



Green Growth and Developing Countries

A Summary for Policy Makers

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For further information about this document or the Green Growth and Development work at the OECD please contact:

William Hynes – Email: William.hynes@oecd.org

Shannon Wang – Email: Shannon.wang@oecd.org

1. Introduction

In the face of pressing economic and environmental challenges, national and international efforts to promote green growth as a new source of growth have been intensifying in recent years. Building on this momentum can help to accelerate progress towards sustainable development and poverty reduction through, for example, more sustainable use of natural resources, efficiencies in the use of energy, and valuation of ecosystem services.

Green growth is a matter of both economic policy and sustainable development policy. It tackles two key imperatives together: the continued inclusive economic growth needed by developing countries to reduce poverty and improve wellbeing; and improved environmental management needed to tackle resource scarcities and climate change. When green growth began to be promoted through the 2008-9 economic stimulus packages, some governments approached it from a short-term growth perspective – the potential to boost jobs and incomes through increased investment in some green (notably low-carbon) technologies. Others approach green growth from an environmental perspective – the potential to internalise environmental externalities by mainstreaming sustainable development requirements into economic decision-making, notably through resource pricing and land use/infrastructure choices. A third imperative, of equity and inclusion, has more recently been expressed, especially by developing countries – the notion that green growth should serve those excluded by the current economic system. The informal economy is very large in many developing countries and its potentials and hazards need to inform any transition to green growth in order to deliver more and better jobs and resilient livelihoods for poor people. Thus there is growing convergence around the notion that the current economic system is not only unsustainable and inefficient in its resource use, but moreover is inequitable in its distribution of costs and benefits.

This is as much an issue of bringing bad practice to a halt as one of opening up new green opportunities. Moreover, it will require systemic adjustments to better link economic, environmental and social policies and institutions – as far as possible identifying synergies, but also being clear about trade-offs and uncertainties, and the political economy of the changes required in varying contexts. As such, the formation of national green growth policy frameworks will be a critically important exercise. The OECD is currently preparing the Green Growth and Developing Countries Report to examine how developing countries might go about this and to discuss the elements of a practical policy framework that developing countries can use to make the transition to green growth. It explores policy instruments as part of a green growth framework while taking into account differences in natural resource endowments, levels of socio-economic development, sources of economic growth, and institutional capacity. Such a framework involves not just environmental policies, but also a broad range of economic and social

policies. It will take significant long-term investment and innovation, necessary to avoid locking in inefficient and costly technology and infrastructure. For such investments and policies to deliver sustainable and equitable outcomes, appropriate governance arrangements must be in place and to facilitate this, capacity development is needed.

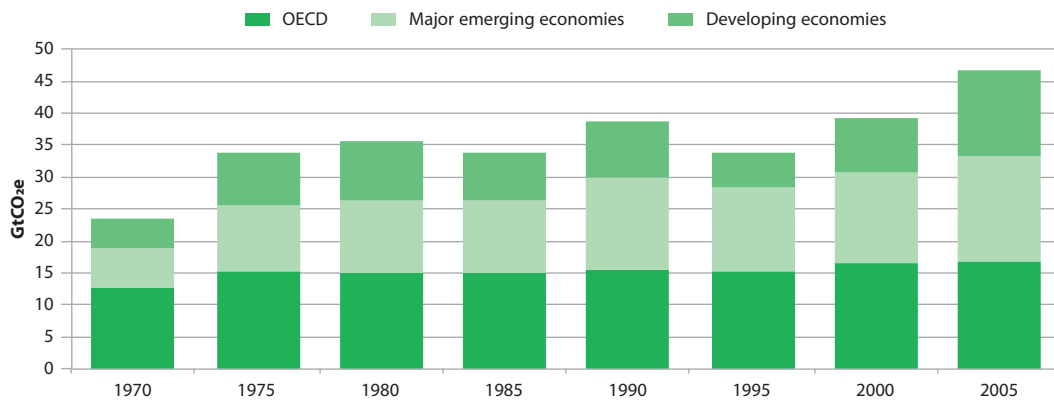
This summary document presents the main findings and analysis of the draft Green Growth and Developing Countries Report. The report provides a conceptual outline for green growth in a developing country context. It provides a rationale for green growth, and examines the concerns held by some developing countries about the green growth agenda informed by a series of consultations recently launched and to be continued during 2012. It then discusses the economic, environmental and social objectives that green growth can help developing countries achieve (Section 1). It reviews economic growth and environmental trends over recent years and speculates on how economic and social trends will evolve in the years to come. Based on this evidence, country clusters are established for analysis of countries which may apply similar approaches to foster green growth (Section 2). Relevant national frameworks and a range of policy instruments, national and local, public and private, are articulated (Section 3) and detail of how they can be supported by the international community through existing mechanisms and policy coherence for development will be set out (Section 4). Work will also commence on how progress could be assessed – including through existing and new indicators and statistical capacity building to generate the relevant data (Section 5). The final section describes the consultation process for the report and outlines the next steps. Based on ongoing consultations, the report will raise specific issues that need deepened analysis.

1.1. Green growth: why it matters for developing countries

Developing countries are the key to achieving global green growth in two major ways. Firstly, the potential economic and social impacts of environmental degradation are particularly important for developing countries. They are the most vulnerable to climate change and tend to be more dependent than advanced economies on the exploitation of natural resources for economic growth. In addition many developing countries face severe economic, social and ecological threats from energy, food and water insecurity to climate change and extreme weather risks. They also face risks from premature deaths due to pollution, poor water quality and diseases associated with a changing climate (Figure 3). All of these factors undermine their development. Secondly, although today most developing countries contribute only minor shares to global greenhouse gas (GHG) emissions compared to the OECD and major emerging economies (Figure 1), they will increase their emissions if they follow conventional economic growth patterns (Figure 2). Increasingly developing countries are becoming sources of global economic growth, emissions and, with these, more intensive use of natural resources.

In order to tackle many of the growth and development challenges mentioned above without compromising future growth and poverty reduction goals, the concept of green growth has emerged as a new approach to reframe the conventional growth model and to re-assess many of the investment decisions in meeting

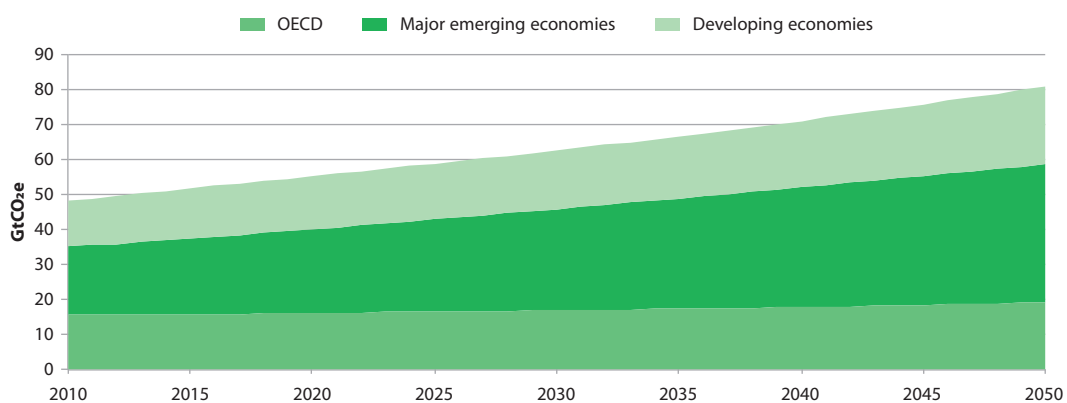
Figure 1. GHG emissions: 1970-2005



GtCO₂e = Giga tonnes of CO₂ equivalent.

