

Workshop on Low-Carbon Society Modeling and Scenario Making Process

Cambodia's Green Growth Roadmap



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Definition

Green Growth is defined as ecologically sustainable economic progress to foster low-carbon, socially inclusive development.
(UNESCAP)

Project Background

- Government policymakers convened at the 5th Ministerial Conference in Seoul, Republic of Korea, in 2005;
- Adopted by 52 Member States of (UN ESCAP) to achieve environmentally sustainable economic growth;
- Cambodia was selected as a pilot country to implement the green growth project, in earlier 2009;
- Establish Inter-ministerial Green Growth Working Group (IGGWG);
- Set up Green Growth Secretariat based in MoE; and
- Participated in the first Training of Trainers on Green Growth in Bangkok.

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I. Cambodia Overview

- More than 80% of Cambodian people lives in rural areas
- Agriculture is primary source for livelihood, including farming, fishing, raising live-stock, harvesting forest and non-forest products comes after garment exports, tourism and the construction industry
- The poverty rate remain high comparing to other countries
- RGC set its strategy for poverty reduction
- Cambodia effected by environmental degradation and climate change on economy, social, environment and human health
- Integrated Green Growth policies into the national development strategy will be done to enhance the environmental sustainability of economic growth
- Cooperation from line ministries and stakeholders is needed

II. Cambodia's Current Situation

1. Economic condition:

- Cambodia's economic base is shifting away from the agriculture, forestry and fisheries sector to the industrial sector
- The services sector is one of the largest sectors in the economic development accounting for 36% of GDP and is largely driven by the tourism industry
- However, agriculture is still important in rural areas, where most of people depends on paddy cultivation for subsistence
- Per capita GDP rose from 1.86 million Riels in 2005 to 2.42 million Riels in 2007
- The recent spread of financial crisis and increasing food price has adversely impacted the Cambodian economy
- RGC set RS, NPRS and NSDP is for economic growth and poverty reduction to ensure sustainable development

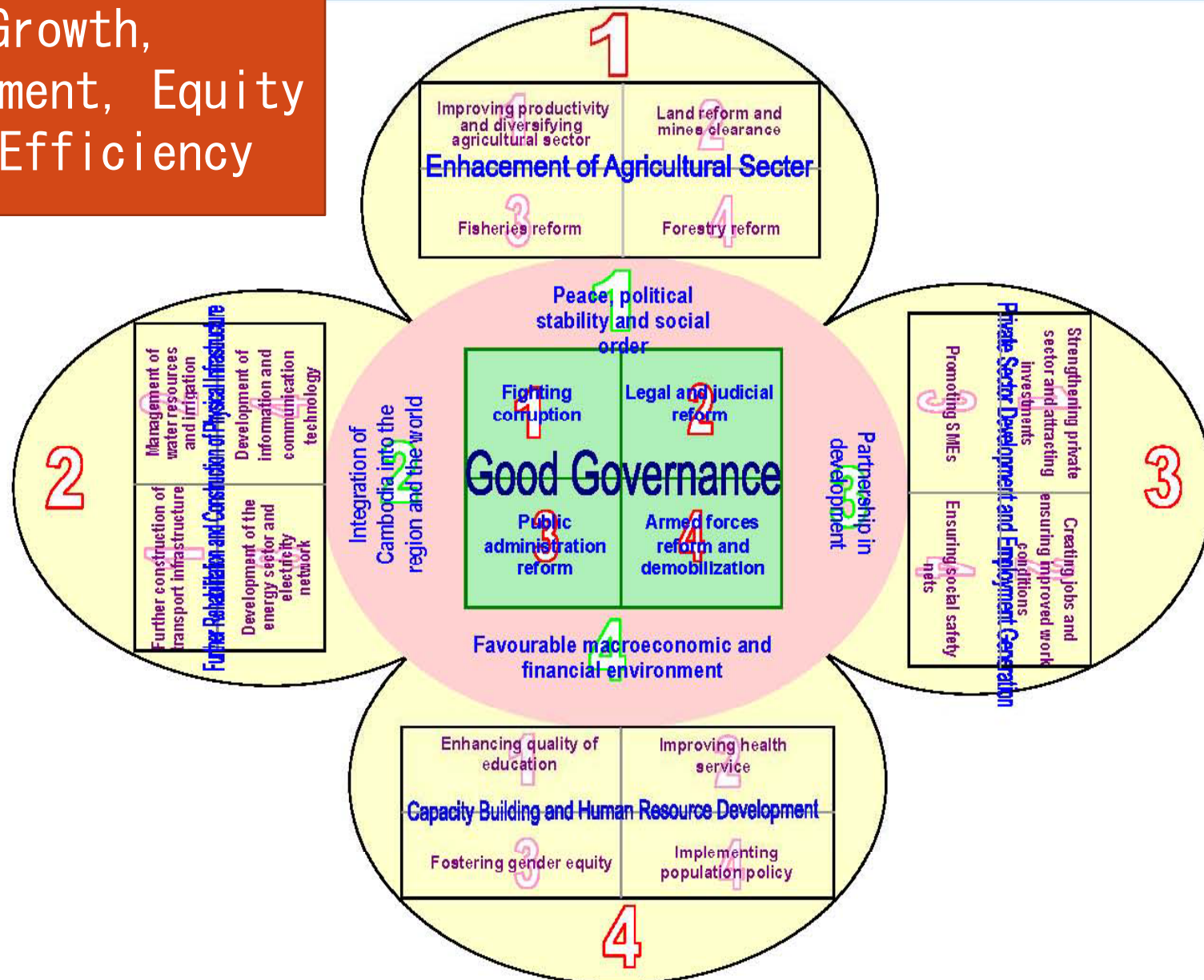
2. National Strategic Development Plan (NSDP) 2006–2010 and its updated 2009–2013

