Green Growth Best Practice

Green Growth in Practice: Lessons from Country Experiences

23 May 2014

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Overview

• Definition of Green Growth and Overview of GGBP assessment
• Key findings of each chapter
• Future research
How would you define green growth?
Definition of Green Growth

- The Rio outcomes document states that green growth “should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the earth’s ecosystems” (UNCSD, 2012).

- GGBP defined green growth as programs at national, state, provincial and local levels that are designed to achieve both economic growth and environmental protection together. In particular we focused on plans and programs that:
  - Form part of a comprehensive development framework for long-term economic, social, and environmental transformation;
  - Foster efficient and sustainable use of natural resources;
  - Aim to achieve socially-inclusive development;
  - Aim to improve resilience to climate change and natural disasters;
  - Aim to promote a low carbon/low emissions economy.

- Types of plans and programs that usually display the above characteristics include:
  - Green growth and green economy plans and strategies, Low emission (or low carbon) and climate resilient development and related climate plans, sustainable development strategies and program, and sector specific programs and policies which seek to advance economic, environmental and resource efficiency goals.
Rationale

Major international organizations have published initial reviews of green growth, green economy, low emissions, and climate resilient development plans. Growing number of countries are adopting green growth.

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<th>OECD</th>
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Yet, there is no systematic and comprehensive study of country experiences.
Green Growth Best Practice

Key question:

What are the effective approaches that counties have taken for green growth planning, implementation and monitoring?

Gathering, assessing, and sharing best practices on green growth

• Conduct high-quality, fact-based assessment to identify good practices around the world.
• Document results in products tailored for different audiences
• Foster use of results to inform policymakers and practitioners

Working with a global network

• Launched in October 2012 with support from CDKN, ECF and GGGI
• 75 authors conducting the assessment from all regions
• 20+ partner organizations and 200+ experts in the Expert Network
• 12 Steering Committee organizations: CIFF, CDKN, ECF, GGGI, BMU-ICI, LEDS GP, OECD, UNDP, UNEP, UNESCAP, UNECLAC, WB
Summary of initial lessons was released in March 2014.
Available here:
http://ggbp.org/

Full report, *Green Growth in Practice: Lessons from Country Experiences*, will be released on 24 June 2014, at LEDS Global Partnership Workshop
GGBP topics & integrated green growth approach

- National and sub-national integration
- Public-private collaboration
- Financing strategies
- Policy design
- Prioritizing options and pathways
- Benefits
- High-level vision and targets

Planning and coordination process

Implementation

Monitoring and evaluation

Policies and measures
Emerging Evidence that Green Growth Achieves Concrete Economic, Environmental, and Social Benefits

• **Enhances efficiency and productivity**
  – Green, resource efficient technologies and practices can yield immediate savings in resources and money and enhance competitiveness over the long term.

• **Underpins industrial policy and macroeconomic goals**
  – Growing demand for green technologies, products and services offers opportunities for developing new industries and markets along with capturing benefits of resource efficiency for current industries.

• **Improves quality of life and social equity progress**
  – Reducing environmental degradation and conserving natural resources can enhance the quality of life for citizens, especially the poor who are particularly vulnerable.

• Growing numbers of national and sub-national governments are realizing these benefits, especially where they **recognize trade-offs and smooth transition** to a green economy.
Chapter 1. Planning and Co-ordination
Planning and Co-ordination

Key question:

*What practices ensure effective green growth planning and coordination process?*
Planning and Co-ordination

What do we mean by green growth planning processes?

• Many countries are now undertaking explicit green growth planning processes.

• It can mean undertaking studies, developing national strategies, or integrating green growth objectives into national development plans.

• It recognizes the role of governments as the prime mover in enabling long-term change in large socio-technical systems where environmental externalities must be addressed.

