

The Business Plan for FY 2013

Institute for Global Environmental Strategies

The Integrative Strategic Research Programme of IGES for the Sixth Phase (ISRP6) starting from April 2013 implements **strategic research** and **strategic operations** in a way that is flexible enough to cover a broad policy agenda for transition to sustainable society in the Asia-Pacific region, and to maximise effective impacts. The **strategic research** in the Sixth Phase consolidates the research areas under three aspects of sustainable development, namely “Environment”, “Economic” and “Social” aspects. There are seven research areas: “Climate and Energy”, “Sustainable Consumption and Production” and “Natural Resources and Ecosystem Services” under the environment aspect, “Green Growth and Green Economy” and “Business and Environment” under the economic aspect; and “Integrated Policies for Sustainable Development” and “Sustainable Cities” under the social aspect. In the meantime, PMO will lead **strategic operations** in order to produce timely and effective outputs targeted at key policy processes with strategic operational functions namely Knowledge Management, Capacity Development, Quality Assurance of Research Outputs, Outreach, Networking, and External Funding

In FY2013, the first year of the Sixth Phase, IGES will implement strategic research and operations based on the results developed in the fifth phase, at the Headquarters in Hayama as well as at each of the four satellite offices of IGES including Kansai Research Centre, Kitakyushu Urban Centre, Bangkok Regional Centre and Beijing Office. As an IGES-wide event, the Fifth International Forum for Sustainable Asia and the Pacific (ISAP) will be organised in July as a platform to encourage discussion among diverse stakeholders. ISAP2013 will focus on how Asia can implement sustainable development under the resource constraints. ISAP2013 will also provide an opportunity to promote discussion for the IGES White Paper V to be published in July 2014.

The following business plan is based on current conditions including revenue estimations, and therefore the actual business activities might be modified depending on possible changes in revenue and other matters.

I. Strategic Research

For each research area under ISRP6, priority issues will be determined and strategic research activities planned and implemented along with the “Three Modes of Operation for Strategic Research (Synthesis Research/ Policy Research for Problem-solving /Networking and Strategic Operation)” and “Criterion for Strategic Research (Overall and Comprehensive Vision/ Added Values/ Quickness and Timeliness)”. In FY2013, 37 tasks will be conducted in the seven research areas under the overall management of PMO at the Headquarters and satellite centres/offices.

1. Climate and Energy Area

CE_1: Future Climate Regime (Post 2020)

This strategic operation aims to provide the UNFCCC process with relevant recommendations on the designing of post-2020 comprehensive climate change regime, as well as operational rules and guidelines for post-2012 enhanced actions. Through active involvement in the international process and domestic process in Japan, it sorts out already-known and emerging priority issues. Analysis on already-known issues will include legal form, equity/differentiation of commitments, and levels of mitigation ambition under the post-2020 regime which is under discussion in the process of UNFCCC, as well as the operationalisation of NAMAs (Nationally Appropriate Mitigation Actions), MRV (Measurable, Reportable, and Verifiable) and climate finance under the post-2012 regime. These issues comprise the major components of the future regime, and studies are being carried out to understand their implications on climate change policies in developing countries in Asia and the Pacific and others. Considering possible low-carbon measures to be taken by developing countries and also taking into account that GHG emissions in Asia would have a significant effect on global emissions, IGES aims to facilitate dialogues and disseminate relevant recommendations for designing such a regime, as well as rules and guidelines which effectively integrate low-carbon development policies into sustainable development policies. Major components in FY2013 are:

- (1) Equity under the post-2020 climate regime
- (2) Analysis of approaches for enhancing synergies between UNFCCC and other international regime with significant impacts on GHG emission
- (3) International comparison on policy implementation and consideration towards increased ambitions
 To evaluate how the Kyoto Protocol contributed to promoting domestic climate policies in terms of the development of legal frameworks and policies, as well as changes in public perceptions
- (4) Assessment of the Kyoto Protocol
- (5) Strategic operation related to UNFCCC, IPCC and other processes

【Major External Fund】¹ ERTDF²(MOEJ: Ministry of the Environment, Japan), MOEJ, The Japan Foundation Center for Global Partnership

CE_2: Model Analysis on Energy and Climate Change Policy Options

In order to achieve low-carbon societies in a rapidly growing Asia, energy and climate change policies adopted by each country will have significant consequences. In view of promoting a resilient and sustainable energy demand-supply system, this research aims to make contributions to

¹ “Major External Fund” includes the grants and contracted research projects in the process of application or even not yet in the process.

² Environment Research and Technology Development Fund

the discussion of mid-long term energy and climate policies of these countries, by providing findings from quantitative analyses. First, long-term energy and climate scenarios up to 2050 will be performed using bottom-up energy system models, taking into account the possible slowdown of worldwide nuclear power growth and the limitations of water resource availability on power generation. Second, techno-economic analyses for energy saving and greenhouse gas emissions reduction in mid-long term (2030 and beyond) for Asian carbon-intensive industries such as the iron and steel sector will be performed. With regard to the iron and steel sector, the analysis will take into full account the deep uncertainties regarding the mid-long term industrial production strategy, mitigation policies and international competition in the Asian market. In addition, a review of industrial policies for energy saving and GHG emissions reduction implemented around the world will be performed.

- (1) Energy mix analysis using energy models
- (2) Analysis on the potential of energy saving and CO₂ emissions reduction in the steel sector

【Major External Fund】 ERTDF (MOEJ), Asian Development Bank (ADB)

CE_3: Low-carbon Development Policies in Asia: NAMA, MRV, and other Approaches

In order to establish low-carbon society in Asia, it is important to develop social infrastructure to measure the emissions of greenhouse gases (GHGs) from various segments of the society, i.e. national and local government, private sectors and non-governmental organisations (NGOs), and to promote low-carbon development policies and measures to encourage activities that will reduce emissions from each activity. To do so, it is necessary to develop an appropriate institutional framework as well as practical methodology for the measurement, reporting, and verification (MRV) of GHG combined with capacity building of stakeholders. In the context of UNFCCC negotiation, it is also important to develop practical tools and guidance for the design of Nationally Appropriate Mitigation Actions (NAMAs) and their MRV system towards the agreement of next climate change regime for 2020. This research task intends to integrate research and practice by providing direct support for the development of an institutional framework on MRV and its methodological development for low-carbon policy and measures at the city and regional level, combined with capacity building for various stakeholders. Major components in FY2013 are:

- (1) Development of MRV methodology, tool, and guidance for policy implementation at city/regional level
- (2) Design of appropriate MRV institutional framework based on the country of own circumstances
- (3) Development of MRV database and training material including e-learning course
- (4) Policy Research and analysis on NAMA and MRV and inputs to UNFCCC process

【Major External Fund】MOEJ

CE_4: Climate Finance and Investment

Developing countries face various resource constraints when trying to effectively promote climate change policies. To overcome those constraints, this research conducts comparative analysis on roles and functions of international funding schemes existing around the UNFCCC framework. At the same time, IGES develops policy proposals through active involvement in the design process of the newly-established green climate fund (GCF). The research analyses each role and function of diverse climate finance measures in order to contribute to the possible consideration for coordination and cooperation among different climate finance regimes Major components in FY2013 are:

- (1) Global governance of climate finance (comparative analysis)
- (2) Institutional design of financial mechanism (task analysis)

【Major External Fund】ERTDF (MOEJ), KAKENHI (JSPS/MEXT)

CE_5: Market Mechanism

The purpose of this research task is to support establishing institutional framework for the effective implementation of market-based mechanisms (namely, Emission Trading and Crediting Mechanism) at the international (UNFCCC), regional and country level in Asia Pacific. To do so, this research task will develop practical tools and methods such as database, methodology for GHG accounting, and analytical research. Providing technical aspects of the market mechanism to various stakeholders, such as government, private companies, and NGOs, this research will collaborate with international organisations such as the UNFCCC secretariat and the ADB to provide knowledge and institutional capacity strengthening to a wide audience in the region. Based on the analysis and assessment of the clean development mechanism (CDM) and/or other market mechanism-based projects being implemented in both developed and developing countries to date, basic elements which contribute to the design of new market mechanisms for the climate regime beyond 2020 will be explored. Major components in FY2013 are:

- (1) Development of database, tools, and manuals
- (2) Development of MRV methodology at project and programme level and identification of potential projects
- (3) Design of institutional framework for the carbon market in Asian countries
- (4) Development of e-learning course and organising workshops for awareness raising and technical subject.
- (5) Research and analysis on the design of new market mechanism and inputs to UNFCCC process

【Major External Fund】MOEJ, UNFCCC Secretariat, ADB

2. Sustainable Consumption and Production Area

SCP_1: Policies and Institutions for Transitioning to SCP

This synthesis research aims to generate an improved understanding of how developing countries can steer away from the traditional development model – based on mass-production, mass-consumption, and systems that require infinite economic growth – and what opportunities and challenges there are with formulating and implementing significant changes. Especially, by considering the various challenges associated with developing Asian economies, it will try to identify conditions for SCP to become a major policy agenda for developing countries. For comprehensive deliberation and priority challenge identification, it is vital to grasp the trends of different flows (material, natural resources, water, food and energy) under the current consumption and production patterns as well as to identify possible policy intervention points. For these essential exercises, the research focuses on the reviewing of theoretical concepts and empirical approaches such as transition studies and systems innovation, as well as practice-driven movements, such as transition towns and new economy. It will engage a number of relevant research projects within IGES, catalysing their research and synthesising selected findings into message-oriented products aiming to be reflected into global policy agenda and Asian regional agenda. Major components in FY2013 are:

(1) Transitioning to SCP in developing Asia – approaches and visions

【Major External Fund】UNESCAP GG Indicator, UNEP10 YFP³, SWITCH-Asia

SCP_2: Realisation of Sustainable Living and Consumption in Asia

This research aims to enable evidence-based policy making and action in the field of sustainable living and sustainable consumption in developing countries in Asia. To this end, it will review lessons learnt from various efforts to encourage sustainable practices and try to come up with recommendations on effective approaches.

Based on case studies, the research explores ways to encourage sustainable living and sustainable consumption with an emphasis on the growing middle-class in cities in developing countries in Asia. Special attention is given to the components of household spending that are associated with high environmental impacts: housing, food and mobility. The research seeks to compile data on the current situation and trends in these three consumption areas for major economies in the region. The research will analyse how lifestyle choices and consumption patterns evolve and how they can be influenced in a sustainable direction, targeting both government-led initiatives (policies) and efforts by other actors, including business and NGOs.

³ 10-year Framework of programmes on SCP

The research is based on a perspective where lifestyles and consumer choices are heavily influenced by infrastructure and systems of provision, as well as by social practices and values. It therefore focuses on how investments in urban infrastructure can shape sustainable living, as well as how initiatives to promote sustainable living can tap into traditional values and practices. It will also review lifestyle changes happening in Japan, as a case study to identify motivating factors, structural drivers and barriers in terms of changes in consumption patterns. Major components in FY2013 are:

- (1) Mapping trends in consumption and lifestyles of growing middle-class in Asia
- (2) Facilitating sustainable living of urban residents
- (3) Close-up on changing lifestyle – case study of Japan

【Major External Fund】UNEP

SCP_3: Resource Circulation and Integrated Waste Management in Asia

This will analyse policy frameworks and tools to realise sustainable resource utilisation targeting supply-chains from upstream to downstream of material flow, DfE, improvement in resource efficiency, design of resource circulation and recycling systems, and integrated waste management. Since policies for resource circulation and integrated waste management (ISWM) have been formed gradually in the region, needs for policy research have shifted to those contributing to improved policy implementation. This task will put special focus on the research on governance and systems building in resource circulation and ISWM policies and issue-nexus such as climate co-benefit, green job creation, and resource efficient product systems of 3R approaches. In addition, this research will actively engage in global and regional knowledge hubs such as UNEP resource panel, Regional 3R Forum in Asia, Global Partnership on Waste Management (GPWM) to disseminate research findings. Major components in FY2013 are:

- (1) Research on governance for sound resource circulation in Asia
- (2) Research on evaluation methodology development of resource
- (3) Issue nexus and co-benefit of resource circulation and other issues

【Major External Fund】Asia Resource Circulation (MOEJ), PSEE Resource (MOEJ)

SCP_4: Fukushima Action Research on Decontamination Operation (FAIRDO)

IGES has been addressing the nuclear disaster in Fukushima with the launch of Fukushima Action Research on Effective Decontamination Operations ('FAIRDO'), in response to the accident at Fukushima Daiichi Nuclear Power Plant. With cooperation from Fukushima University, the German Institute for Advanced Sustainability Studies e.V. (IASS), Karlsruhe Institute of Technology (KIT), the German Federal Office for Radiation Protection (BfS) and other partner organisations, IGES invited researchers in and outside of Japan and formed an interdisciplinary team. The team draws on the experience and knowledge gained from Europe, such as the EURANOS Project, guidelines on radiation protection and decontamination formulated after the 1986 Chernobyl nuclear accident, and advances the research of the possibility of application to decontamination in Japan, as it forges links

with local authorities and communities in Fukushima to pursue its research aimed at proposing effective decontamination implementation for the area, following three research focuses: governance, decontamination plans and risk communication. Major components in FY2013 are:

- (1) Research on effective governance on decontamination
- (2) Developing a decision making support tool on decontamination plans that reflect local conditions
- (3) Research on communication that promotes collaboration with local residents

【Major External Fund】ERTDF (MOEJ), UNU

SCP_5: Participation in Policy Processes in Relation to SCP

This strategic operation is aimed at: a) harnessing IGES research to generate practical impact by partnering with other organisations and through active involvement in major policy processes; and b) developing effective partnerships with other organisations, individuals and policy bodies to better inform IGES' work towards meeting its objectives. While continuing to engage new partners, this task will strengthen collaborations which have built on past efforts including the substantial contributions it has made, for example, towards the UNEP International Resource Panel, the 10 Year Framework of Programmes on SCP, the ASEAN SCP Forum, the Asia-Pacific Roundtable for SCP, SWITCH-Asia program, the Regional 3R Forum in Asia, and the Global research Forum for SCP.

Activities under this task would involve: development and distribution of easily accessible synthesis reports on relevant policy areas; consultations and activities to support policy processes; capacity development training for policy makers; and enhancement of collaboration among researchers and practitioners in Asia, as well as facilitating knowledge exchange with, and adaptation from other regions. Major components in FY2013 are:

- (1) General policies: Actively to be engaged in relevant policy processes and fora in the fields of SDGs, 10YFP, Green Economy, etc.
- (2) Resources management: Focusing on the 3Rs and Resource Circulation projects, to propose policies and support international efforts to facilitate sustainable resource management.
- (3) Lifestyle: To conduct outreach activities targeting actors and networks promoting sustainable livelihoods for the poor and sustainable lifestyles among the emerging consumer class in Asia

【Major External Fund】UNEP, SWITC-Asia

3. Natural Resources and Ecosystem Services Area

NRE_1: Resilience of Livelihood: Land, Water, Food and Energy

The pressure on natural resources in developing countries is increasing because of food, water and energy security concerns, driven by population growth and expanding economies. Competition between food, water, land, energy and other natural resource interests requires a comprehensive

national policy framework and governance structures and processes to ensure effective policy implementation. To be effective, these frameworks must also ensure coordination between the different levels of government and must engage with non-governmental stakeholders. A review will be undertaken of integrated natural resource management (INRM) concepts and the extent to which these concepts are reflected in national strategy and planning documents in developing countries. Several Asia-Pacific developing countries with contrasting organisational models for natural resource management will be selected. Difference in the existing State models for natural resource management will be reviewed and their consequences in natural resource conservation and exploitation will be analysed. Through a study of best practice and progressive approaches, practical recommendations for cross-sector, multi-stakeholder and multi-tiered governance structures and processes for INRM will be provided. The major component in FY2013 is:

- (1) INRM models for managing the growing competition between land, water, food and energy interests (INRM concepts review; global, regional and domestic trends in the demand for land and natural resources review; target countries selection and comparative analysis)

【Major External Fund】KAKENHI (JSPS/MEXT)

