Global Green Growth Institute

2012 Budget Background Information

Overview

As illustrated in the accompanying presentation, GGGI's proposed budget envelope for 2012 is $39.4 million, an increase of $11 million over the proposed 2011 budget envelope. This number includes the budget for every potential country and research project, including those undergoing scoping and not yet approved by management. Based on previous experience, management has also provided an estimate of the likely total amount of actual expenditures by the end of 2012 ($33.4 million), taking into account that it is the nature of scoping and due diligence that not all projects are approved and others may be delayed due to the need for further due diligence or restructuring. Moreover, there is often a lag between commitments and actual disbursements for those that are approved, particularly in a start-up operation like GGGI. For example, in 2011, GGGI's actual expenditures were $15.3 million, far below the budget envelope approved by the Board.

Following is further background information about the individual elements of the major parts of GGGI's Green Growth Planning and Research programs, which together account for the great majority of the organization's budget.

Green Growth Planning and Implementation Program

A. EXECUTION AND SETUP STAGE

1. Ethiopia

GGGI's previous work in Ethiopia delivered the analysis underpinning the Climate Resilient Green Economy (CRGE) strategy that was launched in November 2011 in Addis Ababa and presented to the international community in 2011 at the Durban COP. The CRGE is a comprehensive high-level document that lays out the roadmap for Ethiopia to reach its goal of becoming a middle-income country by 2025 without increasing its carbon emissions. GGGI also helped to establish the institutional structure that currently exists in Ethiopia.

GGGI's engagement with Ethiopia in 2012 includes three major elements, described below: a project funded by DFID that would add an adaptation component to the country's CRGE strategy; and work that would carry forward the main CRGE into institutionalization and implementation which involves three distinct strands.

a. DFID adaptation

This project will focus on the following activities:

- Tailoring of the Economics of Adaptation approach described in an earlier phase of work to the requirements of Ethiopia, including mapping existing data availability against key data requirements

- Preparing a comprehensive technical document assessing the cost of adaptation for the agricultural sector. Given the importance of the agricultural sector in the context of the Ethiopian economy, and its particular vulnerability to climate change, the analysis should be comprehensive and cover the asset base, its vulnerability to climate change, and potential corrective actions.

- Prioritizing measures for the agricultural sector on the basis of a multi-criteria methodology, including assessing the financial and technical resources required, identifying the potential for financing options and possible institutional obstacles.

b. Climate Resilience – Phase 2

This set of workstreams span 2011 and 2012 and has been designed to support the completion of the main analysis underpinning the government's CRGE strategy, testing and refining it through initial stakeholder consultations and beginning the process of institutionalization, specifically:

- Confirming and refining the assessment (including quantification) of the highest priority technical opportunities (abatement levers) for the Transport and Industry sectors, and defining an action plan for the priority initiatives.
- Refining the major abatement initiatives in the Power, Forestry and Agriculture sectors, derived from Phase 1 of the GGGI's Ethiopia Country Program and developing investment plans.
- Developing the institutional enablers and MRV system to facilitate implementation
- Preparing the Green Economy Strategy section of the CRGE plan for GoE approval, including by developing a document covering Ethiopia's integrated strategy for the Green Economy based on the individual preliminary sector strategies and feedback from stakeholder consultation
- Convening stakeholder workshops for each sector addressed in order to test and refine the CRGE plan.
- Supporting the Ethiopian government in its presentation of the CRGE plan at COP17, including the preparation of multiple side events (4-5 expected) and bilateral meetings between Ethiopia and its various partners.
- Organizing and conducting the capacity building program for CRGE implementation
- Preparing the outline and deliverables for a 2-year plan allowing further readiness preparation of the CRGE plan (both mitigation and adaptation), in collaboration with other donors / partners (GGGI, UNDP)

c. BMU Component 1

Starting this summer, this project will build on the existing CRGE strategy by moving from the high-level strategy document to a set of regional and sector specific plans to prepare the ground for the investment strategies that will part of the government's so-called i-Plan (investment plan to implement the CRGE in key sectors). The project will prepare the strategy for the iPlan so that the government will be in a

position to launch the strategy later in the year, most likely at COP18. This will involve exploring opportunities and challenges to identify adaptation and mitigation actions that need to happen on the ground to meet the goals laid out in the CRGE strategy. Furthermore it will increase the reach of the sub-technical committees (STCs) by including experts from the region and by supporting the development of CRGE unit in the region themselves, helping to build capacity across Ethiopia. (Germany BMU $1.1 million)

d. i-Plan

This project will help the government implement the iPlan once it is launched, providing strategic support and analysis that prioritizes individual sectors and regions of Ethiopia for CRGE investments. In particular, investment plans will be developed for two crucial sectors: forestry and agriculture; and power. The objective is to create a pipeline of investable projects that attract public and private as well as domestic and external finance. In addition to providing sectoral investment analysis, GGGI will be responsible for the supporting the government with strategic vision, capacity building and stakeholder engagement. (Norway $1.25 million)

2. United Arab Emirates (UAE)

The purpose of GGGI's program in the UAE is to work with the federal and emirate governments of the UAE to help develop a robust national Green Growth Plan (GGP) and strategies, and provide tailored support towards the governments in their efforts to implement such strategies at the national and local level. The GGP aims to integrate existing national policies and measures for climate change mitigation and adaptation and align them with economic development objectives of the UAE. The completed GGP will contain specific policy objectives, directions, recommendations and measures that are tailored for the UAE, and adequately reflect the strengths and weaknesses associated with implementing green growth policies and strategies. The envisioned GGP will be carried out over a three-year period in three phases:

- Phase I – Development of National Strategy for Green Growth (February 2012 to January 2013)
- Phase II – Identification of Policy and Governance (February 2013 to September 2013)
- Phase III – Development of Green Growth Roadmap (October 2013 to September 2014). The process of developing the GGP involves working closely with local stakeholders throughout the entire process of scoping, formulation, and execution of activities.

