impressive. This demonstrated the research capacity of the researchers and quality research conducted by IGES. The model of the two wheels of conducting strategic policy research with academic value-added on the one hand and strengthening the applications through impact generation cases on the other hand should be continued in Phase 8.

Overall, QAC generated various impacts on relevant policy making processes at the international, regional, national and city levels in the areas of SDGs and climate change. In Phase 8, the applications of the tools or methodologies developed by QAC should be carried on and strengthened further through the implementation of IGES key impact generation cases (see my comments under Point 1).

3. Effectiveness of use of financial and human resources

Both the capacity and the productivity of QAC's researchers were very impressive. I noticed there were too many small scale projects and pieces of works that QAC conducted which I think is not conducive to the development of IGES in the long run. I wondered whether this was due to the institute's requirements, the researchers' interests or for the financial purpose. I think IGES may need to narrow down the scope and deepen the research work and the implementation of impact generation cases.

4. Overall evaluation and recommendations for the 8th Phase

Overall, IGES has developed in a good direction with quality research, effective operation and capable researchers. QAC made great achievements in Phase 7, including many quality papers published in journals with high impact, development of advanced tools (SDG interlinkages tool and SSPs models for cities) and applications with practical cases (SDGs roadmap development in Indonesia, SDGs planning in Bangladesh, SSPs for Bhutan and Da Nang City, and zero-emissions vision development in Kawasaki City, etc.). These tools and their applications should be carried on and further strengthened in the 8th Phase.

For the 8th Phase, I think IGES can further strengthen its partnerships with relevant stakeholders, deepen impact generation, publish influential flagship publications and concentrate her resources for long-term and deep impact generation.

- Specifically, for strengthening IGES' partnerships with relevant stakeholders, particularly international organizations, governmental organizations at local levels and the business sectors, IGES can explore other mechanisms, such as working as an environmental advisory body to these organizations which enables IGES to participate deeply in their routine works and provide effective and continuous assistance to integrate environmental considerations into their key decision-making processes.
- For deepening impact generation, IGES may need to reduce the number and scope of existing impact generation cases and concentrate on key cases (such as 5-6) throughout Phase 8 to generate mid-to-long term and fundamental influences. IGES can further brand these case studies to make them scalable and replicable in other places in the region.
- For flagship publications, IGES can integrate small SRF projects into more comprehensive ones aiming for the development of innovative and comprehensive methodologies, supporting the implementation of key impact generation cases and publishing flagship reports. These flagship reports, such as the ASEAN climate change report and the net-zero emissions report, etc., can help generate wider and deeper impacts.
- For concentrating resources for long-term and deep impact generation, IGES can consider sharpening the focus on 5-6 key impact generation cases linking with a limited number of comprehensive projects supported by the SRF.
- Urban planning and industry development planning are very important and directly affect the planning and implementation of 5 to 10 years. The influence on these top level policies should be strengthened.

In the 7th Phase, QAC used methodologies such as scenario analysis, statistical analysis, economic analysis and systems analysis, etc. and statistical data which are mainly based on conventional approaches. With rapid development in ICT and AI and their applications in the environmental field, new methodologies, such as AI and big data should be further explored in supporting strategic research and better serving the needs of evidence-based policy-making. IGES should invest in these new areas and support QAC in Phase 8. It is suggested to pay attention to digital transformation solutions in refined management and scientific decision-making in countries such as China, and strengthen the evaluation and practical analysis of this effect in phase 8.

Attachment 1

Suggested review report form

Reviewer's name	Takehiko Murayama
Review meeting date (if held)	
Review report submission date	February 12th, 2022

1. Mission, strategy and priorities

While the mission and focus actions of Centre for Strategic and Quantitative Analysis (QAC) cover appropriate fields for IGES, the following points should be considered.

- How to make clear about the features of strategic and quantitative analysis. The meaning of strategic analysis would be ambiguous, and it would not be cleared what kind of activities are related to strategic analysis.
- Priorities of focus actions would not be cleared. If IGES needs the priorities for activities of QAC, it would be better to prioritize specific actions.
- It would not be clearly stated on the strategy for conducting QAC activities in the document of the 7th phase self-evaluation report.

2. Impact & outcome generation

The all topics QAC conducted are important, and substantial outputs are found in each topic. The focus actions were listed in 7th phase documents as follows.

- 1) Create value-added knowledge through strategic research and quantitative policy assessment
- 2) Support policy assessment in developing countries in Asia by identifying appropriate indicators, applying quantitative analysis tools and models
- 3) Expand collaboration between researchers in Japan (such as NIES) and key Asian countries, various stakeholders and policymakers
- 4) Develop and provide businesses and cities with practical tools and methodologies for their strategic planning and analysis
- 5) Provide strategic data management and analysis composed of a three-step process
- 6) For data collection, continue development/improvement of databases by establishing appropriate data collection and management systems
- 7) For data analysis and evaluation, help other areas within IGES to utilise collected data in regular research programmes and activities
- 8) For data reporting, continue to develop innovative reporting tools, calculators and navigators that allow stakeholders

Considering the contents provided by QAC, the relation between the above focus and selected projects could be categorized as follows.

		1)	2)	3)	4)	5)	6)	7)	8)
I. Research and activities in the area of SDGs planning and implementation	1. SDG interlinkages analysis, tool development and applications	X	X	X		X	X		X
	2. River basins as 'living laboratories' for achieving sustainable development goals (SDG) across national and sub-national scales	X	X	X		X	X		X
	3. SDG integration in Indonesia and SDG localisation in West Java		X	X	X	X	X		
II. Research and activities in the area of climate mitigation and adaptation	4. Japan's Net-zero Emissions Project	X		X	X		X	X	
	5. Development of Kanagawa Prefecture's Decarbonisation Vision	X						X	
	6. ASEAN State of Climate Change Report (ASCCR) Project	X	X	X			X		X
	7. Power system analysis for Japan's high voltage transmission lines	X		X	X	X	X		X
	8. Study on the adaptive capacity to climate change at the local level in Japan	X		X			X		
III. Research and activities in the area of Shared Socioeconomic Pathways (SSPs) for cities	9. Development of socioeconomic scenarios at the city scale (SSPs cities)	X		X	X	X	X		X
IV. Other research activities	10. CCET-IGES Plastic Pollution Calculator Development			X			X		X

While the categorization is based on limited information, the conducted projects cover all of focus actions. In addition, the first, 3rd and 6th actions would be relatively covered by the projects. Instead, the 2nd, 5th and 7th seem not to be much covered. In particular, the descriptions on the 7th point (to help other areas within IGES to utilise collected data) were not included at all. Considering listed focus actions, additional descriptions should be helpful for the projects.

Of all topics, SDG linkage analysis would be unique approach, and it would be useful for policy-making in inter-regional, national as well as local levels, and it would be better to make it easy to understand how to integrate quantitative and qualitative data.

In the second category, Japan's net-zero emission project and Power system analysis for high voltage transmission lines would provide quite useful output in quantitative way and effective for future policy-making. While development of Kanagawa Prefecture's decarbonisation vision would be collaborative work with other groups in IGES, the output may focus on GHG prediction and would not be cleared on substantial contributions for policy-making and planning. While ASCCR project would be highly impacted in ASEAN region, the contribution of QAC would be unclear from provided documents.

SSPs cities project would generate effective quantitative outputs for city scale policy-making and planning along with several focus actions, while Plastic pollution calculator development is unclear in the position of focus actions.

3. Effectiveness of use of financial and human resources

While the information on financial and human resources is limited, those would not be effective for conducting the projects. For further evaluation, more detailed information on those points would be necessary.

4. Overall evaluation and recommendations for the 8th Phase

According to the consideration of the contents and outputs of the activities of QAC, those activities would cover all focus actions in the 7th phase, while some of focus actions are not sufficient, as mentioned in the section 2.

Regarding the recommendations for the 8th phase, the following points would be listed.

- While the name of QAC includes “quantitative analysis”, the activities may include qualitative analysis. Considering strategic level analysis, it would be not easy to provide the output with quantitative materials only. Rather, the integration of quantitative and qualitative data would be useful. Probably, not only QAC but also other groups within IGES would conduct “strategic and quantitative analysis.” So, it would be better to examine the position of QAC in this institution and emphasize unique points.
- Considering focus actions from 5th to 8th, QAC should focus on quantitative data-related activities. The research filed of “Data science and/or big data analytics”, which has been rapidly emerging, might be helpful for considering the next phase.
- Some focus actions would be unclear in terms of the relation with specific activities. In the case of 7th phase, data analysis and management in the 5th is quite general and it would not be specific priority. In the next phase, focus actions should be more structured and specified.
- Although all projects are related to some focus actions, the relation among the projects is quite unclear and it would not be well-organized. In the next phase, it would be better to discuss the final goal of QAC in the phase and the relation among the specific projects.
- As an example of data management and analysis related to focus actions 5 to 8, World Bank Group provides [Climate Change Knowledge Portal](#) for development practitioner and policy maker.

This website includes,

- Downloadable specific data related to Coupled Model Inter-comparison Projects (CMIPs)
- Country profile
- Map-based data in regional and country levels

For considering the next activities of the center, it might be helpful to refer to this kind of other organizations’ efforts.

Review of the Self-Evaluation Report of the Integrative Strategic Research Programme of IGES for the Seventh Phase (ISRP7)

Reviewer's name	Markus Amann
Review meeting date (if held)	
Review report submission date	March 4, 2022

1. Mission, strategy and priorities

Over the last years, IGES has developed into an important player at the cross-section of science and policy for sustainability in Asia.

The social science dimension – addressing, *inter alia*, governance, social inclusion, sectoral integration, consumption patterns and lifestyles, and their integration with the work of other scientific disciplines – is an urgently needed but unfortunately still underdeveloped ingredient in the international sustainability research landscape. This lack is often a serious barrier for the uptake of valuable results from advanced physical or technological research by decision makers. In recognition of this need, the IGES strategy established an important role model for enhancing social science aspects in sustainability research.

Within this landscape, the Centre for Sustainability Governance (SGC) is focusing on one of the most critical aspects, i.e., how governance can be enhanced to facilitate the implementation of sustainability policies. At this specific cross-section of science and policy, SGC has entered new scientific territory by converting outcomes from academic social science research into insights that provide practical guidance to decision makers under the various conditions prevailing in Asian countries.

2. Impact & outcome generation

The overall IGES strategy has successfully developed a rare example of a systematic science-policy interface through its partnership model with many of the most influential policy institutions in Asia, involving an impressive array of research areas. This has helped to focus conventional disciplinary research activities within and outside IGES to policy-relevant questions, and to shape decision making based on scientific evidence.

As demonstrated through the large number of examples provided in the self-evaluation report, this approach achieved significant impact and contributed to many national and international policy making processes.

The research topic of SGC, i.e., governance processes for sustainability, faces the particular challenge that much of the conventional academic social science research on this topic does not always align well with the mental frameworks, languages and needs of the relevant decision-making communities. Facilitated and guided by the overall IGES partnership strategy, however, SGC managed well to achieve substantial progress in this area by partnering with the most influential institutions on specific topics to which SGC could make very critical contributions.

For example, taking leadership in the widely praised UNEP report on 25 solutions that can help mitigate climate change, improve air quality, and bring better health to approximately 4 billion people in Asia, SGC provided high visibility of governance aspects to a wide policy audience in an otherwise more technically oriented analysis. This did not only reshape air quality policies in Asian countries, but it also shaped the agenda of national and international environmental policy making in Asia by revealing the existence of practical cost-effective solutions with multiple co-benefits.

In addition to the successful partnerships with relevant international institutions (UNEP, ADB, etc.) and business organizations, SGC has developed through national case studies important relationships with a large set of researchers and decision makers in many countries and cities in Asia, including Thailand, Philippines, Indonesia, Mongolia, and China.

This did not only position IGES prominently on the Asian science-policy landscape, but it also provided a nucleus for forming an international Asian research community on governance issues in Asia. Bring together social scientists from Asian countries, the new scientific networks have also developed approaches for integrating social science results with the work of other relevant scientific disciplines.

Furthermore, SGC has gained exceptional experience on transforming results from academic social science research on governance into insights that are useful and appreciated by decision makers, which is now well-respected in the international research community. At the same time, following the IGES partnership strategy, SGC has developed an impressive array of communication channels with national and international policy communities. Together, these two aspects provide a unique asset, which should be used to enhance the input to policy making that could be delivered by the social science community in Asia.

The examples of concrete policy impacts that are provided in the self-evaluation report are especially noteworthy, as these are rare examples of quantifiable impacts of social science research, especially on governance aspects.

3. Effectiveness of use of financial and human resources

Without having access to specific financial figures for SGC, the extension and diversification of funding channels of SGC suggests a healthy financial trend, and perhaps even more important, the increasing appreciation of external institutions of the outcomes delivered by SGC.

4. Overall evaluation and recommendations for the 8th Phase

During the 7th phase of its Integrative Strategic Research Programme, IGES established itself as a leading institution at the cross-section of science and policy for sustainability in Asia. Governance is a well-taken focus of the IGES research portfolio, critically important for the practical implementation of sustainable solutions. As essential contributions to the IGES strategy, SGC developed innovative approaches for distilling social science insights on governance and, implementing the IGES partnership strategy, for communicating them to policy communities in Asia

SGC's work clearly indicates the critical importance of governance for sustainability, and the guidance that social science research could provide to decision making processes. While a lot has been achieved, more should be done, building on the assets that have been built up by SGC over the last years. In particular, I would recommend a focus on further enhancing the salience of social science research results for decision making. Over the last years, SGC and other IGES departments have gained a lot of positive and probably also negative experience in this field, across a large variety of countries and institutions in Asia. I am convinced that a systematic assessment of the practical needs of decision makers for sustainability policies, complemented by an open evaluation of how (social) science could respond to these questions, could provide important guidance to the direction of further research of social science and other research disciplines in Asia. Such an exercise could bring together active representatives of policy institutions in Asia with IGES researchers and management.

It would be equally important to promote the lessons learnt by IGES/SGC on the science-policy interface over the last years to other research institutions throughout Asia, where it is most urgently needed. Eventually, this could and should lead to the formation of an epistemic community in Asia on social science for sustainability.

Attachment 1

Suggested review report form

Reviewer's name	Naoyuki Mikami
Review meeting date (if held)	
Review report submission date	January 20, 2022

1. Mission, strategy and priorities

- The Centre's overall priority subjects and activities seem to be defined clearly at the beginning, and the mission of addressing growing need for policy relevant research about how Asian countries can realize more inclusive and integrated governance is both relevant and timely. It should also be valued for the Centre to organize its research activities by combining three different approaches: comparative case studies, action research and data analysis.
- Considering its focus on the promotion of policy relevant, practice-oriented research during the Seventh Phase, it has been particularly important that the Centre explicitly emphasized the idea of co-design and co-production in its action research. It might be reasonable to assume that the Centre have accumulated a great deal of tacit knowledge about how to co-design and co-produce knowledge through its research projects and collaborative actions with stakeholders. In the eye of the reviewer, however, such methodological findings themselves do not seem to be developed and expressed in the Centre's broad array of outputs and could have been explored more ambitiously.

2. Impact & outcome generation

- The Centre seems to have excellently achieved the impacts/outcomes which was intended at the beginning of the period. It is highly commendable that the Centre worked closely with the Japanese government (Ministry of the Environment and Ministry of Foreign Affairs) as well as businesses to develop research that leads to policy recommendations and solutions for sustainable development practices in a timely manner. It should also be noted that the Centre successfully collaborated with the authorities of East and Southeast Asian countries including the Philippines and Mongolia to integrate SDGs into their policies, such as the Philippines' new Sustainable Consumption Action Plan.
- On the other hand, there still seems to be room for expansion in stakeholder involvement in its research. In addition to national and local governments and businesses, it has become increasingly important to substantially involve sectors such as civil society organizations, youths, women, indigenous people, etc. when discussing the issues of sustainable development and environmental governance.
- As I have mentioned in the previous section, it is also desirable to focus on the processes of knowledge production itself. It is a matter of great interest how useful and robust knowledge is produced through collaboration and social learning among different stakeholders, and understanding of such co-creation process, if formulated in an accessible manner, can constitute valuable contributions to research about inclusive and integrated sustainability governance.

3. Effectiveness of use of financial and human resources

- Although full assessment of the Centre's financial and human resource management is beyond the reviewer's knowledge, it is suggested that the overall use of financial and human resources was effective and efficient, based on the description of the self-assessment report.
- Given the major subject of the Centre, governance research, there are risks in relying only on funding from specific Japanese ministries and agencies, and it is commendable that the Centre consciously and strategically diversified its funding sources. It is also valued that the Centre was working in cooperation with other research units that deal with specific subject matters. These are important management policies that governance research at IGES should continue to follow in the Eighth Phase.

4. Overall evaluation and recommendations for the 8th Phase

- Overall, it is fair to say that the Centre's activities were in line with IGES's Seventh Phase missions and were carried out effectively. The definition of mission, strategy, and priorities in subjects and actions were appropriate, and the Centre was able to produce excellent impacts and outcomes that meet its initial aims. Based on this assessment, the following recommendations can be suggested for further development of research in this area in the Eighth Phase.
 - To pursue more inclusive and integrated governance, it is important to work with a variety of stakeholders who have not always been considered as major actors in traditional environmental governance, including grass-roots civil society organizations, youths, women, indigenous people, and so on. It is also worth considering how to engage with wider, unorganized general publics. Recently, in the field of public policy and governance, there has been growing interest in so-called "representative deliberative processes," in which randomly selected members of the public deliberate on important issues such as decarbonization and constitutional reform to provide policy makers with informed and considered public opinions (cf. OECD (2020), *Innovative Citizen Participation and New Democratic Institutions: Catching the Deliberative Wave*). It is recommended that governance research in the Eighth Phase should look at such new waves of public participation techniques as well as conventional methods of stakeholder engagement.
 - Co-design and co-production of knowledge were emphasized in the Centre's action research, but it is not clear how they were implemented in specific projects. What are the ways to collaboratively produce a useful and robust knowledge base for inclusive and integrated governance? How can we formulate them into concrete methodologies? These are questions that can be worthwhile for governance research at IGES working on for the Eighth Phase.
 - If governance research at IGES continues to emphasize inclusion in the Eighth Phase, it would be better to consider expanding its scope toward development goals regarding poverty, hunger, health/welfare, education, and gender although these have not been regarded as immediate components of environmental governance and the Centre's Seventh Period activities did not cover them substantially.
 - The reviewer understands that research on sustainability governance is expected to be a hub for various activities of IGES, in that it can and should link specific research projects performed in

different research units. In addition to generate positive impacts on policies of Japanese ministries, local governments, other Asian countries, and private and civil society organizations through specific research and policy recommendation, governance research at IGES should also aim at proposing innovative ideas about the basis of governance in Asia-Pacific region, including democracy, human rights, and security. When in need of developing the concept of sustainability governance in this region, it is natural for policy makers and major stakeholders to refer to IGES's research in this field, and the reviewer strongly hope that research units working on this topic will continue to provide reliable and innovative knowledge that meets their expectations.

Review report (City Taskforce)

Reviewer's name	Thomas Elmqvist
Review meeting date	
Review report submission date	2022-05-10

1. Mission, strategy and priorities

Are we headed in the right direction? Are we taking the right approach?

The City taskforce have had the following aims and goals: (1) Encouraging and supporting cities to take actions for low carbon/decarbonised and sustainable development, (2) Catalysing existing IGES activities/research on cities, and creating opportunities and (3) Generating impacts through networking with various stakeholders. All these aims and goals are reasonable and link well together, the challenge being how to get all stakeholders engaged in order to achieve a true process of co-creation. In my view the task force is heading in the right direction.

2. Impact & outcome generation

Are we making overall impacts on international, regional, domestic policy processes?

The impact is impressive the VLR approach seems to have been a great success addressing the local level initiatives also spreading widely outside Japan. The number of national and regional initiatives is likewise impressive. I will comment on the international impacts further below.

Are we responding to demands of policymakers & stakeholders?

This is a challenging but important part of any project and initiative. How were stakeholders approached, were they involved already from the beginning? Was there a process of co-design? It was difficult to extract this from the self-evaluation.

Are we partnering with the right stakeholders? Effective communications?

You have engaged with a large number of cities and also some NGOs (ICLEI) as well as other initiatives within IGES. Perhaps one stakeholder missing is the private sector of relevance for urban sustainable development, this could be something to consider for the next phase.

Have we accomplished satisfactory quantity and quality of outputs?

I think the output is good and of high quality and relevance in relation to the aims and goals. I understand that COVID 19 has meant that many plans have had to be modified and initiatives postponed.

Have we used financial and human resources effectively?

The staffing seems adequate and the diverse background and competencies represented is definitely a strength. It is more difficult to judge the budget.

What should be done in ISRP8 in order to achieve more efficient and larger impact generation?

I would suggest to involve representatives of the private sector of relevance for urban sustainable development, e.g. in construction and transport business, but also like insurance companies concerned about the impact of climate change and how it can be addressed through innovative urban planning.

3. Effectiveness of use of financial and human resources

I do not have sufficient and detailed information on this issue to be able to give advice

4. Overall evaluation and recommendations for the 8th Phase

II. Group-specific

- *Are we taking an effective influence strategy for intended impacts or outcomes?*

I think the strategy is well thought through, perhaps more efforts should be given to the process of co-implementation with a strategy for follow up activities and evaluations of success.

- *Are we responding to demands of targeted policymakers & stakeholders?*

This can always be done more thoroughly, perhaps a strategy for well thought through co-design process should be considered for the next phase

- *Are we timely and effectively responding to the latest international and domestic trends/discussions?*

I would definitely say yes, you are responding to the agendas of UN, IPCC and IPBES in relevant and timely way.

- *Are we contributing to agenda-setting in the field?*

This is difficult to judge at the moment, more evaluations over time would be needed.

- *Are we effectively promoting integrative solutions to target stakeholders?*

The solutions suggested are highly relevant and should have a substantive impact

- *Are we partnering with the right stakeholders?*

Yes, with the addition perhaps of private sector stakeholders

- *Is there sufficient monitoring of progress/results?*

This is challenging and you are sharing shortcomings in monitoring and evaluations with most other projects. Here an explicit strategy for co-implementation with stakeholders may provide opportunities to monitor and evaluate outcomes, success and impact.

Review report (City Taskforce)

Reviewer's name	Tomonori SUDO
Review meeting date	5 January 2022
Review report submission date	

1. Mission, strategy and priorities

- ✓ Mission and priorities of the unit are reasonable.
- ✓ Given the growing importance of non-stakeholders, especially local authorities and communities, in achieving decarbonisation and the SDGs, the work of the units in the 7th phase is useful.
- ✓ The approach to accumulate case studies is good in terms of providing useful information for local authorities, and it is expected to generalisation of case studies for wider application.
- ✓ Voluntary Local Review could be a practical tool for local governments to develop and implement plans for low carbon/carbon neutral.

2. Impact & outcome generation

- ✓ As mentioned, the approach to accumulate case studies is good and outputs targeted at policy/decision makers is important as a research institute. However, it is better to develop more academic outputs to get wider audience and more policy impacts. Academic papers do not only influence the academic community, but also contribute to evidence-based policy development.
- ✓ Many local governments in Japan do not know how to address global agenda such as climate change and the SDGs, but now they are getting aware that they need to take actions. So, case study of local actions for decarbonisation and on the SDGs that IGES provides will be more useful for Japanese local governments. It is expected that the units further accumulate case studies of good policies/actions at local level. Relating this, the planned Japanese version of the VLR Lab will become a good reference for Japanese local governments.
- ✓ Synergies with the work of other researchers should be strengthened. As for localisation of the SDGs and VLRs, the unit is expected to strengthen collaboration with the Cabinet Office and Dr. Kawakubo's lab, lead research and actions of the topic, and make it an all-Japan action.

3. Effectiveness of use of financial and human resources

- ✓ As a financial source, SATREPS is one of the promising funds that the unit can be utilised.

Network of the units such with the government and researchers of Indonesia and Malaysia is a good basis to develop projects of SATREPS.

4. Overall evaluation and recommendations for the 8th Phase

- ✓ One of the strengths of IGES is network of international community.
- ✓ (recap) It is better to create more academic outputs to strengthen impact generation capacity of the unit.
- ✓ In general, local governments is weak in financial resources. The weakness of local finances is a structural challenge. It is expected to unit to study this issue to address this difficult issue.
- ✓ It is worthwhile to get international funds such from the World Bank and the Asian Development Bank, but it takes a few years to get it. Strategies to obtain such international funds is in need. It is better to start considering strategies and take actions now for the 9th phase.

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Reviewer's name: Nabil El Maghrebi
Review meeting date: December 1, 2021
Review report submission date: December 15, 2021

REVIEW REPORT

The present report is the outcome of a review of the Seventh Integrative Strategic Research Programme of the *Institute for Global Environmental Strategies* (IGES) focusing on the research achievements of its *Finance Taskforce*. It follows an invitation by the IGES President Kazuhiko Takeuchi to conduct an external review of research achievements and provide some insights and advice for future research activities. This review results from detailed responses to queries during the meeting with the *Finance Taskforce* held online on December 1, 2021, and further information contained in the following documents, among others.

- Integrated Strategic Research Programme of IGES for the Seventh Phase (ISRP7) Self-Evaluation Report
- Integrative Strategic Research Programme for the Eighth Phase (ISRP8) FY2021 (Year 1) Business Plan
- The Integrated Strategic Research Programme of IGES for the Sixth Phase (ISRP6) External Review Report
- Institute for Global Environmental Strategies Annual Report 2020
- IGES Medium-to-Long Term Strategy 2016-2025

This report provides some perspectives about the mission of IGES, its strategy and priorities, as well as an assessment of impact generation and efficient allocation of resources. It also offers some recommendations to further advance IGES mission, strengthen its modus operandi, expand its impact-generating capabilities, extend its global reach, and enable its *Finance Taskforce* to address policy uncertainty and complex dynamics of green finance and global finance, *inter alia*.

1. Mission, strategy, and priorities

- *Policy Uncertainty and New Opportunities for Strategic Partnership*— Judging from the overall IGES initiatives and *Finance Taskforce* research activities during the seventh integrative strategic research programme, there is a firm commitment to the fulfillment of its noble mission and mandate. However, as the major forces shaping the environment are in constant flux, policy challenges are also likely to change in response to demographic and social changes, financial globalization, transformational technologies, fast urbanization, growing income inequalities, and shifts in economic power, among others. To understand the shifting dynamics at the *intersection* of interdependent forces, it is imperative that accurate information about the emergence of new risks to the environmental and economic systems is regularly gathered and correctly assessed. New research priorities will depend on new opportunities in green finance, fintech, and decentralized finance that may emerge at the crossroads of environmental, technological, and financial changes. Thus, a forward-looking approach is crucial to identify the primary sources of policy uncertainty in a fast-changing world, to anticipate and seize new opportunities for strategic partnerships.
- *Global Reach*— There is clear evidence that IGES is responsive to policy change and continues to contribute effectively toward strategic environmental solutions. These important efforts are supported through vital network-building and efficient crisis management to mitigate the disruptive effects of the disease outbreak. The newly established *Finance Taskforce* also demonstrated its ability to optimally reallocate its rather very limited resources in response to new policy demands. Given the global nature of challenges and policy uncertainty however, it is important to reinforce the global reach of IGES beyond its present focus on the Asia-Pacific region. In an increasingly global financial landscape, a higher degree of freedom would allow the *Finance Taskforce* to pursue strategic research initiatives and allocate resources irrespective of geographical location. As argued below with respect to recommendations for the 8th phase, there may be room for rethinking the mission of IGES and realigning its activities with global agenda to reinforce its role as agent of change with global reach. Its ability to drive policy change remains, however, function also of the speed at which environmental challenges evolve and mutate, and of the direction toward which global linkages are weaved.

2. Impact & outcome generation

- *Diversity of Impact Generation*– Judging from the diversity and quality of IGES activities and the *Finance Taskforce*'s publications, there is a good balance of breadth and depth in policy research. Contributions to the revision or development of guidelines for green bonds and green loan facilities, involvement in governmental initiatives on climate adaptation finance, participation in the secretariat of the twenty-fifth anniversary of the *United Nations Environment Programme Finance Initiative (UNEP FI)*, and membership of the *Working Group on Climate Transition Finance* at the *International Capital Market Association (ICMA)* represent clear evidence of significant transformative research informative insights on policy initiatives. These active partnerships with various agents of change are also crucial in forging closer bonds within international networks that constitute the foundation for future impact generation. The research output of the *Finance Taskforce* is reflective of the effective use of human resources, ability to adapt to new demands, and expertise in addressing complex areas of finance. However, there is a growing need to improve its capacity building and gain deeper knowledge about increasingly complex issues such as derivatives and structured finance. There are indeed serious risks inherent to the unprecedented accumulation of government debt and green bond issuance.
- *Assessment of Impact Generation and Value Creation*– As with other research-oriented institutions, it is difficult, however, to assess the impact of IGES research. There may be ambiguities divergences of opinion regarding a workable definition of impact generation. Measures of public perceptions based on social network systems may be comparable over the years, but they may also lack objectivity and credibility. Traditional metrics such as the impact factor used to gauge the significance of academic research with scholarly citations, may not be necessarily consistent with its rather advocative mission. Hence it is important to assess also qualitative indicators of impact-generating process including contributions to strategic interventions and global initiatives to increase awareness, change attitudes, and shape behaviour to achieve the desired policy outcomes. It may be optimal to widen the scope of impact evaluation to include *value creation through capacity building*. As with pilot projects and network building, the development of the required knowledge and skills in finance may not be associated with immediate impact generation. For the purposes of objective evaluation, knowledge accumulation and network-building initiatives that may not generate immediate impact should be also recognized as they may carry significant *value creation* that may facilitate future impact generation in terms of sustainable environmental and social bearing. Thus, a more balanced approach to the assessment of outcome-based initiatives and impact-oriented activities is needed.

3. Effectiveness of use of financial and human resources

- *Green Finance and Sustainable Finance*– There is evidence of significant participation by the *Finance Taskforce* to concerted efforts on green finance, climate transition finance, and sustainable finance. The strong involvement in the revision and preparation of guidelines for green bonds and green loans reflects the strong contributions to environmental strategies adopted by the Japanese government and international organizations. To help shape the domestic and global policy agenda more effectively however, there is a need to remain at the forefront of new policy thinking and set the right direction of collective efforts in the field of green finance. A word of caution is warranted indeed, as greater reliance on green bonds and green loans in the absence of market discipline feeds into the credit cycle and increases the likelihood of debt default. There is reference in the *Priority Subjects and Action in the ISRP7* to the challenges posed by recurrent events such as banking and financial crises, and green finance itself may not be a sustainable mode of financing if it is conducive to financial stress, debt defaults, and financial crises. Similar arguments apply to green microfinance aimed at promoting financial access to the poor and green practices such as climate change adaptation. Joint liability about interest-bearing microloan defaults may be conducive rather to the exacerbation of poverty traps, which undermine the sustainability of green finance. Microfinance is indeed important for financial inclusion and environmental awareness, but not its debt-based mode of financing. Thus, it is important to pursue consistent policy objectives that decrease the vulnerability of green energy to debt crises, reduce adverse effects, and eliminate policy conflicts. For these purposes, it is possible to advocate new green finance approaches that ensure a sustainable flow of capital into green energy based on risk-sharing partnerships.
- *Agenda Setting for Green Sukuk Finance*– In its continuous quest for knowledge about trends in green finance, the *Taskforce* may explore avenues for future research and impact generation in green sukuk finance. The development of the green sukuk markets reflects the coupling of green finance and Islamic finance, which is based on the risk-sharing principle. *Fitch Ratings* expects growth in the global sukuk market, and as noted in a recent report by *The World Bank Group* on pioneering green sukuk issuances, there is also steady increase in green sukuk over the past three years, disrupted only by the disease outbreak. Thus, the focus should be placed on the relative preference for green sukuk rather than green bond issuance in some emerging economies such

as Indonesia, Malaysia, Turkey, Pakistan, and some members countries of the Gulf Cooperation Council. Near zero-interest rate policies and low yields provide also strong incentives for investment into green sukuk, but there is perhaps a need for the *Taskforce* to gain strong expertise in the growing area of green sukuk and sustainable finance.

■ *New Energy Finance*– As the focus of the *Finance Taskforce* is increasingly placed on new energy finance, then understanding the linkage between energy markets and financial markets is crucial. Given the growing uncertainty about energy demand and potential disruption to energy production and supply chains, the development paths of green finance may be unpredictable. Thus, the pace of change and complexity of financial markets present challenges that need to be addressed with critical analysis based on timely and accurate information. It may be necessary to reinforce the capacity of the *Finance Taskforce*, in terms of human resources, to address the new policy challenges posed by the expected growth of new energy finance.

4. Overall evaluation and recommendations for the 8th Phase

■ *Rethinking IGES's Mission*– The mission of IGES is to act as an agent of change conducting strategic research and operations to move society toward a more sustainable and resilient future, especially in the Asia-Pacific region, home of large populations and fastest growing economies. However, if the aim is to achieve global sustainability and address global environmental issues, it may be useful to note that a chain is only as strong as its weakest link, and that more attention should be drawn to the most vulnerable societies. Thus, for the sake of global sustainable development, it is perhaps time for IGES, as it approaches a quarter-of-a-century of experience, to build on its innovative policy research and actionable insights to show the path for greater sustainability to societies in the most vulnerable geographic areas, home to the fastest growing populations and least developed economies. As noted above, a rethinking of IGES mission to broaden its activities beyond the Asia-Pacific region would help strengthening the weakest links in the global chain toward sustainability. It would also remove impediments to the pursuit of global research initiatives, increase its operational capacity to exploit potential synergies from comprehensive strengths, draw from economies of scale, and promote research visibility.

■ *Modus Operandi with Consolidated Critical Capabilities*– The ability of IGES to contribute toward sustainable development will increasingly depend on the degree to which comprehensive strengths are effectively used to achieve *sustainable value creation*. It is difficult to manage a diversified portfolio of strategic initiatives in wide-ranging research fields including new energy, ecosystems, natural resources, climate change, and SDGs, among others, in the absence of integrative thematic approach to highly specialized areas of research. With reference to ISRP8, it is noted that IGES embraces a “whole-of-institute” approach, which is conducive to more integrative operations. In this context, the concept of *Common Focus Areas* and the establishment of *Integrated Sustainability Centre* are reflective of the need for a multidisciplinary approach to complex issues. Indeed, an integrative *modus operandi* is important to focus efforts, take advantage of inter-unit synergies, and share inter-disciplinary knowledge across different parts of the IGES institutional structure.

■ *Strategic Priorities Fund and International Research Fellowship*– Future environmental policies are likely to be shaped by green, digital, and financial transformations. The linkage of environmental challenges with income inequalities and poverty should not be ignored as it presents serious threats to sustainable development. Thus, consistent with the *IGES Medium-to-Long Term Strategy*, it is important to anticipate policy shifts at the global level that have implications for domestic environmental policies and identify over-riding priority research initiatives based on IGES areas of strength and competence. The purpose of a new *Strategic Priorities Fund* is to advance new directions in research at IGES, prioritize strategic research with limited external funding opportunities, and promote a greater coherence in the design and delivery of environmental strategies. It may be useful also to establish an *International Research Fellowship* to provide opportunities for research collaboration and complement the functions and operations of the fund for strategic research priorities.

■ *Strategic Research Council and Advisory Board*– Given the complex social dynamics, financial globalization, and environmental challenges, it may be optimal to establish a *Strategic Research Council* to share insights on future drivers of competitiveness and priorities in cross-unit policy research. It may be also worthwhile to create an *Advisory Board* to complement the crucial role of *Honorary Advisors* and *Counselors* by providing guidance and assistance to IGES in drawing growth strategies, and to broaden its connections with the private sector and academia that underpin the sustainability of environmental solutions.



Prof. Dr. Nabil El Maghrebi
Vice President, Wakayama University

External Review Report

Reviewer's name	Ichiro Sato
Review meeting date (if held)	November 25, 2021
Review report submission date	December 9, 2021

1. Mission, strategy and priorities

First of all, the descriptions of the mission and strategies of the Finance Taskforce (FIN) are missing (or not explicit at least) in the self-evaluation report although the absence is not unique to the report by FIN but is common across reports by all groups and units. The overall mission of IGES is found in ISRP7 but it is recommendable that each group and unit has its specific mission in line with the IGES's overall mission. A clear and inspiring statement of the mission will guide the work of the unit, and serve as a constant reminder for its members of why they come to work every day, and do what they do. A mission should be long-standing beyond the time-horizon of ISRPs whereas strategies may be defined for each specific ISRP period to describe how the mission will be implemented during that period. It would be good to have statements of the mission and strategies for groups and units in the self-evaluation reports of the next ISRP8.

The five items of the stated priorities of FIN look good and worthy. I see some, though not all, of those priority actions were implemented and resulted in the publication of issue briefs, policy reports and discussion papers.

2. Impact & outcome generation

The intended impacts and outcomes, while valid, might have been too ambitious in the hind sight, considering the fact that FIN was a newly established unit in IGES ISRP7. Largely, they do not seem to be achieved.

Nonetheless, FIN produced substantial impacts and outcomes in the ISRP7 period. First, FIN assisted MOEJ with publishing the 2020 edition of the Green Bond Guidelines and Green Loan and Sustainability Linked Loan Guidelines as well as operationalizing the Green Finance Portal. Although the due credit was not given to IGES as a contributor to their development, the guidelines provided authoritative guidance on green finance in Japan. The Green Finance Portal served as the one-stop portal where users can easily access to a suite of useful information related to green finance. These knowledge products may have had a role in the recent expansion of the green finance market in Japan. FIN also published a few original publications on green bond market in Japan, capitalizing on the information and insights acquired through delivering the services to MOEJ.

Secondly, FIN published several publications on sustainable finance policies in Japan

and EU, financial sector reforms for sustainable development, and sustainable business practices. Those publications made good contributions to accumulating a body of knowledge on the subject matter among the community of sustainable financing. This is what FIN should be proud of.

