

# **Integrative Strategic Research Programme for the 7<sup>th</sup> Phase (ISRP7)**

**FY2017 (Year 1)**

**Business Report**

**September 2018**

**Institute for Global Environmental Strategies**

# FY2017 BUSINESS REPORT

## TABLE OF CONTENTS

1. About ISRP7 .....	1
2. Impact Generation .....	2
2.1. Highlights of impact generation .....	2
2.2. Digital Outreach.....	4
2.3. Media coverage.....	7
2.4. Think Tank ranking.....	8
3. Outputs .....	9
3.1. Written publications .....	9
3.2. Citations of peer-reviewed articles .....	10
4. Management.....	12
4.1. Operations and Human Resources .....	12
4.2. Summary of Financial Settlement.....	14
5. Overall Achievement in FY2017 .....	17
ANNEX 1. Summary of key achievementS by unit .....	18
1. Three Issue Areas .....	18
1.1. Climate and Energy (CE) .....	18
1.2. Natural Resources and Ecosystem Services Area (NRE).....	19
1.3. Sustainable Consumption and Production (SCP).....	23
2. Two Functional Centres .....	24
2.1. Centre for Strategic and Quantitative Analysis .....	24
2.2. Centre for Sustainability Governance .....	26
3. Three Taskforces.....	28
3.1. City Taskforce.....	28
3.2. Finance Taskforce .....	29
3.3. Business Taskforce.....	31
4. Five Satellite Offices and IPBES-TSU-AP .....	32
4.1. Kansai Research Centre (KRC) .....	32
4.2. Kitakyushu Urban Centre (KUC).....	33
4.3. Regional Centre in Bangkok (BRC).....	35
4.4. Beijing Office (BJG) .....	36
4.5. Tokyo Sustainability Forum (TSF) .....	37
4.5.1. IPBES-TSU-AP hosted at Tokyo Sustainability Forum.....	38
5. Strategic Management Office (SMO) .....	39
5.1. Knowledge and Communications (KC).....	39
5.2. Research and Publications (RP).....	40
5.3. Planning and Management (PM).....	41

ANNEX 2: Key achievement by other Projects for Public-interest Purposes .....	42
1. Technical Support Unit (TSU) for the Intergovernmental Panel on Climate Change (IPCC) - Task Force on National Greenhouse Gas Inventories (TFI) .....	42
2. Asia-Pacific Network for Global Change Research (APN) .....	43
3. Japanese Center for International Studies in Ecology (JISE) .....	44
ANNEX 3: IGES Impact generation matrix (FY2017) .....	46
ANNEX 4: FY2017 Lists of the United Nations units, international networks/initiatives or organisations that IGES hosts, serves as secretariat for, or has collaborative agreements with.....	49

## 1. About ISRP7

The Integrative Strategic Research Programme for the 7<sup>th</sup> Phase (ISRP7) of the Institute for Global Environmental Strategies (IGES) launches in July 2017 for a four-year implementation period. ISRP7 is built upon IGES's Medium-to-Long Term Strategy 2016-2025 (MLS), which was approved by the Eighth Board of Trustees meeting in February 2016.

IGES intends to be a leading agent of change in Asia and the Pacific through intellectual inputs, mainly based upon its strategic research. Given the two important international agreements that have been agreed in 2015, namely the 2030 Agenda for Sustainable Development including Sustainable Development Goals (SDGs) and the Paris Agreement, strategic research in the coming years is likely to focus upon effective implementation. Quantitative analysis and data management with partner research institutes, and new models of governance based upon the concept of “global partnership” at all levels could be important areas for the institute.

In this connection, IGES recognises it is critical to strategically use the core fund to invest, select and conduct identified activities that can run throughout the phase to develop key expertise within IGES for in-depth policy analysis and to send out influential messages. Utilising the core fund, a more programmatic approach should be explored where pooled resources can leverage collaborating partners' resources for larger impacts, and most effective forms of knowledge products or activities can be identified, where IGES has advantages over other organisations, to induce impacts. IGES will implement its strategic research programme with multiple groups at its head office and satellite offices, namely:

- **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), Regional Centre in Bangkok (BRC), Beijing Office (BJG), and Tokyo Sustainability Forum (TSF)

At the same time, IGES renews its operation and management mode that enables more efficient and effective support for the implementation of the programme. From 1 July 2017, the former Secretariat and the Programme Management Office (PMO) will be merged to create a Strategic Management Office (SMO) not only to provide institute-wide planning and management functions but also to shape and lead strategic research and policy analysis, development of business opportunities and effective communications through strategic engagement with stakeholders. SMO consists of three sections:

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

These three sections will report to the Board of Directors and Board of Trustees of IGES with the following responsibilities: KC will be responsible to ensure impact generation; RP for ensuring research/policy papers and other outputs planned every year, and PM for strategy development as well as sound management of finance and other key resources of the institute. The annual business

report will be therefore organised in these three main sections. The report will also provide the summary of key achievements made by each unit of IGES, as well as by other projects for public-interest purposes in FY2017, i.e. the Technical Support Unit for the Intergovernmental Panel on Climate Change (IPCC-TSU), the Asia-Pacific Network for Global Change Research (APN), and the Japanese Center for International Studies in Ecology (JISE) and other information in the Annexes.

## **2. Impact Generation**

### **2.1. Highlights of impact generation**

By collaborating with a diverse range of stakeholders, IGES is working towards the goal of impact generation to accelerate the transformation to a sustainable society. In FY2017, IGES embarked upon its ISRP7 and established key targets for impact generation with 25 cases of high level influence annually. Out of these 25 cases for FY2017 (see Annex 3), 10 cases are outlined below.

It should be noted that, in selecting these cases, it was discovered that impacts are interpreted in different ways in each research unit, and the strategies and roadmaps to achieve the expected impact are not always clarified. Therefore, IGES intends to clarify a common framework and approach to define the nature of impacts, by continuing discussions internally and sharing good practices on impacts going forward.

#### **Materialisation of GHG Emission Reductions through Implementation of the JCM**

The CE Area contributed to implementation of the Joint Crediting Mechanism (JCM) which appropriately evaluates contributions to Materialisation of Greenhouse Gas (GHG) emission reductions or removals from Japan in a quantitative manner, and uses them to achieve Japan's emission reduction target. In FY2017, the Area supported the development of 19 MRV (monitoring, reporting and verification) methodologies, the submission of 40 requests for official registration of projects and nine requests for credits issuance for actual JCM projects to the Joint Committees between Japan and the partner countries. These projects are expected to generate approximately 2.1 million tCO<sub>2</sub> in emission reductions by 2030.

#### **Pilot Research Project on Participatory Watershed Management in the Philippines Selected as Winner of Dubai International Award**

A Pilot Research Project on Participatory Watershed Management in the Philippines carried out by the NRE Area was selected as a winner of the "Dubai International Award for Best Practices to Improve the Living Environment". This contributed to the improvement of land-use policies by local governments to ensure better resilience in the face of natural disasters and climate change. This project incorporated inputs from local governments into GIS (geographic information system) models, and based on the GIS modelling results, contributed to comprehensive land-use plans and local climate change action plans. Also, this project was extended to two other places in the Philippines - the Los Baños and Pila-Victoria Sub-watersheds.

#### **Contributions to Strategy and Action Plan on Waste Management in Myanmar**

SCP Area worked with the government of Myanmar to improve waste management in Myanmar. Strategies and action plans at both the national and city level were officially adopted by the Ministry of Natural Resources and Environmental Conservation (MONREC) and the Mandalay City Development Committee (MCDC).

### **Launch of new consortium “SWITCH-Asia” on sustainable consumption and production**

In collaboration with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and adelphi, IGES hosts the SWITCH-Asia SCP Facility, a part of the EU’s flagship international cooperation programme on SCP. In so doing, IGES is increasingly being recognised as a primary institution working in the field of SCP in Asia and the Pacific.

The new SWITCH-Asia SCP Facility participated in three side events at the 2018 UN High Level Political Forum (HLPF) held in New York. Further to these activities, IGES’s SCP team helped to organise two official side-events at HLPF 2018. IGES co-organised one of the side-events, entitled “SCP in Asia and the Pacific for Accelerated Achievement of SDGs”, together with the Governments of Indonesia, Japan, Thailand, United Nations Economic and Social Commission for Asia and the Pacific, and (UNESCAP).

### **Development of On-line SDG Interlinkages Analysis and Visualisation Tool**

The QAC developed the SDG Interlinkages Analysis and Visualisation Tool. This tool aims to support integrated policymaking in nine Asian countries by analysing the synergies and trade-offs between the SDG targets. The Tool has been widely accessed by users from 115 countries and used by various stakeholders. By using the SDG interlinkage tool, the Centre has initiated consultation with the government of Bangladesh to provide science-based evidence for the country’s priority setting and institutional arrangements for SDGs implementation.

### **Provision of One-stop Solutions for Challenges Faced by Cities**

The SGC and the CTY provided one-stop solutions to Semarang and Bandung cities in Indonesia to formulate city-wide policies and sectoral action plans. In practical terms, Semarang city committed to retrofit the buses into Compressed Natural Gas (CNG) ones for public transportation, thereby contributing to the introduction of a pilot project to reduce GHG emissions. In six communities in Bandung, IGES conducted pilot projects to improve waste management practices.

### **Contribution to the Formulation of Shimokawa 2030 Vision**

Shimokawa Town in Hokkaido has been highly evaluated as one of the leading municipalities implementing SDGs, and in December 2017, the town received the Prime Minister’s Award of the 1<sup>st</sup> Japan SDGs Award created by the SDGs Promotion Headquarters. The CTY collaborated with Shimokawa Town to contribute to formulate its 2030 Vision (SDGs Vision) and to develop SDGs indicators to objectively evaluate the degree of progress towards sustainable urban development in Shimokawa.

In addition, the CTY collaborated with not only Shimokawa Town, but also Toyama City (Toyama Prefecture) and Kitakyushu City (Fukuoka Prefecture), all of which were selected as “SDGs Future Cities” by the Japanese government in June 2018, and developed three “Sustainable Development Goals (SDGs) Reports” respectively. The three reports comprise some of the first SDG reports carried out by local governments anywhere in the world, and were launched at the 2018 UN High Level Political Forum held in New York. Also, these reports were introduced by ICLEI – Local Governments for Sustainability on the very first page of their newsletter, and broadcasted to 1500 member cities and regional networks.

### **Contribution to Expanding the Proactive Business Coalition Developing Momentum for Decarbonisation**

The BIZ served as Secretariat for, and contributed to the expansion of, the Japan Climate Leaders’ Partnership (Japan-CLP), a proactive business coalition committed to reducing carbon emissions and developing momentum for decarbonisation. Japan-CLP has rapidly expanded in size during FY2017, with the number doubling from 37 to 79 members (as of June 2018). In cooperation with

The Climate Group (a UK non-profit), Japan-CLP has supported membership applications of Japanese companies for international business initiatives such as RE100, EV100, and EP100.

### **Start of Japan-India Technology Matchmaking Platform (JITMAP)**

In collaboration with The Energy and Resources Institute (TERI), the KRC initiated the Japan-India Technology Matchmaking Platform (JITMAP). This platform aims to promote the dissemination of Japanese low-carbon technologies in India. In FY2017, four Indian companies adopted Japanese-made air compressors and/or best operating practices, thereby successfully matching Japanese technology providers with Indian end-users.

### **Model Cities Programme Enhanced and Replicated in ASEAN**

The BRC implemented Association of South-East Asian Nations (ASEAN) Environmentally Sustainable Cities (ESC) Model Cities Programme, which provides technical assistance, seed funds, peer learning opportunities, awards and other incentives to cities who have demonstrated outstanding performance and/or potential in local sustainable development. This strategy helps ASEAN create a pool of ‘frontrunner’ green cities to be early adopters of innovative sustainability practices and test-drive experimental policies, to eventually be scaled out through national and regional urban policies. So far, the programme has supported 40 cities in eight ASEAN Member States over three phases since 2011. In FY2017, particular assistance was given to scaling up the national Model Cities programmes in Thailand and Philippines so that support could be given beyond two to three Model Cities per country. As a result, these two countries allocated extra domestic budget to support training and peer-to-peer networking targeting one Model City per province/region (i.e. about eight additional cities in both countries) as well as for bilateral exchange of experts between Filipino and Thai cities.

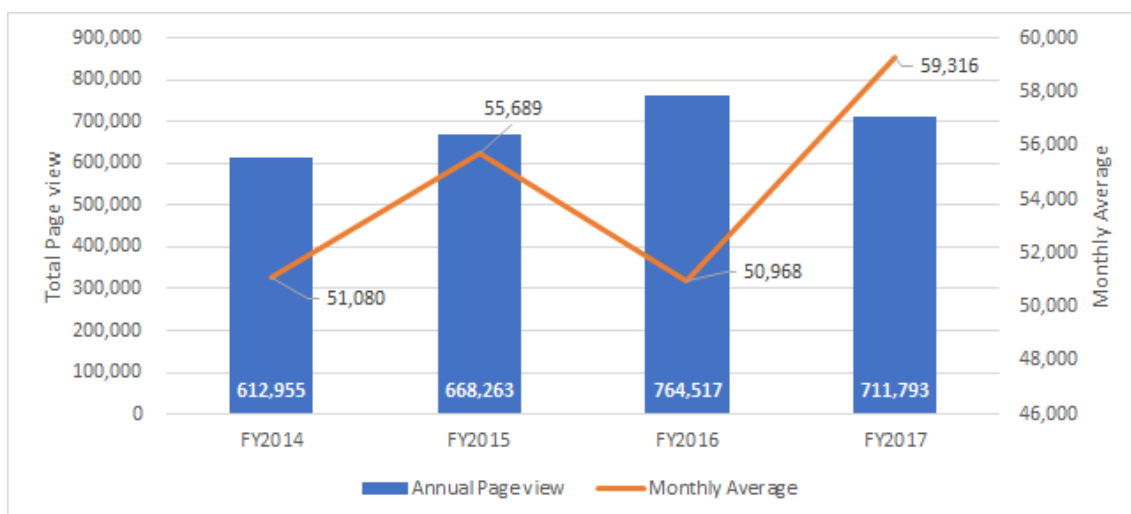
Another issue which emerged through the meetings was that there has been less cross-units/team collaboration in similar sustainable development topics. Such cross collaboration among different areas/units has the potential for creating new knowledge and then bigger impacts. For example, ‘carbon pricing’ is dealt with by CE, BIZ and SMO-RP, but they are not always coordinated. In this context, efforts should be made to continue and enhance the regular internal cross-area/unit meetings on climate change and SDGs which started in FY2017.

In FY2017, SMO-K received 44 proposals for IGES Strategic Operation Funds (SOF). Out of 44, 40 SOF proposals were approved and conducted, and we spent approximately JPY 12 million effectively for responding urgent and important cases for IGES, which were not originally scheduled under the existing budgets, as well as embarking on new opportunities for IGES. However, one major challenge is how we could visualise and confirm the actual effects of SOF. This is because the purpose of SOF is not just to complete SOF-funded meetings or business trips, but to generate and/or deepen impacts by making use of SOF. Therefore, some kind of monitoring or feed-back system should be set up to see whether SOF-funded cases are linked with real impact generation.