During 2012, GGGI estimates its budget for UAE Green Growth Initiative and MENA Projects to be USD 5,040,000

Under the overall framework of development of the green growth plan, GGGI will focus on the following three areas:

- *Policy & Governance*. Develop a Green Growth Plan tailored to the UAE's socioeconomic and environmental conditions while building on the UAE's existing green growth and climate change initiatives. The GGP shall include a National Strategy for Green Growth, Green Growth Roadmap, and 5-year Implementation Plan.

- *GHG Inventory*. Establish a national GHG inventory and its management system.

- *Capacity Building*. Develop and practice intensive capacity building programs for government officials and major stakeholders.

Phase I includes the following activities:

- Performing micro/macro-economic analyses to understand the challenges and opportunities of achieving green growth in the UAE and the associated costs and benefits;

- Holding consultations and engage with local stakeholders from key sectors to integrate existing initiatives and build consensus around suitable green growth policy option;

- Designing strategies and action plans for key sectors with the aim to increase efficiency, promote innovation and reduce/abate pollution, which will be combined and refined to form a national strategic framework for policy making; and,

- Providing analytics and relevant reports to assess fundamental economic impacts of identified alternative green policy actions on national economy.

The ultimate outcome of the Project will be a practical framework for policy, governance and data management to prepare public and private sectors for the implementation of green growth in UAE. While preparing the green growth plans, the project will harvest low hanging fruits and materialize immediate opportunities for implementation of green growth such as renewable energy based microgrids project.

The project has been carried out with a projection of subsequent, progressing plans that will lead to long-term action for UAE. The main approach is to create taskforces across six sectors engaging main public and private stakeholders. Through stakeholder workshops, the project will identify main policies and actions to green the UAE economy at national and sectoral levels, covering all the major sectors incl. oil and gas, water and electricity, industry, transportation, building and waste. The public and private stakeholders will have intensive capacity building sessions to better understand, and also articulate and practice green growth in daily operation of business. The project will be managed by a focused project team from GGGI and UAE government.

In addition, with the goal of expanding green growth in the MENA region, a scoping exercise for an additional country will be executed (Morocco, TBD).

3. **Kazakhstan**

Together with Ministry of Environment Protection of Kazakhstan, GGGI will undertake the KNGGP project in order to develop the rationale for why Kazakhstan should opt for green growth, and based on what strategies green growth should be pursued.

For the period through October 2012, GGGI estimates its budget for Kazakhstan National Green Growth Plan (KNGGP) (including a Water Sector Development Program and National Sustainable Energy Plan) to be Euro 1.45 million.

The work will include economic analysis and institutional and legislative reform Kazakhstan should execute in order to implement the KNGGP. There will be three workshops to be held in 2012 and one held at the Astana Economic Forum in May.

Also in collaboration with the Kazakhstan Ministry of Industry and New Technologies GGGI will, undertake the project of National Sustainable Energy Plan focusing on: (1) supporting energy efficiency strategy by helping the government to introduce Voluntary Agreements system, energy audit system and an energy efficiency institute, which will ultimately support these new systems, (2) assisting in developing Kazakhstan renewable energy action plan and (3) identifying the regulatory barriers to introducing credit facilities for energy efficiency improvement in the housing sector.

In addition, in the Water Sector Development Program project GGGI will work together with stakeholders in the water sector to devise ways of facilitating PPP projects in the Kazakh water sector. This will include studies on current status of the performance of Kazakh water sector and international best practices, and suggestions of necessary institutional and legislative reform.

4. Philippines

GGGI is working in the Philippines on a project to demonstrate the eco-town framework in selected municipalities. The budget for the project is KRW 1,008,930,000 (approximately USD 892,860).

The main objective of the project is the development of a Local Green Growth Development Plan by demonstrating the implementation of NCCAP through the establishment of an eco-town that will enable the communities to be climate change resilient, ecologically sustainable and economically stable.

The following activities are within the work plan of the project to determine the feasibility of establishing an eco-town in the area:

1. **Socio-ecological profiling** will look into the environment and socio-economic-related information of the area. It will consider the identified natural and climate-related hazards and economic development in the area.

2. **Vulnerability Assessment** will be conducted for the project sites to determine the vulnerabilities risks of the ecosystems, communities, and infrastructure vis-à-vis the impacts of climate change through various assessment methods.

3. **Geographic Information System (GIS)** will be utilized as a tool for Vulnerability Assessment which will allow for the gathering of spatial and non-spatial information that will be the basis of developing an indicative eco-town management plan.

4. **Ecosystems Valuation and Environment and Natural Resource (ENR) Accounting** will primarily involve the conduct of valuation study that will determine the total economic value of the different ecosystems in the project area and establish the ENR accounts at the provincial and eco-town level.

A climate proofed management plan will guide management of the area as an eco-town and will also include adaptation and mitigation measures with regard to effects of climate change. Institutional strengthening will initiate the integration of climate change adaptation into the political and development agenda at the national and local levels, fostering political will and increase and sustain governmental and financial support towards creating an enabled environment for climate change adaptation.

5. Cambodia

The Royal Kingdom of Cambodia and GGGI signed an MOU in March 2011 to partner on green growth implementation based on Cambodia's green growth roadmap provided by UNESCAP and adopted by Cambodia in 2010. GGGI and Cambodia government set up the goals to establish National Committee on Green Growth (NCGG) and endorse Green Growth Master Plan (GGMP) by 2012. To design the initial framework, GGGI and Cambodia has hosted four workshops as well as informal consultations.