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Employ well designed planning and coordination processes with strong mandates and political support

**Effective green growth planning and coordination**

**PROCESS DESIGN**
- Focus on green growth objectives
- Establish clear “rules of the road”
- Generate compelling evidence

**STAKEHOLDER ENGAGEMENT**
- Strategically select who to engage
- Be clear about roles and manage expectations
- Facilitate contestation between stakeholders

**INSTITUTIONALIZATION**
- Green growth led by strong government institution
- Embed green growth plans in well-governed institutions
- Institutionalize for longevity and durability

**OBJECTIVES AND MANDATE**
- Clear and well-articulated green growth objectives
- Formal green growth mandate(s) with high-level support

**LEADERSHIP**
- Have a high level champion
- Link long-term national goals to green growth
- Build winning coalitions
Lessons and examples of effective planning approaches

• **Leadership**
  – South Korean and Mexican presidents set vision and engaged throughout process

• **Objectives and mandate**
  – Chile: Formal ministerial approval of green growth mandate
  – Mexico: National legislations established climate and green growth vision and goals

• **Process design**
  – South Africa used participatory and evidence based process to build broad consensus and support
  – Peru focused on design of specific policies to support development of operational plan
  – Brazil, Chile, and South Africa invested in robust and iterative analysis process to allow for learning and continual stakeholder input

• **Stakeholder engagement**
  – South Africa and State of Florida had stakeholder teams guide the research and agree on inputs and methods with managed stakeholder facilitation and conflict resolution processes

• **Institutional arrangements**
  – China, Vietnam, Cambodia, Colombia and Indonesia achieved “greening” of their five year development plans by integrating green growth measures into existing central planning processes
  – Colombia: Integrated strategy in national development plan and embedded advisors in line ministries
**Examples of Planning and Co-ordination**

**Integrating climate and development in Nepal**

In Nepal, articulating climate change as national development agenda included:

- Address the challenges posed by climate change impact to Nepal’s socio-economic development goals
- Effective engage with, implement and maximize the benefits of the UNFCCC
- Make socio-economic development practice and natural resource management practice climate friendly
- Mobilize and manage climate finance effectively (government of Nepal, 2011)

**The Rwanda Green Growth Strategy**

The Green Growth National Strategy in Rwanda government include:

- Focuses on low carbon domestic energy resources in order both to reduce Rwanda’s contribution to climate change and enable become independent of imported oil for power generation
- Development of robust local and regional knowledge to be able to respond to changes in the climate and sees Rwanda becoming a regional services hub
Chapter 2. Establishing Vision, Baselines, and Targets
Establishing Vision, Baselines, and Targets

Key question:

What processes and approaches have proven useful when creating a high-level vision and for establishing and using baselines and targets?
Establish clear visions, targets, and baselines

What do we mean by vision, target and baselines?

- **A high-level vision** is long-term and shared objective to guide policy making. The Vision for green growth is to build a cross-government objective in order to provide a common purpose for national, sub-national and regional action.

- **Targets** specify the desire outcomes of policy action.

- **Baseline** are defined levels of specific variables or groups of variables (e.g. economic outputs, GHG emissions, poverty headcount, air pollution) which are used as a reference to set a target.

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Establishing Vision, Baselines, and Targets

**Long-term transformative vision**

**Targets**
- Economic, environmental and social targets
- Economy wide, sector specific and sub-national targets

**Baselines**
- Economic growth
- Resource and environmental conditions
- Social development measures

**GOOD PRACTICES:**
- Ensure political leadership and build stakeholder consensus
- Focus on domestic development priorities
- Establish near and long term economic, environmental and social targets
- Cascade economy wide, sector, national and sub-national targets informed by baselines
- Link targets to budgets and policy design
- Balance purpose and practical considerations
Key lessons on visions, targets, and baselines

• Build ambitious, yet achievable vision for long-term green growth transformation
  – Guyana: Investments in low carbon economic infrastructure; in high-potential low-carbon sectors; expanding access to services and new economic opportunities
  – Ethiopia: achieve a middle-income status by 2025 in a climate-resilient green economy.

