

FY2016 Business Report

September 2017

Institute for Global Environmental Strategies

TABLE OF CONTENTS

1.	Introduction.....	1
2.	FY2016 highlights of Impact Generation	2
2.1.	Selected impacts from strategic research and operations.....	2
2.2.	Key statistics	6
2.3.	Major Impacts and Achievements by Area	15
2.4.	Major Achievements in Strategic Operations	25
3.	Management.....	32
3.1	Financial Status.....	32
3.2	Human Resource Status	34
3.3	Secretariat	35
4.	Activities Conducted by Other IGES Units	40
4.1.	Activities of the Technical Support Unit (TSU) for the Intergovernmental Panel on Climate Change (IPCC) – Task Force on National Greenhouse Gas Inventories (TFI).....	40
4.2.	Asia-Pacific Network for Global Change Research (APN).....	41
4.3.	Japanese Center for International Studies in Ecology (JISE)	43

Endnote: 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 2017)46

List of Acronyms

	Acronyms	Description
A	ACC	Accounting
	ADB	Asian Development Bank
	AECEN	Asian Environmental Compliance and Enforcement Network
	AEIAN	Asian Environmental Impact Assessment Network
	AIM	Asia-Pacific Integrated Model
	AIT	Asian Institute of Technology
	APAN	Asia Pacific Adaptation Network
	APCAP	Asia Pacific Clean Air Partnership
	APFSD	Asia Pacific Forum on Sustainable Development
	APN	Asia-Pacific Network for Global Change Research
	APRA	Asia-Pacific Regional Assessment
	APRSCP	Asia and Pacific Roadmap for SCP
	ARCP	Annual Regional Call for Research Proposals
	ASEAN	Association of South-East Asian Nations
B	BAPPENAS	Ministry of National Development Planning, Republic of Indonesia
	BCS	Budget Control System
	BJG	Beijing Office
	BRC	Regional Centre in Bangkok
C	C40	The C40 Cities Climate Leadership Group
	CAA	Clean Air Asia
	CAI	Clean Asia Initiative
	CAPaBLE	The Scientific Capacity Building/Enhancement for Sustainable Development in Developing Countries
	CCA	Climate Change Asia
	CCAC	Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants
	CCET	IGES Centre Collaborating with UNEP on Environmental Technology
	CDM	Clean Development Mechanism
	CE	Climate and Energy
	CGE	computable general equilibrium
	CITC	Climate Change International Technology and Training Center
	CLUPs	Comprehensive Land-Use Plans
	COP	Conference of the Parties
	COP21	The 21st Session of the Conference of the Parties
	CTF	City Taskforce
E	EAS	East Asia Summit
	EFDB	Emission Factor Database
	EIA	Environmental Impact Assessment

	Acronyms	Description
E	EMECS	International Center for Environmental Management of Enclosed Coastal Seas
	EMECS11	The 11th International Conference on environmental Management of Enclosed Coastal Seas
	EMM	Environment Ministers' Meeting
	ENB	Earth Negotiation Bulletin
	ERI	Energy Research Institute
	EPR	Extended Producer Responsibility
	ESC	Environmentally Sustainable Cities
	ESD	Education for Sustainable Development
	EU	European Union
F	FOD	First Order Draft
	FVA	Project Financial value-added
G	G7	Group of 7 (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States)
	GA	General Affairs
	GAP	Global Action Programme
	GCNJ	Global Compact Network Japan
	GE	Green Economy
	GEF	Global Environment Facility
	GGGI	Global Green Growth Institute
	GHG	Greenhouse Gas
H	HABITAT	United Nations Conference on Housing and Sustainable Urban Development
	HLS	High-Level Seminar
	HR	Human Resources Management
I	IBEC	Institute for Building Environment and Energy Conservation
	ICCG	International Center for Climate Governance
	ICLEI	ICLEI-Local Governments for Sustainability
	IDDRI	Institute for Sustainable Development and International Relations
	IGES	Institute for Global Environmental Strategies
	IGM	Inter-Governmental Meeting
	IIASA	International Institute for Applied Systems Analysis
	IDDRI	Institute for Sustainable Development and International Relations
	IISD	International Institute for Sustainable Development
	ILK	Indigenous Local Knowledge
	ILO	International Labour Organization
	InM	Institute for Inclusive Finance and Development
	IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
	IPCC	Intergovernmental Panel on Climate Change
	IPSS	Integrated Policies for Sustainable Societies

	Acronyms	Description
I	IRENA	The International Renewable Energy Agency
	IRES	International Review for Environmental Strategies
	ISAP	International Forum for Sustainable Asia and the Pacific
	ISRP6	IGES's Integrated Strategic Research Plan for the 6th Phase
	ISRP7	IGES's Integrated Strategic Research Plan for the 7th Phase
	IST	International Sustainability Transitions
J	Japan-CLP	Japan Climate Leaders' Partnership
	JBF	Japan Biodiversity Fund
	JCM	Joint Crediting Mechanism
	JICA	Japan International Cooperation Agency
	JITMAP	Japan-India Technology Matchmaking Platform
	JPC	Japan Productivity Center
K	KEI	Korea Environment Institute
	KRC	Kansai Research Centre
	KUC	Kitakyushu Urban Centre
L	LCS-RNet	International Research Network for Low Carbon Societies
	LoCARNet	Low Carbon Asia Research Network
M	MCDC	Mandalay City Development Committee
	MEGDT	Ministry of Environment, Green Development and Tourism
	MEP	Ministry of Environmental Protection of China
	MEP	Multidisciplinary Expert Panel
	MHIR	Mizuho Information & Research Institute
	MLS	Medium- to Long-Term Strategy
	MOEJ	Ministry of the Environment Japan
	MOFA	Ministry of Foreign Affairs of Japan
	MONREC	Ministry of National Resources and Environmental Conservation of Myanmar
	MPE	Mekong Partnership for the Environment
N	NDCs	Nationally Determined Contributions
	NGDP	National Green Development Policy
	NIES	National Institute for Environmental Studies
	NRE	Natural Resources and Ecosystem Services Area
	NSO	National Statistical Office
	NSWMC	National Solid Waste Management Commission
O	OECD	Organisation for Economic Co-operation and Development
P	PMO	Programme Management Office
	PreCOM3	The Third Preparatory Committee Meeting of HABITAT III
R	RCC	Regional Collaboration Centre

	Acronyms	Description
R	REDD+	Reduction of Emission from Deforestation and Forest Degradation, and Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks
S	SAM	Second Authors Meeting
	SB	Standardised Baseline
	SCP	Sustainable Consumption and Production
	SDGs	Sustainable Development Goals
	SDSN	Sustainable Development Solutions Network
	SEEPS	Society of Environmental Economics and Policy Studies
	SIDS	Small Island Developing States
	SOD	Second Order Draft
	SOF	Strategic Operation Fund
	SPD	Science-Policy Dialogue
	SPG	Scientific Planning Group
	SRC	Sub Regional Committee
	SRF	Strategic Research Fund
T	TCFD	Taskforce on Climate-related Financial Disclosure
	TDLC	Tokyo Development Learning Center
	TERI	The Energy and Resources Institute
	TFB	TFI Bureau
	TFI	Task Force on National Greenhouse Gas Inventories
	TGO	Thailand Greenhouse Gas Management Organization
	TSU	Technical Support Unit
	TSU-AP	Technical Support Unit - Asia Pacific
U	UN	United Nations
	UNEP	United Nations Environment Programme
	UNEP FI	United Nations Environment Programme Finance Initiative
	UNEP-IETC	United Nations Environment Programme's International Environmental Technology Centre
	UNEP/ROAP	United Nations Environment Programme's Regional Office for Asia and the Pacific
	UN ESCAP	United Nations Economic and Social Commission for Asia and Pacific
	UNESCO	United Nations Educational, Scientific, and Cultural Organization
	UNFCCC	United Nations Framework Convention on Climate Change
	UNGC	United Nations Global Compact
	UNITWIN	University Twinning and Networking
	UNU-FLORES	United Nations University – Institute for Integrated Management of Material Fluxes and of Resources
	UNU-IAS	United Nations University – Institute of Advanced Studies
	US	United States
	USAID	US Agency for International Development
US EPA	US Environmental Protection Agency	

	Acronyms	Description
V	VOC	Volatile Organic Compounds
W	WEPA	Water and Environment Partnership in Asia
	WOS	Web of Science
	WRI	World Resources Institute
	WE	Waste to Energy
	3RINCs	The 3R International Scientific Conference on Material Cycles and Waste Management
	3Rs	Reduce, Reuse, Recycle
	10YFP	10-year Framework of Programmes on SCP

1. INTRODUCTION

Under the Integrative Strategic Research Programme for the Sixth Phase (ISRP6), which began in April 2013, the Institute for Global Environmental Strategies (IGES) has implemented strategic research and strategic operations, aiming to be an Agent of Change for transition to sustainable society in the Asia-Pacific region. Both strategic research and strategic operations were applied in a way that was flexible enough to cover a broad policy agenda, and to generate effective impacts in the region.

Strategic research consolidated seven research areas under three pillars of sustainable development, namely “Environmental”, “Economic” and “Social.” The research areas of “Climate and Energy (CE)”, “Sustainable Consumption and Production (SCP)” and “Natural Resources and Ecosystem Services (NRE)” were under the environmental pillar; “Green Economy (GE)” and “Business and Environment” were under the economic pillar; and “Integrated Policies for Sustainable Societies (IPSS)” and “Sustainable Cities” were under the social pillar. Under these seven research areas, IGES carried out strategic research at its Headquarters in Hayama, the Kansai Research Centre (KRC), the Kitakyushu Urban Centre (KUC), the Regional Centre in Bangkok (BRC), Thailand and the Beijing Office (BJG) in China. The Tokyo Office provided all-IGES support as well as hosting one of the United Nations (UN) collaborating centres.

Strategic operations were led by the Programme Management Office (PMO) in order to produce timely and effective outputs targeting key policy processes through the PMO’s strategic operational functions including Coordination of Flagship Products, all-IGES activities, Knowledge Management, Capacity Development and Education, Quality Management of Research Outputs, Outreach, Networking and External Funding.

Co-designing and co-producing with key partners enabled IGES to generate larger impacts. IGES increased its effort to act as an Agent of Change to respond to a variety of needs following agreement on two major global processes (Paris Agreement at the 21st Session of the Conference of the Parties (COP21) to the UN Framework Convention on Climate Change (UNFCCC) and 2030 Agenda for Sustainable Development) since 2015. To this end, it developed closer working relationships with key non-state actors such as sub-national/city governments, private sector, civil society and other stakeholders in addition to UN organisations and national governments to which the Institute has been providing support.

The ISRP6 was completed in June 2016. IGES will continue shaping itself into an Agent of Change in promoting the global transition towards a sustainable society in the ISRP7 using the Medium-to-Long Term Strategy (MLS) 2016-2025 as a guide for a longer-term vision.

2. FY2016 HIGHLIGHTS OF IMPACT GENERATION

2.1. Selected impacts from strategic research and operations

Impacts through proposals for improved policies, planning and practices through publications and other means

- **OECD published its Updated Guidance on Extended Producer Responsibility**

The Organisation for Economic Co-operation and Development (OECD) published its updated policy guidance on Extended Producer Responsibility (EPR), titled Extended Producer Responsibility: Updated Guidance for Effective Waste Management, in September 2016. IGES contributed to the process of drafting this new guidance by providing Japanese case studies as well as overall comments. IGES helped OECD's outreach to policymakers in Viet Nam by organising a special session on EPR at the 3rd the 3R International Scientific Conference on Material Cycles and Waste Management (3RINCs) meeting held in Hanoi in 2016. IGES and National Institute for Environmental Studies (NIES) collaborated to publish Japanese summary of the guidance in December 2016.

- **Resource Efficiency Agenda was mainstreamed in international processes such as G7**

Resource efficiency has been a key issue in decoupling improvement of well-being from increase in material consumption. IGES has supported the Ministry of the Environment, Japan (MOEJ) over the years, and this issue has developed into one of the significant sustainability issues in the international community such as the United Nations Environment Programme (UNEP) International Resources Panel, OECD and Sustainable Development Goals (SDGs), and it was recognised as a key sustainability theme at the G7 summit and the G7 Toyama Environment Ministers' Meeting (EMM) held in May 2016 in Japan. With substantial inputs also from IGES, the G7 Environmental Ministers adopted the Toyama Framework for Material Cycles. In addition MOEJ, United Nations University – Institute for the Advanced Study of Sustainability (UNU-IAS) and IGES organised a Workshop of the G7 Alliance for Resource Efficiency on synergies between Decarbonisation and Resource Efficiency.

Impacts through provision of sound guidelines

- **GHG mitigation efforts were accelerated through the JCM in many partner countries**

IGES facilitated the introduction of low-carbon technologies and carbon credits building through Joint Crediting Mechanism (JCM) with IGES's technical support for evaluating the greenhouse gas (GHG) emissions reductions at the national and sub-national levels. The JCM added a new partner country, the Philippines (January, 2017), and IGES contributed to the registration of 12 JCM projects in Bangladesh, Indonesia, Mongolia, Palau and Viet Nam, and the development and official approval of 24 JCM methodologies (in Bangladesh, Cambodia, Costa Rica, Ethiopia, Kenya, Indonesia, Mongolia, Myanmar, Saudi Arabia, Thailand and Viet Nam). In addition, IGES contributed to credit issuance for eight JCM projects (in Indonesia, Mongolia, Palau and Viet Nam). At the sub-national level, IGES also developed two JCM projects in collaboration with Yokohama City's Y-PORT Center (introduction of efficient pumps at a water treatment facility in Danang city, Viet Nam and at an eco-airport, waste-to-energy project and waste treatment project in Batam city, Indonesia). The progress in low-carbon technology adoption through JCM was featured in several news articles.