## **2.2. Digital Outreach**

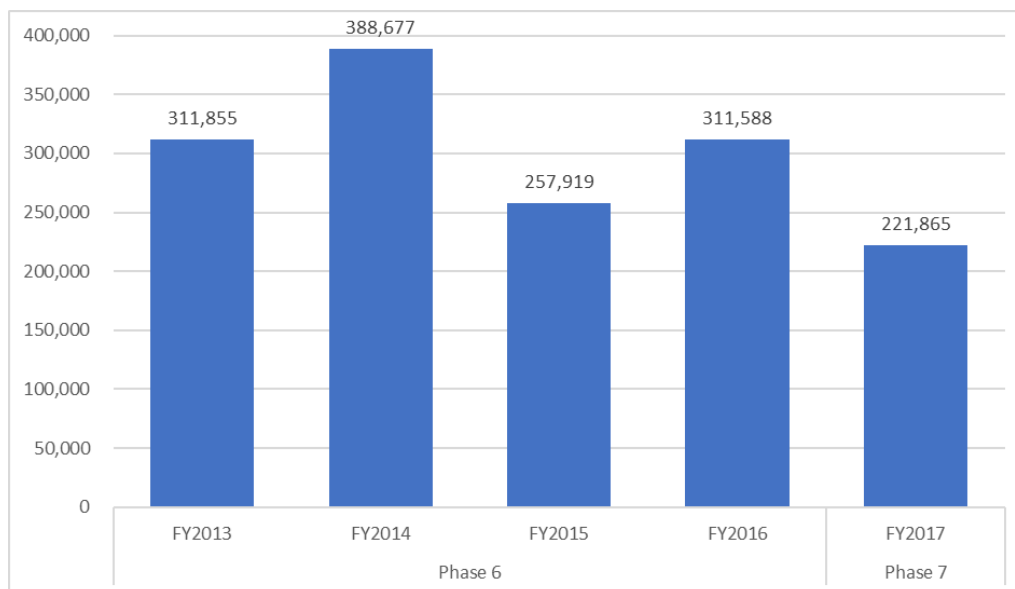
In June 2018, IGES moved its outreach activities up a gear by launching its official IGES Twitter and Facebook pages in time to promote the International Forum for Sustainable Asia and the Pacific (ISAP) 2018 and IGES’ activities at the High Level Political Forum (HLPF) on Sustainable Development in New York. We hope to be able to report further results of SNS activities in next fiscal year’s report.

IGES' website has continued slow but steady growth with monthly average pageviews increasing to 59,316 in FY 2017, as compared to 50,967 in FY 2016.



**Figure 1: IGES Website viewership (FY2014-2017)**  
 IGES FY2016 was reported for April 2016-June 2017 (15 months)

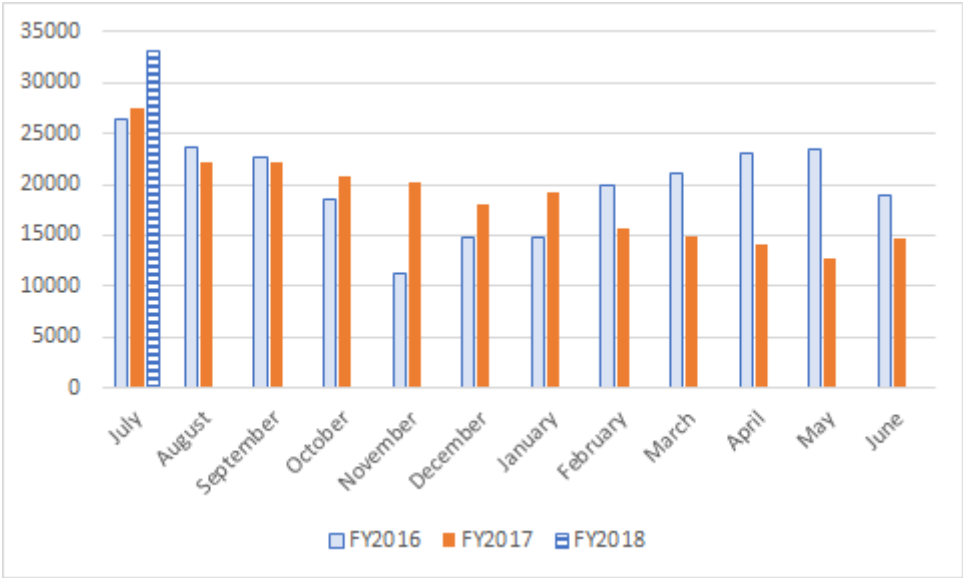
In FY2017 publications were downloaded from the publications database 221,865 times which is a slight decrease from previous years. While the exact reason is very difficult to discern, there has been a global trend over recent years of website traffic declining, in favour of consumers increasingly getting their information through social media channels. At the end of FY2017 an active Facebook and Twitter presence of IGES was established, and these activities may help to reverse this shortfall in the coming year.



**Figure 2: Downloads of IGES Publications (FY2013-FY2017)**  
 IGES FY2016 was reported for April 2016-June 2017 (15 months)  
 FY2017 covers July 2017 –June 2018 (12 months)

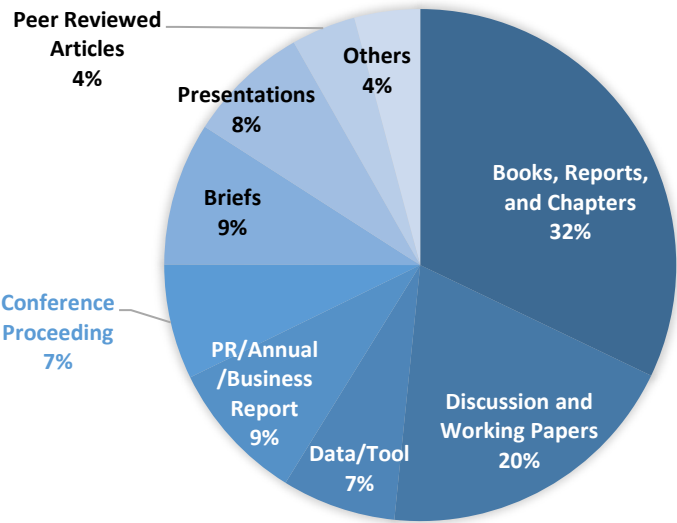


IGES strategically publishes key publications in a timely manner during key events such as ISAP and HLPF. Figure 3 shows that IGES publication downloads increased substantially in July as IGES released many key publications, including flagship reports, during ISAP and HLPF in July. We received an unusually large number of downloads in July 2018 which demonstrates that this strategy is successful in generating interest in IGES’ knowledge products available online.



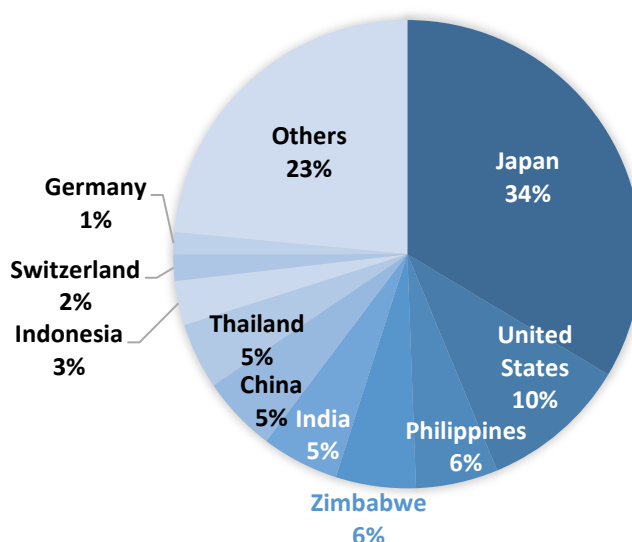
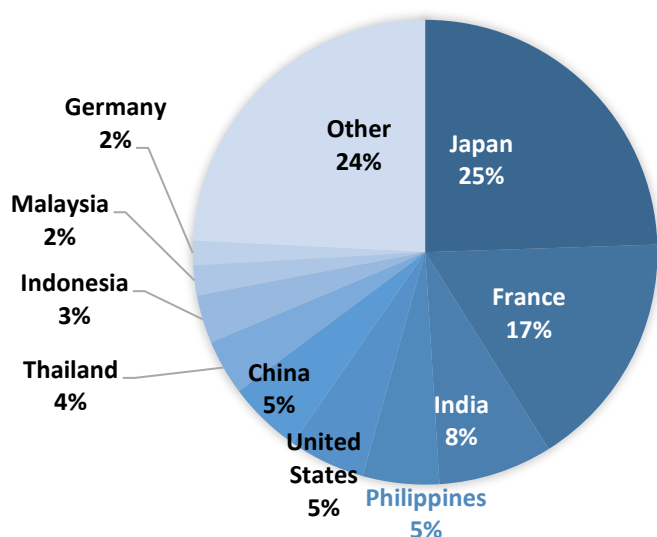
**Figure 3: Monthly Downloads of IGES Publications (FY2016-FY2017)**

Figure 4 shows the share of downloads by publication type. Books, Reports, Chapters and Discussion/Working Papers make up about half of the publications downloaded from the publications database in FY2017. This means a majority of users/visitors of IGES publication database consume IGES’s “written policy and research outputs.”



**Figure 4: Downloads by Publication type in FY2017**

Figures 5 and 6 below show the top ten countries from which IGES publications have been downloaded. The share of downloads in Japan increased in FY2017 and one possible reason is some Japanese reports summarising the results of a survey about initiatives on the SDGs by Japanese companies which have had relatively high download numbers.



**Figure 5: Downloads by Country in FY2016**    **Figure 6: Downloads by Country in FY2017**

## 2.3. Media coverage

Like the website viewership, instances of media coverage have also increased compared to previous years. FY2016 showed an average of 19 instances / month, while the figure for FY2017 is 21. The monthly average for coverage in Japanese media was 19 which is the highest record reported in the last six years, as a result of the effort to build a new relationship with media including commercial media and online media which IGES has not contacted before.

**Table 1: Total Number of Media Coverage (FY2013-FY2017)**

Language	FY2013	FY2014	FY2015	FY2016	FY2017
Japanese	104	117	199	240	223
Other languages	22	34	97	45	34
Total	<b>126</b>	<b>151</b>	<b>296</b>	<b>285</b>	<b>257</b>

IGES FY2016 was reported for April 2016-June 2017 (15 months)

FY2017 covers July 2017 –June 2018 (12 months)

## 2.4. Think Tank ranking

The IGES ranking in the Global Go To Think Tank survey by the University of Pennsylvania fell slightly, from 38 to 40. This may partially reflect significantly increasing competition as the survey becomes more widely known and more institutes participate, particularly from China and Korea. In order for IGES to strengthen or even maintain its ranking, IGES may need to more actively participate in events related to this survey.

The 2017 results of the ICCG Climate Think Tank Ranking by the International Center for Climate Governance (ICCG) have not been released yet.

**Table 2: IGES in Rankings (FY2013-FY2017)**

	2013	2014	2015	2016	2017
GLOBAL GO TO THINK TANK by University of Pennsylvania (category: environment policy) (Published in January of the same fiscal year)	48	38	38	38	40
ICCG Climate Think Tank Ranking by the International Center for Climate Governance (Published in July of the following fiscal year)	15	22	37	7	NA

The results of the indicators of impact generation set for the ISRP7 are summarised in Table 3.

**Table 3: Key Targets of Impact Generation and Their Results in FY2017**

Indicator	FY2017 target	FY2017 results	(Reference) FY2018 target
Cases of high level of influence	25	25	25
IGES publication downloads	250,000 in total	221,865	250,000 in total
IGES website viewership	775,000*	711,793	730,000
Media coverage (newspapers, magazines, TV/radio broadcasts, web-media)	250 in total	257	250 in total

[Note]

\* The FY2017 target setting for IGES website viewership was rather too ambitious since the target was set based on the results for FY2016 which was for 15 months. Reviewing the FY2017 results of average monthly viewership, a realistic target for FY2018 was set as 730,000 (Already presented in the FY2018 Business Plan.)

### 3. Outputs

#### 3.1. Written publications

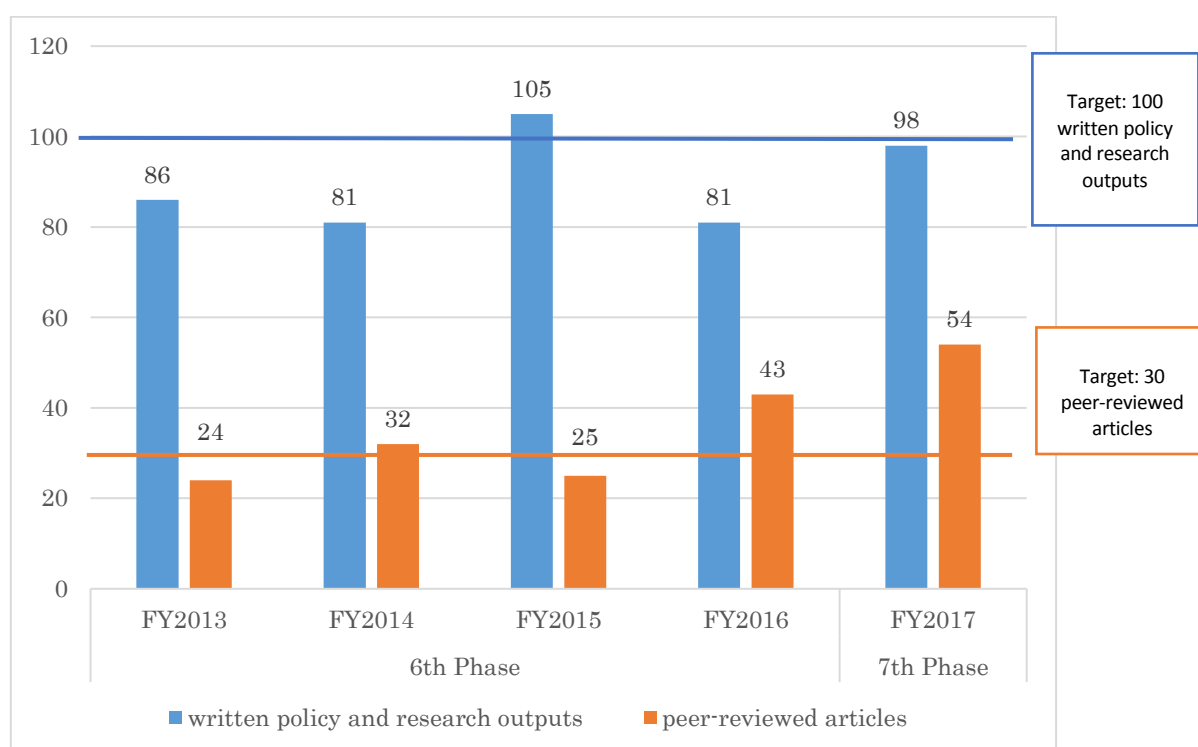
The publication targets were all nearly met or were exceeded. The target for 100 “written policy and research outputs” (basically IGES policy and research reports, discussion and working papers, policy and issue briefs, books and book/report chapters) was nearly met, with number reaching 98, only two short of the target; the number for FY2017 also exceeding the number published in FY2016 (see Figure 7). The number of peer reviewed journal articles (54) published in FY2017 significantly exceeded the target of 30, as well as the number published in FY2016. Some of the peer reviewed journal articles were published in prominent journals such as *Sustainability Science*, *Applied Energy*, *Energy Policy*, *Energy*, *Climate and Development*, *Environmental Science and Policy*, *Climate Policy*, and *the Journal of Cleaner Production*. In addition, there were 37 non-peer reviewed articles, mostly published outside of IGES, which indicates further outside recognition of IGES researchers’ work.