• Establish performance targets aligned with domestic interests
  – Mexico: reducing 30% of GHG by 2020 (from BAU) and a 50% reduction by 2050 from base year 2000 while growing its GDP by two digits.
  – Indonesia: 26% GHG reduction vs BAU by 2020 and an economic growth rate of 6.3 – 6.8% per year
  – Vietnam: Reduction of greenhouse gas emission intensity (GHG/GDP) by 8-10% between 2011 and 2020. 42-45% of GDP will be formed by production of advanced and green technologies.

• Establish both long and short-term economy wide targets and short term sector specific targets to measure progress and adjust plans.
  – Denmark: 50% wind power in electricity consumption by 2020 and 100% renewable energy by 2050.

• Balance purpose of targets and baselines with practical considerations
  – Brazil: In favor of efficiency, they chose a simplified approach to the development of their deforestation baseline, assuming a linear deforestation rate over time.
  – Ukraine: explicitly chose simplicity and transferability of a baseline development tool than the most detailed robust possible tools to maximize usefulness of the data in their particular context.
Examples of High Level Green Growth Visions

Guyana’s Low Carbon Development Strategy

Key focus areas are:
  • Investments in low carbon economic infrastructure
  • Investments in high-potential low-carbon sectors
  • Expanding access to services and new economic opportunities for indigenous, forest communities
  • Improving social services and economic opportunities for the wider Guyanese population
  • Investments in climate change adaptation infrastructure

Cambodia’s National Green Growth Roadmap

“In Cambodia, green growth aims to unify development and environment objectives by means of implementing policies tailored to address the needs of all, including the most disadvantaged, to create jobs, to increase the resilience of the environment and of the population to adverse impacts, thus sustaining economic growth and human and environmental well-being in the long term. This roadmap is also intended to promote women’s status for the realization of a gender-equal society.”
Chapter 3. Assessing and Communicating Benefits of Green Growth
Assessing and Communicating Benefits of Green Growth

Key question:

*What approaches and methods are most effective in evaluating and communicating green growth benefits?*
Assessing and Communicating Benefits of Green Growth

What do we mean by green growth benefits?

- Green growth benefits should be translated that broad statement into a coherent intellectual and policy framework (Atkinson, et al. 2007; Rennings and Wiggering, 2007)
  - Defines sustainability (e.g. weak vs. strong sustainability)
  - Recognizes the interrelationship between stock (wealth) and flow (growth)
  - Account for equity (inter-and intra generational equity)
  - Values natural assets and integrates them into conventional economic indicators (e.g. value of biodiversity loss as part of GDP accounts)

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Undertake robust analysis and balanced communication of the benefits of green growth

**Identification and Framing**
- Evaluate economic, environmental and social benefits
- Maximise synergies and address inter-dependency between benefits
- Link to current development goals
- Manage costs, trade-offs and uncertainties
- Balance between addressing a broad set of benefits with pragmatically focusing on priority benefits

**Analysis**
- Translate high-level green growth vision into analyzable variables and analytical framework
- Utilize a broad set of complementary analytical tools

**Communication**
- Use comprehensive benefits messages tailored to variety of audiences
- Engage credible trusted messengers
Lessons on Assessing & Communicating Benefits

- Identify and evaluate **synergies** and **trade-offs**
  - Korea: pursuing benefits of investment in green industries and creative economy that will generate jobs, address climate change, and improve energy security
  - UK: identified trade-offs of climate policy for key industries and consumers and took steps to mitigate impacts, such as pursuing cost-saving efficiencies

- Focus on **selected benefits** that will gain the most support and traction
  - Ethiopia: emphasized green jobs, economic efficiency, and climate change

- Use a **broad analytic framework** that integrates complementary approaches
  - Indonesia: cost-benefit analysis of greening national infrastructure development plans
  - Mexico: combined bottom up analysis and macro-economic modeling

- Engage **credible messengers** in presenting fact-based and balanced case
  - Korea: used presidential speeches, celebrity endorsements, and educational campaigns to inform people how green growth would improve their lives
  - India: used street theater for rural energy program, while EU used twitter and internet for its RE program
**Examples of Benefits on Green Growth**

*Benefit Identified in Ethiopia’s Climate Resilient Green Economy (CRGE)*

• In Ethiopia, main framework for green growth focuses on how climate change resilience and greenhouse gas mitigation is crucial to achieving its economic and social goals of becoming a middle-income country by 2015.