Source: OECD Environmental Outlook Baseline; output from ENV-Linkages.

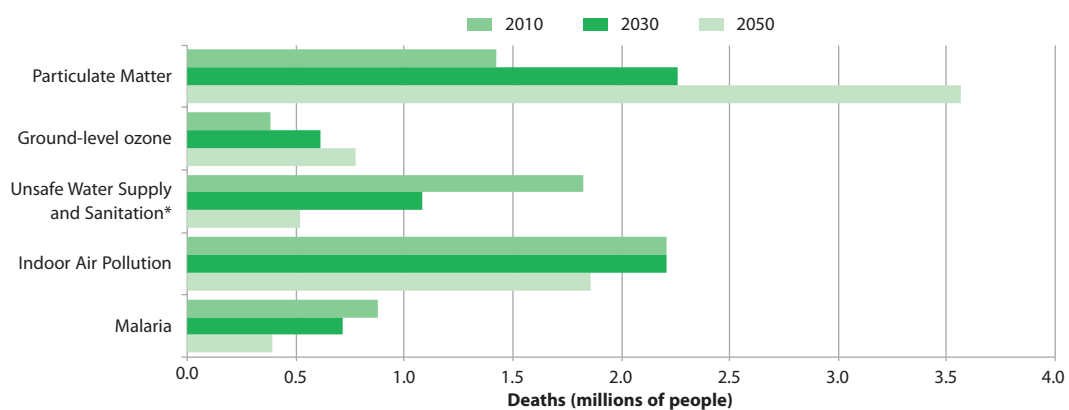
Figure 2. GHG emissions by region: Baseline, 2010-2050



GtCO₂e = Giga tonnes of CO₂ equivalent.

Source: OECD Environmental Outlook Baseline; output from ENV-Linkages.

Figure 3. Global premature deaths from selected environmental risks: Baseline, 2010 to 2050



* Child mortality only.

Source: OECD Environmental Outlook Baseline; output from IMAGE (PBL).

energy, agriculture, water needs and the resource demands of economic growth. OECD defines green growth as a means to foster economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies (OECD, 2011b). However, developing countries will likely interpret green growth in different ways and the concept has generated some concerns (Box 1).

Box 1. What are the concerns from developing countries about the concept of green growth?

The concept of green growth is generating a diversity of political positions, from enthusiastic to cautious, reflecting variously a lack of clarity and experience, differential opportunities apparent to specific countries, and the risks of international green growth policy regimes disfavouring a given country.¹ For example, emerging economies describe the opportunities offered by green growth in the most enthusiastic terms, and many of them have access to relevant funds and technologies that can realise these opportunities. By 2008, China had already become the largest producer of clean technology in financial terms, accounting for 1.4% of its GDP (ADB, 2012). By comparison, there is caution on the part of many low-income countries (LICs). LICs are only just beginning to assess the opportunities, threats and indeed meaning of a green economic pathway. However, the policy ideas and technologies are neither easily accessible nor entirely relevant to their national developmental needs. There is a strongly adverse political reaction against the green growth concept in only a few countries.

Developing countries also have some concerns about the specificities of green growth. Some issues relate to the international dimensions of green growth such as the risks of green protectionism and green conditionality for Official Development Assistance. Other critical issues include:

Will green growth help address poverty and other development priorities? The green growth policy recommendations being discussed – with their emphasis on low-carbon and high-technology – do not obviously tackle equity problems at either the national or global level, notably the problem of the lack of inclusion of many poor countries and people within the informal economy in economic decision-making and in major economic opportunities. Not enough attention has been paid to the potential of more efficient use of natural capital. Furthermore, a number of governments are concerned that the focus on green growth could undermine the Rio Principles, particularly the principle of common but differentiated responsibilities.

Will green growth efforts be impeded by high-cost barriers? The high initial costs for the transition to green growth appear to be beyond the reach of many developing countries, e.g. solar power for rural communities. Even basic technologies are still lacking in most developing countries, particularly in the fields of wastewater treatment, household and hazardous waste management, energy efficiency and integrated water resource management. In addition there is a concern that developing countries' own technologies, including indigenous approaches, will not be able to compete, and they will need to import technologies from other countries: exchange of scientific and technical knowledge and removing the barriers constituted by intellectual property rights are of great importance if a genuine transfer of green technologies is to take place between developed and developing countries.

1. The following points are drawn from IIED's 2011 analysis of the official submissions to the UNCSD Rio 2012 conference, which explore the practice and policy requirements for green economy.

Source: *Green Economy: Everyone's talking about it*: <http://www.greeneconomycoalition.org/sites/greeneconomycoalition.org/files/Analysis%20of%20UNCSD%20submissions%20for%20Rio%202012%20%28F%29.pdf>.

Irrespective of the levels of economic development and to some extent of their political position, the majority of developing country governments have recently embarked on domestic processes to identify and develop particular areas of opportunity and comparative advantage. These domestic actions include carbon taxes, green energy funds, payment for ecosystem services schemes, renewable energy initiatives, sustainable public procurement initiatives and natural resource management initiatives. However there are few holistic or system-wide “green growth” policies, strategies and institutional systems in place. Some developing country strategies stand out, including Cambodia’s Green Growth Road Map and Ethiopia’s National Development Plans. For most countries, however, national sustainable development strategies go some way to forming an integrated green growth policy framework, though green growth has rarely been addressed in mainstream economic, budget and fiscal policies.

1.2. Green growth for sustainable and equitable development

Green growth is about reconciling and reinforcing various aspects of economic, environmental and social policies. This is achieved by taking into account the full value of natural capital and recognising its essential role in economic growth. A green growth model promotes a cost-effective and resource efficient way of guiding sustainable production and consumption choices and could lead to the following outcomes if designed and implemented effectively. Therefore we begin by recalling a generic set of green growth outcomes that developing countries are increasingly intending to pursue.

Green growth outcomes

Economic

1. Increased and more equitably distributed GDP – production of conventional goods and services
2. Increased production of unpriced ecosystem services (or their reduction prevented)
3. Economic diversification, *i.e.* improved management of economic risks
4. Innovation, access and uptake of green technologies, *i.e.* improved market confidence

Environmental

5. Increased productivity and efficiency of natural resource use
6. Natural capital used within ecological limits
7. Other types of capital increased through use of non-renewable natural capital
8. Reduced adverse environmental impact and improved natural hazard/risk management

Social

9. Increased livelihood opportunities, income and/or quality of life, notably of the poor
10. Decent jobs that benefit poor people created and sustained
11. Enhanced social, human and knowledge capital
12. Reduced inequality

2. Patterns of growth in developing countries

This report takes stock of the changing global growth patterns and their far-reaching ramifications for the environment, as well as the division of wealth and power between and within nations in the developing world. The 2000s saw rapid increases in *per capita* income in many developing countries. This, however, has been accompanied in many cases by increased inequality within countries (OECD, 2010).

