

# Putting Green Growth at the Heart of Development

## Summary for Policymakers





“ Governments that put green growth at the heart of development can achieve sustainable economic growth and social stability, safeguard the environment, and conserve resources for future generations. ”

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# Green growth: what it is and why we need it

## What is green growth?

Green growth presents a new approach to economic growth that puts human well-being at the centre of development, while ensuring that natural assets continue to provide the resources and environmental services to support sustainable development (OECD, 2011a). By explicitly accounting for the environment and the value of natural assets, green growth expands traditional definitions of wealth to include well-being, and the quality of growth and development.

Green growth does not replace sustainable development, but is a means to achieve it (OECD, 2011a). The concept of green growth is narrower in scope, and provides a policy agenda that can help achieve concrete, measurable progress at the interface of the economy and the environment. Green growth promotes a cost-effective and resource-efficient way of guiding sustainable production and consumption choices. When designed to reduce poverty and manage near-term trade-offs, green growth can help developing countries achieve sustainable development.

Embracing green growth can secure a strong, stable and sustainable future for developing countries. In the 20th century the world's population multiplied by four, economic output by 22 and fossil fuel consumption by 14 (UNEP, 2011). The resilience of a wide range of socio-economic and environmental systems is now being tested by the requirements of a rapidly growing global population and increased levels of economic activity. A key challenge will be meeting the energy, food and water needs of 9 billion people by 2050 and ensuring that they have clean and healthy living environments. Modelling work by the OECD, presented in its Environmental Outlook to 2050, foresees large costs and potentially irreversible consequences of failing to adjust economic growth to avoid environmental risks (OECD, 2012a). Environmental risk will directly affect human health and well-being and the potential for global sustainable development, with the most severe

and dramatic consequences occurring in developing countries. What's more, though global GDP climbed at a steady rate between 1971 and 2010, a wide gap still remains between the developed and the developing world, and the gap between the richest and the poorest is growing in both (UNCTAD, 2012; OECD, 2011a).

Governments that put green growth at the heart of development can achieve sustainable economic growth and social stability, safeguard the environment and conserve resources for future generations. Reconciling development with environmental protection and sustainable natural resource management is critical to avoid natural capital depletion, climate change and social insecurity. This is particularly true for developing countries because of their acute exposure and vulnerability to environmental risks such as air, water and soil pollution and climate change, as well as their reliance on natural resources for economic growth. It





## OECD engagement with developing countries on green growth

*Putting Green Growth at the Heart of Development* is the culmination of extensive consultations with developing countries, including:

- a joint consultation organised with the Global Green Growth Institute in May 2012 in Seoul, Korea;
- technical and ministerial consultations organised at the Rio+20 Conference in June 2012;
- a joint workshop organised with the African Development Bank in Lusaka, Zambia in January 2013; and
- two in-depth country case studies on green growth in collaboration with the governments of Ethiopia and Cambodia.

Some of the key lessons from these consultations and country studies on how to pursue green growth include:

- advance a long-term vision for national development and green growth, and secure high-level political will and stakeholder engagement;
- ensure social equity and poverty reduction as a critical dimension in this policy transformation;
- review green growth and development options in the light of environmental and socio-economic changes;
- broaden international financing avenues while supporting local financing mechanisms;
- focus on programmatic rather than project-based solutions.

is also in the interest of the development co-operation community because green growth is a cost-effective way to bring more profound and lasting sustainable development.

Integrating economic and environmental policies is easy to say, but harder to do. It takes real leadership to instil change, a common vision of the future and solid co-operation across ministries and levels of government. And it involves understanding how trade-offs in the short term need to be managed and reconciled with the long-term benefits that are being aimed for. The international community must work hand-in-hand with developing countries to make green growth a reality. Developing countries will need to use their natural resource endowments in their development process. Some natural capital may be surrendered to build human and physical capital in its place. Green growth is all about being clear about the nature of that resource use and where society wants to end up in the long term. Some trade-offs are worth making, while others may involve irreversible losses that may forever be regretted. Green growth is not about environmental preservation. It is about a no-regrets approach to securing the natural resources needed to make development sustainable in the long run.