Impacts through provision of tools

- **The Water and Environment Partnership in Asia (WEPA) database contributed to good governance in water environment management**

IGES has been acting as the WEPA Secretariat to facilitate knowledge-sharing through this extensive database. IGES also undertook a study that provides unique data on the pollution load of piggeries in Viet Nam, and improved the WEPA database, which in FY2016 had over 100,000 hits from Asian developing countries.

- **Highlighted the impacts of Indonesia's NDCs on the country's labour market by applying IGES's quantitative assessment**

Implementing the Paris Agreement and the Nationally Determined Contributions (NDCs) will positively or negatively affect other sectors of a country's economy. The labour market is a major area of significant concern. Following a request from the Parties during COP19, the International Labour Organization (ILO) commissioned IGES to develop and apply a quantitative analytical methodology based on the computable general equilibrium (CGE) model for assessing the labour market implications of the NDC in Indonesia. The findings are very important and significant for streamlining and adjusting the country's climate policies by taking into account the implications on labour market conditions. Throughout the study,

relevant governmental agencies (for example, the planning commission of the Ministry of National Development Planning, Republic of Indonesia (BAPPENAS)) as well as other stakeholders were consulted for review/feedback. It is expected that the findings of the study will help Indonesia to reduce potential adverse effects of climate policies on the labour market. While the current model developed by IGES is customised for Indonesia, the modelling framework can be used for similar studies in other countries.

Impacts through network operations and engaging with target stakeholders

- **Supported businesses to deliver their voice through policy recommendations as well as through active participation to the climate policymaking process. Important contribution was made to Japan's Preparatory Plan for the National Long-term Low-Carbon Development Strategy.**

As the secretariat of a business coalition, IGES has supported companies as an important non-state actor to engage with the Ministry of Environment's Long-term Vision Sub-committee on Climate Actions to represent a forward-looking business perspective in Japan. This was where the basis of Japan's Long-term Low Carbon Development Strategies was discussed. IGES contributed in the creation of ambitious recommendation, which explicitly spelled out the importance of having a 'carbon budget' as the basis of strategy, the need for 'drastic reduction' as well as 'carbon pricing'.

- **More companies adopted Japanese low-carbon technologies and/or best operating practices in India, Thailand and Viet Nam**

Eight Indian companies, two Thai companies and three Vietnamese companies adopted IGES's recommendations on implementing Japanese low-carbon technologies and/or best operating practices at their sites, which led to actual energy saving and GHG emissions reductions.

- **Environmental cooperation between the Governments of Japan and China for improving air quality in China further progressed**

Since FY2014, the Beijing Office (BJG) has been serving as the overall coordination platform for a Japan-China city-to-city cooperation project and to promote cooperation between local governments in Japan and China for improving air quality in China. FY2016 was the third year of this project and tangible outputs were achieved. The Beijing Office promoted cooperation between 11 Japanese local city governments and 17 Chinese local city governments, as well as cooperation with the Ministry of Environmental Protection of China (MEP). In FY2016,

significant progress was made with joint research between Kitakyushu city and Shanghai city and other local cities. In February 2017 a meeting was held in Shanghai city to report the interim result of the joint research. Also, a model project started between Jiangsu Province and Fukuoka Prefecture, which aims to reduce CO₂ and Volatile Organic Compounds (VOC) emission from factories. In June 2017, BJC organised a training session on VOC for two days in Beijing. More than 100 participants attended the session, half of which were technical officers from the Chinese local cities.

Impacts through pilot projects

- **Sustainable Development Goals (SDGs) localised in eight ASEAN countries**

Since 2010, BRC and KUC have been at the forefront of promoting innovative ‘bottom-up’ actions of cities through two initiatives implemented jointly with the Association of South-East Asian Nations (ASEAN) Secretariat: (i) ASEAN Environmentally Sustainable Cities (ESC) Model Cities Programme; and (ii) the East Asia Summit (EAS) High-Level Seminar (HLS) on Sustainable Cities. The Model Cities Programme is presently in its 3rd phase since 2016 and has so far supported 40 cities in eight countries: Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Thailand and Viet Nam. These Model Cities enlisted over 50,000 persons to pilot good practices and appropriate technologies and systems. In FY2016, Model Cities continued to expand their actions from traditional topics such as solid waste management, water & sanitation and air pollution to emerging topics such as local data revolution, green energy (such as small-scale solar), model green schools, environmentally-friendly tourism and urban resiliency. Both the Model Cities programme and the 8th HLS held in Chiang Rai, Thailand on 8-9 February 2017 were re-designed to strongly promote the localisation of the SDGs. For example, a series of national SDGs workshops were organised to raise its awareness. Model Cities were encouraged to map their local actions to the 17 SDGs especially with the use of quantitative indicators.

- **National and local waste management related laws and guidelines have been developed in the Philippines with technical support of IGES**

As a result of continuous technical support provided by IGES, the Philippines government issued “the Guidelines Governing the Establishment and Operation of Waste to Energy (WtE) Technologies for Municipal Solid Wastes (NSWMC Resolution No.669, Series of 2016)” in June 2016. In addition, Cebu City (Philippines) has developed its Special Waste Management Bylaw (related to hazardous waste) with IGES’s support, and received council approval for the first time in the country.

2.2. Key statistics

Think Tank Ranking

International recognition of IGES is an indicator for IGES to assess how its work as an Agent of Change is recognised. As attention has been paid at IGES to focus on impact generation, it is expected that there will be more chances of getting better recognition, building partnerships, and/or receiving external funds.

The University of Pennsylvania, United States (US), released its annual ranking of global think tanks¹ for several important areas, including the environment. IGES was ranked 38th among environmental think tanks across the world in 2016, the same as 2015. This ranking was the highest for Japanese institutions (Table 1).

The International Center for Climate Governance (ICCG) in Europe ranked IGES 37th in the listing of world climate think tanks in June 2016,² which was the highest ranking among all Japanese institutions.

In June 2017, IGES was ranked 7th globally, and first in the area outside of North America and Europe.³ According to an analysis of the indicators used in the ranking which were reported to the ICCG survey, there were five main likely factors in the significant increase in the ranking. First, there was an enhanced effort to more comprehensively report the number of organised events, which substantially increased. In particular, this year the number of unofficial side events organised or co-organised by IGES at the UNFCCC COP was reported in addition to the number of official side events. Second, the number of IGES peer reviewed publications increased, and the number of their citations increased significantly, as seen in Table 2 below. Third, the performance of the IGES website based on the Alexa ranking improved after upgrading the output database. As of this writing IGES' website is ranked 231,680 which shows as an improvement of 20,000 places over the last three months. Fourth, IGES established a social media account (Twitter). Fifth, the list of activities and networks on the IGES profile was updated.

¹ 2016 Global Go To Think Tank Index Report (Jan. 2017)

² 2015 ICCG Climate Think Tank Ranking (June 2016)

³ 2016 ICCG Climate Think Tank Ranking (June 2017)

Table 1: IGES in Rankings: FY2012 - FY2016

	FY2012	FY2013	FY2014	FY2015	FY2016
GLOBAL GO TO THINK TANK by University of Pennsylvania (Published in January of the same fiscal year)	48	48	38	38	38
ICCG Climate Think Tank Ranking by the International Center for Climate Governance (Published in July of the following fiscal year)	-	15	22	37	7

Publications

Outputs themselves are not usually considered to be impacts, but are important as tools for generating impacts. The total number of publications for FY2016 was 346. This is a small increase compared to the previous year, although the fiscal year was 3 months longer. The trend in the overall number of publications from the beginning of the Sixth Phase has been relatively stable as can be seen from Figure 1 below.

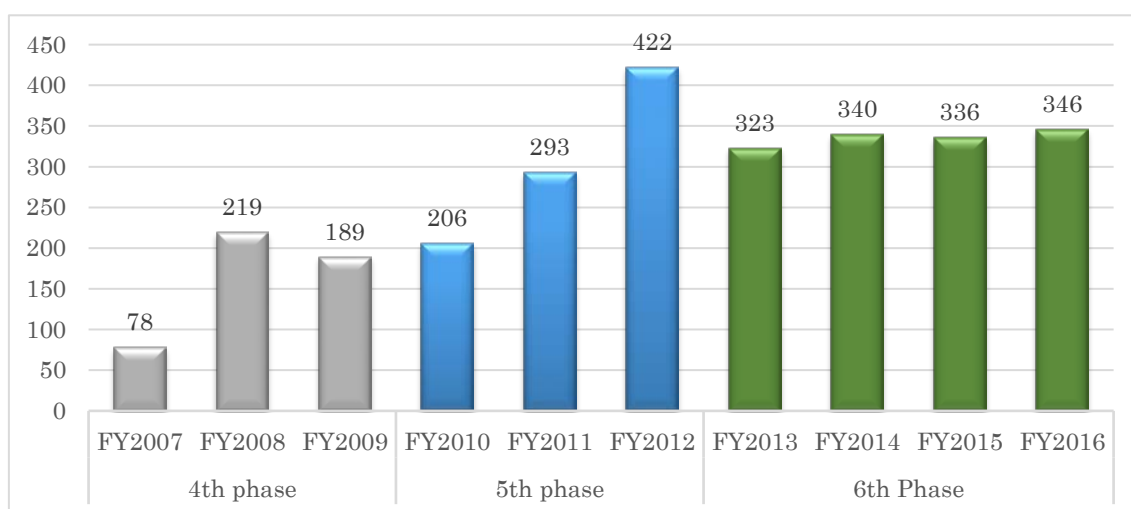


Figure 1: IGES Publications (FY2007- FY2016)

Note: FY2016 figures cover 15 months (April 2016 – June 2017.)

Figure 2 below highlights publications which undergo more extensive review procedures compared to others. These include some IGES publications (policy briefs, policy reports, research reports), peer reviewed journal articles, and chapters contributed to books or other major external publications made by international organisations, IGES partners, or others. These are referred to as “quality” publications, as a rough indication of the relative priority of certain publication types,

although it is recognised that there are other ways to measure quality, and that more extensive review procedures themselves do not necessarily guarantee any particular level of quality.

The ISRP6 set a target regarding the overall production of quality policy publications (defined as IGES policy briefs, IGES reports, and chapters contributed to non-IGES publications, excluding peer reviewed journal articles) at 40 per year during the Sixth Phase, for a total of 160 over 4 years. The annual target for FY2016 was almost but not quite achieved. The overall target for the Sixth Phase was reached in FY2016 thanks to strong results in FY2015 with the publication of a significant number of flagship and White Paper chapters. However, in FY2016, there was a shift towards other types of IGES outputs, in particular shorter policy papers which could be produced more quickly such as issue briefs, briefing notes, and commentaries, as well as new types such as videos and e-learning materials, which are time consuming to develop. In addition, there was a measurable increase in the number of peer-reviewed journal articles, including several in prominent journals such as the *Journal of Cleaner Production*, *Energy Policy*, and *Applied Energy*.

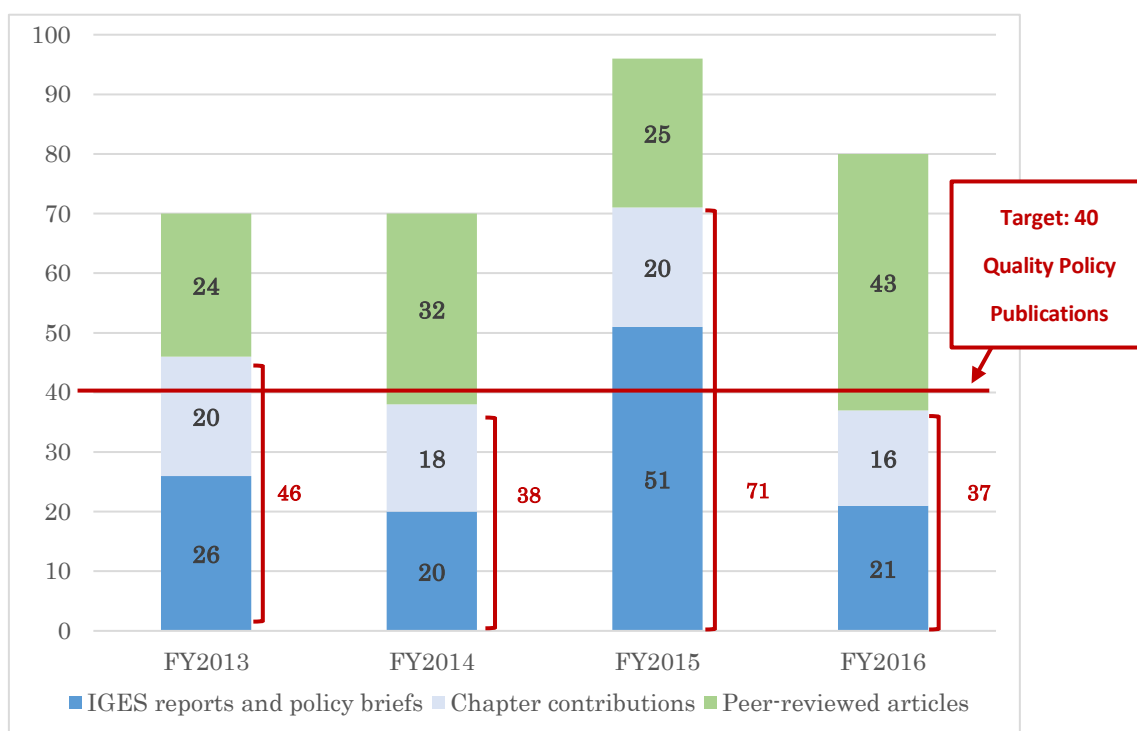


Figure 2: Number of ‘Quality Publications’ (FY2013 - FY2016)

Note: In FY2015, IGES reports included White paper chapters and Flagship chapters. FY2016 figures are as of June 2017.