- The purpose of the NSDP is to operationalise the “Rectangular Strategy (RS) for Growth, Equity, and Efficiency and it is the single and overarching development strategy for pursuing prioritized goals and actions;
- A combination of Second Five-Year Socio-Economic Development Plan for 2001–2005;
- National Poverty Reduction Strategy (NPRS) for 2003–2005;
- Cambodian Millennium Development Goals (CMDGs) 2003;
- Ministries and agencies, donors and civil society organizations are involved in the formulation of the NSDP;
- Cambodia’s goals are to bring overall poverty levels down to below 25% by the year 2010.

3. Rectangular Strategy

Growth,
Employment, Equity
and Efficiency

RECTANGULAR STRATEGY



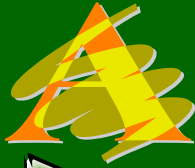
III. Overview of the Green Growth Roadmap

1. Vision: To envision a combination of objectives for economic growth and development, human well-being, and environmental quality, which will promote the improvement of Cambodian livelihoods.
2. Goal: To foster sustainability of economic growth

The seven A's of the Cambodia Green Growth Roadmap



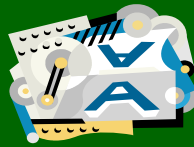
ccess to clean water and sanitation



ccess to renewable energy



ccess to information and knowledge



ccess to means for better mobility



ccess to finance and investments



ccess to food security (agriculture) and non-chemical products



ccess to sustainable land-use

4. Threats

- Population Growth: the more people the more resource uses;
- Poverty: livelihood first and environment later;
- Law Enforcement: limited; and
- Environmental Pressures: waste management, natural disaster, man-made activities and industrial revolution.

5. Opportunity

- Invest in the development and natural resource
- Green the industry and apply resource efficiency/eco-efficiency principle
- Increase competitiveness
- Develop sustainable and competitive agriculture
- Develop eco-efficiency indicator for water and forestry
- Develop schemes for innovative financing