3. Effectiveness of use of financial and human resources

As a newly established unit, FIN focused on building its institutional capacity, developing the network with key actors in the field, and securing a reliable source of funding by rendering services to the work commissioned by MOEJ, which all were sensible approaches. These approaches worked well.

The services provided for MOEJ not only brought FIN with the funding but also enabled FIN to build the network with key actors in the field and acquire valuable knowledge and information on green finance that FIN successfully took advantage of by producing related publications. FIN published a number of publications, provided policy briefings to Japanese and EU governments, and assumed the role of an advisory council member of ICMA. All these works helped FIN start building its reputation and brand in the ecosystem of the sustainable finance industry.

FIN also capitalized on an existing project of IGES when FIN took in charge of an additional working stream of sustainable finance policy in the IGES-EU project for Japan-EU Policy Dialogue on Climate Change. Providing FIN's expertise in finance to projects of other groups and units of IGES is an excellent way to improving the quality of IGES's work and services by adding finance perspectives, expanding FIN's capacities and network into new fields, and tapping into funding resources of projects implemented by other groups and units of IGES. It is recommended that this approach be further pursued in the ISRP8 period.

4. Overall evaluation and recommendations for the 8th Phase

Overall, FIN has successfully built its foundation of operation from the scratch by building its institutional capacity and the network with key actors in the field. FIN has also made some important intellectual contributions in the field of sustainable finance, and thereby started building its reputation as a player in the ecosystem of the sustainable finance industry. Building on these assessments, some comments and recommendations for ISRP8 are due.

First and foremost, FIN needs to identify its objectives; whose thinking, mindsets and/or behaviors does FIN intend to change in what way? After that, FIN needs to develop influencing strategies (e.g., taking advantage of rivalry and peer pressures, or pressures from regulators, shareholders, customers, etc.) to induce such changes, and take actions to implement the strategies. This is not as easy as it may sound unless FIN is endowed with abundant resources to deploy for whatever tasks it wishes to do. On the contrary, resources are scarce. FIN needs to constantly search for funding opportunities. But there is a danger

here. If FIN only takes an opportunistic approach to funding its activities by just responding to service demands from policy makers and stakeholders, the work of FIN may end up with just an assortment of incoherent activities without creating the impacts it intends to make and achieving the defined objectives. This is a mode of operations that market-driven or demand-driven organizations typically take. There are many competitors in this segment of the sustainable finance ecosystem. In Japan, for example, there are several corporate think tanks affiliated with financial institutions that provide services related to sustainable finance. They are market-driven or demand-driven in that they follow market trends and customer demands. On the other hand, non-profit organizations like IGES can be and should be mission-driven organizations. Mission driven organizations are not subordinate to market trends and customer demands. On the contrary, they try to change market trends and customer demands for the better. In reality, however, operating solely with the mission-driven approach is not easy and, thus, FIN may still need to take the demand-driven approach, too, to secure funding to sustain itself, build capacities and network, and acquire experience, etc. The point is to strike the balance between those two approaches, and try to tilt toward the mission-driven approach more in the long run.

To operate as a mission-driven non-profit organization, FIN needs to set objectives, influencing strategies, and work plans. Then, communicate these objective-strategy-plan stories with potential funders who might be interested in sponsoring one of these. Funders may be government organizations, foundations, corporations, or other non-profit organizations depending on the subjects. In selling the stories to potential funders, it is useful to do preliminary research and publish knowledge products, which FIN has already done to some extents during ISRP7, because those knowledge products send signals to potential funders showcasing that FIN is working on the subjects and is capable of doing the work. For further useful knowledge, it is recommended that FIN reaches out to peer non-profit environmental think tanks, such as WRI, CPI, E3G, etc., to exchange tips and information on funding strategies and potential funders.

In embarking on new subjects, FIN may wonder if it already has sufficient expertise to implement the tasks but I would suggest it takes the learning-by-doing approach. Obviously, it is important to be realistic in selecting the subjects to work on in terms of required technical capacities and resources. However, once realistically workable subjects are selected, necessary expertise can be acquired in the course of research and publication of knowledge products by seeking inputs, comments and advice from subject matter experts and peers. Also, it is a reasonable strategy to collaborate with other research institutes that already have proven track records of the work in the subjects, in implementing research and publishing knowledge products when FIN embarks on new subjects.

One final comment is on the partnership. While extending and strengthening partnership with various stakeholders is favorable, partnering with entities whose behaviors

are at odds with IGES's values may cause existential threats. For non-profit organizations like IGES, reputation management is vital, and partnering with wrong partners is a source of serious threats to its reputation. To reduce reputational risks stemming from partners, it is important to implement a partner vetting process before accepting funding from or partnering with organizations unfamiliar to IGES. Particularly, some companies may try to improve their corporate image after scandals by showing off collaborative works with environmental non-profits. Corporate motivations of offering funding to and partnering with IGES need to be carefully investigated.

END

Review report

Reviewer's name	Kahori Miyake ¹
Review meeting date	24 December 2021
Review report submission date	15 January 2022

1. Mission, strategy and priorities

(1) Mission

Climate change is one of the biggest threats to our civil society and business environment. Both raising awareness of business on climate change and encouraging its positive behavioral change are indispensable for further improvement of climate policies. In pursuing its mission², Business Taskforce ("BIZ" or "the Taskforce") had contributed to the vision of IGES, "accelerating actions towards a decarbonized and sustainable society in harmony with nature".

(2) Strategy

The target³ which was set by the Taskforce at the beginning of the previous Integrated Strategic Research Plan ("ISRP") was reasonable and sufficient on the basis of the Nationally Determined Contribution of Japan ("NDC") as of 2017. I acknowledge that the target was successfully achieved as the Prime Minister of Japan was committed to carbon neutrality by 2050 in October 2020 and the government of Japan approved "Plan for Global Warming Countermeasures" and "Japan's Long-term Strategy under the Paris Agreement" in October 2021, followed by the government's submission of the updated NDC to the UNFCCC.

(3) Priorities

The focus of BIZ in the previous ISRP was clear and appropriate⁴. Detailed feedback is as in the

¹ Since March 2017 I have been serving as the Chief Sustainability Officer at AEON Co.,Ltd.. AEON is an executive member of the Japan Climate Leaders Partnership ("JCLP"). I have been in the position of co-chair of JCLP since April 2019. This review report is a statement of my opinion and does not represent the view of AEON.

² The objective of the Taskforce is to contribute to climate and other sustainability policies and initiatives through supporting proactive business actions.

³ The target: Japan's Energy/climate policies to become consistent with 2 degrees pathway in 4 years.

⁴ The focus and priorities of BIZ in the previous ISRP are:

1. Support responsible policy engagement by businesses.
2. Support developing corporate business strategies toward decarbonisation and more sustainable business practices, and proposing policy recommendations.
3. Help expand, and activate proactive business coalition in Japan, (i) by serving as a secretariat of JCLP
4. Communicate to businesses (including business media), in their business language, risks opportunities and other implications associated with climate change and other sustainability issues.
5. Enhance engagement of business leaders in climate actions and enhance investors' engagement with

following sections.

2. Impact & outcome generation

(1) Japan Climate Leaders' Partnership ("JCLP")

First and foremost, I would like to express my respect for the Taskforce and its precise and passionate work in serving as the secretariat of JCLP. The Taskforce encouraged JCLP to lead a positive momentum towards net-zero in business and to contribute to the progress of climate policies in Japan.

The scale of the JCLP has grown dramatically over the course of the 7th phase, leading to an increased presence and voice of progressive companies. The secretariat supported the JCLP's policy engagement in a timely manner, such as the "Position Statement on Japan's Nationally Determined Contribution (NDC) to Reduce Greenhouse Gas Emissions" issued in November 2019 and the "Proposals for the Review of Japan's Long-Term Energy Demand (Energy Mix)" issued in October 2020. Those policy proposals that were delivered to policymakers, experts and the media struck an appropriate balance between progressiveness and social acceptability. Furthermore, the secretariat provided support for JCLP's participation in committees set by the government such as "the Expert Panel on Climate Change" summoned by the Prime Minister, "the Subcommittee on Medium- and Long-term Climate Change Measures", "the Subcommittee on the Use of Carbon Pricing" and "the Policy Subcommittee" at the Central Environment Council of Ministry of the Environment.

With the direct support of some executives at JCLP member companies, JCLP engaged with the government in having a frequent dialogue with ministers and senior government officials. Those efforts successfully encouraged Ministry of the Environment, the Ministry of Foreign Affairs, and the Defense Agency to become RE100 ambassadors and set their own renewable energy procurement targets. As the result, JCLP was awarded the Foreign Minister's Commendation in July 2019.

In order to support decarbonisation in its member companies, JCLP has established practical business-to-business collaborations such as the Corporate PPA Project launched in 2020, and the online information platform called “脱炭素コンソーシアム” with the support of the secretariat. I believe that those private sectors efforts towards decarbonisation and dedicated policy engagement created an "ambition loop". Under the positive feedback loop, both government and business can work together and commit to clear, ambitious goals.

JCLP's passion for policy engagement and decarbonisation was developed through the Dialogue meetings, newsletters called “Climate Leaders' Signals” and various study groups, as well as the JCLP's participation in side-events related to the COP and the UN General Assembly. In addition, high-level dialogues with experts and institutional investors at COP or UN General Assembly have helped JCLP

companies on climate risks and corporate competitiveness.

6. Engage with international business groups and coalitions, organising high-level dialogue meetings
7. Participating in important forums such as Conference of Parties (COP) and other key international and regional events and processes.

member companies to be shared a sense of urgency on climate change. My experience at COP23 in 2017 changed my perspective on climate change and how business should face it. Through the JCLP's international network, I have had wonderful opportunities to meet directly with international top leaders and experts on climate change, including C. Figueres, former UNFCCC Executive Secretary, Prince Charles, Dr. John Murton, the U.K. government's COP26 Envoy, and the UN Secretary-General team. Recently, JCLP was invited to participate in high-level meetings, such as the UN High Level Climate Change Roundtable (2020) and the Expert Panel on Climate Change hosted by the Prime Minister of Japan (2021). It showed how strong JCLP's presence became.

(2) RE100

Some significant achievements were made in the previous phase. Since 2017, the number of companies participating in RE100 has increased to 56⁵. As stated in the previous section, Ministry of the Environment, the Ministry of Foreign Affairs and the Defense Agency became ambassadors of RE100. The majority of RE100 members in Japan are in JCLP. The reason was that the Taskforce, as the secretariat of JCLP, had early contact with the Climate Group. JCLP member companies were given the opportunity to meet directly with the head of RE100 and they were inspired by his explanation on the purpose of RE100. Furthermore, about 10 companies in JCLP joined RE100 as pioneers and they made RE100 in viral in Japan. Furthermore, RE100 members in JCLP invited other RE100 members in Japan to join some policy advocacy actions⁶. RE100 has been featured in various government councils, the Diet and the media. It was highly appreciated that RE100 has contributed not only to the progress of renewable energy policies but also to the expansion of renewable energy in Japan.

(3) RE Action

The initiative of JCLP member companies to participate in RE100 has successfully encouraged other Japanese companies to join RE100. Moreover, it created momentum for schools, local governments, SMEs, etc. to demand a similar program that fits them. RE Action was established in October 2019 by JCLP and the Taskforce in collaboration with IGES, ICLEI and the Green Purchasing Network (GPN). RE Action contributed to promoting renewable energy and decarbonisation among SMEs and local governments.

3. Effectiveness of the use of financial and human resources

I was aware that the scope of work of the Taskforce has expanded and diversified dramatically in the 7th

⁵ June 2021

⁶ Twenty RE100 companies in Japan release Proposal from Corporate Consumers Aiming to Sourcing 100% Power from Renewable Electricity" (June 2019)
RE100 companies call on the Japanese government to increase renewables ambition ahead of COP26 (March 2021)

term. Specifically, the number of JCLP member companies has increased from 35 (as of July 2017) to 189 (as of June 2021). RE Action, which was launched in October 2019 and had 28 founding members, became to hold 151 members as of June 2021. JCLP has been invited to participate in more governmental councils, international conferences and symposiums. Having said, It should be noted that the expectations from companies and other organisations participating in the JCLP and the RE Action have become higher, as the number of companies and organisations working on climate change and decarbonisation in Japan has increased rapidly since former Prime Minister Suga's 2050 Carbon Neutral Declaration in October 2020. Thus, the Taskforce needs to differentiate its activities from others and meet the high expectations of its stakeholders. In this regards the Taskforce can consider increasing its workforce and operational improvements.

4. Overall evaluation and recommendations for the 8th Phase

As mentioned above, the various contributions made by BIZ in the previous phase were highly appreciated. However, there is a long way to go to achieve the 1.5°C target which JCLP aims at. Moreover, there is little time left to halve global greenhouse gas emissions by 2030 as scientific consensus suggests. We need to act with a sense of urgency. Therefore, I look forward to IGES's continuing and even stronger support.

Review report

Reviewer's name	Junichi Sato ¹
Review report submission date	6 January 2022

1. Mission, strategy and priorities

(1) Mission

The European Climate Foundation ("The Foundation") aims to achieve prosperity, clean air and a safe climate in Asia by supporting a diverse group of partners to accelerate the transition to sustainable, clean energy. I believe that IGES's vision of "accelerating the transition to a sustainable, resilient, shared and inclusive Asia-Pacific region" as well as the objectives of the Business Task Force ("BIZ" or "the Taskforce")² are highly compatible with the vision of the Foundation.

(2) Strategy

The goal of BIZ in the previous Integrated Strategic Research Plan ("ISRP")³, was successfully accomplished. Therefore, I am looking forward to further contributions of the Taskforce in the 8th ISRP in terms of achieving the 1.5 degrees target, which has become an international standard.

(3) Priorities

The focus of BIZ in the previous ISRP⁴ was clear and specific. Detailed feedback is as in the following

¹ I was the Senior Director of Environmental and Social Initiatives at Patagonia Japan at the time when Patagonia Japan joined as an executive member of the Japan Climate Leaders Partnership ("JCLP") on 20 September 2019. In September 2020, I joined the European Climate Foundation ("The Foundation") as the Japan Country Director. I have been supporting organisations working on energy transition and climate change policy in Japan and the rest of Asia. Since December 2020, IGES has been a grantee of the Foundation and the Business Task Force ("BIZ" or "the Taskforce") conducted a research on Japanese industry groups and their policy engagement. This review report is a statement of my opinion and does not represent the view of the Foundation.

² The objective of the Taskforce is to contribute to climate and other sustainability policies and initiatives through supporting proactive business actions.

³ Japan's Energy/climate policies to become consistence with 2 degrees pathway in 4 years.

⁴ The focus and priorities of BIZ in the previous ISRP are:

1. Support responsible policy engagement by businesses.
2. Support developing corporate business strategies toward decarbonisation and more sustainable business practices, and proposing policy recommendations.
3. Help expand, and activate proactive business coalition in Japan, (i) by serving as a secretariat of JCLP
4. Communicate to businesses (including business media), in their business language, risks opportunities and other implications associated with climate change and other sustainability issues.
5. Enhance engagement of business leaders in climate actions and enhance investors' engagement with companies on climate risks and corporate competitiveness.
6. Engage with international business groups and coalitions, organising high-level dialogue meetings

sections.

2. Impact & outcome generation

(1) Support responsible policy engagement by progressive companies

Japan Climate Leaders Partnership ("JCLP") has been committed to active policy engagement with the support of BIZ and the sense of urgency regarding climate change has been gradually shared among Japanese businesses. Moreover, initiatives of progressive companies successfully drew public attention. Among other achievements in the previous ISRP, I would like to mention that the JCLP's proposal in terms of Japan's Long-Term Energy Demand (Energy Mix) in October 2020, which recommended to the Japanese government to set an ambitious target of 50% renewable energy by 2030 in order to achieve the net-zero greenhouse gas emissions target in 2050 was very successful. Publication of the proposal through national newspapers and political party journals followed by JCLP's dedicated policy engagement under business executives' involvement had a strong impact on raising Japan's renewable energy target for 2030. I look forward to further initiatives of the Taskforce in terms of growing the impact of policy engagement by collaboration with other business networks and industry associations.

(2) Collaboration with other organisations

BIZ has strong networks with various domestic and international organisations. I would like to expect further collaboration and synergies with other partners of the Foundation, those which work on business/industry engagement. (e.g. InfluenceMap/The Japan Energy Transition Initiative (JETI))

3. Effectiveness of the use of financial and human resources

BIZ has obtained well-balanced funds from both domestic and international sources to ensure stable business operations. Keep maintaining stable and balanced funds is recommended.

4. Overall evaluation and recommendations for the 8th Phase

The various contributions of BIZ in the previous period were highly appreciated. My recommendations for the 8th period have already been mentioned above. I look forward to the continued contribution of the Taskforce through the next project with respect to the development of a Net-Zero Roadmap for Japan.

7. Participating in important forums such as Conference of Parties (COP) and other key international and regional events and processes.

IGES 7th Integrated Strategic Research Programme (ISRP7)
Kansai Research Centre (KRC) External Evaluation Report

Reviewer's name	KURASAKA Hidefumi
Review meeting date (if held)	18 March 2022.
Review report submission date	22 March 2022.

1. Evaluation of the activities of the Kansai Research Centre (KRC) in ISRP7

KRC's focus on the transfer of low-carbon technology to India and other developing countries at the start of ISRP7 was unsuccessful in raising funds and thus it focused its activities on environmental management technologies such as flue gas monitoring. Whilst it is unfortunate that the low-carbon technology transfer aspect has weakened, it is hoped that more developments in this area will be made in the future. It is commendable that the webinar on flue gas monitoring technology held in the final year of the ISRP7 was well attended by participants from India as the target country, indicating a high level of interest. The benefits of procedures like holding webinars are significant and are one effective way of inviting broad participation and making information somewhat more readily available to the public. It is expected that KRC will continue to actively implement further dissemination activities using webinars, while building on the existing face-to-face and other connections. In addition, the transfer of energy-saving technologies that go beyond pollution prevention technologies, as is being done in Thailand, should be developed into capacity building in environmental management, including such technologies in the future, and contribute to decarbonisation in developing countries as a whole. From this perspective, the project in Thailand should be properly followed up.

With regard to cooperation with Hyogo Prefecture, the content of the 'Regional Circular and Ecological Sphere Project', which aims to make effective use of woody biomass in the Hokusetsu region, is very interesting. However, it seems that the implementation of such projects is not well publicised. It may be necessary to publish the results of such activities in reports and disseminate information in order to horizontally develop them as projects related to decarbonisation in collaboration with local governments.

As activities aimed at the younger generation, KRC is also involved in running courses at Kobe University and projects for high school students, although these educational programmes are being run by a variety of institutions. The projects of KRC and university courses for young people need to be scrutinised once again to find out what the features and novelty of the programmes are, and to present them to the world in an academic paper. It is then necessary to think about how these programmes can be horizontally developed and disseminated.

2. Summary and looking ahead to ISRP8

It is commendable that the KRC has made the best efforts possible in fundraising and project management in ISRP7 despite its limited staff and budget. At the same time, it is hoped that KRC

will make greater efforts not only to raise funds, but also to find out how the centre can make a distinctive contribution to future projects, and how it can take advantage of its location in Hyogo to work with the prefecture and local governments in its own unique way in ISRP8.

IGES 7th Integrated Strategic Research Programme (ISRP7)
Kansai Research Centre (KRC) External Evaluation Report

Reviewer's name	SUGA Noriaki
Review meeting date (if held)	16 March 2022.
Review report submission date	17 March 2022.

1. Evaluation of the activities of the Kansai Research Centre (KRC) in ISRP7

KRC works in collaboration with Hyogo Prefecture, where it is located, on various occasions and has established good partnerships with prefectural residents, businesses and academic institutions in the prefecture, and is considered to achieve steady results. The following section assesses the specific activities and achievements of the KRC activities, focusing on its activities and cooperation with Hyogo Prefecture.

In Hyogo Prefecture, the Hyogo Plan for the Promotion of Global Warming Countermeasures was revised in March 2021 to include a 2030 greenhouse gas reduction target towards carbon neutrality in 2050 and strengthened targets for the introduction of renewable energy, leading the way to achieving a decarbonised society in the region. (Furthermore, the Plan was revised in light of changes in the situation surrounding global warming countermeasures, such as the strengthening of the FY2030 greenhouse gas reduction target as a result of the revision of the national 'Global Warming Countermeasures Plan' and the increase in the share of renewable energy in the FY2030 energy mix as a result of the formulation of the 'Sixth Basic Energy Plan'. As of March 2022, a draft revision is being submitted for public comment for further revision).

The Hyogo Plan for the Promotion of Global Warming Countermeasures has six policies to achieve its goals, most of which involve the activities of KRC, and the fact that KRC has been strengthening its activities in Hyogo Prefecture is commendable.

(1) Greenhouse gas (GHG) emission reductions towards carbon neutrality in 2050.

The Hyogo Plan for the Promotion of Global Warming Countermeasures (hereafter referred to as the "Plan") sets the goal of "virtually zero carbon dioxide emissions by 2050" and states that "the citizens, businesses, organisations and government of the prefecture will work together, including the introduction of renewable energy, to boldly achieve a 35% reduction in 2030 (from the 2013 level)" to (i) work towards a maximum reduction of 38% (compared to 2013), while (ii) further accelerating and expanding efforts". In order to achieve these targets, measures are required in all sectors across the prefecture, but in particular, it is essential to reduce emissions from the industrial sector, which accounts for approximately 65% of the prefecture's GHG emissions, so a 'Hyogo Zero Carbon Industrial Society Joint Research Group' comprising businesses, research institutions and government agencies in the prefecture was set up. KRC has served as the secretariat for this project and has provided useful input and management, and its activities are commendable.

(2) Expanding the introduction of renewable energy

The Plan sets a target of 8 billion kWh of electricity generated from renewable energy sources by 2030, and KRC is working with Hyogo Prefecture to promote the use of renewable energy by businesses in the prefecture under the Hyogo Renewable Energy 100 Project. It supports municipalities aiming to be carbon neutral by 2050. The active participation of local governments and non-governmental actors is essential to realising a long-term decarbonised society, and these efforts are to be commended.

(3) Creation of Regional Circular and Ecological Sphere

In order to achieve the 2030 target, it is necessary to introduce renewable energy using local resources and circulation within the region, and from this perspective, KRC is responsible for the management of the Regional Circular and Ecological Sphere Project, which aims to make effective use of woody biomass in the Hokusetsu region. This has been selected as a model project for 2019 and 2020 by the Ministry of the Environment, Japan, and KRC's activities from the basic research to the overall design of the project are to be commended.

(4) Energy-saving and resource recycling in daily life.

In order to achieve the 2030 target, it is important to work not only in the industrial sector but also in the household sector, and it is commendable that the activities of IGES are being utilised in the promotion of the eco-assessment.

(5) Support for human resource development and green innovation

In order to achieve the 2030 target, it is important to develop human resources that can contribute to global warming countermeasures in the region. Through the participation in the 'Hyogo High School Students Environmental and Future Leader Development Project' and the management of related courses at Kobe University, KRC has contributed to the interest of local young people in environmental issues such as global warming. Their efforts to raise awareness and develop their skills are commendable.

2. Summary and looking ahead to ISRP8

Throughout the period of the ISRP7, KRC has strengthened its partnership with Hyogo Prefecture to build a decarbonised society in the region, and it is commendable that it has steadily fulfilled its role through building good relationships with stakeholders in the prefecture and providing quality inputs. In particular, KRC has had an effective impact in translating national targets into concrete measures for implementation by regions, municipalities and residents. In the ISRP8, in addition to further collaboration with the relevant prefectural organisations, projects to further promote citizen participation are also expected to be implemented to make a further contribution to building a decarbonised society in the region.

Attachment 1**Suggested review report form**

Reviewer's name	Takanori Arima
Review meeting date (if held)	Dec.22nd,2021
Review report submission date	Jan.31st,2022

1. Mission, strategy and priorities

The three research fields of KUC in IGES's Integrative Strategic Research Programme for the 7th Phase (mainstreaming low carbon and resilient policies into urban planning and implementation in Asian cities, evolving sustainable waste management practices in Asian cities, and promoting green growth and sound urban environmental management in Asian cities), and the four research fields proposed for the 8th Phase (zero-carbon cities, circular economy cities, deployment of environmental technologies, localizing the SDGs) are consistent with the policy direction of the international contribution of the City of Kitakyushu toward the realisation of a decarbonised society by simultaneously achieving economic growth.

2. Impact & outcome generation

KUC has implemented a diverse set of projects in the area of sustainable cities, working to create impacts and output results through outreach activities, such as publications and trainings, to generally positive outcomes.

The office's active cooperation in planning and implementing is making policies and projects of the City of Kitakyushu highly positive and effective.

For example, the participation of researchers from IGES/KUC as members of the Kitakyushu Environmental Council and K-MRV Committee has improved the effectiveness of the city's policies. Also, KUC's devoted activities have greatly contributed to promoting the international projects of the City of Kitakyushu, such as support provided to the Horasis Asia Meeting, and the acquisition of external funding for city-to-city collaboration programmes and marine plastic litter initiatives.

3. Effectiveness of use of financial and human resources

Great value is placed on KUC's efforts in diversifying funding sources and its track record in acquiring funding from overseas from such organisations as UN-HABITAT and AEPW.

Human resources in KUC are being effectively utilised, with IGES/KUC researchers demonstrating their full potential as members of committees in locally affiliated organisations and as joint participants with the city in global meetings organised by international organisations and agencies, as described in *2. Impact & outcome generation* above. The Centre is also recognised for the experience offered to city officials temporarily dispatched from the City of Kitakyushu to KUC.

There are a number of training experiences that can only be found at IGES. The City of Kitakyushu hopes that the dispatched official will be utilized not only in government-related work but also in the areas of research support and training. We believe that its utilization will contribute to improve the performance of KUC and also improve the business skills of the dispatched person.

4. Overall evaluation and recommendations for the 8th Phase

While individually described in items 1 to 3 above, KUC's overall performance in the 7th Phase has been outstanding.

Recommendations for the 8th Phase are described below.

The City of Kitakyushu is not so good at using social media to disseminate information. The City hopes that KUC will take initiative in communicating information on city-related and IGES/KUC activities by strengthening functions to disseminate information in an agile manner.

And also, the City of Kitakyushu expects that required preliminary basic research functions will be enhanced to identify promising projects and assess project implementation, and would like IGES to share as needed the information that only they can provide from experience due to its close involvement in a number of overseas projects in the field.

The City would particularly like information on the energy policies of Asian countries to be organised from a panoramic point of view so that it can be utilised in planning local policies, as Kitakyushu develops and expands internationally to realise the creation of a decarbonised society in the future. We would also like to see IGES/KUC to further development of greater collaboration with local universities, companies and other organisations.

In addition, the City of Kitakyushu would like IGES/KUC to develop proactive policy proposals on the diverse issues that the city will be working on in the future. Specifically, we hope that in the 8th Phase IGES/KUC will continue to enhance activities together as a member of the Asian Center for Low Carbon Society, including conceptualising a virtuous cycle between the environment and economy, supporting small- and medium-sized enterprises, and providing policy recommendations for resource recycling in circular economies and the next steps from "ownership to use".

IGES 7th Integrated Strategic Research Program (ISRP7) Self-assessment
External Evaluation Review for Kitakyushu Urban Center Achievement Report

Minoru Koga
Director General
Minamata Environmental Academia

January 6, 2022

1.Introduction

Minamata Environmental Academia has aimed to support the development of environmental education, regional sustainable development, and environment-related technologies based on the lessons learned from Minamata disease. Since its establishment in April 2016, the Planning Strategy Council has been established as an external committee that plans and manages the activities of Minamata Environmental Academia. IGES former director, Mr. Hideyuki Mori had joined as one of the committee members. In 2020, in order to strengthen the management system of Minamata Environmental Academia, the two organizations of the Planning Strategy Council and the Regional Stakeholder Meeting were united, and the Projects Promotion Council has been newly established. Mr. Shiko Hayashi, a vice director at IGES Kitakyushu Urban Center (KUC) has joined the council as one of the committee members. With his appointment, we have been suggested valuable advice on the planning and operation of various collaborative projects. The number of visitors and groups studying at Minamata Environmental Academia has been increasing year by year. In addition, cooperation with environmentally advanced Kitakyushu City and KUC, partnerships with governmental agencies, research institutes, companies, and international organizations have been progressed. To promote the international treaty on mercury (Minamata Convention) that has been enacted from 2016, KUC introduced implement workshops of the Philippine government and UNIDO in Minamata City. Furthermore, for the Academia Symposium organized by Minamata Environmental Academia, Dr. Junichi Fujino, a Program Director at IGES Sustainability Integration Center, was invited as a keynote lecturer. Dr. Fujino introduced advanced projects and issues on SDGs in Japan and overseas. Minamata city has assigned as SDGs Future City in 2019, the keynote lecture was nice opportunity to deepen the interests and understanding among Minamata City's government, companies, organizations, and citizens who are promoting various initiatives. In the future, we would like to further deepen cooperation with KUC and invade to build a resource recycling

economy taking a step forward in business development in the field of various environmental measures.

2. Achievements of Kitakyushu Urban Center (KUC) in ISRP7

KUC builds partnerships with citizen groups, private organizations, and academic institutions under strong cooperation with Kitakyushu City, and is active not only in cooperation with local cities in Kyushu but also in cooperation projects with Asian cities. The evaluation results for each specific activity area are as follows.

1) Policy proposals for low carbonization: For many years, as the secretariat of the intercity cooperation project led by the Ministry of the Environment, KUC has endeavored to promote the project and support the implementation of 69 projects under the activity program of a low carbon and decarbonized society at the city level. KUC also collaborates with cities in the Asia-Pacific region and publishes a report on climate change mitigation. Based on the results so far, the next action plan (ISRP8) has set the goal of "aiming to be a regional hub for decarbonized cities in Kyushu."

2) Practice of waste management: Documents such as guidelines on waste management, administrative and analytical survey manuals are provided to the Malaysian and Philippine governments, which leads to the support of technical and management systems to the central governments of each country. In addition, at the urban level, regional policies regarding waste management in local cities in Indonesia were introduced. And also, management and operation technologies leading to the self-sustaining operation of waste management in the region were provided.

3) Publication of activities to promote SDGs in the Kyushu region: The voluntary local government review (VLR) of SDGs was carried out by Kitakyushu City as the world's first evaluation, KUC was heavily involved in its formulation. KUC is also positioned internationally as a practical organization for SDGs localization. Researchers at KUC have been invited for numerous international forums and workshops to present their activities. In the Kyushu region, lectures on SDGs and workshops are given to local stakeholders, universities and educational institutions. As for the content of the lecture, it covers a wide range of fields such as SDGs, green energy, waste management, environmental cooperation, water treatment. They cover a wide range of environmental issues on a global scale and contents of the lectures have been published.

4) Acquisition of activity funds and utilization of human resources: KUC has been stably introducing external funds for several years for their activities. In particular, the acquisition of funds for activities from the World Bank, UN agencies, international aid organizations, etc. are thought to be due to the high expertise of KUC research staffs.

However, it is presumed that there will be encountered some difficulties to proceed and continue some research projects due to limited human resources. Since IGES has abundant specialized human resources in the organization, it will be required to strengthen cooperation with KUC more than ever.

5) Maintaining activities and developing efforts under the COVID-19 pandemic: Overcoming many obstacles under the COVID-19 pandemic situation, maintaining and expanding domestic and overseas networks, several new systems and methods have been introduced to proceed the projects. Even in online conferences covering multiple countries and regions, smooth conference managements have been performed with a simple device configuration. KUC proposed a virtual inspection procedure for laboratory capability evaluation cooperated with local coordinators residing overseas. The proposed virtual inspection procedure will be widely applied for the laboratory evaluation in Asia and the Pacific region. In addition, by fully utilizing the framework of intercity cooperation that KUC has been incubated so far, KUC will enhance SDGs localization activities building networks with local governments in the Kyushu region in terms of carbon-free societies, waste managements, and building circular economic visions.

3. Conclusion

The Kitakyushu Urban Center (KUC) has continued a steady role in the three major areas of decarbonized cities, urban circular economy, and localization of SDGs in the IGES 7th Integrated Strategic Research Plan. Even in Minamata City, a small city in the Kyushu region, the three areas are also major issues, and there are many things to learn from Kitakyushu City and KUC. For many small and medium-sized cities in the Kyushu region, the efforts and achievements of Kitakyushu City and KUC are of great interest. It is highly expected to develop the activities in 8th terms based on 7th terms activities of KUC.

Review Report

Reviewer's name: Shobhakar Dhakal

Review report submission date: 13/02/2022

1. Mission, strategy and priorities

- BRC's main missions are two: the first is to assist IGES in supporting the IGES-wide activities by providing regional networking and dissemination in Thailand and the ASEAN countries, and the second is to develop region-specific activities in ASEAN countries teaming up with Governments, research institutions and international and bilateral organization in the region. These are reasonable aims and mission for IGES.
- 7th phase Integrative Strategic Research Programme of IGES (ISRP7) foresees three operating domains of BRC- climate change, environmental compliance and enforcement, and sustainable cities. During ISRP7 two more activities - sustainable consumption and, GEO collaboration – are also pursued but they are marginal with very little budget, yet important.
- For Thailand and the ASEAN, the chosen priority topics are good and of high relevance. However, there were rooms to better-focus within these areas, which I presume had followed where funding resources are available to IGES.
- The approach of BRC to heavily engage with governments and international organizations is fine but has limitations – BRC could also engage with scholarly and research communities that sets agenda for actions. BRC has to work in between the 'knowledge' and 'action'.
- In terms of focus of each area: Climate change is a key area needing major support in ASEAN countries and this is an area where IGES can make a realistic impact given its close link with governments and businesses in ASEAN countries given close link of IGES with MOEJ. BRC's activities here are more on network-based approach, mainly, supporting two adaptation programs- JAIF DRR/CCA and AP-PLAT which aim to increase the capacity of governments to develop and implement climate change adaptation policies and projects. Almost 52% of total BRC budget has gone into adaptation area. UNFCCC-RCC, launched at BRC in the previous phase, worked mostly in mitigation but is now expanding into climate finance and adaptation.
- Environmental Compliance and Enforcement is too traditional topic (EIA/SEA are too old topic - countries can do largely by themselves) and perhaps not an area which is easy to make impact in the region for IGES without a proper focus. The activities presented in this review in this area are scattered across too many places and sub-topics and just too broad. If environmental compliance and enforcement would have been approached from a particular angle, such as governance, it would have been easy to roll out an impactful program.
- Sustainable Cities is an extremely important area for Thailand and the ASEAN countries. 31% of budget of BRC has gone into this area – this is welcomed. The cooperation with ASEAN secretariat is a good one with possibility to make bigger impact. The choice of sub-topic, perhaps due to funding availability, is fine: cities-to-city learning and good practices linked to various SDGs in cities. Such topic tends to be too broad, learning is never ending, model-city is often contested, and my own experience working in this area is that this does not catch much attention. There are several more important areas emerging on sustainable cities them (such as SDGs governance in cities, capacity building for nature based solutions, resources efficient cities, environmental accounting in cities, synergies and tradeoff within SDGs for cities,

integrated SDG planning for cities etc.) and I hope these can be addressed in the next phase. Let us keep in mind that no city can be model to other since every city has its own peculiar setting.

In the nutshell, the priorities of BRC were good- in the future, the focus and subtopics within these may be worthwhile to re-look. I am aware that activities are often donor driven. BRC has been successful in working with key institutions such as UNFCCC, EU, ASEAN secretariat and other organizations, including decision makers in ASEAN countries.

2. Impact & outcome generation

BRC activities are largely network based. It appears to have a strong thrust on engagement, networking, working with government and intl organization, and preparing documents targeting events. I must be honest that it's hard to judge impact and outcome. But I see that lots of inputs have been made, especially for ASEAN-processes for governments. As an observer, as academician and policy relevant researcher, I see that BRC inputs might have impacted to these meeting where they are presented, but its presence and communication to outside these events and own partners to the scholarly and research community and society seems a bit weak. However, its fine too that the focus is on the governments only. The outputs from BRC are policy dialogues, reports, PR materials, seminars and workshops, contribution to report of UN agencies, speech to conferences, guidelines, mentoring, and others. These are important for decisions makers.

While I have had no chance to look into very details on quality of outputs, when putting too much thrust in events, it's always important that output quality has not been compromised as human resources are limited in BRC. I am not saying this has happened but I do see less discussions and reflection on quality of output and reports which might be worthwhile to consider.

In the report, in many places, it's difficult to distinguish the role as well as the outputs of BRC from those from the whole consortium or all partners. For e.g. in CCA/DRR, to total budget (2017-2020) is 4 mn US\$ (slide 5) but role and out of BRC is unclear and in many documents there are no IGES logo. In UNFCC-RCC, the role of BRC in addition to hosting RCC is not clear. Same applies for Switch-Asia. Such clarity will help to judge and rightly attribute outcomes and impacts better since BRC aims to be a knowledge provider and as enabler for policies.

3. Effectiveness of use of financial and human resources

With the limited number of professional staffs in BRC, the breadth of activities that are covered is very ambitious. This is definitely a bit of an over-stretch but have no specific comments. I feel that BRC deserves a core group of few senior and well-established experts to lead activities for greater impacts and to mobilize regional/in-country/research and action community experts in lieu of shortage of in-house experts.

From the information that are provided, it's not possible to judge the effectiveness of financial resources. Almost 52% of budget has gone to adaptation area; 32% has gone to sustainable cities. In totality, 82% of budget gone to these two areas.

4. Overall evaluation and recommendations for the 8th Phase

BRC's achievements are very good within its constraints of human resources. BRC is engaged with governments, intergovernmental organizations and other stakeholders. Its outputs have contributed to policy makers at different levels, ASEAN to individual countries to city governments. IGES is unique institute and it can do more.