In FY2015, IGES started to estimate the total number and annual increase of citations to peer-reviewed journal articles published by IGES-related researchers, plus all of the articles in the former

journal published by IGES (the *International Review for Environmental Strategies* – IRES) from the founding of IGES in 1998. In the future, it will be possible to update this number each year in order to track the annual increase. The results are presented below in Table 2. The total number of peer-reviewed journal articles was determined by combining results from the IGES Output Database and the Thompson-Reuters Web of Science (WOS), and includes the articles from IRES. The total number of citations was calculated by two separate methodologies, Google Scholar and WOS, and the results were compared. The number calculated by Google Scholar is much larger. The methodology used by Google Scholar is much broader in scope and covers a much wider range of publications, including some that are policy related, compared to WOS which is focused more narrowly on a limited set of academic journals. Therefore, Google Scholar’s calculation is considered to be more appropriate for IGES. The result was that IGES produced 425 peer reviewed articles between 1998 and 2016 which accounted for a total of 5,830 citations according to Google Scholar. The yearly increase in the number of citations between Feb. 2016 and Feb. 2017 was 436 as calculated by the WOS and 1,164 as calculated by Google Scholar, which is an increase of 34.5% and 24.9%, respectively.

Table 2: IGES Total Peer Reviewed Journal Articles and Citations Comparison of Web of Science, IGES Output Database, and Google Scholar 1998 - Present

	Number of Articles Cited			Number of Citations (WOS)			Number of Citations (Google Scholar)		
	As of Feb. 2016	As of Feb. 2017	Yearly Increase	As of Feb. 2016	As of Feb. 2017	Yearly Increase	As of Feb. 2016	As of Feb. 2017	Yearly Increase
Thompson-Reuters Web of Science (WOS)	157	187	+30	1,264	1,700	+436	2,958	3,824	+866
Articles from IGES Output Database but not included in WOS	68	97	+29	NA	NA		650	778	+128
Sub Total	225	284	+59	1,264	1,700	+436	3,608	4,602	+994
IRES	141	141	0	None were counted	None were counted	0	1,058	1,228	+170
TOTAL	366	425	+59	1,264	1,700	+436	4,666	5,830	+1,164

Notes:

- Citations as of Feb. 2016: Information based on WOS and the IGES Output Database was compiled in Jan. 2016. Google citations from IRES were compiled on 5 Feb. 2016.
 - Citations as of Feb. 2017: Information was compiled on 1-3 Feb. 2017.
- * International Review for Environmental Strategies (IRES) (2000-2007, all articles)

Notes on methodology

- This count includes only peer reviewed journal articles. Books, White Paper Chapters, reports, book chapters, policy briefs, etc. are not included.
- Articles by IGES Fellows, etc. are included in WOS and the IGES Output Database
- All research related articles in IRES are counted (but not book reviews, etc.).
- IRES articles are not included in the counts of WOS and the IGES Output Database

Download of IGES Publications

With the launch of an improved publications database in October 2016, publication download statistics measuring methodologies have changed. This change provides the institute with a ready ability to analyse the downloads IGES gets, and does a better job at eliminating automated traffic from the results. The monthly download chart (Figure 3) indicates the improved ability to remove automated traffic resulting in a lower baseline for download counting. It can be seen that download count averages were higher for FY2016 before the launch, and are lower since. February and March 2016 had abnormally high downloads, so it is difficult to predict the difference, but the improved system is beginning to improve downloads enough to negate the effect of the lowered baseline. The extra three months in FY2016 meant that overall download counts were higher for the fiscal year, but April and May also surpassed the previous calendar year's download counts.

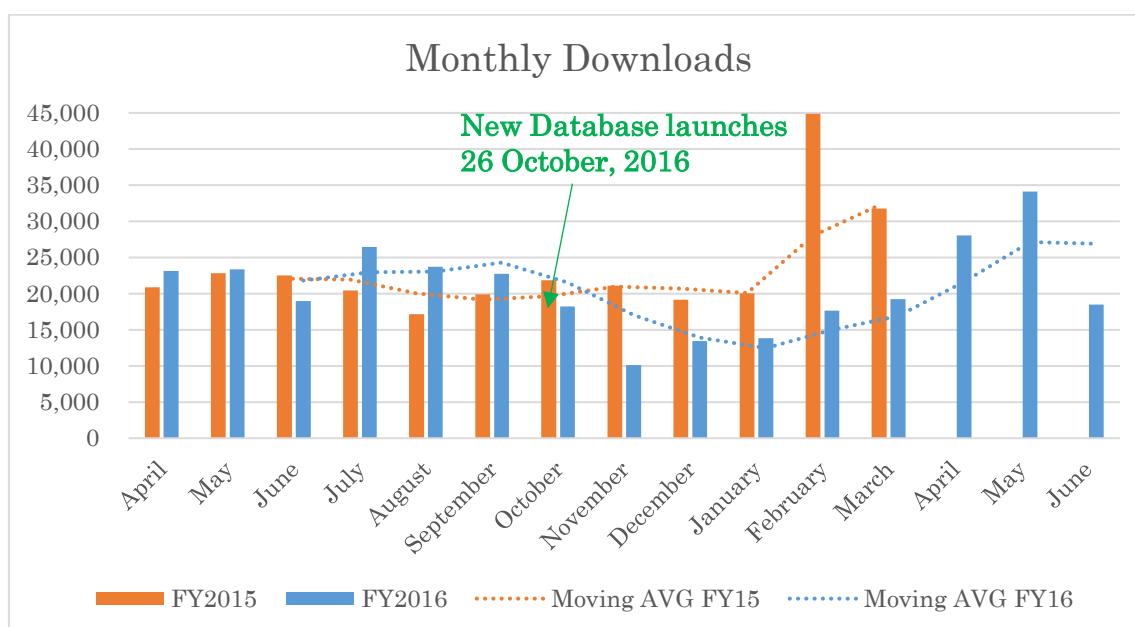


Figure 3: Downloads of IGES Publications (Monthly, FY2015-FY2016)

Note: FY2016 figures cover 15 months (April 2016 – June 2017.)

There were more total publication downloads in FY2016 (15 months) than in FY2015 (12 months). The methodology change removes more automated traffic sources which translated into a slight decrease when comparing just the first 12 months. The higher download counts in the last 3 months of FY2016 seem to indicate that improvements to the site, and other factors are already overcoming the new methodology's lower baseline. (Figure 4).

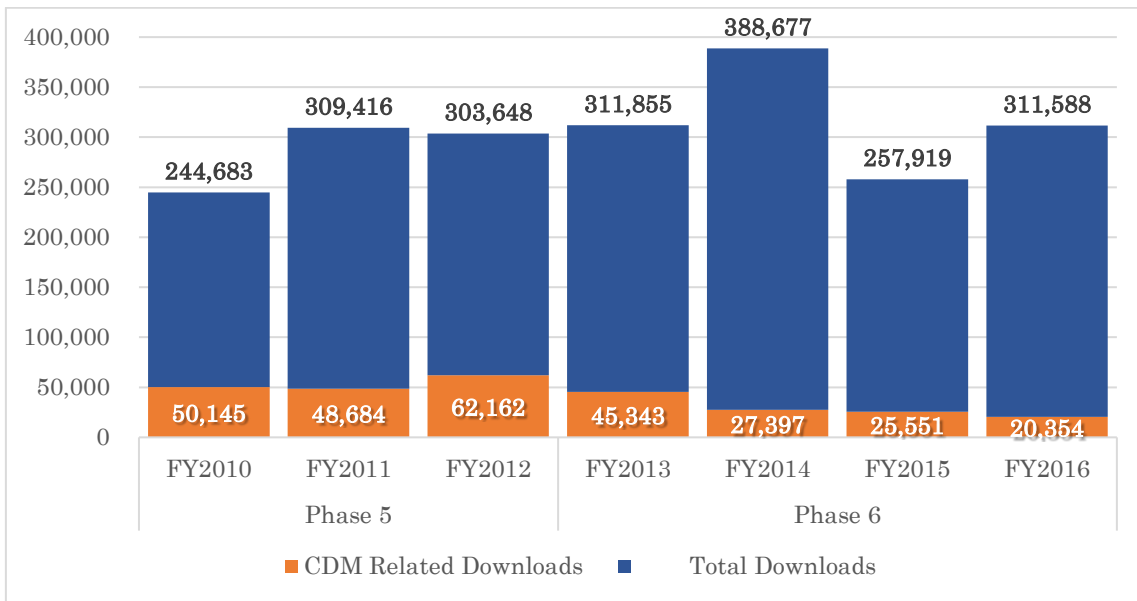


Figure 4: Downloads of IGES Publications (FY2010-FY2016)

Note: FY2016 figures cover 15 months (April 2016 – June 2017.)

Books, Reports, Chapters and Discussion/Working Papers make up about half of the publications downloaded from the publications database in both FY2015 and FY2016, but their share slightly decreased from being just over 50% of downloads to just under. In contrast, the share of downloads of Briefs, PR Materials, and Annual/Business reports slightly increased. (Figure 5 and 6).

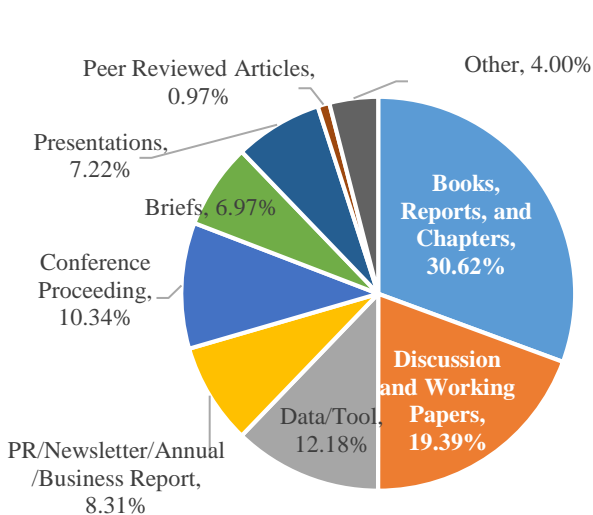


Figure 5: FY2015 Share of Downloads by Publication Type

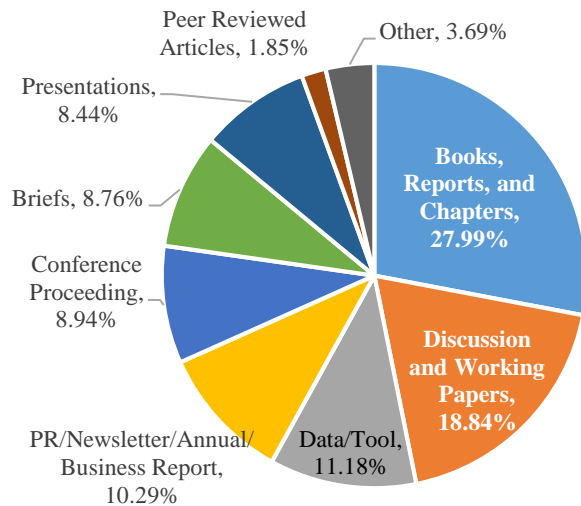


Figure 6: FY2016 Share of Downloads by Publication Type

The new publications database allows much more insight to be gathered into the download of IGES publications. As an example, the figures below show the top ten countries downloading IGES publications and sources for these downloads, respectively during the period after launching the new database (Figure 7 and 8).