The targets for priority outputs were also met. Six outputs designated as “flagships” were begun during the year, and three were finished before ISAP in July 2018. Two of these (“*Governance for Integrated Solutions to Sustainable Development and Climate Change*” and “*Realising the Transformative Potential of the SDGs*”) were on SDGs, and one (“*Designing the Rules of the Paris Agreement: Creating a Workable Framework beyond Transparency*”) was on climate, exceeding the target. The others made good progress and are expected to be finished early in the next fiscal year. This is an unusually large number, but the practical implementation of flagship outputs has changed somewhat from the past, which featured large-scale IGES-wide outputs with contributions from most or all groups, which were challenging to coordinate. This year, due to limited time, the flagship outputs were smaller scale and more focused, and therefore made faster progress compared to the past. They were all centered on and coordinated by specific groups, with some contributions from a small number of other groups. Two flagship reports originated from SRF proposals.

In addition to the flagship reports, several other priority outputs on SDGs and climate were published, including three policy reports and one research report on SDGs, and one policy brief on climate finance. The 20-Year History of IGES was also published.

The IGES contribution to UN Environment’s Global Environment Outlook (GEO6) has progressed based on the schedule of its sponsor, UN Environment. The global version is expected to be finished by the end of 2018 and published in early 2019. The IGES contribution expanded from the introduction and policy section to include also the outlook section (with three IGES researchers as Coordinating Lead Authors) and a youth version. In addition to GEO6, IGES also contributed to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) regional and subregional assessment for Asia and the Pacific as well as the assessment on land degradation and restoration.

There were 19 SRF projects approved in FY2017, all relatively small scale under JPY 5 million, and half under JPY 2 million. Two were shifted to “flagship report” status involving several chapters each; one was finished and the other is expected to be finished in early FY2018. Many made substantial progress towards producing outputs which are expected to be published in FY2018. The SRF has made a good contribution towards facilitating IGES’s own research activities and outputs.



**Figure 7: Written Policy and Research Outputs Compared to 7<sup>th</sup> Phase Targets**

### 3.2. Citations of peer-reviewed articles

Since 2016, IGES has tracked the number of citations of its peer reviewed articles in February using two methods, (1) the Web of Science (WOS), which focuses on academic articles, and (2) Google Scholar, which compiles citations from a much broader range of sources. Google Scholar may be more appropriate for IGES because of its broader scope. The number of citations for other publication types is not tracked systematically, since it would require a great deal of effort.

From February 2017 to February 2018, the number of citations increased significantly on both measures. There were 709 new citations counted by the WOS, an increase of 42%, while there were 1,812 new citations counted by Google Scholar, an increase of 31%. This increase can probably be attributed to the increasing number of articles which are being published by IGES researchers on popular topics in more prominent journals such as *Energy Policy*, *Applied Energy*, *the Journal of Cleaner Production*, and *Sustainability Science*.

**Table 4: Citations of IGES Publications (as of February 2018)**

	Number of Articles			Number of Citations (Web of Science)			Number of Citations (Google Scholar)		
	Feb. '16	Feb. '17	Feb. '18	Feb. '16	Feb. '17	Feb. '18	Feb. '16	Feb. '17	Feb. '18
<b>WOS</b>	157	187	214	1,264	1,700	2,409	2,958	3,824	5,050
<b>Articles from Pub. DB / not in WOS</b>	68	97	108	NA	NA	NA	650	778	1,022
<b>Sub Total</b>	225	284	322	1,264	1,700	2,409	3,608	4,602	6,072
<b>IRES</b>	141	141	141	NA	NA	NA	1,058	1,228	1,570
<b>TOTAL</b>	366	425	463	1,264	1,700	2,409	4,666	5,830	7,642
<b>Yearly Increase</b>		+59	+38		+436	+709		+1,164	+1,812
<b>% of Increase</b>		+16%	+9%		+34%	+42%		+25%	+31%

The results of the output-related indicators set for the ISRP7 are summarised in Table 5.

**Table 5: Outputs Targets and Their results in FY2018**

Indicator		FY2017 target	FY2017 Results	(Reference) FY2018 target
Priority outputs	Flagship/priority outputs focusing on climate and SDGs	2	4**	2
	20-Year History of IGES (for IGES 20th Anniversary)	1	1	n/a
	Timely output on climate	1	1	1
	Timely output on SDGs	1	4	1
Written policy and research outputs		100	98	100
Peer reviewed journal articles		30	54	30
Contribution to global/regional assessments such as GEO6***		2*	4	2*

\* Number of parts of the assessment that IGES contributes

\*\* The climate flagship report was counted as 2 outputs since it was published in both English and Japanese

\*\*\* GEO6 will be finished/published in FY2018, and contributions to other assessments will start.

## 4. Management

### 4.1. Operations and Human Resources

Overall focuses were given to smooth transition to the new phase and an improvement in operation efficiency under new management structure in the SMO while maintaining the provision of basic functions of institute's management. In so doing, several new or upgraded management methods, internal approval procedures, information sharing, or working conditions were introduced (Figure 8). In response to the need of a quicker consultation with the senior management and approvals on project proposals to funding opportunities, a form that carries and monitors key information such as project objectives, intended impact making, proposed human resource allocation plan, and the expected project's financial value-added (project FVA)<sup>1</sup> was introduced. As IGES staff members often go on missions, an online overseas mission approval system was also introduced combined with flight booking and insurance purchase with designated travel agency to reduce processing time and burdens. This service was positively evaluated in a survey SMO conducted asking staff members to evaluate the services and functions to improve in coming years. Overall, management efficiency was improved in the range of 38-49 % (measured by multiple proxy indicators, Table 7).

<b>Improved management methods</b> <ul style="list-style-type: none"> <li>• Integrated milestone setting and evaluation</li> <li>• FVA target setting, "project monitoring" sheet for screening projects and monitoring implementation</li> <li>• Strengthened legal check of contracts</li> </ul>	<b>Improved institution-wide efficiency</b> <ul style="list-style-type: none"> <li>• Streamlined request approval procedure</li> <li>• Online overseas mission approval combined with travel booking &amp; insurance (one-stop service), new online domestic travel expense claim system, etc.</li> </ul>	<b>Upgraded internal information service/technology</b> <ul style="list-style-type: none"> <li>• Upgraded online application platform ("MyIGES")</li> <li>• Data sharing and internal service platform by Google Drive</li> <li>• Online monthly payslip, etc.</li> </ul>
<b>Supported diverse work styles</b>	<ul style="list-style-type: none"> <li>• Introduced a reduced work-day programme and a pilot case of telecommuting work for staff in their child-raising period.</li> </ul>	

**Figure 8: Key Achievements in Management in FY2017**

Human resource (HR) development is a critical factor for IGES's achieving its mission and making impacts. In FY2017, the scheduled recruitment was completed along with the ISRP7 and a few additional recruitment was conducted responding to emerging opportunities. The number of full-time staff members for FY2017 is presented in Table 6.

In addition, IGES made continued efforts to provide a better working environment to retain staff members and raise productivity by supporting their diverse work styles such as introducing of reduced work-day programme as well as conducting a pilot case of telecommuting work scheme to support staff members in their child-raising period.

<sup>1</sup> See the definition in the notes under Table 10.

**Table 6: IGES Full-time Staff Members**

(Persons)

Categories	FY2017 plan (July 2017)	FY2017 results (June 2018)
Professional Staff	121	123
Principal staff	22	21
Senior staff	37	37
Professional staff	53	56
Dispatched from other organisations	9	9
Operation Staff	22	22
<b>Total: IGES Staff members (Full-time)</b>	<b>143</b>	<b>145</b>
Amount of administrative staff	26	26
Ratio of administrative staff in total staff	18%	18%

The results of management-related indicators set for the ISRP7 are summarised in Table 7. Overall, an expected level of achievement was made in the first year of the ISRP7. Among these indicators, institute-wide efforts (Headquarters and Satellite Offices) were made to reduce overtime. As of June 2018, the reduction of overtime (time-based) was estimated at 43% in comparison with FY2016.

**Table 7: Management-related Targets and Their Results in FY2017**

	Indicator	FY2017 target	FY2017 results	(Reference) FY2020 (end of phase target)
1	Ratio of administrative staff in total staff	20%	18%	15%
2	Reduction of overtime [% , in comparison with FY2016]	40% (expense- based)	43% (time-based)	60% (time-based)
3	Improvement in the efficiency of IGES internal decision making [% , in comparison with FY2016]	over 30%	38% 49%	80%

[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 discretionary labor system applied. Originally, FY2017 reduction target was set at 40% (or index of 60 compared to 2016 as 100), expense-based. . To monitor the improvement in work efficiency more appropriately, a time-based indicator is applied here instead of an expense-based one. A time-based indicator was also proposed from FY2018 and the phase-end target was revised accordingly.
- 3: 38%: improvement rate based on the number of request approvals (As of June 2017, the monthly average number of request documents was reduced from 64.5 to 40.)  
49%: improvement rate based on the processing time for overseas mission approval. (Processing time for overseas mission approval was halved after the introduction of new online application system. In comparison with last 12 months.)



## 4.2. Summary of Financial Settlement

### Overall

Overall revenue in FY2017 was JPY 2.913 billion and the expenditure was JPY 2.814 billion. This has resulted in a surplus of JPY 99 million.

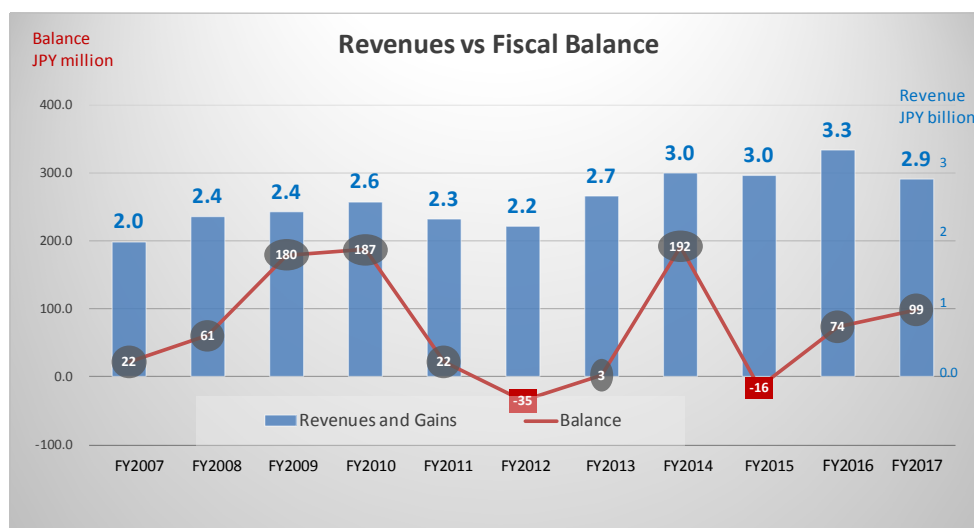


Figure 9: Revenue and Fiscal Balance (FY2007-FY2017)

The surplus of JPY 99 million was reserved for the Deposit for Promoting Strategic Initiatives for future strategic activities, resulting in a balanced substantial financial performance. Consequently, withdrawal of JPY 30 million assumed in the FY2017 budget was not conducted.

Table 8: Substantial Balance and Unrestricted Net Assets

		JPY million					
		FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Fiscal Balance 経常収支		▲ 35	3	192	▲ 16	74	99
Deposit for Promoting Strategic Initiatives 戦略事業促進準備資金	Withdrawal 引当	-	-		16		
	Reservation 積み増し			192		74	99
Substantial Balance 実質的な収支		▲ 35	3	0	0	0	0
(Reference)							
Unrestricted net assets at end of year 一般正味財産期末残高		603	577	768	804	872	971
( included in the above/内数 ) Deposit for Promoting Strategic Initiatives 戦略事業促進準備資金期末残高		-	-	191	179	253	352

## Breakdown of Revenue and Expenditure

Major items of both revenue and expenditure are described in the table below.

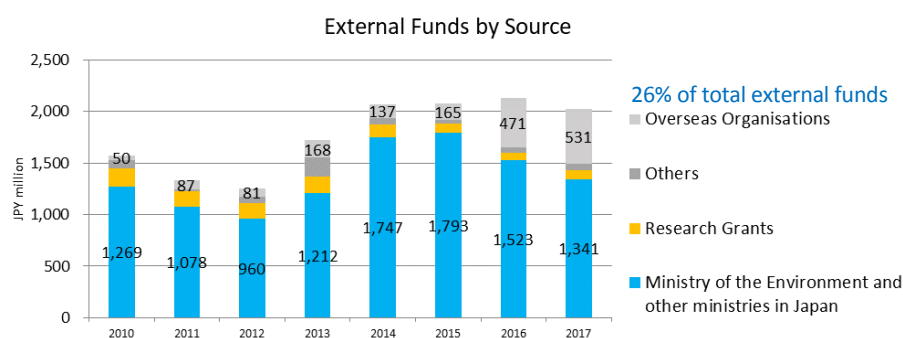
**Table 9: Breakdown of FY2017 Financial Results**

	* 15 months			[JPY million]	
	FY2015 (Result)	FY2016* (Result)	FY2017 (Budget)	FY2017 (Result)	Balance Budget-Result
<b>Revenue</b>					
MOEJ Contribution	500	750	500	500	0
External Funds	2,087	2,125	2,156	2,029	(127)
Subsidies from Local Gov.	358	436	350	354	4
Others	23	32	36	30	(6)
<b>Total Revenue</b>	2,968	3,343	3,072 *1	2,913	
<b>Expenditure</b>					
Operating costs for externally funded projects	1,108	1,029	1,138	930	(208)
Operating costs for IGES own initiatives	76	83	130	90	(40)
Personnel Costs	1,189	1,482	1,225	1,246	21
Administrative Costs	611	675	579	548	(31)
<b>Total Expenditure</b>	2,984	3,269	3,072	2,814	
<b>Balance</b>	-16	74	0	99	
Ratio of administrative cost in the total expenditure	15.0%	13.9%	13.3%	13.0%	-0.3% points
Project Financial Value-Added (FVA)	979	1,096	1,033	1,115	82
Project FVA Ratio	47%	52%	47%	55%	8% points

\*1 Including JPY30 million from Deposits for Promoting Strategic Initiatives

As for the revenue side, the overall volume of raised funds reached about JPY 20 billion, in addition to the contribution from MOEJ (JPY 500 million) as well as subsidies and support from local governments including Kanagawa Prefecture, Hyogo Prefecture and Kitakyushu City (JPY 354 million).

Funding sources have been diversified, and funds from overseas organisations<sup>2</sup> have increased to approximately 26% out of the total external funds although MOEJ funds still occupy the largest part. IGES maintained or expanded funds from Asian Development Bank (ADB), Japan-ASEAN Integration Fund (JAIF), Japan International Cooperation Agency (JICA), UN Environment (UNEP) and United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS); and those for the projects under the United Nations Framework Convention on Climate Change (UNFCCC) Regional Collaboration Centre (RCC) and the IGES Centre Collaborating with UNEP on Environmental Technologies (CCET). In addition, IGES successfully obtained new collaborative projects such as SWITCH-Asia SCP Facility of European Commission funded project.