NRE_2: REDD+ and other Forest-related Issues

In the Sixth Phase, IGES research on forest conservation will focus on REDD+ and the trade in sustainable wood products. Building on its action research on community carbon accounting, this research will undertake a study on community-based REDD+ approaches. At research sites in several Asia Pacific countries, approaches to train communities to monitor forest biomass, biodiversity values and REDD+ safeguards in their forests will be tested. The research will explore the idea of establishing an international network to bring together initiatives and experiences on community-based REDD+ approaches. Research into national REDD+ readiness will be conducted, focusing on the development of national governance standards, links between REDD+ and NAMAs, and linking subnational and national MRV systems. The research will also analyse bottlenecks in the REDD+ negotiations and set out alternatives for moving forward on these. The IGES Online REDD+ database will be used to make information on REDD+ available in a useful format as well as to disseminate the results of IGES research. Under the Responsible Asia Forestry and Trade (RAFT) partnership, which aims to promote the trade in legal and sustainable wood products, IGES will contribute analytical studies to support the development and uptake of forest sector legality and sustainability standards. Major components in FY2013 are:

- (1) Community-based REDD+ approaches
- (2) National REDD+ readiness and international REDD+ framework
- (3) Legality and sustainability verification standards

【Major External Fund】MOEJ, RAFT, APN

NRE_3: Climate Change Adaptation

The Asia-Pacific region has been projected to face a broad range of significant climate change impacts in agriculture, water, forests and coastal areas, and in the form of natural disasters. The region's vulnerability to changes in weather and climate has often been due to insufficient long-term risk reduction strategies which also undermined sustainable development. On the other hand, immense opportunities have also opened up for developing countries with an increasing amount of financial and other resources made available for adaptation, calling for objective measurement and reporting of progress in adaptation. There is an urgent need to identify decision-making tools that help effective adaptation actions. The research on climate change adaptation in the Sixth Phase addresses facilitating mainstreaming adaptation at sectoral and national levels in the developing Asia Pacific by identifying facilitators and barriers to mainstreaming adaptation, by identifying and operationalising means to measure the progress in adaptation, promoting the culture of disaster risk reduction through mechanisms such as risk finance, by observing and analysing adaptation governance in the region, by building the capacity of stakeholders through objective assessment of training needs, and identifying integrated adaptation decision making frameworks.

Research results will be actively disseminated through the Asia Pacific Adaptation Network (APAN) in cooperation with Bangkok Regional Centre. Major components in FY2013 are:

- (1) Developing Local Adaptation Index (LaIn)
- (2) Analysis on Risk Insurance
- (3) Current adaptation governance models in the Asia Pacific countries
- (4) Improve training modules for capacity building in climate change adaptation
- (5) Analysis on Microfinance
- (6) Active inputs into APAN (See NRE_5 and BRC_1)

【Major External Fund】ERTDF (MOEJ), APN

NRE_4: Water Resource Management

Most of the Asia-Pacific region suffers chronic or recurring water shortage accelerated by water demand increase with population growth and economic development. This research aims at contributing to the increase of efficiency of water resource use and also to ensure local sustainability by proposing models of integrated water resource management and governance mode in different socio-economic settings. To cope with the increasing water stress, efficiency of water resource use should be promoted to maximise the benefits from the resource. This research aims to contribute to the increase of efficiency of water resource use and also to ensure local sustainability by proposing diverse models of integrated water resource management (IWRM) and modes of governance under different socio-economic settings. As part of pursuing IWRM, it also addresses the waste water management, which receives significant level of interest in many Asian countries, and explores the potentials for promotion of adequate treatment, reuse of treated water, and resource recovery of such useful materials as methane and phosphorus. It also intends to contribute to international discussions and policy making processes on sustainable water management by sharing experiences and

knowledge in the Asia-Pacific region accumulated by research such as that conducted through the existing networks with which IGES is involved (e.g. Asia-Pacific Water Forum (APWF), Water Environment Partnership in Asia, and Asia-Pacific Adaptation Network, and APWF Regional Knowledge Hub for Groundwater Management). Major components in FY2013 are:

- (1) Water governance to address water-land linkage (nexus)
 - (2) Sustainable wastewater management which contribute to increase of resource efficiency
 - (3) Knowledge sharing and networking (Knowledge Hub for Groundwater Management for Asia-Pacific Water Forum (APWF), Water Environment Partnership in Asia (WEPA), etc.)
- 【Major External Fund】MOEJ, International Water Management Institute (IWMI), UNESCO

NRE_5: Biodiversity and Ecosystem Services

At the tenth Conference of the Parties to the Convention on Biological Diversity (CBD/COP10) held in 2010 in Aichi prefecture, Japan, parties adopted the 2020 “Aichi Targets” aiming to promote the conservation and sustainable use of biodiversity through 20 individual targets. The Sixth Phase of IGES’ strategic research coincides with the core period of implementation for these Aichi Targets.

With regards to Biodiversity policy research, activities which have been developed during the fifth phase will be expanded to constitute the core field of activities for the Sixth Phase. These entail research on policies to promote the sustainable use of biodiversity within production landscapes. This research will focus on the *Satoyama* Initiative, valuation of biodiversity and ecosystem services, biodiversity offsets, and business engagement in the conservation and sustainable use of biodiversity. It will also expand and strengthen these areas of research in order to contribute to the design of an international framework as well as to policy formulation along with the Aichi Targets. Major components in FY2013 are:

- (1) Study on collaborative activities for the promotion of the *Satoyama* Initiative
- (2) Study on the valuation of biodiversity and ecosystem services and its framework policies
- (3) Study on biodiversity offset policies
- (4) Study on private sector engagement in the conservation of biodiversity and ecosystem services

【Major External Fund】MOEJ, United Nations University – Institute of Advanced Studies (UNU-IAS), CBD Secretariat

NRE_6 : Knowledge Platform for Climate Change Adaptation and Natural Resource Management

The Asia Pacific Adaptation Network (APAN) will take a leading role in disseminating knowledge and experience in the region, and this research will promote vital communication amongst stakeholders in APAN and its regional hubs, as well as contribute to efficient organisation of APAN

Forum⁴ in collaboration with IGES Bangkok Regional Centre.

4. Green Growth and Green Economy Area

GG_1: Transition to Green Growth/Economy

This research aims to develop a green economy model. For this purpose it seems useful to distinguish green economy in currently over-consuming countries beyond the capacity of ecosystem services and that of under-consuming countries. For the former case, it aims to formulate policy recommendations to promote transformation to the green economy from the social and economic structure that continues to depend on GDP growth. For the latter case, it aims to consider interlinkages between key environmental and resource problems such as water-energy-climate nexus and to find policy recommendation to promote green economy. It is also important to seek growth strategy scenarios for Asian countries and to examine potentials of various measures for greening current and future economy. This research fully utilises ongoing IGES research activities including a Policy Study of Environmental Economics (PSEE) on sustainable resource use, PSEE on alternative indicators and water-energy-climate nexus study. Further, new research projects will be developed to identify policies and measures to transform currently over-consuming society to a sustainable society. In particular, research on the implications of GDP de-growth is important, as some parts of the current economic and social system including social security and financial system are designed such that GDP de-growth cause instability or collapse of the system. Embedded carbon emissions and investment in a carbon constrained world are also being investigated. Major components in FY2013 are:

- (1) Study on green economy of advanced economies: by scenario analysis using quantitative policy impact assessment tools
- (2) Study on water-energy-climate nexus issues: by scenario analysis using bottom-up energy model with extending to reflect water and climate constraints.
- (3) Study on economic integration and green growth
- (4) Study on de-growth: by literature review
- (5) Policy impact analysis on emission embodied in trade

【Major External Fund】MOEJ, ADB

GG_2: Green Investment and Green Jobs

Green investment is vital for gradually changing the fundamental structure of conventional economic development and energy infrastructure which are built on unsustainable use of energy and natural resources. This study will analyse the economic effects, job creation effects and environmental

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effects of green investment in Asia and the Pacific Region. In addition, economic incentives, such as tax reform and financial mechanisms, will be examined. A comparative study on green investment policies in various countries will be conducted to derive good experiences and successful factors. Major components in FY2013 are:

- (1) ILO's country case studies on estimating green jobs in selected developing countries (preparing desk research reports and attending national task force activities)
- (2) Review of current policies of green investment in selected countries in Asia and the Pacific Region
- (3) Assessment of the economic, social and environmental effects of green investment: methodology development and preliminary analysis focusing on renewable energy sector

【Major External Fund】International Labour Organization (ILO), KAKENHI (JSPS/MEXT)

GG_3: Collaboration with Stakeholders for Promoting Green Business

Actions by various stakeholders in society will be needed to develop a low-carbon society which will take up the key challenge for transition to green economy. Involvement of industry is especially significant from the aspects of the size of its contribution to GHG emission, its strong voice in the formation of climate change policies, and the important role industry plays in the development and deployment of low-carbon technology innovations. This research and related activities will examine the role of industry in the introduction of ambitious climate change policies and concrete strategies to substantiate green economy, by taking into consideration the global business competitiveness and deterioration of terms of trade in Japan caused by a price increase in resources such as crude oil.