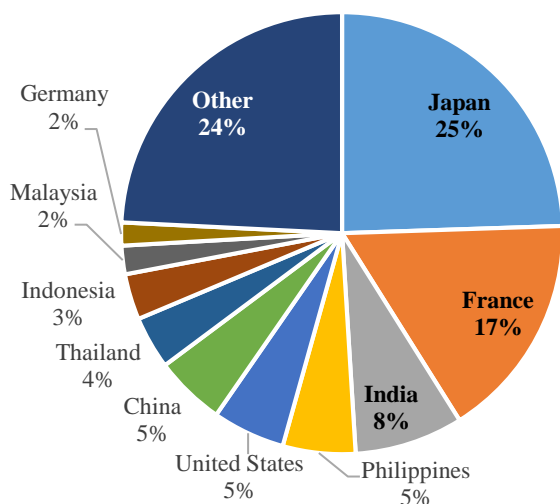


Figure 7: Downloads by Country
(Oct 2016 – Jun 2017)

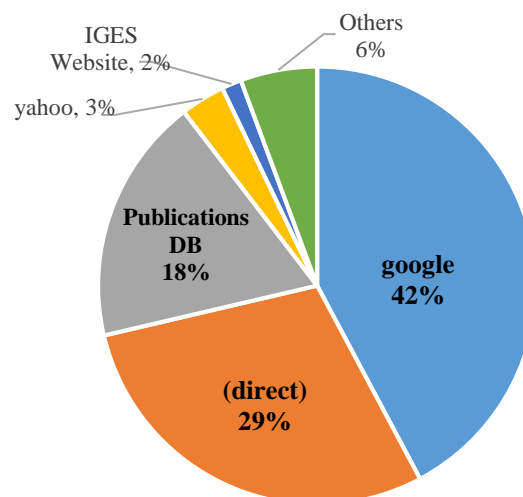


Figure 8: Download Sources
(Oct 2016 – Jun 2017)

Media Coverage

Media coverage (newspapers, magazines, TV and radio broadcasts, web-media, etc.) in FY2016 increased due to the media outreach activities especially on the discussion on COP22 and SDGs, as well as Japan-China cooperation project for air pollution control (Tables 3 and 4). By taking timely and proactive actions such as holding media briefings and distributing press releases for COP22 in collaboration with CE, Japan Climate Leaders' Partnership (Japan-CLP), Finance and City Task Forces, as well as for SDGs business actions in Japan in collaboration with IPSS, IGES succeeded in attracting much more media attention resulting in high exposure, especially in Japanese major newspapers such as the Nikkei, Yomiuri and Mainichi. Media briefings held by IGES on 4 and 6 October 2016 were attended by journalists from the major media in Japan, and a special seminar in Tokyo in December 2016 featuring the latest reports from COP22 in Marrakesh early in the same month in cooperation with CE, Japan-CLP and ICLEI-Local Governments for Sustainability (ICLEI) received a record audience of 500 participants. Timely dissemination of IGES's briefing note on the 2016 US Presidential election and its implications for climate change also received several inquiries for further information and researchers' comments on this report and ongoing US

President’s actions against climate change were featured in several media articles. In April 2017, IGES, for the first time, organised a media briefing on business actions on SDGs in Japan. About 30 journalists participated and resulted in more than 20 instances of media coverage. Moreover, the Beijing office conducted seminars and activities on Japan-China cooperation projects for air pollution control in Beijing that were featured on several major Japanese newspapers and introduced by many online newspapers in China. IGES website viewership has been also steadily increasing (Figure 9).

Table 3: Total Amount of Media Coverage in FY2012 - FY2016

Language	FY2012	FY2013	FY2014	FY2015	FY2016*
Japanese	90	104	117	199	236
Other languages	12	22	34	97	37
Total	102	126	151	296	273

Note: FY2016 figures are as of July 2017.

Table 4: Types of Media Coverage in FY2016

Language	Type	Number
Japanese	Newspaper	138
	Magazine	22
	Online	75
	TV	1
English	Newspaper	25
	Online	1
Other languages	Newspaper	11
	Online	0

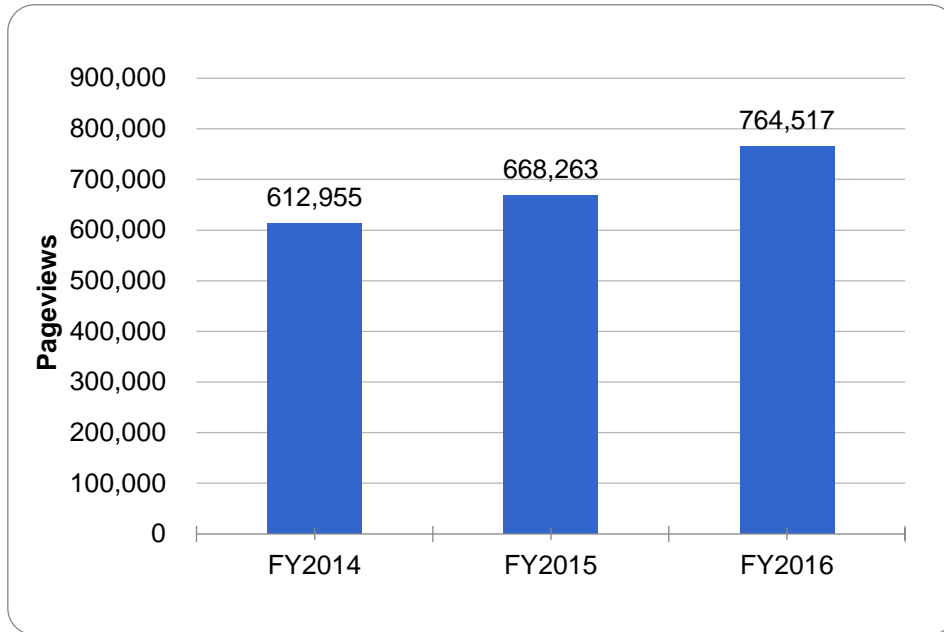


Figure 9: FY2016 IGES Website Total Pageviews

Note: IGES website include both IGES webpage and IGES publication page
 FY2016 figure contains 15 months (April 2016 – June 2017)

Networking

IGES builds partnerships with key organisations for impact generation and organises the International Forum for Sustainable Asia and the Pacific (ISAP) to stimulate policy discussions with key stakeholders, both domestic and international. In FY2016 IGES finalised agreements with the United Nations Economic and Social Commission for Asia and the Pacific, the International Institute for Sustainable Development (IISD), Rockefeller Foundation, and Tokyo City University; joined the United Nations Environment Programme Finance Initiative (UNEP FI) as Supporting Institution; and assisted organising ISAP2016, and maintained communication with existing and emerging partner organisations (see details in the Outreach section).

Currently IGES hosts four UN collaborating centres, has partnerships with 11 international networks/initiatives that IGES hosts and/or serves as secretariat for, has ongoing collaborative agreements or membership with nearly 40 organisations/initiatives (See Endnote).

2.3. Major Impacts and Achievements by Area

Major impacts made or observed through strategic research by each Area in FY2016 are summarised below:

Climate and Energy Area (CE)

- **GHG Mitigation efforts were accelerated through the JCM in the partner countries** (aforementioned)
- **Implementation of Nationally Determined Contributions (NDCs) was facilitated by UNFCCC/IGES Regional Collaboration Centre (RCC) in Asia and the Pacific with a focus on markets and mechanisms**

RCC organised six regional workshops on integrating market mechanisms into NDCs and kicked off regional dialogues on interpreting and operationalising the instruments stipulated under Article 6 of the Paris Agreement. RCC provided direct technical assistance to Mongolia for the development of a Standardised Baseline (SB) of its grid emission factor and supported Asian Development Bank (ADB) in developing a SB for the Philippines.

- **Discussion over the negative impacts of coal-fired power plants on climate policy was deepened**

Based upon an IGES discussion paper which argues for further action toward decarbonisation in Japan's power sector, IGES researchers' comments were featured by major Japanese newspapers (Nikkei Business Online, Yomiuri and Kyodo), thereby contributing to domestic discussions over construction of coal fired power plants. Another paper on coal-fired power plants was cited by the report of Environment and Energy Resources Committee of the Japan Association of Corporate Executives, which highlighted the growing momentum of low-carbon electricity in the world.

- **Progress was made on international discussion over the ratchet-up process under the Paris Agreement**

Based upon consultation with the Energy Research Institute (ERI), China, The Energy and Resources Institute (TERI), India, and the Institute for Sustainable Development and International Relations (IDDRI), France, IGES developed a discussion paper on the ratchet-up process. In particular, a linkage between 5-year cycle of nationally determined contributions (NDCs) and long-term low GHG emission development strategies; the transparency

framework; and the Global Stocktake were discussed. Policy recommendations were discussed at a COP22 side-event, and contributions were made to international discussion over related issues. In addition, IGES researchers contributed to the formulation of the Japanese delegation's position toward international negotiation on market mechanisms, the 2018 Facilitative Dialogue as well as the Global Stocktake.

Sustainable Consumption and Production Area (SCP)

- **Asia and Pacific Roadmap for SCP in 2017-2018 was launched**

Asia and Pacific Roadmap for SCP (APRSCP) in 2017-2018 was launched in May 2016 by APRSCP in consultation with countries in the region. The consultation process and development of the draft roadmap was led by IGES, in collaboration with APRSCP and UNEP/Regional Office for Asia and the Pacific (ROAP). IGES continues to engage in facilitating its implementation.

- **First-ever-Global Survey was conducted to measure progress of global SCP Policies implementation**

Analysing responses to a UNEP global survey of national government policies and initiatives towards SCP, including methodological development and data analysis, and content coordination for development of other regional chapters.

- **OECD published its Updated Guidance on Extended Producer Responsibility** (aforementioned)

- **Resource Efficiency Agenda was mainstreamed in the international process such as G7** (aforementioned)

- **With assistance from CCET, 2 National Waste Management Strategies in Myanmar and Cambodia, and 1 City-level Strategy for Myanmar were completed.**

In cooperation with UNEP's International Environmental Technology Centre (UNEP-IETC), IGES Centre Collaborating with UNEP on Environmental Technology (CCET) provided technical support to the development of national strategies in Myanmar and Cambodia, respectively, currently under finalisation and planned to be submitted to national/regional authorities for official endorsement and institutionalisation. Correspondingly, CCET assisted Mandalay City of Myanmar with the preparation of a city-level waste management strategy, also planned for official endorsement by Regional Authorities; with CCET support, a city waste management strategy is currently being drafted in Phnom Penh, Cambodia in collaboration

with Cambodia's Climate Change Alliance, while a strategy development process has also started in the Maldives at regional and island level.

Natural Resources and Ecosystem Services Area (NRE)

- **REDD+ Guidelines for the JCM were finalised**

In FY2016, NRE finalised three guidelines for Reduction of Emission from Deforestation and Forest Degradation, and Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks (REDD+) under the JCM – methodology, safeguards and project design document guidelines. The Forestry Agency and the MOEJ intend to use these guidelines to discuss with partner countries how REDD+ under the JCM can proceed in practice. Through advisory and other support provided by NRE, the Japanese government has made progress on negotiations with the governments of Lao PDR and Cambodia on REDD+ under the JCM.

- **Strengthened planning for land use management with a view to climate change adaptation and disaster risk reduction**

Four local governments in the Silang-Santa Rosa sub-watershed in Lake Laguna Basin, the Philippines used the results of an IGES pilot project that projects future flood risks under alternative land use scenarios and sets out countermeasures to revise their comprehensive land use plans (CLUPs). Project data was also incorporated into the Santa Rosa local climate change action plan.

- **Indigenous and local knowledge (ILK) enriched the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) Asia-Pacific Regional Assessment**

In addition to providing written inputs for this assessment, IGES provided a case study on ILK held by Karen communities in northern Thailand, and facilitated as well as contributed to the outputs of workshops with ILK holders and experts aimed at incorporating ILK in the regional assessment.

- **The Water and Environment Partnership in Asia (WEPA) database contributed to good governance in water environment management (aforementioned)**

Green Economy Area (GE)

- **Highlighted the impacts of Indonesia’s NDCs on the country’s labour market by applying IGES’s quantitative analytical model** (aforementioned)
- **IGES assisted in the development of a set of outcome indicators for the National Green Development Policy in Mongolia for measuring the progress in the implementation of the NGDP and its action plans**

In 2014, Mongolia adopted its National Green Development Policy (NGDP) with a goal to advance Mongolia’s national development in an environmentally sustainable manner through the creation of growth based on the concept of green development and public participation and inclusiveness. The NGDP outlines the country’s mid-term strategic policy up to 2030 including six strategic objectives, 52 implementation measures and 266 implementation activities. Commissioned by the Global Green Growth Institute (GGGI), IGES helped develop a set of outcome indicators for the NGDP. IGES provided a set of 45 outcome indicators which was then consulted in an intensive way with the National Statistical Office (NSO) and the Ministry of Environment, Green Development and Tourism (MEGDT), two key governmental organisations responsible for the NGDP indicators. Based on the consultation results and data availability, a final set of 43 NGDP outcome indicators was proposed to the Mongolia government through GGGI. At the time of finishing this project, the Mongolia government was considering the finalisation of the indicators and their implementation.

- **Supported businesses to deliver their voice through policy recommendations as well as through active participation to the climate policymaking process. Important contribution was made to Japan’s Preparatory Plan for the National Long-term Low-Carbon Development Strategy** (aforementioned)
- **“Paris Agreement” discussion was facilitated by two research networks (LCS-RNet and LoCARNet)**

Considering the growing importance of scientific support to climate policy processes after the Paris Agreement, in FY2016, the International Research Network for Low Carbon Societies (LCS-RNet) Secretariat, steering group and government focal points members initiated in-depth discussions on the future of LCS-RNet, taking advantage of various opportunities (at the LCS-RNet 1st Government Focal Point Meeting in April 2016; at the LCS-RNet 8th Annual Meeting in September 2016; at COP22 in November 2016; individual meetings with each steering group member in March 2017, etc.). Also, having reviewed past efforts and activities, it was decided to strengthen the framework as a group of action-oriented researchers from

FY2017.

Based on the Paris Agreement, each country in Asia has begun to focus on low-carbon development in line with their country-specific Nationally Determined Contributions (NDCs). In this regard, support was given to Asian countries to develop research communities with real ownership in each country, which will be key to setting the long-term foundation for policy formation.