**Figure 10: External Funds by Source (FY2010-FY2017)**

<sup>2</sup> Including international funding agencies

Although the amount of external funds has slightly decreased from FY2016 (15-month fiscal year), the project FVA ratio has increased by 8% points (or JPY 82 million) compared to that assumed in the FY2017 budget. This has substantially contributed to improving the balance in FY2017. The increased project FVA has been achieved not only by minimising operating costs in the course of project implementation but also by acquiring projects with a larger human resources budget for more substantial involvement from IGES. This has enabled IGES to utilise more existing human resources effectively and to provide more value added service and outputs.

As for its own initiatives, there is an unspent budget of JPY 40 million for several reasons. The budget for the Strategic Operation Fund was overestimated. Regarding the Strategic Research Fund, many projects achieved cost savings through efficient implementation, while a few projects experienced difficulties or delays in implementing all of the activities, for example due to circumstances of external partners.

There is also an unspent budget of JPY 31 million out of the administrative costs assumed in the FY2017 budget. Major reasons for this include a transfer of the office expansion costs at BRC into project operating costs and a delay in IT and web system renewal in addition to continued efforts on cost reductions. The ratio of general administrative costs out of the total expenditure performed at 13% as targeted.

**Table 10: Finance-related Targets and Their Results in FY2017**

	Indicator	FY2017 target	FY2017 results	(Reference) FY2020 (end of phase target)
1	Contribution from the Ministry of the Environment, Japan (MOEJ) ('IGES core fund')	JPY 500 million	JPY 500 million	JPY 500 million
2	Volume of external funds	JPY 2.2 billion	JPY 2.0 billion	over JPY 2 billion
3	Ratio of project financial value-added (FVA) in the external funds in total [Contract-based]	47%	55% (settlement-based)	49%
4	Ratio of international external funds in the external funds	25%	26%	over 25%
5	Ratio of general administrative cost in the total expenditure	Around 13%	13%	12%

[Notes to indicators]

2: Exchange rate of April 2017 (FY2017 target) or June 2018 (FY2017 result)

3: 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 'project FVA'). Project 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 project FVA to the total project revenues (project FVA ratio) is used for an indicator for the fund availability for IGES's strategic activities. Target ratio is contract-based, and result ratio is settlement-based.







4: Exchange rate of April 2017 (FY2017 target) or June 2018 (FY2017 result)

5: Headquarters building rental fee is excluded because it is fully subsidised by the local government.






## 5. Overall Achievement in FY2017

As summarised in Table 11, overall almost all targets set for the FY2017 have been met, and a few of the targets, such as the number of publications of peer-reviewed journal articles and the project FVA ratio, have been substantially exceeded. These are considered welcome achievements in light of the expected role and capabilities of IGES as an international policy research institute. It can be further noted that a very sound financial balance has been achieved.

**Table 11: Summary of FY2017 Achievement (Self-evaluation)**

	FY2017 Self-evaluation	Remarks
Impact Generation		Several higher-level impacts are reported out of target 25 cases.
Outputs		Targets are generally achieved with an increased number of reviewed articles.
Operations and HR		Targets are generally achieved with a few concrete cases of improvement.
Financial Settlement		Targets are generally achieved with institute-wide effort of improvement in FVAs.
Overall	 	Satisfactory

Self-evaluation is expressed in five types of facial expressions as below.

Exceptionally excellent	Excellent	Good / Satisfactory	Need for improvement	Unsatisfactory
				

## **ANNEX 1. SUMMARY OF KEY ACHIEVEMENTS BY UNIT**

### **1. Three Issue Areas**

#### **1.1. Climate and Energy (CE)**

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

##### **(1) Intended impacts during ISRP7**

- The Paris Agreement is operationalised
- 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) Major activities in FY2017**

###### **Operationalisation of the Paris Agreement**

IGES made timely proposals regarding the “Paris Rulebook” as well as presentations at international conferences. IGES has made submissions on the global stocktake under Article 14 of the Paris Agreement and the Talanoa Dialogue to the UNFCCC as an accredited research institution. Likewise, IGES proposed guidance on robust accounting under Article 6 and methods to ensure transparency in the use of international market mechanisms under Article 13. IGES introduced these proposals to stakeholders and experts engaged in international negotiations at side events for the 23rd Conference of the Parties (COP23) and Subsidiary Body sessions to the UNFCCC, as well as at international workshops organised by IGES in Beijing, Delhi and Tokyo.

###### **Materialisation of GHG Emission Reductions through Implementation of the JCM**

IGES contributed to implementation of the JCM which appropriately evaluates contributions to GHG emission reductions or removals by Japan, and applies them toward achievement of Japan’s emission reduction target. IGES supported the development of 19 MRV (monitoring, reporting and verification) methodologies, and the submission of 40 requests for official registration of projects and 9 requests for credits issuance for actual JCM projects to the Joint Committees between Japan and partner countries. These projects are expected to generate approximately 2.1 million tCO<sub>2</sub> in emission reductions by 2030.

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

Carbon pricing policy is taking shape in Asia, including the introduction of emissions trading schemes in China and Korea. IGES served as a focal point for implementing the Carbon Pricing Forum for Japan, China and Korea, and contributed to discussions on future cooperation. IGES also published reports and articles in newspapers and magazines on emissions trading schemes and carbon tax, thereby stimulating policy development.

### **Climate Policy Development by Visualisation of Current Status**

IGES engages in analysis and visualisation of climate policies around the world in order to facilitate the further development of such policies. For example, IGES published a report entitled, “IGES Climate Policies in the World” that summarised the climate policies of 13 countries. Likewise, IGES provides the most up-to-date information through the regular updating of IGES Climate Databases on various topics. Together with other eminent research institutions, IGES developed climate mitigation policy indicators for G20 countries and analysed the social and cultural aspects of energy transition in Japan and Germany. IGES also commented on world trends in the use of coal, including initiatives announced at COP23, receiving coverage in major newspapers in Japan.

### **(3) Selected publications**

- “IGES Submission to the UNFCCC on the Global Stocktake for COP23”
- “IGES Submission to the Talanoa Dialogue of the UNFCCC”
- “Proposal for Guidance on Robust Accounting under Article 6 of the Paris Agreement”
- “International Market Mechanisms and Transparency”
- “Institutional Arrangements for Reporting the Use of Market Mechanisms under the Enhanced Transparency Framework to Avoid Double Counting”
- “The Joint Crediting Mechanism (JCM) at a Glance”
- “JCM in CHARTS” (Indonesia, Mongolia, Bangladesh, Cambodia and Laos)
- “JCM Proposed Methodologies”
- “IGES Joint Crediting Mechanism (JCM) Database”
- “The Latest Progress of Emissions Trading Schemes in Japan, China and the Republic of Korea”
- “The Climate Edge Vol. 27”
- “Flash Report on the Chinese Programme on Developing the Nation-wide Emissions Trading Market”
- “IGES Climate Policies in the World” (13 countries)
- “IGES NDC Database”
- “IGES GHG Emissions Database” “IGES Kyoto Units Transfer Database”
- “Japan-France Collaboration on Climate Change and Long-term Low Carbon Strategies”

## **1.2. Natural Resources and Ecosystem Services Area (NRE)**

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

### **(1) Intended impacts during ISRP7**

- 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) Major activities in FY2017**

### **Pilot on Participatory Watershed Management**

IGES carried out land-use mapping and hydrological modelling in a pilot research project aimed at climate-sensitive land-use in the Santa Rosa Watershed, Philippines. Project activities were also extended to the Los Baños and Pila-Victoria Sub- watersheds. The project was selected as a winner of the “Dubai International Award for Best Practices to Improve the Living Environment” for the year 2017.

### **REDD+<sup>3</sup>**

Through technical inputs and facilitation of discussions between Japan and partner countries, IGES made a major contribution towards finalising the JCM REDD+ guidelines for Cambodia and Viet Nam. These guidelines pave the way for implementation of JCM REDD+ projects in the respective countries. IGES also supported the Japan delegation at the UNFCCC COP23 and published briefing notes on the outcomes of REDD+ negotiations, as well as on the zero deforestation concept.

Using its Strategic Research Fund, IGES conducted a study on bilateral support mechanisms for REDD+, including the German REDD Early Movers Programme (REM). The study analysed constraints and opportunities for Japan to provide financial support to REDD+. IGES additionally conducted a review of Brazil’s climate change policies.

### **IPBES**

Through authorship, facilitation and administrative support, IGES contributed to IPBES activities in FY2017, particularly to the completion of the Asia Pacific Regional Assessment of Biodiversity and Ecosystem Services, and to facilitating the engagement of Japanese experts in IPBES.

### **Responsible Consumption and Production**

As a member of the Responsible Asia Forestry and Trade (RAFT) partnership, IGES engaged in an array of activities, including: training and certification of forest management unit managers in Indonesia; testing of a low-cost timber drying kiln with local communities and trainings on GIS and timber processing to forestry officers in Lao PDR; and training of local farmers on teak woodlots in PNG. IGES also provided a presentation on “Options for Customs Collaboration to Combat Illegality in Timber Trade” at the Asia-Pacific Economic Cooperation (APEC) Workshop on Customs Best Practices to Identify Illegal Timber and Wood Products, in August 2017. Also, under a contract with the Japan Forest Technology Association, IGES analysed policies and mechanisms for legality verification of wood and wood products in Peru and Mexico.

IGES has explored opportunities to promote Japan’s contribution to “zero deforestation”. Per a request from the Tokyo Organising Committee of the Olympic and Paralympic Games, IGES provided advice to the Committee on sourcing of wood products and assisted in the arrangement of a meeting between the Committee and a plywood company from Sarawak, Malaysia.

---

<sup>3</sup> Reduction of Emission from Deforestation and Forest Degradation, and Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks

### **Financial Inclusion and Climate Change Adaptation**

Under the JICA project “Financial Inclusion for Disaster and Climate Resilient Households and Communities”, IGES completed surveys in Bangladesh, India and the Philippines on financial services for the low-income sector.

### **Satoyama-related Research Activities**

IGES managed the Satoyama Development Mechanism and drafted the 3rd Satoyama Initiative Thematic Review and the Satoyama Development Mechanism 2017 Booklet. Under the GEF-Satoyama project, field studies on ecosystem values, indigenous and local knowledge, and governance were conducted in Colombia, Mauritius and Thailand.

### **Water Environment Partnership in Asia (WEPA)**

IGES organised two sessions at the 8th World Water Forum to share information from WEPA activities and co-organised the WEPA Annual Meeting 2017 and WEPA International Workshop on Industrial Wastewater Management. Likewise, IGES designed the WEPA Action Programme to monitor the impact of industrial waste on groundwater quality in Sri Lanka, and drafted the WEPA Outlook 2018 and a WEPA policy brief on piggery wastewater management.

### **Septage Management**

Under the project “Integrated Approach for Dissemination of Decentralized Domestic Wastewater Treatment Systems in Southeast Asia”, IGES led research on systems for sludge collection and treatment in urban areas of Indonesia (Environment Research and Technology Development Fund).

### **Lake Conservation and Management**

As a member of the SATREPS project “Establishment of Environmental Conservation Platform for Tonle Sap Lake, Cambodia”, IGES conducted a household survey of local lake users to inform policies and guidelines for lake management.

### **Landscapes and Livelihoods**

Field studies were conducted in Thailand and Papua New Guinea (PNG) for the APN project, “Effective Models for Payment Mechanisms for Forest Ecosystem Services”, and in East Kalimantan on key factors affecting local livelihoods (Grants-in-aid for Scientific Research).

### **Water-energy-food Nexus and Urban-rural Nexus**

IGES conducted a stakeholder survey and country workshops under the APN project “Water-energy- food Nexus Perspective: Path Making for SDGs to Country Actions in Asia”. Likewise, IGES carried out spatial analysis of water availability and water demand estimation for the APN project “Assessment of Climate-induced Long-term Water Availability in Ganges River Basin and Impacts on Energy Security in South Asia”. Also, a new project on the water-energy-food nexus was secured through the Belmont Forum (Japan Science and Technology Agency) in which IGES will be responsible for research at three locations in Japan.

Using the IGES Strategic Research Fund, stakeholder interviews, a field visit, and analysis of land-use change were conducted in a case study area in Dhaka for the project “Integrated Governance of Urban-rural Resource Flows for Enhanced Regional Resilience”. IGES is also part of a consortium that made a successful proposal on urban-rural linkage to Japan Society for the Promotion of Science (JSPS)-DST (Department of Science and Technology, India) bilateral programme.

### **Science-policy Interfaces**

Research was conducted on science-policy interfaces in Indonesia and Japan to identify potential areas for improvement, key lessons, and challenges (S-15 project).



### **Resilience, Finance and Risk**

IGES made presentations on “Pathways for Building Resilience: Some Lessons Based on Research in Natural Resource Management” at the Sustainable Development Transition Forum in November 2017. Likewise, a presentation on “Financial Innovations and their Efficacy for Risk Reduction” was given at the ADB conference on Community-based Disaster Risk Management and Adaptation in October 2017.

### **Biodiversity and Ecosystems Monitoring**

One IGES researcher is monitoring wildlife diversity and population change in the Ashiu Experimental Forest of Kyoto University using 20 camera traps (JSPS).

### **Other Capacity Building Trainings**

- IGES served as a lead trainer for the United Nations Institute for Training and Research (UNITAR) disaster risk reduction training for women leaders in the Pacific.
- Under the MOEJ Adaptation Initiative project, IGES conducted a regional workshop to enhance the capacity of government officers from 14 Asia-Pacific countries on national adaptation plans, focusing on moving from planning to practice.

### **Other Regional Assessments**

- Two researchers contributed to the UN Environment’s Global Environmental Outlook (GEO) for Youth publication.
- One researcher was the lead author of the scenario chapter for the Hindu Kush Himalayan Monitoring and Assessment Programme (HIMAP) evaluation report.

## **(3) Selected publications**

- “Summary for Policymakers of the Regional Assessment Report on Biodiversity and Ecosystem Services for Asia and the Pacific of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services” (co-author)
- “Assessment of Wastewater and Manure Management from Pig Farms in Vietnam” and “Septage Management in the Urban Areas of Indonesia: Case Study in Bandung and Denpasar City” (proceedings of the International Water Association Conference)
- “Employing Crowdsourced Geographic Data and Multi-temporal/ Multi-sensor Satellite Imagery to Monitor Land Cover Change: A Case Study in an Urbanizing Region of the Philippines” (Computers, Environment and Urban Systems)
- “Participatory Land-use Approach for Integrating Climate Change Adaptation and Mitigation into Basin-scale Local Planning” (Sustainable Cities and Society)
- “Quantitative Assessment of the Earth Observation Data and Methods Used to Generate Reference Emission Levels for REDD+” (Satellite Earth Observations and Their Impact on Society and Policy, Springer)
- “Governance Standard for Forest Sector Activities and Programmes in Nepal at the Community Forest Management Level” (pilot standard version 1.1)
- “Japan’s New Initiative for REDD+ Result-Based Finance: Its Opportunities and Challenges” (Global Environmental Research)
- Policy Brief “Improving Irrigation Water Use Efficiency Holds the Key to Tackling Water Scarcity in South Asia: Technical Potential and Financing Options”
- “Identifying Adaptation Effectiveness Indicators Using Participatory Approaches: A Case Study from the Gangetic Basin” (Climate and Development, co-author)
- “Benefits and Costs of Risk Insurance in Selected Countries of Asia” (APN Science Bulletin)

- “Estimating Animal Density Without Individual Recognition Using Information Derivable Exclusively from Camera Traps” (Journal of Applied Ecology, co-author)
- “Trans-river Migration of Iban and Bekatan to the Tatau River Basin in Bintulu” (Ngingit, co-author)
- ”WEPA Outlook on Water Environmental Management in Asia 2018” (Ministry of the Environment, Japan)

### **1.3. Sustainable Consumption and Production (SCP)**

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

#### **(1) Intended impacts during ISRP7**

- 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
- Capacity of less developed economies in national, city and regional waste management is developed

#### **(2) Major activities in FY2017**

##### **Implementation and Promotion of Policy on SCP**

Towards establishment and demonstration of SCP model cases, IGES performs a vital role in several international programmes under the 10- Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP). IGES played a leading role in the development of a framework for assessing the impacts and scalability of projects on sustainable lifestyles and conducted the monitoring activities of projects under 10YFP. In addition, IGES played a prominent role in international surveys on a variety of related topics, including one on envisioning future lifestyles and policy tools and a global survey on SCP policies led by UNEP.