Specifically, together with Japan Climate Leaders' Partnership (J-CLP) (a leading business coalition on climate change; Secretariat: IGES), proposals on climate change policies from a business standpoint will be delivered. In addition, business models that will contribute to the creation of green economy will be recommended and their implementation potential will further be sought. Major components in FY2013 are:

- (1) Formation of a corporate network and proposals to advance proactive climate policies
- (2) Policy proposal of Green Gifting scheme for promoting investments in renewable energies, and support activities for its implementation
- (3) Policy research and proposal on carbon pricing

【Major External Fund】J-CLP

GG_4: Knowledge Platform for Facilitating Sustainable and Low-carbon Societies

Forming low-carbon societies, which will be a basis for green economy, requires widespread transition spanning the spectrum from technical innovation to social system reform. Yet in order to promote such a transition in an integrative and efficient manner, it is essential to have a venue bringing together a wide range of research for exchanging information and sharing knowledge. IGES

hosts the secretariats of two research networks meeting these needs: the International Research Network for Low Carbon Societies (LCS-RNet) and the Low Carbon Asia Research Network (LoCARNet), as open networks of researchers and research organisations facilitating the formulation and implementation of science-based policies for low-carbon societies and low-carbon development. In the Sixth Phase, LCS-RNet and LoCARNet will promote knowledge-sharing through annual meetings and other related meetings while utilising joint research for the further development of the relevant research community. The networks will also support the development of capacity in prominent young researchers, as well as policymakers. In order to tie research results into implementation, work will be done to further strengthen engagement with the policy-making process with the networks acting as knowledge brokers to connect the research community to other relevant stakeholders and donors.

Major components in FY2013 are:

- (1) Making use of research capacity in low-carbon policymaking by organising policy dialogues
- (2) Improving low-carbon society research capacity and knowledge sharing through annual meetings and joint research
- (3) Capacity development for young researchers through providing an internship programme and training workshops as well as in policymakers through conducting training courses
- (4) Appropriate PR strategies linking outputs with outcomes

【Major External Fund】MOEJ, Mizuho Research Institute Ltd, APN

GG_5: Green Growth and Green Economy: Policy Process and Policy Dialogue

IGES has actively engaged itself in international policy processes regarding green growth and green economy led by OECD, UNEP, UNESCAP and ILO as well as those related to Rio+20. While continuing to make contributions to those processes, IGES aims to make further efforts to contribute to some leading activities led by business societies such as WBCSD, UN Global Compact and Coalition of the Willing, and strengthen its active dissemination of policy recommendations based on policy analysis and assessment by both IGES internal and external research communities. Major components in FY2013 are:

- (1) Based on the MOU between ILO and IGES, IGES will make substantial contributions to ILO's ongoing project on country case studies on green jobs in Asian developing countries (See GG_2) as well as to the relevant ILO activities (trainings on green job assessment and conferences).
- (2) Participation in the annual conference of the UNEP International Resource Panel and contributions to the discussions and review of scientific literature in the areas of decoupling and environmental impacts of consumption and production, in particular related to the topic of resources and emissions embodied in international trade.
- (3) Participation in UNEP's Green Economy Initiative related projects on national green investment policies and indicators measuring the transition towards green economy.

5. Business and Environment (Kansai Research Centre)

KRC_1: International Transfer and Application of Low Carbon Technologies

International Transfer and Application of Low Carbon Technologies (ITAT) project is a contribution to international efforts to promote technological collaboration towards sustainable development. ITAT project aims to delineate technology deployment/diffusion pattern to develop tangible roadmap/scenario for low-carbon technology transfer and application between Japan and India. It is a follow-up research activity to the ongoing ALCT project conducted by IGES-KRC. Under ALCT project, feasibility studies on several Japanese low-carbon technologies have been conducted, and pilot projects on promising technologies have been implemented in Indian SME. Thus, ITAT project will focus on assessing the opportunities and challenges of deploying/diffusing those promising technologies, but not excluding others, in Indian SME clusters, regions and country wide. ITAT research activities include practical analysis (based on pilot projects implementation, measurement activities) as well as applying statistical and econometric analysis to assess policy and business initiatives towards the diffusion of low-carbon technologies in India (based on interviews and questionnaire surveys to representative SME and policy makers). Onsite training programmes and outreach activities are also conducted to raise awareness of SME and other stakeholders. Major components in FY2013 are:

- (1) Accomplish ALCT project by February 2014
- (2) Follow-up activities to ALCT project: Communicate with policy makers in India and Japan on how to diffuse Japanese low-carbon technologies in Indian SME.
- (3) Develop sound MRV (Monitoring, Reporting and Verification) methodologies

【Major External Fund】MOEJ, Japan Science and Technology Agency (JST), Japan International Cooperation Agency (JICA)

KRC_2: Policies and Business Initiatives towards the Innovation and Diffusion of Low Carbon Technologies

This project studies the penetration effects of climate policies in promoting the business practices in the innovation and diffusion of low-carbon technologies. Focus is put on economic approaches, particularly carbon pricing policies like taxation, but not excluding the financial incentives and technology programmes. The field research basically continues to target the three large economies in Northeast Asia: Japan, China and the Republic of Korea, and may spread to the other major emitting countries of greenhouse gases (GHG) in Asia, with India as a priority. The diffusion curves of selected low-carbon technologies under various policy scenarios are simulated and then used to quantify their contribution to the mitigation of GHG emissions and corresponding costs. The timely dissemination of research outcomes help the related national governments and business associations to understand the policy and technology roadmaps for the realisation of economy-wide or sector

specific targets of GHG mitigations in the medium and even long term. Major components in FY2013 are:

- (1) Review and comparative analysis of climate policies and technology programmes in target countries
- (2) Screening of the list of low-carbon technologies for analyses
- (3) Arranging interviews with technology experts and policy makers

【Major External Fund】Hyogo Prefecture

KRC_3: International Trends and Input to Relevant Processes on Technology Transfer

To solve actual problems in transferring technologies, this task intends to establish a collaborative network aiming at pooling the knowledge and synergising the efforts of various stakeholders working on technological collaboration (Research & development, deployment and diffusion) between Japan and India. The project also intends to provide inputs in a timely manner to important national, regional and international policy processes on technology transfer to explore opportunities to conduct joint activities with them regarding technology transfer such as through joint projects, consulting, outreach activities, training programmes, etc. Major components in FY2013 are:

- (1) Input to existing important process for transferring and disseminating low-carbon technologies.
- (2) Formation of network with diverse stakeholders in India and Japan at various levels such as those focusing on research & development, deployment, and diffusion of technologies.

【Major External Fund】Hyogo Prefecture, JST, JICA

6. Integrated Policies for Sustainable Societies

IPSS_1: Governance and Institutional Framework for the Transition towards Sustainable Societies

The research will provide recommendations on how to strengthen the effectiveness of multilevel and multistakeholder governance, especially in relation to implementing the post-2015 development agenda at all levels of government and practice, and in working to overcome the persistent “implementation gap.”