Few comments and recommendation are below:

- The areas to make impacts of high potentials in the region are many. Some of key ones are: enabling resource efficient cities (food, energy, water, materials and services), fostering SDG synergies and limiting tradeoffs, internalizing an integrated-SDG approach to development planning, knowledge and action support on resource-efficiency and circular economy at multiple scales, NDC support, improving access to climate finance, support to new carbon market under Article 6.4, low carbon development planning, and adaptation capacity building especially for risk-informed decision making. They are of high demand in the region. 8th ISPR should take a note of this.
- BRC could carefully look how IGES can benefit 'more' from UNFCCC-RCC, SWITCH-ASIA, ASEAN DRR/CCA and platforms. Such platform are important and high-potential undertakings to increase the influence and reach of IGES. I am of impression that there are more potentials for IGES to benefit from these and IGES should carefully plan on leveraging their influence and reach.
- BRC is recommended to develop BRC-led activities in different network-based initiatives in addition to serving as secretariat of initiatives. The role and output of BRC from rest of the consortium is better to be distinguished. In those case when BRC is hosting secretariat, we have to be careful to showcase BRC's output/outcome vs of the secretariat and its partners.
- Senior and well-established experts in the community are important to hire in BRC to translate BRC's successful engagements with UNFCCC, Switch Asia, other agencies in adaptation, ASEAN etc into more productive outcomes. IGES has huge potentials in the region to make meaningful impacts – leadership must be seen in the community from IGES in-house experts. If increasing human resources in BRC is a problem due to host country rules, expert network could be mobilized in cooperative partnerships with international, research, educational and local organizations.
- BRC could get engaged in bigger and agenda-setting issues of sustainability, touching into scholarly front too and operate in more new and innovative areas. Bridging knowledge with actions could be BRC's core focus. BRC could 'lead' on key issues rather than limiting to largely coordination roles in various initiatives. This needs strong and senior level in-house experts. BRC may have been trailing on the knowledge-front.
- BRC could check if IGES logos could be put in documents/publications which are contributes/coordinated/hosted by BRC. IGES logo will help for IGES's visibility- which is not seen in many outputs from SWITCH ASIA, GEO, ASEAN, DRR/CCA etc.
- I have noted future plan in 8th ISRP for different initiatives (ASEAN DRR/CCA, AP-PLAT, UNFCCC-RCC, AECEN, ASEAN ESC/SDGs, Switch Asia, and GEO)
 - o I welcome engagement of BRC in international and regional assessments – this will help to position IGES as a think-tank – BRC must lead- if needed take help of your network!
 - o IGES presence could be significantly enhance to question of resource efficient and circular economy through Switch Asia – IGES could lead several key reports apart from hosting it

- I strongly recommend BRC to think of a new research-policy based initiative on 'resources efficient cities' looking at food, water, energy, materials etc in cities together. A sustainable city is only possible if we understand and address 'footprints' (external and internal) and mobilize policy makers at multiple scale to address them in cities.
- BRC could continue AECEN if supports are available externally, however, this is very old topic and, in my view, not very attractive – I see huge scope if to address from a particular angle and issue- especially the governance of circular economy, climate change etc.
- RCC additionally supporting developing countries for Article 6.4 mechanism and transition from CDM to Article 6.4 mechanism is very timely and important. BRC could take lead role in UNFCCC context and this opportunity should not be missed. The scope for Article 6.4 mechanisms is huge and likely to stay for many years. I encourage BRC to launch a full fledged initiative on its own in Article 6.4 to benefit from RCC too.
- ASEAN DRR/CCA's planned focus on Gender-inclusive risk assessments, multi-hazard approaches, CBDRM and sector-specific risk assessments are all timely for 8th ISRP but BRC should 'lead' in few areas itself through its in-house experts otherwise it will end up only coordinating the events.

REVIEW REPORT

Reviewer's Name: Kung Phoak

Review Report Submission Date: 16 February 2022

I. Areas of Focus:

The Institute for Global Environmental Strategies (IGES) has increasingly contributed to the works of ASEAN and its member states through many projects and activities, most of which are closely related to the priorities of the environment and disaster management sectors. Over the past years, IGES has also been instrumental in the development of flagship reports, regional plans of action and frameworks, which continue to guide the works of ASEAN in many years to come. Despite all these efforts, many current and new challenges keep emerging, and they require us to reimagine our approaches to some of the biggest questions of the future. ASEAN and IGES are no different in this regard.

Climate change will remain one of the biggest challenges for our region and beyond, and with the support from IGES, ASEAN managed to develop the first State of Climate Change Report, which reviews what member states have been achieving thus far and also provides many bold and practical recommendations that may shape the direction of regional efforts to battle climate change in short-, medium- and long-term. However, this report is just the first step, and the incorporation of some aspects of this report into the priorities of the 8th Integrative Strategic Research Program will allow IGES to continue to support the member states in actualizing their aspirations and objectives that they laid out in this report.

As a response to the impacts of COVID-19 pandemic, ASEAN member states developed the ASEAN Comprehensive Recovery Framework consisting of five strategies, one of which aims to advance towards a more sustainable and resilient future. Key priorities under this strategy includes green investment, responsible investment, sustainable agriculture and resilient disaster management, among others. Achieving all these key priorities require broad partnership and contributions from a wide range of stakeholders. Therefore, IGES may consider taking up some of these key priorities and incorporate them into its 8th Integrated Strategic Research Program, for doing so will put IGES at the heart of ASEAN's efforts to build back better and greener.

Moreover, the fight against climate change is now moving beyond mitigation and adaptation, and member states are looking at the root of the problem as well. There is no doubt that the way we grow our economy has many implications, most of which are very negative, on the planet. Last year, ASEAN adopted the framework on circular economy, but it does not go far enough, because the main focus is still on trade. Thus, it is expected that a framework that takes

a whole of ASEAN approach toward circular economy may be of interest to the member states in the coming years, and given extensive experience and networks, IGES is better positioned to support ASEAN in this endeavor.

During the 7th Integrated Strategic Research Program, IGES also focused on a newly added issue, sustainable consumption, which aligns with priorities of ASEAN. In fact, it is also one element of the complementarities roadmap that Thailand, as a country coordinator for the SDGs, has been working very closely with UN ESCAP and other specialized UN agencies to implement several flagship projects. What is missing is sustainable production, which should, in my opinion, be one of the focus areas for IGES as well. The rationale is simple. The way we produce creates more environmental impacts than the way we consume, and both need to be addressed, if we want achieve substantive progress. In recent years, member states have been talking about how to phase out dirty energy and replace it with renewable energy, clean manufacturing, green infrastructure and construction, and sustainable agriculture, and the list goes on. Some member states are more prepared than the others, and here IGES can play a role to narrow the gap and to support those that are catching up to move as quickly as possible on these commitments.

One of the widely shared views with regard to the difficulty in advancing climate change agenda is the lack of resources, and this problem is even worse in less development countries. Of course, one of the remedies is for developed countries to provide cheap credits to their poorer fellows, so that they can use these resources to implement green programs. Another economic solution includes green bond and carbon price, among others. For some member states, they have been benefiting from these schemes, but for the rest, these innovative instruments are still in their early stage and they still depend on a third party to handle the technical aspects of these schemes. At the regional level, there have been some discussions about how ASEAN can build capacity of its member states, so that they can take full advantage of these instruments, and here, IGES may consider developing some products such as policy brief, forum and training to complement ASEAN's efforts.

Although the schemes mentioned above may assist the member states in looking for different sources of resources, technological advancement remains the best hope for the world to tackle the issue of climate change. Actually, some of these technologies are available at the moment, but they are still prohibitively expensive, making them impossible to be adopted or scaled up. Of course, technological advancement and innovation may happen at different levels, and a number of low hanging fruits are out there for the member states to benefit from. Thus, in the 8th Integrated Strategic Research Program, IGES may also want to consider adding the role of technology in combating climate change as one of its focused areas.

II. Outputs/Outcomes:

A wide range of publications produced by IGES has contributed to the works of ASEAN in many different ways. Some are providing practical recommendations on how the member states

should address the pressing issues they are facing now, and some offer bold and long term solution that the member states can always go to for inspirations and radical changes. A good example of the latter is the State of Climate Change Report that IGES worked hand in hand with ASEAN Secretariat to develop. Thus, in the 8th Integrated Strategic Research Program, IGES should continue the good works, providing both practical and bold ideas, so that ASEAN can make use of them in planning for its works and activities, especially at the moment that the member states are working on the ASEAN Post-2025 Vision and its attendant documents.

The lack of data is, perhaps, the biggest challenge that continues to hinder the member states' efforts in tackling climate change. In recent years, there have been attempts to create a regional database or at least strengthen the capacity of relevant sectoral bodies to collect data on major climate issues, but the quality and availability of data still vary among the member states. It is clear that without up-to-date and high quality data, it is impossible to know the current state of climate change in each country, and policy makers will not be in a position to put in place well informed policies and measures. Therefore, in the 8th Integrated Strategic Research Program, IGES may consider supporting ASEAN to develop the regional database on climate change or at least assisting the member states in enhancing their national database system.

Another related output that IGES can also consider is to support at least two sectoral bodies, namely ASEAN Committee on Disaster Management (ACDM) and ASEAN Senior Officials on Environment (ASOEN), to develop a robust and comprehensive monitoring and evaluation framework, so that they can track the progress of the implementation of their work plans in a timely and effective manner. For example, the ACDM just introduced an online monitoring tool, allowing the member states to update their works conveniently and quickly, but more needs to be done, and IGES can potentially provide additional supports to these efforts. Moreover, armed with these information and data, they are going to help IGES to identify the areas that are still lacking and requiring more attention.

Climate change is not a traditional issue that some member states have been focusing on, experts will have a prominent role in advancing the climate agenda in the region. IGES is in the best position to assist ASEAN given the organization's broad and extensive network. Thus far, there has been a proposal by UNESCAP and ASEAN to set up a resource panel with an objective to mobilize experts inside and outside the region to support the member states on environment related issues. However, this initiative is not moving fast enough due to budget constraint. As a result, IGES may look into this proposal and seek how it can also contribute, because such a panel will be instrumental to ASEAN's and the member states' efforts to meet their international obligations when it comes to Kyoto protocols and Paris Agreement, among others.

III. Impact Generation Activities:

During the 7th Integrated Strategic Research Program, IGES has implemented a wide range of capacity building activities for ASEAN, enabling its member states to have a better knowledge of the focused areas and sufficient capacity to make good progress on key priorities. It is highly encouraged that these capacity building programs should continue, especially for the Mekong countries that are still catching up. Moreover, such capacity building programs should also be targeted and tailored to the needs of the member states. Currently, there are a number of major policies and frameworks that ASEAN's external partners have been introducing, most notably the EU Green Deal, which covers many areas that require high degree of technical expertise. Thus, to comply with these new rules in order to benefit from this scheme, the strengthening of the capacity and capability of the member states is of utmost significance, and IGES may be

able to contribute to these efforts given that the organization has been working on environmental safeguards and other related fields.

Beside capacity building activities, IGES may also consider supporting the member states to translate regional and international obligations into national policies and legislations. Of course, with the skills and knowledge provided by IGES, ASEAN policy makers will be able to do these works, but while waiting for them to gain such ability, IGES may want to work directly with relevant sectors to formulate policies and draft legislations, so that at the national level and even regional level, they can start to do some of these important works without delay. Such practice is not new, and a good example is JICA, which has provided direct technical support to some of the member states to produce all these major documents. As in the case of Cambodia, the drafting of the civil code was supported by Japan through JICA, which has been highly praised for close collaboration and cooperation among the experts from both sides.

Pilot project is another form of impact generation. At the moment, IGES produces practical and high quality research and provide capacity building programs, so that professionals from the member states can deploy these skills in their line of works. Although these activities are very helpful in guiding the member states to make progress on some key policy areas, experimenting with some pilot projects to showcase how these ideas work can be even more impactful. These pilot projects can also help the member states to make effective use of their limited resources. If these pilot projects work, they can then scale up, otherwise they can go back to the drawing board and work with IGES to adjust their policies. If the implementation, for example, of the climate agenda is left to the individual member states, it may not work, because there is always this perception that greening our society is an extremely expensive endeavor, so no one has the appetite to do anything about it.

IGES should also consider working with ASEAN Secretariat or the member states to establish a joint platform, focusing on issue of common interest and concern. For example, the ASEAN Socio-Cultural Community (ASCC) has just operationalized seven platforms, and three of which are funded by the Japan-ASEAN Integration Fund (JAIF), and one among the three focuses on climate change. Other types of platforms such as workshop, symposium and conference should also be considered, because doing it this way, IGES will gain more visibility and recognition, not just from the ACDM and the ASOEN, but many other sectoral bodies as well given the fact that all the works that IGES has been working with the member states are cross-sectoral and cross-pillar.

Another emerging area that may be of interest to IGES as well is environmental campaign. The ASEAN Green Initiative (AGI) is a good entry point for IGES to consider. The AGI aims to mobilize different groups of people in the society to plant 10 million trees in 10 member states within 10 years. Only one year into its implementation, member states have made ambitious pledges, and at the time of this writing, the total number of trees they are committed to plant is more than 1.2 billion trees. It is a huge success. In terms of impact generation, IGES should be part of this initiative, because achieving these targets are not easy and require broad partnership with a wide range of stakeholders, especially the private sectors, and IGES is also in a unique position to deploy its extensive networks to mobilize these actors.

IV. Advancing Partnership:

Going forward, it is about time for IGES to consider formalizing its partnership with ASEAN through a Memorandum of Understanding (MOU), which outlines all the key priority areas

that it wants to work with the ACDM, the ASOEN and other sectoral bodies. Actually, many of these key priority areas have already been implemented by IGES and the member states over the past years, and through this MOU, the contributions of IGES to regional works will be even more visible. Moreover, IGES can also consider having a similar arrangement with two entities associated with ASEAN, namely ASEAN Center for Biodiversity (ACB) in the Philippines and ASEAN Coordinating Center for Humanitarian Assistance (AHA) in Indonesia. By aligning its core priorities with the ACB and the AHA, IGES will be able to create more impacts with the activities and programs that it is work to advance in the region.

[Assessor/Officer]

Ko MATSUURA (Mr.)

Section Chief

Office of International Cooperation in Air and Water Quality Management,
Environmental Management Bureau,
Ministry of the Environment, Japan

- In order to proceed the common agreements between Ministry of the Environment Japan (MOEJ) and Ministry of Ecology and Environment China (MEE), MOEJ has implemented the so-called projects “Japan-China intercity cooperation project to improve air quality in China” (Phase I) from FY2014 till FY2018, and “Cooperation project on research and model projects to improve air quality in China” (Phase II) since FY2019, by consecutively commissioning to IGES.
- During the Phase I, IGES worked closely with the Sino-Japan Friendship Centre for Environmental Protection in China and fully played its role as the Integrated Coordination Platform to implement the projects, and their success was well recognized by MOEJ and MEE to have contributed to the better air quality in China, resulting in a satisfactory level of performance and quality.
- In the Phase II, although it took time at the beginning to coordinate the model projects for its start, the projects soon got accelerated and went smoothly afterwards. MOEJ, as the orderer of the projects, is very much satisfied with their performances and ingenuity as well as quality of their works and outputs, especially while having to face a lot of difficulties due to the period of COVID-19 pandemic.

(provisional translation by IGES Beijing Office)

Answer to the request for evaluation on the activities of IGES Beijing Office

To Institute for Global Environmental Strategies:

We acknowledge the receipt of the request from your institute to evaluate the activities of Beijing Office, and would like to answer as follows, based on the progress and the results of the cooperation between the two organizations.

In the period from July 2017 to June 2021, IGES and we, Sino-Japan Friendship Centre for Environmental Protection, served as the Integrated Coordination Platform of Japan and China, and implemented Japan-China Inter-city Cooperation Project and Cooperation on research and model projects to improve air quality in China. With approval from the responsible authorities of Japan and China, the two cooperation projects strictly followed the requests included in the Agreement signed by the Environmental Ministers of Japan and China, and while enabling us, the Chinese party, to combine the works for “The Air Pollution Prevention and Control Action Plan” and “A Three-year Action Plan to Win the Battle for a Blue Sky,” provided the Japanese experience for the Chinese local government to tackle the difficulties and important problems in the works for air pollution prevention. Research and model projects with clear targets were implemented, and optimized control plans were submitted, which resulted in policy recommendations and were highly evaluated by the local governments in China.

In the process of implementing the projects, IGES Beijing Office with the International Department of our Centre fully played coordinating role and promoted concrete tasks. Especially, IGES Beijing Office played a key role in dispatching the Japanese experts and inviting the Chinese parties to Japan for research. Mr. Hideaki KOYANAGI, the Director of IGES Beijing Office, and his staff members maintained rigorous and responsible attitude, and even during the COVID-19 pandemic period, stayed focused, kept working actively, and provided coordination in a timely manner. Through online meetings and online field surveys, IGES Beijing Office kept promoting the projects with quality and obtained outstanding results.

Writing in answer to your letter.

Sino-Japan Friendship Centre for Environmental Protection
December 2021



中日友好环境保护中心

Sino-Japan Friendship Centre for Environmental Protection

关于就 IGES 北京事务所工作评价委托事项的复函

地球环境战略研究机关：

贵机构关于对北京事务所开展工作评价的委托函已收悉，根据两机构的合作进展与工作成果，现回复如下。

2017 年 7 月至 2021 年 6 月期间，贵机构与我中心分别作为两国总协调单位，合作实施了中日改善大气环境城市间协作项目和改善大气环境相关研究与示范项目。经中日两国主管部门批准，两期项目紧密围绕备忘录要求，结合中方“大气污染防治行动计划”“打赢蓝天保卫战三年行动计划”工作中，地方城市大气污染防治攻坚工作的重点和难点，充分借鉴日本经验，有针对性地开展相关研究与示范工作，提出治理优化方案，形成相关政策建议，得到地方城市的一致好评。

IGES 北京事务所在项目实施过程中，充分发挥了协调作用，与我中心国际处合作推进各子课题具体工作，特别在派遣日方专家、安排中方工作人员赴日交流等工作中发挥了关键性作用。小柳秀明所长和北京事务所工作人员秉承严谨负责的态度，在疫情

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中日友好环境保护中心

Sino-Japan Friendship Centre for Environmental Protection

期间保持项目执行的灵活性和针对性，及时调整工作方式，通过网络会议、视频问诊等方式高质量地推进项目，取得显著成效。

特此函复。

中日友好环境保护中心

2021年12月

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Appendix C

Integrative Strategic Research Programme of IGES for the Seventh Phase (ISRP7) Self-evaluation Report

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Appendix C: Integrative Strategic Research Programme of IGES for the Seventh Phase (ISRP7) Self-evaluation Report

This report was prepared by IGES for the ISRP7 external reviewers. Section 1 presents the institute's overall performance with key statistics as indicators (Section 1.1), selected impacts that IGES observed from its activities in each year (Section 1.2), and an overview of resource management (financial and human) during the phase (Section 1.3).

Section 2 presents group-level results for each unit. The section provides original goals set in the ISRP7, intended impacts or outcomes, self-evaluation and recommendations at the mid-Phase review, followed by the final self-evaluation at the end of the phase.

1. Overall Performance of IGES in the ISRP7

1.1. Impact Generation

1.1.1. Impact Generation

In close collaboration with diverse stakeholders, IGES aims to generate “impact” that facilitates the transition towards realising sustainable societies. In its ISRP7, which began in FY2017, we set our target to have 25 successful cases annually. The target was met from FY2017 through 2020, with 25 (FY2017), 36 (FY2018), 35 (FY2019) and 37 (FY2020) cases.

At the beginning of the 7th Phase, common understanding and clear definition about “impact” in the context of IGES operations was insufficient amongst IGES research Units. Also, strategies and roadmaps to expected impacts were not necessarily clear. In responding to the challenges, to date, SMO requests each Unit to register potential impact cases at the beginning of the fiscal year, conduct hearing sessions to monitor the progress in February - March, confirm the progress once again with each Unit in June, and finally report the cases at the informal BOD/BOT meeting in September. In doing so, SMO facilitated the sharing of individual impact cases, a common framework and diverse approaches, and clearer criteria to define “impact” in the context of IGES operations. As a result of these, common understanding has improved to certain extent.

In FY2020, out of 37 impact cases, nine cases were categorised as “Impact 1” (changes in policy, planning and practices) and 13 cases were categorised as “Outcome 3” (uptake of IGES proposal and acted upon by target stakeholders). Since FY2020 was the final year of ISRP7, many cases that had been in progress were completed. This partially explains the increase in the number of high-level impacts this year.

In FY2018, IGES established the annual “Mountain View Award,” awarded by the IGES President to the team with the most impactful case. The Award promotes the Institute's impact generation and celebrates cases of particular impact among IGES' high-impact cases. The cases selected as finalists for the award are outlined below.

<FY2018>

- Materializing co-benefit approach in urban transport in Indonesia through science based research and city-to-city cooperation <Winner>
- National and Sub-national Waste Management Strategies in Asia and the Pacific
- Proactive business coalition to advance corporate strategy and actions toward de- carbonization

- Leading coordination of preparation and outreach of UNEP science based solution report which address 25 policy options to control air pollution which co-benefits health, climate change and other SDGs
- Support the Olympic and Paralympic Tokyo Games 2020 promoting sustainable forest management and supply chains in tropical timber supplying countries
- Contribution to the development of “Kyoto Appeal to Jointly Achieve 1.5°C” through IGES’ s strategic communication and networking

<FY2019>

- The development of the National Action Plan on Sustainable Consumption and Production (SCP) for the period 2021 – 2030 in Vietnam <Winner>
- Myanmar National Waste Management Strategy development and “Ecology Note – Towards a Clean, Green and Beautiful Bhutan -”*
- Newly establishing “RE Action” initiative, mobilizing demand side signal for renewable energy in Japan
- Contributing to the promotion of IPCC’s Special Reports to Japanese audience through IGES’s strategic communications and network

* The two cases are regarded as one because they are closely linked.

<FY2020>

- Mainstreaming resource efficiency and circular economy concepts and practices in Japan
- Promoting 100% renewable energy in Hyogo prefecture, Japan and Strategic youth empowerment for decarbonisation
- Increasing the capacities of ASEAN governments to develop and implement climate change adaptation policies and projects
- Guiding policy directions toward sustainable waste management and resource efficiency in Asia and the Pacific through technical assistance for developing national and sub-national waste management strategies
- Supporting policy dialogues, multi-stakeholder capacity development and network building on decentralised wastewater management towards achieving SDG6 in ASEAN Member States
- Making a positive influence on Japan's climate and energy policy through a series of IGES commentaries

Another challenge at the beginning of the 7th Phase was weak cross-Unit collaboration. By nature, such cross-Unit collaboration has great potential to generate new knowledge, then form larger impacts. In this regard, KC took the lead to convene periodic cross-unit meetings regarding climate change and SDGs (every first Monday of the month for climate change and every third Monday for the SDGs) to share relevant information and create opportunities for cross-unit collaboration.

In addition, recognising that the COVID-19 pandemic is closely linked with many global environmental challenges and thus raises serious concerns on how to build sustainable societies in the future, SMO took the lead in conducting a series of discussions amongst teams concerned and developed two position papers in May and December 2020, respectively. From internal discussions, IGES proposed the concept of a “Triple R Framework”, which calls on the importance of redesigning socio-economic systems toward sustainable and resilient societies, while directly responding to the COVID-19 pandemic and promoting recovery from crises. The “Triple R Framework” was incorporated into the “Online Platform” launched in September 2020 by the Government of Japan, and introduced at the “Daring Cities 2020” Forum in October 2020 held by ICLEI and the City of Bonn City in Germany.

SMO would like to continue such endeavours and try to contribute to the further promotion of cross-Unit collaboration.

1.1.2. Digital Outreach

The official IGES Twitter account and Facebook page were launched in June 2018 and continued to be used for information dissemination in FY2020. The primary objective was to continue to attract new audiences, and the account gained 3,278 followers for the Japanese account and 1,303 followers for the English account (Table 1.1.1).

Table 1.1.1: Key Numbers of Social Media Activities (FY2018-FY2020)

Twitter Followers

	FY2018	FY2019	FY2020
Japanese Account	931	1,826	3,278
English Account	611	988	1,303

Facebook Page Likes

FY2018	FY2019	FY2020
262	369	447

The number of website views (page views: PV) has been on an upward trend since FY2016, averaging 90,639 PV per month in FY2020, and finally exceeding 1 million PV for the year (Figure 1.1.1). The website was fully relaunched in August 2019, increasing the number of landing pages and improving the performance of in-page searches, and the contents that have been enriched over the past year and a half are thought to have contributed to this. In particular, the G7/G20 special page received a large number of views. Other external factors, such as the popularity of the Climate Change Webinar Series launched by the Climate Change and Energy unit, and Prime Minister Suga's declaration in October 2020 to "aim for carbon neutrality by 2050," also had a significant impact on the increase in inflow from organic searches, new visitors, and time spent on the site.

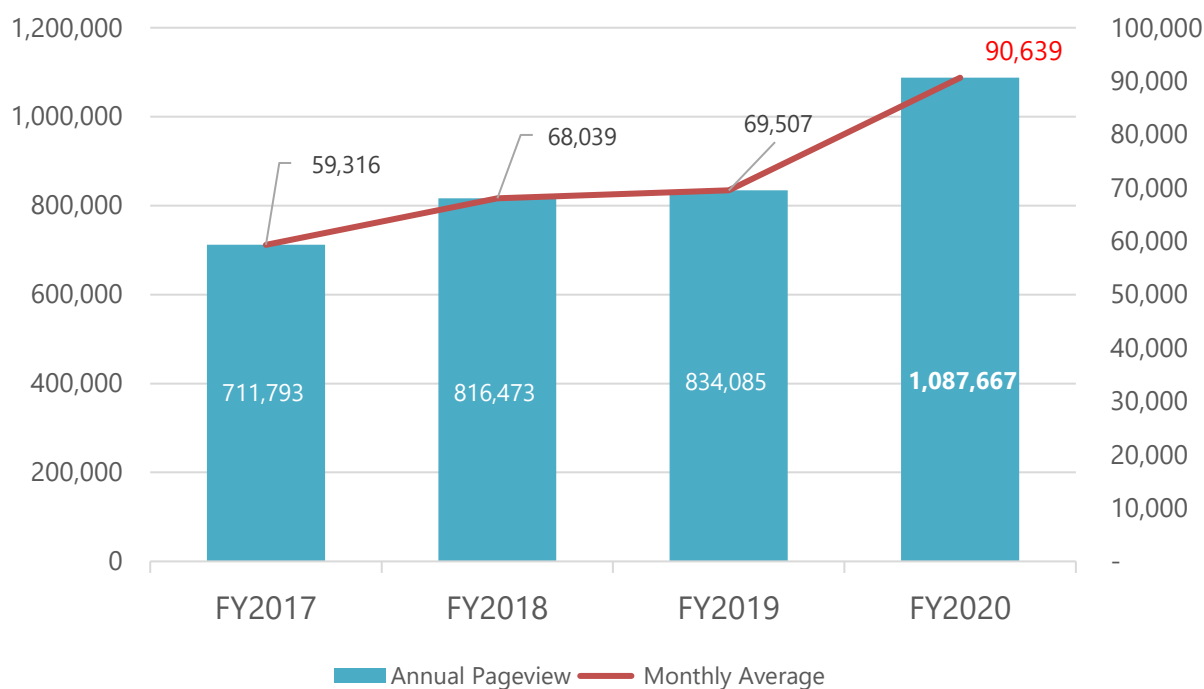


Figure 1.1.1: IGES Website Viewership (FY2017-2020)

The bar shows the total annual PV (left axis) and the line shows the average monthly PV (right axis).

The number of downloads of publications increased in FY2020 as well as in FY2019. As in the previous fiscal year, the inflow of organic searches from search engines is increasing, while the abandonment rate is decreasing, indicating that users are being appropriately directed to the desired pages. The increase in the number of organic searches is thought to be largely due to the global movement toward decarbonisation by 2050. Reflecting this trend, publications on the themes of decarbonisation and COVID-19 are highly popular. In addition to these, many publications on the theme of SDGs were also downloaded, and these three themes accounted for most of the top 10.

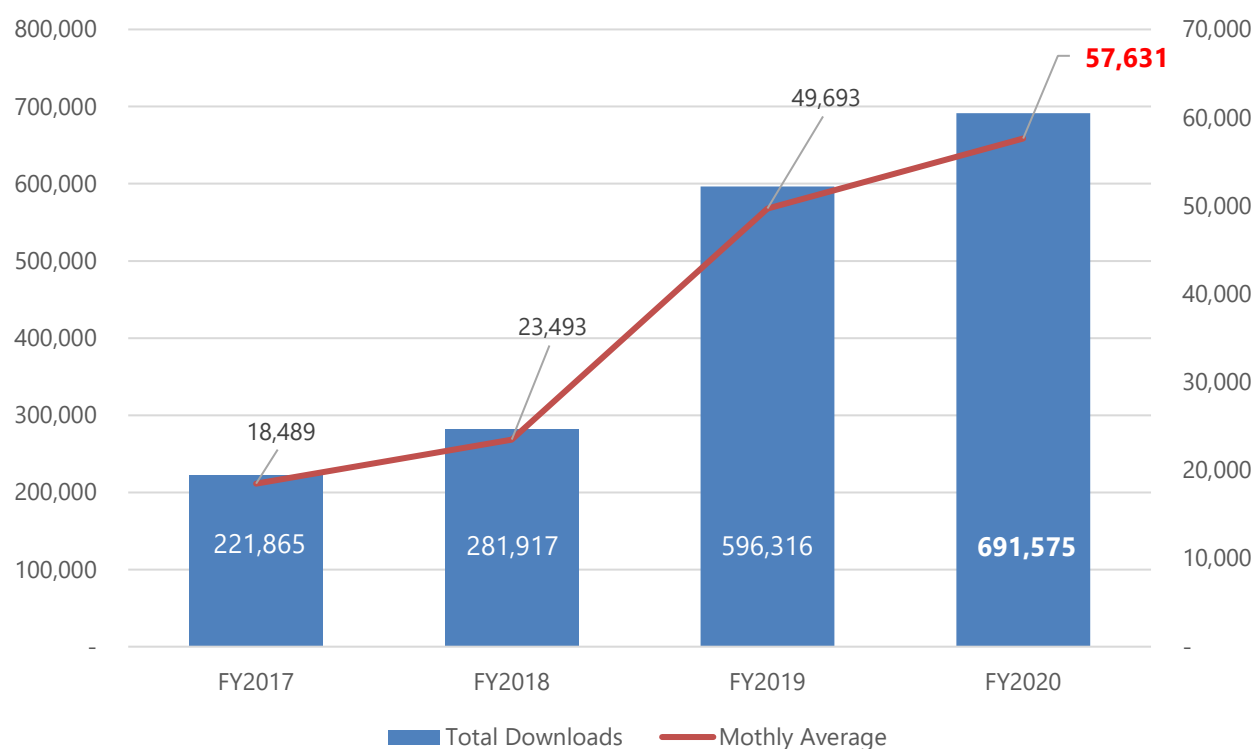


Figure 1.1.2: Downloads of IGES Publications (FY2017-FY2020)

The bar shows the total annual download (left axis) and the line shows the average monthly download (right axis).

Table 1.1.2 shows a list of the top 10 downloaded publications. As it was not possible to take the data before December 2017 due to the settings in Google Analytics, we counted the number of downloads since January 2018. As a result, the series of working papers "SDGs and Business," published annually since 2018, are in the Top 10 from the 2018 to 2019 editions. Reports on SDGs initiatives in local governments have also been downloaded, and four of the Top 10 include "SDGs" in their titles, indicating the high level of interest in SDGs in Japan during this period. In addition, reports on the EU ETS and CORSIA were included in the Top 10, indicating that the need for emissions trading in Japan remains high. Nine out of the Top 10 were published in Japanese, indicating that while domestic interest is growing, outreach to overseas audiences needs to be strengthened.

Table 1.1.2: Top 10 Downloaded Publication January 2018 – June 2021

Rank	Title	Type	Published Date
1	主流化に向かう SDGs とビジネス ～日本における企業・団体の取組み現場から～ (Mainstreaming the SDGs in Business: Actions by Companies and Organisations in Japan)	Policy Report	19-Feb
2	欧州連合域内排出量取引制度の解説 (Explanation of EU ETS: European Union Emissions Trading System)	Working paper	19-Mar

3	未来につなげる SDGs とビジネス～日本における企業の取組み現場から～ (SDGs and Business for the Future: Actions by Private Companies in Japan)	Policy Report	18-Mar
4	動き出した SDGs とビジネス ～日本企業の取組み現場から～ (SDGs and Business in Practice - Early Actions by Japanese Private Companies)	Policy Report	17-Apr
5	IGES List of Grid Emission Factors	Data/Tool	21-Feb
6	日本の地方自治体による SDGs の取組み：SDGs 先行事例としての「環境未来都市」構想 (Taking action on the SDGs in Japanese cities: The “FutureCity” Initiative and its achievement on the SDGs)	Discussion Paper	17-Nov
7	「IPCC1.5℃特別報告書」ハンドブック:背景と今後の展望 (Hand Book for "Special Report on Global Warming of 1.5°C")	Policy Report	18-Dec
8	自治体による再生可能エネルギーの地産地消の取組 -これまでの成果・課題と取組の拡大のために- (Initiatives for Local Production and Consumption of Renewable Energy by Local Governments - Achievements and Challenges)	Issue Brief	18-Sep
9	1.5℃ ライフスタイルー脱炭素型の暮らしを実現する選択肢ー日本語要約版 (Japanese summary of “1.5-Degree Lifestyles: Targets and options for reducing lifestyle carbon footprints”)	Technical Report	20-Jan
10	CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) 設立の経緯と制度の概要 (Background of the establishment and outline of the system of CORSIA)	Working Paper	19-Apr

1.1.3. Media Coverage

In the ISRP7, with the exception of a notable increase in FY2018, performance has been steady (Table 1.1.3). In FY2018, a policy brief on plastic waste import restrictions in China and a technical report on 1.5°-degree lifestyle were picked up by news agencies and distributed overseas in English, and it contributed the notable increase of media coverage. In terms of keywords, there was an increase in articles on decarbonisation and renewable energy. The increase in media coverage for these keywords was particularly noticeable in FY2020.

Table 1.1.3: Total Number of Media Coverage (FY2017-FY2020)

	FY2017	FY2018	FY2019	FY2020
Japanese	223	367	253	278
Other languages	34	87	58	23
Total	257	454	311	254
Monthly Average	21.4	37.8	25.9	28.2

1.1.4. Strategic Operation Fund (SOF)

With an aim to promote IGES' impact generation, the Strategic Operation Fund (SOF) was used for urgent and important actions that had no budget or that newly emerged in the middle of the year. For example, the SOF was used effectively to promote IGES participation in important policy processes and networks, such as APFSD, HLPF UNEA, as well as UNFCCC-COP. It was also used to convene a side meeting for the Coordinating Lead Authors (CLA) for Chapter 10 of the Working Group II report for the IPCC 6th Assessment Report (AR6), as well as to develop IGES Issue Brief on zero carbon cities in Kyushu area. It should be noted that, while there were around 40 proposals per year in FY 2017 and 2018 (with a total budget of approx. JPY 15 million), the significant decrease in proposals in FY2019 and FY2020 was thought to be due to the postponement or cancellation of planned business trips and meetings because of the spread of COVID-19.

1.1.5. Stakeholder Engagement

In terms of stakeholder engagement, IGES has strengthened its strategic networking, i.e. cooperation with global and regional strategic partners throughout the 7th Phase. IGES also promoted co-design and co-production with various stakeholders aiming at making changes in policies, planning and practices.

Strategic networking has been facilitated through ISAP, the flagship event of IGES, and other opportunities. Potentials for strategic collaboration with various international organisations and prominent research institutions were explored, memorandum of understanding (MOU) and other agreements were agreed upon, and existing MOUs were renewed based on the review of collaboration projects. At the end of the 7th Phase, there were 39 MOUs and 16 networks/initiatives IGES hosts in total.

The following is a list of selected MOUs which were newly agreed or renewed during the 7th Phase (Table 1.1.4). Also a list of international organisations or networks/initiatives that IGES hosts, serves as secretariat for, or has collaborative agreements with is presented in the Appendix.

Table 1.1.4: List of Selected MOUs Agreed or Renewed during the 7th Phase

International Organisations and Other	
Asian Development Bank (ADB)	Nov. 2020 (renewed)
Economic Research Institute for ASEAN and East Asia (ERIA)	Jan. 2021
Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)	Feb. 2019
International Council for Local Environmental Initiatives (ICLEI)	Apr. 2018 (renewed)
United Cities and Local Governments Asia Pacific (UCLG) Asia Pacific Regional Section (ASPAC)	Mar. 2019
United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP)	Mar. 2021 (renewed)
United Nations Environment Programme (UNEP)	Jul. 2019 (renewed)
UNEP-International Environmental Technology Centre (IETC)	Nov. 2017 (renewed)
United Nations Framework Convention on Climate Change (UNFCCC)	Dec. 2019 (renewed)
Research Institutes and Initiatives	

Adaptation Without Boundaries Initiative (AWBI)	Dec. 2020
Alliance to End Plastic Waste	Oct. 2020
Asian Institute of Technology (AIT)	Aug. 2017
Earth League (institutional member)	Oct. 2019
Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE), Viet Nam	Aug. 2019
International Institute for Sustainable Development (IISD)	Sep. 2018 (renewed)
Korea Environment Institute (KEI) , Republic of Korea	Jul. 2019 (renewed)
National Environment Commission (NEC), Bhutan	Sep. 2017
National Institute of Ecology (NIE), Republic of Korea	May 2019
New York Declaration on Forest (NYDF) Assessment Partner	Jul. 2019
Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)	Aug. 2020
START International, Inc.	May 2020
Local Governments, Japanese Universities and Other	
ICLEI Japan	Apr. 2018 (renewed)
Sado City	Dec. 2020
Shimokawa Town	Jan. 2018
Toyama City	Apr. 2021 (Renewed)
Tokyo City University	Apr. 2021

(In alphabetical order in each category)

However, there is still potential for further strategic collaboration with organisations, both with and without MOUs. In the ISRP8, IGES will review and further strengthen its strategic relationships with partners and gain opportunities for international advocacy and joint fundraising.