GGGI is now working with Cambodia on the Cambodia Green Growth Implementation Plan. Through December 2012, the estimated budget for this project is KRW 1.1 billion.

The close cooperation between GGGI and Cambodia will be shown at Rio+ 20. Cambodia government has prepared the Rio+20 national report that would introduce its plan to found NCGG and implement GGMP as Cambodia's main green growth efforts. Also, Cambodia delegation will announce the commitment to set up NCGG with the cooperation with GGGI at Rio+ 20 in June 2012.

By July 2012, GGGI will prepare for the draft of green growth master plan including policy suggestions especially in 7 access areas: (1) water resources management, (2) food security and non-chemical products, (3) sustainable land use, (4) renewable energy and energy efficiency, (5) information and knowledge, (6) means for better mobility, and (7) finance and investment. NCGG is supposed to review and implement the policies. In addition to the top down approach, GGGI has launched bottom up based projects in the rural areas which may be relevant for waste management and renewable energy planning.

6. Mongolia

GGGI's Mongolia Country Program seeks to provide the policy framework that will allow for the achievement of continued economic development while preserving environmental integrity. GGGI will support the Ministry of Nature, Environment and Tourism (MNET) in its effort to develop and promote green growth policies in selected areas – transport and energy, with comprehensive capacity building and knowledge sharing program.

The work program has three main components: (1) Feasibility studies for fuel conversion of public buses in Ulaanbaatar City, 2) Supporting renewable energy in rural areas – introducing geothermal energy in Arkhangai Province and 3) Capacity building and knowledge sharing program.

1. Feasibility Studies for Fuel Conversion of Public Buses in Ulaanbaatar City

In collaboration with Korea Transport Institute (KOTI), GGGI will support MNET to promote a low carbon public transport system in Ulaanbaatar and to contribute in reduction of air pollution and greenhouse gas emissions. The main activities of the project include:

- Conduct cost-benefit analysis on public transports
- Conduct studies on current liquefied fuel and gas use public transports in Ulaanbaatar City
- Convene consultation meetings with relevant stakeholders
- Provide policy recommendation to promote low carbon development and public transport

2. Supporting Renewable Energy in Rural Areas– Introducing Geothermal Energy in Arkhangai Province

To provide sufficient energy in rural areas, not relying on coal based electricity, but different types of renewable energy, GGGI will conduct a feasibility study to assess the possibility of using geothermal energy for supplying electricity and heating in Arkhangai Province, which is located in an area with volcanic activity and thus high yield of thermal sources. The main activities of the project include:

- Conduct hydro-geological studies in Arkhangai with sample drillings
- Conduct Socio-economic studies including cost and benefit analysis in the area
- Convene consultation meetings with relevant stakeholders
- Explore potential for a public-private-partnership with national and international companies and organizations as well as other funding possibilities

GGGI will develop and implement systemized green growth training programs to train public officials, decision makers and general public for successful establishment for the overall green growth policy development. GGGI will transfer accumulated Korean expertise and know-how in economic planning and environmental management throughout its economic development period.

7. Brazil

In 2010-11 GGGI worked with Brazil to help promote its green growth agenda, focusing on identifying low-carbon development opportunities, especially in key sector-specific reports. Brazil is now in a process of consolidating and consulting on the overarching and sector-based strategies, even as it pushes forward with implementation in key areas. To help drive continued impact, GGGI could work together with Brazil on various fronts, all of which are options for our 2012 (and beyond) program of work. Over the next 1-2 months, GGGI will discuss these (and perhaps other options) with the Brazilian government, and expects to launch one or more projects in the late summer.

The potential options and estimated 2012 budget are as follows:

- **Support the consolidation and finalization of Brazil's sector plans and national climate change plan:** Over the course of 2012, Brazil will be consolidating and finalizing its key work to-date toward a climate change strategy. Although this work is underway, GGGI support could help increase the quality and institutional buy-in for these plans. GGGI would need to discuss with the government in more detail what role GGGI could play in reinforcing this effort. To have meaningful impact, the work would need to start quickly (by July), it would be mostly completed in 2012, and would need to be at a reasonable scale (at least USD 500,000)

- **Develop a robust adaptation strategy:** Brazil's has currently launched a preliminary road-mapping exercise to begin developing a fuller adaptation strategy. GGGI may join this effort, bringing its own experience in adaptation work (now underway in Ethiopia) and raising the potential scope of this initial work by the government. GGGI needs to engage the government and the current project leadership to see the best way to join and create significant additional value. To become a core partner in this process, GGGI should launch its work in 2012, with a 2012 commitment could be as small as USD 250,000. However, GGGI should expect to continue working on this project through the end of 2013, with a total commitment in the range of USD1,000,000 or more.

- **Implementation support in key strategic areas (two potential projects):** Progress toward meeting Brazil's commitments to 2020 remains uncertain, and support in key strategic areas could have large impact in ensuring it meets its ambitions. Two areas identified by GGGI that have risk of insufficient

progress or a reversal of progress are (i) achieving significant financing flows for green growth initiatives; and (2) accelerating the growth of sustainable forest management. Projects in one or both these areas could have large impact in driving progress in green growth. The former would focus on concrete actions to enable large amounts of national and international climate finance, which are currently flowing at far below the required rate. The latter would focus on plans for spreading sustainable forest management, containing illegal logging, and ensuring continued progress in reducing deforestation. Given the urgency of work in these areas, GGGI may look to launch a project by the fall of 2012. This year's commitment could be as low as USD150-250,000 for each strategic area, although we would want to make a full commitment (into 2013) of about USD 500,000 per area.