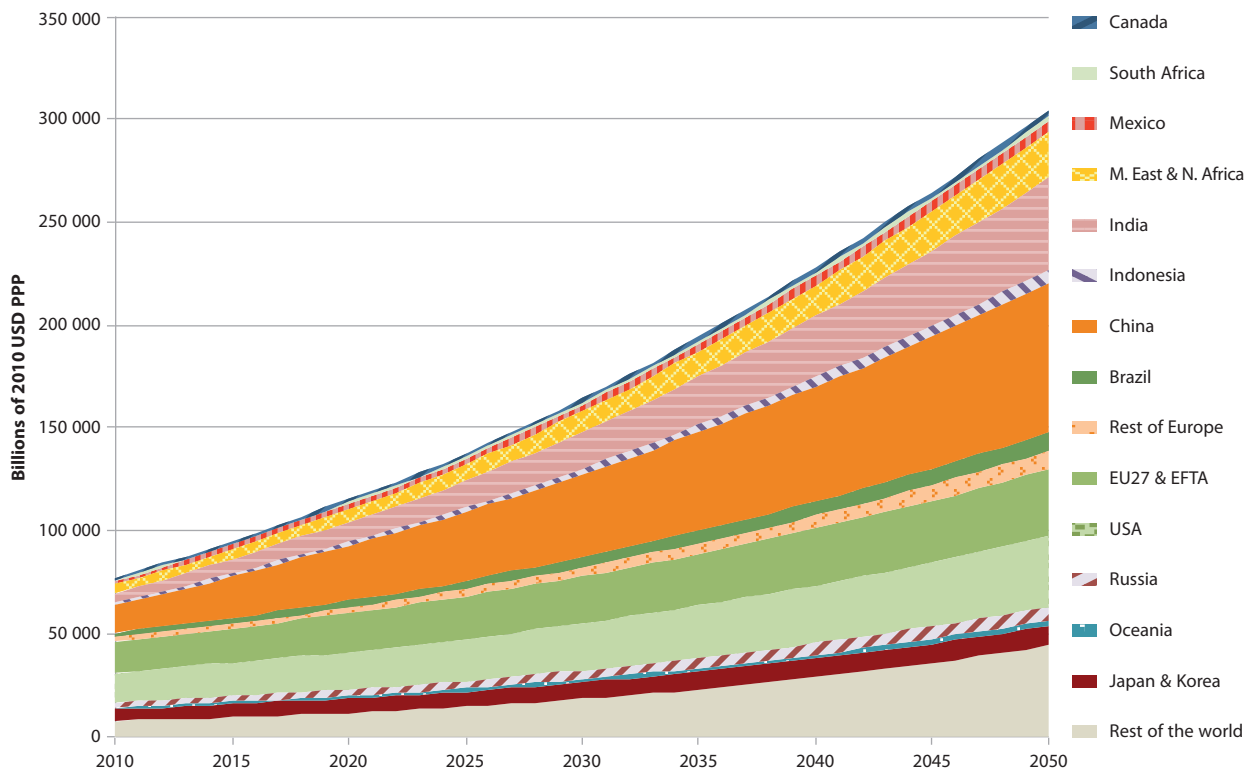
Several global factors underlie these trends: the development of globally integrated supply chains and associated massive increase in global labour supply, as well as soaring demand for commodities, particularly fossil fuels and industrial metals. Accordingly developing countries can be grouped into three “clusters”: fuel exporters, non-fuel commodity exporters and manufacturing exporters. Growth in developing countries oriented towards manufacturing, fuel and other extractive industries is often carbon and natural-resource intensive. Moreover, developing countries are particularly vulnerable to the impacts of climate change and resource depletion. These tendencies will have significant economic, social and health consequences, including reductions in agricultural yield, strains on freshwater availability, extreme weather events and premature deaths from uncontrolled pollution.

Developing economies, therefore, need to embrace policies that help achieve concrete and measurable progress towards the twin objectives of stimulating more inclusive economic growth and promoting environmental sustainability. The OECD predicts that emerging economies and developing countries will grow substantially in the next 40 years (see Figure 4). Their taking a greener growth path is therefore essential for global green growth and environmental sustainability.

There are opportunities for synergies between environmental and economic sustainability, especially for developing countries which can factor environmental issues into their investment decisions on infrastructure and can further develop agriculture and other natural resources to improve livelihoods, create jobs, and reduce poverty. Green growth provides an opportunity for emerging-market economies and developing countries to leapfrog unsustainable and wasteful production and consumption patterns. While advanced economies are somewhat constrained by the path dependency of sunk capital, adequate financing and capacity would offer developing economies the opportunity to build the infrastructure and networks needed to support sustainable development.

The growth trajectory measured in terms of CO₂ intensity differs markedly across the three clusters of low- and middle-income economies (fuel-based economies, non-fuel commodity exporters and manufacturing exporters). When we examine the relationship between real *per capita* GDP and *per capita* CO₂ emissions over the period of 1990-2009 for each cluster, we see significant differences. These two indicators tend to move in a linear fashion in the case of fuel-based economies and non-fuel commodity exporters, though much steeper in the former group. On the other hand, in the case of manufacturing exporters there appear to be two divergent patterns. One is a higher-intensity trend line represented by China, Malaysia, Thailand, Viet Nam and probably South Africa. Another is a lower-intensity trend line followed by the other economies, including among others Brazil, Colombia, Costa Rica and Dominican Republic. The degree of CO₂ intensity looks similar between this group of manufacturing exporters and non-fuel commodity exporters.

Figure 4. Trend in real gross domestic product (GDP) valued at constant PPP prices by region*



* All monetary values are expressed in real terms, in constant 2010 USD PPP, unless otherwise indicated.

Source: Chateau *et al.* (2011).

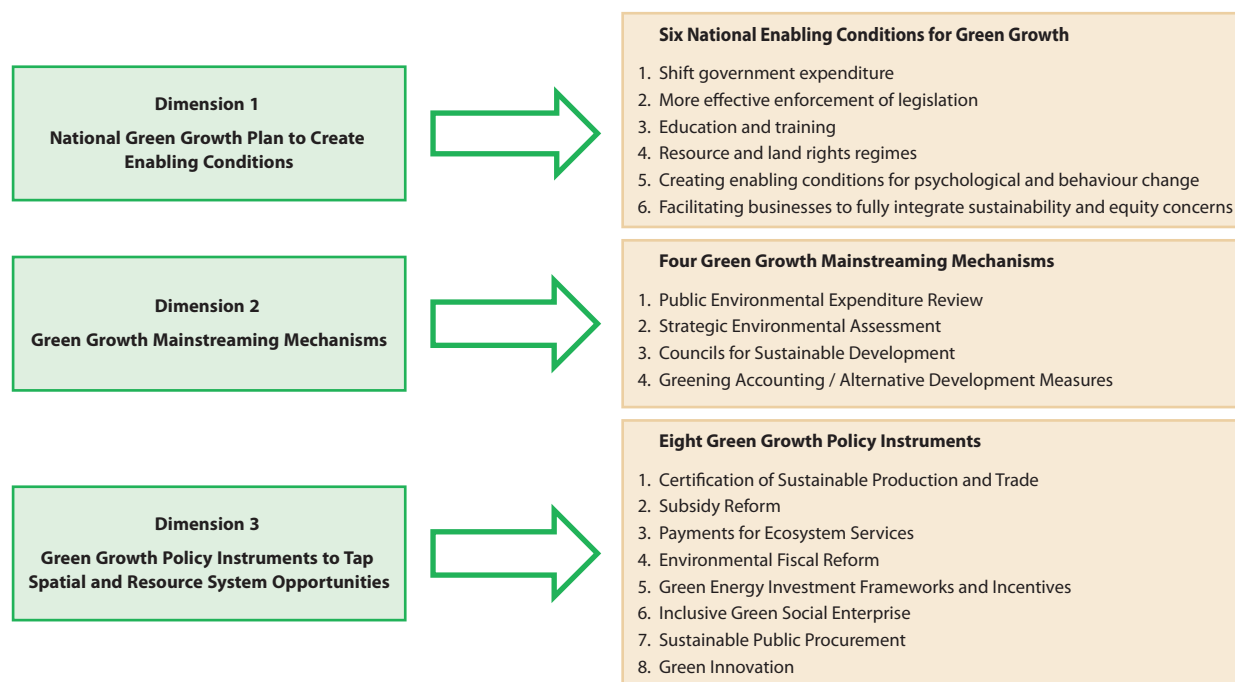
3. A policy framework for greening growth in developing countries

Green growth is understood by many countries to be about mainstreaming inclusive economic development in ways that incorporate, create and sustain environmental and social values. It entails changing and improving the performance of government, formal and informal economic actors and consumers and will require systematic adjustments to mainstream policy and governance systems – in other words, getting economic governance right for sustainable development.