IV. Paths to Green the Economic Development

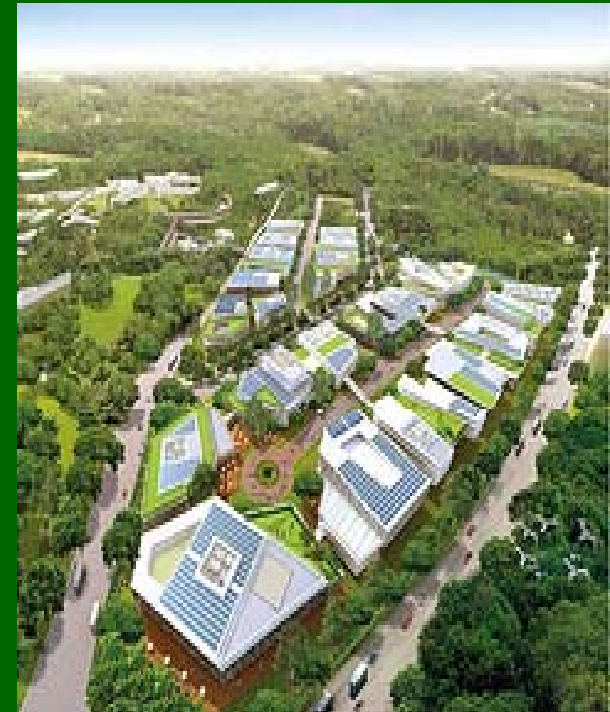
1. Short-term intervention

- Create a National Ministerial Green Growth Secretariat;
- Create a national public awareness and consultation process, amongst others by disseminating educational and information materials;
- Integrate the eco-village/eco-city initiatives into national strategic development plan;
- Develop national strategy for Greening industries: based on resource efficiency and 3R strategies;
- Develop stimulus measures for promotion of sustainable agriculture including index-based insurance schemes and/or micro-financing;
- Develop a scheme for innovative investments (can carry on through-out medium and long terms);
- Develop measures to strengthen the national environmental industry sector; and
- Initiate the Green Growth pilot projects

2. Medium term intervention

A. Eco -Village :

- Eco-Villages are urban or rural communities of people, who strive to integrate a supportive social environment with a low-impact way of life
- Integrate various aspects of ecological design, permaculture, ecological building, green production, alternative energy, community building practices
- Cooperate among: MoE; MAFF; MIME; CCoC; MLMUPC; MRD; MoI; MoWA; MoEYS; MoLVT; MRCs; MoH; MEF; and MoT.



B. Sustainability of Water Resources

- Water plays an important role for people consumption, development of options for economic diversification, enhancement of food security, and conservation of the environment
- Water is a fundamental resource for sustainable development in several sectors, including: agriculture, industry, energy, domestic use, navigation, tourism, fisheries.
- Water is crucial for maintenance of eco-systems
- About 90% of the urban population enjoys access to water
- However, limited access to proper sanitation and clean water has increased the incidence of water and vector borne diseases
- Cooperate among: MoWRAM; MAFF; MRD; MIME; MoE; MLMUPC; MoWA; MoI; MoEYS; and MoT.



C. Sustainability of Agriculture, Energy and Forests

- Sustainable agriculture can effectively improve food security and reduce poverty;
- It offers opportunities to achieve economic development, create jobs to reduce poverty;
- Using little or no chemical pesticides can help to ensure food safety of consumers and provide food security for smallholder farmers;
- It can offer trade opportunities for developing countries, and restore degraded ecosystems;
- Conserve and manage the country's unique forest resources in a sustainable manner;
- The energy sector has increased due to the rapid growth of the economy, effective energy consumption and management is needed ;
- Sustainable agriculture, forests and energy are of critical importance for the lives of people and income; and
- Cooperate among: MAFF; MoWRM; MoE; MIME; MLMUUPC; MRD; MoWA; MoI; MoH; MoC; MEF; CCoC; and MoT.



D. Sustainability of Waste Management

- The most pertinent challenges in waste management include: toxic pollution from laundry factories and the garment sector; unduly disposed wastes from vehicle servicing stations; household wastes; medical wastes; and limited monitoring of imported second-hand products, and electronic waste, etc.,.
- In response: environmental awareness raising, identifying and monitoring of proper dumping sites, better enforcement; education of youths, control of the importation of second hand goods; promote local level self-governance, and 3Rs principle;
- Taxes on environmentally harmful substances and products; and
- Create incentives for eco-tourism development, green-certification schemes for hotels, guesthouses and eco-lodges.