- **City-level "green growth" strategy (two potential projects):** Progressing the green growth agenda at a city level can have a strong direct and indirect (by example) impact on progressing the national agenda. GGGI has identified two cities that might be good candidates for a city-level green growth strategy: Rio and Ricefe. GGGI still needs to engage these cities to discuss the idea, and we wouldn't expect work to be launched until the fall of 2012. If such a city-level project were launched, we would expect a full program of work to span 12 months, at roughly USD 750,000 per city. In 2012, we would expect to disburse USD 150,000-250,000

We would not expect GGGI to take up all of these projects. Until we have had further conversations with key government officials, it is difficult to know which of the six potential projects are the most promising. Nevertheless, assuming we choose to push forward with 1-3 of these proposed areas this year, we would expect to spend at least USD 500,000 in 2012.

8. Indonesia

a. Phase 2

The GGGI Indonesia country program consists of workstreams across two provinces, East and Central Kalimantan, plus targeted support at the national level. It spans 2011 and 2012.

East Kalimantan

1: Institutional building program and communications support Develop and refine plans for DDPI launch and ramp-up, incl.

- Draft high level job descriptions and help in sourcing capable candidates, e.g. through secondments from other agencies and external hiring; Develop 2012 budget submission for DDPI; Develop and deliver a set of on-boarding and training materials for DDPI staff, incl. skill-based training, on-the-job coaching and executive coaching; Support DDPI leadership during on-boarding process, e.g. by sharing basic methodology for performance based management and support in target setting for DDPI staff; Conduct skill-based training, e.g. around agricultural knowledge and international development in REDD; Conduct on-the-job coaching, e.g. in preparing and executing stakeholder workshops on provincial green growth agenda; Support in elements of PR strategy around green growth, e.g. through providing analyses and help draft newspaper editorials; develop external communications materials, e.g. COP 17 Durban (incl. payment for external editor, translation services and printing of communications material)

2: Design and develop data and data tools to support REDD+ policymakers in East Kalimantan

– Develop design for provincial land database, identify data sources, and support DDPI to deliver an implementation plan; Design and develop a land use optimization tool to support reforms of the provincial spatial planning process; Provide capability-building support to DDPI during development of the land optimization tool

3: Identify and facilitate implementation of pilot projects in East Kalimantan

– Based on the data and data tools to support REDD+**,** develop short list of possible REDD+ pilot projects (e.g., agriculture on degraded land, palm oil plasma productivity in specific locations), including potential locations; Lead initial engagement of key players (including private sector executives and government decision makers) to define and get support for pilots; Develop a template or methodology for assessing full cost of REDD projects, and train (one meeting) GGGI staff and relevant East Kalimantan staff in how to conduct the analysis;

4: Support the integration of previous green growth analyses in East Kalimantan into new provincial and national planning efforts

– Develop checklist to support moratorium implementation at provincial level; Conduct review of current national and provincial development plans, incl. MP3EI, RAN-GRK and RAD-GRK; identify sustainability gaps, and recommend analyses to close gaps; Provide capability-building support to DDPI on incorporating green growth and sustainability elements into provincial submissions to national planning efforts, including the national economic master plan (MP3EI), the National Action Plan for GHG Reductions (RAN-GRK), and the National REDD+ Strategy

<u>Central Kalimantan</u>

5: Provincial GHG assessment

1) Refine the BAU forecast emissions for 2020; Develop heat map for business-as-usual emission scenario presented per district and for each of the five largest economic sectors; Conduct analysis to show three main geographic and biophysical areas with distinctive emission characteristics: Mountainous areas in the north with large intact forests and limited emissions; Lowland forests with forest concessions and more significant emissions in the center of the province; Lowland peat areas in the south with high emissions

– Develop BAU emission scenarios (low, medium, high); Consolidated set of assumptions and data sources for each scenario; Develop abatement volume by district and industrial sectors and heat map for emission reduction opportunities by district and by sector; Design and build a spatial model to identify emission by location and optimize development of land and emissions simultaneously, e.g. by moving palm oil licenses to degraded lands; Conduct high-level socio-economic diagnostic, a biodiversity diagnostic and outline ongoing green growth activities; Conduct benchmarking against other Indonesian provinces; Present findings in multiple workshops and share learnings with three sets of actors;

6: Economic development modeling Contribute to the ongoing economic development modelling that the Government of Indonesia, the Governor of Central Kalimantan and The Millennium Institute/UNEP are working on by delivering data, guidance on building the model and revision of results. This work is completed in a short written report and participation in multiple workshops/meetings

7: Green growth strategy and roadmap

Identify and prioritize green growth opportunities targeting the main sources of emissions (at least 75% of forecasted 2020 emissions); Provide a green growth roadmap building on a set of fundamentals and green growth opportunities, incl. prioritization and timeline; Share critical analyses with key provincial stakeholders and further refine roadmap based on feedback into the provincial green growth roadmap; Syndicate green growth report with stakeholders across Central Kalimantan, Indonesia and globally (in workshops with district and provincial officials, at international conferences such as the Governor's Taskforce on

Climate Change (GCF) and at COP17, in discussions with key stakeholders at a national level, such as the REDD+ Taskforce and high priority ministries, in one-on-one meetings with key stakeholders for green growth in Central Kalimantan and Indonesia); Develop detailed green growth assessment of palm oil and mining sectors (high priority sectors for green growth in the province); Collect and consolidate (available) licenses that have been granted by various government entities for mining and palm oil concessions in Central Kalimantan.