As presented in Figure 5, there are three dimensions which a national government should examine when a green growth strategy is to be developed and deployed:

- a national green growth plan to create enabling conditions;
- green growth mainstreaming mechanisms to ensure opportunities are explored through existing economic activities;
- green growth policy instruments to tap specific opportunities within spatial and resource systems.

Figure 5. Green Growth Framework for Developing Countries



3.1. Dimension 1 – national green growth plans that generate enabling conditions

Green growth will only be possible if the broad governance and policy environment is conducive and stakeholders are confident. The most obvious requirement is some kind of co-ordinating national green growth plan that better integrates diverse institutional roles and creates enabling conditions for green growth. Six economy-wide policy challenges need to be addressed in the context of developing a national green growth plan, in each of which governments can exercise leadership. Broadly speaking, they encompass the enabling conditions for economic growth, reinforced by enabling conditions for inclusiveness and tempered by the enabling conditions for environmental protection.

Achieving this depends largely on building on, and “wiring together”, existing policies, initiatives and institutions so that they work better together, with a focus on those which have proven effective for mainstreaming sustainable development to date. This will also ensure that the most promising policy options can be quickly mobilised and scaled up, avoiding legislative and other delays.

Box 2. Six Identified National Enabling Conditions for Green Growth

- *Government expenditure to shift away* from activities that waste, overuse or degrade environmental assets – because such a “disabling” environment makes green investments less competitive.
- *More effective enforcement of legislation*, in part as a driver of green investment – because weak enforcement reduces long-term investor and market confidence and gives little incentive for most businesses to improve.

Box 2. Six Identified National Enabling Conditions for Green Growth (continued)

- *Shifting science, research, educational and training priorities to support the transition to a green economy* – because new knowledge and skills will be needed for government decision makers, professionals and workers, down to local levels; the structural employment and institutional changes required may also warrant support for the fair transitional costs of organisations and their employees.
- *Resource and land rights regimes that safeguard the interests of those with informal rights* – because too many regimes favour powerful actors who are able to claim rights and/or emphasise technical efficiency of resource allocation, and do not support inclusion and equity for those who have a special dependence on the resource in question; this is especially critical in assuring rights to water or traditional lands.
- *Creating enabling conditions for psychological and behaviour change* – framing green growth as a social goal, narrowing choices towards greener approaches, “nudge” techniques to help people make better decisions on those choices, and tailoring information to match with stakeholder incentives and approaches to learning.
- *Facilitating businesses to fully integrate sustainability and equity concerns*, through provision of information and coordinating research on potential opportunities, especially to adopt best available technologies and meet standards, enabling technology access – through reducing trade barriers where necessary, providing finance – or Public Private Partnerships that share risk and cover upfront costs, and improving accountability – widening reporting requirements.

3.2. Dimension 2 – mainstreaming mechanisms

However, creating a plan as the only vehicle for green growth (Dimension 1) risks privileging certain actors and immediate opportunities, side-lining the breadth of green growth possibilities and actors, and limiting the difference it can make to existing activities. Governments should identify entry-points and reinforce mainstreamed mechanisms to allow the utmost outcomes of green growth activities. Some of the mainstreaming mechanisms improve their effectiveness.

Box 3. Green Growth Mainstreaming Mechanisms

Mainstreaming Mechanism 1 – Public Environmental Expenditure Review (PEER)

A PEER examines government resource allocations within and among sectors, and/or at national and sub-national levels, and assesses the efficiency and effectiveness of those allocations in the context of environmental priorities. The data and insights it yields can be valuable for designing policy reforms, government budgets, and investment projects. If done well, PEERs frequently result in highlighting the mismatch between (new) environmental policy and plans and (historical) low levels of spending in those areas of government that are now linked to environmental priorities. In many cases, they have helped to redistribute spending towards institutions responsible for environmental priorities, towards longer-term goals rather than short-term, and in some cases have helped to considerably increase environmental budgets.

Box 3. Green Growth Mainstreaming Mechanisms *(continued)*

Mainstreaming Mechanism 2 – Strategic Environmental Assessment (SEA)

SEA is an umbrella term for analytical and participatory approach to integrate environmental (and linked social and economic) considerations into policies, plans and programmes and assess their potential development effectiveness and sustainability. It is its focus on identifying trade-offs between environment, social and economic objectives that makes it potentially valuable in assessing whether apparently “green” policies or major programmes such as subsidy reform and introduction of specific green technologies are likely to have unintended consequences. And it is its focus on the policy and institutional level that is potentially useful in making the governance changes required for green growth (as opposed to specific economic activities). SEA is now one of the most prominent instruments for environmental mainstreaming and its potential to play a key role in both advancing green growth is increasingly being recognised. Although green growth policies, plans and programmes should have underlying positive environmental aims, the strategic and potentially unforeseen wider environmental considerations still should be assessed and taken into account in an integrated way along with linked economic and social concerns.

Mainstreaming Mechanism 3 – Councils for Sustainable Development (CSD)

The report of the Brundtland Commission in 1987 suggested that countries may “...consider the designation of a national council or public representative or ‘ombudsman’ to represent the interests and rights of present and future generations”. This prompted the 1992 Rio Earth Summit to call on all countries to establish multi-stakeholder structures and mechanisms to assume the role of following up on commitments made through Agenda 21. By 2002, some 100 National CSDs had already been created worldwide, and many more CSDs have been created at various levels and sectors since then. CSDs’ mandates, if not yet their precise composition and work to date (which has tended not to focus on economic governance), could be very helpful in making the transition to green growth. They already provide a valuable mechanism for a coordinated and principled working relationship among government, business and civil society. They can facilitate the integration of the multiple dimensions of sustainable development into planning and strategy formulation, policy making, programme implementation, and monitoring and evaluation. They can provide a critical means for reconciling priorities at local to national (and global) levels, facilitating the translation of global commitments into national and local initiatives and SD priorities into concrete policies and actions. And many CSDs have served as forums for resolving conflicts among different interest groups, facilitating alliances for private-public action and investments (Antonio, 2009).

Mainstreaming Mechanism 4 – Green Accounting and Alternative Development Measures

The idea of integrated environmental and economic accounting has long been recognised as a crucial ingredient for development policymaking, on the basis that growth in GDP can be misleading if the capital base on which GDP growth depends is being undermined. While a range of resource and wealth accounting approaches has developed, the term “green accounting” is used in a more general sense to refer to the integration of environmental and social information into systems of national economic accounts with the aim of giving a more accurate picture of the state and progress of the economy. Green accounting remains an area of extensive, if isolated, experimentation rather than routine practice. A new World Bank-facilitated partnership, Wealth Accounting and Valuation of Ecosystem Services (WAVES), is aiming to identify and mainstream best practice, in large part to support emerging initiatives such as payments for ecosystem services and green growth plans. OECD country partners of WAVES assert that pragmatic “second-best” approaches to green accounting are both practicable and useful.