• The CRGE used a relatively basic, spreadsheet-based sector analysis to assess a core set of green growth benefits related to GHG emissions reductions, economic efficiency, and short-term green job.

• The CRGE analysis of net benefits was effective in moving the country from “interest” to “commitment” by showing that a green growth pathway was beneficial to the achievement of Ethiopia’s overall development objects.
Chapter 4. Prioritization of Green Growth Options and Pathways
Prioritization of Green Growth Option and Pathways

Key question:

What tools, methods and approaches have been used to effectively identify, analyze, and prioritize options and articulate alternative pathways to inform green growth plans?
Prioritization of Green Growth Option and Pathways

What do we mean by options, tools, methods, and scenario?

- **The term option** here describe a technology, behavior, technique, action or practice that leads to an improved environmental, social, and economic outcome (e.g. wind energy and Bus Rapid Transit system)

- **Tools and methods** are analytical devices ranging from formal proprietary models to less formal spread sheet frameworks

- **Scenarios** are on particular approach—they are coherent, internally consistent and plausible description of possible future state of development and the **pathway** to reach it.

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Prioritize options and construct credible pathways towards formulated targets
Lessons on prioritize options and construct credible pathways towards formulated targets

- Select and adapt prioritization tools and methods to address key economic, environmental, and local context
  - British Columbia: Encouraging GHG emission reduction through provincial and local government planning action to set priorities and develop green growth plans

- Combine top-down approaches reflecting macro-economic impact and bottom-up approaches capturing technological detail
  - Netherland: Waal River in Netherland started program called WaalWeelde a new government model that was adopted by the provincial government. It reviews how a variety of analysis tools was applied and what decision-making process entailed in GG planning.

- Apply an interactive process to analyze options, identify priorities and combine them into pathways for near and long-term transformation
  - Mexico: In 2009, Mexico published the country’s long-term climate change agenda together with the medium-term goals for adaptation and mitigation.

- Use pathway to identify the scale and pace of change required in different sectors
  - UK: Electricity sector de-carbonization is a central feature of the UK green growth plan which is based on the development of three technology pathways (renewable resources, nuclear power and carbon capture and storage) and the implementation of new support mechanisms.
In Kenya, combining simple spread sheet tools with an economy wide EGE model allowed for comparison and calibration, and resulted in more robust and comprehensive information for decision-makers.

• Simple spread sheet tools used to record and assess the key characteristics and potentials of different low-carbon options. This approach:

  • Enabled transparency and reparable, and allowed subsequent updating
  • Worked easily and used data and assumption that often started from educated guesswork, validated by stakeholders
  • All data and spreadsheet were transferred to the government to build in-country capacity and to ensure updating of the analysis

• An economy wide CGE model was used to project the macro economic effects of low carbon development through 2030
Chapter 5. Policy Design and Implementation
Policy Design and Implementation

Key question:

*What types of policies and measures have been most effective in achieving green growth goals?*
Policy Design and Implementation

What do we mean by green growth policies?

- Green growth policies include both economy-wide polices, for example on innovation and natural resource pricing, and policy measures in key sectors, such as cities, transport and agriculture.

- Ambitious green growth strategies require comprehensive and coherent policy portfolios that can enable transformational change across the economy to achieve ambitious green growth objectives.

- In practice, however in many countries the first steps in green growth policy making has been more limited, projects and programs, particularly focused on energy efficiency, and renewable energy (OECD, 2013a).

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Design portfolios of policies to address multiple goals and respond to specific market failures and political economy challenges

- Apply a mix of policy instruments to achieve short term ‘wins’ and support long-term transformation.