IGES' capacity in collaboration with strategic partners and relevant stakeholders, including business, local governments, civil societies and youth has significantly strengthened throughout the 7th Phase. By supporting stakeholder exposure to the latest and most advanced discussions on climate change and other global challenges, as well as through learning their concerns and interests, co-design and co-production is becoming the central part of IGES strategic research, not only within the practices of IGES Taskforces, namely BIZ, CTY and FIN, but also the practices of other research Units. A typical example includes, but is not limited to, the stakeholder workshops on 1.5 degree lifestyle with local governments and citizens participation.

1.2. Outputs

1.2.1. Output

The output targets were almost always overachieved or achieved. The results are shown below in Table 1.2.1, which shows all of the output targets, and Figure 1.2.1, which highlights the trend in peer reviewed articles and

written policy and research outputs. The only major exception was the target for written and policy and research outputs which was not achieved in FY2019, but it was more than offset by a large increase in the number of peer reviewed articles published, which was double the target.

Especially notable throughout the 7th Phase was that the target for peer reviewed articles was exceeded by at least 50 percent each year, and by over 100 percent in both of the last two years, in which over 60 articles were published. The total number of peer reviewed articles published during ISRP7, 226, was almost double the number published during ISRP6, 124. Moreover, the quality of the journals publishing these articles also increased significantly compared to the previous phase. In FY2020, over two-thirds of the articles were published in journals with impact factors above 3 and about one-third were above 5. IGES researchers have published articles in notable journals such as Environmental Research Letters, Current Opinion in Environment and Sustainability, Journal of Environmental Management, Environmental Science and Policy, Journal of Cleaner Production, Energy Policy, Science of the Total Environment, and Resources Conservation and Recycling.

The editorial office of the peer reviewed journal Sustainability Science, published by Springer, was moved to IGES during ISRP7. The journal's impact factor increased to 6.367 in 2020. In FY2020, IGES researchers published 9 articles in this journal.

Table 1.2.1: Outputs Targets and Achievements

		Target	FY2017 achievement	FY2018 achievement	FY2019 achievement	FY2020 achievement
Priority outputs*	Flagship/priority outputs focusing on climate and SDGs	2	4	5	3	4
	20-Year History of IGES (for IGES 20th Anniversary)*	1	1	NA	NA	NA
	Timely output on climate	1	1	2	1	2
	Timely output on SDGs	1	4	2	2	3
Written policy and research outputs		100	98	107	77	104
Peer reviewed journal articles		30	54	46	61	65
Contribution to global/regional assessments**		2	4	10	4	5

* Targets are annual, except for the 20-Year History of IGES, which was one time only.

** Number of ongoing and completed major global/regional assessment reports that IGES has contributed to.

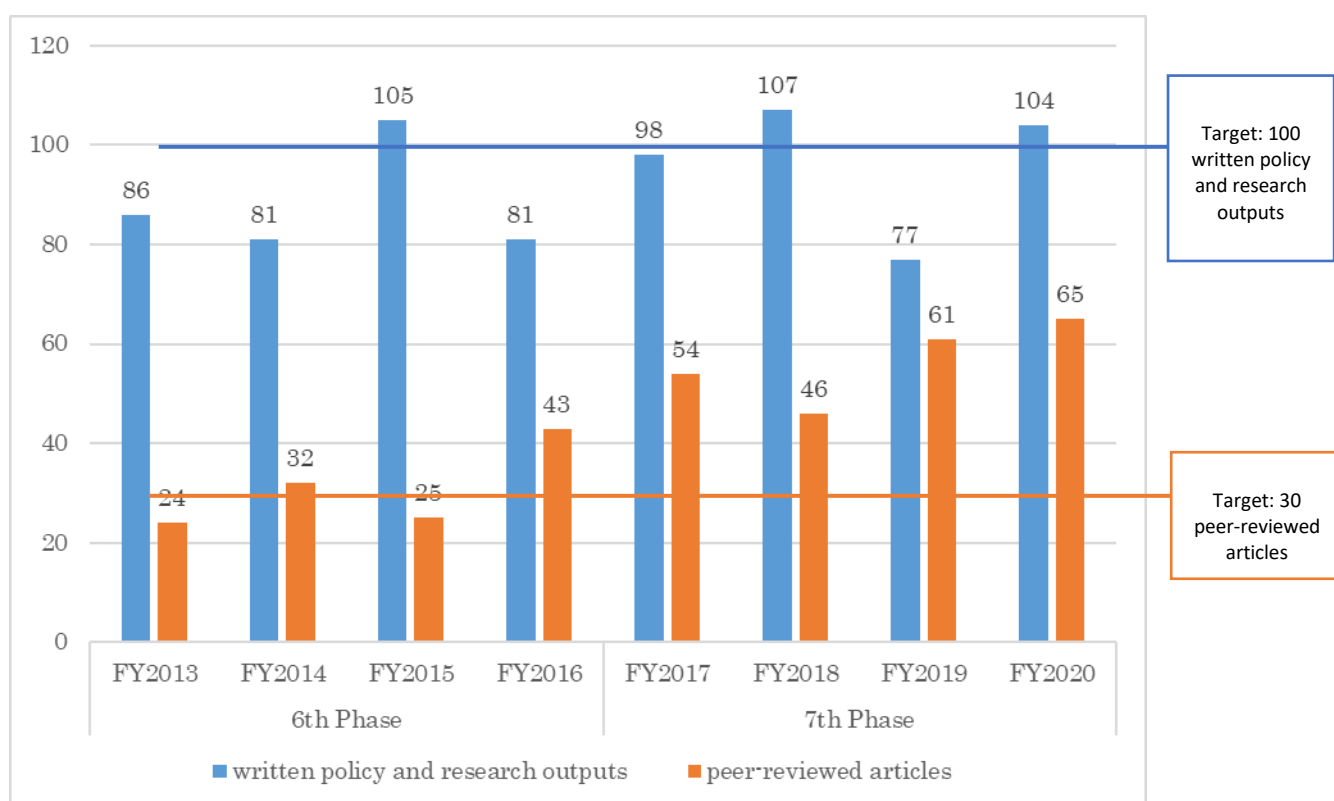


Figure 1.2.1: Written Policy and Research Outputs Compared to 7th Phase Targets

The flagship/ priority output targets were exceeded during ISRP8. Highlighted publications are listed below in Table 1.2.2. The 20-Year History of IGES was also produced.

Table 1.2.2: Selected Highlighted Flagship/Priority Outputs

Title	Publication Type	Topic Area	FY
Governance for Integrated Solutions to Sustainable Development and Climate Change	Book	Climate & SDGs	2017
Realising the Transformative Potential of the SDGs	Book	SDGs	2017
Designing the Rules of the Paris Agreement: Creating a Workable Framework beyond Transparency	Book	Climate	2017
Asia-Pacific Landscape Transformations	Book	Climate & SDGs	2018
1.5 Degree Lifestyles: Targets and Options for Reducing Lifestyle Carbon Footprints	Technical Report	Climate	2018
Proposals to Strengthen Japan's Domestic Measures and Regional Cooperation on Stable and Environmentally Sound Plastic Scrap Recycling: Response to China's Ban on Imports of Plastic Scrap (E/J)	Policy Brief	Plastic waste	2018
Net Zero World 2050 Japan	Policy Report	Climate	2019 (J)

			2020 (E)
Mainstreaming SDGs in Business: Actions by Companies and Organisations in Japan	Policy Report	SDGs	2019 (E) 2018 (J)
SDGs and Business in the SDG Era: Actions by Companies and Organisations in Japan	Policy Report	SDGs	2019 (J) 2020 (E)
Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle Income Countries	Policy Report	Plastic waste	2019
Business and SDGs to Overcome the COVID-19 Pandemic: From Response to Recovery	Policy Report	SDGs	2020 (J)
Assessment of the G20 Countries' Concrete SDG Implementation Efforts	Policy Report	SDGs	2019
Assessment of ASEAN Countries Concrete SDG Implementation Efforts	Policy Report	SDGs	2020
State of the Local Voluntary Reviews 2021	Policy Report	SDGs	2020
Waste Management during the COVID-19 Pandemic: From Response to Recovery	Policy Report	COVID-19	2020

IGES made important contributions to various major global and regional assessment reports during ISRP8, including ones related to IPCC, IPBES, and UNEP's Global Environment Outlook 6 (GEO6). The major assessment reports completed during ISRP8 are listed in Table 1.2.3. IGES researchers worked on 4 or 5 each year (10 during FY2018) in various capacities including chapter Coordinating Lead Author (CLA), Lead Author (LA), Contributor, and Chapter Scientist.

Table 1.2.3: Major Global and Regional Assessment Reports

Global Environment Outlook 6 (GEO6) (UNEP)
Global version
GEO6 for Youth – Asia Pacific
GEO6 for Industry in the Asia-Pacific
IPBES
Global Assessment
Biodiversity and Ecosystem Services for Asia and the Pacific
Thematic Assessment on Sustainable Use of Wild Species
IPCC
SR 1.5
AR6 WG1
AR6 WG2

AR6 WG3
Global Report on Disaster Risk Reduction
Air Pollution in Asia and the Pacific: Science-based Solutions (UNEP, CCAC, APCAP)
ASEAN State of Climate Change Report (in progress during ISRP 7)

IGES began to put more emphasis on submissions to policy processes and commentaries in FY2020. Submissions to policy processes focused especially on COVID-19, SDGs, and waste. These included a position paper on “Implications of COVID-19 for the Environment and Sustainability”, IGES key messages for the High-level Political Forum (HLPF), a National Action Plan on Sustainable Production and Consumption for Viet Nam, a plastic waste management strategy and action plan for the Greater Hyderabad Municipal Corporation, and guidelines on intermediate municipal solid waste treatment technology and composting. The commentaries focused on climate issues, including Japan’s 2050 Net Zero declaration, how decarbonisation could be achieved, the potential for renewable energy in Japan’s energy mix, the contribution of a green recovery from COVID-19 to a decarbonised society, Japan’s plan for phasing out inefficient coal-fired power plants, and an evaluation of reporting options under Article 6.2 of the Paris Agreement. In 2021 May, IGES also published a commentary in Japanese entitled “Is RE100% scenario truly unrealistic? – We should consider a wider range of options for power system decarbonisation”.

During ISRP7, IGES put more emphasis on translated outputs, especially from FY2019 (see Table 1.2.4). In FY 2020, 37 translations were produced (E⇒J: 22, J⇒E: 12, other 3), 5 more than in the previous year. Most were produced using internal funds and IGES staff, although 6 were externally funded. Translated outputs remained popular, accounting for 4 of the top 25 downloaded outputs, so they may be having some impact. Major translations into Japanese included the United Nations Environment Programme’s (UNEP) Adaptation Gap Report (Executive Summary), the Asia and the Pacific SDG Progress Report of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and a policy report published jointly by IGES and UNEP on Waste Management during the COVID-19 Pandemic: From Response to Recovery.

Table 1.2.4: Translated Outputs

		FY2019	FY2020
By Language	English→Japanese	23	22
	Japanese→English	9	12
	Other language	0	3
By Type of Output	Non-IGES Outputs	16	12
	IGES Outputs	9	19
	Commissioned work	7	6
	Total Translations	32	37

1.2.2. Citation

IGES made very substantial progress during ISRP7 in terms of citations to peer-reviewed journal articles as shown in Table W. IGES has tracked citations of peer-reviewed journal articles for six years using two different calculation methods, one from the Web of Science (WOS) which tracks citations mainly in academic articles, and one using Google Scholar, which tracks citations in a much wider range of publications including “grey literature” and outputs by international organisations. IGES has almost twice as many citations in Google Scholar compared to the Web

of Science, and Google Scholar is considered more appropriate for IGES since the target audience for IGES outputs is much wider than just the academic community, which is the focus of Web of Science.

Citations in the Web of Science more than doubled during ISRP7, increasing from 2,407 in February 2018 to 5,800 in February 2021, while Google Scholar citations (which includes articles not indexed in WOS) almost doubled from 7,642 to 14,478. The continued steady increase in the number of citations may be attributed to the increasing number of peer-reviewed articles as well as the increasing number of articles which are published in higher ranking journals such as Sustainability Science, Journal of Cleaner Production, Energy Policy, Applied Energy, Climate Policy, etc. It is also interesting that articles from the journal International Review of Environmental Strategies, which IGES stopped publishing in 2007, are still getting citations; this was facilitated when IGES published those articles directly on its website. Peer reviewed articles authored by IGES researchers indexed in WOS doubled from 214 in February 2018 to 430 in February 2021.

IGES does not track citations for other publication types because they are not included in Web of Science, and checking publications one by one on Google Scholar is very time consuming. However, it was observed that Web of Science now includes some edited book chapters, though not consistently. Edited book chapters which are picked up by Web of Science are also included in the calculation of Google Scholar citations in Table 1.2.5.

Table 1.2.5: Citations of IGES Publications (as of February 2021)

	Number of Articles				Number of Citations (WOS)				Number of Citations (Google Scholar)			
	Feb. '18	Feb. '19	Feb. '20	Feb. '21	Feb. '18	Feb. '19	Feb. '20	Feb. '21	Feb. '18	Feb. '19	Feb. '20	Feb. '21
WOS	214	281	358	430	2,409	3,266	4,343	5,800	5,050	6,541	8,381	10,914
Articles from Pub. DB / not in WOS	108	111	124	131	NA	NA	NA	NA	1,022	1,092	1,310	1,521
Sub Total	322	392	482	561	2,409	3,266	4,343	5,800	6,072	7,633	9,691	12,435
IREs*	141	141	141	141	NA	NA	NA	NA	1,570	1,765	1,889	2,043
TOTAL	463	533	623	702	2,409	3,266	4,343	5,800	7,642	9,398	11,580	14,478
Yearly Increase	+38	+70	+90	+79	+709	+857	+1,077	+1,457	+1,812	+1,756	+2,182	+2,898
% of Increase	+9%	+15%	+17%	+13%	+42%	+36%	+33%	+34%	+31%	+23%	+23%	+25%

1.2.3. Strategic Research Fund (SRF)

During ISRP7, an annual review of the results of the Strategic Research Fund (SRF) was begun. Each annual review surveyed the SRF projects from the previous two years, since sometimes some projects produce additional results even after the end of the Fiscal Year. This means that each project was surveyed twice, including the year after it was completed (so in this summary, the FY2020 projects were only surveyed once). Table 1.2.6 presents the results of the annual survey of SRF projects during ISRP7. Between 15-19 projects were approved each year, 63 in total, with a total authorized budget of about JPY 31 million per year on average. The results showed that the SRF was very successful in supporting publications as well as fundraising proposals. During ISRP7, the SRF supported a total of 161 publications of various types as well as 81 external funding proposals. At least 44 percent of the funding proposals were successful. It was difficult to determine the final result of some proposals due to gaps in the information collected by the survey. Projects also reported a variety of impacts. Some projects contributed to national and local policymaking. Many projects built relationships with stakeholders and provided a concrete foundation for new externally funded projects. Other projects received media attention or were presented at international meetings (such as the HLPF or T20) or conferences. One operational challenge was that each year over 40 percent of the approved budget was not spent by the projects. The survey showed this was mainly due to

efficient management, negotiation of cost reductions, or shifting some expenses to other budgets. In FY2020, the COVID-19 pandemic unexpectedly required most travel to be cancelled.

Table 1.2.6: SRF Results

	FY2017	FY2018	FY2019	FY2020	Total
Number of Projects	19	14	15	15	63
Publications	33	28	56	44	161
External Funding Proposals (accepted)	8	12	4	12	36
External Funding Proposals (rejected)	4	4	1	5	14
External Funding Proposals (waiting)	8	8	11	4	31
External Funding Proposals (total)	20	24	16	21	81
Total SRF Approved Budget (JPY mil.)	30.3	36.6	34.8	24.8	126.5
Total SRF Expenditures (JPY mil.)	18.2	20.5	21.5	12.7	72.9

1.2.4. Think Tank Ranking

The position of IGES in the University of Pennsylvania think tank ranking has remained quite stable, at number 40 globally among environment-related think tanks (See Table 1.2.7). The concrete implementation of the survey's criteria is not very clear, but IGES has regularly participated in one of the survey's think tank "summits" each year for the past few years in an effort to maintain visibility with the institute which conducts the survey. The ICCG survey of climate related think tanks apparently has been discontinued, and it was not conducted during ISRP7. ICCG's website does not seem to have been updated since 2017, and the last think tank report is no longer posted on its website.

Table 1.2.7: IGES in Rankings (FY2017-FY2020)

	2017	2018	2019	2020
GLOBAL GO TO THINK TANK by University of Pennsylvania (category: environment policy) (Published in January of the same fiscal year)	40	40	39	39

1.3. Resource Management

There were five teams in Planning and Management section (PM) to handle a variety of responsibilities: (i) planning and evaluation, (ii) ICT (Information and Communication Technology) Systems, (iii) financial management, (iv) human resources (HR) management and (v) facility management and general administration, and each team implemented their tasks to achieve PM's three common three objectives of improving institute-wide management i.e. (i) securing a sound financial base, (ii) developing institutional human resource capacity and work environment and (iii) improving operational efficiency and transparent corporate governance. In the second half of the ISRP7 (FY2019-FY2020), the preparation of the institute's research plans for the following phase (ISRP8) was added as an additional task in time for its launch in July 2021.

Overall, PM maintained its efforts in increasing operational efficiency throughout ISRP7 together with completing their regular tasks and responsibilities required for the institute and assigned to each team. Since there are a wide range of activities across teams, a common goal of increasing operational efficiency for PM as a whole helped ensure consistency among various internal administrative procedures, avoiding duplicated requests to staff members and prioritising resources to most-needed updating and upgrading in these procedures. In ISRP7, PM started off with fewer number of staff than the previous phase (ISRP6) but it managed to handle the increased volume of tasks expanded by projects over the years including those from overseas and completed their work without causing disruption to institute's business operation.

IGES also felt and experienced the impacts of the COVID-19 pandemic in the latter half of FY2019 and FY2020, not only in terms of staff members' daily lives and work but also project implementation (especially overseas missions and face-to-face conference and meetings) and business operation of IGES as a whole. To cope with the situation, teleworking and various online tools were introduced to complete planned projects as smoothly as possible and to maintain business operations even when staff were teleworking. This change in the mode of operation is believed to have brought about some positive changes/benefits to IGES operations.

Major achievements (excluding regular tasks and responsibilities) were summarised in Table 1.3.1. More detailed self-evaluation is presented in the following three sub-sections: financial management (1.3.1), human resource management (1.3.2) and operation efficiency and governance (1.3.3).

Table 1.3.1: Major Achievement by Planning and Management in ISRP7

Common Objectives	FY2017-2018* ¹	FY2019-2020
Sound Financial Base	<ul style="list-style-type: none"> • Use of FVA*² for project proposal screening and unit-level financial management • Added a domestic travel expense self-claim form combined with domestic travel cost calculator, etc. 	<ul style="list-style-type: none"> • Use of FVA - cont'd • Added an overseas travel expense self-claim form. • Adopted the electronic public procurement system by the Government of Japan (2019).
HR Capacity & Work Environment	<ul style="list-style-type: none"> • Introduced diversified working style (reduced work-day/remote for support child-raising). • Introduced Tenure and Tenure-Track system 	<ul style="list-style-type: none"> • Obtained two certificates on childcare support certification and women's participation promotion (2019) and maintained (2020). • Response to COVID-19 (2019-) • Established Teleworking System and Guideline (2020).

	(2018).	<ul style="list-style-type: none"> • ISRP8 staffing • In-house training/seminars on communications/ leadership (2020)
Operational Efficiency & Governance	<ul style="list-style-type: none"> • Rules and procedures updates and legal advice • Environment management certificate 	<ul style="list-style-type: none"> • Rules updates and legal advice, environment management certificate – cont'd • Introduced Slack and Zoom to support teleworking and communications with remote counterparts (2019), added private single-use meeting rooms and online meeting equipment; upgraded internet connection (HQ, TSF) (2020) • Finalised online internal request and document approval system, replacing existing the paper-based system (introduced in July 2021)
Other		<ul style="list-style-type: none"> • Finalised ISRP8 (May 2021). • Necessary preparation and arrangement for launching

Notes:

*1: Based on ISRP7 internal mid-phase review self-evaluation.

*2: IGES applies the concept of value-added to the externally-funded project or group level (when aggregated) financial management (namely “project financial value-added” or “FVA”). FVA is calculated as: revenue less project operating expenditures such as outsourcing and travel costs. This is the amount available for personnel and other expenditures necessary for IGES strategic research and operations. The ratio of FVA to the total project revenues (FVA ratio) is used for an indicator for the fund availability for IGES’s strategic activities.

1.3.1. Financial management

On the revenue side, IGES maintained the core fund from the Government of Japan and support from local governments (Kanagawa and Hyogo Prefecture and Kitakyushu City) at similar levels, owing to their continued support, and the volume of fundraising from other funds (“external funds”) resulted in the range of JPY 1.7-2.4 billion (Table 1.3.2). Overseas funding increased in ISRP7 thanks to increased fundraising efforts. Examples of overseas funds include: UNEP Japan-ASEAN Integration Fund (JAIF), SWITCH-Asia SCP Facility of European Commission (EU), UN-HABITAT, UNU Institute for the Advanced Study of Sustainability (IAS), ClimateWorks Foundation and others.

SMO-PM continued to pay close attention to improving financial value-added (FVA) through facilitating consultation with the management on approvals on project proposals and necessary cost-saving measures during project implementation and operation. The concept of FVA (see Notes to Table 1.3.1 above for definition), which was introduced as one of the recommendations from the third-party assessment and consultation conducted in 2016¹ was found to be useful to understand the financial basis at both project and institutional levels, and to improve the institute’s financial base by setting a yearly target. The FVA ratio has increased from 55% in FY2017 to 66% in FY2020 on a settlement basis. In the 8th Phase, in addition to FVA ratio, the volume of FVA against human resources should be also monitored with targets for financial management (Table 1.3.2).

On the expenditure side, the ratio of the administration cost has been kept under 13% till FY2019, however, it was increased to around 15% in FY2020 because of a decrease in total expenditures (Table 1.3.2).

The overall balance of revenues-expenses was met, except for the last two fiscal years (FY2019 and FY2020) when the impacts of COVID-19 pandemic were felt in many projects (Figure 1.3.1). Not only were many activities

¹ Administered by the Japan Productivity Center.

suspended but also quite a few projects have seen extensions to their contract period without additional financial resource to IGES, especially in the multiple-year projects funded by overseas organisations. These changes in financial coverage affected the Institute's financial balance especially in FY2019. In FY2020, efforts were made to adjust project implementation plans to be feasible even under COVID-19 and to complete projects, and in this way, there was a major improvement to the financial balance in FY2020 from the previous year.

In addition, the utilisation of the Deposit for Promoting Strategic Initiatives ("Deposit") as a part of financial management has been advanced in the 7th Phase. The value of the Deposit stands at JPY 287 million as of June 2021 and it has strengthened the institute's capacity to achieve its mission by covering the costs of important activities and investments that were not covered by other available funds, such as organising the International Forum for Sustainable Asia and the Pacific (ISAP), one of IGES' key events, raising internal translation/editing capacities, proactively funding emerging research topics such as net-zero (decarbonised) society, climate change adaptation, marine plastic litter and related issues, and establishing a secretariat for Sustainability Science (a peer-reviewed journal). These activities helped developing a base for ISRP8 activities.

Overall activities have shifted from on-site to on-line due to COVID19 and now will shift to a hybrid version. IGES should carefully watch this trend and flexibly adjust the structure of its budget in ISRP8, reflecting the expected activities.

Table 1.3.2: Finance-related Targets and Their Results (FY2017-FY2020)

Indicator	FY2017 Target	FY2018 Target	FY2019 Target	FY2020 Target	ISRP7 Phase- End Target (FY2020)
	FY2017 Result	FY2018 Result	FY2019 Result	FY2020 Result	
Contribution from the Ministry of the Environment, Japan (MOEJ) [JPY million]	500	500	500	500	500
	500	500	500	500	
Volume of external funds [JPY billion]	2.2	2.3	2.4	2.2	Over 2
	2.0	2.2	2.2	1.7	
Ratio of project financial value-added (FVA) in the external funds in total, contract-based [%]	47%	48%	49%	52%	49%
	55%	52%	53 %	66%	
Ratio of international external funds in the external funds [%]	25%	25%	Over 25%	Over 25%	Over 25%
	26%	20%	38%	20%	
Ratio of general administrative cost in the total expenditure [%]	Around 13%	12.7%	13%	13%	12%
	13%	12.5%	12.9%	15.5%	

[Notes to indicators]

1. Exchange rate in the month of budgeting (April) or settlement (June) was used for target setting or result reporting for each fiscal year.
2. FVA target ratios are contract-based, and result ratios are settlement-based.
3. Headquarters building rental fee is excluded because it is fully subsidised by the local government.

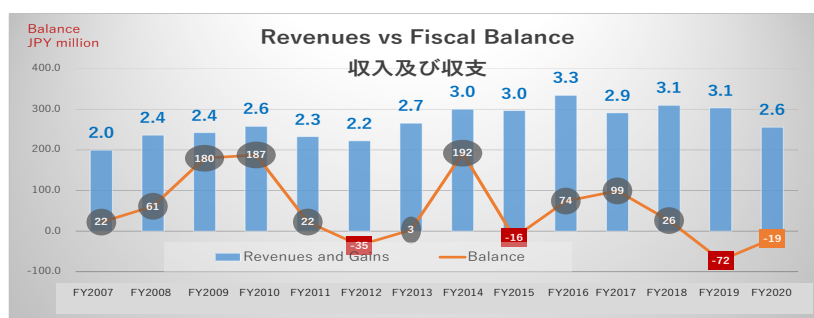


Figure 1.3.1: Fiscal Balance (FY2007-FY2020)

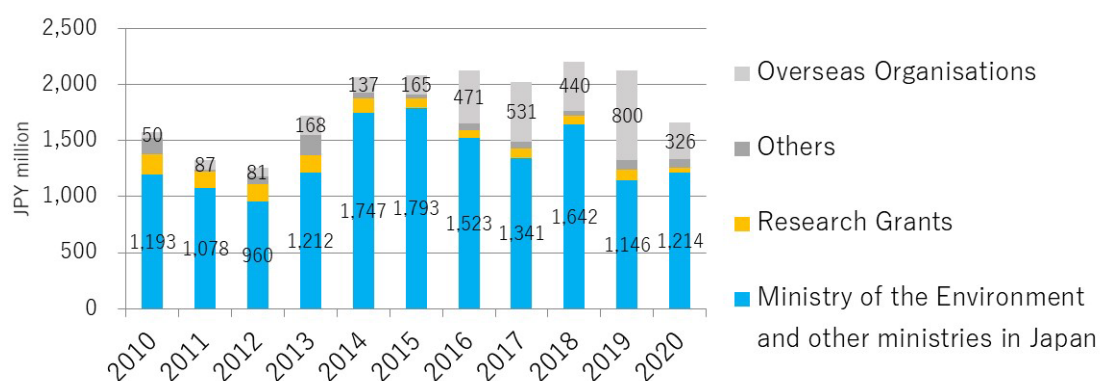


Figure 1.3.2: External Funds by Source (FY2010-FY2020)

1.3.2. HR

(1) Staffing

The number of full-time staff has increased by a total of 12 persons in the 7th Phase to carry out the added activities and respond to the needs in emerging areas such as climate change adaptation and plastic issues. The Deposit was utilised to cover the personnel costs for certain positions related to future activities and opportunities. In the meantime, the number of administrative staff members was kept at the same level during the 7th Phase by combined efforts on improving operation efficiency mentioned below (Table 1.3.3).

In FY2018, the Tenure and Tenure-track system was introduced to retain valuable staff members with their longer-term commitments and contributions. The number of staff members under Tenure and Tenure-track are 11 and 12, respectively as of June 2021, totaling about 15% of all full-time staff members.

IGES also supported career development by providing diverse opportunities outside IGES such as the Ministry of the Environment, Japan, Economic Research Institute for ASEAN and East Asia (ERIA), Local Governments for Sustainability (ICLEI) Japan, and local governments in the form of secondment or others.

Table 1.3.3: Number of IGES Staff Members (FY2017-FY2020)

Categories		FY2017	FY2018	FY2019	FY2020
Number of Professional Staff		123	128	134	134
	Principal staff	21	22	21	21
	Senior staff	37	43	48	49
	Professional staff	56	54	56	55
	Dispatched from other organisations	9	9	9	9
Number of Operation Staff		22	30	25	23
Total: IGES Staff members (Full-time)		145	158	159	157

Number of administrative staff (incl. part-time staff)		25.5	25.8	25.7	24.2
Total: IGES Staff members (Full-time & Part-time)		145.9	158.9	162.8	161.0
Ratio of administrative staff in total staff		17.5%	16.2	15.8%	15.0%

Note:

- Numbers are as of the end of each fiscal year (June)
- Number of temporary staff is excluded

(2) Arrangements for Employee Working Conditions

IGES had been renewing the institutional arrangements for working conditions in accordance with the changes in government policies, and guidance and needs of staff members. With diverse efforts on improving working conditions such as significant reduction in overtime work hours per person (Table 1.3.4) and introduction of flexible working style to staff members undertaking child care (3-4 work days per week), IGES has successfully obtained two certificates (childcare support certification and women's participation promotion) in FY2019.

The working environment in the latter half of FY2019 and for the whole of FY2020 was directly affected by COVID-19, in the same way as other organisations. Prompted by the COVID-19 pandemic, IGES introduced teleworking to all staff members not only as a measure to reduce the risk of infection, but also as a tool to improve productivity and promote a good work-life balance for staff members. The teleworking system also brought about cost reduction as a whole due to a change in the payment method for commuting allowance. In addition, COVID-19 has shifted project activities from overseas missions and face-to-face activities on site (conferences/workshops) to online- conferences/workshops as well as webinars, it reduced staff travelling time and eased their intensive workloads from overseas missions which provided staff members more time to focus on preparing outputs as well as to spend on their private and family issues. It should be also noted that COVID-19 pandemic also increased work outside conventional office hours to an extent, in order to attend online international conferences/workshops due to time differences with Japan Standard Time.

In ISRP8 IGES will continue its efforts with the objectives of making the working environment SDGs-compatible and free from unconscious bias, or any forms of harassment or discrimination.

(3) Activity Planning and Performance Evaluation

IGES has been practicing annual planning and goal (“milestone”) setting to achieve its four-year phase (ISRP7) targets in two tiers, i.e. group/unit and individual staff levels. Annual group-level milestones are set in discussion with IGES management and SMO sections (impact generation with KC, outputs with SMO-RP and resource management with PM) to meet institutional targets (impacts, outputs, resources) and monitored each year. For PM, this process helps not only understand the funding level and expected work volume (planned project work days) by each group but also address concerns related to work allocation/distribution of workloads by staff members. The work volume information became more detailed, precise and transparent over the years during ISRP7.

To deliver group milestones, each staff member sets an annual milestone. The process includes identifying roles and responsibilities and assigning tasks and outputs for each staff member in consultation with their supervisor at the beginning of each fiscal year. These individual milestones are revised as necessary during the year and serve as a basis for the year-end performance evaluation. A new form for individual goal-setting and evaluation was introduced for ISRP7 in FY2017 to all staff members regardless their major roles at IGES (research-oriented, programme-coordination, administrative, etc.) to assist performance-based evaluation under the institute’s common goals. The form was renewed for ISRP8 to respond to the need for a simpler and more flexible form in 2021. In the process of evaluation, IGES management (President, Executive and Managing Directors) ensured the overall quality of the process through face-to-face/online interviews in addition to interviews by direct supervisors in each unit.

One challenge for each unit and staff member is how to predict the level of work volume by funded projects and then set appropriate milestones at the beginning of fiscal year (July) for the coming 12 months and monitor them. IGES relies to a large extent on the Japanese government commissioned work (April-March cycle) and their contract processes sometimes lag behind. This means that the assigned work is subsequently delivered in a shorter duration by the end of March. Multiple-year projects (domestic and overseas) were generally encouraged to smooth out such workload fluctuations. Overall, the milestone setting and managing process has been practiced in a flexible manner to deal with a variety of projects (project contents, funding agencies and cycles) as well as moving targets and changing priorities in the area of sustainability during ISRP7.

Another challenge in planning and managing individual staff’s project work days may lie in the limitation of the tool itself (currently budget-based data via the Accounting System). It may be worthwhile to consider adopting a commercially-available project management-related tool that would be suitable to IGES’s scale and the nature of its operations. Such tools could help institute-wide resource planning and management as well as milestone setting at the unit and individual levels, further facilitating a result-based performance evaluation at IGES as is practiced by more advanced companies.

(4) Third-party Staff Satisfaction Survey²

IGES conducted a third-party staff satisfaction survey (an assessment of the level of satisfaction and concerns by staff members based on their perceptions) in 2020. This second survey was first conducted in FY2016.

Overall satisfaction level has substantially improved compared to the previous survey in 2016. The most significant factor contributing to this was “Empathy to the vision and mission of IGES.” On the other hand, lower levels of

² A survey package participated by many companies administered by Japan Productivity Center.

satisfaction were expressed in issues such as “evaluation and conditions (incl. salary),” “capacity building” and “relationship and communication with other units.”

To partially address these issues, special training sessions by an expert were offered in 2020 to Principal and Senior staff members to improve leadership and communications. In addition, IGES has provided regular in-house seminars and orientations on topics such as project fund management, publication policies and avoidance of academic misconduct, protection of personal information, communications and outreach. In ISRP8, IGES will continue to conduct Staff Satisfaction surveys to check on progress and identify issues for continued improvement.

1.3.3. Operation Efficiency and Governance

Together with financial and human resources management, IGES made efforts to increase operational efficiency as an important pillar of work by PM. A variety of improvements were made by revisiting the existing internal systems (document requirements, forms, approval flows, etc.) and simplifying, modifying or replacing them with alternative ways.

Some long-standing paper-based procedures were replaced with web-based systems. One example was the introduction of a web-based overseas mission request and approval system that includes streamlining the process for flight booking and insurance purchase. As the volume of overseas missions was significant in FY2017-2018 and the first half of FY2019 (before the COVID-19 pandemic), the new one-stop system increased request-approval processing efficiency and yielded a high-level of satisfaction from staff members. Other similar efforts were made for travel expense claims, pay slips and other HR-related notifications to each individual staff added onto IGES system, adoption of an electronic public procurement system by the Government of Japan (Section 1.3.1) and an electronic contracting system (on a trial basis prior to its full-scale introduction). In July 2021 a web-based internal request/ document approval system which had been developed in FY2020 was introduced to replace the existing paper/stamp-based approval system (Table 1.3.5). Introduction of online IGES Proposal and Project Review System (PPRS) and an electronic sealing system (to supplement electronic contracting system above) are already scheduled in ISRP8 to replace existing paper-based procedures.

In the wake of the COVID-19 pandemic, the demand for online meeting tools was increased not only to support a number of international conferences and meetings that had replaced their original face-to-face meetings, but also to ensure that close communications are maintained among staff members when they are teleworking. In 2019, the ICT team led the introduction of the communication tool Slack and the online meeting tool (Zoom) to respond to such demand. ICT also provided technical support to users. In continuing to respond to the increased demand for online meetings, in 2020 ICT added a few private single-use meeting rooms (HQ) and online meeting supporting equipment (HQ, TSF and KUC) and the facility team upgraded IGES internet connections (HQ and TSF). These improvements enabled IGES not only to strengthened engagement with its partners and stakeholders in a virtual space, but also carry out business and projects despite the impacts of the COVID-19 pandemic.

ICT coordinated discussion and investigation on further improving operational efficiency at SMO with relevant members from the accounting and HR teams, and from SMO-KC. Meanwhile the accounting team led an investigation on renewing IGES’s accounting support system with a view to responding to the Government of Japan’s amendment to the Act on Special Provisions concerning Preservation Methods for Books and Documents Related to National Tax Prepared by Means of Computers which promotes a paperless accounting practice and mandates a robust system for preserving electronic documents and other conditions. The trend on supporting remote work/procedures is bringing about a fundamental change to business operations and a chance to revisit

and update internal procedures. In ISRP8, IGES will continue its efforts to improve operational efficiency with the basic principles of making IGES systems swift, international and transparent.

In addition to increasing operational efficiency, IGES continued its efforts to improve its environmental footprint, and has successfully maintained its environmental management certification (Eco-Action 21 certification which is administered under Ministry of the Environment, Japan) since 2012. IGES received an acknowledgement from the Eco-Action 21 secretariat for its long-term efforts in 2021. Under this certification, paperless meetings (including Boards of Directors and Trustees meetings), reduction of CO2 emissions from energy use and overseas missions and other activities were conducted and reported.

Another important function provided by PM was a legal review and advice on various institutional legal matters at IGES by its in-house legal expert. IGES introduced or upgraded internal legal document templates and forms, updated regulations and rules to ensure compliance with the most updated government rules and guidance. Introduced or revised procedures contributed to increasing transparency in the process and reducing various risks in conducting business. During ISRP7, IGES received audits regularly by the national authority (Cabinet Office), Prefectural authority (Kanagawa Prefecture) and a certified accounting auditor and it has passed all audits.