E. Sustainability of Transportation

- The transport sector plays a critical role in the economic development of Cambodia;
- It provides access to schools, health centres and markets;
- Waterways transport is essential to the mobility of the rural population;
- Air transport plays a significant role in the tourism industry;
- Urban transport makes possible the rapid development of cities;
- Railways and maritime transport activities are minimal relative to their potential and must be developed;
- Enhance traffic law enforcement, public awareness campaigns for traffic safety, public transit systems, and education of youths and adolescents; and
- Cooperate among: MPWT, MLMUPC, MAFF, MoE, MIME, MoWRM, MoEYS, MoC, MoH, MEF, MoI, Phnom Penh Municipality, and MoT.



3. Long-term intervention

Ensure macro-economic stability, create and maintain key infrastructure, as well as a conducive climate for private sector to flourish, and provide essential social services for human capital formation and enhancement.

a. Fiscal initiatives

- Maintain steady and robust macro-economic growth;
- Consider the subsidies to make sure that they do not have perverse consequences;
- Consider the Polluter Pays Principle to promote the internalization of environmental costs; and
- Support the development of a sound market-based financial system to support resource mobilization, effective financial resource allocation, and broad based sustainable economic growth.

b. Ecological Agriculture

- Ecological agriculture is productive and has the potential to meet food security needs;
- Farmers can to improve their food production with low-cost, without causing environmental damage;
- Can increase water use efficiency and carbon sequestration, and reduced pesticide use, to reach the greener growth;
- Can improve food quality and increase healthy food;
- Encourage investment in sustainable and organic agriculture;
- Intensify crop production to increase yields and increase rural incomes, diversification of crops; and
- Improve fisheries management, sustainable management of forestry through reforms, environmental conservation and land reforms, and ensure land tenure for the poor.

c. Infrastructure and trade improvement

- Establish transport network in accordance with land use planning and establish road networks
- Introduce modern public transportation system with affordable investment and manageable operation cost;
- Develop efficient, comfortable and safe transport system to alleviate traffic congestion;
- Improve urban and traffic environment and introduce the public transport; and
- Establish efficient traffic control system with the provision of traffic signals in urbanized area.

d. Sustainable energy

- Provide a reliable electricity service at a cost acceptable and minimum negative impacts on the environment;
- Offer legal framework, effective support through a variety of incentives;
- Foster private sector participation for renewable energy;
- Foster the generation, transmission, and distribution of electricity with renewable energy technologies by setting electricity rates;
- Promote electricity systems that use the cheapest renewable energy system for rural communities; and
- Provide sufficient funds, appropriate mechanisms, and training to allow participation in the rural electrification effort.

e. Education development

- Improve education quality at all levels—basic, post basic and higher education
- Ensure that all Cambodian people have equal access to quality education regardless of social status, geography, ethnicity, religion, language, gender and physical form
- Consider the vocational training and higher education to start building a “critical mass” of educated, skilled, talented, capable people
- Improve education to meet international and regional standards for world-wide job competition

f. Health improvement

- Expand availability of health care facilities in rural areas;
- Expand and strengthen sustainable methods to facilitate the poor to access to public health care system;
- Elicit, encourage and involve private sector in provision of health care, both in urban and rural areas; and
- Reduce the spread of HIV/AIDS and other diseases.

g. Integrate gender equity into green growth

- Improve developmental equity;
- Integrate into health, education to control over agricultural resources, socio-economic and political empowerment and legal protection;
- The collaboration between MoWA and MoH for health, and MoEYS for education and MAFF, MoWRAM and MRD for agriculture and rural income generation for economic growth and create jobs.

h. Land use and ecologically sound and healthy urban environment

- Changes in land use ranging from forest to farming, or farm to urban and unclear property rights and legal enforcement;
- Set up sustainable land planning;
- Effective implementation of land law, sub-decrees and land strategies;
- Develop ecological space within the provincial cities and Phnom Penh Municipality;
- Promote access to clean water, build the physical infrastructures, develop environmentally sound landfill sites;
- Promote public transport and promote tree planting, expansion of parks and other recreation facilities;