This policy summary outlines a twin-track agenda for national and international action to help achieve green growth in developing countries, put forward in the OECD report *Putting Green Growth at the Heart of Development*. Its aim is to assist governments interested in pursuing green growth in their own countries, or supporting it in others. It surveys developing countries' experience with green growth and draws on extensive consultations with developing countries and international stakeholders that provided a forum for discussion of questions and concerns around the concept of green growth. The report is a companion piece to the 2011 OECD Green Growth Strategy. The report targets policy makers in both developing countries and the OECD. The primary audience in developing countries is government officials, particularly those from ministries of finance, economy or development, in addition to ministries of environment or natural resources. The report tries to respond to concerns raised by developing country policy makers. Within OECD countries, the intended audience includes policymakers who shape development co-operation programmes, as well as technical experts who advise, implement or otherwise influence international co-operation policies or provide hands-on support to developing countries.



## Why is green growth vital for the future of developing countries?

Development that is not based on green growth may lead to prosperity, but only in the short term, and will soon be undermined by insecurity and vulnerability. Developing economies tend to be particularly sensitive to environmental challenges, as their economies often rely upon the intensive use of natural resources and are dependent on natural resources for development. Natural capital comprises 25% of total per capita wealth in low-income countries, compared to only 2% in OECD countries (World Bank, 2006; OECD, 2008). The links between environmental performance, equity and poverty are more direct and significant in developing countries than in developed countries.

Vulnerability to environmental threats is greatest in developing countries. The multiple environmental risks to human well-being faced by developing countries stem from: 1) unsustainable natural resource exploitation; 2) lack of access to food, water and energy and a lack of basic infrastructure; 3) deadly air and water pollution in a context of rapid urbanisation and population growth; 4) the large share of rural people's livelihoods dependent on natural resources; and 5) high vulnerability to climate change impacts, including a rise in natural disasters such as drought, increased storminess and coastal floods.

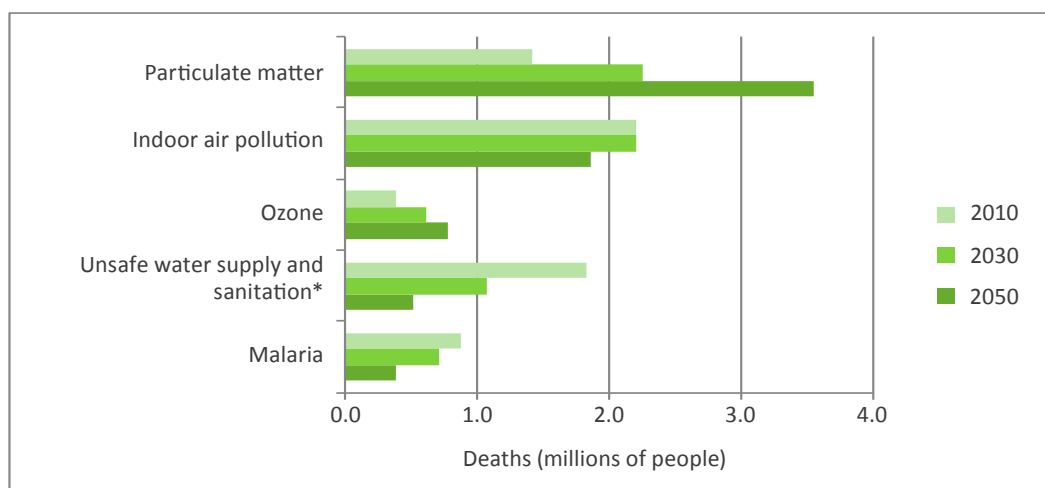
Developing countries are being affected by increased stress on natural resources and

the environment (OECD, 2012b). Without new policy action to manage environmental risks, an additional 1 billion people are expected to live in severely water-stressed areas by 2050, with developing countries particularly hard hit. Demand for water is projected to grow significantly in developing countries by 2050, while it is expected to decrease in OECD countries. Global terrestrial biodiversity is expected to decline by an additional 10%, leading to a loss of essential ecosystem services (*e.g.* to support food production). With growing levels of dangerous emissions from transport and industry, the global number of premature deaths linked to airborne particulate matter is projected to more than double from today's levels to 3.6 million a year by 2050, widely surpassing malaria as a global killer (OECD, 2012a). Most of the consequences of deadly air pollution will occur in emerging economies like China, India and Indonesia, where premature deaths from particulate matter are expected to grow from 0.6 million in 2000 and 1.6 million by 2050 (OECD, 2012a). Continuing with this business-as-usual growth path could also lock economics into emission-intensive development, land use and infrastructure. The consequence could be a 50% increase in global greenhouse gas emissions by 2050 and an increase in global mean temperatures of 3-6°C by the end of the century. Failing to limit climate change