Table 1.3.4: Management-related Targets and Their Results (FY2017-FY2020)

Indicator	FY2017 Target	FY2018 Target	FY2019 Target	FY2020 Target	ISRP7 Phase-End Target (FY2020)
	FY2017 Result	FY2018 Result	FY2019 Result	FY2020 Result	
Ratio of administrative staff in total staff	20%	19%	17%	16%	15%
	18%	16.2%	15.8%	15.8%	
Reduction of overtime [%, in comparison with FY2016]	40% (expense-based)	45%	45%	53%	60%
	43%	42%	61%	68%	
Monthly overtime hours per person [hour], (FY2016=20.1)	14.5	13.7	10.5	8.6	Reference to item 2
Improvement in the efficiency of IGES internal decision making [%, in comparison with FY2016]	Over 30%	Over 40%	Over 50% & 45%	Over 50% & 45%	80%
	38% 49%	27% 49%	31% 55%	23% 81%	

[Notes to indicators]

- 1: Administrative staff members correspond to the staff in the SMO-PM and those who are engaged in administrative work in satellite offices. IGES Fellows and temporary staff are excluded from total staff numbers.
- 2: Overtime by staff members who are not under discretionary labour system applied. Originally, FY2017 reduction target was set at 40% on expense-based (or index of 60 compared to 2016 as 100) but to monitor the improvement in work efficiency more appropriately, a time-based indicator is introduced instead of an expense-based one and the ISRP7 Phase-end target was also revised accordingly. Monthly overtime hours per person were also monitored.
- 3: The phase-end target (80%) and annual target for FY2017 (first year of the phase) were originally set in an aspirational manner without specific indicators. To monitor the efficiency of the IGES internal approval procedures during the phase, two indicators were used: (i) Number of paper-based request approvals and (ii) Processing time for overseas mission online approval that was introduced in FY2017 replacing paper-based approvals. Both used FY2016 results as a baseline.

For (i), the degree of improvement remained in the range of 23% to 38% compared to FY2016. While the number of paper-based request approvals, which require approvers' physical signatures/seals, was kept below the FY2016 level throughout the phase partially with the efforts of simplifying procedures, the number of necessary approvals fluctuated with the approvals required for the project implementation or by project funders. It was generally considered that a fundamental change would have been needed to an existing paper-based procedure itself. In FY2019, paper-based approvals were replaced by email-based approvals between April and June in 2020 due to COVID-19, and it was decided that a web-based system should replace a paper-based system to enable teleworking approvers to make necessary decisions. A web-based document approval system was introduced in July 2020. An electronic contracting system was also introduced in FY2020 on a trial basis prior to its full-scale rollout.

For (ii), the introduced web-based system drastically shortened the processing time (halved) in the first year of introduction and maintained the performance in the following years. The system was considered well-adopted by the staff members and functioning at its full capacity. In FY2020, the average was calculated from four records (only four mission requests) due to COVID-19.
























Table 1.3.5: Examples of New and Upgraded Internal Online Systems

System	Improvement
“MyIGES” system (a platform to support IGES-wide knowledge management including IGES publication database and website)	<ul style="list-style-type: none"> The new online overseas mission request and approval system includes streamlining the process of flight booking and insurance purchase (2017). Mission reporting function was added to the system (2018). IGES Publication Database and IGES website were both upgraded (2020). Proposal and Project Review System (PPRS), consisting of a review and approval for fundraising proposals, a database of past proposals, and a database of IGES projects, was developed (to be introduced in 2021).
Accounting /HR system (Budget Control System)	<ul style="list-style-type: none"> Accounting system added domestic travel expenses claim function (FY2017). The function is linked with the travel fee calculation software, which enabled each staff to apply for their travel costs directly by themselves without paper applications. Provision of pay slips and other HR-related notifications was added (2019-2020).
Google Suite	<ul style="list-style-type: none"> Service subscription started to provide data storing and sharing function and host various internal requests and reservation forms (2017-). An online internal approval system was introduced, replacing the existing paper/stamp-based approval system in an effort to improve efficiency and transparency in the process across all offices of IGES (July 2021).
Other web-based system	<ul style="list-style-type: none"> Adoption of the electronic public procurement system by the Government of Japan (2019). Adoption of an electronic contracting system (2020, on a trial basis prior to its full-scale introduction). Staff safety confirmation system for emergencies in Japan (2017).

1.4. Overall Self-Evaluation

Summary of self-evaluation presented with facial expression and short text reported to the Board of Directors and Trustees in FY2017-2020 are presented in Table 1.4.1 and 1.4.2.

Table 1.4.1: Summary of Self-Evaluation (Facial Expression)

	FY2017	FY2018	FY2019	FY2020
Impact Generation				
Outputs				
Operations and HR				
Financial Settlement				
Overall	 	 		 

Facial Expressions Used for Self-Evaluation in Table 1.4.1.

Exceptionally excellent	Excellent	Good / Satisfactory	Need for improvement	Unsatisfactory
				

Table 1.4.2.: Summary of Self-Evaluation (Text)

	2017	2018	2019	2020
Impact Generation	Several higher-level impacts are reported out of target 25 cases.	Several higher-level impacts are reported out of target 36 cases.	Several higher-level impacts are reported out of target 35 cases.	9 “Impact 1” cases and 13 “Outcome 3” cases are reported out of a total of 37 cases.
Outputs	Targets are generally achieved with an increased number of reviewed articles.	Targets generally expected to be achieved. Enhanced contributions to major assessments such as GEO6 and IPCC AR6. Continued strong increase in citations of peer reviewed articles.	Increased peer-reviewed journal articles, articles in journals with relatively high impact factors. More submissions to policy processes. Continued increase in citations of IGES publications.	Continued high number of peer-reviewed journal articles, especially in journals with relatively high impact factors. More books, commentaries. Continued significant increase in citations of IGES publications.
Operations and HR	Targets are generally achieved with a few concrete cases of improvement.	Targets are generally achieved with the introduction of updated regulations/policy related to information management and conducting a mid-phase review in time.	Targets are generally achieved with the continued efforts in improving operational efficiency.	Introduction of new online system and tools made remote business activities at IGES more effective and efficient. Training sessions were offered to Principal and Senior staff members to improve leadership and communications.
Financial Settlement	Targets are generally achieved with institute-wide effort of improvement in FVAs.	Targets are generally achieved with institute-wide effort of improvement in FVAs.	Targets are generally achieved with institute-wide effort of improvement in FVAs.	While project activities were affected by COVID 19 and income decreased, efforts were made to secure necessary FVA and maintain a sound financial base.
Overall	Satisfactory	Satisfactory – Excellent	Satisfactory	Excellent - Satisfactory

Appendix: Lists of the United Nations Units, International Networks/Initiatives or Organisations that IGES Hosts, Serves as Secretariat for, or Has Collaborative Agreements with (As of June 2021)

United Nations Units (4)

No.	Name of the Unit	Year (Hosting Division at IGES)
1	Intergovernmental Panel on Climate Change (IPCC) Task Force on National Greenhouse Gas Inventories (TFI) Technical Support Unit (TSU)	September 1999- (HQ)
2	IGES Centre Collaborating with UNEP on Environmental Technologies (CCET)	March 2015- (HQ)
3	United Nations Framework Convention on Climate Change (UNFCCC)-IGES Regional Collaboration Centre (RCC)	September 2015- (BRC)
4	The Technical Support Unit for the Assessment of Invasive Alien Species (TSU-IAS) for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)	February 2019- (TSF)

Networks to which IGES Serves as Secretariat (12)

No.	Name of the Network	Main Function
1	ASEAN SDGs Frontrunner Cities Programme	Regional network which promotes bottom-up innovative practices/policies by ASEAN's frontrunner cities.
2	Asian Co-benefits Partnership (ACP)	Network to support the mainstreaming of co-benefits into sectoral development plans, policies and projects in Asia launched at the Better Air Quality 2010.
3	Asian Environmental Compliance and Enforcement Network (AECEN)	Regional Network of national and sub-national agencies from Asian countries committed to improving compliance and enforcement launched in 2005 with support from the USAID and partner organisations including ADB, USEPA and UNEP and others.
4	Clean Asia Initiative (CAI)	Initiative to help economic development in Asian countries to leap over environmental degradation by passing on Japan's experiences of technologies, organisations, and systems.
5	International Institute for Applied Systems Analysis (IIASA) Japan Committee Secretariat	Research collaboration currently focuses on solving global scale problems mainly in the field of systems analysis.
6	International Research Network for Low Carbon Societies (LCS-RNet)	Researchers' network which dedicates to governmental policy making processes to promote low-carbon societies. Initiative the G8 Environment Ministers' Meeting.
7	Japan Climate Leaders' Partnership (JCLP)	Support Japanese private-sector network to promote the transition to sustainable and low-carbon society.
8	Japan Partnership for Circular Economy (J4CE)	Strengthen public-private partnerships with the aim of further fostering understanding of the circular economy among a wide range of stakeholders.
9	Knowledge Hub of the Asia-Pacific Water Forum	One of the regional water knowledge hubs to generate and share water knowledge and building capacity in the Asia-Pacific region.
10	Low Carbon Asia Research Network (LoCARNet)	Asian Researchers' network to facilitate science-based policies for low-carbon development in the Asian region, launched by LCS-RNet.
11	SWITCH-Asia Sustainable Consumption and Production Facility	Facility to provide information on the SWITCH-Asia grant projects and contribute to a wider dissemination of information material on SCP. The facility is jointly implemented by GIZ, IGES and adelphi.
12	Water Environment Partnership in Asia (WEPA)	Network to improve the water environment in Asia by strengthening water environmental governance.

Collaborative Agreement (MOUs) (39)

No.	Institute	Agreed/ Renewed	Scope
International Organisations (10)			
1	Asian Development Bank (ADB)	2020/11/26	Climate change, wastes, energy, water resources
2	Economic Research Institute for ASEAN and East Asia (ERIA)	2021/1/7	Strengthen policy research for circular economy and prevention of marine plastic pollution in ASEAN+3 Countries
3	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)	2019/2/1	Establishment of and collaboration through the IPBES-TSU for the Assessment of Invasive Alien Species
4	International Council for Local Environmental Initiatives (ICLEI)	2018/4/2	City level collaboration for sustainable cities
5	United Cities and Local Governments Asia Pacific (UCLG) Asia Pacific Regional Section (ASPAC)	2019/3/28	Promoting and advocating Voluntary Local Review (VLR) as a mechanism for local governments to monitor SDGs
6	United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP)	2021/3/31	SDGs, knowledge sharing and mutual support to conferences
7	United Nations Environment (UNEP)	2019/7/1	Climate change, wastes, air pollution
8	UNEP-International Environmental Technology Centre (IETC)	2017/11/13	Establishment of Collaboration Centre on Environmental Technology
9	United Nations Framework Convention on Climate Change and its Kyoto Protocol (UNFCCC)	2008/5/1	CDM data exchange
10	UNFCCC	2019/12/9	Establishment of and collaboration through the UNFCCC Regional Collaboration Centre (RCC)
Research Collaboration (18)			
1	Adaptation Without Boundaries Initiative (AWBI) - Overseas Development Institute (ODI) - Stockholm Environment Institute (SEI) - Institute for Sustainable Development and International Relations (IDDRI)	2020/12/11	Joined the Adaptation Without Boundaries Initiative (AWBI) to be voice of the importance of addressing transboundary climate risks.
2	Alliance to End Plastic Waste	2020/10/29	Strengthen engagement with cities to promote sustainable waste management
3	Asian Institute of Technology (AIT)	2017/8/21	Policy research on sustainable development
4	Asia-Europe Foundation (ASEF) The Stockholm Environment Institute (SEI) The Hanns Seidel Foundation (HSF) ASEM SMEs Eco Innovation Center (ASEIC)	2020/1/1	Contribution to the Asia-Europe Environment Forum (ENVforum) to foster inter-regional cooperation between Europe and Asia on sustainable development and its environmental dimensions.
5	Earth League (institutional members)	2019/10/1	To express intention to be an institutional member of the Earth League
6	Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE), Viet Nam	2019/8/15	Research collaboration on major topics incl. SDGs, Low-carbon development, Green tech. and Innovation, Circular economy
7	International Centre for Integrated Mountain Development (ICIMOD)	2015/11/15	Research collaboration on natural resources management
8	International Institute for Sustainable Development (IISD)	2018/9/1	Knowledge exchange
9	Korea Environment Institute (KEI)	2019/7/31	Research collaboration in the major thematic areas incl. climate change
10	National Environment Commission (NEC), Royal Government of Bhutan	2017/9/1	Research collaboration in the area of climate change and its impact in Bhutan
11	National Institute of Ecology (NIE), Republic of Korea	2019/5/21	Research collaboration on ecological management and conservation
12	New York Declaration on Forest (NYDF) Assessment Partner	2019/7/8	Collaboration in supporting activities associated with NYDF Progress Assessment

13	Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)	2020/8/26	The establishment of IGES as a PEMSEA Regional Center of Excellence (RCoE) in Climate Change Adaptation and Disaster Risk Reduction
14	PT Sarana Multi Infrastruktur (PT SMI), Indoensia	2019/2/14	Research collaboration towards realisation of SDGs
15	Sino-Japan Friendship Center for Environmental Protection	2006/7/2	Research collaboration on environmental protection
16	START International, Inc.	2020/5/28	Research collaboration to promote Regional/Local-CES concept
17	The Energy and Resources Institute (TERI)	2021/4/1	Mutual agreement to host desk each other
Cities/Local Governments/Related Organisations (6)			
1	City of Yokohama (Y-PORT)	2015/3/3	City level collaboration for sustainable cities in Asia
2	Kanagawa Prefectural Government, Board of Education,	2019/10/7	Collaboration for Kanagawa Prefectural High School Learning Consortium
3	Kawasaki City	2013/8/8	City level collaboration for sustainable cities in Asia
4	Sado City	2020/12/17	Toward the construction and development of a sustainable decarbonized society where the environment and the economy are harmonized
5	Shimokawa Town	2018/1/26	Technical cooperation on promotion of SDGs
6	Toyama City	2021/4/1	Technical cooperation for decarbonised urban development
7	ICLEI Japan	2018/4/12	City level collaboration for sustainable cities
Japanese Universities (5)			
1	Hiroshima University	2010/6/2	Personnel exchange, research collaboration
2	Tokyo City University	2021/4/1	Collaboration on research and education
3	Tokyo Institute of Technology	2011/12/14	Personnel exchange, research collaboration
4	Yokohama City University	2011/7/26	Personnel exchange, research collaboration
5	Yokohama National University	2007/3/19	Personnel exchange, research collaboration

Other (Membership, etc.) (8)

	Institute, Network or Initiative	Scope
1	International Science Council (ISC)	
2	Japan Consortium for Future Earth (2013-)	Collaboration on research and knowledge exchange
3	Rockefeller Foundation 100 Resilient Cities program (2016-)	Platform partner to support resilience strategy formulation
4	Sustainable Development Solutions Network (SDSN) Japan (2015-)	Collaboration on research and knowledge exchange on SDGs
5	UNEP (2020-)	Accredited Organization (under the category of the scientific and technological community)
6	UNEP Finance Initiative (UNEP FI) (2017-)	Joined as a Supporting Institution
7	United Nations Economic and Social Council (UN ECOSOC) (2003-)	Contribution to the work of UN
8	United Nations Global Compact (UNGC) / Global Compact Network Japan (GCNJ) (2015-)	Collaboration on knowledge exchange on SDGs

2. Group-level Performance

2.1. Climate and Energy (CE)

2.1.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

The overall focus of research and operations of this area for the 7th Phase will be broadly placed on contributions to: (i) operationalisation of the Paris Agreement; (ii) development of appropriate NDCs by selected countries in Asia; and (iii) promotion of key stakeholders' engagement in climate actions, taking fully into account the Strategic Goals set out by MLS

The following are priority subjects and actions:

- Five-year cycle for ratcheting up: Contribute to design and implementation of this ratcheting up system, including details of an international mechanism to be developed. Join international partner institutes to review NDCs of major economies in relation to the long-term temperature target stipulated by the Paris Agreement, which include political economic analysis of phasing-out of coal, development of indicators for measuring progress of mitigation policies, and review of national long-term low-emission development strategies. Quantitative analysis will be a joint effort with the Centre for Strategic and Quantitative Analysis to be established.
- Operationalisation of the Carbon Market Mechanism under the Paris Agreement: Contribute to elaboration of Article 6 of the Paris Agreement, which stipulates both cooperative approaches and the Sustainable Development Mechanism, and analyse market mechanisms under the UNFCCC before and after 2020; contribute to enhance implementation of the Joint Crediting Mechanism (JCM) in partner countries, and propose guidelines for the cooperative approaches defined under the Article 6.2 of the Paris Agreement based mainly on the implementation experiences of the JCM.
- Building capacity for NDCs Readiness: Contribute to assisting selected countries in Asia to become domestically ready for NDCs implementation, which includes assistance to develop long-term low-emission development strategies. Equally important will be contributions to build capacities in developing countries in Asia ready for the transparency framework. Propose effective modalities, procedures and guidelines under the UNFCCC process, and launch the "Coalition on Paris Agreement Capacity Building", consisting of institutes and international experts, to implement capacity building activities by providing, for example, country in-depth reviews and consultations and on-line training courses and tools, and development of policy framework. This component would be a joint activity with the Centre for Strategic and Quantitative Analysis to be established.
- Engagement of Non-State Actors: Contribute to promoting engagement of key non-state actors in climate change mitigation and adaptation, by providing strategic information and through networking. Assist, among others, leading actors to be involved in the processes and mechanisms set up under UNFCCC and facilitate access to various financial and technical resources to advance their actions. Full coordination will be made with the Business Taskforce and the City Taskforce to be established.

2.1.2. Intended Impacts/Outcomes by the Area

- Operationalisation of the Paris Agreement
- GHG emissions reduction through implementation of the JCM

- Political and social debates on carbon pricing in Asia are progressed
- Climate policy is developed by offering visualised pathways to decarbonisation

2.1.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit secured a significant volume of continued contracts from the Ministry of the Environment, Japan and successfully completed them in FY2017-2018. The contents of these contracts are being renewed and expanded from FY2019, reflecting the needs of the Government, and therefore the Unit will need to adjust the ways it implements projects and is also expected to build up technical capacity at IGES (methodology development for Joint Crediting Mechanism (JCM)). Collaboration with IPCC TFI-TSU (hosted at IGES headquarters) and UNFCCC-RCC (hosted at BRC) is an encouraging development. The Unit has been also accumulating technical knowledge and experience from climate change negotiation and its rule-making, as well as boosting the transmission of messages on various occasions and through diverse media. These achievements contributed to raising IGES's profile and visibility overseas and in Japan. It is suggested that the Unit make further efforts not only in building up analytical and academic capacity to develop conceptual basis for policy discourses (integrated approach, transition management, etc.) but also in providing policy recommendations that can bridge policy and science in the broader issue area of climate change (mitigation, adaptation, co-benefits/air pollution, technology, resource circulation). The proposal to set up a broad group to strengthen output generation capacity would be considered useful in this respect.

2.1.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

The CE unit influenced UNFCCC negotiations especially on Article 6, Transparency and Global Stocktake, in various ways, such as publishing policy papers, organising side events at every COP and Subsidiary Bodies meeting, as well as directly engaging in negotiations by being part of Japan's official delegations. For example, the CDM project database and a discussion paper on CER potential supply had an impact on the formulation of landing zones for the Article 6 rule book despite negotiations not yet being finalised. In addition, CE contributed to ensuring the implementation of the Paris Agreement. For example, CE initiated the Mutual Learning Program for Enhanced Transparency (MLP), and the government of Indonesia, which is one of the participating countries, stated the usefulness of the MLP in its submitted Long-Term Strategy for Low Carbon and Climate Resilience 2050.

CE also contributed to the implementation of actual emission reduction projects under the Joint Crediting Mechanism (JCM). CE supported and developed monitoring, reporting and verification (MRV) methodologies under the JCM, and more than 40 JCM methodologies were officially approved by the governments of Japan and JCM partner countries.

CE assisted mutual understanding and learning with regards to policy practices in the climate and energy field in Asia, i.e. carbon pricing in Japan, China and the Republic of Korea. The suggestions based on CE's empirical analysis of the functioning mechanism of pilot carbon market were referred to by China in the design and implementation its national emissions trading scheme (ETS). The original policy studies by CE supported discussions on countermeasures for the realisation of NDC and long-term decarbonisation, especially in terms of the transition of energy and power sector. Examples include the analysis of challenges and feasible ways to fundamentally change China's coal dominated energy structure and the quantitative simulation of effects for maximum expansion of renewables in Japan's electricity portfolio by improving the operation rules of the power system. CE,

in collaboration with other IGES units, provided a series of commentaries on Japan's climate and energy policies aiming to facilitate domestic discussion. Many research outputs by CE were reported by the mainstream media in Japan and overseas.

CE has made substantial contributions towards the High-Level Dialogue on Energy currently in progress under the auspices of the UN. As IGES contribution to the Technical Working Group 3 as well as the online stakeholders' inputs, the concept of co-innovation was presented. In terms of influencing other institutions, IGES' work on co-innovation has been currently replicated by 'Clean Air Asia (CAA)' for proposing a regional initiative to promote Japanese technology to Southeast Asia to address air pollution.

From 2019, CE has conducted joint research with the National Center for Climate Change Strategy and International Cooperation (NCSC), which is deeply involved in China's Net Zero Strategy decision-making process to develop the Low Carbon Development Indicator System. The IGES-NCSC team successfully developed the first indicators in 2019 and updated them in 2020. They were used to evaluate China's climate change policies from 2010 to 2018.

CE organised 89 public seminars, symposiums, side events, workshops and training sessions throughout the 7th Phase. CE team began the "Climate Change Webinar series" with support from the Knowledge and Communication Teams (SMO) in 2021 before the end of the 7th Phase. This new initiative created more opportunities to collaborate with other units to deliver IGES's outputs. So far 9,617 people in total participated in the IGES CE events.

● **Outputs**

CE generated a range of outputs including books, peer-reviewed papers, policy briefs, issue briefs, working papers, commentaries, submissions to the UNFCCC, newsletters and databases. During the 7th Phase, CE published more than 250 publications and released and updated six databases.

● **Resource Management (Fundraising, Opportunity Creation, HR)**

CE succeeded in securing more than JPY 13 billion (USD 12 million) of external funds during the 7th Phase. Most of these funds were from the Ministry of the Environment of Japan, but CE succeeded in securing contracts with international institutions including the World Bank Group, HUMBOLDT-VIADRINA Governance Platform GmbH, United Nations Development Programme, Economic and Social Commission for Asia and the Pacific (ESCAP), Institute for Future Energy Systems (IZES) and Federal Ministry of the Environment, Nature Conservation, Building and Nuclear Safety, Germany. In addition, CE also has been successful in securing JSPS research for a joint study with India on the topic of technology collaboration for electric mobility.

● **Overall**

With the support of extensive external funding and thanks to the joint work by team members, CE implemented all planned activities and research smoothly and efficiently in the 7th Phase. In addition to commissioned works from the government, great effort was extended to identifying key research questions, developing corresponding proposals and implementing original policy analysis. Accordingly, the quality of publications was considerably improved and impact was generated at various levels.

Climate changes issues have become pivotal in environmental research, and as such, there emerged many opportunities to collaborate with other units, such as QAC, BIZ, FIN, SGC, BDF (Forestry, Adaptation), CTY and SCP.

During the 7th Phase, CE established a foundation to create more outputs and synergy in cooperation with other units by acquiring new projects from MOEJ and other clients.

A major challenge for CE in the 7th Phase was to operate project and research activities with frequent team changes. Especially for JCM operation, five members newly joined in 2017, 2019 and 2020. The operation budget for projects was sufficient, and the internal capacity building was enhanced through one-on-one consultation and a series of study meetings for new members. The internal training were started and are currently ongoing to promote the capacity of younger researchers so that CE can operate more efficiently in the 8th Phase and create more quality outputs and impacts.

2.2. Natural Resources and Ecosystem Services (NRE)

2.2.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

NRE will promote landscape, nexus and other holistic, integrated approaches to realise synergies in the management of land and natural resources between biodiversity conservation, livelihood generation, climate change mitigation and adaptation, disaster risk reduction, as well as water, food and energy security. The existing four sub-groups – Forest Conservation, Water Resources, Adaptation, Biodiversity Conservation and Ecosystem Services – will work closely to promote these synergies. A co-design and co-production approach to research that engages strategic partners and key stakeholders will be adopted. Research inputs into key international and regional networks and processes, including Water Environment Partnership in Asia (WEPA), Asia Pacific Adaptation Network (APAN), Low Carbon Society (LCS), RAFT, and the International Partnership for the Satoyama Initiative (IPSI), as well as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) will be strengthened for impact generation.

The following are priority subjects and actions:

- Landscape level analysis and interventions: Support for Socio-Economic Production Landscapes and Seascapes through the Satoyama Initiative and related research; promoting implementation of REDD+ under the Paris Agreement; projects and research supporting integrated watershed, river basin or lake management at critical sites; mainstreaming ecosystem-based approaches to climate change adaptation and disaster risk reduction
- Sectoral integration: Integrating adaptation and mitigation into government planning especially at the local level under the new context generated by the Paris Agreement; case study research for integrating adaptation and disaster risk reduction; elaboration of the nexus approach to mitigate and manage competing demands for food, water and energy in the context of the SDGs; promoting integrated governance of groundwater and other water resources through WEPA activities.
- Building local institutions, capacities and services: Researching guidance and incentives for community/locally-based natural resource management; research promoting financial inclusion – insurance, savings, credit and non-financial services – to build adaptive capacity.
- Science-policy interface and multiple evidence base approaches: Contributing to and promoting IPBES assessments; research on strengthening the policy-science interface; engaging with indigenous and local knowledge (ILK) for natural resource management.
- Sustainable supply chains: Strengthening and supporting implementation of policies for responsible trade (linking sustainable resource management with corporate social responsibility and responsible purchasing), especially for trade in legal and sustainable wood.

- Governance: Developing and promoting ecosystems governance and governance standards.
- Development and uptake of appropriate technologies and systems: Research and capacity building for the development and uptake of appropriate technologies and systems that increase incentives for natural resource management, reduce and treat waste, etc.
- Risk mitigation and management: Analysis of climate-fragility risks; Research on instruments that assist vulnerable households mitigate and manage climate change risks.

2.2.2. Intended Impacts/Outcomes by the Area

- Increased knowledge, support and incentives for landscape and ecosystem management
- Increased integration of policies and planning across sectors that impact land and natural resources
- Strengthened community resilience through development of local institutions, capacities and services
- Increased provision of scientific data, knowledge and tools for biodiversity conservation and adaptation planning
- Improved water quality through effective policy frameworks for pollution control
- Increased support and incentives for sustainable natural resource management through responsible markets and businesses

2.2.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit managed a large number of diverse projects (25 as of April 2018, both large and small) which were grouped into several types of intended impacts and implemented by a total of 20 staff members including several new members in FY2017-2018. The Unit successfully raised funds, but funding volume has not yet reached a level that can fully support the Unit's activities. A large number of fragmented activities are considered as the source of this challenge, and it is suggested that the Unit work on strategy to develop much larger projects with enhanced understanding of the needs in the field and interest by the funding agencies. In so doing, linking with climate actions (mitigation-adaptation) and SDGs (NRE-related goals) should be considered. Building upon the Unit's accumulated technical knowledge, substantial opportunities lie in the future to develop key projects for climate adaptation capacity building for the region. Also significant future opportunities exist in relation to post-Aichi/Satoyama targets, IPBES assessment, and the regional circulating and ecological sphere (R-CES).

2.2.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact generation

Increased knowledge, support and incentives for landscape and ecosystem management

- NRE strengthened the international science-policy interface for natural capital and ecosystem services, as well as the extension of our activities to Asian regions in the multi-year project on Predicting and Assessing Natural Capital and Ecosystem Services, which resulted in 16 publications.
- NRE established itself in an advisory role to the AEON Foundation on its selection criteria for project funding, which has led to expanded involvement beyond ISRP-7.
- NRE provided input to the UNFCCC negotiation on REDD+ through support to the Forestry Agency. An analysis of the state of play of REDD+ implementation in Southeast Asian countries was conducted and an issue brief was issued. NRE also contributed to the realisation of JCM REDD+ by supporting key government agencies such as the Ministry of Environment of Japan and the Forestry Agency, developing guidelines and

methodologies, negotiating with host countries governments (Indonesia, Viet Nam, Lao PDR, and Cambodia) and relevant international organisations.

- NRE supported the Ministry of Environment for the negotiation on the IPCC special report “Climate Change and Land” and published a handbook explaining the report in a cross-unit IGES collaboration.
- NRE participated in NYDF Assessment Partners, a coalition of international research organisations and civil society groups undertaking a progress assessment towards the 10 goals formulated by the New York Declaration on Forests. NRE made contributions to develop a series of progress reports and published the translation for the audience in Japan.
- NRE staff helped to build future scenarios for Asian mangroves, in collaboration with six regional institutes in India, the Philippines, Fiji and Taiwan.

Increased integration of policies and planning across sectors that impact land and natural resources

- NRE worked closely with Keio University, University of Michigan, Delft University of Technology, Qatar University, and Queen's University Belfast on “The Moveable NEXUS”, funded by Belmont Forum to advance design-leading practices across the water-energy-food nexus in cities and to develop user-friendly decision-making tools and systems for promoting resource utilisation efficiency, particularly related to water, energy and food resources.
- NRE established a strong collaboration with START International Inc. (START), in the US and various partner countries in Asia to promote the Circulating and Ecological Sphere (CES) concept, particularly in South Asia and Southeast Asia. Through this collaboration, NRE is now elaborating the concept through analysis of best practices and proposal of pathways for the creation and operationalisation of CES in various contexts.
- NRE continues to support the Japanese Government’s involvement in the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) through support at the Plenary negotiations of the Platform; through the production of publications including issue briefs and Japanese translations; and outreach events. NRE staff further played an advisory role to the IPBES technical support unit for the assessment on invasive alien species, hosted by IGES at TSF.

Strengthened community resilience through development of local institutions, capacities and services

- NRE strengthened the capacity of local government in the Philippines through the development of the PWLM/PCLM (Participatory Watershed/Coastal Land Use Management) guidebooks and provision of training to local and national government officials; and strengthened the capacity of local and national government stakeholders responsible for flood and landslide risk management in Lao PDR and Myanmar guidelines for flood and landslide risk assessment at the river basin level based on case studies in selected river basins.
- NRE promoted socio-ecological production landscapes and seascapes (SEPLS) in collaboration with UNU-IAS as part of the Satoyama Initiative, including overseeing the implementation of more than 20 projects funded by the Satoyama Development Mechanism.
- To demonstrate the possibility of future collaboration with JICA, NRE analysed the achievements of a community-based tree-plantation project in Madagascar implemented by JICA from an academic perspective using SRF and published a peer-reviewed paper on it. Discussions with JICA for the collaboration will continue in the next phase.

Increased provision of scientific data, knowledge and tools for biodiversity conservation and adaptation planning

- NRE strengthened the international science-policy interface for natural capital and ecosystem services, as well as the extension of our activities across Asia in the multi-year project on Predicting and Assessing Natural Capital and Ecosystem Services, which resulted in 16 publications.
- NRE strengthened collaboration with JICA and contributed to a JICA multidisciplinary team to determine the impacts of the Wakashio oil-spill off Mauritius.
- NRE supported the establishment and management of the MOEJ's AP-PLAT capacity development programme.
- NRE supported MOEJ in organising several international events showcasing the importance of the integration of Climate Change Adaptation, DRR and SDGs.
- NRE contributed to global and regional environmental assessments on climate change and biodiversity conservation (as lead authors, contributing authors, and chapter scientists), including the IPCC AR6, IPBES Asia-Pacific Regional Assessment, IPBES Sustainable Use of Wild Species Assessment, and GEO-6 global and regional reports.

Improved water quality through effective policy frameworks for pollution control

- NRE helped to improve water quality governance in Asia through implementation of WEPA Action Programs in various WEPA partner countries, including Cambodia, Indonesia and Myanmar.
- NRE helped ASEAN Member States to achieve targets under SDG 6 on water and sanitation through effective implementation of integrated decentralised domestic wastewater management approach under the project: "Policy Dialogue and Network Building of Multi-stakeholders on Integrated Decentralized Domestic Wastewater Management in ASEAN Countries" (PODiWM). The project has served as a policy and institutional design development platform for multi-stakeholders on integrated domestic wastewater management, and sharing good technological and management practices as well as appropriate policies for effective implementation of decentralised wastewater management approach in ASEAN countries.
- NRE strengthened scientific and administrative capacity for policymakers and researchers in Cambodia on water environmental management of Tonle Sap Lake, through successful implementation of a 5-year project entitled "Establishment of Environmental Conservation Platform of Tonle Sap Lake", funded by JICA and JST.

Increased support and incentives for sustainable natural resource management through responsible markets and businesses

- NRE analysed laws and regulations related to timber harvesting and processing in timber-producing countries, advanced timber legality regulations in timber-importing countries, and the implementation status of timber legality verification by businesses in Japan to support the implementation of the Clean Wood Act by the Forestry Agency. The outcomes are published in an information portal, and serve as a reference for due diligence by private companies.
- Based on knowledge of timber legality, NRE extended its research focus to imported agricultural commodities associated with deforestation in tropical countries that brought a new opportunity to submit a proposal to the Ministry of Agriculture, Forestry and Fishery, which was unfortunately unsuccessful.
- With the recognition of our accumulated expertise, the International Tropical Organization approached IGES and offered the NRE unit a new project entitled "Analysis of Timber Legality Assurance Systems and Good Practices in China, Myanmar and Viet Nam for Sustainable Timber Trade " which will be implemented in the ISRP8.

● Outputs

In the second half of ISRP7, NRE published more than 250 peer-reviewed journal articles, books, book chapters, policy briefs and other types of publication covering:

- Biodiversity: international processes, socio-ecology, conservation governance, science-policy interface, ecosystem services, bioenergy, geospatial data, scenario analysis, and ecological restoration
- Adaptation: disaster risk reduction, transboundary risks, water resources management, and participatory adaptation planning
- Forest conservation: climate change and forests, Japan's timber and agricultural imports, and deforestation targeting policymakers and businesses
- Water: water environmental management in Asia, environmental change, environmental resilience and transformation under COVID-19, and marine plastic litter

Additionally, several sets of reviews of key international policy documents were compiled and coordinated, especially for IPBES assessment report drafts, but including other IPBES, CBD, IUCN and TNFD documentation. Many IGES publications were cited in IPCC and IPBES assessment reports. IGES participation in the production of IPCC/IPBES reports as lead authors, contributing authors and chapter scientists, and support for international adaptation events such as APAN Forum, have helped to secure projects for the future.

● **Resource Management (Fundraising, Opportunity Creation, HR)**

The total annual budget secured by NRE in the 7th Phase increased from JPY241,000 at the beginning of FY2017 to JPY316,000 at the end of the phase in June 2020. Although NRE continued to implement a large number of projects, including many small ones, much of the unit's efforts went into relatively large multi-year projects including the Asia-Pacific Climate Change Information Platform (AP-PLAT); Predicting and Assessing Natural Capital and Ecosystem Services through an Integrated Socio-ecological Systems Approach (PANCES), a suite of interrelated projects on timber legality with the Japanese Forest Agency and the ITTO; and continued funding from MOEJ for effective implementation of WEPA Program to improve water governance in partner countries in Asia (WR team). Some of these continue into the 8th Phase.

● **Overall**

NRE grew considerably during the 7th Phase thanks to the increase in its funding base brought about by many NRE researchers. NRE was the most productive unit in IGES in terms of publications, producing more than 250 publications overall, and a larger number of peer-reviewed publications than the rest of IGES combined. This phase also saw IGES begin to take part in new international processes such as the CBD and IPBES, and to make new partners among collaborators and funders including the Japan Forest Agency, ITTO, AEON Foundation, and PEMSEA. Towards the end of ISRP7 it was decided that the size of NRE and the variation between thematic areas within it could be streamlined, and two new units were formed instead: one on adaptation and water, and one on biodiversity and forests. It is expected that this will facilitate each new unit's work towards more focused goals and fewer, larger, projects.

2.3. Sustainable Consumption and Production (SCP)

2.3.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

IGES will help promote a shift in policy discourse from pollution control to efficiency, and then from resource efficiency to sufficiency. This approach indicates also a shift of policy focus from downstream such as solid waste

disposal to upstream issues such as sustainable consumption and lifestyles. SCP views a phased approach important, taking different priorities and order for necessary changes in economies towards SCP in the region.

The following are priority subjects and actions:

- IGES carries out policy research on addressing ways to deliver well-being, utilising fewer resources/environmental impacts, and leads discussions on the sufficiency approach. IGES is leading a research consortium focusing on “Policy Shift Towards Sufficiency Approach Aiming to Satisfy Needs under Environmental and Resource Constraints in Asia” under S-16 Project. Partner institutes include Tokyo University and NIES as well as the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Chulalongkorn University, which could contribute to strengthening research networking on SCP in the region.
- Considering a rapidly industrialising and maturing Asian economy, IGES tries to develop a few feasible models of SCP through conceptualisation and operationalisation of long-term sustainability lifestyles fitting into Asian context. IGES continues to be engaged substantially in the Sustainable Lifestyle Component of SCP 10-Year Framework of Programmes (10YFP), and IGES’s contribution to Asian SCP networks including Asia Pacific Roundtable for Sustainable Consumption and Production (APRSCP), Association of South-East Asian Nations (ASEAN) SCP Forum, SWITCH-Asia and International Green Purchasing Network (IGPN) will be further strengthened. IGES plays a leading role in developing a renewed roadmap of SCP for Asia.
- IGES continues to play the role of knowledge catalyst on resource efficiency and the 3Rs in different policy forums such as the Regional 3R Forum in Asia and the Pacific, Organisation for Economic Co-operation and Development (OECD), UNEP International Resource Panel, and Group of 7 (Canada, France, Germany, Italy, Japan, the United Kingdom and the United States) (G7) Alliance on Resource Efficiency. The institute will contribute together with experts in the region to the creation of policy-relevant knowledge products such as “the State of the 3Rs in Asia and the Pacific”.
- The Centre Collaborating with UNEP on Environmental Technologies (CCET) will continue to support development of national and city waste management strategies in collaboration with UNEP/ International Environmental Technology Centre (IETC). It will play a leading role as a Waste Management Hub for Asia and the Pacific under the new engagement strategy of the Climate and Clean Air Coalition (CCAC) assisting national and local governments to elaborate practical tools and materials to analyses effects of their solid waste management initiatives for climate change mitigation, from lifecycle perspectives and integrate them into the NDCs and other development plans. The center will also play an important role in addressing plastic and marine litter in Asia and the Pacific, and thus collaborate with other research units, specifically Kitakyushu Urban Centre, City Taskforce, and Integrated Sustainability Centre, as well as other development partners, including ERIA and its network with cities in this region.