Recognition of IGES as a research hub on SCP policy research has gradually increased both at global and regional levels. For instance, in collaboration with GIZ and Adelphi, IGES now hosts the SWITCH-Asia SCP Facility, a part of the EU’s flagship international cooperation programme on SCP, at the IGES Regional Centre. IGES is also a part of the S-16 (Environment Research and Technology Development Fund) research group working on one of four research themes as a leading organisation conducting policy research on the sufficiency approach.

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

IGES continues to serve as a knowledge catalyst on resource efficiency and the 3R-related agenda in major international platforms. For example, in April 2018, the “State of the 3Rs in Asia and the Pacific” was published at the 8th Regional 3R Forum in Asia and the Pacific, held in Indore, India. Developed in coordination with a key expert panel of waste management specialists from across Asia, the report comprises an indicator-based assessment of 3R policies in 11 countries including Japan, China, India and Thailand, as well as the Pacific Island region. By utilising comparable

measures for waste prevention, recycling, biomass utilisation, marine plastics prevention, and e-waste management, in line with Sustainable Development Goal 12 (Responsible Consumption and Production), the report presents a headline review of progress made on waste and resource efficiency throughout Asia and the Pacific, and defines nine concrete recommendations towards further improving waste management in the region. In addition to addressing emerging waste issues, such as marine pollution as viewed through the lens of various policy responses, this report offers a cross-country examination and comparison of different waste categories and criteria illustrated through innovative data visualisation techniques. It is a must-read report for technical experts and practitioners interested in waste management, circular economy, and the current status of SDG 12 in Asian and Pacific countries.

In collaboration with the City of Yokohama, IGES has begun technical cooperation with Da Nang City (Viet Nam) to develop a source separation and collection plan for recyclables and model projects in selected wards.

### **IGES Centre Collaborating with UNEP on Environmental Technologies**

IGES Centre Collaborating with UNEP on Environmental Technologies (CCET), hosted at the SCP Area of IGES, developed two national strategies (Myanmar: officially approved; Cambodia: draft finalised) and two city strategies (Mandalay: officially approved; Phnom Penh: draft strategy under modification) on waste management, and is also preparing one regional strategy for the Maldives. It has also started activities on technical guidance on waste management technologies as well as on a South Asia Roadmap and Platform related to sustainable waste management.

Under the Municipal Solid Waste Initiative of the Climate and Clean Air Coalition (CCAC), CCET supported the Philippine Government in the development of a short-lived climate pollutant (SLCPs) reduction plan for the waste sector. Also, it successfully revised the SLCPs Emission Quantification Tool.

### **(3) Selected publications**

- “State of the 3Rs in Asia and the Pacific”
- Chapter 1.2 of “Environmental Local Government Whitepaper 2017-2018” (in Japanese)
- “Special Issue on OECD’s EPR Updated Guidance in Journal of Material Cycles and Waste Management” (in Japanese)
- “Waste Management Strategy and Action Plan for Mandalay City (2017-2030)”

## **2. Two Functional Centres**

### **2.1. Centre for Strategic and Quantitative Analysis**

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

investment and green jobs, climate policy, carbon pricing, trade and the environment in collaboration with key partners.

## **(1) Intended impacts during ISRP7**

- 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) Major activities in FY2017**

In FY2017, five research projects were conducted supported by the IGES Strategic Research Fund covering both areas of SDGs and climate change, as well as a research project on water-energy nexus funded by the Asia-Pacific Network for Global Change Research (APN) and a couple of commissioned works through the collaborations with the World Bank and the United Nations University. In addition, substantial contributions were made to many projects conducted by other areas/units at IGES by providing the required technical support based on its capacity for conducting quantitative analysis and modelling work. Not limited to knowledge building based on scientific research, contributions were made in supporting policy changes shifting from those based on a siloed approach to more integrated policymaking through the development of innovative tools supporting informed policymaking and promotion of their applications through conducting country case studies and consultation with relevant national governments.

### **SDGs Related Research**

One of the key activities in FY2017 in the area of SDGs is the development of the IGES SDG Interlinkages Analysis and Visualisation Tool, a free online tool supporting integrated policymaking for SDGs through the identification, quantification and visualisation of the interlinkages between SDG targets. The tool, covering nine Asian countries including Bangladesh, Cambodia, China, India, Indonesia, Japan, Republic of Korea, the Philippines and Viet Nam, was first launched in July 2017. Version 2.0 of the tool was launched in July 2018 to enhance the user interface and adopt the global SDG indicators with relevant time-series data. After its launch in 2017, the tool has been accessed widely through internet around the world. Building upon an innovative methodology and scientific evidence based on statistical data, the tool and relevant IGES research report (Zhou and Moinuddin, 2017) was cited or featured in many policy documents or the website of relevant international organisations. It is included in the Toolboxes of the SDG Help Desk of UNESCAP (<https://sdghelpdesk.unescap.org/toolboxes>). IGES was invited to present the tool at many international events organised by relevant UN and international organisations, such as the Fifth Asia-Pacific Forum on Sustainable Development (APFSD), the Knowledge Sharing Workshop for Strengthening the Environment Dimensions of the SDGs in Asia and the Pacific and the Expert Group Meeting on Science, Technology and Innovation (STI) Roadmaps for the United Nations Interagency Task Team on STI for the SDGs (IATT).

Aside from gaining wide recognition, the tool has been used to support practical policymaking. The government of Bangladesh, represented by the Prime Minister's Office, has shown keen interest regarding the application of the tool to support integrated priority setting for SDG planning and implementation through the identification of the strategic targets in the network of the interlinkages and key synergies and trade-offs between SDG targets. By using the SDG interlinkages tool, IGES

provided preliminary results and policy recommendations to the government of Bangladesh to help validate the existing priority list of the government based on scientific evidence.

### **Climate Change Related Research**

In the area of climate change, IGES contributed to knowledge-building related to the assessment of climate policy such as carbon pricing and the assessment of the Nationally Determined Contribution (NDC) and the long-term mitigation targets particular for Japan using various quantitative analysis approaches including factor decomposition analysis and the AIM-CGE model. The research results can help inform policymaking related to using market mechanism, various technology options and major factors influencing the achievements against the NDC and long-term mitigation targets. In addition, a case study was carried out in Bhutan to conceptualise low-carbon socioeconomic pathways at the sub-national level which can be duplicated in other cities in Asia in the future.

### **(3) Selected publications**

- “IGES SDG Interlinkages Analysis and Visualisation Tool” (Version 2.0)  
<https://sdginterlinkages.iges.jp/visualisationtool.html>
- Research Report “Sustainable Development Goals Interlinkages and Network Analysis: A Practical Tool for SDG Integration and Policy Coherence”

## **2.2. Centre for Sustainability Governance**

IGES worked to promote forms of governance that can enable the integration of multiple development objectives into development plans under SDGs and the Paris Agreement. Some of the work of the Sustainability Governance Centre (SGC) focused chiefly on how national governments, businesses and other actors can collaborate on the SDGs. An additional stream of research explored how cities can govern low carbon transitions. A third area of study focused on governance that can promote the co-benefits between climate change and other development priorities. In each of these project areas, the SGC provided timely recommendations on the governance reforms required to make links across issues and move down a sustainable low carbon development path in Asia.

### **(1) Intended impacts during ISRP7**

- 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) Major activities in FY2017**

#### **Sustainable Development Goals (SDGs)**

IGES analysed the progress and challenges on the SDGs in Asia and advanced research on measures to facilitate SDG implementation. IGES worked closely with the Ministry of the Environment, Japan to organise stakeholders’ meetings to share good practices of different stakeholders e.g. government ministries, business and local municipalities to accelerate environment-related SDGs. At the ISAP2017 in July 2017, IGES convened a panel on the governance arrangements needed to advance different kinds of integrated solutions to climate change and other development priorities. This was followed by a well-attended Asian Development Bank workshop that IGES helped organise to strengthen the integration of the environment related SDGs into development plans in

countries outside Japan. Also on the SDGs, IGES published a report entitled, “SDGs and Business for the Future: Actions by Private Companies in Japan”, that highlighted good practices and challenges to mainstreaming the SDGs into core business practices. This research was based on the results of questionnaires and numerous interviews with Japanese companies. In addition, IGES contributed to furthering understanding the SDGs through a capacity building programme targeting staff of JICA overseas offices JICA in Asia.

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

IGES worked with policymakers in the cities of Semarang, Indonesia to implement sustainable transports solutions, focusing on the city’s bus rapid transit (BRT) system. The results of the three year programme was shared with national ministries and was disseminated through 100 Resilient Cities and other networks. IGES also worked to support a social movement for appropriate waste management led under a Japanese and Indonesian city-to-city collaboration. Additionally, IGES conducted a joint study in Bogor on climate change and energy policy with NIES and the Bogor Agricultural University.

Focus group discussions were held with diverse stakeholders to discuss priority issues for the city’s sustainable low-carbon development, such as a BRT system and environmentally sound buildings, and challenges to policy implementation were identified.

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

IGES, as the Secretariat of the Asian Co-benefits Partnership (ACP), published its third White Paper “Quantifying Co-benefits in Asia: Methods and Applications” highlighting the updates on co-benefits in international climate negotiations and describing the different tools and models that could be used to quantify co-benefits in cases from Asia. The publication helped identify relevant tools and data sources to measure reduction in GHGs and short-lived climate pollutants (SLCPs) as well as to consider other benefits. Moreover, based on cooperation with international networks and partner organisations such as the Asia Pacific Clean Air Partnership (APCAP) and the Climate and Clean Air Coalition (CCAC) to reduce SLCPs, IGES carried out research activities to encourage policymakers to integrate climate change measures and development objectives. Responding to a request from the United Nations Environment Regional Office for Asia and the Pacific, IGES serves as the coordinating lead author of an assessment report on air pollution in Asia, which will be published in 2018.

## **(3) Selected publications**

- “SDGs and Business for the Future: Actions by Private Companies in Japan”
- “Asian Co-benefits Partnership White Paper 2018 Quantifying Co-benefits in Asia: Methods and Applications”
- “IGES Activities and Publications on the SDGs” and “IGES Recommendations and Main Messages on SDG Implementation”
- “Awareness Raising and Engaging High School Students in Transforming Trans Semarang BRT-Indonesia” and “Analysis of Pedestrianisation Programme in Developing Cities: A Case of Panca Trotoar in Bandung, Indonesia”
- “Interactions of Global Climate Institutions with National Energy Policies: An Analysis of the Climate Policy Landscape in China, India, Indonesia, and Japan” (The Routledge Handbook of Energy in Asia)
- “Performance Evaluation of Pedestrian Facilities from Pedestrian and Vehicular User Perspectives”

- “Tracing Sustainability Transitions in Seoul Governance: Enabling and Scaling Grassroots Innovations”

### **3. Three Taskforces**

#### **3.1. City Taskforce**

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

##### **(1) Intended impacts during ISRP7**

- 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) Major activities in FY2017**

###### **Promotion and Support of Local Actions on SDGs**

IGES produced a series of reports on the SDG-related actions of three cities, namely Shimokawa, Toyama, and Kitakyushu. The reports were presented at the High-Level Political Forum on Sustainable Development in New York in July 2018. For Shimokawa, IGES suggested SDG indicators based on micro-level data, including local inhabitant tax, for renewal of its master plan. In addition, a proposal entitled, “ASEAN SDGs Frontrunner Cities Programme”, prepared by IGES together with the Cambodian Government, was approved by the Japan-ASEAN Integration Fund (JAIF). This two-year programme will support ASEAN countries and cities in the planning and implementation of local SDG actions that are expected to become leading examples in Asia. As an information and knowledge platform on local SDGs, IGES supported the 9th East Asia Summit High-Level Seminar on Sustainable Cities organised in Siem Reap, Cambodia in March 2017 by MOEJ, Ministry of Environment of Cambodia, ASEAN Working Group on Environmentally Sustainable Cities (ESC), and the ASEAN Secretariat. More than 250 participants from the region gathered at the seminar.

###### **Support for Local Climate Strategy Development**

IGES supports low-carbon policy development in Asian cities by providing low-carbon scenario development using AIM (Asia-Pacific Integrated Model). In FY2017, LCS scenarios were developed in Can Tho (Viet Nam), Semarang (Indonesia) and Phnom Penh (Cambodia). “Low Carbon Society Scenario Semarang 2030” was launched at COP23 side event in November 2017 in Bonn. A workshop was organised in Hai Phong (Viet Nam) in December 2017 to discuss ways to utilise AIM results in the development of the city’s climate change action plan. IGES, as the coordinator of whole programme and the focal point of Japan, started joint research development on China-Japan-Korea climate actions at the city level towards decarbonisation and sustainable development and organised COP23 side event. IGES also conducted activities to promote local low-carbon actions in Japan. Study group meetings were organised with the participation of about 40 key stakeholders at the IGES Tokyo Sustainability Forum, and included representatives from national and local government, experts/ researchers and ICLEI Japan. Topics covered at the meetings included: a) data collection in the building sector, b) local PPS (power producers and

suppliers), and c) new approaches such as local finance and behavioral science. A symposium on “Local Climate Actions towards 2 Degree Target” was organised in Tokyo in November 2017 to share outcomes of study group discussions.

### **Multi-benefit Activities**

IGES has provided one-stop solutions to Bandung and Semarang to formulate city-wide policies and sectoral action plans. IGES has also translated policy recommendations into the practical level of low- carbon transport infrastructure and behavioural changes in society. As a result, Semarang city committed to have buses retrofitted into CNG buses to reduce emissions. Likewise, several communities in Bandung committed to improving waste management practices. A portion of our activities are facilitated through city-to-city collaboration between Indonesian and Japanese cities, namely Semarang-Toyama and Bandung-Kawasaki.