Business and Environment (Kansai Research Centre (KRC))

- **More companies adopted Japanese low-carbon technologies and/or best operating practices at India, Thailand and Viet Nam** (aforementioned)
- **IGES initiated a Japan-India technology matchmaking platform (JITMAP)**

A Japan-India technology matchmaking platform named JITMAP was initiated by IGES and TERI to promote mutually beneficial engagement between Japanese and Indian stakeholders in clean energy.

- **Awareness of experts and Government Officials regarding Japanese low-carbon technologies and/or how to access to available global funding was raised**

The capacity of around 30 experts from India, 20 Government Officials from Asia, and 12 Government Official from Small Island Developing States (SIDS) were enhanced through training programmes which were conducted by IGES in collaboration with leading international organisations, namely the Asian Institute of Technology (AIT), the International Renewable Energy Agency (IRENA) and TERI.

- **Hyogo Prefecture and Gujarat collaboration promoted low-carbon technologies between India and Japan**

Through a relatively small strategic activity project, IGES and TERI have initiated a channel to accelerate the cooperation between the local government of Hyogo Prefecture (Japan) and Gujarat state (India) and mobilised the involvement of the private sector from both sides to apply Japanese technologies and/or best operating practices. The effort has been recognised by various stakeholders in India and is being considered as part of the JITMAP.

Integrated Policies for Sustainable Societies Area (IPSS)

- **Stakeholder meetings encouraged innovative actions of Japanese companies and cities on the SDGs**

National stakeholders' meetings on SDGs implementation were organised three times during the 2016 to raise awareness among multi-stakeholders in Japan and help formulate MOEJ's policy on SDGs implementation. The meeting helped establish IGES and MOEJ as two of the lead organisations pushing the SDG agenda forward in Japan.

- **Readiness studies helped several countries in Asia to take initiative on the SDGs**

IGES published five (5) papers on 'National SDG Readiness' for Bhutan, India, the Philippines and South Korea, as well as a synthesis with recommendations. In addition, a session on taking action on the SDGs was organised at ISAP 2016 highlighting possible contributions from think tanks, private sector and civil society. A survey was also carried out to support commissioned work from the MOEJ outlining existing partnerships and options for cities to engage on the 2030 agenda, opening the door for more work on vertical integration of the SDGs.

- **JICA invites IGES to deliver SDGs capacity building for more than 50 JICA national and regional offices**

IGES designed and carried out a training workshop for more than 50 national Japan International Cooperation Agency (JICA) offices and produced an evaluation report as pilot for possible subsequent trainings in the future. Following the training, a concise paper outlining ways in which governments can begin to contextualise the SDGs into national action plans, was published along with an issue brief on 'Follow-up and Review' of the SDGs.

- **City-level actions contributed to Indonesia's climate plans through IGES analyses and pilot projects**

IGES worked with policymakers and researchers to develop a structured and data-driven method to mitigate air pollution and GHG emissions simultaneously in Bandung and Semarang, Indonesia. The co-benefits concept and this structured method to identify policies suitable for the local condition is now recognised by the environmental and transport ministries in Indonesia. It has the potential to be used in other cities in Asia. Furthermore, IGES has worked to advance activities between Kawasaki and Bandung on waste management, and has been working on developing a foundation for participatory planning and budgeting of low-carbon projects in Bogor.

- **China, India and several other countries joined APCAP—an initiative IGES is promoting with several partners**

IGES researchers are playing a key role in collaboration between the Asia-Pacific Clean Air Partnership (APCAP) science panel and the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) on a regional assessment of atmospheric pollution in Asia. IGES has also worked with Clean Air Asia to publish a Guidance Framework for Urban Air Quality Management in Asia that helped extend capacity building activities in ASEAN. The Guidance Framework was translated into Japanese useful for Japanese stakeholders who are contemplating strengthening cooperation on air pollution management with developing countries in Asia.

- **The ADB recognises IGES and partner’s gender-responsive climate project as best technical assistance project on gender for 2016.**

As part of an ADB project, IGES worked to help women gain more access to climate finance in Southeast Asia. Through the project, IGES helped the Gender and Children’s Working Group in Cambodia’s Ministry of Agriculture, Forestry and Fisheries prepare proposals for climate finance; supported Laos Women’s Union in mainstreaming gender into the Laos Climate Action Plan; and helped women acquire training to construct biodigesters in Viet Nam. IGES also organised and facilitated a closing regional workshop, inviting international, national and local actors and policymakers in gender and climate mitigation aimed to create a marketplace where stakeholders showcase their initiatives and identify opportunities for collaborate. The above outcomes are filmed in two e-learning videos and a *Huffington Post* article helped raise the visibility of the project.

Sustainable Cities (Kitakyushu Urban Centre (KUC))

- **National and local waste management related laws and guidelines have been developed in the Philippines with technical support of IGES (aforementioned)**
- **Waste management strategies and action plans were developed by Ministry of Environmental Conservation and Forestry of Myanmar and Mandalay city with support of IGES.**

With the support of IGES, both the Ministry of Natural Resources and Environmental Conservation (MONREC) of Myanmar and the Mandalay City Development Committee

(MCDC) have developed the national and city waste management strategies and action plans respectively to reduce adverse environmental impacts and achieve efficient use of resources.

- **Municipal solid waste management practices in Japan was summarised and submitted to an input to a World Bank publication.**

A report of Japan case study on municipal solid waste management is developed and the report is submitted as an input to a World Bank report. The contents of the report were presented and shared at a world bank technical deep dive on waste management, in which 50 persons from 15 countries participated, which led to capacity development of both national and local practitioners.

Regional Centre in Bangkok (BRC)

- **Imparting practical knowledge and skills to support climate change adaptation**

Since 2010, Asia Pacific Adaptation Network (APAN) has organised around 22 capacity building training workshops in the Asia-Pacific region. US Agency for International Development (USAID) Adapt Asia-Pacific, in which BRC led the project's knowledge management component, has also been implementing capacity building programmes around the same time. Based on those experiences, it has become clear that the direction for capacity building support is centred on imparting practical and useful skills to government officials, particularly the skills to prepare project proposals in order to attract more funds for adaptation projects. This shift towards implementation and action now resonates throughout the trainings that have been conducted by a programme called Climate Change Asia (CCA) implemented by AIT in collaboration with USAID Adapt Asia-Pacific and IGES BRC. A series of practical training courses on managing project preparation for climate change adaptation have been conducted, including a 3-day training course in Colombo, Sri Lanka at the margins of the 5th APAN Forum which saw a record of over 900 climate change adaptation practitioners attending.

- **AECEN strengthens EIA implementation in Asia**

The Asian Environmental Compliance and Enforcement Network (AECEN) maintains a web-based Environmental Impact Assessment (EIA) Compendium, currently the only existing clearing house updating comprehensive EIA information in Asia. Through support from the USAID-funded Mekong Partnership for the Environment (MPE), AECEN played an integral role in supporting the Lower Mekong countries through organising a series of Regional

Technical Working Group Meetings on EIA, capacity training and other supportive activities which eventually led to the development of the *First Edition of Regional Guidelines on Public Participation in EIA* with examples of a number of EIA best practices from the region. In line with this development, AECEN supported the organisations of *Annual EIA Director Meeting and Asia EIA Conference Day* in Nagoya in May 2016. Following the successful outcomes, AECEN subsequently held a *Preparatory Meeting on an Asian Environmental Impact Assessment Network (AEIAN)* in Bangkok in March 2017. The meeting was well-received with strong support from EIA Directors/Government officials from 11 AECEN member countries along with other EIA practitioners and development partners from ADB, USAID and World Bank towards the establishment of AEIAN within AECEN.

- **Sustainable Development Goals (SDGs) localised in eight ASEAN countries** (aforementioned)

Beijing Office (BJG)

- **Environmental cooperation between the Governments of Japan and China for improving air quality in China further progressed** (aforementioned)
- **Policy recommendations were made to wastewater treatment in rural areas in China**

With the expected completion of the third year of the JICA joint project on wastewater treatment technologies and management systems in rural areas in China with IDEA Consultants, Inc. and DATA Engineering Consultant Co. Ltd, BJG compiled and finalised draft policy recommendations, which will be submitted to the Ministry of Housing and Urban-Rural Development of China.

Tokyo Office

- Assisted increased number of IGES staff with meeting support and other stakeholders (average daily use at 17 IGES staff and 9 visitors as of March 2017).
- Assisted IGES Senior Fellows/Fellows in implementing projects from the Office, and provided administrative support and organised study meetings for Northeast Asian city waste recycling and regional cooperation project funded by the MOEJ.
- In addition to hosting IPBES Technical Support Unit for the Asia-Pacific Regional Assessment (IPBES-TSU-AP), implemented IPBES Japan Biodiversity Fund (JBF) Capacity Building project in collaboration with IPBES Secretariat and relevant TSUs, Task Forces and experts. JBF-IPBES Capacity Building Project was formally established on 13 April, 2016. In FY 2016,

IGES organised three ILK sub-regional dialogue meetings in Thailand, Nepal and New Zealand, and the second IPBES workshop for scenario and modelling in Hayama (Japan). The final reports of these ILK sub-regional dialogue meetings were compiled and published on the IGES website.

IPBES-TSU-AP (hosted at Tokyo Office)

- IPBES Regional assessment for Asia and the Pacific Region: Finalised the first order draft (FOD) and delivered to IPBES Secretariat for the first external review process. Based on the results from the external review, the second authors meeting and other relevant instructions from MEP/Bureau, IPBES-TSU-AP has coordinated the drafting process toward the preparation of the Second Order Draft (SOD), which is supposed to be completed by April 2017.
- Organisation of the IPBES Second Author Meeting (SAM): Managed necessary travel arrangement in close collaboration with IPBES Secretariat and supported co-chair of the IPBES Asia-Pacific Regional Assessment (APRA) to coordinate and facilitate the discussion during SAM. Drafting of key messages as well as chapter draft was greatly advanced.
- Support for the organisation of the IPBES Scoping Workshop for the Thematic Assessment on the Sustainable Use of Biodiversity: Sent a staff to the IPBES Secretariat in Bonn, Germany for a period of three months from June to August 2016 to provide support in the organisation of a series of meetings including the Joint Second Author Meeting (SAM) for the regional and land degradation and restoration assessments, and the scoping workshop for the thematic assessment on the sustainable use of biodiversity. The TSU staff successfully supported the MEP members leading the scoping workshop, by recording the discussions and reflecting them into the draft scoping report.
- Assisted Tokyo Office in the implementation of the Japan Biodiversity Fund (JBF) Capacity building project.

2.4. Major Achievements in Strategic Operations

Aiming to achieve institution-wide targets, the PMO took the lead in promoting IGES strategic research and impact formation. The PMO carried out IGES-wide strategic planning and coordination, and proceeded with comprehensive operations such as coordination of flagship products, all-IGES activities, knowledge management, capacity development and education, quality management of research outputs, networking, outreach and fund raising, in order to make timely and effective inputs into important policy processes. Major achievements are summarised below:

Strategic Planning and Coordination of Overall Research Activities

- Further streamlined Milestone Management System and strengthened resources management (financial and human resources) in fund raising and project formulation with the Secretariat;
- Conducted jointly with the Secretariat an institute-wide management evaluation administered by the Japan Productivity Center (JPC) and identified possible necessary measures for improvement, which were reflected in designing and developing the ISRP7;
- Promoted and assisted strategic research and operations by managing IGES funds (Strategic Research Fund (SRF) and Strategic Operation Fund (SOF));
- Assisted Outreach and Networking teams in successfully organising ISAP2016;
- Assisted in launching the Finance Taskforce;
- Contributed in developing a conference paper on impact/outcome assessment with PMO Senior Coordinators;
- Assisted or led in implementing or preparing all-IGES projects such as the Toyama Environment Ministers' Meeting Parallel Session (May 2016), Asia EIA Conference 2016 (May 2016), Roundtable Seminar on Climate Change and Fragility Implications on International Security (January 2017), and ADB Asia Leadership Program (in June 2017); and
- Coordinated developing and finalising the Integrative Strategic Research Programme for the 7th Phase (ISRP7) and made necessary preparation for the transition.

Coordination of Flagship Products

- Organised an open symposium on carbon tax and green fiscal reform for disseminating intermediate research results of carbon tax project and for discussing how an effective carbon tax could be introduced in Japan;
- Organised a special session on green tax reform at 2016 Annual Conference of the Society of Environmental Economics and Policy Studies (SEEPS) to invite feedbacks from academics to the carbon tax project;

- Candidate topics of the two flagship reports, one is about governance and effective policy implementation and the other is about sustainable future scenario study, were identified based on a series of consultation with Area Leaders and senior staff, and concept notes of two flagship reports were developed.
- Discussed the contents of History and Achievement of IGES which will be published for the 20-year anniversary, based on series of consultation meetings with senior staff who have been involved in the IGES establishment and development.