2.3.2. Intended Impacts/Outcomes by the Area

- Establishment of SCP model cases towards long-term sustainability living within one planet (SCP Model Case)
- IGES/SCP is recognised as a regional policy research hub on SCP policy in Asia and the Pacific both at global and regional level (SCP Research Hub)
- Resource efficiency and the Reduce, Reuse, Recycle (3Rs) are progressed at the key international policy forum (the 3Rs) by IGES acting as knowledge catalyst
- IGES to be recognised as a Regional Policy Think-tank on circular economy and plastics through its strategic partnership with ASEAN, Economic Research Institute for ASEAN and East Asia (ERIA) and other international regimes for Asia and the Pacific (Added intended impact statement in May 2020)

- National and local governments in developing countries in Asia enhanced sustainable waste management and resource circulation (3Rs) policies and strategies to reduce the impact of climate change (NDCs) and improve human well-being (SDGs) (Redefined intended impact statement in May 2020)³

2.3.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit has successfully and rapidly scaled up its activities and budget, and been actively engaged in policy processes and key events. A few collaborative projects have been carried out to promote sustainable lifestyles under the UN-led SCP 10 YFP, and several specific projects have been carried out by the Collaborating Centre for Environmental Technologies (CCET) working for UNEP International Environmental Technology Centre (IETC) in Osaka. The former has recently produced a publication entitled “1.5-Degree Lifestyles,” which has attracted international attention. The latter has implemented projects in three countries as first-phase activities, and has generated a few significant impact cases. Nevertheless it is important to recognise that SCP has not produced any flagships or other substantial publications for the Institute in recent years. As the scale of operations has enlarged, SCP has faced challenges in securing and allocating HR and communications on project development/management within the Unit and SMO. This is an area where new issues such as plastics have emerged, and new approaches such as circular economy and R-CES have captured momentum. To address the above challenges and seize the increasing emerging opportunities in the coming year, it is considered necessary to increase the capacity for analysis/knowledge generation and project management. For the former, it is suggested that the Unit consider promoting intra-unit collaboration in a much more flexible manner, and forming a research consortium/alliance with both in-house staff members and external experts. For the latter, efforts should be made to promote sharing project development information and implementation plans within the Unit and with other Units in a timely manner so that much fairer workloads distribution are realised.

2.3.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

SCP further enhanced its research capacity and recognition on policy research on the issues of sustainable and resilient ways of living; resource efficiency and circular economy including marine plastic; and integrated solid waste management.

The highlights of the impacts include, but are not limited to the following:

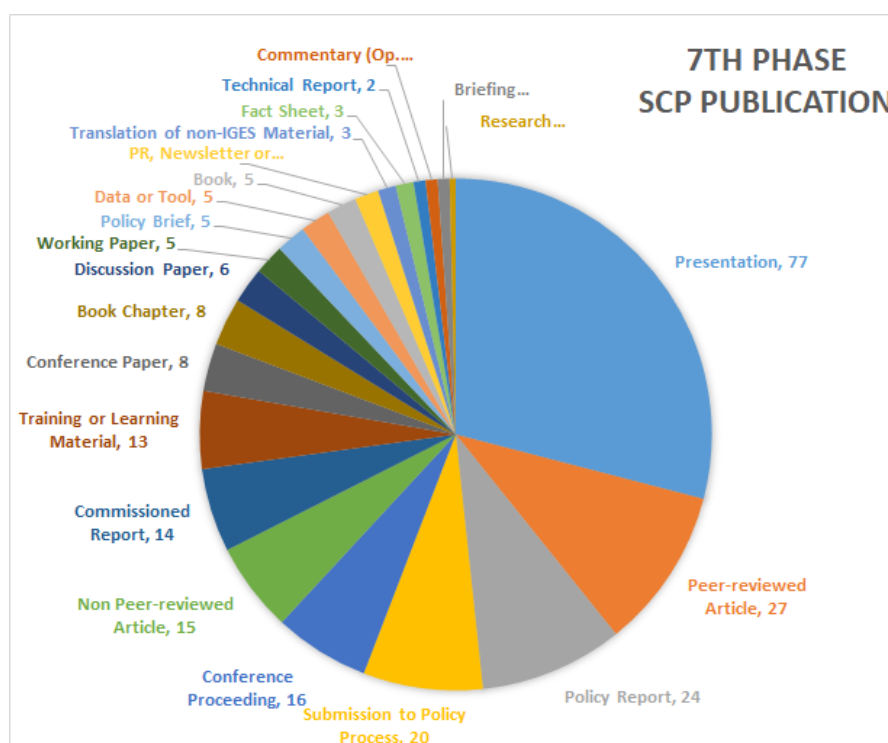
1. SCP has been coordinating the Sustainable Lifestyles and Education (SLE) Programme of the UN-led One-Planet Network. The SLE Programme implemented a series of global initiatives fostering the uptake of sustainable living, such as the “1.5-Degree Lifestyles” to build the future scenarios of decarbonised living through participatory experiments in six cities globally; the Global Search for Sustainable Schools supporting school and community actions for enabling sustainable living in more than 50 schools in nine countries; and 24 community-led projects enabling sustainable lifestyles.
2. Through the S-16 project, IGES enhanced a collaboration with Asia Pacific Roundtable for SCP (APRSCP) to enhance its function as a regional collaboration mechanism for mainstreaming SCP and SDG12 in the region.

³ Original intended impact in ISRP7 was “Capacity of less developed economies in national, city and regional waste management is developed”

3. Under the EU SWITCH-Asia programme, SCP Area supported SCP policy development in Viet Nam and Cambodia. In Viet Nam, SCP made a substantial contribution to developing the National Action Plan for SCP toward 2030. In Cambodia, it led the policy analysis on the sustainability issues of the textile sector, the leading industry of the country.
4. For marine plastic issues, building on its official role for monitoring and reporting G20 agenda of marine plastics, IGES established itself as a major regional player for facilitating synergies among various on-going international initiatives. For example, IGES now officially partners with ERIA Regional Knowledge Centre for Marine Plastic Debris as an implementing partner. Also, along with CCET, it now implements various capacity development functions for ASEAN member states such as through UNESCAP Closing the Loop Project and JAIF Phase 2 project for capacity development for ASEAN member states.
5. In collaboration with MOEJ, IGES continued to play a global knowledge catalyst on resource efficiency and circular economy through its involvement in the global policy processes such as International Resource Panel (IRP), OECD, G7, G20. Also, IGES has become a knowledge partner of the Partnership for Accelerating Circular Economy (PACE). IGES strengthened collaboration with the EU for mainstreaming SCP and circular economy agenda through its involvement to SWITCH-Asia SCP Facility, E-READI project on plastics and circular economy and Rethinking Plastics. Domestically, IGES has become a secretariat of the Japan partnership for Circular Economy (J4CE) as well as advocated stakeholder engagement utilising our expertise.
6. CCET started a new phase of strategy development and similar activities as those of Phases 1 and 2. As a collaborative hub for both outside and inside IGES for research and capacity development on sustainable waste and resource management, it enhanced IGES engagement in capacity development activities on integrated municipal waste management, healthcare waste management and marine plastic pollution prevention at global, regional and national levels. With the technical support of CCET, four cities in ASEAN member states, as well as country levels in Cambodia, Myanmar, Sri Lanka, Indonesia and India have successfully developed and adopted waste and plastic waste management strategies impacting to mitigate climate and environmental pollution from burning and leakage waste to environment and marine ecology. For effective community participation and citizen engagement to the 3R activities, CCET also developed and distributed “Ecology Note” in local languages which are the text book for environmental education programme focusing on the 3R activities in many Asian countries (Bhutan, Cambodia, Myanmar).

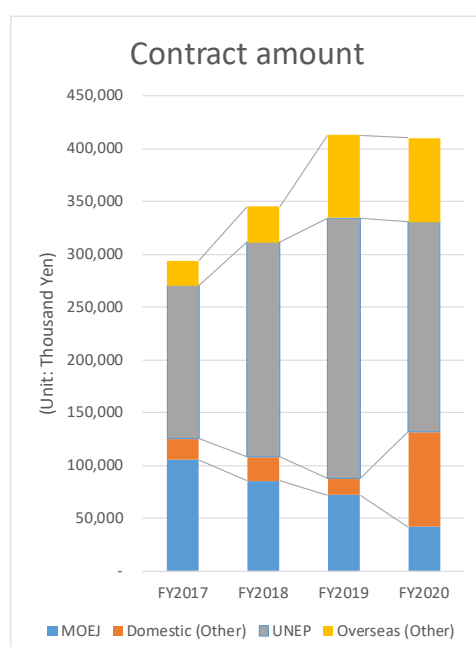
● **Outputs**

Total number of publications from SCP in the 7th Phase including inputs to policy process was 265. It includes 27 peer-reviewed articles, 24 policy reports, 13 training and learning materials, 5 policy briefs, and 5 books. The experience of ISRP7 highlights the strategic importance of scientific research projects which can generate tangible knowledge products. For example, among them, S-16 project could generate 17 peer reviewed articles (27 for SCP in ISRP7) or 41 presentations (77 for SCP in ISRP7).



● Resource Management (Fundraising, Opportunity Creation, HR)

Over the 7th Phase, SCP intended to diversify its funding with steady increase in funding. As shown in the Figure below, it was very successful in securing funds from non-domestic sources.



Despite of significant increase in contract amount, SCP managed the projects with same level of human resource allocations in the beginning of 7th Phase. This was possible through effective collaboration with other units and organisations.

However, towards the end of 7th Phase, a significant portion of the research staff who were engaged in the sustainable lifestyle component, left the team. Early in the 8th Phase, some of larger programmes especially on sustainable lifestyles and 10YFP-related ones will enter into a transition period which requires further coordination and effort to secure a budget. These changes are likely to pose a significant challenge for future strategic investment both in terms of human resource allocation and research theme development. This may require some realignment of the SCP themes to urban carbon mapping and ESG finance.

● Overall

The Unit continues to actively engage in policy processes and knowledge product creation in a timely manner. During the 7th Phase, SCP made a substantive effort to promote sustainable lifestyles under the UN-led SCP 10 YFP and SWITCH-Asia. At the same time, S-16 project on SCP policy design contributed to establish SCP as a central research hub on SCP, sustainable lifestyles and circular economy in Asia and the Pacific. This resulted in successful recognition of IGES as a catalyst of social experimentation of 1.5 degree lifestyles. Through its involvement to the G20 processes, it also successfully position IGES as a main regional player on marine plastic issues and circular economy through collaboration with ERIA, UNESCAP, UNEP, and AEPW. CCET has increasingly been not only served as the Collaborating Centre with UNEP/IETC in Osaka but as the collaborating hub with other international organisations such as UNEP/ROAP, UNEP/HQ and UNESCAP as well as with other units inside IGES. Overall SCP successfully positioned IGES as a regional policy research centre for sustainable lifestyles, circular economy, marine plastic issues, and waste management. However, the COVID-19 pandemic made it slightly difficult for SCP to foresee the situation in the future, especially for direct collaboration and communications with stakeholders in emerging and developing economies in Asia. The Unit may need to reinforce its sustainable lifestyle component.

2.4. Centre for Strategic and Quantitative Analysis (QAC)

2.4.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

The Centre for Strategic and Quantitative Analysis aims to contribute to strengthening the science-policy interface by providing science-based and evidence-based quantitative and practical research products and analytical tools. In December 2014, UN Secretary-General pointed out in his report on the Post-2015 Agenda the need for data revolution, based upon recommendations made by an Independent Expert Advisory Group⁴ on this issue. It was basically understood that one of the reasons the Millennium Development Goals (MDGs) were successful in making tangible progress was the adoption of a quantitative Plan-Do-Check-Adjust (PDCA) cycle MDGs. We have already entered this data revolution, in which rapidly developing information and communications technology

⁴ This group submitted its report titled “A World That Counts” in December 2014 to the UN Secretary General. In that report, they made concrete recommendations on bringing about a data revolution in sustainable development, in which they made a point to develop data and tools needed to support the mainstreaming of SDGs.

(ICT) enable the world to produce an exponentially increasing amount of data and information on many subjects. However, there are still serious challenges in terms of quantity, quality and timeliness of such data in its application to policy issues. Data and information on environmental issues are more scarce and scattered compared to those on social and economic matters. In view of this, UNEP and other leading environmental institutions launched an initiative entitled the “Eye on Earth” in September 2015 to strengthen, among others, data gathering and analysing capabilities for the world on environmental issues, including in SDGs in particular.

SDGs and the Paris Agreement have both adopted basically the same quantitative PDCA cycle which assumes effective reporting, monitoring and evaluation and for tracking progress made against targets and indicators. Indeed, progress made by countries or other stakeholders is expected to be reported periodically to a relevant international arena to ensure accountability and transparency. Thus, when a government plans and monitors the impact of its policies, it must be able to benchmark data and see year-on-year progress. Comparing progress across countries has become also critical, and this requires shared indicators and statistical frameworks to help countries see how they are doing in comparison to others.

The challenges are huge, but as the MLS has already pointed out, IGES can contribute meaningfully to the Global Stocktake under the Paris Agreement and regular review on the progress made on SDGs, if it effectively works in collaboration with various partner institutes and networks in and outside Japan.

This Centre will be operating in full collaboration with NIES in particular. The Centre is to be built internally based on the current Green Growth and Green Economy (GE) and extensive networking among research institutes in Japan and other countries on scenario-based modeling, i.e. International Research network for Low Carbon Societies (LCS-RNet) and Low Carbon Asia Research Network (LoCARNet). It is also important for this Centre to strengthen its linkage with the Intergovernmental Panel on Climate Change Technical Support Unit (IPCC TSU) on National GHG Inventory, as development of a national inventory is a central part of any quantitative analysis for working out mitigation strategies.

Focus actions include the collaborations with international organisations or knowledge and policy platforms, including UNEP, ILO, UN Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDG), the World Bank, ADB, Global Green Growth Institute (GGGI) and GGKP Green Growth Knowledge Platform (GGKP), etc., with other research institutions (NIES, IIASA, and WRI, etc.) and with other thematic groups at IGES, namely Climate and Energy, Natural Resources and Ecosystem Services, Sustainable Consumption and Production, Centre for Sustainability Governance, City Taskforce and Finance Taskforce. The following are priority subjects and actions:

- Create value-added knowledge through strategic research and quantitative policy assessment so as to provide comprehensive policy recommendations and roadmaps, and also to help national governments and other stakeholders in formulating low-carbon/carbon-neutral development strategies and policies,
- Support policy assessment in developing countries in Asia by identifying appropriate indicators, applying quantitative analysis tools and models, including geographic information system (GIS) to critical topics such as those covered by SDGs, including water-energy-food nexus, low-carbon and green growth pathways, green investment and green jobs, in collaboration with key partners.
- Expand collaboration between researchers in Japan (such as NIES) and key Asian countries, various stakeholders and policymakers including those in Asian cities to assist science-based policymaking in transitioning to low-carbon/carbon-neutral, resource efficient and resilient societies through organising knowledge-sharing networks and forums.

- Develop and provide businesses and cities with practical tools and methodologies for their strategic planning and analysis, in full collaboration with relevant international forums and partner institutes.
- Provide strategic data management and analysis composed of a three-step process: i) data collection and management; ii) data analysis and evaluation; and iii) data reporting to support evidence-based decision-making.
- For data collection, continue development/improvement of databases by establishing appropriate data collection and management systems, in collaboration with other institutes, at various governmental levels including national, sub-national and local, as well as more systematic means for the collection of essential external data sources.
- For data analysis and evaluation, help other areas within IGES to utilise collected data in regular research programmes and activities that aim to analyse status/progress, successes, and failures. This large-scale data analysis and evaluation aims to provide a strong evidence base for research findings and policy recommendations. In this sense, the Centre will serve for training purposes within the institute for those staff members to be involved in quantitative analysis.
- For data reporting, continue to develop innovative reporting tools, calculators and navigators that allow stakeholders to better assess options, identify priorities and understand both potential trade-offs and synergies.

2.4.2. Intended Impacts/Outcomes by the Area

- Policymakers are better informed on SDGs and effective policy implementation at both the national and city levels
- Transformational changes needed to achieving the long-term mitigation targets and the SDGs are materialised
- Measurement of the progress made in achieving the 2030 targets for climate change and for the SDGs is enhanced by effective data and indicators

2.4.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit was created to build up in-house capacity of scientific and quantitative analysis critical for sound policy recommendations by IGES, and Unit has developed a unique tool (the online “SDG Interlinkages Analysis & Visualisation Tool” which has been adopted or referred to by organisations including United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)) and has provided analyses on key issues. Another example is the renewal of the climate change mitigation navigator for constructive discussions among various stakeholders. However, the potential of the Unit was constrained by the lack of a financial base (including funds from Japanese organisations and staff to handle them) to support core activities as well as the limited scale of collaboration with other units where various demands for analysis and assessment exist. It is suggested that the Unit strengthen inter-Unit collaboration to jointly generate knowledge products and build up financial base at the same time.

2.4.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

Through the development of various analytical tools and methodologies and their applications to support relevant policy processes at the international, national and sub-national levels, QAC has generated many substantial impacts in the 7th Phase. These impacts were summarised for four major research activities.

i) Development of the IGES SDG Interlinkages Analysis & Visualisation Tool and its application

The IGES SDG Interlinkages Analysis & Visualisation Tool, a free online tool to enable users to explore the interlinkages between the SDG targets, were developed by QAC and launched in 2017. The tool was then updated in 2018 (V2.0), 2019 (V3.0) and 2021 (V4.0) to reflect the expanded country coverage (from originally 9 to 27), updated indicators and data and improved web interface and functions.

The tool has received significant traction from policymakers, scholars and international organisations alike. Accessed from over 182 countries to date, the tool has been consulted for SDG-related planning and policymaking, and awareness-raising. Some selected impacts among many others are listed as follows:

- Referred to in UNDESA's 2020 Edition of the Handbook for the Preparation of the VNRs https://sustainabledevelopment.un.org/content/documents/25245Handbook_2020_EN.pdf
- Featured in UN ESCAP SDG Helpdesk Toolboxes https://sdghelpdesk.unescap.org/toolboxes?field_sdgs_target_id=All&title=&page=2
- Selected as one of ten good practices and success stories for achieving SDGs for exhibition at HLPF 2020. <https://sustainabledevelopment.un.org/hlpf/2020#exhibit>
- Referred to by United Nations Inter-agency Task Team on STI for the SDGs (IATT), STI Roadmaps related information <https://sustainabledevelopment.un.org/TFM>
- Used in discussions on synergies and trade-offs between SDGs in a couple of voluntary national reports (VNR) including Indonesia VNRs 2019 and 2021 (p.25-26) and Ghana's VNR 2019 (p.87-89)
- Used in the development of a chapter on SDG interlinkages in the Indonesia's National SDGs Roadmap (p95-99) <https://www.unicef.org/indonesia/media/1626/file/Roadmap%20of%20SDGs.pdf>
- Used in the development of Viet Nam's National Action Plan on Sustainable Consumption and Production (2021-2030), and the Philippines's National Action Plan on Sustainable Consumption and Production. IGES provided technical support (including the use of the SDG interlinkages tool for the assessment of the synergies and trade-offs) to the draft of the NAP on SCP in Viet Nam which linked to the final approval of the policy in June 2020. The work won FY2019 IGES President's Award, Mountain View, for its outstanding impact
- Selected by UNDESA for an application in the development of three country cases in Lao PDR, Ethiopia and Tanzania for SDG integration in national development plans which results were used to support a capacity building workshop organised by UNDESA for relevant officials from national planning ministries and the statistical bureau in three countries and a couple of African countries
- Selected by ESCAP-SONCA for a keynote presentation at the Expert Group Meeting on Sustainable and Clean Energy in North and Central Asia, 9-10 June 2021, virtual meeting
- Selected for a key-note presentation at a UNDESA's webinar on integrating the 2030 Agenda into national plans and strategies: Considering COVID-19 response and recovery, 14 May 2020
- Selected for a key-note presentation at the consultation meeting of multi-stakeholders in Asia and the Pacific for the development of the Global Sustainable Development Report 2019 (GSDR), 12-13 November 2018, Dhaka, Bangladesh
- Selected for presentation at the Expert Group Meeting on Green Economy for Sustainable Development Goals, United Nations Office for Sustainable Development, 13-15 March 2018, Jeju, Republic of Korea

- Further used at the subnational levels including a stakeholders' consultation-based case study on integrating climate actions and SDGs in West Java, Indonesia from an interlinkages perspective
- Used at the river basin scale to assess the synergies and trade-offs for achieving sustainable development in basins and applied to China's Luanhe river basin including a web-based visualisation tool
- Used to support IGES President Takeuchi in his participation and presentations in various international conferences, including the UN 2019 Climate and SDGs Synergies Conference/ Copenhagen, Working Group 3 of the UN High-level Energy Dialogue 2021 and the World Sustainable Development Summit (WSDS) 2021, etc.
- Based on the knowledge related to SDG integration and the SDG interlinkages tool, QAC provided tangible inputs to the UN Habitat's work on the development of the global urban monitoring framework for achieving sustainable cities and communities which were recognised in the final report
- Based on the tool, QAC contributed to IGES inputs to the key policy process, APFSD 2019 and 2020, as well as a couple of ISAP events (including plenary sessions and thematic sessions)
- Featured in domestic media, including newspapers, TV and magazines, etc.
- NGOs and businesses also used this tool to raise public awareness on SDGs and discuss corporate strategy relevant to the SDGs

ii) Reports and activities related to achieving net-zero emissions in Japan

Led by QAC, the research report, "A Net-Zero World -2050 Japan-: Insight into essential changes for a sustainable future", was published in June 2020. The report received the 2020 IGES President Award, Ocean Breeze, for its academic and policy impact contributions. In FY2020, QAC further disseminated the vision for achieving net-zero emissions in Japan and the required efforts for its achievement through working with various stakeholders, including companies, governmental committees, local government officials, media, and citizens. The report and relevant activities were featured in a couple of domestic media (including TV, interviews and newspapers, etc.). In addition, IGES and Kanagawa Prefecture jointly developed a draft Vision for Kanagawa Decarbonisation based on the interviews with local governments in Kanagawa Prefecture. The draft Vision has been submitted to the Prefecture's Environmental Basic Plan Sub-committee.

A related project is on the assessment of the power system in Japan to ensure efficient power transmission linking renewable energy supply with the demand centres for achieving net-zero emissions. In cooperation with the Climate and Energy Area/IGES, QAC published two working papers on the power systems analysis in Hokkaido and East Japan Region. The results were shared with stakeholders from the power sector through seminars and disseminated to a wide audience through newspapers.

iii) Report and activities related to achieving net-zero emissions in Asia

In FY2019 and FY2020, QAC, together with other IGES units, led the draft of a policy report on achieving net-zero emissions in the energy and land use systems in selected Asian countries (China and India) and ASEAN (as a region).

- IGES briefed the summary of the draft policy report at the MOEJ-IIASA Workshop on 8 October 2020
- In October 2020, IGES presented the draft report at a thematic session at ISAP2020 and opened the discussions with the leading researchers in China, India and Indonesia on the transformation towards net-zero emissions
- For COP26, IGES is preparing a report that integrates the development of long-term scenarios for energy and land use systems for achieving a net-zero emissions society in Asia (excluding West Asia)

QAC also led the Development of the ASEAN State of Climate Change Report (ASCCR) to facilitate transition in the ASEAN region. ASEAN's official report on climate change (ASCCR) (to be published in September 2021) was drafted in collaboration with 10 national think-tanks and the focal points in ASEAN member states, as well as the ASEAN Secretariat and ASEAN Centre for Energy. Through various meetings and events, IGES enhanced the partnership with external research institutes and organisations such as IIASA, NIES, and Energy Transition Commission.

iv) City future scenario analysis and applications

This research activity has focused on supporting the development of a couple of regional sustainable development strategies for Tokyo, Bhutan, Da Nang, Los Angeles, and Japan Built Environment Society through city future scenario analysis and its applications. Major impacts include:

- Contributed to three TWI2050 reports, the World in 2050 consortium, in 2018, 2019, and 2020, respectively.
- Presented at Cities IPCC conference: Happiness of Cities, Identifying sustainable long-term urban transition pathways – Expansive perspectives of climate change strategies interlinked with SDGs
- Invited keynote presentation at Da Nang City's development forum
- Presented at Integrated Assessment Modeling Forum (IAMC) in 2017, 2018, and 2019
- Introduced the website: Biosphere future website: <https://www.biospherefutures.net> (<https://www.biospherefutures.net/scenarios>)
- Contributed to the Urban Climate Change Research Network AR3.3. Report, chapters on COVID-19, Cities and Climate Change and Urban Infrastructure
- Developed a collaborative project with Da Nang City and Yokohama City under a MOEJ project to support the development of the Local Climate Change Action Plan in Da Nang City based on scenario narratives and analysis
- Two invited presentations at the workshops held by Kyoto University

● Outputs

i) Major outputs from the development and application of the IGES SDG interlinkages tool:

- SDG Interlinkages Analysis & Visualisation Tool (Versions 1.0, 2.0, 3.0 and 4.0)
- An IGES Research Report on the SDG Interlinkages Tool and its practical application
- Six peer-reviewed papers (2 on water-energy nexus, 2 on urban-rural linkages, one on SDG indicators and one on flood risk assessment and SDGs for river basins) with another two being revised (one on SDG interlinkages analysis at the basin scale and one on the network analysis on SDG interlinkages)
- One book chapter on the impacts of COVID 19 and its recovery on SDGs (Elsevier)
- One APN research report on water-energy nexus assessment
- A special issue in the Sustainability Science Journal (under the JST-TaSE project)
- One research brief and one policy brief on the Luanhe river basin case study
- An interactive SDG tool for river basins
- Five commissioned reports
- Contributions to IGES inputs to APFSD (2019 and 2020) and HLPF (2020)
- Presentations at various international and national conferences/ platforms
- Media coverage (Kanagawa TV programme, Tokyo Shinbun, etc.)

ii) Major outputs from the research activity on net-zero emissions in Japan

- IGES research report, "A Net-Zero World -2050 Japan-: Insight into essential changes for a sustainable future"
- Domestic media coverage (including TV, interviews and newspapers, etc.).
- IGES and Kanagawa Prefecture jointly developed a draft Vision for Kanagawa Decarbonisation
- Two IGES working papers on Japan's power systems analysis
- Two peer-reviewed journal articles on energy scenarios analysis and just transition
- Japan 2050 Low Carbon Navigator V3.0
- Presentations at various workshops, seminars and conferences

iii) Major outputs from the research activity on net-zero emissions in Asia

- Non Peer-reviewed Article: Assessing climate change transparency and transformation needs for capacity building in ASEAN countries, The ASEAN, October 2020
- Second Draft of the ASEAN State of Climate Change Report, June 2021
- Non Peer-reviewed Article:「ネット・ゼロという世界（日本とアジア）」、グリーンパワー、森林文化協会（2021 年 3 月）
- Working paper:「中国 2060 年炭素中立宣言についての解説」, September 2020
- IGES discussion paper on the adaptive capacity of Japanese local governments

iv) Major outputs related to city future scenario analysis and applications

- Three peer reviewed papers (Cities/Elsevier, Sustainable Cities and Society/Elsevier, and Sustainability/ MDPI)
- Three TWI2050 reports (2018, 2019, and 2020)
- One book chapter (published by Springer Nature)
- Chapter in Encyclopedia of UN Sustainable Development Goals
- Presentations at academia conferences
- Contributions to the a couple of commissioned reports handled by other IGES unites (SCP, NRE, etc)

● Resource Management (Fundraising, Opportunity Creation, HR)

Fundraising activities include:

- UNU-JICA-USiA project on urban-rural linkages (FY2018-2019)
- UN-DESA commissioned project on analytical tools for capacity development for SDG prioritization (FY2019)
- Belmont-JST TaSE project on river basin SDGs (FY2019-FY2021)
- Google AI4SG project (FY2021)
- JAIF project on ASEAN State of Climate Change Report (ASCCR)
- Kanagawa Prefecture and 10 prefectures commissioned work
- EU project on climate policy dialogue
- City-to-city collaboration fund (MOEJ)
- Shinchi project (NIES)
- MOEJ-IIASA collaborative project B
- Contributions to a couple of other projects that were managed by other units (S16, SwitchAsia, MOEJ nature-based solutions, among others)
- SRF projects FY2017 to 2020

● Overall

QAC, with five researchers, made outstanding achievements in ISRP7, including substantial impacts at the international, regional, national and sub-national levels. The unit worked hard on the development of novel methodologies and practical tools, and published many quality papers, reports and other publications that were covered by multiple media outlets (including TV, newspapers and magazines, etc.). QAC made good contributions to strengthening the science-policy link. At IGES, QAC-related works won two IGES President's Awards, the Mountain View (for policy impact generation) and the Ocean Breeze (for academic contribution). QAC also contributed to multiple works handled by other IGES units (SGC, SCP, NRE, SMO, CE, KUC, etc.), as well as all-IGES works (ISAP, inputs to APFSD, HLPF, UNEA, etc.). Internal collaborations within QAC (due to different expertise and modelling skills) and the applications of the methodologies and tools developed by QAC at other IGES units need to be strengthened in the 8th Phase. Now, with the establishment of the new Integrated Sustainability Centre (ISC), QAC members are working positively on the collaborations among themselves and with the previous SGC team to widen their research scope and make their tools/methodologies more useful.

2.5. Centre for Sustainability Governance (SGC)

2.5.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

A core competence of IGES has been recommending forms of governance needed for a sustainable future. The Sustainable Development Goals (SDGs)—with an emphasis on a “global partnership”—have highlighted the critical role of social inclusion and sectoral integration in achieving that future. There is nevertheless a growing need for pragmatic policy-relevant research on how to make governance more inclusive and integrated in Asia. Much of the Centre for Sustainable Governance's work will therefore aim to address that need.

The Centre will not only focus much of its research on inclusion and integration; it will also put these ideals into practice by actively partnering with groups across IGES. The will help to ensure IGES sectoral/stakeholder research is enriched by governance expertise, while governance research is grounded in sectoral knowledge. The Centre will grow out of the current Integrated Policy for Sustainable Society (IPSS) area and respond to MLS suggestions for a group concentrating on “Governance and Capacity for Inclusive Development.” It will further feature the SDGs in its research and strategic operations—and serve as a hub for information on the SDGs and the 2030 Development Agenda.

The Centre will organise its work around the three complementary methods—comparative case studies, action research, and data analysis.

Comparative case studies:

- The Centre will conduct national and local case studies comparing progress in the national and subnational governance of the SDGs. The case studies will highlight progress and challenges with social inclusion and sectoral integration on the SDGs (particularly SDG 6, 7, 11, 12, 13, 15, 16 and 17).

Action research:

- The Centre will develop need-based training programmes to help policymakers take more integrated and inclusive approaches to implementing the SDGs. The training programmes will offer an opportunity to co-design and co-produce knowledge at different levels of governance.

Data analysis:

- The Centre will collect, analyse, and report data related to the governance of the SDGs (and possibly climate change) in collaborate with the Centre on Strategic and Quantitative Analysis. Not all of the data the Centre gathers will be quantitative in nature; qualitative data will be analysed and assessed more systematically.

The Centre's research will be shared at high-profile events (such as the Asia-Pacific Forum on Sustainable Development 2016) and through relevant networks. The Centre will also organise regular knowledge-sharing activities on the SDGs within IGES and Japan. By the end of the 7th Phase, the Centre aims to help policymakers from at least two countries and three cities take more integrated and inclusive approaches to governing the SDGs.

2.5.2. Intended Impacts/Outcomes by the Area

- A more integrated and inclusive approach to implementing the SDGs is adopted at least 3 countries (and cities)
- SDGs are mainstreamed into their core operations and planning processes in at least 3 Japanese cities, businesses, and civil society organisations (CSOs)

2.5.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit worked extensively on cross-SDGs issues with multiple Units, demonstrated integrative and inclusive approaches and solutions, contributed to impact generation with outputs published overseas and in Japan. As the importance of SDGs implementation grows, it is suggested that the Unit deepens collaboration with other Units to supplement mutual strengths (such as on SDG11 with CTY, on SDG12 with SCP, on air pollution/co-benefits with CE) and build up a financial base at the same time. It should be noted that this Unit has now been promoting effectively how IGES as a whole could contribute to key international gathering on SDGS. Also it has developed a solid collaboration with a Japanese business group (i.e. GCNJ) and published reports on the progress of private companies for the last three years. Also worthwhile to mention is the fact that this Unit has made significant contributions to the preparation of a key UNEP document on air pollution co-benefit, entitled "Science-based Solutions" report, which received substantial international attention.

2.5.4. Self-Evaluation at the End of the Phase (June 2021)

● Impacts

SGC worked with the Ministry of Foreign Affairs, Japan and Ministry of Environment, Japan to promote more inclusive and integrated approaches to the SDGs in Japan. This was achieved through the support for a regular stakeholder meeting where dozens of Japanese companies and cities shared their experiences with policymakers, business people, and other stakeholders. As a result of these and related efforts, IGES has been invited to provide input to the Japan SDG roundtable on SDG implementation guidelines; had its views on indicators and stakeholder engagement reflected in Japan's implementation guidelines; and has similar inputs on more inclusive and integrated approaches noted in Japan's recently published Voluntary National Review (VNR). SGC has also developed a strong working relationship with the Japan Business Federation, Keidanren, on the SDGs and has been asked to offer views on Keidanren's approach to SDG implementation. Finally, in collaboration with CTY and FIN, SGC has worked with Shiga Bank to adopt a more inclusive approach to using the SDGs from as way to promote regional economies and resource efficiency.

SGC also worked with the Asian Development Bank and the Governments of the Philippines and Mongolia to take a more inclusive and integrated approach to the SDGs (particularly on the environmental dimensions of the SDGs). On the basis of this work, the Philippines decided to adopt a new Sustainable Consumption Action Plan through an inclusive process that simultaneously revived the SDG working group and brought together relevant agencies.

Due to the same project, the Mongolian government also strengthened the relationship between the Ministry of Environment and National Statistical Office to provide better data for managing the interlinkages between environment and socio-economic goals. The project also resulted in the co-development of an e-learning class on strengthening the environmental dimensions of the SDGs with ADB, IISD and UNEP. The class not only promoted an integrated approach but was inclusive: more than 650 policymakers, students, business people and other stakeholders from more than 90 countries registered for the class.

Another area where SGC made impacts involves the adoption of more integrated or co-benefits approaches to air pollution and climate change planning. SGC led a widely praised international report on 25 solutions that can help mitigate climate change, improve air quality, and bring better health to approximately 4 billion people in Asia. On the basis of this report, Thailand decided to tighten its mobile source emissions standards to Euro 4 and is working with IGES and SEI to strengthen the integration between its air pollution and climate plans; Thailand and the Philippines has similarly pushed for stronger regional harmonisation and coordination in ASEAN on co-benefits based on the results of the report. In addition, several cities have used the report and pertinent tools to enhance integration between climate change and air pollution. This includes the city of Santa Rosa, Philippines as well as Semarang, Indonesia (where co-benefits collaboration with IGES led to a JCM project for fuel switching in public buses). Other activities on co-benefits in China have led to strengthen of air pollution and climate policies in Dalian, Chengdu and Xiangtan. Last but not least, SGC worked with the IGES Bangkok Regional Centre as well as Alliance for Financial Inclusion to promote social co-benefits in a project that resulted in countries such as the Philippines mainstreaming climate change into central bank social inclusion programmes and strategies, ensuring the poor and marginalised are not left behind by climate impacts and benefit from green finance.