### DID YOU KNOW?

With growing levels of dangerous emissions from transport and industry, the global number of premature deaths linked to airborne particulate matter is projected to more than double from today's levels to 3.6 million a year by 2050, widely surpassing malaria as a global killer.

### Global premature deaths from selected environmental risks



\* Note: Child mortality only.

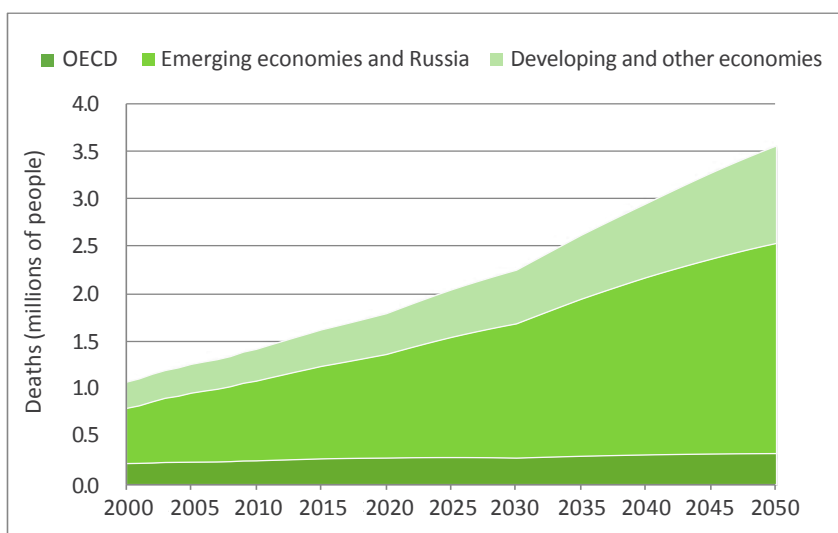
Source: OECD *Environmental Outlook Baseline*; output from IMAGE.

will lead to more severe and frequent natural disasters, and will hit developing countries particularly hard. This will further threaten water security, the livelihoods of poor people and agricultural productivity. The Intergovernmental Panel on Climate Change (IPCC) warns that projected reductions in crop yield in some African countries could be as much as 50% by 2020 and crop net revenues could fall by as much as 90% by 2100 due to changes in climate patterns and associated extreme weather events. Environmental vulnerability in developing countries is heightened by inequality, poverty, and rapid population growth.

The world's current growth path is expensive, especially for developing countries, who can ill-afford it. For example, inadequate water and sanitation in Indonesia already costs the national economy more than 2% of GDP in 2005 (World Bank, 2009). Environmental degradation in the Central African Republic is estimated to cost 8% of its GDP in the coming years, taking into account impacts on both human and natural capital (World Bank, 2010). These costs of our current growth path highlight the urgency of putting green growth at the heart of development policy and planning.



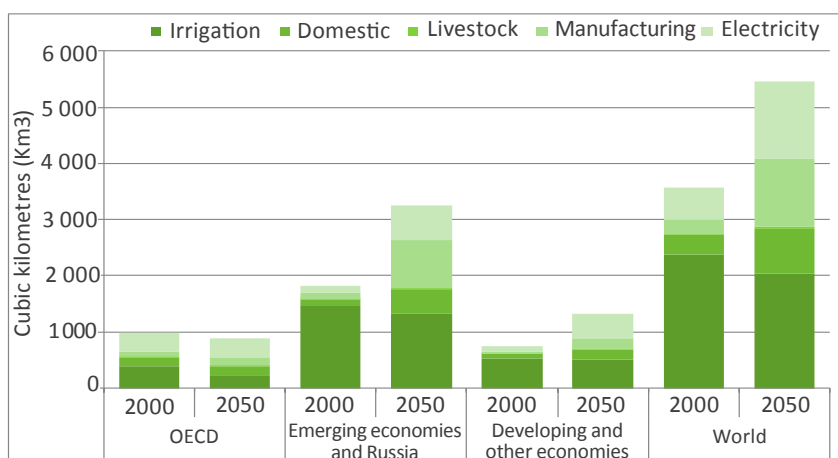
### Premature deaths worldwide from exposure to particulate matter between 2000-2050



