



LOW CARBON GREEN GROWTH ROADMAP

**Turning ecological crises
into economic opportunities**



KEY MESSAGES FOR POLICYMAKERS

Asia-Pacific needs a new development paradigm to cope with looming resource and climate crises.

We are facing multiple and converging crises that cannot be addressed by the current development paradigm. First, the financial crisis triggered by the sub-prime mortgage crisis in September 2008. Second, the resource crisis, linked to the increasing scarcity of natural resources, including fossil fuels and water. And third, the ecological crisis, linked to the fact that the sheer volume of our economic activity have exceeded the limits of the earth's carrying capacity, with climate change being the most evident manifestation. While substantial emphasis has been placed on the financial and economic crisis, the resource and ecological crises have so far been underestimated and largely neglected, mainly due to the nature of their impacts –gradual and long term- making it difficult to detect and appropriately respond.

Green Growth: not ecological conditionality but resilient economic strategy for energy and resource security and avoiding poverty trap.

42 million people in Asia-Pacific are expected to be pushed back to poverty in 2011 if oil and food price continue to rise in addition to 19 million people already caught by the poverty trap in 2010 (ESCAP 2011). The current development pattern which is heavily dependent on energy, resource and carbon intensive production and consumption cannot continue not only because of climate change impacts but because of rising oil and resource prices. Developing countries need to focus on improving energy and resource efficiency if they are to avoid being caught into the poverty trap.

Green Growth: a practical implementation strategy for sustainable development and the MDGs.

Green Growth is one of many potential implementing strategies for integrating the three pillars of sustainable development, which remains as an overarching concept driving the new development paradigm. The time has come to find concrete policy options to integrate the three pillars of sustainable development based on win-win synergy rather than trade-offs. Asia and the Pacific, as a region with the most limited ecological carrying capacity and with almost two thirds of world poor, needs to urgently turn the trade-off between economic growth and ecological sustainability into a win-win synergy to transform ecological crisis into economic opportunities.

Low Carbon Green Growth: system change to turn ecological and resource crisis into economic opportunities.

Green Growth can be defined as one of the implementing strategies to achieve sustainable development that focuses on improving ecological efficiency as a means to greening the whole economic systems and promoting a green economy, where economic prosperity can go hand-in-hand with ecological sustainability.

A shift towards Green Growth requires a fundamental system change focusing on ecological efficiency by restructuring both the visible as well as the invisible systems of the economy.

The visible systems are those of our built environment that affect the way we produce and consume, such as urban design and land use planning, buildings, transport, energy, water and waste systems. These need to be restructured and re-designed based on energy, resource and ecological efficiency and sustainability. The invisible systems are those intangible patterns that affect the way we produce and consume, such as market prices, fiscal policy, financial systems, regulations, social values, life-styles, and know-how. These need to be re-aligned based on ecological prices that recognize the real value of natural resources and ecological services in particular energy and key commodities.

Eco-efficiency such as energy and resource efficiency as a driver for new growth and employment while improving resilience against volatility of oil, resource and food prices.

Pursuing eco-efficiency should stimulate innovation, R&D, create new markets and be a driver for new investments that bring about growth and employment while improving ecological sustainability. The double dividend hypothesis of ETR (Eco-Tax Reform) suggests that shifting tax base from income to carbon emission while maintaining revenue neutrality could bring about increased employment and growth. Countries which have introduced ETR are reporting positive results. Several economic models support also the argument that in the long run a green economy has the potential to deliver higher growth as compared to business as usual.

Green Growth is a relevant strategy for developing countries, who are the most vulnerable to climate impacts and global crises.

Many regard low carbon green growth as a priority for developed countries, rather than for developing countries. If low carbon green growth is narrowly understood as investing in green technologies, then indeed it may have little relevance for developing countries with limited capabilities for mobilizing financial and technological resources. But if low carbon green growth is understood as a greening of the economy by introducing an economic system change, it is relevant for all countries. As a matter of fact, it is developing countries that are most vulnerable to global crises linked to unsustainable economic growth patterns, and are the ones that will suffer the most from their impacts. The more we delay action, the worse the impacts later.

Green Growth can be implemented while pursuing poverty reduction.

Some measures for introducing an economic system change (such as internalizing ecological costs into market prices) may have a negative impact on the poor, when introduced without due consideration of the socio-economic situation. But this can be addressed in the design of policies and through complementary measures, such as direct cash transfer to the affected households. Other measures, on the other hand, may have a direct positive effect on poverty alleviation. This is the case, for example, of measures aimed at sustainably managing natural resources (such as payments for ecosystem services), where these resources are the main source of livelihood for the poor, such as in rural and coastal areas.

Green Growth needs to be supported by an inclusive approach.