### **(3) Selected publications**

- SDGs Report on Cities
- ” Kitakyushu City the Sustainable Development Goals Report 2018”
- ” Toyama City the Sustainable Development Goals Report 2018”
- ” Shimokawa Town the Sustainable Development Goals Report 2018”
- “Low Carbon Society Scenario Semarang 2030”
- Discussion Paper “Taking Action on the SDGs in Japanese Cities: The “FutureCity” Initiative and Its Achievement on the SDGs”
- “Low Carbon Paratransit in Jakarta, Indonesia: Using Econometric Models to Improve the Enabling Environment” (Case Studies on Transport Policy)
- “ Exploring Influential Factors on Transition Process of Vehicle Ownership in Developing Asian City, A Case Study in Bogor City, Indonesia” (IEEE Explore Digital)
- “Does the Improvement of Pedestrian Facilities Increase Willingness to Walk? The Case of Bandung, Indonesia” (Compendium paper of the 97th Annual Meeting Transportation Research Board)

## **3.2. Finance Taskforce**

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

### **(1) Intended impacts during ISRP7**

- 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 pressures from overseas investors is enhanced by IGES acting as a Facilitator on climate engagement between overseas investors and Japanese companies
- A mechanism to promote financing low-carbon/adaptation technology development and transfer in Asian region is established by developing innovative technologies through financing



## **(2) Major activities in FY2017**

### **Good Practices Overseas in Green Bonds and Green Finance**

IGES collected good practices in green bonds and green finance and prepared concise presentation materials that can be easily understood by stakeholders in Japan, on the following topics:

- Green bond guidelines, standards and indices
- Policy, regulation, incentives and finance modality for green bond enhancement
- Green bond listing, green covered bonds, green asset-backed securities and green sukuk
- Green lending by 3 banks including strategies, methodologies and performance
- ESG investment including divestment and engagement by 3 institutional investors including strategies, methodologies and performance
- Innovative green finance models
- IGES undertook this effort as work commissioned by MOEJ.

### **Green Bond Knowledge Platform**

In April 2018, the MOEJ decided to set up the “Green Bond Knowledge Platform” to enhance the Japanese green bond market by sharing useful information with potential bond issuers, investors and other relevant stakeholders in Japan. The platform is expected to share information on trends in the green bond market both in Japan and overseas, case studies on green bonds, and policies and incentives in Japan to enhance the green bond market. IGES, serving as secretariat, is responsible for maintaining and updating the platform.

### **Preliminary Analysis on Sustainable Finance to Contribute to SDGs**

IGES kicked off a preliminary review of the role that the financial system needs to play to deliver on SDGs and the Paris Agreement. Further work will explore current trends and initiatives for mainstreaming sustainable finance into national and international financial systems, including enhanced disclosure of climate-related risks by companies and financial institutions, political leadership on sustainable finance and the role of long-term policy signals by governments.

### **Gap Analysis on GHG Emissions by TOPIX Companies under the 2 Degree Scenario**

In collaboration with the 2 degrees investing initiative (2°ii), a French research institute, and the Research Institute for Environmental Finance (RIEF), IGES published a report entitled, “Testing the Japanese Listed Equity Market Alignment with the 2°C Climate Goal”. It compares the energy and technology exposure of the Tokyo Stock Price Index (TOPIX) stock market index with the 2°C roadmap of the International Energy Agency (IEA). In collaboration with 2°ii, PRI Japan and RIEF, IGES held a workshop to present the results of the report. More than 50 stakeholders from companies and the financial sector were in attendance.

### **Support for the UNEP FI 25th Anniversary Event**

UNEP Finance Initiative (UNEP FI) hosted the Asia Pacific Regional Roundtable in December 2017 in Tokyo to celebrate its 25th anniversary and bring together the sustainable finance community to discuss pressing issues. At the event, discussions took place on the investor’s duty to integrate Environment, Social and Governance (ESG), policy interventions to drive green financial systems, and positive impact finance initiatives. IGES has been a partner institution of UNEP FI since February 2017. Accordingly, IGES served on the secretariat for the event, providing advice on the event agenda and logistics, and participating as moderator of the session on environmental and social safeguards in international financing (Equator Principles).

### **(3) Selected publications**

- Policy Brief “Strengthening the Integration of Climate Risks in the Banking Sector”
- Discussion Paper “Impact of Climate Change: Transforming Business Behaviour in favour of Sustainable Development”
- Policy Report “Testing the Japanese Equity Market Alignment with the 2°C Climate Goal”

## **3.3. Business Taskforce**

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

### **(1) Intended impacts during ISRP7**

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

### **(2) Major activities in FY2017**

#### **Developing Momentum for Decarbonisation in Japanese Industry**

As the secretariat of the Japan Climate Leaders’ Partnership (Japan-CLP), a group for companies that develop and publish ambitious recommendations, IGES has proactively organised a total of 11 events, including dialogues with companies and investors outside Japan and the Japan-CLP delegation to COP23. Through these dialogues between Japan-CLP companies and overseas companies, as well as by delivering key information mainly to the Japanese industrial sector, IGES has contributed to developing a momentum for decarbonisation among businesses in Japan. In particular, IGES has provided key updates in a business context on the latest developments in climate change and trends overseas, particularly targeting the financial media in Japan. As a result, there have been about 80 articles published and a broadcast of “Impact of Revolution for Decarbonisation” on national television by the Japan Broadcasting Corporation (NHK), and this has contributed significantly to expanding awareness.

#### **Expansion of the Corporate Network (Japan-CLP)**

Japan-CLP has rapidly expanded in size during FY2017. Its 37 members as of the beginning of FY2017 have grown to 79 members as of June 2018 (214% growth from the previous year).

#### **Supporting Decarbonisation by Businesses**

In cooperation with The Climate Group, IGES has supported the applications of Japanese companies for RE100, EV100, and EP100<sup>4</sup> memberships as the Japan-CLP secretariat. As a result, a total of 10 companies have newly joined RE100, EV100, and/or EP100 initiatives, thereby accelerating efforts toward decarbonisation by businesses.

---

<sup>4</sup> These are international business initiatives. RE100 is committed to 100% renewable power, working to massively increase corporate demand for and delivery of renewable energy. EV100 aims to drive the transition to electro-mobility. And EP100 is an initiative pledged to double the energy productivity of businesses.

### **Policy Engagement**

Japan-CLP has participated in the following committees that encourage recommendations for ambitious policy engagement from a corporate perspective: Subcommittee on Long-term Low-carbon Vision of the Central Environment Council (Ministry of the Environment), Policy Development Working Group of the Central Environment Council/ Hearing on Revision of Basic Environment Plan (Ministry of the Environment), and the Advisory Panel to the Foreign Minister on Climate Change (Ministry of Foreign Affairs).

In addition, Japan-CLP has conducted dialogues with the Minister of the Environment and the Minister of Foreign Affairs. Dialogue participants have communicated corporate efforts along with their strong motivation to decarbonise, calling for more ambitious deployment of policies. IGES has made various contributions including coordination of dialogues.

### **(3) Selected publications**

- Commissioned Report “Research on Pioneering Efforts and Activities by Non-state Actors”
- Various position statements by Japan-CLP (Initiative is taken by Japan-CLP members, with the secretariat providing support)

## **4. Five Satellite Offices and IPBES-TSU-AP**

### **4.1. Kansai Research Centre (KRC)**

The Kansai Research Centre (KRC) carries out research focused on actions taken by the private sector, in particular businesses that promote environmental and energy conservation measures, under the theme of “Business and the Environment”. Specifically, KRC contributes to actual reduction in GHG emissions in developing countries by promoting the transfer and diffusion of low-carbon technologies (LCTs).

In FY2017, with support from MOEJ and Hyogo Prefecture, KRC conducted research activities mainly on three fronts in collaboration with other research groups within IGES, as well as leading regional and international organisations.

#### **(1) Intended impacts during ISRP7**

- Low-carbon technology diffusion in developing countries

#### **(2) Major activities in FY2017**

##### **Japan-India Technology Matchmaking Platform (JITMAP) and Opportunities for Replication in Thailand**

In collaboration with The Energy and Resources Institute (India) and the Thai ESCO Association, KRC matched Japanese companies with potential end-users in India and Thailand. Nine feasibility studies (FS) for LCT application in India and four FS in Thailand were carried out in conjunction with Training of Trainers programmes for energy auditors and managers, consultation workshops for LCT applicability, and JITMAP dialogue meetings.

Based on the matchmaking activities, four Indian companies and one Thai company adopted Japanese-made compressed air and/or best operating practices. Business opportunities for other Japanese companies were created and are being discussed on a business-to-business basis.

### **Capacity Building for SIDS in Proposal**

Development for Renewable Energy Projects With the continuous support of MOEJ and the International Renewable Energy Agency (IRENA), KRC organised the “Training Programme to Support Renewable Energy Deployment through Developing Project Proposals to Access Green Climate Fund” in Japan and a follow-up workshop in Fiji. Participants from the small island developing states (SIDS) were trained in ways to access to the Green Climate Fund (GCF) in general and in completing actual GCF templates in particular.

Training programmes for SIDS substantially enhanced the capacity of participants. Ten promising project ideas were identified and three concept notes were fully completed by the participants of Fiji, Maldives and Palau. While Fiji is currently discussing taking their concept note forward with the UN Environment, Maldives and Palau have requested KRC to provide further assistance towards finalising and submitting their concept notes to the GCF.

### **Dissemination of Research Findings**

KRC researchers were invited to participate as experts, panelists and speakers in high-level events in Japan and overseas, including TEC15 meetings (Bonn), GCF internal capacity building (Seoul), UN Environment workshop (Paris), and the World Sustainable Development Summit (Delhi), among others. KRC’s researchers also directly contributed to high-level events and discussions, especially those concerning UNFCCC technology and finance processes.

### **(3) Selected publications**

- Discussion Paper “Low Carbon Technology Transfer: Insights on Linking Phases and Matching Stakeholders”
- Commissioned Report “Technology Assessment Project for CO2 Emission Reduction Overseas in FY2017”

## **4.2. Kitakyushu Urban Centre (KUC)**

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

### **(1) Intended impacts during ISRP7**

- Low-carbon and resilient policies are mainstreamed into urban planning and implementation in Asian cities
- Sustainable waste management practices are evolved in Asian cities
- Green growth and sound urban environmental management are promoted in Asian cities

## **(2) Major activities in FY2017**

### **Mainstreaming Low-carbon and Resilient Policies**

KUC conducted a project on the platform for companies, research and local governments toward achieving low-carbon society in Asia by organising a workshop and seminar for city-to-city collaboration between Asian cities and Japanese municipalities with the view to utilising the JCM. In addition, a booklet was published compiling the results of the past five years for 21 cities in nine Asian countries and 12 cities in Japan participating in the city-to-city collaboration programme. In addition, KUC provided a training programme on the development and implementation of low-carbon plans at the city level for local government officials from four Asian cities. Furthermore, based on the investigation on domestic and overseas funds and networks that can be utilised to promote international city-to-city collaboration, KUC compiled a report to provide useful information to Japanese municipalities. KUC also published a discussion paper on how City of Kitakyushu has been a top runner in the field of international city-to-city collaboration by using examples of five Asian cities. Besides, KUC published an issue brief analysing local governments' recent contributions to expand the activities of local energy retail businesses as a model of local production and consumption.

### **Evolving Sustainable Waste Management Practices**

Multilayered support has been provided to both national and local governments in Asia. KUC provided technical support for necessary standards and guidelines to ensure sound treatment of solid waste including waste-to-energy technologies targeting six national governments. With two JICA projects, KUC supported capacity improvement of local governments, citizens and NGOs. Also, as part of the UNEP programme on Climate and Clean Air Coalition's Municipal Solid Waste Initiative (CCAC-MSWI), KUC supported the development of a work plan for reducing Short-lived Climate Pollutants (SLCPs) from municipal solid waste in Medan City, Indonesia. In addition, KUC contributed to two publications by the World Bank on waste management.

### **Promoting Green Growth and Sound Urban Environmental Management**

KUC made suggestions for improving the environmental management of industrial parks in the province of Ba Ria-Vung Tau, Viet Nam through a JICA project.

## **(3) Selected publications**

- Discussion Paper "Actions towards a Sustainable Society: Collaboration between Asian Cities and City of Kitakyushu"
- Issue Brief "Local Production and Consumption of Renewable Energy Led by Local Governments: Outcomes, Challenges, and What Is Needed to Expand Such Actions"
- "Low Carbon City Profile: Climate Change Actions by Asian Cities in the City-to-City Collaboration Programme"
- "Development Model of Takakura Composting Method as an Appropriate Environmental Technology for Urban Waste Management: Case Study of Hai Phong, Vietnam" (Technol Soc)
- "Practice and Experience of Addressing Climate Change in Japan: Supplementary Reader for the Training Workshop on Climate Change Strategies for Local Governments" (Ministry of the Environment Japan)
- "Japan Case Study in Municipal Solid Waste Management: A Reform Roadmap for Policy Maker" (World Bank)
- "Development of Work Plan for Reducing SLCPs from MSWM in Medan, Indonesia" (CCAC-MSWI)

### **4.3. Regional Centre in Bangkok (BRC)**

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

#### **(1) Intended impacts during ISRP7**

- 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 and resources to drive clean development are adopted to create more sustainable capacity for regional engagement in climate change mitigation activities
- Improved environmental quality in Association of South - East Asian Nations (ASEAN) cities through better long-term city planning and higher capacity to implement transformative local actions, closely linked to the SDGs

#### **(2) Major activities in FY2017**

##### **Climate Change Mitigation**

Focus of the UNFCCC-IGES Regional Collaboration Centre (RCC) has expanded from original CDM tracking activities to other activities related to the Paris Agreement, including a green finance project; an Article 6 and transparency project; provision of technical support to develop carbon pricing instruments for Pakistan as well as ASEAN Working Group on Climate Change under the Collaborative Instruments for Ambitious Climate Action (CI-ACA); and CDM and standardized baselines (SB) support.

##### **Climate Change Adaptation**

A JICA technical cooperation project for strengthening institutional and policy framework for disaster risk reduction and climate change adaptation integration in ASEAN was concluded. Activities of the Climate Change Asia (CCA) for capacity building were also implemented with the Regional Resource Centre for Asia and the Pacific (RRC.AP), Asian Institute of Technology (AIT), as well as website supporting for the Asia Pacific Adaptation Network (APAN).

##### **Environmental Safeguards**

Asian Environmental Compliance and Enforcement Network (AECEN) increased capacity development of government officials and led information exchange/sharing. AECEN also established connections with key regional stakeholders and successfully conducted the Asian Environmental Impact Assessment Network (AEIAN) Preparatory Meeting.

##### **Sustainable Cities**

The implementation of the ASEAN ESC Model Cities Year 3 programme was completed engaging approximately 360,000 individuals in 16 cities and eight countries. Main activities covered: (i) 1-2 National SDGs Workshop; (ii) large-scale environmental educational campaigns; and (iii) three regional seminars for showcasing achievements, facilitating peer-to-peer learning and networking with supporting organisations. A new 2-year programme, ASEAN SDGs Frontrunner Cities Programme, funded by the Japan-ASEAN Integration Fund (JAIF), will start soon.

### **Sustainable Consumption and Production (SCP)**

Ahead of its official launch in September 2018, the SWITCH-Asia SCP Facility has already started its work covering 19 countries, primarily in South and Southeast Asia. The Consortium of IGES, Adelphi and GIZ - and funded by the European Union - has six full-time staff members based in BRC and the Facility supports SWITCH-Asia Programme, the EU's flagship SCP initiative, and provides technical assistance for SCP policies in target countries. The Facility has also confirmed agendas for national dialogues in Bangladesh and Mongolia while it has also moved forward in Nepal and India.

### **Global Environmental Outlook (GEO)**

GEO-6, UN Environment's flagship report, aims to help policymakers to deliver on the environmental dimensions of the SDGs and the Multilateral Environmental Agreements (MEAs). IGES staff have been heavily involved in GEO for the small island developing states, GEO-6 Asia-Pacific, GEO-6 Global main report, and most recently GEO-6 for Youth.