Notes:  
 OECD includes Mexico and Chile, even though these countries also receive Official Development Assistance (ODA).  
 Emerging economies includes Brazil, China, India, Indonesia, South Africa.  
 Developing and other economies includes all other countries, regardless of whether they receive ODA.

Source: OECD *Environmental Outlook Baseline*; output from IMAGE

### Global water demand in 2000 and 2050



Notes:  
 This graph only measures blue water demand and does not consider rain-fed agriculture. Blue water is defined as freshwater in aquifers, rivers, lakes, that can be withdrawn to serve people.  
 OECD includes Mexico and Chile, even though these countries also receive Official Development Assistance (ODA).  
 Emerging economies includes Brazil, China, India, Indonesia, South Africa.  
 Developing and other economies includes all other countries, regardless of whether they receive ODA.

Source: The *Environmental Outlook Baseline*; output from IMAGE.

### DID YOU KNOW?

Without new policy action to manage environmental risks, an additional 1 billion people are expected to live in severely water-stressed areas by 2050, with developing countries particularly hard hit.



## What benefits can green growth bring?

Emerging evidence shows that green growth can offer both short and long-term benefits and opportunities to developing countries, including:

- Sustained natural assets on which to build growth and human well-being: to provide the inputs for marketable goods as well as the ecosystem services upon which quality of life depends.
- Reduced poverty, depending on the design of policies for green growth and complementary measures, which will affect how the benefits and costs of development are distributed.
- New economic growth opportunities and potentially new job opportunities, particularly through ecosystem service provision and technological innovation.
- Resilient infrastructure that does not lock countries into fossil-fuel based energy dependence and emission-intensive pathways.
- Reduced vulnerability to climate change and natural disasters.
- Greater access to clean water and sanitation services, diverse energy supplies and greater energy security, accompanied by lower pollution and greenhouse gas emissions.
- More secure livelihoods for those dependent on sustainable management of natural resources such as agricultural land and soil quality, fisheries and forests.

### Sustainable management of natural resources can boost wealth

**Controlled fishing increases shrimp prices in Madagascar:** the shrimp industry brings Madagascar over USD 155 million a year in export revenues. Efforts by the private sector and the government to improve the industry have led to significantly rising prices. These efforts included controls on overfishing, leading to larger shrimp sizes, and improved access to market and other information through an economic observatory. Export prices increased by 10% in 2000/01 and 3% in 2001/02 (OECD, 2008).

**Increased incomes from organic agriculture in Uganda:** Uganda's organically certified agriculture export value jumped from almost USD 3 million in 2003 to almost USD 23 million in 2008. Price premiums for Ugandan farmers of certified pineapple, ginger and vanilla were 300, 185 and 150% higher respectively than for conventional producers (UNEP, 2011).

**Benefits from natural forest regeneration in Ethiopia:** under the Humbo Assisted Natural Regeneration Project, farmer-managed regeneration of natural forest encourages new growth from felled tree stumps. The regeneration of nearly 3 000 hectares has resulted in increased production of wood and tree products, such as honey and fruit, which has increased household revenues. Improved land management has also stimulated grass growth, providing fodder for livestock that can be sold as an additional source of income. Regeneration of the native forest is expected to provide an important habitat for many local species, as well as reduce soil erosion and flooding (World Bank, 2012 citing Brown et al., 2011).

Source: OECD (2008), Natural Resources and Pro-Poor Growth: The Economics and Politics, DAC Guidelines and Reference Series, OECD Publishing; UNEP (2011), Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication – A Synthesis for Policy Makers; World Bank (2012), Inclusive Green Growth: the Pathway to Sustainable Development, Washington D.C; Brown, D. R. et al. (2011), Poverty Alleviation and Environmental Restoration Using the Clean Development Mechanism: A Case Study from Humbo Ethiopia, Environmental Management, August 2011, Volume 48, Issue 2.