8: Institution building program and communications support

Targeted, light-touch support at the national level

9: Support the Jakarta-based National REDD+ Task Force (SatGas REDD+) to design a process for mapping and inventorizing REDD+ project in all forested provinces in Indonesia

– Develop templates for assessing REDD+ project status, location, performance milestones and funding support in all forested provinces

– Support SatGas REDD+ in collecting REDD+ project data from donor organizations, and populate monitoring templates with data to the extent possible during period of support

b. Norway

Whereas GGGI's previous work has been at the provincial level, this project will focus on mainstreaming green growth in the national economic planning process in Indonesia, by exploring the potential challenges and opportunities of the current and project economic growth plans. This will focus on the current plans to growth the country's GDP at 7% p.a. while reducing emissions by at least 26%, 41% with international support.

There are a number of concurrent planning efforts – across different provinces, sectors and with apparently different objectives – which need to be gradually brought together and coordinated around the "7-26" objective. This will involve mapping the opportunity for green industry in the country, ideally in the context of the existing 'economic corridors' analysis. The proposed analysis will focus on the most important sectors, including PV Solar/Biomass, waste management, micro-grid and energy efficiency.

Furthermore, GGGI was asked to support the REDD+ Task Force to develop a delivery mechanism to identify, prioritize and finance projects focused on generating emission reductions in the forestry sector. Lastly, GGGI will continue to support provinces in their green growth plans, and in particular will focus on capacity building and implementation. A number of pilots were started in East Kalimantan in 2011 and will need to be further developed in order to attract international finance. In Central Kalimantan, the focus will be on the capacity of the provincial government to further develop its strategy and, eventually, develop projects. GGGI will also look into expanding its activities in another province. ($1.25 million Norway)

B. SCOPING STAGE

1. China/Yunnan

The objectives of the project is to assess the current conditions of green growth in China's Yunnan province, identify concrete green growth projects to be implemented in the next phase, and establish necessary local support for future engagement.

In order to achieve abovementioned objectives, this project has five main action agenda:

- Review of policies and programs in the 12th FYP of Yunnan Province;
- Identifying the needs of green growth in Yunnan province and scope for international cooperation to achieve green growth;
- Development of green growth projects for Yunnan province, which includes the following elements for immediate implementation;
- Signing of an MoU between GGGI and Yunnan provincial government in order to ensure smooth and efficient execution of the current project as well as future green growth projects;
- Hosting two international workshops in Seoul and Kunming respectively to foster mutual understanding on green growth; discuss in depth the opportunities and challenges of green growth; and develop concrete project plans

2. India/Karnataka

Like many states in India, Karnataka has undertaken a very high-level state-level Climate Change Action Plan. However, the state has identified that this plan is in need of significant additional work, and a more integrated "green growth" approach. As such, it has approached GGGI with a proposal to push forward on a robust state-level green growth plan that can serve as an example for the other Indian states, and be replicable and scalable across the country. In India, state's have significant delegate responsibilities, and are able to drive a large proportion of the green growth agenda autonomously. An initial proposal was submitted by BCCI–Karnataka and the India Observatory, after consultation with the key stakeholders in the Karnataka government. This has been reviewed by GGGI, which has helped ensure the work leverages GGGI best practice. The proposal and final scope will be discussed in a workshop in Seoul in mid-May, and it is hoped that the project will be launched by mid-summer. The key components of the work are in line with previous green growth plans conducted by GGGI, and will not be detailed here. In short, they include:

- *Green Economy Strategy:* Integrates GHG emissions reduction, other environmental goals, and social inclusion goals into the State's "baseline" development plans.

- *Climate Resilient Strategy:* Integrates climate vulnerability and other environmental impacts (especially on poorer populations) into the State's "baseline" development plans (NB: conducted simultaneously with the Green Economy Strategy)

- *Green Growth Financing Strategy:* Karnataka remains uncertain about how it will enable significant financial flows to launch its various green growth strategies. This work will conduct an initial high-level study of the potential funding sources, and key actions (e.g. institutional set-up, etc.) necessary to mobilize them.

- *Stakeholder engagement and capability building: As* with all GGGI Green Growth Planning projects, there will be an integral process of engaging core stakeholders, and building core capabilities.

3. BMU Component 3 (Thailand, Peru, Jordan)

Pursuant to an agreement with Germany's BMU, Peru, Thailand and Jordan have been selected for potential green growth planning projects based on a specific qualification and screening process. Initial

missions are being organized to begin discussions with the respective governments to gauge their interest and commitment.

4. Rwanda

This potential project aims to support the Rwandan Government to better identify potential for energy efficient and climate resilient housing which correspond to Rwandan circumstances; to develop and adopt appropriate technology on energy efficient housing especially for the low and middle income population; and also to explore the ways to promote the green urban planning with focus on Kigali's spatial structure and the metropolitan area management policy.

The following is project outline discussed and tentatively agreed by Ministry of Infrastructure and GGGI at initial meetings in Kigali. It is to be further developed and revised in the course of the bilateral meetings and the first Knowledge Sharing session. (Korea)

The Project will be phased in two parts which are Technical Advice on Energy Efficient Housing and Urban Planning (Part I) and Knowledge Sharing sessions (Part II).

Part I: In parallel with the urban planning guideline for green growth, principal aspects of green housing – i) construction materials, ii) possible passive house designs, iii) integration of renewable energy devices into housing designs/construction, and iv) guidelines to improve the existing regulatory framework on the sector – will be analyzed in very close collaboration with Rwandan stakeholders.