3.3. Dimension 3 – green growth policy instruments to tap green opportunities

Green growth opportunities in developing countries lie across a number of often overlapping spatial and resource systems, each with its own technical characteristics and policy challenges. They range from natural resource management (renewable and non-renewable, exhaustible and cultivated) to energy, urban and manufacturing systems. Hence, specific green growth policy instruments should be identified and used in different combinations and degrees according to the national context. Given developing countries' emphasis on the equity and distribution aspects of green growth, these instruments, when applied, should give special attention to the implications for supporting small producers, alleviating poverty and encouraging job creation.

Green Growth Policy Instrument 1 Certification of Sustainable Production and Trade

Differentiating “green” products in the marketplace has the potential to increase the market value and share for producers who are able to participate, thus contributing to economic growth while improving environmental practices and helping to ensure the long-term sustainability of the resource. It normally consists of the following elements: (i) agreement on what constitutes best/acceptable practice in a set of standards; (ii) an auditing process to assess compliance of production units with the standards; (iii) a tracing process to show that the final product in the market has come from sustainable sources; and (iv) labelling of the product to differentiate the product in the marketplace.

In order for certification to become a viable green growth policy tool in developing countries, several factors require detailed attention:

- The schemes need to address local differences in conditions both on the supply side and the demand side, while avoiding confusion for consumers and unnecessary administrative burdens for producers;
- The schemes need to be backed with a strategy to boost demand for certified products while retaining the appropriate degree of rigour in the standards and assessments;
- The schemes need to ensure that smallholders can access and benefit from certification, and the certification is supportive of the potentials of the informal economy without requiring its formalisation.

Green Growth Policy Instrument 2 Subsidy Reform

Subsidies in the form of financial transfers, preferential tax treatment, and provision of services by government, aim to assist poor households to reduce prices for end users, to buffer shocks from global price spikes, or to promote development of certain productive sectors. Where existing subsidies support the “brown” economy, be it in energy, water or agriculture, the challenge is subsidy reform towards greening development. In the short-term, reducing any subsidy may depress production and consumption as it will raise prices and costs of production. In the longer term, however, subsidy reform may encourage greater efficiency in production or in provision of the services such as heat and lighting derived from the inputs which were formerly subsidies and force a more rapid rate of technological change.

The key to ensure subsidy reform could reach more inclusive outcomes for green growth is to make appropriate use of the money that is freed up by subsidy reform to both ease the transition for poor people and lead to improvements in the green growth capacity of the economy. The more successful attempts at reforming subsidies have adopted an integrated approach with complementary social protection measures, such as cash transfers and measures to protect the poor from the increase in energy, water and agricultural input prices.

Green Growth Policy Instrument 3 Payments for Ecosystem Services

Payments for Ecosystem Services (PES) are schemes that give cash and/or in-kind payments to farmers and other land managers as an incentive to conserve and enhance ecosystem services. These payments may be made by direct beneficiaries of the improvements in ecosystem services, for example a water using company, or by government, donor agencies and NGOs on behalf of the beneficiaries or society in general. PES can focus on single or multiple services and can range in size from a few farmers and a few hundred hectares to thousands of farmers and millions of hectares. PES aims to increase the efficiency of land management by taking into account the value of normally un-priced ecosystem goods and services that are protected or enhanced. Thus, PES can increase the production of these goods and services. Whether this translates into an increase in GDP depends on factors such as the source of payment, the cost of delivery and the impact on land management outside of the areas targeted by the scheme.

To date, the majority of PES schemes focus on forest ecosystems; however schemes incorporating agriculture are increasingly common, in part due to the preparations for REDD+. Many have a regional dimension, international support and a pro-poor focus. Some key lessons that have emerged include:

- Successful PES requires careful design and planning and adaptive management; too rapid expansion can compromise effectiveness.
- To ensure that the poorest landowners can voluntarily participate and benefit, PES design should be informed by lessons from existing schemes on how to overcome obstacles such as high transaction costs.
- Experience from developing countries confirms the importance of enabling policies, such as land use planning and agricultural extension, in the success of PES schemes.

Green Growth Policy Instrument 4 Environmental Fiscal Reform

A range of instruments are employed to raise revenue for governments, while furthering environmental goals when managing natural resources. They include taxes or royalties on natural resource extraction, user charges for services such as water supply and waste management to recover costs, and environmentally-related taxes such as pollution charges. These instruments often form part of a package of reforms, making it difficult to distinguish the impact of the tax. Environmental taxes can increase efficiency in environmental management and use of natural resources. The resulting improvements in environmental quality can support those productive activities which rely on environmental inputs, for example clean water provision, and build up human capital through positive impacts on health. These instruments raise revenue which can be used for environmental and poverty reduction programmes and/or to reduce the taxes imposed on labour and capital which have more negative distorting effects – the so-called double dividend.

Existing case studies show that the context in which the environmental tax is introduced and the package of accompanying reform measures are extremely important. Thus, in Cameroon, forest fiscal reform provided revenue to support enforcement and implementation of measures to promote sustainable forest management, but accompanying measures are needed to ensure that a share of the revenues actually reaches local communities. Also, Blackman (2006) argues that the reduction in water emissions in Colombia may have had more to do with the improvements in permitting, monitoring and enforcement that accompanied the introduction of the pollution charge, than the charge itself.

Green Growth Policy Instrument 5

Green Energy Investment Frameworks and Incentives

Green investment will require the development of a sound framework of fiscal, financial and legislative instruments. This is particularly the case in the energy market, which requires significant government support for renewable energy to establish an initial market share, to gain access to the national electricity grid and other energy infrastructure, and to attract investment. These framework policies include:

- *Key investment principles:* These should be applied to entry, establishment, mergers and acquisitions, and investment incentives in green energy sectors. Domestic investment policy also needs to be attractive to foreign investors, given that developing countries depend to a large extent on foreign investment.
- *Introducing stronger competition in countries' energy – and especially electricity – sectors:* This can have substantial positive effects on green energy investment if properly managed. Countries such as Kenya and Uganda that have opened their generation sector to independent power producers (IPPs) have managed to increase both the amount of electricity generated and the share of renewable energy in the national energy mix. Power sector restructuring by separating generation, transmission and distribution services, for instance, can have a significant effect on electric power technologies, costs, prices, institutions, and regulatory frameworks. Such unbundling can create more space for renewables in the national energy mix. Similarly, deregulating power generation and taking the step towards wholesale power markets can allow IPPs to compensate for biases that traditional utility monopolies may have against renewables. Opening the generation sector to IPPs can also favour green and decentralized private sector-led solutions to energy access, since connecting isolated rural communities to the grid is often costlier than off-grid investments.
- Improving PPP legislation and increasing public sector capacity to deal with such arrangements. The guidance provided by the OECD principles on private sector participation in infrastructure can be helpful in this respect.
- *Financial sector regulation* also has a strong influence on the extent to which large investment projects can access private funding. In general it is difficult for renewable energy projects to obtain private finance, given the perceived risky nature of the investment. Moreover the tightening on bank lending introduced by Basel III is making it increasingly difficult for green investors to rely on bank loans. In addition, while green investors must often rely on project finance, there are significant risks associated with their projects (which are R&D- and capital-intensive, subject to environmental hazards, involving long pay-back periods, etc.). These risks can ultimately deter financial sponsors. This makes the availability of risk mitigation instruments for green investors crucial. Finally, green markets remain narrow and shallow in many developing countries, and while investments from pension funds and institutional investors have high potential, their involvement has been limited thus far.

Green Growth Policy Instrument 6 Inclusive Green Social Enterprise

Increasingly, social enterprises aim at achieving “triple bottom line” economic, social and environmental returns, and thus address many of the green growth criteria that are important to developing countries. Social enterprises that focus on overcoming technological challenges or cost barriers contribute to innovation, an important driver of green growth. Many offer opportunities for small-scale producers and microenterprises, including those operating outside the formal economy, and thus contribute to poverty reduction and improved livelihoods. Social enterprises also offer a model to more traditional profit-oriented business of the potential benefits of a more socially and sustainably oriented approach.