Major All-IGES Activities

City Task Force

- **Discussion on sustainable cities was brought to the G7 Toyama Environment Ministers' Meeting Parallel session "Role of Cities" and other major conferences**

The City Taskforce (CTF) offered support in co-organising the G7 Toyama Environment Ministers' Meeting Parallel session "The Role of Cities" with MOEJ, Toyama City. SDGs FutureCity idea was first introduced at the G7 Toyama Environment Ministers' Meeting (EMM) "The Role of Cities" session (May 2016) by Prof. Murakami (Chairman of FutureCity Initiative under Cabinet Office,) and announced at ISAP2016 (July 2016). IGES (CTF/IPSS) gave its full support to develop the Institute for Building Environment and Energy Conservation (IBEC) SDGs city guideline and presented its progress at the Third Preparatory Committee Meeting (PreCOM3) (July 2016), the United Nations Conference on Housing and Sustainable Urban Development (HABITAT) III (Oct 2016), Asia Pacific Forum on Sustainable Development (APFSD) (Mar 2017). CTF supported the facilitation of the city SDGs workshop under FutureCity promotion committee in Yokohama (Jan. 2017) (reported on City of Yokohama homepage), acted as moderator of the city session at Nikkei Social Innovation symposium in Yokohama (covered by Nikkei Newspaper on 20 Feb. 2017), and reported on Japanese local governments' activities towards SDGs at the "Localizing SDGs symposium" in Kitakyushu organised by Ministry of Foreign Affairs of Japan (MOFA), MOEJ, Kitakyushu city.

Other achievements include:

- Developed "IGES Discussion Paper, ISAP Sub-plenary session 3: City Champions: Scaling-up transformative sustainability innovations" (July 2016) that compiled IGES's city activities. CTF and IPSS jointly coordinated to summarise IGES activities in Indonesia as "IGES PR

Materials: IGES as a Change Agent in Indonesia” (Feb. 2017) in collaboration with JICA Indonesia and IGES’s other groups at the JICA-IGES Indonesia JCM Seminar in Tokyo.

- Supported existing initiatives and the development of several new initiatives such as Kawasaki-Bandung JICA grassroots project on waste management with IPSS/KUC (March 2017-March 2020), MOEJ new city-to-city peer-to-peer capacity development programme mainly conducted by KUC (Jan. 2017 and on-going), the 8th High Level Seminar on Sustainable Cities with BRC/KUC/IPSS (Feb. 2017 and ongoing), Tokyu Railway SDGs study under comprehensive agreement with Tokyo City University with SCP, World Bank Tokyo Development Learning Center (TLDC) Technical Deep Dive Program in Yokohama (Nov. 2016) with KUC/CE. CTF also worked together with Asia-Pacific Integrated Model (AIM) member (NIES, Mizuho Information & Research Institute (MHIR), E-konzal) to support Da Nang and Hai Phong to launch GHG mitigation reduction target at COP22, and knowledge transfer on building GHG/energy monitoring and reporting scheme from Tokyo Metropolitan Government to Iskandar Malaysia/Putrajaya/Ho Chi Minh.
- Consulted with MOEJ for support on coordinating climate change policy development in building sectors with Japanese local governments, researchers and ICLEI, Clean Asia Initiative (CAI) operations, SDGs planning towards developing the fifth Environmental Basic Plan, etc. CTF also works together with several city stakeholders such as ICLEI Japan, ICLEI global, C40 Cities Climate Leadership Group, CityNet, UN Economic and Social Commission for Asia and Pacific (UN ESCAP), Global Environment Facility (GEF), ADB, World Bank, and World Resources Institute (WRI).

Finance Taskforce

- Issued two IGES Commentaries. One was on G20 green finance in September, 2016. The other was on sustainable finance using disclosed information on climate risks and opportunities, responding to the recommendation by the Taskforce on Climate-related Financial Disclosure (TCFD), in December 2016.
- Issued analytical papers on green bond published in IGES Climate Edge in December 2016, and a Briefing Note following issuance of the green bond guidelines by MOEJ in March 2017.
- IGES was approved as Supporting Institution of UNEP FI in February 2017, the 51st organisation to do so, and the first from Japan, through efforts in collaboration with UNEP FI by organising a series of joint seminars on sustainable finance (e.g. positive impact finance) with Japanese financial institutions of UNEP FI members. We are currently planning to assist organising the UNEP FI 25th anniversary event to be held in Tokyo in December 2017.
- Lead organising Plenary session 1 on business and climate change at ISAP 2017. Invited high-level speakers including Dr. Ma Jun, chief economist of the People’s Bank of China who are

leading green finance internationally, and Ms. Yeo Lian Sim, special advisor at Singapore Exchange, who is vice chair of TCFD.

Knowledge Management

- Launched a new IGES publications database in October 2016 to improve user friendliness, accessibility, retrievability, data interchange with other search engines, and measurability of IGES outputs.

With the launch of the new database, a Quick-Guide for getting started and an in-depth manual were prepared, and a training session was organised for IGES staff.

- Made significant progress in the development of several other systems that are not yet ready to launch, including 1) a system for mission requests, security, and reporting; 2) a system to improve the distribution of information about opportunities to apply for funding; as well as other functionality such as 3) a searchable staff directory, and 4) a room reservation/meeting scheduling system.
- Provided support to web-components related to externally funded projects in several areas. For example, a web page was established for the ADB Gender and Climate project workshop. Support to the JCM Matchmaking website and database were also provided to convert them from Excel format into a web-based database. Supported NRE and BRC in preparing a proposal for EU funding to be a regional data hub.

Capacity Development and Education

Capacity Development

- Assisted NRE in developing Adaptation Initiative capacity building/training programmes and helped organise and facilitate workshop.
- Collaborated with United Nations University-Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES) and held regional workshop on Regional NEXUS Observatory in Asia.
- Initiated collaborative efforts with the Asian Development Bank and MOEJ to support organising for the ADB Asia Leadership Program 2017.
- Supported development of SDG training programmes.
- Developing new e-learning materials and products:
 - One external project funded by ADB on Gender Mainstreaming in Climate Change Policy;
 - A second internally support project on the Satoyama Initiative's Indicators of Resilience.

- Networking with JICA, Thailand Greenhouse Gas Management Organization (TGO)- Climate Change International Technology and Training Center (CITC) and Korea Environment Institute for future training and learning courses.
- Organised In-house seminar – External Expert: Dr. Guido Gualandi, Gonzaga University & the Ancient Grains Association, “Sustainable Landscape Management in Tuscany: Revitalizing ancient species and practices”, May 2016.
- Initiated *IGES Country Seminar Series* with Country Seminar, No. 1 “Lao PDR on the rise in the Lower Mekong”, May 2016.
- Led designing and implementation of the ADB Asia Leadership Program held on 27-30 June 2017 in Tokyo which invited high-level policymakers from Asian countries.

Education

- Engaged in Education for Sustainable Lifestyles programmes under the 10-year Framework of Programmes (10YFP) on SCP programme on Sustainable Lifestyles and Education.
- Implemented project under the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Global Action Programme (GAP) partner network to support Advancing Education for Sustainable Development (ESD) Policies.
- Conducted research project under the Global Environmental Education Partnership.
- Conducted case studies on city-level and community-based learning approaches for sustainability.
- Served as Co-Chair for UNESCO GAP partner network 1; as International Advisory Board member for the PERL-University Twinning and Networking (UNITWIN), and as Advisory Board member for the Global Environmental Education Partnership.

Quality Management of Research Outputs

- Continued review of IGES publications to provide advice in order to improve quality and enhance impact;
- Advice for and review of major funding proposals in order to strengthen their quality and chances of acceptance. This especially focused on Japanese-based research funds and contributed to an increased acceptance rate;
- Presented a paper on “Process Indicators to Measure Intermediate Progress of Social Impacts of an Individual Organization’s Transition-Related Research” at the International Sustainability Transitions IST 2016 conference held in Wuppertal, Germany.
- Conducted an internal training session covering topics such as introduction to quality management issues for new researchers, explanation of research and policy processes, role and

impact strategies of policy research, research planning for impact generation, the science-policy interface, and specific suggestions for fundraising proposals, and policy briefs; and

- Coordinated the IGES response to think tank surveys, represented IGES and made a presentation at the 4th Asia Think Tank Summit.

Key statistics are presented in the previous section.

Networking

- Facilitated IGES activities in India and Indonesia by maintaining the South Asia Desk and providing service arrangement with a consultancy in Indonesia, respectively;
- Finalised strategic partnership agreements with UN ESCAP, and UN Environment Programme Finance Initiative (UNEP FI), as well as key organisations such as Rockefeller Foundation and Tokyo City University;
- Started IGES's strategic partnership with the Earth Negotiations Bulletin (ENB) operated by IISD;
- Assisted in organising ISAP2016 and prepared for ISAP2017 in particular by closely communicating with key and emerging partner organisations and maintained relationships with them (see details in the Outreach section).

Outreach

- Redesigned the monthly E-newsletter which is circulated to 7,650 subscribers (June 2017, 1250 increased from FY2015), and disseminated research results, publications, commentaries and policy recommendations in a timely manner to coordinate with international discussions and policymaking processes;
- Planned and implemented ISAP2016 in Yokohama in July with all IGES staff. This forum had a record 1,100 participants (over two days) and provided a venue for wide-ranging discussions on the themes of SDGs and Climate Change with high-level international guest speakers. Also, planned and prepared for ISAP2017, held on 25-26 July, 2017;
- Planned and implemented a seminar in Tokyo in December 2016 featuring the latest reports from COP22 in Paris early in the same month in cooperation with CE, Japan-CLP and ICLEI, with a record audience of 500 participants. IGES researchers, businesses and local government representatives delivered up-to-the minute reports and shared observations based on their experiences at the Paris negotiations;
- Increase the visibility of IGES website in search engine results by Google, Yahoo, and others by the use of meta keywords and descriptions and created both html and xml sitemaps to

- Built strong relationships with targeted media; conducted press seminars and pitched IGES activities and reports focusing on Climate Change and COP22 in collaboration with CE, Japan-CLP, Finance and City Task Forces. At the same time, IGES disseminated a Briefing Note on the US Presidential election and its implication for climate Change. IGES also organised a media briefing on business actions on SDGs in Japan in collaboration with IPSS. These actions resulted in higher exposure to influential Japanese national newspapers, TV and magazines, obtaining more than 90 instances of media coverage; and
- Assisted BJJ in implementing outreach activities for Japan-China city-to-city cooperation, and designed and helped host many area-wide events in collaboration with CE, City TF, and IPSS etc.

Key statistics are presented in the previous section.

Fundraising

- Secured IGES's FY2017 core fund provided by the MOEJ;
- Coordinated with Areas, Satellite offices, and Secretariat in applying for additional funding opportunities; and
- Assisted proposal writing to funders with Quality Management team.

3. MANAGEMENT

3.1 Financial Status⁴

Overall

Overall revenue in FY2016 was JPY3,343 million and the expenditure was JPY3,269 million. This has resulted in a surplus of about JPY74 million. Part of the surplus was due to the unusual fiscal year which had an additional three months under the transition to the new fiscal year period. During this period, the amount of the first instalment of MOEJ's FY2017 contribution transferred in June 2017 was technically recognised as revenue for FY2016.

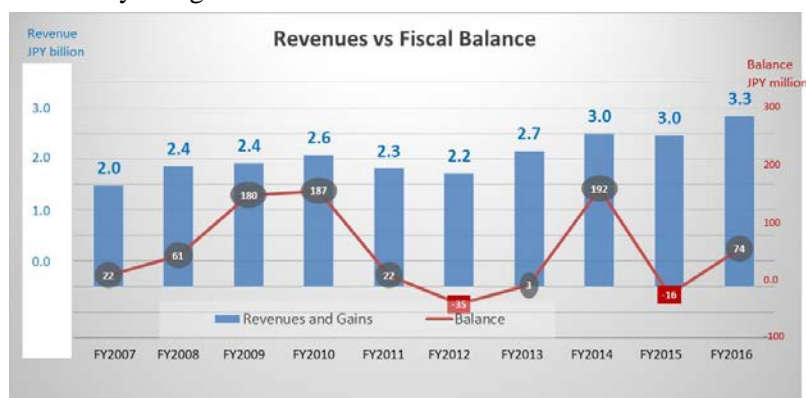


Figure 10: Revenue and Fiscal Balance (FY2007-FY2016)

The surplus of JPY74 million was reserved for the Deposit for Promoting Strategic Initiatives for future strategic activities, resulting in a balanced substantial financial performance.

Table 5: Substantial Balance and Unrestricted Net Assets

	JPY million				
	FY2012	FY2013	FY2014	FY2015	FY2016
経常収支 Fiscal Balance	▲ 35	3	192	▲ 16	74
戦略事業促進準備資金からの引き当て(※1) Amount drawn from Deposit for Promoting Strategic Initiatives	-	-	▲ 192	16	▲ 74
実質的な収支 Substantial Balance	▲ 35	3	0	0	0

※1 Figures under 0 show the amount to be reserved into the Deposit

(Reference)

一般正味財産期末残高 Unrestricted net assets at end of year	603	577	768	804	871 ^{※2}
(内数/included in the above) 戦略事業促進準備資金期末残高 Deposit for Promoting Strategic Initiatives	-	-	191	179	253

※2 After reflecting the amount reserved for the Deposit in FY2016 (+JPY74 million) and the amount of Asset Retirement Obligations (ARO) costs (-JPY 7 million) under the revised Public Interest Corporation Accounting Standards.

⁴ IGES Strategic Research Activities and Incorporated Accounts

Breakdown of Revenue and Expenditure

Major items of both revenue and expenditure are described in the table below. As for the revenue side, MOEJ contribution has increased having received an additional instalment within the extended fiscal year as mentioned above. As for the expenditure side, operating costs for externally funded projects were reduced from the previous year in spite of the longer period and this suggests an improvement to the project FVA⁵ ratio in the projects.