### **(3) Selected publications**

- “Catalyzing Green Bonds in ASEAN+3 Countries to Mobilize Finance for Energy Market Transformation” (paper presented at the 41st IAEE International Conference)
- “Project for Strengthening Institutional and Policy Framework on Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) Integration, ASEAN, Final Report”
- Policy Report “Early Views of ASEAN's ‘Frontrunner Cities’ on the Sustainable Development Goals (SDGs) and Local Data Management”

## **4.4. Beijing Office (BJG)**

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

### **(1) Intended impacts during ISRP7**

- 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.
- Policy recommendation and maintenance manual on wastewater treatment are adopted in local cities in China

### **(2) Major activities in FY2017**

#### **Research Activities in the Area of Water Environment**

Since FY2014 the Beijing Office has participated in a Japan International Cooperation Agency (JICA) project on rural wastewater treatment technology system and the creation of management systems. As FY2017 was the final year of the project, meetings to report on project results were held in Tokyo in August and in Beijing in September 2017. Ten research reports were produced and

submitted as the final reports on rural wastewater treatment technology system and management systems. The project ended in October 2017.

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

As the overall coordination platform of the “Japan- China Inter-city Cooperation”, a project to improve air quality in China implemented since FY2014, IGES promoted Japan-China cooperation by organising seminars, holding training sessions in Japan, and implementing joint research and model projects. Specifically, IGES held meetings with local governments in China on more than 35 occasions to promote cooperation. IGES also organised seminars in China on seven occasions and held training sessions in Japan on ten occasions with 72 trainees invited from China. In addition, IGES produced a “policy monitoring report” of more than 600 pages, highlighting important policies on air quality in China. The monitoring report was uploaded every month together with an activity report to a special website created within the IGES website. In a particular achievement in the model project between Fukuoka Prefecture and Jiangsu Province, which aims to simultaneously reduce the emission of air pollutants (such as VOCs) and CO<sub>2</sub> from textile dyeing factories and improve their productivity (co- benefit approach), the first model equipment was installed in a factory in Changshu City in Jiangsu Province as of June 2018. The second equipment installment is expected to take place soon.

### **(3) Selected publications**

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

## **4.5. Tokyo Sustainability Forum (TSF)**

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

### **(1) Major activities in FY2017**

- The Forum assisted IGES staff with meeting support and provided administrative support to IGES President, Managing Director and Senior Fellows/Fellows based in Tokyo in implementing their activities.
- The Forum continued to host IPBES TSU-AP, and supported its work on the Regional Assessment Report.
- The Forum organised a briefing session on the process and overview of IPBES assessments in May 2018, to facilitate active involvement of Japanese experts interested in IPBES work.
- As part of the JBF IPBES Capacity Building Project started in April 2016, and in cooperation with Asia-Pacific Network for Global Change Research (APN) and other relevant stakeholders, TSF carried out the preparation process for organising science-policy dialogues based on the outputs of the IPBES Asia-Pacific assessment.



- With the aim of promoting international cooperation on Environmental Impact Assessment (EIA) in Asia, TSF implemented several projects under a lump-sum contract with MOEJ. These included a study on policy and implementation of EIA systems in seven Asian countries, the establishment of an information platform for the Asia EIA network, and the development of a cooperation plan with Myanmar to enhance its EIA system and implementation.
- With the aim of promoting the recycling and re- use of city waste in the Northeast Asian region, TSF assisted MOEJ in organising a TEMM 3R Seminar for government officials of three countries (Japan, China and Korea), dispatched experts for consultation with a related organisation in China, and organised expert meetings in Japan, under a lump-sum contract with MOEJ.
- In 2017, TSF, supported by Environment Research and Technology Development Fund, launched a research project on development of models, indicators and methodology for economic evaluation to assess the impacts on biodiversity arising from business activities. Likewise, in collaboration with Conservation International Japan and Nikkei BP Eco Management Forum (currently renamed the Nikkei BP ESG Management Forum), TSF co-organised a series of open seminars on natural capital management. Related stakeholders participated including representatives of the business sector.
- In collaboration with MOEJ and NIES, TSF co-organised a symposium in October 2017 in commemoration of the visit of Professor Hans J. Schellnhuber of the Potsdam Institute for Climate Impact Research. The symposium included a keynote speech on the latest scientific findings on climate prediction, followed by discussion on Japan's agenda and required direction to realise a decarbonised society including the expansion of renewable energies for achieving the 2°C reduction target of the Paris Agreement with reference to the experience in Germany.

#### **4.5.1. IPBES-TSU-AP hosted at Tokyo Sustainability Forum**

IGES hosts the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Technical Support Unit for the Regional Assessment for Asia and the Pacific (TSU-AP), administered by UNEP. This TSU, set up in 2015 within the IGES Tokyo Office (renamed the “Tokyo Sustainability Forum” in 2017), has functioned as an extension of the IPBES Secretariat (Bonn, Germany). Its purpose has been to support and assist in the coordinating of the drafting of the report on the IPBES Regional Assessment of Biodiversity and Ecosystem Services for Asia and the Pacific.

##### **(1) Intended impacts**

- The region-wide scientific assessment on biodiversity and ecosystem services in the Asia-Pacific Region is widely recognised
- Scientifically sound and policy-relevant information on Biodiversity and Ecosystem Services in the Asia-Pacific Region is reflected in policies

##### **(2) Major activities in FY2017**

Since its establishment, the TSU has provided support for around 120 experts in the writing process, author meetings, and preparation of the Assessment Report. In July 2017, the TSU organised the Assessment's Third Author Meeting at the UNU Headquarters in Tokyo, and also co-organised a dialogue meeting between the authors and the IPBES national focal points at the Tokyo Office of the Japan Agency for Marine-Earth Science and Technology (JAMSTEC). Furthermore, the TSU

has made contributions to outreach, targeting relevant experts and organisations across the region. For instance, the TSU provided information to the 9th Workshop of the Asia-Pacific Biodiversity Observation Network (AP-BON) and to IPBES national coordination meetings organised by the Ministry of the Environment of Japan. In March 2018, the chapters of the IPBES Regional Assessment Report on Biodiversity and Ecosystem Services for Asia and the Pacific were accepted, and its Summary for Policymakers was approved by the sixth session of the IPBES Plenary held in Medellin, Colombia. Currently, the final stages of the work towards publication and release of the Assessment Report are underway.

Funding for the TSU operations is provided by the UNEP Trust Fund and the Ministry of the Environment of Japan. Further, the activities of the TSU have been supported by partners including NIES and UNU.

## **5. Strategic Management Office (SMO)**

As a mechanism to effectively promote strategic research and the impact generation of outputs in the Integrative Strategic Research Programme for the 7th Phase (from FY2017), the former Programme Management Office (PMO) and Secretariat were merged to create the Strategic Management Office (SMO). The SMO is charged with three functions: Planning and Management (PM); Knowledge and Communications (KC); and Research and Publications (RP).

### **5.1. Knowledge and Communications (KC)**

#### **(1) Intended impacts during ISRP7**

- Enhanced profile of IGES both in Japan and abroad
- IGES expertise amplified and IGES messages well-received, in two or more areas (viz. climate change and SDGs), nationally and internationally among key stakeholders and incorporated into their visions, plans and actions
- Networks and opportunities established and enhanced to advance knowledge co-learning and co-generation around low-carbon, resilient and sustainable development strategies and actions
- Events and multi-stakeholder policy processes managed for effective dissemination and achievement
- IGES's knowledge and expertise adopted and applied by target stakeholders through effect knowledge services and exchange; and targeted stakeholders gain necessary knowledge and capacity to implement practical sustainability solutions
- Sustainability innovations streamlined into policies, planning and practice

#### **(2) Major activities in FY2017**

- Although members of SMO-C have been drastically changed, the new SMO-C functions well, for example, delivering E-newsletters both in English and Japanese on a regular basis (once a month). SMO-C has also improved media relationships and opened new media exposure opportunities.
- SMO-KC has been promoting cross-area activities, for example, COP23 related arrangements in the field of climate change, and the response to the Asian Pacific Forum on Sustainable Development (APFSD) and the High-Level Political Forum on Sustainable Development (HLPF) in the field of SDGs, etc.

- SMO-KC also has been conducting management of two research networks aiming for low-carbon/decarbonised societies. In March 2018, at the MOU follow-up meeting between French Ministry of Ecological and Social Transition (METS) and MOEJ, research collaboration between France and Japan under the research networks scheme like LCS-RNet was well recognised by METS and MOEJ. They expect IGES to make inputs to G7 EMM and G20 EMM to be held in France and Japan in 2019.
- For the promotion of dialogues amongst multi-stakeholders on climate change, SMO-KC newly won an MOEJ contract on the facilitation of the Talanoa dialogue by setting up a knowledge platform. This task requires cross-area/team collaboration within IGES led by SMO-KC.
- SMO-KC conducted an interview session between Prof. Johan Rockström and Prof. Takeuchi and uploaded it onto the IGES website as a webcast. This kind of high level visualisation of key messages will continue to be carried out.
- SMO-K is newly established from this fiscal year and functions as pool of expertise to encourage each area/unit to facilitate impact generation. The pooling system has been working effectively so far by flattening the workload and sharing information among staff. On the other hand, it is sometimes difficult to predict the workload over the whole year at the beginning of the fiscal year when looking at area/unit activities.
- In FY2017 SMO-KC and ICT team have undertaken the relaunch of the IGES website with three primary goals: to allow internal efforts to be utilised more effectively, to increase the amount and types of data that we are capturing about our activities, and to align the website more closely with the audience. This relaunch will move the IGES website from being a static website, with all pages having to be manually managed, to a dynamic database-driven site that is integrated with the publications database. The new website will allow for the integration of publication information across the site. The new website is expected to launch in FY2018, and should free the relevant KC staff to focus more on effective communication, and less on website management. Website navigation will be primarily based around topic, while IGES' organisational structure will be much less prominently featured. We are confident that it will be easier for users of the website to find IGES activities that are of interest to them.

Main achievements are provided in the Section 2.

## 5.2. Research and Publications (RP)

### (1) Major activities in FY2017

#### Direct contribution to research and research outputs

- This year, the publication strategy focused mainly on flagship/priority publications. RP took on primary responsibility for three, and provided advice and monitoring for three others. Most output planning is bottom-up, and RP reviewed the appropriateness of these plans, and provided some advice on how to strengthen their potential to generate impacts.
- To directly produce and contribute to flagship/priority and other outputs, RP conducted some research on issues related to economics/finance, governance, SDGs, and climate policy.
- RP managed four externally funded projects related to quantitative analysis, which also included organising workshops/symposia (PSEE, IIASA, OECD, and carbon pricing).
- RP contributed to UN Environment's Global Environment Outlook (GEO6).
- RP made significant contributions to the IGES 20 year history flagship as well as the Japanese translation of Johan Rockstrom's book, *Big World Small Planet*.

**Institute-wide research management**

- The SRF focused on small-scale bottom up proposals, with two rounds of proposals. A total of 19 projects were approved, including five on SDGs, eight on climate, and four related to both SDGs and climate. Two SDG related flagship projects were organised based on approved SRF proposals.
- RP compiled the institute-wide publication plan with the list of planned outputs, and coordinated reporting on actual outputs.
- The Publication policy was maintained, and implementation was adjusted to be more flexible and account for changes in the 7<sup>th</sup> Phase.

**Research-related support**

- Library database subscriptions were adjusted to cancel subscriptions to less-used databases and enhance subscriptions to others (especially to significantly increase the number of journals with full text access), thereby significantly increasing their usefulness.
- RP provided editing services, not only for research outputs but also for communications and management-related documents.

Main achievements are provided in the Section 3.

## **5.3. Planning and Management (PM)**

### **(1) Major activities in FY2017**

Planning and Management streamlined the procedures in planning and decision-making simultaneously taking consideration of appropriate resources management (financial and human) and provided corporate management services to maintain the organisational status and interest, support research activities through five functions: (i) Planning and Evaluation, (ii) Information and Communication Technology (ICT) Systems, (iii) Financial Management, (iv) HR Management, and (v) General Administration.

Main achievements are provided in the Section 4.

## **ANNEX 2: KEY ACHIEVEMENT BY OTHER PROJECTS FOR PUBLIC-INTEREST PURPOSES**

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

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

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

As a summary of its financial status, overall revenue in FY2017 was JPY 170 million and expenditure was JPY 178 million. This has resulted in a deficit of about JPY 8 million. Part of this deficit was mainly due to travel expenses for expert meetings being higher than were anticipated when the budget plan for FY2017 was developed in May 2017.

#### **(1) Development, Maintenance and Improvement of IPCC Inventory Software**

The IPCC Inventory Software<sup>5</sup> helps inventory compilers to estimate emissions and removals of greenhouse gases according to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines). In FY2017, the TSU implemented a test of Tier 2 worksheets for the agriculture sector. In addition, the TSU continued to provide technical support to users.

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

The IPCC EFDB<sup>6</sup> is a database of emission factors and other parameters whereby national experts can find nationally appropriate values to develop national GHG inventories in accordance with the IPCC inventory guidelines. In FY2017, the TSU continued enhancing the usefulness of the database by collecting data, organising relevant expert meetings and supporting the EFDB Editorial Board, as well as implementing other activities to improve the database (e.g. improvement of the EFDB website and database system).

#### **(3) Production of Reports to Supplement or Refine the IPCC Inventory Guidelines**

Based on the decision IPCC/XLIV-5, adopted at the 44th Session of IPCC in October 2016, the TSU continued activities for production of a Methodology Report entitled the “2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories” (2019 Refinement). In FY2017, the TSU organised Lead Author Meetings on two occasions in September 2017 and April 2018. The TSU also organised the Expert Review of the first-order draft of the 2019 Refinement from 4 December 2017 to 11 February 2018 in accordance with procedures established by the IPCC.

---

<sup>5</sup> <http://www.ipcc-nggip.iges.or.jp/software/index.html>

<sup>6</sup> <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>

#### **(4) Inventory Internship Programme**

In FY2017, this programme was not be implemented.

#### **(5) Collaboration with Other Organisations**

In FY2017, the TSU continued cooperation with other organisations on inventory-related matters. For example, the TSU contributed its support to inventory-related capacity building programmes implemented by the UNFCCC and NIES by sending programme officers as resource persons and providing inventory-related materials developed by the IPCC TFI.

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

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

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

As a summary of its financial status, overall revenue in FY2017 was JPY 250 million and expenditure was JPY 208 million. This has resulted in a surplus of about JPY 42 million. This surplus is the remaining costs of on-going projects for multiple fiscal years, and is reserved for the Deposit for Promoting APN Projects so as to achieve a substantial financial balance in FY2017.

#### **(1) Regional Research Programme**

APN supported international collaborative research projects that were selected through the Annual Regional Call for Research Proposals (ARCP) and approved at the 22nd Intergovernmental Meeting (IGM).

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

APN supports capacity building activities for young and early-career scientists and practitioners in developing countries, in particular. Capacity building activities were also selected through the annual call for proposals and approved by the 22nd IGM.

#### **(3) International Forum/Symposium/Workshop**

##### **i. Sub Regional Committee (SRC) Meeting**

APN has established committees for each region, i.e. Southeast Asia, South Asia and Temperate East Asia, to discuss and address regional research priorities and capacity development needs common to

each sub-region. In FY2017 the Southeast Asia SRC Meeting was held in March 2018 in Hanoi, Vietnam, the South Asia SRC Meeting was held in April 2018 in Hyderabad, India, to share common challenges and research needs for establishing a sustainable society.