Part II: Knowledge and experience on green growth will be discussed and shared through following activities held in Kigali:

- Knowledge Sharing sessions with the relevant Ministries, governmental organizations including the Rwanda Housing Authority, academia, NGO, etc. on the housing and urban planning sectors (in June and December, 2012)
- Final Event to consult outcomes of the Project with Rwandan and international stakeholders (in December, 2012)

5. Indonesia

Green Industry Mapping Strategy
This potential project will explore cooperation between Korea and Indonesia in order to accelerate the development of their green industry sectors beyond current technical and financial limits. To scope the range of project, GGGI has had a number of scoping consultation meetings with the Ministry of Energy & Mineral Resources and the Ministry of Environment, which have an implementation function to be reflected by the industry side. Both parties found that this project would need to select a few of sectors for deep-dive analysis and a market-driven approach, namely a "Green Industry Mapping Strategy". As the 1st step, GGGI and the external parties to analyze the potential of green industry in Indonesia within the following scopes; Photo-Voltaic, Biomass of the renewable energy sources, Solid Waste Management, and Micro-grid of the energy efficiency measures. Eventually GGGI wouldl suggest the proper FiTs to attract investment from an Industrial perspective and demonstrate its effectiveness through Co-Benefit Analysis from a national perspective.

6. Water Resources Group

The WRG is a sectoral green growth planning project that blends rigorous analysis with extensive stakeholder engagement for the purpose of assisting governments in the design and implementation of effective water resource strategies. WRG helps water officials to develop and package their water resource information in a compelling format for influential, non-water specialists. It works with water officials to create a digestible, comprehensive economic overview of the water challenge the country faces to 2030; the economic value at stake to the nation from non-action; and the costs and benefits of the various options and trade-offs on offer. In this way, a wider set of government and business leaders can become engaged in the water reform process, based on the potential for growth that sound water resource management can secure. The analysis helps to facilitate the multi-stakeholder discussion, by bringing all actors onto the same economic "page" of conceptualising the problems, trade-offs and solutions (projects, programs, policies) surrounding integrated water resource management to 2030 as part of the wider planning conversation on national economic growth. In particular, this approach helps planners and politicians assess with business and civil society how best to manage the integrated nexus of water-related issues (energy, agriculture, industrialisation, urbanisation etc), in the context of planning for economic growth and resilience to future climatic variability. Given the close alignment with GGGI's approach to comprehensive green growth planning and the potential synergy in some of the countries where GGGI is active or planning to be active (e.g., Mongolia, Karnataka, Jordan, South Africa) a cooperation with WRG is being scoped.

7. India - central government

In 2012 GGGI intends to set-up a project in India at the National Level. For many years, India has advanced various aspects of a "green growth agenda" across various key sectors. Since its National Action Plan on Climate Change in 2008, it has further focused on a number of key areas. Nevertheless, despite progress in a number of key areas over the last few years, there remains significant room for more advanced development of this strategy, and of implementation plans. This includes deeper analysis in key sectors, greater consideration of climate resilience, and a more integrated approach to environmental and economic inclusion aims, among other things. Combined with the sheer scale and absolute impact (human and environmental) of India's development, there is a strong case for GGGI to establish a long-term, strategic partnership at the national level.

In this scoping and set-up phase, GGGI will need to engage the Government of India (through the Planning Commission, and potentially other Government bodies) to determine where there is a desire to work with GGGI, and where GGGI can bring the most impact to advancing India's "Faster, Sustainable and More Inclusive" Growth agenda. GGGI will also need to engage key local partners. We have already been approached by TERI, but will need to consider other potential local partners.

As is typical of GGGI scoping and set-up phase projects, this work would start with a relatively fast scoping and set-up phase, with a small team working for about 2-3 months, simultaneously engaging the government and defining a long-term scope (with initial supporting analysis). Past experience suggests this could cost $100,000-250,000, depending on the degree of interest in working with GGGI, and the need for initial analyses to gain buy-in and establish a long-term program of work. The goal would then be to launch a program of work of at least 12 months. If this set-up phase progresses quickly, we could be ready to launch an initial piece of work before the end of 2012. In this case, we would expect another $250,000-400,000 to be disbursed this year (toward a multi-year project).

8. S. Africa

In 2012 GGGI intends to set-up a project in South Africa. During the last couple of years, South Africa has advanced its agenda on green growth significantly. In November 2011 it launched its National Development Plan to 2030, which includes a commitment to transition to a low-carbon economy. The plan lays out a number of sectoral measures and plans, including speeding up and expanding renewable energy and waste recycling, improving buildings efficiency standards, scaling up investment in R&D for new technologies and introducing a carbon tax. Subsequently in the 2012 budget, South Africa committed to introducing a carbon tax by 2013 and, in Durban, confirmed its commitment to reducing its emissions by 42% by 2025.

The ambitious path chosen by South Africa will require careful planning and modeling, in order to ensure that the proposed transition to a low-carbon economy is compatible with the economic growth and human development objectives that South Africa has committed to. These include creation of jobs and inclusiveness of economic growth. It is at this nexus that GGGI intends to cooperate with the South African government. Preliminary conversations with the National Planning Commissions have identified potential areas for cooperation. Also, GGGI is looking at the opportunities to work at a sub-national level with either a city or a region in South Africa.

9. Morocco and an Island State

Scoping may begin late in 2012 on GGP programs in either or both of Morocco and an Island State.

GREEN GROWTH RESEARCH PROGRAM

A. Execution and Setup Stage

1. Green Growth Knowledge Platform

The Green Growth Knowledge Platform is a partnership between the World Bank, OECD, UNEP and GGGI. GGGI has been successfully nominated to be the lead organization of the GGKP Secretariat (to be co-hosted by UNEP). GGGI has committed to providing a Secretariat Manager, IT Content Manager and 0.5 FTE IT Technical manager to the initiative, in addition to continued existing Director support.