This research is expected to provide input into other tasks, particularly Sustainable Development Goals, Low Carbon Cities, and Fukushima Action Research. It will explore how to create links with Education for Sustainable Development to further develop an integrated approach. Efforts will be made to link to other tasks with governance-related components. In addition, this synthesis research

will have several specific separate components, including Sustainable Development Governance in East Asia, Environmental Governance in Northeast Asia, and regional governance for Transboundary Air Pollution. Major components in FY2013 are:

- (1) Sustainable development governance in East Asia
- (2) Environmental governance in Northeast Asia
- (3) Regional governance for transboundary air pollution in Asia

【Major External Fund】ERTDF (MOEJ), MOEJ

IPSS_2: Education and Capacity Development for Sustainable Development

This research aims to provide strategic policy recommendations and capacity building inputs to strengthen institutional structures/processes to achieve transformative learning for sustainable development especially focusing on international processes on Education for Sustainable Development (ESD), regional processes on Education for Sustainable Consumption, and local and urban processes for learning on Sustainable Lifestyles. Education and Capacity Development for Sustainable Development must address whole-systems learning opportunities and engage formal, non-formal, and informal education to support transitions towards sustainable societies.

The research aims to develop a systematic approach for assessment of ESD implementation in the Asia-Pacific region during the UN Decade of ESD (2005-2014), with the key goal of identifying & piloting Indicators of ESD. To strengthen the institutional capacities of national governments in coordinating effective implementation of ESC, it will also support the development of a regional network/ knowledge hub. It will raise perception on how citizens can engage and contribute to achievement of Low Carbon, Sustainable Cities (LCSC) and conversely on how local/municipal governments can better identify and capitalise on important learning/capacity building opportunities that arise in their efforts and plans to transition towards LCSC.

Major components in FY2013 are:

- (1) Monitoring and evaluation of education for sustainable development (M&E of ESD), and identifying & piloting indicators of ESD.
- (2) Supporting the development of a regional network/ knowledge hub for Capacity Development and Education for Sustainable Consumption (ESC)
- (3) Sustainable Lifestyle - Engaging citizens in achieving Low-Carbon, Sustainable Cities (SL-LCSC)

【 Major External Fund 】 JFIT-UNESCO, Kanagawa Prefecture, UNU-IAS, Kawasaki city, UNEP-DTIE, PERL

IPSS_3: Life Style Change and Energy Consumption towards Low-Carbon Cities

In collaboration with the related research on low-carbon cities being conducted by Kitakyushu

Urban Centre, this research promotes relevant practical studies with environmentally advanced cities in the Kanto region (Tokyo, Yokohama, Kawasaki etc.) Currently, Japanese cities have already been aiming for a major transformation from polluted cities to green cities, and based on the concept of environmental cities of the future and green innovation, there have been developments by local authorities on various levels. Through the coordination and dissemination of experiences in sustainable city planning that have been promoted recently in Japan, plans are being made to contribute to low-carbon, resource circulation type infrastructure and the development of leapfrogging, which will be highly significant in the near future in Asian cities. Major components in FY2013 are:

- (1) Lifestyle transformation: Research and analysis on strengthening citizens' participation through education and capacity development, and formation of shared values through lifestyle reforms
- (2) Trend towards urban transformation to low-carbon society: Energy saving activities by industry post-disaster, and development of new energy businesses
- (3) Energy policies in regions affected by the nuclear accident and impact on energy saving by citizens
- (4) Sustainable Lifestyles: Sharing and strengthened collaboration among local authorities in Japan and across Asia

【Major External Fund】ERTDF (MOEJ), Kanagawa Prefecture, Tokyo City University

IPSS_4: Co-benefit Approach in Asia

This research will identify opportunities and constraints to achieving three types of co-benefits with climate change: 1) air/climate co-benefits from mitigating short-lived climate pollutants (SLCPs) such as black carbon and tropospheric ozone; 2) environmental co-benefits from mitigating greenhouse gases (GHGs) while reducing air, water and waste pollution in key sectors (energy, waste, transport and buildings); and 3) developmental co-benefits from bringing carbon finance to women, the urban poor, and other disadvantaged stakeholders. This research will go beyond quantifying co-benefits to analysing how 1) the science-policy interface influences co-benefits from abating SLCPs, 2) the political economy of key sectors influences co-benefits from mitigating GHGs; and 3) the design of governance structure influences co-benefits flowing to disadvantaged stakeholders. Outputs from this project will be disseminated through the Asian Co-benefits Partnership (ACP) to air quality (CCAC), climate change (UNFCCC), and sustainable development (SDGs) policy processes at multiple levels. Major components in FY2013 are:

- (1) Analysis by sector (energy, transport, waste management, buildings)
- (2) Analysis by science (short-lived climate pollutants (SLCPs))
- (3) Analysis by stakeholder (gender climate and the urban poor)

【Major External Fund】MOEJ, ADB

IPSS_5: Sustainable Development Goals (SDGs)

This research will develop recommendations to strengthen governance for sustainable development at multiple levels: global, regional, national, and local. It will also consider how to strengthen multistakeholder participation in sustainable development governance, to promote better decision making, implementation, and greater social inclusion. These recommendations will be developed in the context of the global processes for the Post 2015 Development Agenda and Sustainable Development Goals. The study will be conducted from the perspective of multilevel governance, which emphasises the importance of coordination within and between the different levels of governance as well as strengthening multistakeholder participation in each level. This research will be conducted as part of a much larger project in conjunction with other universities, and research institutes. As a part of this larger project, IGES will also collaborate in developing recommendations for Sustainable Development Goals themselves, especially from the standpoint of strengthening governance and promoting greater social inclusion; it will also collaborate to develop recommendations for strengthening governance of financing for sustainable development. IGES will also collaborate with a group of global research institutes called the Independent Research Forum 2015 (IRF2015) to input messages into the key related global processes. Major components in FY2013 are:

- (1) Contribution to development of SDGs from a governance perspective
- (2) Governance for implementation of SDGs

【Major External Fund】ERTDF (MOEJ)

IPSS_6: Contribution to International Policy Processes for Sustainable Development and International Environmental Governance

IGES aims to promote its messages and recommendations developed through strategic research by participating in major international processes related to sustainable development. Major global processes include those related to the UN such as the UN General Assembly, UN Commission on Sustainable Development and UNEP Governing Council and related high-level consultation meetings, as well as non-UN related processes such as the G20 and World Economic Forum. Key regional processes in the Asia Pacific include APEC, the East Asian Summit, ESCAP, UNEP-ROAP, ASEAN, China-Japan-Korea Trilateral Summit, and Tripartite Environmental Ministers Meeting (TEMM) among China, Japan, and Korea. IGES analyses and assesses the latest trends of these important processes, and aims to contribute to their agenda setting as well as the substantial discussion. In relation to the promotion of co-benefits at the city level, cooperation is being encouraged with environmentally advanced cities in Japan such as Tokyo, Yokohama and Kawasaki, through joint work with platforms like ICLEI Japan. Major components in FY2013 are:

- (1) Processes for the Post 2015 Development Agenda and Sustainable Development Goals
- (2) Regional and subregional processes, including those relating to regional integration, such as ASEAN, ASEAN + others, TEMM, etc.
- (3) Processes relating to air pollution such as EANET, CCAC, NEASPEC, LTP, etc.

- (4) Processes relating to education for sustainable development
- (5) Engagement with civil society organisations which are involved in the global and regional policy processes

7. Sustainable Cities (Kitakyushu Urban Centre)

KUC_1: Integrative Local Governance to Develop “Smart Cities”

Looking at ways to achieve sustainable cities, research activities will be carried out on the concept and practical application of smart cities at the local government level. The research will focus on innovative urban policies, strategies and programmes as well as the existing gaps between planning policies and practical application on the ground to widely promote the idea of smart cities in Asia. Research will be conducted on measures to develop practical models, implementing tools and analytical indicators using the lessons learned in further development and promotion of local initiatives to develop smart cities. Practical actions will be taken to build networks and collaborative activities with other relevant organisations for the transmission and dissemination of concrete recommendations. Major components in FY2013 are:

- (1) Research on scenario analysis, modelling and documentation of best practices, policies and practical solutions on the concept of smart cities
- (2) Proposing operation projects in Asian countries and other good practices by promoting implementation, replication and expansion of pilot projects.