**Enabling Policies**
- Economy-wide: green infrastructure investments, innovation and R&D, education and awareness, green skills development
- Sector-targeted: bus rapid transit, water infrastructure, green jobs training in clean energy, water and agriculture

**Mandating Policies**
- Economy-wide: efficiency standards, pollution standards, sustainable public procurement, land regulation
- Sector-targeted: energy performance standards, vehicle standards, land tenure regulation, building codes

**Incentivizing Policies**
- Economy-wide: environmental taxes and subsidies, allowance schemes
- Sector-targeted: full-cost pricing of water and energy, pollution charges, feed-in tariffs

**Green Transformation**
Lessons on policy design and implementation

- When designing portfolio of green growth policies that includes the above types of instruments, give special attention to green innovation policies and labor and skills development which are essential for green growth transformation:

  1) Support green innovation to decouple growth from environmental degradation
     - Japan, USA and Germany: High government spending one of the reasons why these countries accounted for 60% of green innovations worldwide between 2000 and 2005
     - India: Bottom of the pyramid innovation support solutions adapted to local contexts and targeting SME's, micro-enterprises, and community groups

  2) Develop skills to improve competitiveness and avoid bottlenecks
     - Korea: Centrally coordinated policies targeting universities, vocational training, and youth education
     - South Africa: Green Economy Accord, a multi-sectoral framework to increase competitiveness and employment opportunities with a special focus on young workers
Lessons on policy design and implementation

• Couple consistent and coherent policy instruments with strong governance and enforcement
  ▪ Singapore: Ambitious plans with targets continuously reviewed and met through a broad mix of well-enforced policies
  ▪ Germany: Stable renewable energy policy portfolio resulting in deployment of renewable energy technologies domestically and world-leading domestic wind and solar industries

• Acknowledge and address resource limits and environmental threats
  ▪ Mexico City's Plan Verde: Addressing back-log of environmental restoration with clear targets and effective monitoring systems
  ▪ Brazil: Reconciling poverty reduction and environmental goals with agricultural growth
Energy Policy in Thailand

• Thailand Government has gradually implemented a policy portfolio of fiscal, regulatory and enabling policies to support the uptake of energy efficiency and renewable energy.

• Policy measures include skills development programs, support to universities and research institutions for technology improvement, use of income tax breaks and import duties exemptions on equipment.

• Key factors enabling implementation include:
  • Alignment with priorities for energy security, inclusiveness and market development
  • Gradual expansion of the programs to ensure robustness
  • Involvement of civil society and small private energy suppliers
Mobilizing Investment

Key question:

What government financing strategies have been effective at mobilizing private sector investment in green growth priorities?
Mobilizing Investment

What do we mean by green growth mobilizing investment?

- A fundamental objective of all green growth program is to unlock the investment needed to achieve a transition to green development pathways.
- Government faces significant challenges in securing the level of investment.
- Government financing strategies for green growth should seek to encourages green investment opportunities.
- They should address investment needs for transformation of whole economy in specific priority sector at both national and sub-national level.

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Design public finance instruments to overcome barriers and mobilize private investment into green growth sectors
Lessons on mobilizing investment

• Creating an enabling environment for green investment
  – Germany: energy efficiency in housing program was implemented through a combination of regulatory and financial interventions

• Programmatic and capital support from public budgets
  – Vietnam: Vietnamese government to complement international funds with its own public funds to support implementation

• Institutional arrangements to support green growth
  – South Africa: Climate change and green growth aspirations are directly supported by the Ministry of Finance
  – Morocco: MASEN was established as an extra-budgetary entity through a range of domestic public finance source

• Use of financial instruments to de-risk project and return on investments
  – South Africa: Green Fund used guarantee or insurance mechanism
  – Morocco: employed equity investment as one of the financial instruments for green growth

• Innovative long-term approaches to green growth finance
  – United States: US Property Assessed Clean Energy mechanism has been used for decades in US to access low-cost, long-term capital to finance improvement to private property that meet a public purpose
Examples of Mobilizing Investment

**Bangladesh Microfinance for Solar Home System (IDC COL and German Shakti)**

- The IDCOL financing entity has channeled international finance, including from the Global Environment Facility, to provide grants subsidizing the cost of Solar Home System (SHS).