Work in 2012 for GGKP will focus on the following three principle areas:

1. Establishment / Launch and operation of the GGKP Secretariat.

   GGGI will host the Secretariat of the GGKP (likely to be based with the London Office).

   The Secretariat Manager will be responsible for leading the Secretariat including managing a virtual team across UNEP and other participating organizations. This will include managing the GGKP Council, overseeing the operations of the research committees and the Advisory Committee and overseeing the launch of the IT Platform. The GGKP Secretariat Manager and GGGI Director will be required to travel for outreach activities, workshops and the annual conference.

   40% Program Manager support is included to support the GGGI Director particularly during the set up phase of the GGKP – supporting engagement with the Council and launch of initial research programmes.

2. IT Platform

   As part of its bid to host the Secretariat, GGGI has committed to developing, launching and developing an IT platform for GGKP (and GGBP as an affiliated program).

   The cost of IT consultancy will be combined with budget included under the GGBP (as an affiliated program with some shared databases / functionality). $45,000 (with additional $25,000 GGBP) is budgeted for IT consultants, who will be managed / supported by 1FTE IT Content Manager and ½ FTE Technical support. The budget includes set up and some ongoing maintenance.

   As part of GGGI's broader knowledge management planning and strategy, we have included budget for the recruitment of one Senior Program Manager who would facilitate a strong internal knowledge management system in GGGI and gather, assess, link and manage knowledge to be included on the GGKP platform. This may include integrating databases hence we have included a budget for $55,000.

3. GGGI will support the GGKP in launching research committees and an initial 3 research programs in 2012.

   In support of this, we will have a side –event / outreach event during pre-COP hosted in South Korea. We have also budgeted for some publication / report for GGGI lead events.

2. Green Growth Best Practice project

GGGI won the bid to host the Secretariat of this project who will provide additional technical capacity.

The major functions for GGBP in 2012 include:

1. Establishment and management of the GGBP Project Office

   To include recruitment of Project Director to run the Project Office and lead the work of the GGBP.

   GGGI also committed the following resource as part of its bid to host the Project Office:

   1FTE Project Manager – to support the Project Director and manager the day to day running of the Project Office.

   75% Project Officer – to provide substantial logistical and process support to the Project Office including GGBP Workstreams.

   ½ FTE IT support for the IT Platform (To work closely with GGKP IT resource).

   Simon Zadek will also be brought on board as a senior strategic advisor to the project.

   The Project Director, Project Manager and GGGI responsible Director will be expected to travel for outreach and expert workshops. A travel budget has been included to cover this.

2. Management of Workstreams and expert groups

   GGGI will outsource the management of 2 workstreams to a consortium of consultants; Ecofys, ECN and JIN. ($354,000 over 18 months). This is to provide the necessary immediate technical capacity to manage expert groups and produce quality content.

Up to 9 expert groups will also be formed to take forward best practice analysis and reporting on agreed policy stages of green growth planning. These will be paid an agreed honoraria of $230,000 total. The budget includes appropriate travel expenses and other costs for up to 2 expert workshops during the next 8 months.

3. Launch and Management of the IT Platform

As part of its bid to host the Project Office, GGGI has committed to developing, launching and developing an IT platform for GGBP (and GGKP).

The cost of IT consultancy will be combined with budget included under the GGKP (the initiatives will share a community of practice, shared databases, some functionality etc). $25,000 (with additional $45,000 GGKP) is budgeted for IT consultants, who will be managed / supported on GGBP specifically by ½ FTE IT Support. The budget includes set up and some ongoing maintenance.

3. LSE

Research Cooperation with Grantham Research Institute – London School of Economics

The programme comprises four fundamental components:

1. A scoping phase where a number of leading researchers from top institutions from developing and developed countries will be consulted to further explore research questions and develop a detailed project plan for each research topic

2. A concurrent high-level phase in which up to six top economists from across the world will be asked to write papers on green growth and the new industrial revolution

3. Four interconnected research projects on the following topics constitute the core of the programme:

a) Macroeconomics and green growth: the interaction of business cycles, macroeconomic imbalances and green growth, and the implications for job creation and poverty reductions, and other key macroeconomic variables

b) Evidence from the impact of innovation policies to promote the diffusion of low-carbon and 'green' technology solutions: the impact will be assessed on both environmental outcomes and economic variables such as employment, investment and productivity growth

c) Evidence from economic history about the sources of growth and the role of policy during past waves of innovation: it will investigate both the potential for innovation spillovers on overall growth, as well as the performance of public policies to overcome market failures and unleash growth

d) Growth and adaptation to climate change: how adapting to climate change will affect growth in the longer run, with particular reference to less developed economies and impact on poverty and inequality

4. A dissemination and communication strategy building on the London School of Economics and GRI's established track record, leveraging existing channels and exploring new potential formats (blogs, web portals, open-source platforms, etc). The programme includes an inaugural conference in 2012 building

on the high-level papers commissioned, a series of working papers for each research topic, which would be submitted to top journals, a series of workshops for each research topic and a large academic research conference at the end of the programme. All of the above are going to be developed with GGGI and co-branded GGGI/LSE-GRI.

4. UNIDO employment

Impact of Green Industrial Investment on Employment

The purpose of this research project is to examine the relationship between green industrial investment and global employment generation: whether current 'green growth' efforts towards low-carbon resource-efficient industrial development will lead to the sustained generation of new jobs.

Key research questions:

- Will current 'green growth' efforts towards low-carbon resource-efficient industrial development lead to the sustained generation of new jobs?
- How to build a green global economy that is also a high-productivity economy?
- Through which paths will the building of a green economy also create an abundance of decent employment opportunities?