Table 6: Breakdown of FY2016 Financial Results

	JPY million	
	FY2015	FY2016 (15 months)
Revenue		
MOEJ Contribution	500	750
Deposits for Promoting Strategic Initiatives		
External Funds	2,087	2,125
Subsidies from Local Gov.	358	436
Others	23	32
Total Revenue	2,968	3,343
Expenditure		
Operating costs for externally funded projects	1,108	1,029
Operating costs for IGES own initiatives	76	83
Personnel Costs	1,189	1,482
Administrative Costs	611	675
Total Expenditure	2,984	3,269
Balance	-16	74

External funding

Looking at funding sources, MOEJ funds still occupy a large part of external funds with about 72% of projects. However, the dominant ratio has decreased by 18% points from the previous year, and conversely, funds from overseas have increased from 8% to 22%.

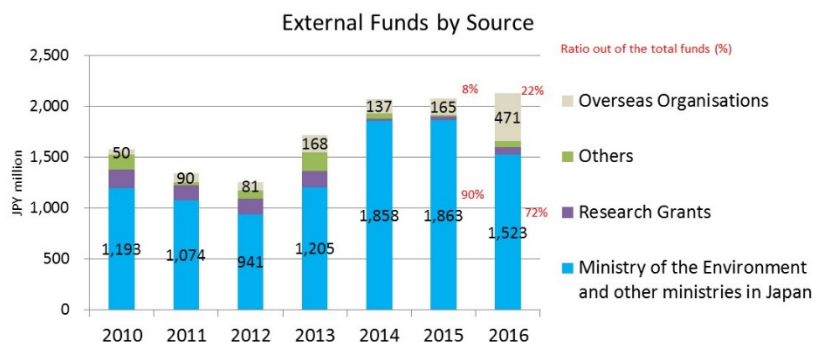


Figure 11: External funding by funding resources (2010-2016)

⁵ Project Financial value-added (FVA) to be calculated by revenue less operating expenditures for each project

Main funding organisations⁶ of overseas include ADB, ASEAN Secretariat, Clean Air Asia (CAA), PACT Inc, UN Environment Programme (UNEP), and US Agency for International Development (USAID).

3.2 Human Resource Status

Overall in FY2016

The number of IGES staff members reduced slightly by seven and a breakdown by category in FY2016 has shown same trend over recent years to ensure that researchers make up about 60% of the total.

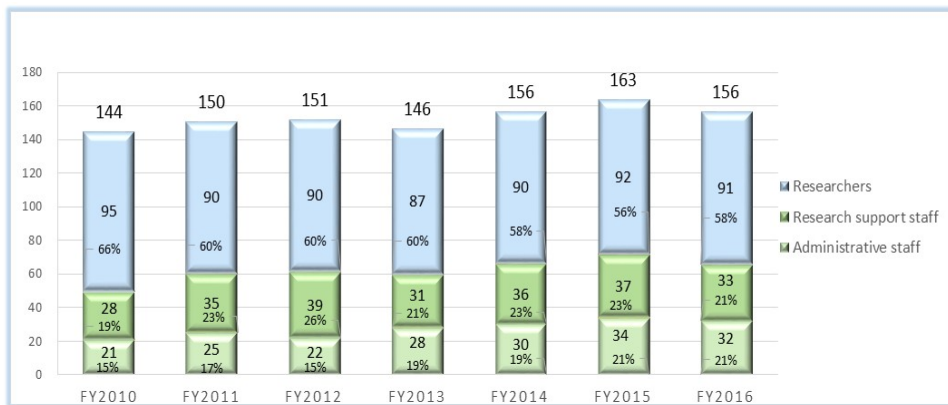


Figure 12: Number of Staff by categories (2010-2016)

Staff mobilisation between April 1, 2016 and June 30, 2017 is shown in the table below.

Table 7: Mobilisation of Staff in FY2016^{*1}

	Researcher	Administrative staff ^{*2}
Newly joined IGES	11	8
Left IGES	12	14

^{*1} Excludes the replacement of staff dispatched from other organisations.

^{*2} Includes research support staff and administrative staff.

⁶ Include the funds which are carried over to the next fiscal year's revenue.

Recruitment for the 7th Phase

The announcement of recruitment of the 7th Phase was launched in December 2016 for professional staff positions and in February/March 2017 for supporting staff positions, followed by screening process including document selection and interviews. Having received 266 applications from both internal and external applicants, 138 positions have been decided with 17 newly joined staff members and a few remaining positions are still open for recruitment.

Table 8: Result of Recruitment for 7th Phase (as of July 1 2017)

	No. of Positions	Newly joined Staff	IGES existing staff	Total No. of Applicants
Professional Staff Members	114	17	97	250
Operating Staff Members	24	0	24	16
Total	138	17	121	266

Note: The figures exclude the temporary staff (5) and part-time staff (6).

3.3 Secretariat

The Secretariat supported IGES research activities from various perspectives. Three sections, namely Human Resources Management (HR), Accounting (ACC) and General Affairs (GA), dealt with various organisational issues, such as accounting, human resources management, office facility management, risk management and communications with supporting governments while responding to legal requirements as a public interest incorporated foundation as well as serving as secretariat for the two Boards.

Human Resources Management (HR)

Focus was given to establishment of the 7th Phase human resources management system introducing new features and improvements in line with the basic direction stated in the MLS. In addition to scheduled activities, HR responded positively to new and emerging legal requirements in Japan which contributed to improving working conditions in IGES.

- Developed guidelines for IGES full-time employees to clarify the procedure to respond to external requests (university lecture, presentation at conferences, writing a book chapter of other organisations, etc.) while engaging on IGES work assignments.

- Experimented with an assistant staff-pooling system as a method of internal cross-allocation of administrative work aiming to raise efficiency of that type of work, which contributed to designing the human resource structure in the 7th Phase.
- Responding to legal requirements, introduced an online self-checking system of the levels of physical and mental stress and conducted the first stress checking for the employees at the headquarters and all offices in Japan in November 2016. In addition, introduced a warning system for supervisors about too much overtime work of respective team members via Budget Control System (BCS).
- Designed a new human resources management system for 7th Phase which includes a new category of “professional staff” instead of old staff categories of “research staff” and “administrative staff”, a new salary system of performance based bonus and a tenure system.
- The recruitment of the staff positions in the 7th Phase was successfully conducted. (See section 3.1)

Accounting (ACC)

Accounting Section (ACC) made efforts on assuring the sound financial status of IGES as a whole including the Asia-Pacific Network for Global Change Research (APN), Japanese Center for International Studies in Ecology (JISE) and the Technical Support Unit (TSU) for the Intergovernmental Panel on Climate Change (IPCC) Task Force on National Greenhouse Gas Inventories (TFI) with around JPY3.9 billion of annual budget. ACC also proactively supported external fund projects (JPY2.1 billion) by providing comprehensive supports to the relevant units and strengthening related staff capacities within the Institute, as well as improving accounting system and procedures. In addition, necessary preparations were addressed to shift to the ISRP7.

- Introduced a new internal reporting system using a “Financial Summary” sheet to support fund-level financial management along with the updated guidelines for project implementation. The summary shows the financial performance of each project at a glance, comparing the planned figures and actual results together with reasons for major differences at the completion of the contract.
- Launched several new functions in BCS to support project management at the fund/division level; *Fund View* provides Task Managers with the status of planned and resulted work days of each member of the project and *Area View* shows Area Leaders information about each member of the Area such as the externally funded ratio of working days.

- Reduced workloads by improving procedures for preparation of financial reports (Seisan) resulting in a reduction in overtime hours by Accounting Staff from 32 hours/project/staff to 17 hours/project⁷/staff for the period from January to March in which Seisan operations are most concentrated in one year. The measures taken include introduction of “internal interim inspection”.
- Responding to the increase in overseas funds, supported Areas for preparing financial reports following international organisations requirements in collaboration with the Auditor for necessary cases.
- Reduced those costs that had increased along with the expansion in overseas activities including bank charges for overseas remittances and overseas flight reservation charges. The cost reduction is equivalent to about JPY 3 million/year.

General Affairs (GA)

General Affairs section (GA) focused on providing necessary facilities and stable services to support research activities while achieving cost reduction. In addition, considerable efforts were devoted to responding to emerging risks on staff security on their overseas missions caused by the unstable global situation.

- Reviewed and realigned the long-term repair plan to expand the scope of repair work and introduce flexibility to conduct necessary repairs in a timely and preventive manner in collaboration with Kanagawa Prefectural Government (funding source for the HQ Facility) and the Kanagawa Housing Supply Company (owner of the HQ Facility),
- Reviewed contracts with service providers on HQ facilities management considering efficiency and cost reduction while assuring better quality of services, and reduced outsourcing costs under new contracts with a reduction of JPY12.5 million per year from FY2016 (compared to a 12-month period).
- Achieved energy reduction of JPY2.6 million (the annual charges of electricity, city gas and water in the HQ building). This reduction was partly due to the change of electricity provider for HQ from TEPCO to Shonan Electric Power Supply, a local supplier based in Kanagawa which uses a high ratio of renewable sources.

⁷ Number of commissioned projects by MOEJ and other domestic organisations.

- In response to diversifying terrorist attacks and other risks on missions, implemented the diverse measures to improve staff safety. The measures include introduction of database to keep track of traveling staff detailing their location and itinerary, preparation of designated mobile phones to confirm safety in an emergency for missions, and organisation of a risk management seminar in collaboration with local Hayama police department.
- Linking up with local related organisations including Kanagawa Prefecture, the local municipality of Hayama town and local schools, provided opportunities to learn the latest information on global environment issues to local citizens and entities. Such opportunities include a lecture on SDGs (November 2016, Yokohama) and a reporting session on COP22 (February 2017, Yokohama).

Overall achievement made in FY2016 (self-evaluation) is presented in Table 9.

Table 9: Summary of Achievement (Self-evaluation)

	FY 2010- FY2012 (Fifth Phase)	FY2013- FY2014 (Sixth Phase)	FY2015	FY2016	Remarks
International recognition					Received a higher ranking.
Impact					Maintained the similar level. Needs closer observations to capture impacts.
Output					Overall achieved the similar level to previous years. The number of reviewed articles increased.
Financial overall balance & External funds					Maintained the similar level.
					Fund sources were diversified especially with those from overseas.
Governance					Various improvements were proposed for the next phase.

4. ACTIVITIES CONDUCTED BY OTHER IGES UNITS

4.1. Activities of the Technical Support Unit (TSU) for the Intergovernmental Panel on Climate Change (IPCC) – Task Force on National Greenhouse Gas Inventories (TFI)

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

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

The activities implemented in FY2016 are explained in (1) – (4) below.

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

The IPCC Inventory Software⁸ helps inventory compilers to implement calculation of emissions and removals of greenhouse gases according to the *2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines)*. In FY2016, the TSU improved and enhanced its functions, for example, by developing worksheets for Tier 2 methods for some categories. In addition, the TSU continued providing technical support to users.

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

The IPCC EFDB⁹ 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 FY2016, the TSU continued enhancing its usefulness by collecting data, organising relevant expert meetings and supporting the EFDB Editorial Board as well as implementing other activities to improve the database (i.e. improvement of the EFDB website and database system).

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

The IPCC TFI commenced technical assessment of IPCC inventory guidelines in 2015 with a view to assessing the maturity of scientific advances and the availability of new data since the *2006 IPCC Guidelines* to support the refinement or development of methodological guidance on national greenhouse gas inventories. In FY2016, the TSU continued managing the implementation of

⁸ <http://www.ipcc-nggip.iges.or.jp/software/index.html>

⁹ <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>

technical assessment by organising relevant expert meetings, and also continued assisting the TFB in considering the TFI's future work plan for production of a methodological report(s).

On the basis of the decision of the IPCC at its 43rd session in April 2016, TSU held a Scoping Meeting to prepare an outline of the Methodology Report to refine the *2006 IPCC Guidelines*. The conclusions of this Scoping Meeting were submitted to the IPCC for consideration at its 44th Session in October 2016 in Bangkok, Thailand.

At this session, IPCC decided to prepare a Methodology Report with the title "*2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*" (*2019 Refinement*). Following this decision, the TFB started selection of authors for the 2019 Refinement, and the TSU assisted TFB in this process. The TSU will assist authors of 2019 Refinement throughout this project which will continue until May 2019.

(4) Collaboration with Other Organisations

In FY2016, the TSU continued cooperation with other organisations on inventory-related matters. For example, the TSU contributed to inventory-related capacity building programmes implemented by UNFCCC, Japan International Cooperation Agency (JICA), National Institute for Environmental Studies (NIES), etc. 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.

4.2. Asia-Pacific Network for Global Change Research (APN)

APN is an inter-governmental network whose mission is to promote collaborative research activities under the themes of Climate Change, Biodiversity and Ecosystems, Changes in the Atmospheric, Terrestrial and Marine Domains and Risk Reduction and Resilience and others. Developing the scientific capacity of scientists in the field of global change research, especially in developing countries is also one of APN's important pillars. In so doing, APN supports the development of options for policy responses to global change that contributes to sustainable development and low-carbon society. APN conducted the following activities in FY2016:

(1) Regional Research Programme

APN supported international collaborative research projects, selected through the Annual Regional Call for Research Proposals (ARCP), and approved by the 21st Inter-Governmental Meeting (IGM).

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

APN supports capacity building activities for young, early-career scientists and practitioners, in particular in developing countries. Capacity building activities were also selected through a competitive call for proposals and approved by the 21st IGM.