- It provides technical assistance and support for capacity development.

- Dedicated financial intermediary has been an important way of allowing international sources of finance to be combined and tailored to the local context.
Chapter 7. Public-Private Collaboration
Public-Private Collaboration

Key question:

What PPC approaches have been most successful in green growth planning and implementation to engage with the private sector and mobilize private sector leadership and action?
Public-Private Collaboration

What do we mean by green growth public-private collaboration?

• Mostly public discretion: government control and contract for service ‘Public – Private Partnership’ (PPP)

• Shared discretion: collaborative governance with joint decision making

• Private discretion: break-through capitalism with private leadership scaled up through government policy support

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<td>• Forest Stewardship Council</td>
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<td>• Paying for Methane Emission Reductions as a climate finance pilot</td>
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<td>India</td>
<td>• Mobile phones and agriculture</td>
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<td>Kenya</td>
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<td>• DBFMO contracts for public-private partnership for Highway construction in the Netherlands</td>
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<td>United States</td>
<td>• Alaska’s individual fishing quota</td>
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<td>Zambia</td>
<td>• Chiansi Irrigation Project</td>
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Tap the power of public-private collaboration

Public-Private Collaboration (PPC)
Enhancing public policy effectiveness and efficiency
Diverse PPC options: government-led, private-led, collaborative governance

Examples of green growth areas advanced by PPC* and PPC roles

- Spurring innovation and creating markets
  - Provide long-term certainty for private sector innovation investments
  - Deliver mentoring and capacity support to stimulate ‘green’ entrepreneurship
  - Support research networks for to advance innovation research outcomes

- Managing natural resources
  - Build shared public private ownership and responsibility for natural resources
  - Establish shared valuation and awareness of natural resource attributes
  - Achieve effective compliance and enforcement

- Green Infrastructure Development
  - Enhance efficiency of large infrastructure investments
  - Mobilize resources and support for smaller scale infrastructure projects
  - Unleash entrepreneurial innovation for infrastructure in new growth areas

* These are three illustrative examples assessed by GGBP. PPCs also can advance resource efficiency, transparency and disclosure, and other green growth outcomes.
Lessons on design of public private collaboration

• Shared commitment to enter into a collaboration
  — Zambia: Chiansi irrigation project trying together international donors, the government, regional and international development project specialists and small holder framers to overcome upfront capital costs of irrigation systems and support commercial-scale framing

• Development of a shared vision, support by clear and well articulated goals
  — Alaska: Alaskan Halibut Fisheries Management example whereby safety and profitability was a key driver for private vessel owners, while they shared a common understanding that sustainable fish stock management was the core goal of the program

• Evaluation of the costs and benefits of collaboration
  — Design of PPPs: Government agencies should formally assess costs and benefit during negotiation and express these in monetary terms through public value-for-money assessment

• Clear definition of roles and responsibility through transparent governance systems
  — India: Punjab Grain Silo, contractual agreement clarified the roles and responsibilities of the private sector actors to ensure an efficient and effective outcome

• Broad and extensive stakeholder engagement
  — Forest Stewardship Council: They consults along with the design of open and transparent collaboration processes, helps to align the view of a large number of stakeholders such as Int’l Organizations, leading business, civil society organizations and communities
Lessons-learned from successful PPCs

• **Supporting green R&D and innovation** by providing greater market certainty for innovators and building research and innovation capacity
  – Kenya: UNFCCC backed Climate Innovation Center (CIC), which build local capacity, provides support for firms, facilitate finance, and advocate for enabling polices

• **Driving the transition to sustainable management of resources** through shared valuation and enforcement system
  – Madagascar: Government of Madagascar approved carbon sales with Microsoft. Through carbon credit sales from avoided deforestation, the project will finance the long-term conservation of rainforest

• **Mobilizing investment in green infrastructure through large-scale infra development and smaller-scale distribution systems**
  – India: with well-established mobile network and distribution of devices, farmers in India have an access to information about how to increase their crop productivity and also to technologies that deliver a range of financial services
Example  
Public Private Collaboration (PPC)