● Outputs

SGC has generated a diversity of high-quality outputs, including two books, several policy reports and policy briefs, and a number of articles. Some important examples include the following:

- Book: SDGs の手法とツールがよくわかる本
- Book: Aligning Climate Change and Sustainable Development Policies in Asia
- Policy Report: “SDGs and Business to Overcome the COVID-19 Pandemic: Actions by Companies and Organisations in Japan”
- Policy Report: Mainstreaming the SDGs in Business: Actions by Companies and Organisations in Japan
- Policy Report: “SDGs and Business in the ESG era: Actions by Companies and Organisations in Japan”
- Policy Report: SDGs and Business for the Future: Actions by Private Companies in Japan
- Policy Report: “Transformational Change Methodology: Assessing the Transformational Impacts of Policies and Actions”
- Policy Report: Governance for Integrated Solutions to Sustainable Development and Climate Change: From Linking Issues to Aligning Interests
- Policy Report: Air Pollution in Asia and the Pacific: Science-based Solutions
- Policy Report: Inclusive Green Finance: A Survey of the Policy Landscape
- Policy Report: Integrated Short-Lived Climate Pollutants into Asian NDCs

- Policy Report: Strengthening the Environmental Dimensions of the Sustainable Development Goals in Asia and the Pacific: Stocktake of National Responses to Sustainable Development Goals 12, 14, and 15
- Submission to Policy Process: IGES Key Messages to the Asia Pacific Forum on Sustainable Development
- Submission to Policy Process: “持続可能な開発目標（SDGs）に関する自発的國家レビューに関する意見”
- Submission to Policy Process: “新型コロナウイルス感染症が環境と持続可能性に及ぼす影響について”
- Submission to Policy Process: “Implications of COVID-19 for the Environment and Sustainability”
- Peer Reviewed Article: SDGs の国内外の最新動向と企業取組のあり方
- Peer Reviewed Article: Sustainable wastewater management in Indonesia's fish processing industry: Bringing governance into scenario analysis
- Peer Reviewed Article: Understanding school travel behavior and the impact of awareness raising to promote resilient public bus system
- Peer Reviewed Article: Integrating the Sustainable Development Goals (SDGs) into Urban Climate Plans in the UK and Japan: A Text Analysis
- Policy Brief: Growing Support for Climate-Smart Agriculture by Scaling Up Farmer and Climate Field Schools: Recommended Policy and Institutional Reforms
- Policy Brief: Leveraging the Sustainable Development Goals to Enhance Environmental Sustainability in Asia and the Pacific
- Policy Brief: Integrating Clean Air, Climate, and Health Policies in the COVID-19 Era: The Role of Co-benefits and the Triple R Framework
- Policy Report: Innovations for Sustainability Pathways to an Efficient and Sufficient Post-Pandemic future
- Training Materials: Training Curriculum Integrating Air Pollution and Climate Change Planning in Cities in Asia
- Submission to Policy Process: “IGES Key Messages on “Sustainable and resilient recovery from the COVID-19 pandemic in Asia and the Pacific”
- Working Paper: A Sustainable COVID-19 Response, Recovery, and Redesign: Principles and Applications of the Triple R Framework
- Working Paper: Governing the SDGs in the COVID-era: Bringing back hierarchic styles of governance?
- Book Chapter: Participatory climate governance in Southeast Asia: Lessons learned from gender-responsive climate mitigation
- Book Chapter: Managing Air Pollution in Asia: Towards a Multi-Benefit, Multi-Source Strategy
- Book Chapter: Tracing Sustainability Transitions in Seoul Governance: Enabling and Scaling Grassroots Innovations
- Book Chapter: グリーン経済と環境ビジネス
- Book Chapter: 『SDGs の基礎』第 2 章 企業における SDGs の役割
- Translation of Non-IGES Material: アジア太平洋 SDG 進捗報告書 2020（日本語翻訳版）
- Non-Peer Reviewed Article: コロナ時代の三つの課題と政策統合
- Non-Peer Reviewed Article: SDGs とビジネス～実践のためのヒント～ 連載第 6 回 あらためて、いかに SDGs と向き合うか
- Non-Peer Reviewed Article: SDGs は遠い世界の話じゃない。私たちにできる具体的なことは？

● **Resource Management (Fundraising, Opportunity Creation, HR)**

SGC continued to secure finance from the Ministry of Environment, Japan for work on the SDGs and other key international processes (G7/G20) as well as co-benefits. In addition, it opened new funding channels with the Ministry of Foreign Affairs, Japan for work on the SDGs. Outside of Japan, SGC was able to access funding from the Asian Development Bank on SDGs and strengthen collaboration on co-benefits as part of the IGES-ADB MOU. SGC also acquired funding from Clean Air Asia, the Stockholm Environment Institute, and the United Nations Environment Programme for work on co-benefits. It also gained resources from UK Research and Innovation for a project on integrating the SDGs and climate in cities as well as the Alliance for Finance and Inclusion for a project on green inclusive finance. In addition to funding, SGC helped maintain a solid relationship with the United Nations Economic and Social Commission in Asia Pacific on activities related to the SDGs, especially the Asia Pacific Forum on Sustainable Development.

● Overall

Overall, SGC made significant progress in achieving its intended impacts of supporting the uptake of more integrated and inclusive approaches to the SDGs (and co-benefits). This was evident not only with varying government and private sector partners in Japan, but outside of Japan. In many cases, it levelled partnerships with key international organisations (ADB) or research institutes (SEI) to attract new funding or amplify the impacts of its research outputs. It also diversified its budgetary sources and built or solidified relationships with policymakers in the region on issues such as co-benefits (Philippines). While tracing the on the ground impacts of shifts in governance can be challenging, SGC began to see more fruits of labour over the course of the 7th phase. It is also well positioned to combine its skill sets and knowledge with colleagues working on other aspects of the SDGs and quantitative analysis as part of the 8th Phase of IGES research.

2.6. City Taskforce (CTY)

2.6.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

- Capacity of cities to incorporate SDGs into city planning and implementation is enhanced.
- Cities developed carbon neutral strategies or conducted multi-benefit activities towards sustainable society.

2.6.2. Intended Impacts/Outcomes by the Area

Cities and other sub-national governments are one of the most important actors to put into action various policies and initiatives to transform societies into more low-carbon/carbon-neutral, resilient and smart. This was apparent prior to and during COP21, when leading cities in the world got together and appealed to push the climate change agenda forward. IGES has been promoting city-based initiatives for many years with Kitakyushu City and its partner cities in Asia, and on this basis IGES plans to further strengthen city-related activities across areas and Centres of the institute. This Taskforce intended to an internal hub to coordinate various city-related operations within IGES. As the internal hub, it will be directly involved in key city-related activities of IGES, promote collaboration with ICLEI and other city-related national as well as regional and international networks, and help city-related initiatives by providing practical knowledge and learning opportunities, and by developing and providing tools and methodologies needed for leading cities.

The following are priority subjects and actions:

- Develop practical tools and methodologies to develop plans for low-carbon/carbon-neutral (e.g. AIM low-carbon society scenario has been developed at Iskandar Malaysia, Putrajaya, Ho Chi Minh, Da Nang, Hai Phong) and sustainable cities (e.g. City SDGs guideline in collaboration with Japanese FutureCity (Kitakyushu, Yokohama, Toyama, Shimokawa, Higashimatsushima, Kamaishi).
- Make platform operations for cities and supporters (including mentors) more strategic to promote horizontal expansion through identification of synergies and addressing capacity and other needs of leading cities (e.g. Know-how Transfer from Tokyo Metropolitan Government to Iskandar Malaysia/Putrajaya about building energy/GHG monitoring and reporting scheme)
- Support vertical integration between cities and various stakeholders (citizen, business, media, Non-Governmental Organisations (NGOs)) in cities, as well as national governments and international organisations (e.g. IGES co-organised G7 Toyama Environment Ministers' Meeting parallel session "Role of Cities" on 15 May 2016 in Toyama with MOEJ and Toyama city).
- Compile and share innovative showcases amongst cities concerned to promote mutual learning, for example, through twinning arrangements (e.g. ESC (Environmentally Sustainable City) programme will be upgraded to highlight scaling-up of showcases and conducting capacity development of city management for ASEAN cities).
- Develop guidelines/e-learning course how to make sustainable policies in cities (e.g. develop FutureCity webinar for ALP2017).
- Create open space for stakeholders to get together in real and virtual for experience sharing (continue to support ASEAN High-Level Seminar on Sustainable Cities and organise ISAP city session, COP/SDG city session and provide our case studies for international knowledge hub such as UNFCCC database, SDG knowledge hub).

2.6.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (excerpt)

The Unit has expanded its partnership on many levels with various partners, such as UN organisations, global initiatives, national and local governments in Japan and overseas. The launch of a unique platform for SDG review by local government ("Voluntary Local SDGs Review") and VLR-Lab was taken up in a very timely manner. It is suggested that the Unit develop mechanisms to sustain initiated joint actions (joint proposals, co-funding with target stakeholders and partner organisations, etc.) and build fundamental theoretical basis to support and scale up local actions (SDG mapping and trade-off study using QAC's tool, comparative study, etc.). It is expected that this Unit should be in the centre of the proposed IGES group to elaborate the R-CES concept and practices in collaboration with other Units concerned.

2.6.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

Introduced a brand new perspective "Voluntary Local Reviews (VLRs)" that supports SDG localisation in Japan and rest of the world

CTY supported three Japanese cities, namely Shimokawa Town (Hokkaido), Toyama City, and Kitakyushu City to produce the Voluntary Local Review (VLR) reports in 2018. Those reports are the first VLRs in the world together with the VLR of New York city. In 2019, IGES also launched VLR lab with United Cities and Local Government Asia and the Pacific (UCLG ASPAC) in the occasions of APFSD 2019 and supported the VLR report of the City of

Hamamatsu. After the first VLR reports in 2018, the VLR attracted international attention as a framework to promote SDG localisation. Organisations such as UCLG, UNESCAP, UNHABITAT, and UNDESA have been promoted the VLR movements, and VLR was mentioned in the Ministerial Declaration of HLPF2021. More than 100 local and regional governments conducted VLR according to the second volume of VLR guideline published by UNHABITAT and UCLG (2021). The VLR are also well recognised by the Government of Japan. For example, promotion of VLR was incorporated in the SDGs implementation Guiding Principles (2019 revision), and four Japanese VLRs that IGES supported were picked up in the summary of the second Voluntary National Review of Japan in 2021. IGES published the Shimokawa Method for VLR that shows practical steps for the VLR based on the experience of VLR of Shimokawa town. CTY also contributed to the Asia-Pacific Regional Guideline on VLR published by UNESCAP in 2020. The State of VLR report series was launched by CTY, which provide annual review of the VLR movements. Furthermore, as for capacity development of local governments regarding the SDG localisation/VLR and local sustainability, CTY t organised various international forum/workshop and also contributed to [the Asia Pacific Mayor's Academy](#) led by UNESCAP.

Supported transformative changes towards Zero-carbon Cities: the first “Decarbonization Domino” case from Japan to Asia

CTY has been providing technical knowledge supports to cities towards zero-carbon society. By linking the low/zero carbon scenario development with AIM (the Asia-Pacific Integrated Model) and city-to-city collaboration between Asian cities and Japanese cities, CTY brought changes on the ground. For example, Semarang City introduced CNG-Diesel Hybrid Equipment to the public buses as an outcome of collaboration with Toyama City. Kuala Lumpur (KL) secure its budget to 4 energy efficiency retrofitting projects and 10 PV projects on KL's public buildings to implement what the city learned from Tokyo's building energy efficiency and renewable energy policy schemes through the city-to-city collaboration projects. Kuala Lumpur declared to be carbon neutral 2050, and the collaboration between KL and Tokyo Metropolitan Government was recognised as the first case of “decarbonisation domino” by Environment Minister Koizumi at the first Zero Carbon City International Forum, organized by the Ministry of the Environment, Japan, UNFCCC Secretariat, ICLEI, and IGES in March 2021. The Unit also conducted a joint research project of Japan-China-Korea on zero carbon cities and developed a publication “Good Practices towards Decarbonization and Sustainable Cities” with research partners of China and Korea.

Disseminating the concept of Circulating Ecological Sphere (CES) internationally

CTY has been contributing to develop the first concept paper in English of CES in collaboration with other units. A working paper on CES has been developed as a product of cross-unit collaboration and was launched at the Asia-Pacific Forum for Sustainable Development (APFSD), March 2019. CTY has been contributing the IGES-START collaboration research on CES and SRF on CES which were led by NRE beyond the IGES units. To contribute to CES concept dissemination to academic society, a peer review article on CES has been developed and accepted by the Sustainability Science. In terms of integration of climate and the SDGs at local level, the unit conducted a study to explore the linkage between the climate and the SDGs in West Java, Indonesia in collaboration with QAC.

Contributing to the IPCC

A Research Manager of CTY contributed to IPCC as a lead author (LA) for chapter 10 and also a member of the drafting team for the WG III Summary for Policymakers (SPM).

● Outputs

CTY successfully delivered timely IGES publications. For example, State of the Voluntary Local Reviews 2021: *From Reporting to Action* [targeted at HLPF2021 in July 2021], Circulating and Ecological Economy - Regional and Local CES: An IGES Proposal [targeted at APFSD2019], VLR reports of three Japanese cities [targeted at HLPF2018].

Peer review articles are also developed based on the activities. The number of peer reviewed articles has been growing and CTY tries to increase contribution to the academic society in ISRP8.

Fernando ORTIZ-MOYA, Yatsuka KATAOKA, Osamu SAITO, Bijon Kumer MITRA, Kazuhiko TAKEUCHI (March 2021) Sustainable transitions towards a resilient and decentralised future: Japan's Circulating and Ecological Sphere (CES), In Sustainability Science, Springer Nature

Sudarmanto Budi NUGROHO, Eric ZUSMAN, Ryoko NAKANO, Junichi FUJINO, Haryono HUBOYO, Wiwandari HANDAYANI, Mega ANGGRAENI (December 2020), Understanding school travel behavior and the impact of awareness raising to promote resilient public bus system. In Transport and Communications Bulletin for Asia and the Pacific

Sudarmanto Budi NUGROHO, Eric ZUSMAN, Ryoko NAKANO (May 2020). Explaining the spread of online taxi services in Semarang, Bogor and Bandung, Indonesia; a discrete choice analysis. In Travel Behavior and Society

Sudarmanto Budi NUGROHO, Junichi FUJINO, Kohei HIBINO, Ryoko NAKANO, Eric ZUSMAN (December 2019) Translating Policy Research into Practical Action on Low Carbon Transport in Developing Cities – Lessons from Stakeholder engagement in Bandung and Semarang City, Indonesia –. In Journal of the Eastern Asia Society for Transportation Studies

Kenji ASAKAWA (March 2021). Analysis on Sustainability of Teleworking Lifestyle during a declaration of a COVID-19 emergency. In "Review of Environmental Economics and Policy Studies" Vol. 14, Number 1, (SEEPS)

Kenji ASAKAWA (August 2018) The status and use of soft law in local governments' management of urban development: Restructuring the logical framework of administrative guidance on impact fees for housing development in 1970s Japan. In International Planning History Society Proceedings, 18.1: 25-31.

- Awards

Sudarmanto Budi NUGROHO won the award from Japan Society of Civil Engineers on the international activity cooperation award 2019.

● **Resource Management (Fundraising, Opportunity Creation, HR)**

The amount of the total budget increased in four years in line with an increase in the number of external fund projects from only CAI (Clean Air Initiative) budget to such as city-to-city collaboration projects of Toyama-Semarang and Kuala Lumpur-Tokyo, China-Japan-Korea joint research on zero carbon cities. Most of the funds came from MOEJ, but CTY tried to diversify its funding sources. For example, the unit conducted a commission work on Kawasaki-Bandung waste management project by JICA Grassroot Fund and SDGs study by the Tokyu Research Institute. The unit also took the lead in fundraising from JAIF on the ASEAN SDGs Frontrunner Cities Programme on 2017 of which actual implementation was led by BRC in collaboration with KUC and CTY. With efforts to secure necessary external funded working days of staffs, the Unit satisfied the target of ISRP7 completely.

● **Overall**

- ✓ CTY has conducted research and project focusing on cities aiming to support city's transformation to resilient and sustainable cities in line with the ISRP7.

- ✓ CTY has been strengthening the partnership with local governments in implementation of project/research, and these partnerships became one of the unit's strengths. Through working with local governments, CTY could generate impacts to local actions and policies, such as zero-carbon goal of Kuala Lumpur and its related budgeting, CNG-diesel hybrid bus introduction to Semarang, VLR in 4 Japanese cities.
- ✓ For four years' activities, CTY has been trying to promote "integrated approach" with the framework of the CES and the SDG localisation. In particular, by being a frontier of VLR, IGES is now recognised as a key knowledge provider of the topic both domestically and internationally. VLR has been highlighted at HLPF2021 and Japan VNR 2021, and IGES and our partners (Kitakyushu City and Shimokawa Town) were invited as speakers at different events.
- ✓ CTY has been collaborating with different international organisations and city networks such as UCLG and ICLEI closely. The collaboration strengthened the capacity of impact generation.
- ✓ CTY has been promoting cross-unit collaboration to make the best use of expertise of each researcher. In addition to invite other unit staff to CTY-led projects, the CTY researchers actively engaged in other unit research projects targeting at cities such as 1.5 degree C lifestyle projects, studies for zero-carbon cities in Japan (e.g. Kanagawa Prefecture), ESCAP's marine plastic projects in Indonesia and others.
- ✓ In ISRP8, CTY will amplify the strengths that the unit has been developing. To attain international goals such as the Paris Agreement and the SDGs, the importance of cities has been increasing and more projects/research tend to focus on local actions. In consideration of this trend, CTY will continue to closely work with local governments and local stakeholders and strength cross-unit collaboration within IGES to maximise resources available. Timely delivery of outputs and contribution to key international conferences are elements to be considered in developing impact generation strategies of the Unit.
- ✓ Securing external funds remains a challenge for the unit. Efforts to find external fund opportunities will continue.

2.7. Finance Taskforce (FIN)

2.7.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

Finance is the driving force for effective implementation, which enables key elements for implementation such technology development/transfer and capacity building for key stakeholders. The economy is moving further toward globalisation, and the global financial system has been responding to this trend. Financial risks imposed by climate change such as 'stranded assets' are being discussed by the Carbon Tracker Initiative and others, and analyses are actually taken into consideration by investors in their decision-making. There are still many challenges as seen in crisis situations like the Lehman Shock and the recent leaks of the Panama Papers. In Asia, establishment of the Asia Infrastructure Investment Bank (AIIB) has generated a high political agenda not only in this region, but globally. Climate change mitigation and adaptation, resource efficiency, sound natural resource management, and other sustainability issues seem to have been understood as potential significant risks and at the same time emerging opportunities for investment, if they are addressed appropriately. Under these situations, the financial sector has already taken a number of important actions, which include establishment of the Equator Principles, promotion of the environmental, social and corporate governance (ESG) investment (socially responsible investment), establishment of the Green Climate Fund (GCF), as well as a more recent initiative by the Financial Stability Board chaired by the Governor of Bank of England to set up the Task Force on Climate-related Financial Disclosure (TCFD), and a China/UK initiative under G20 to establish a new Green Finance Study Group. It is important to recognise the fact that most of these actions have been taken by the global financial sector itself,

which is clearly shown by the case of the Addis Ababa Action Agenda adopted in parallel to, and separated from, the adoption of SDGs September 2015.

The following are priority subjects and actions:

- Follow up the overall policies of the financial sector regarding how it has been dealing with climate and other sustainability issues, through analysis on major policy trends of the World Bank, IMF, regional Banks such as ADB, as well as major policy shifts in official development assistance (ODA) policies coordinated for example by OECD.
- Analyse development and implementation of specific policies and practices to deal with climate and sustainability issues, such as the Equator Principles and the Principles for Responsible Investment (ESG investment), and the role played by international networks such as the UNEP Finical Initiative.
- Analyse challenges and opportunities of green finance, and identify specific areas to propose some methodologies or tools, such as, for example, quantifying environmental impacts, to be useful for financial institutions and investors to scale up its financing.
- Collect information about various forms of the blended finance where private capital will be leveraged by development finance, other international funding like GEF and GCF, or philanthropy grants to help promote SDGs in developing countries, and analyse any effectiveness and implications.
- Analyse motivations by financial institutions and investors to shift to decarbonising, resilient, greener and socially benefitted investment, which may include information disclosure, accounting rules, human resource development and financial incentives.

2.7.2. Intended Impacts/Outcomes by the Area

- SDG finance tracker is developed in the Asian region by establishing a database on flow of SDG-aligned finance or SDG finance
- Finance shift by Japanese companies to low-carbon/resilient investment using pressure from overseas investors is enhanced by IGES acting as a Facilitator on climate engagement between overseas investors and Japanese companies
- Mechanism to promote financing low-carbon/adaptation technology development and transfer in Asian region is established by developing innovative technologies through financing

2.7.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (excerpt)

The Unit, which is the newest addition to IGES from ISRP7, set up the basis for operations with project funds and a platform to which the Unit provides secretarial functions (on the topic of green bonds). Considering the small number of members in the Unit, it is suggested that the Unit first establish the basis of operations (human and financial resources) and strengthen its core competence first on “green bonds” for scaled-up operations.

2.7.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

1. Contribution to expand Japan’s Green Bond market

When ISRP7 started in 2017, one of the most urgent issues by the Ministry of the Environment of Japan (MOEJ) was to expand the green finance market in Japan and the green bond was considered one of promising financial products to enhance the market, since global green bond market was rapidly expanding at that time.

With this back ground, the Finance Taskforce (FIN) has identified the subject of green bonds as its initial focus as its starting point. FIN has been working closely with MOEJ since 2017 to support in development of the Green Bond Guidelines, and serving as secretariat of its knowledge platform called “Green Finance Portal” through the commissioned work by MOEJ. FIN also supported MOEJ as a secretariat in the process of revising the Green Bond Guidelines (initially prepared in 2017) and of developing the Green Loan and Sustainability Linked Loan Guidelines. The revised Green Bond Guidelines and the new Green Loan and Sustainability Linked Loan Guidelines were released in March 2020.

The green bond issuance market in Japan has expanded tremendously from 2017 to 2020, from JPY222 billion to 1,017 billion. It is not clear how much of this impact can be attributed to FIN, but FIN has made some contribution to it.

Through these activities, FIN has established a broad network with key international financial institutions. For example, FIN served as the secretariat for the 25th anniversary of UNEP-Financial Initiatives in 2017, and was selected as an Advisory Council member of the International Capital Markets Association (ICMA) in 2019.

2. Own capacity building for future contribution to expanding Sustainable Finance in Japan and Asia-Pacific

Such knowledge and networks had been utilised for broader scope to sustainable finance which covers not only green but social aspects in finance since 2019 when EU developed the landmark “Action Plan on Sustainable Finance” to implement the “European Green Deal”. Considering its impacts to Japan’s market, FIN has been mainly focusing on the following three areas of sustainable finance:

(1) “Strategic Partnership to Implement the Paris Agreement: Japan-EU Policy Dialogue on Climate Change” : FIN conducted research work on identifying and comparing best practices for policies on sustainable finance both in the EU and Japan, organising a seminar for dialogue between policy makers and experts from Japan and EU in 2019. In order to share Japan’s policy related to sustainable finance in timely manner with EU, FIN updated key policy developments, including the “Expert Panel on Sustainable Finance” (Finance Service Agency: FSA), “Council of Experts Concerning the Follow Up of Japan’s Stewardship Code and Japan’s Corporate Governance Code” (FSA), “Taskforce on Preparation of the Environment for Transition Finance”(METI/FAS/MOEJ), “Expert Panel on Climate Change”(Cabinet office), “National/Regional De-carbonization Realization Committee”(Cabinet office), and “ESG High Level Panel”(MOEJ).

(2) Regional ESG finance: FIN collected and consolidated information on ESG good practices by local banks, in order to identify challenges and opportunities to enhance ESG finance at local level in 2020/2021.

(3) Climate adaptation finance: FIN conducted research work to identify barriers and opportunities for private sector to finance climate adaptation. As a result of the work, a guidance on climate adaptation finance for private financial institutions was developed in 2021.

Impacts by these activities are still under process, and they are considered as foundation work to generate actual impacts during ISRP8.

3. Support in developing a guidance on Climate Transition Finance by the Japanese government

One new area highlighted by FIN in 2020 was “Climate transition finance” which aims to finance transition efforts toward decarbonisation by carbon intensive companies (brown companies) in particular. Following the announcement of the policy on carbon neutrality by the Prime Minister of Japan in October 2020, transition

finance has been addressed as one of the priority issues under "Green Growth Strategy through Achieving Carbon Neutrality in 2050" by the Japanese government.

FIN collected information of good practices on this topic including ICMA, Green Bonds Initiatives, and other global financial institutions which are actively engaged in green and sustainable finance. Some of this information was utilised by MOEJ, in order for METI, FSA and MOEJ to develop the "Basic Guidelines on Climate Transition Finance" issued in May 2021. The Guidelines aim to provide guidance to Japanese financial institutions and companies on what kind of information disclosure is required to mobilise funds for companies to transition to decarbonisation.

● Outputs

The following table shows the list of major publications during ISRP7.

The number of publications is rather limited, because more priority was given to commissioned work, in order to build trust as a newly established research unit. Many of the publications below, however, were prepared utilising data and information acquired through commissioned work. Other than these publications, FIN issued commentaries and media brief materials taking opportunities of international process including G20 summit and UNFCCC COP.

Name of publication	IGES publication type or publisher for non-IGES publication	Publication date	IGES lead author(s), editors	Other IGES authors/ collaborators
Japan Sustainable Finance Policy Update (March 2021 – May 2021)	Issue Brief	6/2021	M. Morishita N. Mori N. Shimizu	
Challenges and Recommendations on Impact Reporting Practice – Japan's Green Bond Issuance on Renewables	Policy Report	7/2021	N. Shimizu M. Morishita N. Mori R. Abdessalem	
Japan Sustainable Finance Policy Update (December 2020 – February 2021)	Issue Brief	4/2021	M. Morishita N. Mori N. Shimizu	
Japan EU Comparative Analysis on Sustainable Finance Policy	Policy Report	8/2020	M. Morishita N. Shimizu	E. Ikeda H. Chenet
SDGs and Business in the ESG Era: Actions by Companies and Organizations in Japan	Policy Report	8/2020	S. Onoda M. Morishita N. Shimizu	
Commentary on public support for coal-fired power plants	Commentary	07/2020	K. Tamura Shimizu	
Challenge of scaling up green bond market in Japan (tentative)	Discussion paper	7/2019	N. Mori., Shimizu	
Transforming the financial system for delivering sustainable Development	Discussion paper	10/2018	Zorlu	
Testing the TOPIX alignment with the 2C climate goal	Policy report	2/2018	Shimizu	Wakimiya
Impact of climate change – transforming business behaviour in favour of sustainable development	Discussion paper	7/2017	N. Mori, Chiba	

Strengthening the integration of climate risks in the banking sector	Policy brief	7/2017	Chiba, N. Mori, Shimizu
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● **Resource Management (Fundraising, Opportunity Creation, HR)**

Major funding sources during ISRP7 were from commissioned work on green bond/finance by MOEJ for four years and on sustainable finance by EU/GIZ for two years, while utilising SRF at the beginning of ISRP7. These commissioned work projects were initially introduced from other IGES research units, and the projects were one of main pillars that FIN engaged in during ISRP7.

With rather limited capacity (four team members) when FIN was newly established, these commissioned projects greatly helped the unit to develop our expertise and networks. On the other hand, this commissioned work required the unit's full capacity, making it difficult to seek new funding to expand the scope of our tasks during ISRP7.

In 2020, the last fiscal year of ISRP7, FIN submitted two proposals to secure new funding, one for "climate adaptation finance" by MOEJ, and the other for "green finance programs on renewable energy in developing countries" by JICA. FIN succeeded in the former, but failed in the latter. Since commissioned work was only a one year assignment, no new staff were recruited.

Toward the end of FY2020, FIN started discussions with other research units including CITY and KUC in the areas of decarbonisation and Regional-CES, SCP for sustainable lifestyles, and NRE for biodiversity, in order to identify potential co-work from the viewpoint of how to mobilise finance in those areas. These discussions will be further elaborated and aim to become tangible projects or actions during ISRP8. This collective approach is considered extremely effective to take advantage of the strengths within IGES and enhance the possibilities for successful fundraising.

● **Overall**

For FIN, ISRP7 was a critical time to develop its own capacity, clarify its focus and carry out its tasks, while capturing trends in green and sustainable finance markets both international and domestic, which tend to be very fast-moving. In this regard, achievement of impact generation during this period was a rather limited. However, FIN could contribute to development of the green bond market in Japan, and expanded its expertise and networks with relevant key stakeholders not only in green bonds but with a broader scope in green and sustainable finance.

In ISRP8, FIN will generate intended impacts in developing and disseminating tangible solutions to mobilise private finance in SDGs implementation including climate change.

The following are major intended impacts:

- (1) Green/transition finance flow to achieve the Paris Agreement is expanded.
Develop a methodology to assess the alignment with transition pathways towards the Paris Agreement by companies in Japan, and then, to apply practical solutions in some ASEAN countries, if applicable. One approach is to participate in the project team to develop a "Japan Transition Index" to evaluate a company's transition pathway in cooperation with BNP Paribas, ISS-ESG and NIES.
- (2) Sustainable financial flow to achieve SDGs at local level is expanded.

Develop & disseminate methodology to assess the positive impacts in financing Regional-CES, and then, to apply the methodology in some ASEAN countries, if applicable. One approach is to collaborate with other research units supporting local SDGs/Net Zero city focusing on how to mobilise finance.

(3) Environmental benefits in green finance is ensured

Propose practical solutions to capture and ensure achieved environmental benefits by green /sustainable finance. One approach is to make inputs into the ICMA's Working Group on impact reporting, or make inputs in and apply the framework to be developed by the Taskforce for Nature-related Financial Disclosure (TNFC) as a global initiative.

2.8. Business Taskforce (BIZ)

2.8.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

Businesses played perhaps the most significant role in the adoption of the two key global agreements in 2015 for sustainability. Their voices were very influential in political decision-making in major countries. Businesses are diverse and flexible, and they are not uniform, for example, in responding to climate change. However, IGES sees that an increasing number of private companies are finding opportunities, not constraints, in pursuing climate change and other sustainability agenda. Against this background, IGES has gradually expanded collaboration with leading businesses in Japan and other countries. Thus, the broad objective of this Taskforce is to contribute to climate and other sustainability policies and initiatives through supporting proactive business actions. Considering that the private sector has: i) an influential voice on climate and other policy formulation; ii) the capability of driving innovations; and iii) a responsibility for its own environmental impacts, business is regarded as an essential player in the transition to a low-carbon/carbon-neutral, resource efficient and resilient economy.

The following are priority subjects and actions:

- Support responsible policy engagement by businesses.
- Support developing corporate business strategies toward decarbonisation and more sustainable business practices, and proposing policy recommendations.
- Help expand, and activate proactive business coalition in Japan, (i) by serving as a secretariat of Japan Climate Leaders' Partnership and (ii) by closely associating with the Global Compact Network Japan (GCNJ).
- Communicate to businesses (including business media), in their business language, risks opportunities and other implications associated with climate change and other sustainability issues.
- Enhance engagement of business leaders in climate actions and enhance investors' engagement with companies on climate risks and corporate competitiveness.
- Engage with international business groups and coalitions, organising high-level dialogue meetings, participating in important forums such as Conference of Parties (COP) and other key international and regional events and processes.

2.8.2. Intended Impacts/Outcomes by the Area

- Japan's Energy/climate policies to become consistence with 2°C Pathway in 4 years. (Redefined intended impact statement in May 2018)

2.8.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit successfully scaled up its operation with the business consortium to send messages and achieve the Unit's ultimate goal ("a shift in Japan's climate and energy policies") with identified influential pathways and actions. The Unit also facilitated the introduction of a global movement (RE100 initiative) to the business sector. As a result, the number of member companies have substantially increased, and its presence in Japan has become quite visible. For larger impact-making, it is suggested that the Unit consider strengthening collaboration with other Units and IGES partners (such as ICLEI) for co-design and co-production in the area of climate change and its synergy with SDGs, as well as event organisation/participation (such as Climate Summit).

2.8.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

As the secretariat of the Japan Climate Leaders' Partnership (JCLP), IGES has supported the participation of JCLP co-chairs in the High-level Roundtable on Climate Action held at the UN General Assembly to share and discuss good practices for avoiding the climate crisis. Support was also extended for an appearance by JCLP on NHK's programme "Shiten Ronten (Point of View, Point at Issue)", as well as a meeting between COP26 President, Alok Sharma. In addition, IGES has contributed to developing momentum on decarbonisation among businesses through dialogues between overseas business groups and JCLP, and transmission of information to domestic industries by JCLP.

JCLP has participated in the following committees that encourage recommendations for ambitious policy engagement from a corporate perspective: 2050 Carbon Neutral National Forum at the Prime Minister's Office; Expert Panel on Climate Change held by the Prime Minister; Policy Subcommittee and Carbon Pricing Subcommittee of the Central Environment Council; and the Subcommittee for Medium- and Long-term Climate Change Countermeasures (Ministry of the Environment).

In addition, JCLP participated in the Minister of the Environment's Policy Subcommittee on Carbon Pricing. JCLP also held dialogues with the Minister of the Environment, the Vice Minister of Economy, Trade and Industry, and the Minister of State for Regulatory and Administrative Reform to convey the enthusiasm of companies for decarbonisation and to call for the introduction of more ambitious policies. JCLP issued six statements and recommendations, held dialogues with the Ministry of the Environment, the Ministry of Economy, Trade and Industry, the Ministry of Land, Infrastructure, Transport and Tourism, and the Cabinet Office, and published a public notice of its views in the LDP's journal. IGES supported in its coordination as the JCLP secretariat.

● Outputs

- Policy Proposals on Carbon Pricing and Emissions Trading Scheme (by JCLP)
- Policy Proposals for Accelerated Adoption of ZEVs for Road Freight (by JCLP)
- Policy Proposals on Diversification of Non-FIT Renewable Energy Options (by JCLP)
- Position Statement on Japan's Mid-Term Greenhouse Gas Emissions Reduction Target (by JCLP)
- RE100 companies call on the Japanese government to increase renewables ambition ahead of COP26 (by 53 RE100 Members)
- Policy Proposals on Soaring Electricity Wholesale Trading Market This Winter (by JCLP)
- Policy Proposals on Japan's Energy Mix Calling for a Renewable Electricity Target of 50% by 2030 (by JCLP)

- Climate Leaders' Signal
- JCLP Website & Twitter
- Renewal of JCLP Brochure, etc.

● Resource Management (Fundraising, Opportunity Creation, HR)

BIZ has obtained new external funds and enabled financially-stable team management. When there was a possibility of contracting with other departments, the unit made proposals and introductions to IGES executives and other departments.

- JCLP Member fee
- MOEJ Commissioned Report
- ClimateWorks
- TARA
- We Mean Business
- The Climate Group
- RE Action, etc.

● Overall

Through activities such as newsletters and overseas visits, BIZ has continued to provide Japanese companies with accurate and timely information on international trends related to climate change. As a result, a sound awareness of crisis regarding climate change was shared among JCLP members, especially regular members, which led to the discussion and dissemination of serious policy proposals by companies themselves and the "impact generation" mentioned above.

Leading JCLP regular members have reported in the media that JCLP has expanded from 35 companies as of July 2017 to 189 companies as of the end of June 2021. The number of Japanese companies participating in RE100 has increased from one as of July 2017 to 56 as of the end of June 2021.

The increase in the number of RE100 Japanese companies has also created momentum for the birth of RE Action, which has reached 151 organisations, up from 28 when it was launched in October 2019. Recently, the Ministry of the Environment, Japan and local governments have come to expect RE Action as a place to find leaders to promote regional decarbonisation.

BIZ will continue to bring together companies and organisations that have a sound awareness of crisis regarding climate change, creating a place where they can act and strongly supporting their activities.

2.9. Kansai Research Centre (KRC)

2.9.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

With its focus on business and technology, KRC has developed its strengths and expertise over several years, through improving access to technology by facilitating its development and transfer in addressing challenges identified in issue areas with special focus on low-carbon technology transfer. It has carried out two substantial projects in the Sixth Phase: one a feasibility study on technology transfer supported by the Japan Science and

Technology Agency (JST) and JICA; and the other, an assessment of technology transfer associated with the JCM. KRC has involved several private companies in these projects, thereby strengthening partnership with them.

The Paris Agreement re-confirms the critical role of technology development and transfer as one of the three essential means of implementation, and has strengthened its institutional set-up by adding technology views and framework to complement already existing technology mechanisms under UNFCCC. Given the above, KRC is expected to further strengthen its research and networking operations, in close collaboration with CE.

The following are priority subjects and actions:

- “Seeds” and “needs” of low-carbon technologies on both supply and demand sides will be assessed and mapped in terms of specific technologies, finance and policies. Geographical focus will be expanded to cover several other countries in the region, and the scope of target technologies will also be expanded not only to energy efficient technologies but to cover renewable technologies.
- An “on the ground” matching mechanism will be built to link stakeholders through arrangements between Business-to-Business (B2B), Business-to-Financial Institutions (B2F), and Business-to-Policymakers (B2P).
- The best practices and lessons learned from IGES studies and others will be compiled in collaboration with our partner institutes, drawing upon cases under JCM, and those promoted by key supporting organisations in Asia, ADB and JICA.
- Analysis will be carried out on the effectiveness of the technology mechanisms to be implemented under the Paris Agreement, together with CE, and make recommendations, for consideration, based upon the analysis made above.

2.9.2. Intended Impacts/Outcomes by the Area

- Low-carbon technology diffusion in developing countries
- Decentralised natural resources management for disaster risk reduction (DRR) (added in FY2018)
- Development of regional circular and ecological sphere (R-CES) models in Hyogo (added in FY2019)
- Consolidating messages for transforming to the decarbonised society targeting youth (added in FY2020)

2.9.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit extended its engagement with the business sector in India and successfully introduced specific low-carbon technology through matchmaking with technology providers in Japan. It is suggested that, while the Unit continue its endeavour of low-carbon technology transfer with accumulated knowledge and a fresh assessment for a newer phase, the Unit should also diversify its activities in the area of disaster reduction, adaptation, and R-CES (piloting) in line with the needs and advantages of Hyogo Prefecture. In so doing, strengthening human resources should be considered so that opportunities can be taken in a timely manner for future operations.

2.9.4. Self-Evaluation at the End of the Phase (June 2021)

● Outputs and Impact Generation

Low-carbon technology diffusion in Asia

- ✓ In FY2019 and FY2020, KRC was unsuccessful in its efforts to raise funds for the low-carbon technology project in India by applying for SATREPS, JST and JICA. Nevertheless, operations in India in cooperation with The Energy and Resources Institute (TERI) have been sustained using internal resources, i.e. Hyogo Prefecture

grants, and MOEJ commissioned works. Through this, the project's focus has been slightly expanded to environmental management technologies, such as monitoring of ambient air quality and smoke emissions from power plants and energy-intensive industries through cooperation with the Japan Environment Technology Association (JETA) and the Blue Sky Initiative promoted by the Embassy of Japan in India. A webinar on smoke emissions monitoring technologies held in February 2021 invited about 140 participants including representatives from the Central Pollution Control Board under the Ministry of Environment, Forest and Climate Change, State Pollution Control Boards of Maharashtra and West Bengal and industries including national and private thermal power plants and steel and cement manufacturers, among others. Reflecting the severity of air pollution and public interest in India, it is envisaged that operations will continue to be focused in this area. In line with this, cooperative efforts with Osaka City, which is promoting environmental cooperation in Maharashtra, are also being coordinated as a new approach.