**ii. Workshop on Technology Needs Assessment (TNA) on Climate Change Mitigation and Adaptation in Southeast Asia**

APN held a workshop on technology needs assessment on climate change mitigation and adaptation in Hanoi in February 2018. This workshop supported promoting technology transfer in Southeast Asia through discussion on technology assessments for various sectors such as energy, waste, water and tropical agriculture etc. and sharing best practices.

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

APN held a Proposal Development Training Workshop in Hanoi in March 2018 to develop the capacity of young scientists from developing countries to conduct global change research and compete for funding. The theme of the Workshop was disaster risk reduction and management in Southeast Asia.

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

APN organised the following international events with the Hyogo Prefectural Government. The Hyogo Prefectural Government has been supporting APN since 1999 as the host government of the APN Secretariat.

- **Hokusetsu SATOYAMA International Seminar:**  
APN organised a seminar in Takarazuka, Hyogo Prefecture, under the theme of how to use natural resources for regional revitalisation of SATOYAMA.
- **Open Forum in the 58th annual convention of Japan Society for Atmospheric Environment:**  
In collaboration with the Hyogo Prefectural Institute of Environmental Sciences and other research institutions, APN organised a public forum on the present conditions of pollution-abatement measures and its health effects in Japan and China.

**(4) Other**

APN organised its 23rd Intergovernmental Meeting and Scientific Planning Group (SPG) Meeting in Bangkok, Thailand, in July 2018.

### **3. Japanese Center for International Studies in Ecology (JISE)**

JISE primarily carries out field surveys and practical research to restore and reconstruct ecosystems and biodiversity from local to global levels aiming to realise societies based on sustainable development from the perspective of plant ecology. In FY2017, JISE implemented the following activities to promote its projects, including training and information collection and provision on forests, nature regeneration and ecology.

As a summary of its financial status, overall revenue in FY2017 was JPY 67 million and the expenditure was also JPY 67 million, resulting in a good balance. The revenue from the interest from JISE Funds accumulated in the past has contributed to this balance.

## **(1) Research Projects**

On the international research front, JISE conducted practical research projects aimed at the regeneration of tropical forests, supported by external research grants. Activities included vegetation surveys, promotion of forest conservation and provision of guidance on nurturing seedlings and tree-planting in Malaysia, Kenya and Lao PDR. In addition, JISE conducted research on plant communities in the monsoon forest of eastern Thailand as fundamental research on tropical forests.

On the domestic front, JISE conducted a survey to monitor the growth of the “Great Forest Seawall,” that was planted aimed at the prevention of disasters after the Great East Japan Earthquake of 2011. JISE also engaged in a few surveys and research to identify potential natural vegetation to enhance disaster prevention maritime forests in the Shikoku and Kyushu regions, where large earthquakes are predicted. As a contribution to improve the plant classification system in Japan, JISE revised the classification system for summer-green broad-leaved forests. Furthermore, outputs of the above mentioned domestic research projects were released at meetings of the Society of Vegetation Science in Okinawa and the Ecological Society of Japan in Sapporo, as well as in the “Eco-Habitat” bulletin. JISE also promoted release of information to the general public via newsletters and forums.

Based on collaborations with private companies, local governments and non-profit organisations, JISE conducted other activities on forest and nature regeneration. These included planning, making recommendations and providing advice on suitable trees to plant, as well as conducting preliminary field surveys on sites in Akita, Miyagi, Kanagawa, Nagano, Shizuoka, Aichi, Mie and Hyogo Prefectures. Further, JISE conducted monitoring of forest and nature regeneration sites in Shizuoka and Akita Prefectures that were planted under the guidance of the Center and proposed the introduction of adaptive forest management.

## **(2) Capacity Building**

As capacity development projects contributing to environmental conservation, JISE carried out outdoor environmental study programmes, ecological trainings (basic level courses) and vegetation trainings, such as a series of lectures for the general public on the “Wisdom, Technology and Understanding to Protect and Develop Greenery”. In addition, JISE has further developed its collaboration with Kanagawa Prefecture, starting a few collaborative projects with the Kanagawa Prefectural Museum of Natural History and the Kanagawa Institute of Industrial Science and Technology (KISTEC).

## **(3) Interaction**

JISE conducted the Environmental Forum on the topic of “Long-Standing Forest-Building Efforts by Companies” in June 2018. The forum showcased the diverse initiatives and achievements of the Yokohama Rubber Co., Ltd., the AEON Co., Ltd., and the Asahi Kasei Homes Corporation, and included discussions. Additionally, JISE engaged in active international exchanges and public awareness campaigns, including organising tree-planting in Kenya.

## **(4) Dissemination and Public Awareness**

To disseminate news of its activities through its public relations activities, JISE distributed newsletters (three issues a year) to introduce its own activities as well as the efforts of private companies in environmental conservation. JISE also published its annual “Eco-Habitat: JISE Research”, a bulletin containing both domestic and international research results related to ecology, which is available on the internet.



## ANNEX 3: IGES IMPACT GENERATION MATRIX (FY2017)

(As of June 2018)

### Level of societal change

Outcome 1	Recognition of IGES Expertise
Outcome 2	Support/Request of IGES Follow-up
Outcome 3	Action by Stakeholders
Impact 1	Changes in Policy, Planning & Practice
Impact 2	Changes in Wider Society

	Cases of high level of influence in FY2017	Level of societal change				
		Outcome 1	Outcome 2	Outcome 3	Impact 1	Impact 2
Making Proposal	【CE】 Recognised as expert institute on climate change through 'submissions' in its negotiation					
	【CE/PMO-RP】 Recognised as expert institution contributing to domestic discussions on carbon pricing & long-term low emission development strategy					
	【CTY】 Shimokawa town developed the SDGs vision and will develop its city comprehensive with its monitoring indicators proposed by IGES					
Providing Guidelines	【SCP】 National and City Waste Management Strategies in Myanmar provided policy directions towards sustainable waste management					
	【NRE】 Participatory watershed management project expanded to two new watersheds in the Philippines, wins "Dubai International Award for Best Practices in the Living Environment"					
Providing Tools	【QAC】 IGES SDGs Interlinkages Analysis and Visualisation Tool and its applications for SDG integrated policy-making					
	【CE】 A couple of JCM projects approved using IGES verification methodology & project processing support					

<b>Making Networks</b>	<b>【NRE】</b> Recognition of IGES as the lead research organisation developing a knowledge platform for sustainable ecosystem management under the GEF-Satoyama Project				
	<b>【SCP】</b> Recognised as leading agency on the Resource Efficiency/Circular Economy/3Rs Process through continuous meetings and events				
	<b>【BRC】</b> A green investment catalytic (GIC) process to mobilise finance for climate and SDG-aligned development in ASEAN				
	<b>【SGC/CTY】</b> Providing IGES one stop solutions to deliver multiple transformative actions in Semarang and Bandung				
<b>Developing pilot</b>	<b>【KRC】</b> Requests received from SIDS for continuous support of capacity building on GCF project proposal preparation				
	<b>【BJG】</b> Request received from high level policy makers of Chinese cities for continuous support to achieve tangible results in Japan-China city to city cooperation project				
	<b>【KRC】</b> Four Indian companies adopted Japanese low-carbon technologies and/or Best Operating Practices through Japan-India Technology Matchmaking Platform (JITMAP)				
	<b>【BRC】</b> 'Model Cities' approach enhanced in Thailand and replicated to other ASEAN countries				
<b>Strategic secretariat role of new initiative</b>	<b>【SCP】</b> Promoting and enabling sustainable lifestyles and education in the Asia-Pacific and globally through research, policy advice and project implementation				
	<b>【BIZ】</b> Proactive business coalition expanded with significant progress on corporate decarbonisation strategy (such as RE100)				
<b>Transformative research/knowledge generation</b>	<b>【NRE】</b> Water Food Energy nexus research output attracted Toshiba for their planning of thermal power plant				
	<b>【SGC】</b> IGES established cooperative relationship with Global Compact Network Japan to strengthen business actions on SDGs in Japan				
<b>Fund raising coordination</b>	<b>【BRC】</b> ASEAN Member States requested IGES to expand the regional ASEAN Model Cities programme to 'SDGs Frontrunner Cities'				
	<b>【BRC】</b> JAIF funding being arranged for implementing the regional DRR&CCA integration action plan developed under JICA's project				

Lead Author of key international reports	【SGC】 IGES researchers invited as lead authors for the IPCC AR6				
	【SMO-RP/BRC】 UNEP Global Environment Outlook				
	【IPBES-TSU】 IPBES Asia Pacific Regional Assessment Report				
Innovative outreach	【CE】 Outreaching climate change and sustainable development issues to the global audience in a quick and effective manner through Twitter				
	【BIZ】 Corporate and economic narrative shifted on climate change and energy transition in major Japanese media: messages have changed from “pure green issue” to business risks and competitiveness				

## ANNEX 4: FY2017 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 2018)

### United Nations units (4)

	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	March 2015- (HQ)
3	The Technical Support Unit (TSU) for the Asia-Pacific Regional Assessment for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)	April 2015- (TSF)
4	United Nations Framework Convention on Climate Change (UNFCCC)-IGES Regional Collaboration Centre (RCC)	September 2015- (BRC)

### Networks to which IGES serves as the secretariat (11)

	Name of the network	Main function
1	ASEAN SDGs Frontrunner Cities Programme / High Level Seminar on ESC (HLS ESC)	Regional network which promotes local SDGs policies and practices of ASEAN cities. The annual HLS is the knowledge sharing network and platform of Asian cities under the East Asia Summit (ASEAN+8) Environment Ministers Meeting (EAS EMM) framework, which collects and disseminates the voice of Asian cities to the rest of the world.
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, US EPA 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 (Japan-CLP)	Support Japanese private-sector network to promote the transition to sustainable and low-carbon society.
8	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.

9	Low Carbon Asia Research Network (LoCARNet)	Asian Researchers' network to facilitates science-based policies for low-carbon development in the Asian region, launched by LCS-RNet
10	SWITCH-Asia Sustainable Consumption and Production Facility	Facility to facilitate and coordinate the SWITCH-Asia grant projects and contribute to the implementation of SCP in the region. The facility is jointly implemented by GIZ, IGES and adelphi.
11	Water Environment Partnership in Asia (WEPA)	Network to improve the water environment in Asia by strengthening water environmental governance.
-	ASEAN ESC Model Cities Programme (2011-2017)	Regional network which promotes bottom-up innovative practices/policies by ASEAN's frontrunner cities.
-	Asia Pacific Adaptation Network (APAN) (2010-2015)	Asia-Pacific region's network with special emphases on the management of climate change adaptation knowledge and capacity building. Part of the Global Adaptation Network (GAN) by UNEP.
-	Sustainable Development Planning Network for Asia-Pacific (SDplanNet-AP) (2008-2017)	Network of professionals involved in development planning to share innovative approaches for integrating sustainable development into plan and strategies launched with support from IISD.
-	The Asia-Pacific Forum for Environment and Development (APFED) (2001-2010)	Regional group of prominent experts to address critical issues and propose new models for equitable and sustainable development.
-	The Kitakyushu Initiative (2000-2010)	Initiative to improve urban environment in Asia and the Pacific region under the direction of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in collaboration with Kitakyushu city.
-	USAID Adapt Asia-Pacific (2015-2016)	Knowledge management support to USAID's climate change adaptation project preparation facility for Asia and the Pacific.

### Collaborative agreements (33)

	Institute	Scope
<b>International organisations</b>		
1	Asian Development Bank (ADB)	Climate change, wastes, energy, water resources
2	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)	Establishment of and collaboration through the TSU for the Asia-Pacific Regional Assessment for the IPBES
3	International Council for Local Environmental Initiatives (ICLEI)	City level collaboration for sustainable cities
4	ICLEI Japan	City level collaboration for sustainable cities
5	International Institute for Sustainable Development (IISD)	Knowledge exchange
6	International Labour Organization (ILO)	Environment-economy-employment linkages, green jobs
7	Secretariat of the Convention on Biological Diversity (SCBD)	Implementation of the Capacity building project for the implementation of IPBES Asia-Pacific Regional Assessment
8	United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP)	SDGs, knowledge sharing and mutual support to conferences
9	United Nations Environment (UNEP)	Climate change, wastes, air pollution

10	UNEP-International Environmental Technology Centre (IETC)	Establishment of Collaboration Centre on Environmental Technology
11	United Nations Framework Convention on Climate Change and its Kyoto Protocol (UNFCCC)	CDM data exchange
12	UNFCCC	Establishment of and collaboration through the UNFCCC Regional Collaboration Centre (RCC)
<b>Research collaboration</b>		
1	Asia-Europe Foundation(ASEF) The Stockholm Environment Institute(SEI) The Hanns Seidel Foundation(HSF) ASEM SMEs Eco Innovation Center (ASEIC)	Contribution to the Asia-Europe Environment Forum (ENVforum) to foster inter-regional cooperation between Europe and Asia on sustainable development and its environmental dimensions.
2	Asian Institute of Technology (AIT)	Policy research on sustainable development
3	Conservation International (CI) and United Nations University-Institute of Advanced Studies (UNU-IAS)	Research collaboration on biodiversity
4	Institute of Microfinance (InM)	Research collaboration on inclusive finance
5	International Centre for Integrated Mountain Development (ICIMOD)	Research collaboration on natural resources management
6	Korea Environment Institute (KEI)	Research collaboration in the major thematic areas incl. climate change
7	Ministry of Forests and Soil Conservation (Government of Nepal)	Research collaboration on forest governance standard
8	National Environment Commission (NEC), Royal Government of Bhutan	Research collaboration in the area of climate change and its impact in Bhutan
9	National University of Laos	Research collaboration on natural resources management
10	Sino-Japan Friendship Center for Environmental Protection	Research collaboration on environmental protection
11	The Energy and Resources Institute (TERI)	Mutual agreement to host desk each other
<b>Cities</b>		
1	City of Yokohama (Y-PORT)	City level collaboration for sustainable cities in Asia
2	Kawasaki City	City level collaboration for sustainable cities in Asia
3	Shimokawa Town	Technical cooperation on promotion of sustainable development goals (SDGs)
4	Toyama City	Technical cooperation for decarbonised urban development
<b>Japanese Universities</b>		
1	Hiroshima University	Personnel exchange, research collaboration
2	Nagoya University	Implementation of the IUC-J project at the IGES Tokyo Sustainability Forum

3	Tokyo City University	Personnel exchange, research collaboration
4	Tokyo Institute of Technology	Personnel exchange, research collaboration
5	Yokohama City University	Personnel exchange, research collaboration
6	Yokohama National University	Personnel exchange, research collaboration

**Other (membership, etc.) (6)**

	<b>Institute, network or initiative</b>	<b>Scope</b>
1	Japan Consortium for Future Earth (2013-)	Collaboration on research and knowledge exchange
2	Rockefeller Foundation 100 Resilient Cities program (2016-)	Platform partner to support resilience strategy formulation
3	Sustainable Development Solutions Network (SDSN) Japan (2015-)	Collaboration on research and knowledge exchange on SDGs
3	UNEP Finance Initiative (UNEP FI) (2017-)	Joined as a Supporting Institution
4	United Nations Economic and Social Council (UN ECOSOC) (2003-)	Contribution to the work of UN
6	United Nations Global Compact (UNGC) / Global Compact Network Japan (GCNJ) (2015-)	Collaboration on knowledge exchange on SDGs