- Introduce low pollution vehicles such as hybrid cars and natural gas;
- Encourage the development of more energy-efficient, less polluting transport modes;
- Encourage and push the development of the master plan for environmental management; and
- Introduce and implement ecological networks by introducing many species from rural/suburban to urban areas.

i. Greening the economy

❑ Sustainable natural resource products

Cambodia faces a number of challenges in exporting to the markets include:

- Unsustainable and uncompetitive supply;
- Weak capacity to process and market products;
- High cost of compliance with quality standards;
- Weak national policies to support environmental sectors; and
- Lack of developing country voice in international standard setting.

❑ Environmental technologies and services

- Difficulty in complying with international standards, other tariff and non-tariff barriers for example on documentation and labeling

- ❑ The Roadmap will work to strategic objectives:
 - Strengthen the international competitiveness of Cambodian enterprises (micro-level).
 - Develop the capacity of trade services providers to support businesses (meso-level).
 - Support policy makers in integrating the business sector into the global Green economy (macro level).
- ❑ Encourage and facilitate the implementation of clean energy projects, and invest in “smart” grids.
- ❑ Continue to support the diffusion of small-scale off-grid technologies to create local employment and economic opportunities
- ❑ Continue to implement Cleaner Production technologies;

- ❑ Promote green industries and industrial ecology principles such as eco-industrial parks, using green technology;
- ❑ Promote and integrate the policy on green industry into the national strategic development plan;
- ❑ Promote the 3Rs principle- reduce, re-use, and recycling;
- ❑ The effective implementation of 3Rs principle include: 1) reduce the volume of waste through establishing incineration plants; 2) reduce the volume of waste sent to incineration plants through recycling; 3) cut down the volume of waste sent to the landfills; and 4) cut down the volume of waste generated through waste minimization; and
- ❑ Give priority to investment in energy efficiency and low carbon mobility with cost effective, e.g. rail, bus rapid transit systems.

V. Implementation

a) Enabling environment for the national roadmap

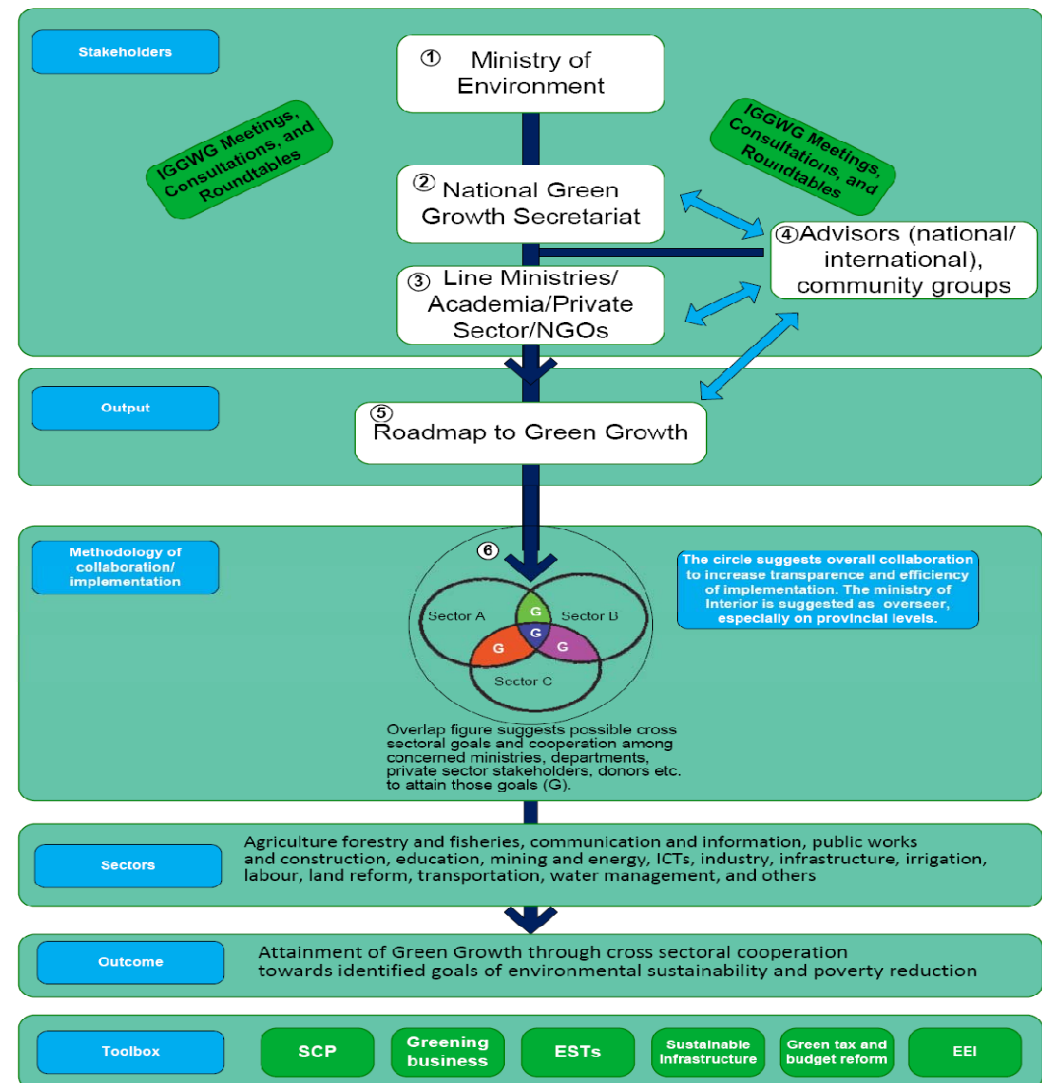
- Ensure workability of Green Growth with line ministries
- Ensure workability of Green Growth on local level through cooperation with local governments, provincial governors, and the Ministry of Interior; and
- Encourage the private sector and NGOs to integrate Green Growth into their works.