【Major External Fund】Kitakyushu City, JICA, MOEJ, ERTDF (MOEJ)

KUC_2: Initiatives led by Eco Model Cities

The main objective of the activities of Kitakyushu Urban Centre (KUC) is to contribute in the development of sustainable cities in Asia through provision and dissemination of practical knowledge and policies. This research mainly focuses on local environmental policies including solid waste management, water supply, wastewater treatment, environment monitoring, transport management, city planning, energy management, greenery management, disaster prevention and mitigation, and greenhouse gas (GHG) emissions measurement and reduction, and others. Main activities include research and analysis of effective environmental policies and dissemination of them through various means, assisting local governments in implementing them, and networking local governments as well as other stakeholders to facilitate knowledge and information sharing among them. Major components in FY2013 are:

- (1) Research on Effective Policies and Policy Measures of Eco-Model Cities
Examining effective policies and policy measures of local governments in relation to energy, smart-grid, transportation, green building, waste management, water supply and sewage management, and local cap and trade schemes.

(2) Assisting Project Implementations of Sustainable Cities

Contributing in project implementation led by local governments and other relevant stakeholders including private companies.

(3) Assisting Policy Development of Asian Countries

Continuing contributions to bilateral collaboration on policy development and implementation led by MOEJ and JICA with special focuses on 3Rs and waste management.

【Major External Fund】JICA , MOEJ

KUC_3: Networking Eco Model Cities and Good Practice Replication

Since 2000, IGES Kitakyushu Urban Centre (KUC) has been strongly committed to pursue policy research in a pragmatic and demand-driven manner, with the support of partners including the City of Kitakyushu, Japan International Cooperation Agency (JICA), the Ministry of the Environment of Japan (MOEJ), ASEAN Secretariat and others. Research is geared towards helping to build the capacity of local policymakers and practitioners in solid waste management, water supply, wastewater treatment, environmental performance monitoring, transport management, city planning, energy management, greenery management, disaster prevention and mitigation, and greenhouse gas (GHG) emissions measurement and reduction, among others. The key is to promote networking towards replicating good practices and policies to scale up impacts. KUC maintains a broad and inclusive regional platform to enable mutual learning, promote city-to-city cooperation as well as attract additional assistance to help aspiring smart and green Asian cities to achieve their unique city visions and goals. Major components in FY2013 are:

(1) Research and Knowledge Management

Identifying and analysing good practices and policies in priority urban sectors, and using the findings to produce easily understood and accessible materials (such as policy briefs, manuals, instructional videos etc.) for policymakers and practitioners.

(2) Platform and network management

Maintaining regular communication and building strong, trust-based relationships with key local government officials, national government ministries, international organisations and others.

(3) Practical activities

- Utilising the assets from Component 1 and 2 to assist selected local governments in taking real actions on the ground via bottom-up projects, primarily through the ASEAN ESC Model Cities Programme (supported by MOFA** through JAIF) in partnership with the ASEAN Secretariat, and with the East Asian Summit Environment Ministers Meeting (EAS EMM) framework and priorities.
- Organising workshops, seminars, study tours and training programmes to disseminate and replicate such practices/policies, including the High Level Seminar on ESC (environmentally sustainable cities) (supported by MOEJ*), or equivalent events.

【Major External Fund】Kitakyushu City, JICA, MOEJ, JAIF,

8. Strategic Research Activities at the IGES Regional Centre

BRC_1: Networking and Capacity Development in Climate Change Adaptation

The Bangkok Regional Centre (BRC) aims to increase networking with climate change adaptation practitioners globally and in Asia-Pacific through the Asia Pacific Adaptation Network (APAN) Regional Hub and expand capacity development activities through APAN's knowledge management in close collaboration with the Asia Climate Change Adaptation Project Preparation Facility (ADAPT Asia-Pacific) funded by USAID and other projects implemented by APAN. Major components in FY2013 are:

- (1) Knowledge Generation
Generating, managing and integrating existing knowledge through a regional mechanism to promote dialogue, improve exchange within and between countries on climate change adaptation, emerging networks, and initiatives, leading to integrated decision making and actions.
- (2) Knowledge Management
Organising regional and sub-regional events to improve understanding on adaptation, sharing good practices, and capturing lessons learned on climate change adaptation. Updating and maintaining APAN's website to share good adaptation practices and adaptation technologies, up-to-date information and conducting online communities of practice.
- (3) Capacity Building
Conducting capacity building training, exchange visits, and workshops to develop the knowledge and skills, primarily of government officials to design, implement and evaluate adaptation actions, to acquire the financing and technologies to integrate adaptation into development planning processes, and to implement those actions.
- (4) Networking and outreach with other networks and initiatives

【Major External Fund】UNEP, USAID, MOEJ

BRC_2: Networking and Capacity Development for Environmental Safeguards and Sustainable Development

This research aims to increase networking with practitioners engaging in environmental safeguards, environmental compliance and enforcement, and sustainable development through the operation of the Asian Environmental Compliance and Enforcement Network (AECEN) and Network for Integrated Planning and Sustainable Development Strategies in Asia-Pacific Region (SDplanNet-AP) and contribute to capacity development through knowledge sharing and conducting South-South twinning projects. Major components in FY2013 are:

- (1) Environment Impact Assessment Database compendium: Updating and maintaining inventory

of environmental laws and regulations of AECEN member countries, and selecting, reviewing, and developing EIA guidelines that can be used as a model.

- (2) Two South-South twinning projects on EIA: Conducting twinning on EIA capacity strengthening between China and Sri Lanka, and China and Lao PDR.
- (3) Information and knowledge sharing on environmental safeguard and sustainable development
Updating and maintaining websites of AECEN and SDplanNet-AP to share information, knowledge products and useful tools with practitioners, and conduct a community of practice.
- (4) Environmental outlook: Preparing environmental outlook for South Asia, Myanmar and Bhutan and conducting GEO 5 outreach.

【Major External Fund】ADB, UNEP

BRC_3: Networking and Outreach

BRC will play a leading role in networking with overseas organisations especially those based in Bangkok, Thailand and its neighbouring countries as a window for IGES to explore possible opportunities for joint implementation and other opportunities. BRC will assist the PMO in coordinating IGES-wide activities including the White Paper series, fund raising, outreach, and strengthening knowledge management. Major components in FY2013 are:

- (1) Development of effective and sustainable mode of knowledge management or a business model based on the lessons and practices gained by the operation of Community of Practice (CoP).
- (2) Development of a pilot community of practice in Bangkok to strengthen outreach and increase the opportunities of collaboration.

9. Strategic Research Activities at Beijing Office

BJG_1: Cooperation Project on Total Pollutant Reduction of NH₃-N etc. in Small Towns and Rural Areas in China

This project is being implemented under the scheme based on “the Agreement on Implementation of Cooperation Project on Reduction of Total Pollutant such as NH₃-N etc. in Small Towns and Rural Areas in China,” which was concluded on 28 April 2011 between the Environmental Ministers of Japan and China. The purpose of this project is to strengthen the policies in the areas of reduction of total pollutant in water such as NH₃-N, and also to facilitate the exchange of related technologies. It also aims at improving the water environment by reducing the total emissions of water pollutants in those areas, where the model decentralised wastewater treatment facilities are constructed. Another purpose is to improve the capacity of governmental officers in the Chinese government.

In concrete terms, three model areas in China with differing environmental conditions will be selected, and Beijing Office will construct model decentralised water treatment facilities with

different technologies. Beijing Office then will monitor and evaluate the results of the operation so that model facilities can contribute in reduction of total emission of water pollutant. Beijing Office will also support the spread of technologies to other places in China. This project has been implemented continuously since FY2011. The areas selected for constructing model facilities are Weihai City in Shandong Province, which is located along the seashore, and Deyang City in Sichuan Province, which is a landlocked city deep inside China. Major components in FY2013 are:

- (1) Implementation of model project on decentralised wastewater treatment facilities.
- (2) Conducting capacity building for Chinese governmental officers and strengthening of policy dialogue.
- (3) Organising an international seminar on policy and technology exchange.

【Major External Fund】MOEJ

II. Strategic Operation

Aiming to achieve the institution-wide targets, PMO will lead in promoting IGES strategic research and impact formation, incorporating the outreach function of the Research Support Section in the Sixth Phase. PMO will carry out IGES-wide strategic planning and coordination, and proceed with comprehensive operations such as knowledge management, capacity development, quality assurance, networking, outreach, and fund raising in order to make timely and effective inputs into the important policy process.