**Biodiesel for energy security in West Africa**

- Small-scale collaborative project to enhance energy security in Mali and Burkina Faso with help of low emission energy technologies
- Government provides support to the private sector through the provision of an infrastructure for production and distribution of biodiesel, providing a market to farmer cooperatives and supporting energy security
- In this case, more than 10,000 smallholder farmers can benefit from the cooperation with the private company
- The collaboration between private and public sector has been vital for the success of the project
Chapter 8. Integrating Subnational Action
Integrating Subnational Action

Key question:

*How can national green growth objectives be achieved more effectively through enhanced and integrated subnational action?*
Integrating Subnational Action

What do we mean by subnational integration?

• **Subnational implementation of national policy:** Where policies or targets are set at the national level, but implemented by cities, states and other local authorities.

• **Independent subnational action promoted by national action:** Where national frameworks support or encourage local authorities that are taking green growth steps through their own mandates as policy-makers, investors, and developers.

• **Subnational action informing and inspiring national action:** Where ideas, lessons, and policies demonstrated by individual local authorities are scaled-up nationwide.

Cases analyzed in this chapter:

<table>
<thead>
<tr>
<th>Location</th>
<th>Cases</th>
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<tr>
<td>State of California, US</td>
<td>• Air quality regulation</td>
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<td>France</td>
<td>• Regional Climate-Air-Energy Plan</td>
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<td>India</td>
<td>• Jawaharlal Nehru National Urban Renewal Mission (JnNURM)</td>
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<td>Sub-Saharan Africa</td>
<td>• Partnerships for agricultural and climate change initiatives</td>
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<td>Morocco</td>
<td>• Jiha Tinou program</td>
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<td>UK</td>
<td>• Devolution and innovation for low carbon growth in UK cities</td>
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<tr>
<td>Belo Horizonte, Brazil</td>
<td>• Waste and water recycling</td>
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<tr>
<td>International networks</td>
<td>• Potential application of AMCs in green growth, Sustainable development: ICLEI Local Governments for Sustainability (ICLEI), Paying for Methane Emission Reductions as a climate finance pilot, C40 Cities Climate Leadership Group (C40), United Cities and Local Governments (UCLG), The Climate Group (TCG), Network of Regional Governments for Sustainable Development (NRG4SD), R20 Regions of Climate Action (R20)</td>
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Pursue mutually reinforcing action across sub-national and national levels of government

- National government
  - COMMUNICATION
    - Scaling up
    - Feedback success stories into national policies
  - JOINT ACTION in policy making and implementation
  - COMMUNICATION partnership facilitating peer to peer learning
  - INCENTIVES
    - Financing
    - Regulations
    - Targets
  - CAPACITY
    - Devolution of powers
    - Financing
    - Human resources
    - Technical expertise

Subnational government

Cross-learning; decentralized cooperation

Replication
Lessons-learned from national and sub-national integration

• **Incentives:** Establish financial incentives, regulations, and targets to motivate and support subnational government in promoting green growth
  – India: the JNNURM program linked funding incentives to implementation of reforms
  – China: Renewable Energy Law has had significant impact requiring provinces, autonomous regions, and municipalities to set up medium-to-long term objectives and plans for renewable energy development

• **Capacity building:** Enable subnational governments to implement green growth by providing new powers, budgets, human and technical resources, and peer learning
  – United States: US Environment Protection Agency (EAP) provides technical assistance to States and local government to assist in implementation of subnational climate and energy plans

• **Joint Action:** Develop interlinked green growth and subnational strategies and measures where national government enable and motivate subnational replication
  – Brazil and Costa Rica: the involvement of subnational government has played a key role in implementation of command and control measures to prevent deforestation

• **Communication:** Facilitate dialogue between subnational and national governments that feedback of success stories at the subnational level and active engages stakeholder
  – Brazil: Belo Horizonte provides a bottom-up approaches by local government has inspired national-level policy on legitimizing the informal work sector
Example: Emerging role of sub-national governments