b) Stakeholders involvement

- The Ministry of Environment with the Line Ministries have a facilitating and implementing role for the Roadmap;
- Create the Green Growth Secretariat situated within the Ministry of Environment;

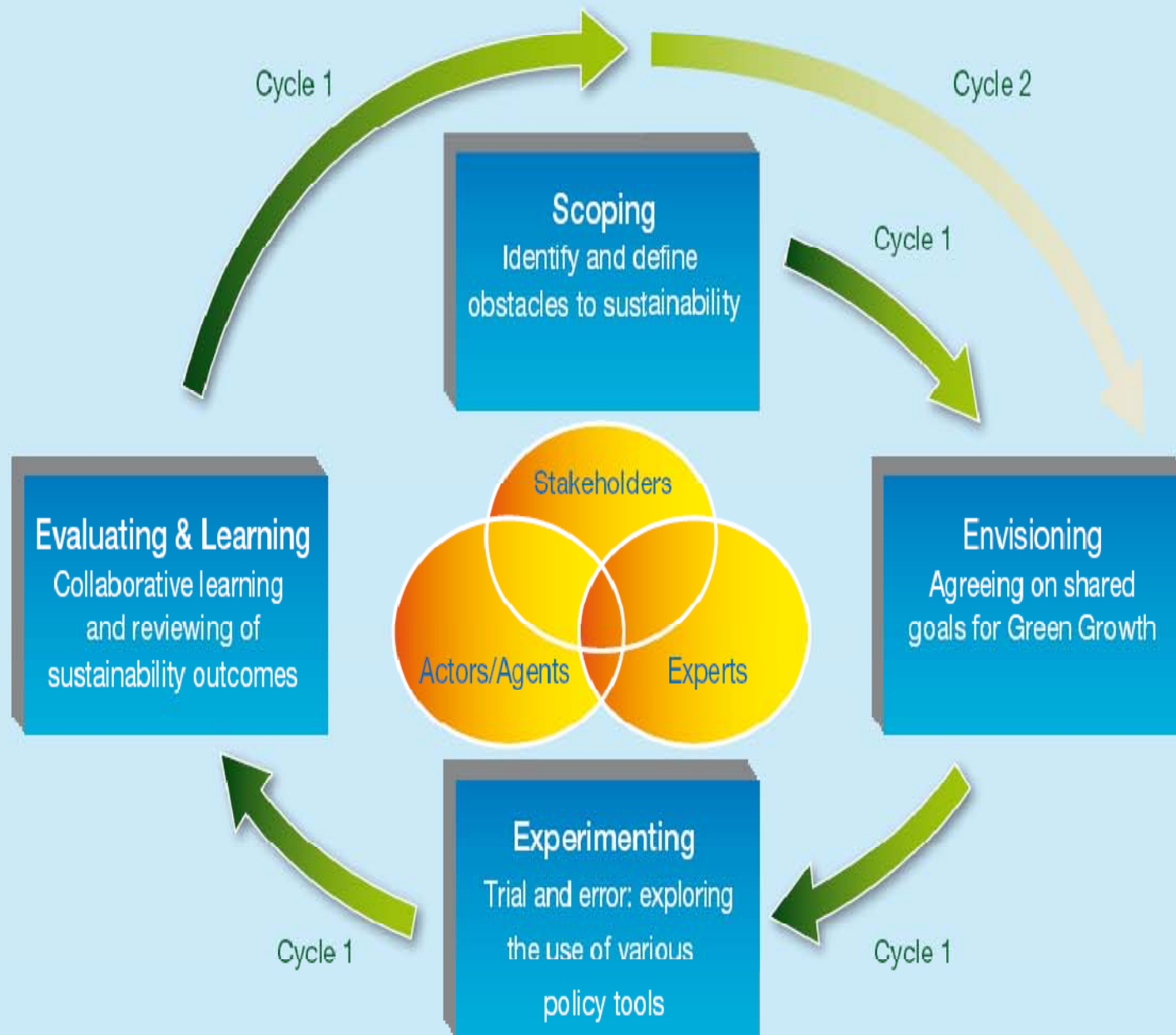
- Implementation of Green Growth practices/projects on the provincial level, possibly by establishing provincial centre of Green Growth; and
- International donors/institutions have also a potential role to play, especially financial assistance.

Stakeholder Involvement Organigramme – Formulation and Implementation of the Roadmap