1. Strategic Planning and Coordination of Overall Research Activities

The PMO will draft an integrated overall research strategy for IGES, from a comprehensive, mid- and long-term perspective. For implementation of the strategic plan, it will also establish a Planning and Coordination Committee (tentative name) made up of top management to comprehensively coordinate and facilitate internal research activities.

2. Production of Flagship Products

PMO will cooperate with each area leader to conduct planning and coordination of key IGES flagship products, including the White Paper, a publication which delivers key messages on timely and strategic topics in the Asia and the Pacific region to contribute to important regional and international processes. The IGES White Paper V, to be published in July 2014, will focus on regional integration and possible collaborations, considering the ASEAN integration scheduled in 2015.

3. Knowledge Management

A strategy will be drafted and implemented for the creation, accumulation, management and utilisation of knowledge for IGES as a whole. In FY2013, the gap between knowledge and

information currently held by IGES and those required over the short-, mid- and long-term will be identified, and the knowledge already accumulated within IGES should be promoted to be shared internally and externally through effective IT tools such as the IGES outputs database.

4. Capacity Development

The planning and implementation of capacity development activities (i.e. CDM/NAMA capacity development activities, distance learning, support for establishment of training and research institutes in various countries) will be carried out both domestically and overseas. Internally, research methods (policy influence assessment, economic analysis, social surveys, etc.) and know-how related to strategic research activities (information networking, etc.) that IGES should possess will be identified, and the necessary learning opportunities will be planned and carried out.

In FY2013, PMO holds internal study meetings as well as its in-house seminars and workshops to which external experts are invited. In addition, PMO considers expanding its programme for human resources exchange and dispatch of experts as well as joint research, with governments, international organisations, inter-governments, universities, other strategic research institutes, and private sector organisations, whilst striving to increase opportunities for career development of its staff members as much as possible.

5. Quality Assurance of Research Outputs

In FY2013, PMO will continue to provide proactive facilitation which includes the research methodologies in the early stages of output preparation toward improvement of the quality of final products

6. Networking

Planning and implementation of an integral networking strategy, including relationship-building with partner institutions and participation in key forums, will be carried out. In FY2013, effective coordination and development of the multiple international and regional networking operations such as Low Carbon Society Research Network (LCS-RNet), Low Carbon Asia Research Network (LoCARNet) and Asia-Pacific Adaptation Network (APAN), Asian Environmental Compliance and Enforcement Network (AECEN), Asia-Europe Environment Forum (ENVForum), Regional 3R Forum in Asia, and Asian Co-benefits Partnership (APC), and in which IGES research projects are involved will be carried out. In addition, the effective operation the Fifth International Forum for Sustainable Asia and the Pacific (ISAP2013), focusing on how Asia can implement sustainable development under the resource constraints, will be organised in July 2013 to stimulate policy discussions with key stakeholders, both domestic and international.

7. Outreach

In order to raise the visibility of IGES research outputs and improve IGES' reliability as an international research institute, it is essential to carry out effective and timely dissemination targeting

appropriate audiences and building effective impact. Planning, coordination and implementation of a strategy for this purpose will be carried out through outreach activities, including publications, seminars and symposiums, campaigns, press activities, etc. For these, maximum utilisation of the website and the latest IT technology will be practiced.

7-1 Information Dissemination through Publications and Periodicals

Through publishing Policy Briefs, IGES aims to disseminate its research results as policy recommendations in a timely manner. IGES will also continue to publish periodicals, such as “What’s New from IGES” (newsletter), and the “Annual Report” in order to put out information collected through its research activities or by using its research networks. At the same time, IGES will put more effort on effective information dissemination, aiming to further increase its visibility in and out of Japan.

7-2 Information Collection and Dissemination Using Information and Communication Technology (ICT)

On the occasion of starting the Sixth Phase research, the IGES website will be redesigned in an easy and simple format, and will provide more timely access to information regarding research outputs including strategic research activities and policy recommendations. IGES will continue to aim to enrich the role of the IGES website as a portal for collecting and providing information on events and environmental information in the dynamic Asia-Pacific region by hosting the various databases managed by IGES; and by introducing the international and regional initiatives and activities in which IGES takes part. Effective tools to support this include:

- IGES research output database: strengthen its functions and increasing the data
- The e-mail news “E-alert” to provide the latest trends and outputs of the research in a timely manner
- “Monthly Asian Focus: Observations on Sustainability” (launched in January 2011), a series of interviews with the foremost experts in their fields.

7-3 Contribution to Local Communities through Seminars and Symposia

In order to disseminate research activities and results, IGES will conduct outreach activities for local residents and businesses in cooperation with local governments and other concerned organisations. Activities will include:

- Holding a series of “Global Environment Seminars” aiming to present the results of IGES research activities
- Co-organising “Shonan Academia” with Kanagawa International Foundation
- Participating in the “Shonan Village Festival” hosted by Village Shonan, Inc.
- Participating the “Exhibition for a better Hayama”
- Co-organising seminars and symposia on environmental issues with Kanagawa Prefecture and Hyogo Prefecture

- Cooperating with events held by Kanagawa Prefecture, Hyogo Prefecture and Kitakyushu City

7-4 Media Relations

Efforts will be made to communicate and disseminate research results through a third party such as media and related institutions, which will enable IGES activity to be recognised widely and will enhance its credibility as an international research institution. Activities will include:

- Holding press conferences and media round tables
- Sending out IGES research results such as Policy Briefs as press releases
- Conducting PR training for researchers
- Conducting campaigns, etc.

7-5 Enhancing the IGES Affiliate Member System

IGES will make continued efforts to promote the affiliate member system in order to reflect the various opinions of governments, private companies, NGOs/NPOs and citizens in IGES research activities as well as to establish a strong financial base for the institute. In order to increase membership, services for affiliate members will be further improved by appropriate incentives such as preferentially inviting them to various symposia and seminars and providing them with various IGES publications.

8. External Funding

A proactive strategy for the acquisition of external funding will be planned and executed. Specifically, in active cooperation with domestic and overseas universities and research institutions, as well as with international organisations, a series of tasks for submission of joint proposals will be conducted. In addition, appropriate internal coordination will be carried out to respond to new funding opportunities both domestically and abroad, and necessary support will be provided in the process of preparation toward successful procurement of funds. Efforts to establish effective research teams in cooperation with universities and research organisations in Japan and overseas will be made, considering that, in most cases, IGES's strategic research has come to be partnership-type research. Furthermore, strategic outreach activities for potential funding organisations should be promoted. FY2013 will focus on the following activities:

8-1 Domestic Fundraising

With regards to fundraising in Japan, in addition to acquiring research funds such as Global Environment Research Fund and network-related budget as has been conducted up to now, the nature of funds should be diversified and include those from ministries other than the Ministry of Environment, such as the Special Accounts for Energy and the official development aid (ODA). In addition, more effort should be made to acquire research funds from the private sector.

8-2 International Fundraising

IGES also tries to acquire increasing funds from non-Japanese sources. It aims to bolster its international credibility by strengthening linkages with international funding organisations, such as the World Bank and ADB, international organisations such as UNEP and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), as well as bilateral donor organisations based in Europe and the US. The IGES Regional Centre in Bangkok is expected to play a more strategic role in this respect.

III. Business on Special Accounts

1. Activities of the Technical Support Unit (TSU) for the IPCC-TFI

The goal of the TSU is to support and manage the Intergovernmental Panel on Climate Change (IPCC) Task Force on National Greenhouse Gas Inventories (TFI) which has the following aims:

- Developing and refining an internationally-agreed methodology and software for the calculation and reporting of national GHG emissions and removals
- Encouraging the widespread use of this methodology by countries participating in the IPCC and the Parties to the United Nations Framework Convention on Climate Change (UNFCCC)

For these purposes, the TSU will implement the following components and will offer its support to the other relevant sections of IGES and other organisations.

1-1 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands

The Subsidiary Body for Scientific and Technological advice (SBSTA) of UNFCCC, at its 33rd session, invited the IPCC to prepare additional guidance on estimation of emissions and removals of greenhouse gases from wetlands to supplement the 2006 IPCC Guidelines, focusing on rewetting of peatlands and wetland restoration. Based on the terms of reference (ToR) and workplan approved by the IPCC Plenary, the TSU started the work on the guidance entitled, “2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands” in 2011 and plans to finish in October 2013. .