- ✓ In Thailand, under the Ministry of the Environment project, with the cooperation of the Energy Conservation Center, Japan (ECCJ), KRC proposed the adoption of practical energy conservation measures to the Department of Alternative Energy Development and Efficiency (DEDE) of the Department of Energy. Recommendations include analysing the data of the annual energy use reports submitted by over 9,000 designated factories and buildings and evaluating their energy saving performances, determining specific energy intensity for each industry based on that, and providing free energy-saving diagnosis and equipment subsidies for small and medium-sized enterprises that usually perform less compared with large companies. Positive responses to these proposals have been obtained from DEDE officials, and the results of the discussions were shared with the Natural Resources and Environment Policy Planning Bureau (ONEP) of the Ministry of Natural Resources and Environment (MONRE), Thailand Greenhouse Gas Management Organization (TGO), the Bangkok Metropolitan Government (BMA), Japan Embassy in Thailand and JICA Thailand Office at a joint meeting. These inputs are also contributing to the JICA project for Bangkok Master Plan on Climate Change 2013-2023, in which KRC is serving as an expert.
- ✓ Aiming to promote high-quality environmental infrastructure expansion in developing countries, the Ministry of the Environment has launched the Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) in September 2020. IGES serves as the secretariat, along with Overseas Environmental Cooperation Center (OECC) and Global Environment Center (GEC). JPRSI aims to support private companies promoting high-quality environmental infrastructure abroad in the fields of solid waste management, wastewater treatment, ambient air quality management, energy saving, renewable energy development and smart city development, among others, through forming a network of key local persons and experts. KRC and KUC work closely with JPRSI to promote low-carbon technology diffusion in Asia using the Joint Crediting Mechanism (JCM) and the intercity collaboration framework.

Regional circular economy and renewable energy promotion in Hyogo

- ✓ KRC, in cooperation with the Global Warming Countermeasure Division of the Hyogo Prefectural Government, is managing a regional circular economic sphere project in Hokusetsu area, covering Takarazuka City, Kawanishi City, Inagawa Town and Sanda City, that promotes effective utilisation of woody biomass mainly from prefectural government's environmental forest spreading over 800ha in the area. The project, selected as one of the model projects in FY2019 and FY2020 by the Ministry of the Environment, aims to cut annually about 2,000 tonnes of broad-leaved trees in a sustainable manner from the 100,000 tonnes of stock, to produce fuel chips and to sell it to facilities using woody biomass boilers. The project also promotes the use of such boilers instead of conventional ones using heavy oil or kerosene. In FY2021, a locally-based business

entity managing the logging, forest conservation, producing and selling fuel chips and promoting the use of woody biomass boilers is being established with the aim to start operation in 2022.

- ✓ KRC and the Global Warming Countermeasure Division, Hyogo Prefecture, are working together to promote the use of renewable energy among the business entities in the prefecture through matching the demand and supply under a Hyogo renewable energy 100 project. A questionnaire survey targeting about 2,000 private companies carried out in 2020 revealed that more than 40% of them are willing to adopt renewable energy but only half of them have such a plan and many require additional information, such as costs and benefits, available services and conditions, and reliable service providers, among others, to fill the gap. The same project is being continued in FY2021 to support it particularly through supporting selected city governments aiming to be carbon neutral by 2050. KRC will support these city governments in developing a decarbonising plan with focuses on identifying renewable energy development and energy saving potentials targeting public facilities, private companies and agricultural lands and devastated agricultural lands.
- ✓ The same approach will be implemented in parallel through the city area carbon mapping project under the Ministry of the Environment started in FY2021. KRC will carry this out in Hyogo Prefecture to support selected city governments in developing decarbonising plans.

Lectures on climate change and disaster risk reduction

- ✓ KRC managed a two-week training visit on climate change and disaster risk reduction in Japan in October-November 2019 for about 30 officials from nine ASEAN countries under a JAIF-funded project on disaster risk reduction by integrating climate change projection. KRC also made a presentation and a lecture on the same theme at the International Disaster Prevention and Humanitarian Assistance Forum 2020 in Kobe, Hyogo Prefecture, and at the Disaster Resilience and Governance Disaster Resilience and Governance Department, University of Hyogo Graduate School, in 2021, respectively.

Activities targeting the youth

- ✓ In collaboration with the Kobe University's Econo-Legal Studies (ELS) program, KRC managed a half-semester course on a carbon-free society in FY2020 and FY2021. The contents of the lecture include the United Nations Framework Convention on Climate Change, the Paris Agreement, energy policies of major countries, emissions trade and carbon pricing, actions by private companies and financial institutions, and roles of local governments and regional energy companies, among others. Four students volunteered to continue the study in the latter half of FY2020 compiled a proposal for promoting decarbonisation to Kobe University and submitted it to the director of the SDGs Promotion Office. The proposal recommended to become Japan's first comprehensive university that declares carbon neutrality, to establish an "environmental conference" that includes students and professors to discuss the direction, and to develop a practical research and education programme on decarbonisation. As a result, the "environmental conference" was actually established in April 2021.
- ✓ The linkage established with Kobe University is being utilised for the implementation of the university coalition project for developing a carbon neutral society under the Ministry of the Environment started in FY2021. IGES will be the secretariat of the local zero carbon working group under the coalition, and taking advantage of it, KRC will further establish linkages with Kobe University and other member universities located nearby, including universities of Osaka, Kyoto and Hiroshima, to seek collaboration opportunities.
- ✓ KRC, together with the Environmental Policy Division, Hyogo Prefectural Government, and the Hyogo Environmental Creation Association, organised a five-day Hyogo High School Student Environment and Future Leader Development Project from October 2020 to January 2021. KRC planned the programme, selected the

lecturers and moderated the workshop. The theme was climate change countermeasures and realisation of a carbon-free society and the lecturers comprised National Institute for Environmental Studies, Toyota Motor Corporation, Borderless Japan Co., Ltd., Kobe Shimbun Co., Ltd., Prefectural Environmental Management Bureau and IGES. A total of 37 students from 16 schools learned the climate change impact on the economy, society and environment, as well as the efforts at national and local levels to mitigate it in the first three days, drafted a message on the 4th day, and presented it in front of the directors of the Hyogo Prefectural Government and the media on the final day. The messages presented include strengthening environmental education; enhancing local government communication to residents; selecting local environmental measures promotion committee members from high school students; business promotion for solving social problems; nudging for environmental actions; and explaining environmental challenges in an easy-to-understand manner. Following that, more than ten students participated in a follow-up activity to create a pamphlet for promoting prefecture's global warming countermeasures. The same programme is scheduled in FY2021.

- **Resource Management (Fundraising, Opportunity Creation, HR)**

- ✓ Low-carbon technology diffusion project in India is not running favourably but is being continued using available funds. Shifting the focus on environmental management technology may be the right direction. The same project in Thailand is also sustained with available funds. Seeking synergies with the JPRSI project will be the right approach.
- ✓ Collaboration with the Hyogo Prefectural Government is expanding well starting from the regional circular economy project in Hokusetsu area to renewable energy promotion for private companies and city governments. Blending the mandates and finances from the prefectural government and the Ministry of the Environment, these projects are showing good synergies, i.e., implementation of the national agenda at a local level; and by so doing, raising the practical capacity of KRC staff.
- ✓ KRC's efforts to raise awareness of Kobe University students for developing a carbon neutral society was well utilised for the new university coalition project. The same effort targeting high school students is also well recognized by the prefectural government and local partners including Kobe Shimbun.

- **Overall**

- ✓ Reflecting the Corona virus pandemic situation worldwide and the national focus on developing a carbon neutral society by 2050 with a high expectation on local initiatives, KRC's focus has also been shifted to local activities toward that particularly in the past two years. KRC's advantage is a strong partnership established with the Hyogo Prefectural Government and other local partners and the neutral position to facilitate implementation of the national agenda at a local level using that. It is expected that KRC continues playing such a role and disseminating practical lessons to other local players as well as to the similar types of players abroad.

2.10. Kitakyushu Urban Centre (KUC)

2.10.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

KUC plays a catalyst role to support sub-national governments or cities to take a transition path toward low-carbon and resilient, resource efficient, and green growth in achieving SDG11 (sustainable cities and communities) and other goals that are addressed at the city level such as SDG6 (clean water and sanitation), SDG7 (affordable and

clean energy), and SDG13 (climate action). In order to tackle the city's complicated challenges, an integrative and inclusive approach is essential. Therefore, KUC will continue to work with cities to provide effective assistance to them through conducting practical research and on-the ground activities in close partnership the City of Kitakyushu.

Building partnership among local governments and other key stakeholders (civil society, private, and academic), KUC has conducted capacity development programmes and supported the development of local and national policies, strategies and action plans in order to promote low-carbon and resilient, resource efficient, and green growth in Asian cities. Based on the assets developed, KUC in the 7th Phase will focus four action areas stated below upon the following three subjects: i) low-carbon and resilient cities; ii) sustainable urban waste management; iii) urban environmental management and green growth. KUC, as the advanced capability to promote city-to-city collaboration, will work closely with the City Taskforce at HQ.

The following are priority subjects and actions:

- Facilitation of translating and transferring knowledge to promote understanding of local stakeholders: KUC will facilitate knowledge transfer utilising city-to-city cooperation frameworks by conducting training programmes, developing deliverables (e.g. guidebooks, case studies), organising seminars and webinars.
- Supporting institutional development to promote actions: KUC will support policy planning and capacity development to facilitate local actions in close cooperation with key stakeholders including local governments, civil societies and private sectors.
- Playing a catalytic role to make 'changes' at subnational level: KUC will support local stakeholders in policy implementation and actions including fund-raising support.
- Strengthening links with existing networks: KUC will strengthen and explore links with existing regional and international networks on areas such as climate changes, sustainable development goals, and sustainable lifestyles in order to reach out to a wider audience.

2.10.2. Intended Impacts/Outcomes by the Area

- Low-carbon and resilient policies are mainstreamed into urban planning and implementation in Asian cities
- Sustainable waste management practices are evolved in Asian cities
- SDGs are localised in a meaningful manner for local stakeholders (*Redefined intended impact statement in May 2020*)⁵

2.10.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit has shown steady growth with a sound financial base and output delivery (including a significant product with Kitakyushu City). The successful synergetic impact generation with the city and accumulated knowledge continued to enable the Unit to replicate good practices overseas and created a model for environmental business. To maintain momentum and scale up impacts, it is suggested that the Unit continue close collaboration with CTY on SDG11 and SCP on circular economy and marine plastic issues with external experts from networks related to the Unit as well as Kitakyushu City, and explore new opportunities for training provision on SDGs in communication

⁵ Original intended impact in ISRP7 was "Green growth and sound urban environmental management are promoted in Asian cities"

with SGC. The scope for KUC should be widened to include interests held by other cities in Kyushu, such as Minamata City.

2.10.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

Mainstreaming Low-carbon and Resilient Policies

KUC has been continuously serving as a secretariat of a MOEJ-led platform to facilitate City-to-City Collaboration Projects since FY2013 and contributed to maintaining the momentum toward the realisation of a low & zero carbon society at city level in Japan and abroad. KUC has supported the implementation of 69 projects under this City-to-City Collaboration Programme over the past four years. Besides, KUC has been directly involved in individual projects including Kitakyushu City – Davao City (Philippines) collaboration (FY2018-FY2019), Kitakyushu City – Koror State (Palau) collaboration (FY2020), and Hiroshima Prefecture – Soc Trang Province (Vietnam) collaboration (FY2020). In the Davao City project, KUC led the support for creating a GHG inventory at city-level and a local climate change action plan (LCCAP).

KUC's expertise in climate change mitigation led to delivering: 1) a "Training Curriculum for Climate Change Laws and Regulation of the Climate Change International Technical and Training Center (CITC) in Thailand" (through JICA technical expert project) and 2) UNDP's "Global Database of National GHG Inventory (GHGI) Capacity in Developing Countries" (through collaboration with the Greenhouse Gas Management Institute). KUC's issue brief on the commitment to net zero carbon emissions by local governments in the Kyushu region was also well recognised by various stakeholders. This led KUC to set a new vision in ISRP8 namely "KUC will become a local-hub of zero-carbon cities in Kyushu".

Evolving Sustainable Waste Management Practices

KUC's engagement in the provision of technical support to various central and local governments in Asia on waste management policies, planning and implementation led to an endorsement of the following official documents. At the national-level, these included "Waste-to-Energy Guidelines" in Malaysia as well as the "Department Administrative Order on Waste-to-Energy Technologies" and a "Manual of Waste Analysis & Characterization Study" in the Philippines. At the city-level, KUC's supported the development of a "Work Plan for Reduction of SLCs from Municipal Solid Waste Management" in Medan City, Indonesia which was used as a basis for developing the Regional Policy and Strategy (Jakstrada) on Waste Management in Medan City. In Bandung City, Indonesia, a practical guide for a decentralized composting centre, "Operation Manual of Takakura Composting Method", was developed to assist local operators' daily management.

Localising the Sustainable Development Goals (SDGs) in Kitakyushu City and Kyushu Region

KUC has been supporting the City of Kitakyushu to develop one of the world-first voluntary local review (VLR) on SDGs together with CTY. As such, KUC has been acknowledged as a practitioner of SDGs localisation and has been invited to several key international programmes (including but not limited to Local 2030 of High-Level Political Forum (HLPF) 2019; VNR-VLR Lab at the 8th Asia-Pacific Forum on Sustainable Development (APFSD); UNESCAP's Mayors Academy; UN Global Compact's Localising the Global Goals; OECD's Territorial Approach seminar to the SDGs at the World Urban Forum 2020 in Abu Dhabi, etc.). KUC also contributed to the successful finalisation of the Kitakyushu City's report of the OECD's Territorial Approach to the SDGs and launching event. At the local level, KUC provided lectures and workshops on the SDGs to local stakeholders as requested by universities, schools,

NPOs, etc., over 30 times during the 7th Phase. KUC also started its own initiative to provide learning opportunities on SDGs localisation in the English language.

● Major Outputs

- Junko AKAGI, Yatsuka KATAOKA, Shiko HAYASHI, Kohei HIBINO, Junko OTA, Fritz Akhmad NUZIR, 2018. Actions towards a Sustainable Society: Collaboration between Asian Cities and City of Kitakyushu. Discussion Paper: IGES-KUC
- Seiya TOMINAGA, Shiko HAYASHI, 2018. Local Production and Consumption of Renewable Energy Led by Local Governments: Outcomes, Challenges, and What Is Needed to Expand Such Actions. IGES Issue Brief: IGES-KUC
- Shiko HAYASHI, 2018. Japan Case Study in Municipal Solid Waste Management: A Reform Roadmap for Policy Maker. World Bank Report
- Junko OTA, Kaori HOSODA, Shiko HAYASHI, Junichi FUJINO, Yatsuka KATAOKA, 2018. Kitakyushu City the Sustainable Development Goals Report. IGES Policy Report: IGES-KUC, IGES-CTY
- Yoshinori MORITA, Shiko HAYASHI, 2018. Proposals to Strengthen Japan's Domestic Measures and Regional Cooperation on Stable and Environmentally Sound Plastic Scrap Recycling: Response to China's Ban on Imports of Plastic Scrap. IGES Policy Brief: IGES-KUC
- Kohei HIBINO, Junko OTA, Fritz Akhmad NUZIR (2018)自治体が公的ファンドを活用して海外都市との環境協力を推進するための考察と提言. IGES Discussion Paper. Institute for Global Environmental Strategies.
- Fritz Akhmad NUZIR, Shiko HAYASHI, Koji TAKAKURA, 2019. Takakura Composting Method (TCM) as an Appropriate Environmental Technology for Urban Waste Management. International Journal of Building, Urban, Interior and Landscape Technology (BUILT) Volume (Issue): 13-2019
- Shiko HAYASHI, 2019. Opportunities of Overseas Expansion of Plastic Resource Circulation System. Journal of Environmental Information Science, No. 48-3
- Kohei HIBINO, Fritz Akhmad NUZIR, Premakumara Jagath DICKELLA GAMARALALAGE (2019) Work Plan for Reduction of SLCPs from Municipal Solid Waste Management in Medan City, Indonesia: 2019 – 2025. Institute for Global Environmental Strategies.
- Junko AKAGI, 2020. History and Development of Water Business Overseas Development in Kitakyushu. Kitakyushu Innovation Gallery & Studio (a commissioned report in Japanese)
- Kohei HIBINO, Sudarmanto Budi NUGROHO, Ryoko NAKANO, Eric ZUSMAN, Junichi FUJINO (2020) Operation Manual for Small-to-Medium Scale Compost Centres Using the Takakura Composting Method. Institute for Global Environmental Strategies.
- Junko OTA, Junko AKAGI, 2021. Commitment to Net Zero Carbon Emissions by 2050 by Local Governments in the Kyushu Region of Japan: Background, Current Situation, and Challenges. IGES Issue Brief: IGES-KUC

● Resource Management (Fundraising, Opportunity Creation, HR)

KUC maintained its external funding at between JPY 145 and 170 million during ISRP7. Throughout the phase, KUC succeeded in expanding the funding sources from domestic to international, with over 40% of KUC's budgets coming from international funding sources in FY2019. In particular, KUC explored new opportunities to improve plastic waste management in Asian cities in collaboration with international donors (e.g. World Bank, UN-Habitat, Alliance to End Plastic Waste, JAIF, etc.) and has been an implementation partner to design policy frameworks as well as implementation arrangements targeting plastic waste management in the Philippines, Thailand, Bangladesh, Cambodia, Viet Nam, etc. In addition, KUC started its own initiative "Kitakyushu SDGs Training

Platform” to provide training opportunities to promote localisation of SDGs and contributed to accelerating local transition to circular economy through a development of “Kitakyushu Circular Economy Vision”.

As part of IGES-wide management, KUC strengthened cross-unit collaboration with other units including CTY (i.e. Platform for Low & Zero Carbon Society, Localizing SDGs, etc.) and SCP/CCET (i.e. CCAC), and increased opportunities contributing related projects of other units (i.e. CTY, KRC, SCP/CCET, CE, etc.).

● Overall

In ISRPS7, KUC has been playing a catalytic role to make ‘changes’ at subnational levels in its three strategic pillar areas including zero carbon cities, circular economy at city, and SDGs localisation. Under these three areas, KUC particularly focused in facilitation of knowledge transfer utilising city-to-city cooperation framework, institutional development at both national and local levels to promote local actions, and collaboration with private sectors for transferring appropriate technologies. KUC strengthened synergetic impact generation with close collaboration with other units, especially CTY on low & zero carbon cities and SDGs localisation and SCP/CCET on circular economy and marine plastic issues. Based on these strategic approaches, KUC consistently performed on steady basis in impact generation, fund raising and output delivery throughout ISRP7.

With a consolidated relationship with local stakeholders (i.e. in particular, the City of Kitakyushu), KUC has explored new opportunities and successfully widen its scope (i.e. Training provision on SDGs localisation, Networking with local governments committed to zero-carbon cities in Kyushu, Vision development of local Circular Economy, Institutional design of Local ESG finance) even under the COVID-19 pandemic situation. Toward the transition to the ISRP8, KUC sets a new vision to become a local-hub of zero-carbon cities in Kyushu region and realize it by further promoting an integration of the existing activities.

2.11. Regional Centre in Bangkok (BRC)

2.11.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

BRC functions as an external wing of IGES to engage and collaborate with other supporting organisations based in Thailand and other ASEAN countries, including UN agencies, ADB, U.S. Agency for International Development (USAID), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Swedish International Development Cooperation Agency (SIDA), JICA, and ASEAN Secretariat, among others. BRC also functions as an outreach wing of IGES to disseminate research outputs through the media and other means. BRC teams up with research groups in the Headquarters and satellite offices to synergise the work and occasionally provides logistical support for organising events in Thailand. Collaboration with the UNFCCC Regional Collaboration Centre and the Regional Resource Center for Asia and the Pacific (RRC.AP), AIT has special importance to IGES in terms of joint project development and operation.

BRC focuses on the following three sectors:

Climate Change Mitigation and Adaptation

- Build the capacity of government officials and national experts to prepare bankable proposals to implement mitigation and adaptation projects by organising training courses in cooperation with Climate Change Asia at Asian Institute of Technology. Prepare relevant training modules with focused areas on urban resilience, economics of climate change, project preparation, NDCs and low-carbon technologies.

- Continue to host, update, and maintain the APAN web portal with the latest news, publications and countries' adaptation activities in Asia and the Pacific. Continue to organise and conduct regular community of practice e-discussions using the APAN Exchange Series as a modality to stimulate conversations on key adaptation topics and capture practical adaptation knowledge and experience. Support ASEAN Member States in strengthening institutional capacity and policy frameworks for effective implementation of disaster risk reduction and climate change adaptation.
- Continue to host the UNFCCC Regional Collaboration Centre (RCC) in Bangkok in leading the discussion on markets and mechanisms that contribute to the mitigation of GHG emissions in line with Article 6 of the Paris Agreement; assisting countries in putting in place approaches that create a price on carbon for implementing their Nationally Determined Contributions; supporting efforts to substantially scale up climate and SDG aligned finance and investment; tapping the potential of CDM in underrepresented countries and alleviating the barriers to CDM project development and implementation; and collaborating with the UNFCCC Global Climate Action Support Unit to play a key role in facilitating both participation of relevant stakeholders and management of follow-up actions in the region.
- Continue to promote and facilitate low-carbon technology (LCT) transfer in the Southeast Asia region and to assist countries to achieve their emission reduction targets through the increase of resource-efficiency.

Environmental Compliance and Enforcement

- Creation of the Asia Environmental Impact Assessment Network (AEIAN) within AECEN as an Established Regional Body with potential support from MOEJ, ADB, GIZ, Middle Income Countries and other parties. In line with this, MOEJ will support AEIAN as a regional platform to strengthen EIA implementation in Asian countries through the promotion of information sharing and exchange as well as possibility for twinning arrangements.
- Explore funding opportunities for long-term collaboration in environmental compliance and enforcement as well as environmental social safeguards areas, starting with US Environmental Protection Agency (EPA), Environmental Protection Administration of Taiwan, ADB and other potential partners.

Sustainable Cities

Through the new phase of the ASEAN ESC Model Cities programme, BRC will promote the SDGs to a selected group of frontrunner cities and help them map their local policies/actions to all 17 SDGs and draw up a plan of action. An online hub for 'SDGs and ASEAN Cities' (Sourcebook) will be established, which will showcase data and experiences from supporting those cities in the past eight years. BRC will guide and benchmark the performance of frontrunner cities with the use of quantitative indicators and promote city-to-city learning for scaling similar practices.

2.11.2. Intended Impacts/Outcomes by the Area

- Increased capacities of Asia-Pacific governments to develop and implement climate change adaptation policies and projects
- Improved environmental compliance and enforcement of pollution control practices in 18 Asian member countries.
- Know-how that drives clean development is adopted and resources for regional engagement in climate change mitigation activities are mobilised.
- 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

2.11.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Unit expanded its operations and start hosting an additional programme (SWITCH-Asia SCP Facility, being implemented with SCP since October 2017), in addition to a United Nations function (UNFCCC-RCC) launched at BRC in the previous phase. The Unit has been working closely with overseas organisations and funding agencies on a project basis in the dynamic environment of Bangkok where many international and regional organisations locate their offices. With the prospect of launching another programme at BRC (adaptation-focused platform for the Asia-Pacific region, under development), it is suggested that the Unit further spearhead overseas operations with other Units and at the same time improve its financial base and address constraints that the Unit faces (employment matters in compliance with the host country's requirements, etc.)

2.11.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

BRC has served as a hub for networks and partnerships in the Asia-Pacific region since its establishment in 2011. Based on the foundation BRC developed during ISRP6, BRC expanded its operation to other areas in ISRP7. In adaptation area, BRC started two major programmes on adaptation (JAIF DRR/CCA and AP-PLAT) in order to increase the capacity of Asia-Pacific governments to develop and implement climate change adaptation policies and projects. UNFCCC-RCC launched at BRC in the previous phase also expanded the scope and added climate finance and adaptation in this phase. For sustainable cities, BRC supported the localisation of SDGs in 24 ASEAN cities in 8 ASEAN Member States through the new phase of the ASEAN ESC Model Cities Programme (SDGs Frontrunner Cities). Through national workshops, 'City Priority SDGs' reports and pilot projects, the project engaged about 180,000 stakeholders and raised local capacity for transformative actions to environmental quality improvement approaches, linked to the SDGs. In addition to a United Nations function (UNFCCC-RCC), BRC also hosted an additional programme (SWITCH-Asia SCP Facility, being implemented with SCP since October 2017). As a contribution to global assessment work of the state of the environment in Asia, BRC worked on the GEO6 Industry Report in Asia Pacific together with other units at IGES.

● Outputs

In ISRP7, BRC created diverse outputs directly linked to the Asia-Pacific region. BRC successfully implemented the JAIF DRR-CCA Project in 10 ASEAN countries between 2018-2020 which contributed to the regional and global efforts on disaster risk reduction, supporting the SFDRR and AADMER. The project supported the development of two guidelines/training modules on flood and landslide risk assessments integrating climate change projection endorsed by the 10 ASEAN member states. The project engaged over 600 stakeholders from 50 relevant agencies, carried out over 800 risk assessments surveys in four pilot sites – these results contributed the development of the common methodologies and risk management plan. BRC also contributed to the UNDRR Global Assessment Report on Disaster Risk Reduction 2022 through its submission titled 'Disaster Risk Reduction in ASEAN region: Understanding and assessing systematic risks of flood and landslides in a river basin context'. The paper is currently being reviewed by UNDRR Chapter Leads for the special issue of the journal Disaster Prevention and Management. More details can be found on the project website <https://aseandrr.org>. Due to the official launch of AP-PLAT in 2020, BRC contributed to preparatory work for the Capacity Development Program under AP-PLAT as well as providing input to the APAN Forum and APCW. Additionally, UNFCCC-RCC produced a series of 10 reports on

cooperative MRV as a foundation for a potential regional carbon market within ASEAN, and developed technical assessments of needs-based climate finance for the Association of Southeast Asian Nations, Asian Least Developed Countries, and Central Asia and South Caucasus countries. IGES assisted the SCP Facility with the implementation of activities in Lao PDR and Viet Nam, following multi-stakeholder dialogues in those countries. The SCP Facility together with IGES provided technical support to the Ministry of Industry and Trade (MoIT) of Viet Nam in the development of its National Action Plan on SCP 2021-2030. For sustainable cities, a total of 26 cities' innovative policies/practices relating to diverse environment issues were supported with pilot project grants and then highlighted in reports, showcase videos for dissemination to the world stage social media, publications (national/city priority SDGs reports) and website. For GEO-6, BRC took the lead in preparing an e-book of the GEO-6 Industry in Asia Pacific and organised a launch session for this publication.

- **Resource Management (Fundraising, Opportunity Creation, HR)**

During ISRP7, BRC secured a stable financial basis from diverse funding sources in addition to MOEJ. Due to receiving a large external budget from Japan-ASEAN Integration Fund (JAIF), BRC accumulated institutional know-how to deal with ASEAN projects thereby contributing to IGES-wide operations.

- **Overall**

Overall, BRC was able to produce diverse outputs with direct impact on Asia-Pacific countries, working with other units at IGES and partner organizations in the region during ISRP7. In the next phase, it is suggested that BRC continue these efforts and at the same time should address the constraints that the Unit faces (employment matters in compliance with the host country's requirements, etc.)

2.12. Beijing Office (BJG)

2.12.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

The Beijing Office continues to work with the Chinese Government to promote basically bilateral cooperation initiatives between Japan and China. The focus is now shifting very much to air pollution-related matters as domestic as well as international attention is increasingly paid to the serious impact on health. Substantial collaboration has been designed and implemented in the form of city-to-city collaboration, in which the IGES Beijing Office has played the central role. The performance has been appreciated by both the Chinese and Japanese Governments. This could further develop into a co-benefit project in the future, given a strong commitment made by the Chinese Government to its INDCs submitted to COP21.

The following are priority subjects and actions:

- The country-specific research and operations spearheaded by the Beijing Office will be further promoted, by mobilising the South Asia Desk in India and the Indonesia Desk. Possibilities to further expand country-specific operations continue to be reviewed by Headquarters.

2.12.2. Intended Impacts/Outcomes by the Area

- Co-benefit of better air quality and CO2 reduction in China are promoted through city-to-city cooperation between local governments in China and Japan.

- (Completed in FY2017) Policy recommendation and maintenance manual on wastewater treatment are adopted in local cities in China

2.12.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

The Office received a favourable evaluation from the funding agency (Ministry of the Environment, Japan (MOEJ)) when it submitted its project report on the city-to-city collaboration on air pollution between China and Japan in March 2019, in which the achievement made over the past five years (2014-2018) was summarised. With this trust gained from the funding agency, the project is expected to extend for another three years (2019-2021) with an updated focus under a slightly modified mode of operation. The project made a significant contribution to reducing air pollution (especially PM and SO₂) in 14 Chinese provinces and cities with technical assistance from Japanese prefectures and cities, and gained recognition from the environmental ministries of both countries. The project will continue to provide support to China's "Blue Sky" action plan with a larger coordination role by the collaboration platform managed by the Office. It is desirable that the Office seek ways of sustaining a longer-term engagement and create synergetic ripple effects in climate policy discourse with other Units including promotion of co-benefit approach.

2.12.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

Commissioned from Ministry of the Environment Japan (MOEJ), Beijing Office started the Japan-China city-to-city cooperation project in FY2014. The project ended in FY2018 after concluding project results, which were highly evaluated by MOEJ and are available on the ministry website. From FY2019, based on the MoU on "Cooperation on Research and Model Projects to Improve Air Quality" concluded in June 2018, between the Environmental Ministers of Japan and China, Beijing Office conducted research and model projects on the co-benefit measures against air pollution, which could reduce both air pollutant emissions and GHG emissions at the same time. Specifically, from FY2019, Beijing Office started the seven model projects shown below, and in FY2020, it summarised the expected effects of reducing (suppressing) CO₂ emissions by introducing the measures with some of the model projects. Beijing Office expects that the results from these model projects will be utilised in discussions to consider measures in China, where the 14th Five-Year Plan requires stronger VOC control and the 3060 Target (which requires to peak CO₂ emissions before 2030 and carbon neutrality before 2060) requires stronger CO₂ emissions control.

- (i) Model Project on Energy Conservation and Reduction of Air Pollutant Emissions by Introducing New Technology to Recover and Reuse Exhaust Heat
- (ii) Model Project on Measures for Reduction of Particular Matters by Integrated Use of Residual Stems from Crops
- (iii) Model Project on Measures for Small-Scale Distributed Sources of Air Pollution in the Restaurant Industry
- (iv) Model Project on Reduction of VOC Emissions from Manufacturers
- (v) Model Project on CO₂ Emissions Reduction by Integrated Use of Household Wastes
- (vi) Model Project on Energy Conservation and Reduction of Pollutant Emissions in Textile Dyeing Industry
- (vii) Research on Measures for Wide-Area Ozone Pollution in Priority Areas

- **Outputs**

Commission Reports to MOEJ from FY2021 to FY2020

- **Resource Management (Fundraising, Opportunity Creation, HR)**

Beijing Office gained commissioned projects through single tendering appointed by MOEJ for three years from FY2018, because the performance and achievement of Beijing Office was highly evaluated by MOEJ. For four years from FY2017 to FY2020, Beijing Office obtained a total of JPY 720 million (based on the settlement), which covered 100% of the operating cost of Beijing Office (including activity costs for research and personnel costs). Beijing Office also encouraged positive participation from the other departments such as SMO, CE, KUC, and obtained personnel costs for those who participated in the project. By accumulating such continuous efforts, Beijing Office contributed to the fundraising and sustainable operation of not only Beijing Office but also IGES as a whole.

Settlement base (Unit: 1,000 JPY)

	FY2017	FY2018	FY2019	FY2020
Contract price	200,000	200,000	172,200	232,728
Total settlement	200,000	200,000	155,676	165,019
Total settlement for Beijing Office①	166,997	162,054	122,527	132,962
Personnel costs and commission fee for Beijing Office②	69,833	71,690	76,489	62,306
②／①	42%	44%	62%	47%
Number of staff in Beijing Office	6	6	7	6
Composition	Director, Senior Fellow, Researcher, Administrative Chief, and two assistants (in Japan and in China)	Director, Senior Fellow, Researcher, Administrative Chief, and two assistants (in Japan and in China)	Director, two Senior Fellows, Researcher, Administrative Chief, and two assistants (in Japan and in China)	Director, Senior Fellow, Researcher, Administrative Chief, and two assistants (in Japan and in China)

- **Overall**

The results of “Japan-China city-to-city cooperation project” and “Research and model projects on the co-benefit measures against air pollution” were highly evaluated by MOEJ. From 2021, as instructed by MOEJ, Beijing Office will start projects in the Asian region to promote and disseminate the results of the model projects in China, in close coordination with KRC and KUC.

As to the fundraising for FY2021, 100% of the activity cost and the personnel cost of Beijing Office can be covered by the fund from MOEJ, which also covers personnel cost for those who are participating in the project from KRC, KUC and administrative section, thus continuously contributing to the fundraising of IGES as a whole.

2.13. Tokyo Sustainability Forum (TSF)

2.13.1. Priority Subjects and Actions in the ISRP7 (Excerpt)

The Tokyo Office moved to its current location two years ago to expand office space to accommodate the IPBES Technical Support Unit for the Asia-Pacific Regional Assessment (IPBES-TSU-AP) as well as the office of ICLEI Japan. Since then, the utility of the new Tokyo Office has significantly improved, whereby key stakeholders often get together to help IGES substantiate collaboration with them. As stated in the MLS, IGES intends to evolve into a facility for interactive knowledge generation, with which practical knowledge is obtained, gained, and disseminated. Taking advantage of its location, the office will become the “Tokyo Sustainability Forum” of IGES from the 7th Phase of IGES to continue facilitating impact generation with various stakeholders particularly based in Tokyo.

IPBES-TUS-AP will continue to accomplish its mandates. In 2016, the Japan Biodiversity Fund (JBF) IPBES Capacity Building Project was formally established in April and the project team was established at IGES Tokyo Office. To date, three sub-regional level Indigenous and Local knowledge (ILK) dialogue workshops have been organised and the meeting reports were published and provided for the use of authors of IPBES Asia-Pacific Regional Assessment (APRA) to better reflect ILK to the assessment report. The Second Workshop on Scenarios and Modelling for IPBES Assessments was also organised as a part of the project in November, 2016 at IGES HQ.

IGES City Taskforce will continue its collaboration with ICLEI Japan for impact making at the sub-national government (see City Taskforce section).

The following are priority subjects and actions:

- The Forum will maintain and improve its facility to facilitate interactions with key stakeholders;
- IPBES-TSU-AP will continue to provide comprehensive support for the regional assessment and successful achievement of its goals;
- The Forum will lead the implementation of the JBF IPBES Capacity Building Project and share knowledge and expertise with IPBES-TSU-AP and NRE biodiversity team.

2.13.2. Main Focuses and Activities

Tokyo Sustainability Forum will continue facilitating impact generation with various stakeholders particularly based in Tokyo. It will host the IPBES Technical Support Unit for the Assessment of Invasive Alien Species (IPBES-TSU-IAS) and co-locate with the office of ICLEI Japan and Nagoya University International Urban Cooperation (IUC)-Japan Office.

Planned activities include: provision of work and meeting space of IGES staff and IGES partners, assistance to Fellows/Senior Fellows in implementing projects, holding events in collaboration with other partners/stakeholders, and implementation of projects using external funding, in collaboration with other units.

2.13.3. Self-Evaluation and Recommendations at the Mid-Phase Review (April 2019) (Excerpt)

TSF has provided venues and various services for IGES personnel and Units to meet a wide range of stakeholders in Tokyo and organise seminars, and its use is on the rise. It also facilitated close collaboration with ICLEI Japan and IPBES TSU-AP and TSU-IAS (from February 2019) hosted at TSF, and implemented a few projects on topics such as biodiversity and environmental impact assessment (EIA). It is suggested that the Unit maintain this utility and continue to host its existing two key partners, as well as consider office space expansion if use exceeds capacity.

2.13.4. Self-Evaluation at the End of the Phase (June 2021)

● Impact Generation

Impact generation at TSF became a difficult issue in the latter half of ISRP7 since there were no individual projects carried out at TSF due to the COVID-19 pandemic.

In spite of this situation, TSF served as the base for IGES activities in central Tokyo, with an increase in the number of executive staff.

For example, for the President, the number of face-to-face international meetings decreased and alternatively the number of virtual meetings increased significantly, resulting in an increase in the both number of international meetings attended and number of appointments to positions in international frameworks.

In addition, a translation and commentary of the IPBES-IPCC Joint Workshop Report were published by the BOF team based on the IPBES-TSU hosted at TSF.

This is a great achievement for IGES as an organisation which has been hosting TSUs (scientific support units) for both the Framework Convention on Climate Change and the Convention on Biological Diversity.

● Outputs

Taking advantage of its location, TSF has been working to disseminate information by holding symposiums and other events. However as a countermeasure during the COVID-19 pandemic, it has switched to holding web-based virtual meetings.

At IGES Evening Forum hosted by the President, the number of participants online even from Hokkaido and other regions of Japan far exceeded the capacity of the meeting room.

● Overall

During the five years since the office relocation in the middle of the ISRP6, TSF has been able to demonstrate the outcomes in terms of the number of users of the office. However, under the COVID-19 pandemic, where the main goal is to reduce the flow of people, an alternative value evaluation index to the number of users is necessary. For ISRP8, TSF will set out to create an index that takes into account the way IGES staff members work in the Tokyo area on the premise of telework.

As for the technical support unit for the IPBES assessment of invasive alien species and their control (IPBES-TSU-AP), which has been hosted at TSF since 2015, its deliverable, the "Asia-Oceania Regional Assessment Report on Biodiversity and Ecosystem Services", was approved in March 2018.

Currently, TSF is hosting and supporting the assessment work of IPBES-TSU-IAS for the Thematic Assessment on Invasive Alien Species and their Management since February 2019.

The IPBES capacity building project by the Japan Business Fund for Biodiversity (JBF), which was also implemented, was completed in 2020.

In addition, international cooperation on environmental impact assessment (EIA), which has been carried out since the previous fiscal year on behalf of the Ministry of the Environment of Japan, has been providing operational surveys, network building, and technical training to 12 countries in the Asian region.