California’s clean air program is a one of an increasing number of examples where sub-national governments are enacting regulations stricter than those of their central governments:

- Under the Federal Clean Air Act of 1970 states are permitted to impose standards on pollutant emissions that are stricter than federal regulations.
- When the Act was passed, air quality was a particular priority in California because of smog in key cities and districts and health concerns backed by emerging scientific evidence.
- This enabled political momentum for the state to enact a combination of regulations, investments and incentives targeting refineries, industries and vehicles.
- Many of the State’s standards and initiatives were adopted by the Federal Clean Air Act Amendment of 1990.
Chapter 9. Monitoring and Evaluation
Monitoring and Evaluation

Key question:

*What monitoring and evaluation practices enable effective green growth programs?*
Monitoring and Evaluation

What do we mean by monitoring and evaluation?

- Effective monitoring and evaluation (M &E) increases government accountability, enhance public trust, improves stakeholder engagement and facilitate learning.

- It plays a crucial function in development planning, effective design and implement of green growth plans, policies and interventions.

Cases analyzed in this chapter:

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<td>Denmark</td>
<td>• Green energy strategy</td>
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<td>Karnataka, India</td>
<td>• The Sujala Watershed Management and Poverty Alleviation Project</td>
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<td>Kenya</td>
<td>• MRV+ system</td>
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<tr>
<td>South Africa</td>
<td>• Green growth monitoring strategy</td>
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<tr>
<td>South Korea</td>
<td>• Government-wide monitoring and evaluation system, Management Performance Assessment Tool</td>
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<tr>
<td>USA</td>
<td>• Environmental Monitoring and Assessment Program (EMAP)</td>
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Build and maintain robust green growth monitoring and evaluation systems
Key lessons for green growth monitoring and evaluation systems

• Indicators linked with targets and reflective of reality
  – Economy-wide overarching headline indicators: OECD’s Green Growth Indicators, Bhutan’s Gross National Happiness Index, Copenhagen’s OECD local-level green indicators, Ecological Footprint, Genuine Progress Indicator
  – Sector-targeted indicators: US green job indicators, etc.

• Institutions responsible, accountable, efficient, and engaging
  – Clear roles and responsibilities: Kenyan MRV+ system and Australian National Greenhouse and Energy Reporting (NGER) Scheme (use mandates to assign responsibilities)
  – Streamlining systems and organizations for efficiency and reliability: South Africa’s Management Performance Assessment Tool
  – Independency and transparency ensuring accountability
  – Engaging with stakeholders and existing systems

• Communication timely, audience specific, and stable, with feedback loop
  – Timely and tailored M&E results to relevant people: US Environmental Monitoring and Assessment Program communicating “value aspects of the environment”
  – Differentiating technical vs. non-technical information for easy use by different audiences
  – Multiple channels including formal and informal cultivating institutionalized and lasting stakeholder interests:
  – Maintaining a continuous feedback loop for bottom-up data collection as well as enhancing program effectiveness and learning
Example of comprehensive green growth monitoring and evaluation system

Watershed Management and Poverty Alleviation Project in Karnataka

- Indicators linked with poverty reduction objectives
- Relying on a capable and independent statistics agency for data collection and analysis, the Indian Space Research Organization, Antrix
- Participatory project monitoring and evaluation by project beneficiaries
- Using maps to explain detailed findings to partially-literate stakeholders
- Resulting in strong buy-in by local communities and program expansion
Opportunities for future research
Potential Topics for Further Green Growth Identified by GGBP Authors

- In-depth analysis of benefits achieved and projected to occur through inclusive green growth
- What policies are achieving 'no-regrets' win-win outcomes for different sectors?
- What specific policies and factors are influencing private sector investment & leadership?
- Which actors are driving green growth in different contexts and what is motivating them?
- What actions are sub-national governments taking on green growth and why?
- How are international dynamics, such as trade considerations, influencing GG?
- What steps are being taken to decrease investment in grey sectors while increasing green investment?
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Or visit our website: www.ggbp.org

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