Community-based social enterprises exist throughout the world: examples range from Nature Seekers in Trinidad (McIntosh *et al.*, 2008), which turned the protection of nesting sea turtles into a profitable ecotourism enterprise generating jobs for unemployed youth, to ASMARE, a cooperative of informal waste pickers in Belo Horizonte, Brazil that now operates a major recycling enterprise for the city (Diaz, 2011). Crucial lessons learned in ensuring the effectiveness of these social enterprise initiatives include: (i) governments should consider development of “social enterprise” institutional and policy frameworks that include appropriate tax regimes and incentives, business support programmes that are tailored to the needs of the sector, and access to public sector technological expertise and R&D; (ii) enterprises need to draw on both non-profit and for-profit finance models; and (iii) government needs to preserve the co-benefits generated by social enterprises; it may be necessary to introduce regulations and instruments that protect them from undercutting competition and encourage their attention to generation of co-benefits.

Green Growth Policy Instrument 7 Sustainable Public Procurement

Public procurement represents around 25-30% of GDP in developing countries, with some indications of even higher levels in some emerging economies: 35% in South Africa, 43% in India and 47% in Brazil (IISD, 2008). Sustainable Public Procurement (SPP) can stimulate demand and supply of products that contribute to social and environmental objectives. In light of the rapid urbanisation developing countries are facing, by exploiting the power and scale of government purchasing, the state can lead markets in ways which are quicker and more certain than relying on market mechanisms. To date, interest in SPP often exceeds uptake in developing countries due to problems of adequate “sustainable” supplies and the need to build capacity across government departments. For example, in 2004, the Philippines government announced a green public procurement policy but, due to the lack of technical knowledge and the lack of supply, particularly from SMEs who were unable to keep up with the demand for environmentally preferable products and services, the initiative was only launched in 2012 (Manila Bulletin, 2012).

Most developing countries’ SPP initiatives are still in their infancy, and so evidence of impact on the ground is limited. Some emerging lessons of SPP in developing countries show that initiatives should: (i) identify high impact goods and services; (ii) pilot initiatives to build capacity and support; and (iii) ensure multi-stakeholder collaboration between the public and private sector from the outset.

Green Growth Policy Instrument 8 Green Innovation

As many developing and emerging economies are still in the process of establishing their infrastructure and developing manufacturing systems, there is an imperative to innovate towards greener solutions from the outset, both technological and institutional. Frugal, low-cost innovation makes products accessible for a larger share of the population in ways that are also often greener than those used for other products. There are also important market opportunities for green innovation: Brazil, China and India have all become important drivers of green innovation in recent years and the technologies from these countries may be more suited to the needs and conditions of developing countries than those from advanced economies. Indeed, innovation and profit, together, may have more potential to drive green growth in the business sector than the more limited notions of corporate social responsibility (CSR).

Policies to foster green innovation in developing countries need to be adjusted to national circumstances. Key elements of policies for green innovation include:

- Providing predictable policy signals to ensure that potential innovators and adopters of climate-friendly technologies are not dissuaded from undertaking the necessary investments;
- Focusing the national public R&D effort more on fostering green innovation, notably on local needs such as water scarcity, soil loss, etc., all of which are also important for sustaining future economic growth;
- Strengthening local capabilities to absorb technology from abroad and adapting it to local needs. This is yet another area where green and growth are aligned;
- Using the opportunities offered by public procurement, standards and regulatory policies to strengthen and improve the markets for green products, fostering innovation in the process.

3.4. Green growth policies in action

Many developing countries have implemented policies and taken actions to implement various elements of the green growth framework discussed above, at the national and local level, in the public and private sector. This section outlines specific examples.

GREEN GROWTH POLICIES IN ACTION

Costa Rica

Costa Rica's Payments for Environmental Services programme, created by law in 1996 and financed through taxes on fuel and water, discourages deforestation by paying forest owners for the environmental services that the forest produces, such as watershed and biodiversity protection and greenhouse gas mitigation. The programme has paid out over USD 230 million since its inception.

Karachi, Nairobi, Pune

★ In **Karachi, Nairobi, Pune**, and many other cities, federations of 'slum' dwellers are working with local governments to improve housing conditions and reduce risks from disasters. They have demonstrated to governments their capacity to design and build housing and infrastructure that is cheaper and better quality than if governments engage contractors, as well as their capacity to undertake the enumerations and mapping of informal settlements needed for planning upgrading. Where local governments come to work with them, the scale of what can be achieved has increased greatly (Satterthwaite, 2011).

Ghana is the largest per capita consumer of charcoal in West Africa. Toyota manufactures and sells cook stoves which are 40% more efficient than the traditional models, to date supplying 35 000 households, offsetting 15 000 tonnes of carbon dioxide emissions and employing over 200 employees. The business model is easily replicable in many countries.

Ghana

Azerbaijan

Azerbaijan - Half of Azerbaijan's population was in poverty in 2001, but the oil industry has helped the country to achieve middle-income status today. Azerbaijan formally signed up to the Extractive Industries Transparency Initiative (EITI) in 2003, and in 2009 became the first country to achieve full member status. All oil, gas and gold mining companies are obliged to report on how much they pay to government, while government reports on how much it receives. However, Azerbaijan needs to work more on fighting corruption and ensuring economic diversification.

Nepal

Nepal - Forests account for almost 40% of the land in Nepal. The Forest Act and Forest Rules recognise Community Forest User Groups as "self-governing autonomous corporate bodies for managing and using community forests". Community forestry generates employment and income from forest protection, tree felling, log extraction, and non-timber forest products and has contributed to restoring forest resources, turning an annual rate of decline in forest cover of 1.9% during the 1990s into an annual increase of 1.35% over the period 2000 to 2005.

Bangladesh - WasteConcern, a social enterprise founded in 1995 in Bangladesh, transforms roadside organic waste into agricultural compost. WasteConcern calculates that from 2001 to 2006, USD 1.24 million in foreign currency were saved by avoiding the import of chemical fertilizer. 124 400 tonnes of waste was processed, 986 direct jobs were created annually, and USD 1.10 million was raised in compost sales. Based on its success, Waste Concern is now assisting 10 Asian and 10 African cities in replicating its model.