The following activities are planned in FY2013:

- Organising a review of the Second Order Draft of this report by governments and experts (from 11 February 2013 to 7 April 2013).
- Holding the fourth Lead Author meeting in Manaus, Brazil, on 21-24 May 2013.
- Participating in the 37th Session of IPCC on 14-18 October in Georgia where this report will be adopted/accepted by the IPCC Plenary.
- Holding a side event on this report during the UNFCCC COP19 in November 2013

1-2 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol

The Conference of the Parties to the UNFCCC serving as the meeting of the Parties to the Kyoto Protocol, at its 7th session, invited the IPCC to review and, if necessary, update supplementary methodologies for estimating anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from land use, land-use change and forestry (LULUCF) activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol. In response, the IPCC at its 35th Session decided to produce the "2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol". The TSU started this work in 2012 and plans to finish in October 2013. The following activities are planned in FY2013:

- Organising a review of the Second Order Draft of this report by governments and experts (from 22 April 2013 to 2 June 2013).
- Holding the fourth Lead Author meeting in July 2013. (The place is to be determined.)
- Participating in the 37th Session of IPCC on 14-18 October in Georgia where this report will be adopted/accepted by the IPCC Plenary.
- Holding a side event on this report during the UNFCCC COP19 in November 2013

1-3 IPCC Emission Factor Database (EFDB)

This component aims to maintain and improve a database of emission factors and other parameters for development of national GHG inventories where national experts can find nationally appropriate values to supplement the IPCC inventory guidelines. In FY2013, the following activities will be implemented:

- Research and identification of potential data for approval by Editorial Board
- Support of data management and data approval process
- Organisation of two data collection meetings on specific topics
- Organisation of the eleventh meeting of the EFDB Editorial Board

1-4 IPCC Inventory Software

This component aims to improve and upgrade the IPCC Inventory Software, the initial version of which was released in May 2012, and to support users of this software. This software is to implement calculation of emissions and removals of greenhouse gases according to the 2006 IPCC Guidelines. In FY2013, the following activities will be implemented:

- Rectification of bugs and errors detected in the current software
- Enhancement of functions in the software, for example by including tier 2 calculation modules
- Provision of technical support to users on request
- Holding an international workshop for the promotion of Software use

1-5 International Expert Meetings on Greenhouse Gas Inventories

This component aims to organise IPCC expert meetings and publish their results. Topics of these meetings will be chosen to provide additional information and support to inventory compilers. Thus the topics will be areas and issues that have caused inventory compilers difficulties and are identified by the Bureau of the TFI. In FY2013, the following activities will be implemented:

- Organisation of two expert meetings (topics are to be determined)
- Holding the 25th meeting of the Bureau of the TFI
- Publication and dissemination of results of earlier meetings.

1-6 Collaboration with other organisations

This component aims to collaborate with other organisations on inventory-related matters. The TSU will continue contributing to inventory-related capacity building programmes implemented by other organisations such as UNFCCC, National Institute for Environmental Studies (NIES), and Japan International Cooperation Agency (JICA) by sending programme officers as resource persons and providing inventory-related materials developed by the IPCC TFI. Also, the TSU will interact with other organisations or initiatives such as Global Forest Observation Initiatives (GFOI) and Food and Agriculture Organization (FAO) to assist inventory compilers in data collection. The TSU will also collaborate with other projects in IGES, where appropriate, on matters relating to estimation of greenhouse gas emissions and removals.

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

APN is an inter-governmental network whose mission is to foster global change research in the Asia-Pacific region, increase developing country participation in that research and to strengthen interactions between the science community and decision-makers. In order to support and build on the capacity of scientists in the fields of global change research, especially in developing countries, APN is planning to conduct the following activities in FY2013:

2-1 Support of Research and Capacity Development, Related to Global Change through Competitive Calls for Proposals

(1) Support of research projects, selected through the Annual Regional Call for Proposals (ARCP)

APN will support international research projects selected by the 18th Inter-Governmental Meeting (IGM).

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

In order to improve the scientific capabilities of developing countries, APN supports capacity

building activities for young, aspiring scientists and joint research activities of leading scientists in developing countries. In late 2012 the APN additionally launched a special call for proposal related to low carbon development (“Low Carbon Initiative”). In FY2013 it will start providing support to selected projects under this new programme.

2-2 Inter-Governmental Meeting and Other Meetings

APN will conduct the 19th Inter-Governmental Meeting (IGM) and the Scientific Planning Group (SPG) Meeting (country of venue: not yet decided).

2-3 Others

(1) Climate Adaptation Framework

Based on the discussion at and approval by the 17th IGM (March 2012) and following the *Scoping Workshop to enhance the Climate Adaptation Actions of APN Developing Countries* (August 2012), the APN is planning to strengthen its support towards adaptation activities (related to both research and capacity development) of APN developing countries, in collaboration with other organisations, such as the Asian Development Bank (ADB), Asia-Pacific Adaptation Network (APAN), and the Institute for Global Change Adaptation Science (ICAS) of Ibaraki University, Japan.

(2) APN Framework for Biodiversity and Ecosystem Services

In order to be actively involved in the discussion around this important and highly policy-relevant topic, as well as to find its role in the IPBES process, a framework was developed which will be presented at and endorsed by the 18th IGM. Based on a position paper the APN will make concrete plans to promote this thematic area by, for instance, inviting submission of research and capacity development proposals and/or organising workshops, etc.

3. Activities of the Japanese Center for International Studies in Ecology (JISE)

Aiming to realise a sustainable society through ecological study, JISE conducts practical research into the restoration and creation of ecosystems from the regional to global level; JISE also offers environmental training programmes, and collects and provides environmental information. JISE will implement the following activities in FY 2013:

3-1 Research Projects

JISE will promote practical research projects regarding environmental conservation and restoration based on ecological study, which include “Restoring Tropical Forests (Malaysia, Kenya and Cambodia)”, “Actual and Potential Natural Vegetation in Asia and the Pacific (Thailand and West Japan)”, “Vegetation Science Research Related to Conservation of Biodiversity” (Tokai and Tohoku regions of Japan)” and “Structure and Dynamics of Regional Ecosystems including their Evaluation” (Japan and overseas). In particular in FY2013, JISE will establish a research project called “Ecological study for the restoration of coastal forest in the tsunami stricken area”, and push ahead

with multilateral and intensive research and projects on nature and forest restoration in the coastal regions of northern Kanto and Tohoku which were hit by the Great East Japan earthquake in March 2011.

Based on the above research, JISE makes proactive social contributions in partnership with other institutes by promotion of replanting disaster-prevention and environmental-preservation forests, which contribute to global climate change policy, conservation of biodiversity, disaster prevention in mountainous and coastal regions, and restoration of forests for water source conservation; as well as support to keep secured local livelihoods by prevention of earthquake, fire, and tsunami damage to urban and industrial regions.

3-2 Capacity Building

JISE will carry out ecological training targeting the staff of businesses, public organisations and government offices that are currently planning or implementing environmental restoration projects, with the ultimate goal of establishing forests for environmental conservation. Furthermore, JISE takes part in the Local Forest (Meguri-no-Mori Forest) Development Council located in Shonan International Village (Kanagawa Prefecture) and continues to direct tree planting. In addition, JISE will implement capacity building projects aimed at the general public, such as forest creation, to contribute to the recovery and protection of the environment.

3-3 Interaction

Based on partnership with institutions such as Yokohama National University, JISE will unveil its database of information regarding phytosociological data (composition, structure and vegetation units). Also, JISE will hold outreach events, such as the JISE Environmental Forum, targeting the general public.

3-4 Dissemination and Public Awareness

JISE disseminates news of its activities through its public relations activities which introduces its own activities as well as the efforts of private companies in environmental conservation. JISE also publishes “Eco-Habitat: JISE research”, a bulletin containing both internal and external results, which will be available online. It also plans and implements numerous tours to carry out forest restoration overseas, such as the Kenya Eco-tour (to take place in April).