Although green growth can bring positive impacts on poverty reduction, there is no guarantee that the costs and gains of transition towards green economy can be evenly distributed among the population. Thus, the system change of green growth can be better facilitated if it is supported by an inclusive approach of supporting the losers of system change and mitigating negative impacts on the poor.

Green Growth: a matter of policy framework, price and tax-fiscal reform rather than just of money and technology.

Although technological advancements and investments will be crucial for a transition to a green economy, these will not be sufficient unless the right policy framework is in place. Without the right price signals the required technologies will not be able to substitute old technologies and it will not be possible to leverage private investments. Moreover, several key interventions (such as changing consumer behavior or city design) do not require new technologies, but the right policies.

Green Growth can be a leapfrogging strategy for developing countries.

Developing countries of Asia and the Pacific may be faced with a number of challenges, but are also in a position to adopt from the start and quickly implement innovative green growth policies as compared to industrialized countries which have less flexibility to do so due to the lock-in effect. Low carbon green growth can be a leapfrogging strategy for developing countries to pursue economic development without repeating the conventional “grow first, clean up later” path.

The process of greening economy will not happen automatically and cannot be market-driven. Only government can make it happen.

Because of the time gap between short term costs and long term benefits and the price gap between current market prices and ecological prices, the private sector cannot lead the process. Therefore, Green Growth has to be jump-started by the government. Governments need to create the necessary conditions for investments in a green economy to be profitable, so as to redirect private investments towards sustainable options and make markets eventually drive the transition. This can be done by using public finance as a catalyst and through a mix of regulation and economic instruments.

Green growth requires a strengthened partnership between governments, businesses and civil society.

Governments need to lead the process, but the private sector still has an important role to play. Green growth focuses on creating an enabling environment for businesses by providing positive price signals and reducing the uncertainty and risk of investment. At the same time, the people will need to support

the paradigm shift by responding with positive public acceptance, adopting more sustainable lifestyles, focusing more on enhancing the quality of life, rather than quantity of consumption. Without such a virtuous cycle of partnership among the government, business and the people, the fundamental transformation towards a green economy is not feasible.

Low carbon green growth requires inter-ministerial coordination that focuses on holistic policy-making

The low carbon green growth agenda cuts across sectors and disciplines, and involves many actors. This calls for an integrated and holistic approach to policy formulation and appropriate institutional arrangements and coordination mechanisms to be in place. The system change cannot be handled by the conventional government structure based on line ministries focusing on single issues.

The low carbon green growth agenda needs to be driven by the top level of government

The top level of government needs to create the appropriate legal and institutional platforms for low carbon green growth to happen. Framework legislation and an institutional platform chaired by the Head of Government are required.

Regional and global cooperation are essential for the transition to happen

Many Green Growth policies are sound development policies to start with, and developing countries may pursue them with no regrets. A comprehensive economic system change towards a green economy, however, can be effectively done only when countries collaborate collectively on a regional or global level. For fear of losing competitiveness and due to a lack of empirical evidence, countries may find it difficult to initiate certain measures for Green Growth on their own. Political consensus at the global, regional or sub-regional level is required on the general framework for a system change to a green economy, while the choice of specific policy options should be left to each country, depending on country specific circumstances and political considerations.

Economic system change that goes beyond investing in natural capital and redirecting excess financial liquidity as investment for greening the whole economy and society

There are two components of such a system change. The first refers to investments in natural capital, thereby linking sectors such as agriculture, forestry, fisheries, biodiversity, etc with the economy. This is a necessary and urgent task, but not sufficient, as these sectors represent an often small and generally declining share of national economies. Therefore, an even more important component refers to greening the economy, or in other words, improving the ecological efficiency of production and consumption as a whole.

Two gaps that blocks economic system change: Price and Time Gap

The gap between current market prices and ecological prices is the primary barrier in shifting towards an economic system change of green growth. Another barrier is the time gap between short term costs and long term gains of paradigm shift towards green. Gains from system change necessary for green growth take time and appear mainly in the long run. However the short term economic as well as social costs of such system change are usually quite substantial and politically difficult to make the public as well as business sector accept such a change.

Bridging these gaps without damaging the economy

A fundamental barrier in climate negotiations is the deep-rooted perception that carbon emission reduction will result in reduction of growth. Unless we establish a positive perception that improving efficiency of our carbon emissions will drive our economic growth, climate negotiations will not make meaningful progress. We have to set in motion a new economy where improving efficiency of energy and resource use can drive our economic growth. Ecological Tax Reform (shifting tax base from income to pollution) can be an option for internalizing ecological price without damaging the economy, while Ecological Fiscal Reform (recycling the tax revenue based on ecological efficiency) could close the time gap between short term costs and long term gains from the investment necessary to improve ecological efficiency of our economy and society.