Bangladesh

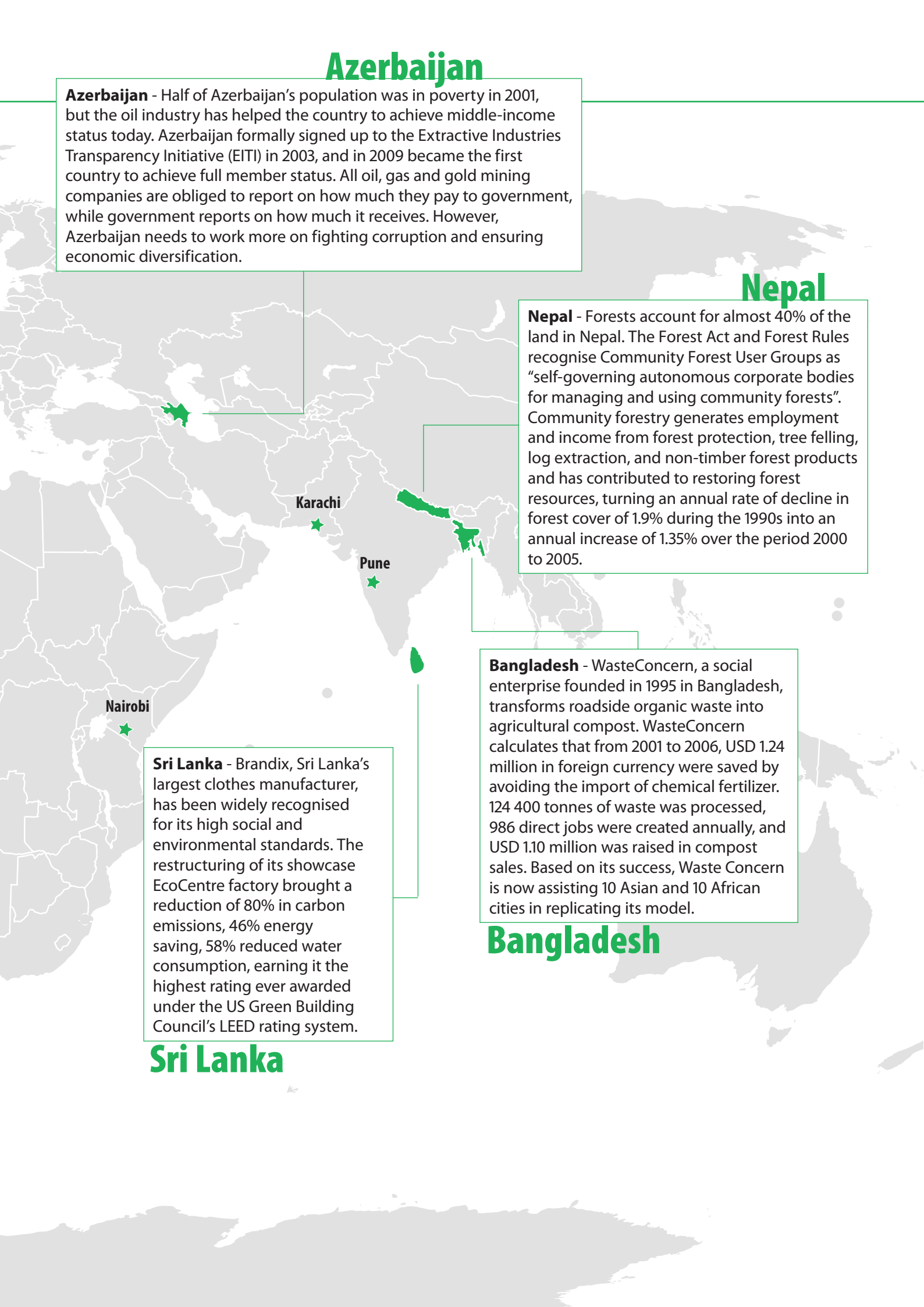
Sri Lanka - Brandix, Sri Lanka's largest clothes manufacturer, has been widely recognised for its high social and environmental standards. The restructuring of its showcase EcoCentre factory brought a reduction of 80% in carbon emissions, 46% energy saving, 58% reduced water consumption, earning it the highest rating ever awarded under the US Green Building Council's LEED rating system.

Sri Lanka

Nairobi

Karachi

Pune



4. How can the global community help?

Creating a global architecture which is conducive to green growth will require further strengthening of arrangements for managing access to the global commons, maintaining the quality of global public goods, increased co-operation in the field of science and technology, provision of finance to support action by developing countries, and facilitating the diffusion of clean technologies. Increased efforts to boost global trade and investment flows would also help to underpin sustained growth. At the same time, there is a need for increasing vigilance around the potential spill-over effects of OECD countries' policy measures on developing countries and the potential for incoherent policy which undermines development prospects in low-income countries.

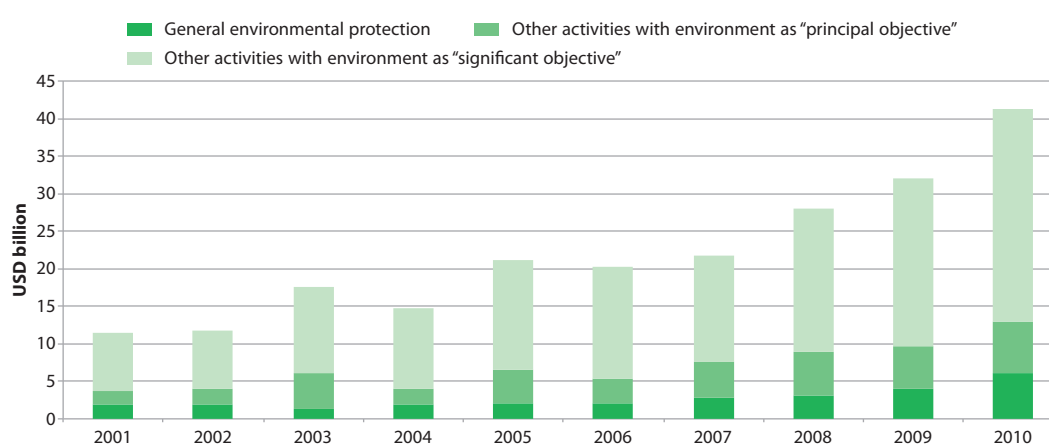
An international enabling environment will help send the right policy and market signals. It will create momentum for green growth by setting environmental regulations and standards, stimulate the demand and supply of environmental goods and services, catalyse green growth efforts in energy, transportation, agriculture and other sectors. It will make it easier to access financing, technology and innovations. Furthermore, an international enabling environment for green growth will facilitate the international exchange of knowledge about green growth issues or the cooperation in science, technology, and innovation. Effective and comprehensive knowledge sharing platforms are important for the international transfer of knowledge, good practices and technologies to developing countries.

There are several areas where the OECD countries and the international community could help to create such a conducive environment for green growth – these include:

- **Enhancing capacities.** Capacity is central to green growth – capacity to adapt and deploy green technologies, to undertake environmental risk assessment, to make the economic case for greening growth, to incorporate environmental issues into decision making, and to coordinate across sectors and institute environmental fiscal reform. The international community can support developing countries to build and enhance these capacities. Efforts could largely focus on three issues: capacities to integrate green growth considerations into national development planning, national budgetary processes and key economic sectors.
- **Strengthening Official Development Assistance (ODA).** ODA is essential in creating enabling conditions for green growth “targeting areas where incentives for private investment are limited and flows are scarce, including essential infrastructure and human and institutional capacity building” (OECD, 2011a). Donor agencies have many decades of experience stimulating and promoting sustainable development in developing countries and have been scaling up assistance in support of the environment (Figure 6). ODA finances major projects in renewable energy, sustainable agriculture and low-carbon transportation networks. It also supports smaller but potentially catalytic efforts such as feasibility studies, pilot projects and technical training. Green growth thinking should be fully incorporated into development co-operation. Development assistance to green growth should

be further strengthened by ensuring that climate proofing and disaster risk reduction approaches are mainstreamed into aid-funded public investment. Furthermore, investments funded by development co-operation in public infrastructure and services should crowd in and leverage private investment in sustainable production systems and value chains. The Aid-for-Trade Initiative, which supports developing countries in the areas of trade infrastructure development, productive capacity building, and implementation of trade agreements, should focus on greening trade-related investments and building capacities for new trade regulations such as green or low carbon certification.

Figure 6. Environment aid from OECD Development Assistance Committee (DAC) members (2001-2010), commitment, constant 2009 prices



Source: OECD DAC Creditor Reporting System.