(3) International Forum/Symposium/Workshop

i. Sub Regional Committee (SRC) Meeting

APN established committees with respect to each sub-region, i.e. Southeast Asia, South Asia and Temperate East Asia. In 2016, Southeast Asia SRC Meeting was held in Bangkok, Thailand, and South Asia SRC Meeting was held in Paro, Bhutan, to discuss common challenges and share research needs for sustainable society.

ii. Science-Policy Dialogue (SPD)

APN held a SPD as a back-to-back meeting of the aforementioned Southeast Asia SRC meeting in Bangkok, Thailand, to strengthen appropriate interactions among scientists and policymakers, and adequately provide scientific input to policymaking.

iii. Proposal Development Training Workshop (PDTW)

APN held a PDTW as a back-to-back meeting of the aforementioned South Asia SRC meeting in Paro, Bhutan, to develop the capacity of young scientists from developing countries to develop good proposals of global change research and capacity development activities and successfully compete for funding.

iv. Activities Jointly Organised and Conducted with Hyogo Prefectural Government

APN co-organised the following international events with Hyogo Prefectural Government, which 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 revitalization of SATOYAMA. This seminar took place as a follow up event of the International Workshop on Hokusetsu SATOYAMA held in 2015.
- **The 11th International Conference on Environmental Management of Enclosed Coastal Seas (EMECS11)**

The International Center for Environmental Management of Enclosed Coastal Seas (EMECS) held EMECS11-Sea Coasts XXVI Joint Conference in St. Petersburg, Russia. At this important event, APN was represented by three researchers who conducted collaborative research on environmental management of enclosed seas with APN funding. EMECS is another organization that is supported and hosted by Hyogo Prefectural Government.

v. 2nd International Workshop on Waste Management and the 3Rs

APN organised an international workshop in Delhi, India, to understand the current situation and challenges of waste management and material cycle of the developing countries in Asia region and provide a forum of information exchange between participating countries and Japanese companies in the field of waste management and 3Rs. (* Project commissioned by MOEJ)

(4) Other

i. Inter-Governmental Meeting and Other Meetings

APN conducted its 21stIGM and Scientific Planning Group (SPG) Meeting in Zhengzhou, China, in April 2016 and its 22nd IGM and SPG in Delhi, India, in April 2017.

ii. APN Scoping Workshop on Technology Transfer

APN organised a scoping workshop in Kobe, Hyogo Prefecture, to address technology transfer needs of APN developing member states with the aim of developing a robust collaborative regional research and capacity development framework under the APN.

4.3. Japanese Center for International Studies in Ecology (JISE)

Japan Center for International Studies in Ecology (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 FY2016, JISE implemented the following activities to promote projects, including training and information collection, and provision on forests, nature regeneration and ecology.

(1) Research Projects

- On the international research front, JISE conducted practical research aimed at the regeneration of tropical forests. Vegetation surveys and tree-planting were carried out and guidance

provided on these activities in Malaysia, Kenya, Cambodia, Lao PDR and Australia. Likewise, research on plant communities to ascertain potential natural vegetation in the monsoon forest of eastern Thailand was promoted as fundamental research on tropical forests.

- On the domestic front, JISE engaged in research contributing to the preservation of biodiversity from the standpoint of ecology. An analysis of the causes of invasion of non-native species in rivers as viewed from the perspective of the catchment environment was carried out.
- A survey was conducted on the growth of the “Great Forest Seawall,” that was planted aiming to prevent disasters like the Great East Japan Earthquake of 2011, and surveys and research were conducted on potential natural vegetation to put in place a disaster prevention maritime forest in the Tokai and Kinki regions where large earthquakes are forecasted. As fundamental research, research was also conducted on the habitat of main trees in evergreen broad-leaved forests in the northern part of Japan.
- In an effort to improve Japan’s plant classification system, surveys on rare plant communities were conducted and the classification system for evergreen broad-leaved forest was reorganised.
- Surveys were conducted in Tochigi Prefecture on cool-temperate forest for forest regeneration on degraded land, and issues were clarified to develop the methodology on measurement of functionality of forests to preserve environment and nature
- Studies were promoted on growth behaviour of trees planted in reforestation of mining-devastated land in Akita Prefecture.

The outcomes of the above domestic research projects were released targeting the research community including the Society of Vegetation Science, the Ecological Society of Japan, Nature Restoration and Conservation Society and in the “Eco-Habitat” bulletin. JISE also promoted dissemination of information to the general public via newsletters and forums. Additionally, based on collaboration with private companies, local governments and non-profit organisations, other activities advanced by JISE include making proposals and providing guidance on forest and nature regeneration across the country, including Akita, Miyagi, Nagano, Fukui, Shizuoka, Aichi and Hyogo Prefectures, as well as conducting field surveys that form the bases for these efforts. Further, adaptive management was implemented in Shizuoka Prefecture through monitoring of forest and nature regeneration sites planted under the guidance of the JISE.

(2) Capacity Building

As capacity development projects contributing to environmental protection, JISE carried out a series of six lectures for the general public on the “Wisdom, Technology and Understanding to Protect and Develop Greenery”. Likewise, JISE held four outdoor environmental study programmes and ecological trainings (basic/applied level courses) to promote nature study and regeneration. Based

on these practices, JISE developed training materials and programmes in cooperation with related projects to promote understanding on biodiversity and environment. Also JISE conducted analysis and discussions on educational issues and made technical proposals to address the issues. Outcomes of the study were published through related academic societies and journals. As a new activity, a nature observation class was started in FY2016 jointly organised by JISE and Kanagawa Prefectural Museum of Natural History.

(3) Interaction

JISE publishes information regarding phytosociological data on composition, structure and vegetation units through its website. Also the JISE Environmental Forum entitled “Forest-building and Disaster Prevention: the function and expected role of forests” was held in June 2017 targeting a broad range of citizens, where in-depth discussions took place on the present state of disaster prevention forests to address tsunami and fire risks, as well as their function and related issues. JISE also organised four academic workshops for researchers.

(4) Dissemination and Public Awareness

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

Endnote: 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 2017)

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- (Tokyo Office)
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 (12, ongoing)

	Name of the network	Year (hosting division at IGES)	Main function
1	Regional 3R Forum in Asia and the Pacific	2008- (HQ)	Forum to promote 3R in the Asian developing countries in corporation with the governments, international organisations and donor communities, endorsed at the East Asia Environment Ministers Meeting 2008.
2	Clean Asia Initiative (CAI)	2008- (HQ)	Initiative to help economic development in Asian countries to leap over environmental degradation by passing on Japan's experiences of technologies, organisations, and systems.
3	Sustainable Development Planning Network for Asia-Pacific (SDplanNet-AP)	2008- (BRC)	Network of professionals involved in development planning to share innovative approaches for integrating sustainable development into plan and strategies launched with support from IISD.
4	International Research Network for Low Carbon Societies (LCS-RNet)	2009- (HQ)	Researchers' network which dedicates to governmental policy making processes to promote low-carbon societies. Initiative the G8 Environment Ministers' Meeting.
5	Water Environment Partnership in Asia (WEPA)	2004-2014 2016- (HQ)	Network to improve the water environment in Asia by strengthening water environmental governance.
6	Knowledge Hub of the Asia-Pacific Water Forum	2009- (HQ)	One of the regional water knowledge hubs to generate and share water knowledge and building capacity in the Asia-Pacific region.
7	Asian Co-benefits Partnership (ACP)	2010- (HQ)	Network to support the mainstreaming of co-benefits into sectoral development plans, policies and projects in Asia launched at the Better Air Quality 2010.

8	International Institute for Applied Systems Analysis (IIASA) Japan Committee Secretariat	2011- (HQ)	Research collaboration currently focuses on solving global scale problems mainly in the field of systems analysis.
9	Low Carbon Asia Research Network (LoCARNet)	2012- (HQ)	Asian Researchers' network to facilitates science-based policies for low-carbon development in the Asian region, launched by LCS-RNet
10	Asian Environmental Compliance and Enforcement Network (AECEN)	2012- (BRC)	Regional Network of national and sub-national agencies from Asian countries committed to improving compliance and enforcement launched in 2005 with support from the USAID and partner organisations including ADB, USEPA and UNEP and others.
11	ASEAN ESC Model Cities and High Level Seminar on ESC (HLS ESC)	2010- (BRC)	Regional network which promotes bottom-up innovative practices/policies by ASEAN's frontrunner cities. The annual HLS seminar is the face-to-face networking event under the East Asia Summit Environment Ministers (EAS EMM) (ASEAN+8) framework.
12	Japan Climate Leaders' Partnership (Japan-CLP)	2012- (GE)	Support Japanese private-sector network to promote the transition to sustainable and low-carbon society.
-	The Kitakyushu Initiative	2000-2010 (KUC)	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 (UN ESCAP) in collaboration with Kitakyushu city.
-	The Asia-Pacific Forum for Environment and Development (APFED)	2001-2010 (HQ)	Regional group of prominent experts to address critical issues and propose new models for equitable and sustainable development.
-	Asia Pacific Adaptation Network (APAN)	2010- 2015 (BRC)	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.
-	USAID Adapt Asia-Pacific	2010-2016 (BRC)	Knowledge management support to USAID's climate change adaptation project preparation facility for Asia and the Pacific.

Collaborative agreement (31)

	Institute	Year	Scope
International organisations			
1	Secretariat of the United Nations Framework Convention on Climate Change and its Kyoto Protocol (UNFCCC Secretariat)	May 2008- Dec. 2017	Climate change (Clean Development Mechanism (CDM), market mechanisms)
2	United Nations Environment Programme (UNEP)	Dec. 2010- Dec. 2018	Climate change, wastes, air pollution
3	United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP)	Apr. 2016 – Dec. 2020	SDGs, knowledge sharing and mutual support to conferences

4	Asian Development Bank (ADB)	Dec. 2010 - Mar. 2020	Climate change, wastes, energy, water resources
5	International Council for Local Environmental Initiatives (ICLEI)	Apr. 2015 - Apr. 2018	City level collaboration for sustainable cities
6	ICLEI Japan	Apr. 2015- Jul. 2018	City level collaboration for sustainable cities
7	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)	Jun. 2015- Mar. 2018	Project Cooperation Agreement (PCA) on the establishment of and collaboration through the TSU for the Asia-Pacific Regional Assessment for the IPBES
8	International Labour Organization	Jan. 2015 – Dec. 2017	
9	UNFCCC Secretariat	Jul. 2015- Dec. 2017	Agreement on the establishment of and collaboration through the UNFCCC Regional Collaboration Centre (RCC)
10	Asia-Europe Environment Forum (ENVforum)	Sep. 2015- Dec. 2016	Forum to foster inter-regional cooperation between Europe and Asia on sustainable development and its environmental dimensions.
11	UNEP-International Environmental Technology Centre (IETC)	Oct. 2015- Oct. 2017	Project Cooperation Agreement (PCA) on the establishment of Collaboration Centre on Environmental Technology
12	International Institute for Sustainable Development (IISD)	Sep. 2016- Jul. 2018	Collaboration on knowledge exchange
13	Secretariat of the Convention on Biological Diversity (SCBD)	Apr. 2016 – Jun. 2019	Project Cooperation Agreement (PCA) on the implementation of the Capacity building project for the implementation of IPBES Asia-Pacific Regional Assessment
Research collaboration			
1	Sino-Japan Friendship Center for Environmental Protection	Jul. 2006	Research collaboration on environmental protection
2	Korea Environment Institute (KEI)	Jul. 2014 – Jul. 2019	Research collaboration
3	Ministry of Forests and Soil Conservation (Government of Nepal)	Feb. 2015- Feb. 2020	Research collaboration on forest governance standard
4	Institute of Microfinance (InM)	Aug. 2015- Jul. 2018	Research collaboration on inclusive finance
5	Conservation International (CI) and UNU-IAS	Sep. 2015 – Jun. 2019	Research collaboration on biodiversity
6	National University of Laos	Oct. 2015- Oct. 2018	Research collaboration on natural resources management
7	International Centre for Integrated Mountain Development (ICIMOD)	Nov. 2015 - Dec. 2019	Research collaboration on natural resources management
8	The Energy and Resources Institute (TERI)	Jul. 2016 - Mar. 2017	Research collaboration on launching Japan-India Stakeholders' Matching Platform
Cities			
1	Kawasaki City	Aug. 2013- (automatically renewed)	City level collaboration for sustainable cities in Asia
2	City of Yokohama (Y-PORT)	Mar. 2015- Mar. 2018	City level collaboration for sustainable cities in Asia
3	C40 Cities Climate Leadership Group (C40)	Jan. 2016- Dec. 2017	Collaboration at the city level activities

Japanese Universities			
1	Yokohama National University	Mar. 2007- (automatically renewed)	Personnel exchange, research collaboration
2	Hiroshima University	Jun. 2010- (automatically renewed)	Personnel exchange, research collaboration
3	Yokohama City University	Jul. 2011- (automatically renewed)	Personnel exchange, research collaboration
4	Tokyo Institute of Technology	Dec. 2011 - (automatically renewed)	Personnel exchange, research collaboration
5	Keio University and Asian Institute of Technology	Jul. 2012- Jul. 2017	Personnel exchange, research collaboration
6	Tokyo City University	Oct. 2016 – Sep. 2019	Personnel exchange, research collaboration
7	Nagoya University	Feb. 2017 – Jan. 2020	Implementation of the IUC-J project at the IGES Tokyo Sustainability Forum

Other (membership, etc.) (6)

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