A changed reality: while capital and labor are readily available, natural resources and ecological services can no longer be considered free.

Countries are already facing serious unemployment problems, and with a growing population, the challenge is to create enough jobs for everyone. In a global economy where managing excess financial liquidity is a challenge, availability of capital is also no longer a limiting factor as long as a sufficient rate of return is expected. While capital and labor get less scarce, natural resources and ecological services are getting scarcer and can no longer be considered free.

Markets need to reflect the changed scarcity scale

So far we have operated our economy as if ecological services were unlimited and no price was assigned to them. Our economic system needs to change to reflect this shift in endowment and scarcity scale. If we want an economy where economic prosperity goes hand-in-hand with ecological sustainability, then market prices need to reflect the changed scarcity scale between capital, labor and ecological services and natural resources.

Green Growth: Is it really feasible? The right question is “How can we make it happen?”

Can investments in ecological efficiency really drive economic growth? Can we really recalibrate market prices towards eco-efficiency without losing competitiveness and jobs? These are genuine concerns for policy-makers in the region, who need to respond to pressing socio-economic imperatives. Green growth, however, is a fairly new concept. Experiences from developed countries so far and macroeconomic modeling results are encouraging, but green growth does not have decades of empirical evidence to support it. Given the changed reality and convergence of crises mentioned above, it is clear, though, that developing countries in Asia-Pacific can neither hope nor afford to follow the “grow first, clean up later” development path. The question, at hand, therefore is not whether green growth is feasible or not, but how can we make it happen.

Five tracks of an economic system change for low carbon green growth

Then what are the policy options available to developing countries in Asia-Pacific to pursue a low carbon green growth development pathway? This Roadmap identifies the following five main tracks for governments to do so and a number of concrete policy options necessary to make green growth to happen under each track.

1. Shifting focus to quality of growth: Linking VALUE with economic development

Focusing only on increasing growth (i.e. increasing GDP), will in the long run undermine the prospects of sustaining it, as shown by the multiple crises mentioned above. Developing countries in Asia and the Pacific region need to shift away from the conventional economic paradigm of maximizing production (GDP) towards a new development paradigm of improving quality of growth, focusing on employment generation, economic resilience, quality of life and ecological sustainability.

2. Integrating ecological PRICES through environmental tax and fiscal reforms

A fundamental change of price signals is essential in order to shift our economy on a sustainable track. Without such a change in price signals, a market economy will never be able to deliver green growth. Such transformation, however, needs to be done in a way that does not hamper competitiveness, reduce prospects of economic growth and affect the poor. This requires policy instruments such as the Environmental Tax Reform (ETR), which requires shifting the tax base from income to the environment-related activities such as natural resource extractions and energy use, thereby generating a double dividend (i.e. reducing environmental burden while creating jobs and growth). The revenue neutrality principle ensures that the overall tax burden on the economy remains unchanged.

3. DESIGNING infrastructure for eco-efficiency: Creating a new built environment

The way infrastructure is designed and built is critical in determining the eco-efficiency and competitiveness of a country. Countries in Asia-Pacific are at a crossroads. Infrastructure investments in Asia-Pacific must reach an estimated US\$ 10 trillion over the next ten years. Such investments will lock Asia-Pacific economies into patterns of energy use and GHG emission. Governments need to design cities for people, not cars, promote public transport while controlling private vehicle use, promote green buildings, invest in low carbon and smart energy systems and Investing in sustainable infrastructure will be a key driver for economic growth and employment. Providing clean energy, safe drinking water, mobility and adequate sanitation and housing will also contribute to meeting the MDGs.

4. Green as a source of PROFIT: Turning “green” into a business opportunity

Greening the economy can be a driver for new markets and new growth. Pursuing an economic system change, through appropriate fiscal policies and new and retrofitted infrastructure, will open up considerable business opportunities. But the extent to which green business will increase and drive growth and employment depends greatly on the policies that will be adopted and on market prices for energy and natural resources. Governments need to create a favorable environment to promote green business and technology and redirect private investment towards green sectors by improving regulations and standards, pricing energy and natural resources correctly, providing support to R&D, adopting green public procurement practices, and also by promoting Corporate Social Responsibility.

5. INNOVATION: Turning climate crisis into an economic opportunity

Climate change mitigation need not be an added cost and a burden on the economy; it can be turned into a driver for economic growth enabling the creation of new employment, technological innovation and business opportunities while enhancing environmental sustainability. Putting a price on carbon is the central factor for achieving win-win situations. Nationally Appropriate Mitigation Actions (NAMAs) such as national low carbon development or low carbon emission plans and strategies are national frameworks that support and enable the reorientation of price structures. Such frameworks need to be backed up by appropriate legislation to operate effectively and ensure robustness, consistency and sustainability.