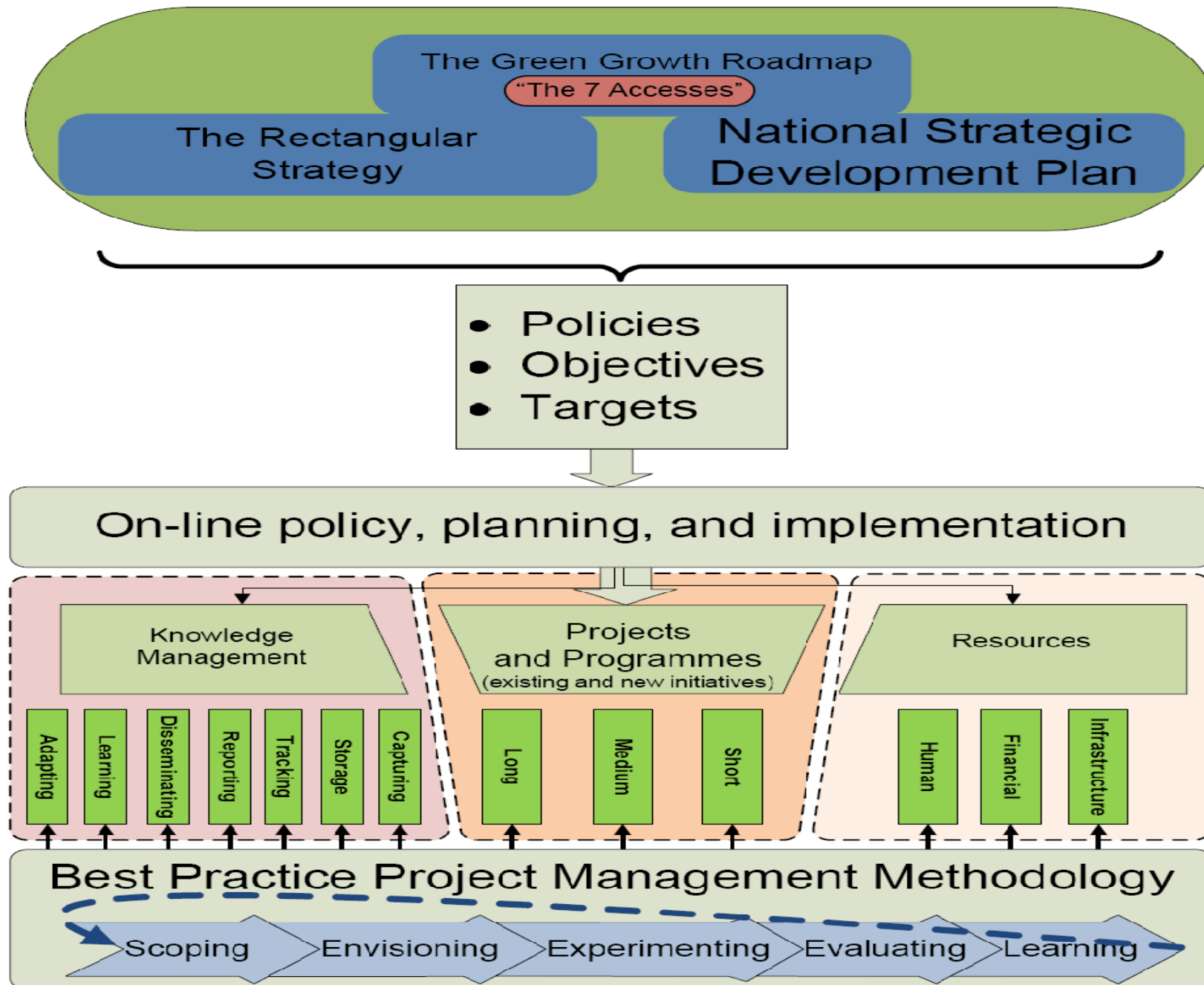


c) Coordinating greening of growth by using the Integrated Sustainability Assessment (ISA) framework

- It can serve as a valuable instrument for governments and policy makers seeking to effectively undertake and coordinate Green Growth policies
- It is a cyclical, participatory process of scoping, envisioning, experimenting, and learning through which a shared interpretation of sustainability for a specific context is developed and applied in an integrated manner in order to explore solutions to persistent problems of unsustainable development.



Policy, Planning and Implementation Framework



IV. Conclusion and recommendations

- ❑ The Green Growth Roadmap presented three different interventions:
 - Short term (2–5 years), it will make a major contribution to stimulating the economy, saving and creating jobs, and protecting vulnerable groups and ensuring the environmental sustainability;
 - Medium term (5–10 years), it will further promote sustainable and inclusive growth and the achievement of the CMDGs for economic development and social and environmental stability;
 - Long-term (10–20 years), it will contribute to the reduction of Cambodia's carbon dependency and ecosystem degradation - all in favor of sustained economic growth and poverty reduction.
- ❑ In support of the Roadmap, the RGC set NSDP (2006–2010) and its updated NSDP (2009–2013) to ensure land and natural resources are effectively used to support sustainable and equitable socio-economic development for all Cambodian citizens

- ❑ The RGC of the fourth legislature covers a dedication to enhance management, preservation and sustainable exploitation of forestry and fisheries resources in accordance with the laws and regulations to protect the interest of the general public and local communities;
- ❑ Process of implementing D&D reforms for effective natural resource management;
- ❑ The RGC should actively involve private enterprises in greening the development sectors;
- ❑ Mainstreaming the green growth initiatives into private enterprises and NGOs through awareness raising and capacity development to increase eco-efficiency of production and consumption;

- ❑ Integrating green growth concept into national strategic development to ensure the inclusive economic growth and environmental sustainability;
- ❑ National Green Growth Roadmap means growing Cambodia in a way to be efficient: less resources and waste; to be clean: without polluting the environment; and to be green; preserve greenery, waterways and the natural heritages
- ❑ In sum, the RGC wants to develop its society in a sustainable way so that its future generations can enjoy both economic growth and a good living environment.