- Promoting innovation and accelerating the dissemination of green technologies.** OECD countries can assist developing countries in promoting green growth by removing existing barriers to the dissemination and transfer of technologies and to trade. In addition, support to developing countries for science and development in green technologies helps to bring forward innovation and technology advancements. It reduces the cost and risks of private sector investment in new technologies (OECD, 2011a). To accelerate the diffusion of innovation, new mechanisms that enhance technology transfer are currently developed, such as through voluntary patent pools and other collaborative mechanisms for easing the application of Intellectual Property Rights (IPRs). To scale up the deployment of green technologies in developing countries, in particular to the least-developed countries, multilateral action is needed to reduce the cost of green technologies for these countries. International co-operation to cover licensing fees, buy out patents of key technologies, and facilitate developing countries and their firms to build more systematically on the knowledge resulting from basic research undertaken by public institutes are some critical steps. Academic partnership and cross border higher education exchange programs can also facilitate technology transfer and lead to spillovers in local innovation systems.

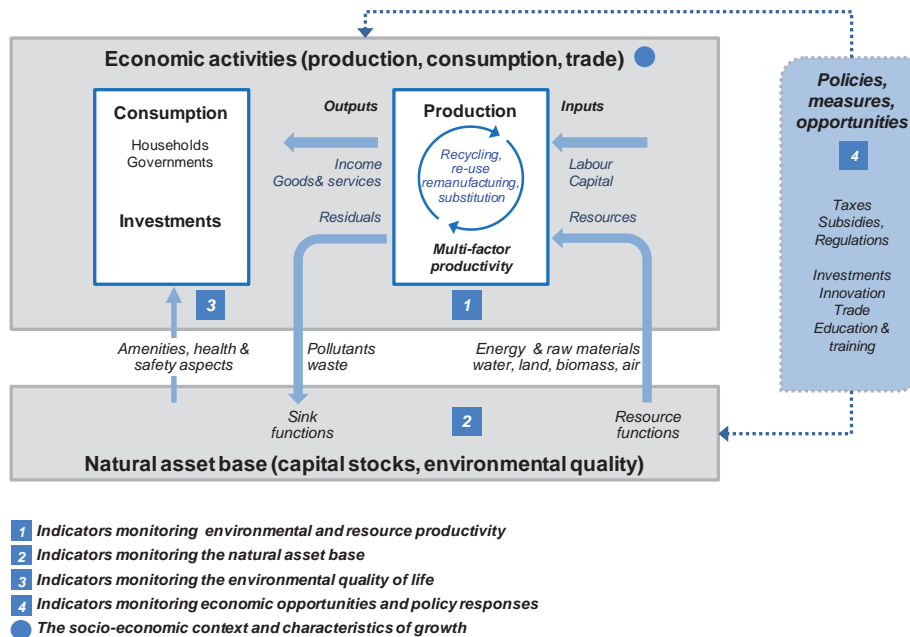
- **Facilitating trade of environmental goods and services.** New opportunities can be created for green growth in developing countries by building international markets for ecosystem services. OECD countries can adopt policy approaches to the pricing of environmental externalities that allocate adequate portions of the consequent revenues to paying for, and thereby creating demand for the production of, the ecosystem services expected from developing countries. The international community can also help developing countries to participate in international trade by facilitating the harmonisation of international standards. This includes environmental, sanitary and phyto-sanitary measures, and certification schemes.
- **Developing coherent policies.** Policy coherence for development (PCD) can play an important part in creating an international enabling environment for green growth. In the long run, the implementation of effective green growth policy mixes will depend on political leadership, widespread public awareness and acceptance that changes are both necessary and affordable (OECD, 2012). In order to maximise opportunities from PCD, OECD countries have to make sure that their policies in areas other than development co-operation support do not undermine the efforts to improve natural resource management, agriculture, economic development, and sustainability in developing countries. In particular developed countries need to ensure that their green growth policies do not promote the off-shoring of high carbon or pollution intensive components to developing countries. Integrated into a multi-sectoral, whole-of-government approach, green growth policies can be cross-cutting to maximise synergies, generate co-benefits with other sectors, and positively influence poverty alleviation.

5. Measuring progress

Relevant information and statistics provide the foundation for policies that promote green growth, and are critical to monitoring progress and gauging results. Measuring progress towards green growth in developing countries requires some special considerations. The OECD has developed a measurement framework for green growth that provides developed and developing countries with a way to organise thinking about indicators and to identify relevant, succinct and measurable statistics. The framework reflects the integrated nature of green growth and describes four of the main aspects that need to be monitored: (i) the environmental and resource productivity of the economy; (ii) the natural asset base; (iii) the environmental quality of life, and (iv) economic opportunities and policy responses that arise.

Monitoring progress towards green growth in developing countries requires some special considerations. Developing countries face many different challenges – poverty, weak institutional capacity, food insecurity, gender inequality, poor infrastructure – and consequently have policy priorities that differ from developed countries. But the OECD measurement framework is a robust tool that can be adapted to different national circumstances and priorities. It gives countries the flexibility to focus on the indicators that reflect their own green growth objectives, such as building economic and environmental resilience and ensuring that growth is inclusive.

Figure 7. Measurement framework for green growth



Source: OECD (2011b).

One of the biggest obstacles to establishing a monitoring framework for green growth in developing countries is overall statistical capacity. Faced with other pressing priorities, developing countries have experienced difficulties in mobilising the capacity and resources necessary to collect, produce, analyse and disseminate relevant information to support policy development.

Putting in place a monitoring framework is an integral component of any green growth strategy. For developing countries compiling a set of indicators to monitor progress on green growth need not increase the statistical burden if synergies are maximised. Initiatives to modernise and improve national statistical systems, such as the Modernisation of the Barbados Statistical Service Project (MBSS) and the National Strategy for the Development of Statistics (NSDS) process under the Partnership in Statistics for Development in the 21st Century (PARIS21), provide an important opportunity to mainstream green growth, particularly environmental considerations, into economic and social information systems.

6. Next steps

Ideally, the report would be informed by an analysis of experience of green growth policies and instruments. In the absence of extensive experience in developing countries and the evidence it would provide, the report instead draws on policy initiatives that have emerged from discussions about green growth in a small but diverse range of developing countries, on government and stakeholder submissions to Rio+20 (UNCSD), on recent national dialogues on the subject held by the International Institute of Environment and Development and the Green Economy Coalition, and on the more practical, if sometimes inconclusive and

patchy, experience from economic growth and sustainable development policy and practice in a diversity of developing countries.

The concerns voiced by some developing countries reveal a policy uncertainty, diversity and flux that make a definitive statement of an ideal green growth policy framework a real challenge, in the absence of a process of consultation, learning, and consensus building. This report will attempt to offer elements for constructing such a policy framework, and a consultation process with developing countries is already underway to provide one process for refining and building consensus on it. In its consultation on this draft, the OECD therefore welcomes: further evidence of effective policies and their impacts, especially on growth; identification of gaps in this policy framework; and ideas on how best to fill these gaps, including research needed.

A first consultation event jointly organised between the OECD and the Global Green Growth Institute took place in Seoul, Korea on the margins of the Global Green Growth Summit in May 2012. Comments on the report ranged from definitional or conceptual green growth issues to the particular concerns that developing countries have about the green growth agenda and the need for global co-operation through capacity development and support from OECD countries.

The over-riding message from the consultation was that unless green growth can speak clearly to poverty reduction and social and economic development in the near to medium term it will make little progress. Most reaction was pragmatic – green growth should be seen as improving mainstream policies rather than as some radically new paradigm. Case studies based on practical experience seem to be a universally popular way forward.

The next consultation with developing countries will take place at the Rio +20 conference on June 17th and this effort will guide the articulation of the report and further refine the elements needed for a green growth policy framework. A final draft of the report will be available by the end of 2012.

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