5. ADB capacity building

Mainstreaming Green Growth Economic Development in the Asia-Pacific Region

This ADB-GGGI co-project aims to enhance sustainability of economic growth in the Asia-Pacific region through providing greater awareness and capacity building in green growth development. The project will seek for closer cooperation and collaboration between ADB and GGGI, which is also expected to create umbrella framework with other relevant institutions or agencies in the region through sharing information and knowledge on green growth. This project will be highly beneficial for the developing countries in the Asia-Pacific region where the majority of key green growth policy making and project-specific experiences have been taking place. The experiences of countries such as India, Japan, Korea, PRC and Viet Nam will be studied through collaborations with major research institutes in the countries.

Based on the outcomes of this project, ADB and GGGI will consider next steps to utilize those experiences for improving national economic development strategy with greater awareness and stronger capacity in "green growth" policy and implementation frameworks, data, compilation and analysis of regional experiences. Furthermore, both institutes will consider creating a world-class regional green growth knowledge sharing program for developing countries in the Asia-Pacific region with long-term perspectives.

The main activities of this project will be compiling up-to-date green growth practices and experiences in the region, reviewing a green growth policy & strategic frameworks, introducing quantitative models for analyzing green growth potentials and impacts, and identifying key green growth-related indicators and data bases. This project will be officially kicked off probably in May as soon as internal process in ADB is finalized.

6. OECD

Green Growth and Developing Countries

GGGI is supporting the OECD in preparing a report on 'Green Growth and Developing Countries' to present channels in which green growth objectives can be achieved and the policies, regulations, technology transfer and new market opportunities that can help deliver them. The first draft of the report was finished in April 2012 and will be presented and discussed by developing country government officials and experts in the field at the GGGI-OECD Policy Consultation on May 9, 2012 in Seoul. The findings from the Consultation and the Summit will be worked into the final report, which is planned for completion in by the end of 2012.

7. Trade/Peterson and ICTSD

A number of policy makers, experts and companies have expressed support for the creation of a sectoral free trade arrangement for sustainable energy products and services that would eliminate tariffs, coordinate standards and eliminate local content requirements and other non-tariff barriers. The purpose would be to create a tangible, positive incentive within the international trading system for the development and proliferation of green energy goods and services, thereby helping to accelerate progress on the mitigation of greenhouse gas emissions while promoting economic growth.

The concept is modeled in part on the successful Information Technology Agreement (ITA), which was concluded by 29 participants at the Singapore WTO Ministerial Conference in December 1996. The number of participants has since grown to 70, representing about 97 per cent of world trade in information technology products. Under the ITA, signatory countries commit to completely eliminate duties on IT products covered by the Agreement. Developing country participants have been granted extended periods for some products. Another source of inspiration could be the Government Procurement Agreement (GPA), which establishes rules for competitive bidding and competition in relation to government procurement for 28 WTO member countries.

The SETA concept has already attracted initial interest from a number of energy, environmental and trade policy experts, companies and policymakers. The idea was published at the Global Green Growth Forum in Copenhagen October 2011 and the Danish Minister for Trade and Investment Pia Olsen Dyhr has voiced her support for the initiative. This project is conducting a full-scale analysis and more detailed set of policy options that could serve as the basis for more informed discussion among governments.

Three leading global trade think tanks The Global Green Growth Institute (GGGI), the Peterson Institute for International Economics (PIEE) and the International Center for Trade and Sustainable Development (ICTSD) have agreed to cooperate on a SETA project with a view to outlining a substantive and procedural roadmap for the negotiation of a plurilateral agreement, including illustrative product lists, as well as options for different elements that might or might not be included within the scope of any such agreement. The three institutes will commission discussion papers on the different potential chapters of a Sustainable Energy Trade Agreement to stimulate and focus the discussions in three convenings. These discussion papers would be refined over the course of the project and evolve into chapters of a co-branded edited volume that will be published by the three institutes in late 2012.

8. Technology/Brookings

This research programme partnership with the Brookings Institution will assess the state of international cooperation in support of innovation, research and development in the developing world, and propose options for an international research, development and dissemination (RD&D) architecture that would scale up reach and impact. The hypothesis to be tested is whether there is room in the international RD&D architecture for the creation of a network of RD&D centres in the developing world that would conduct applied research on green technologies appropriate for least developed countries in particular, bolstered by innovative ways of acquiring and managing the IP.

The research will be grounded in the latest literature on innovation policies and pathways and would:

1) Survey and map ongoing initiatives and proposals to enhance RD&D capacity for green growth related technology in the developing world. As part of this survey, identify approaches to enhance developing country access to IP that would allow development and diffusion of appropriate technologies for local conditions;
2) Identify stages of this process that are currently under-supported;
3) Review precedents for international IP development and sharing in other fields (pharmaceuticals, agriculture, etc) and assess how lessons can be deployed in the green growth innovation space to address the gaps identified. This will take into account as an input recent UK –supported research on lessons from international cooperation on RD&D in other fields.
4) Outline the components of a potential international initiative. This proposal would consider the balance between international cooperation and funding in support of potential networks, technology development and/or acquisition of IP; and
5) Outline a series of options with criteria for their assessment.

To ensure meaningful and constructive solutions that address the diversity of development contexts, input from research scholars and institutions from emerging and developing countries will be sought. This collaboration will be in the form of participation by affiliated experts in workshops, panels or similar outreach activities, including requests for input and commentary at key stages of the research.

Scoping

Other potential research projects in the early scoping stage include those on the Mekong Basin, an open source platform for green growth methodology, the creation of a green growth academic journal and concepts relating to Central Asia and urban green growth best practices.