## DID YOU KNOW?

Designing green growth policies to take into account the interests of the poor and of vulnerable can help reduce poverty and achieve social equity.

## Can green growth reduce poverty and address social equity?

Sustaining and enhancing natural capital – the wealth of poorer countries – achieves development objectives and addresses inequality. When green growth policies are designed to take into account the interests of the poor and of vulnerable groups, they can have profound impacts on poverty reduction and social equity. For instance:

- Removing fossil fuel subsidies can improve the living conditions of the poorest if some of the money is reallocated to providing cheaper public transport or more accessible health care services.
- Sustainable certification schemes and eco-labelling programmes can become a new source of income in many developing countries with abundant forests and agricultural production. But the benefits to the poor will be greatest if land tenure is secured, and the certification schemes give special premium to community-managed forests or small landholders.
- Payments for ecosystem services programmes can reduce poverty if they explicitly target local communities and include capacity development to boost local households' ability in negotiating payment contracts.

Green growth can improve the resilience of developing economies by reducing the risk of negative shocks to growth from resource bottlenecks or imbalances in natural systems. It can open up new sources of income and tax revenues, employment and opportunity from innovation and the emergence of green goods, services and markets. It should contribute to more resilient livelihoods, disaster-proof infrastructure and wider access to energy supply and public transport. In this view, the sustainability of natural assets and green innovation determines the potential, longevity and quality of a country's future development.

To deliver short-term benefits for the poor, green growth policies will need to be designed to fairly share the economic and welfare benefits resulting from maintaining natural assets. This includes the need for investments in human capital and skills, which will ensure workers who are employed in the former 'brown' economic sectors can quickly pick up skills required in the 'green' sectors.





## What special challenges do developing countries face in pursuing green growth?

Developing countries are understandably concerned that pursuing green growth could undermine their short-term economic growth and development. Benefiting from green growth quickly is possible, but requires an understanding of the trade-offs involved, estimating transition costs for certain stakeholders who may stand to lose, and managing these through complementary policies and measures. The poorest communities are of particular concern, but there will also be vested interests to address amongst business stakeholders. In balancing these needs and risks, developing countries will face challenges, policy choices and trade-offs in pursuing green growth that are different from those of developed countries. These include:

- A large informal economy – accounting for up to 75% of non-agricultural jobs in Sub-Saharan Africa and over two-thirds in South and Southeast Asia (Parlevliet et al., 2008). This complicates the implementation of the economic, fiscal and regulatory policy instruments needed for green growth.
- High levels of poverty and inequality, requiring targeted policies to avoid negative effects on the poorest. Yet capacities for designing and financing such policies are limited.

- Weak capacity and resources for innovation and investment, both public and private. This limits developing countries' ability to seek out and exploit opportunities that emerge from a green growth agenda.
- An urgent need for rapid development, economic growth and welfare improvement. In lower-income countries, where natural assets are frequently abundant, the welfare returns from transitioning to green growth are not as evident as those from conventional economic development, particularly in the short term.
- Few mechanisms to ensure those who protect natural assets (such as forest land for carbon sequestration) receive large enough financial incentives to maintain them. Without strong incentives, the political viability of green growth will be weakened.

The characteristics and priorities of developing country economies will call for a different sequencing and mix of policy instruments than for developed countries in any effort to achieve greener growth. Support from the international community in terms of finance, technology and trade (discussed later), can provide the incentives and political momentum for moving forward.

### DID YOU KNOW?

The links between environmental performance, equity and poverty are more direct and significant in developing countries than in developed countries. Natural capital comprises 25% of total per capita wealth in low-income countries, compared to only 2% in OECD countries.



# New shoots of green growth in developing countries



Many pioneering environment and natural resource ministries in the developing world are already gathering evidence of the negative consequences of their existing growth model for the environment and society. They are making the economic case for investing in natural assets for more sustainable future growth. Many developing countries are already pursuing elements of green growth, at the national and local level, and in the public and private sector (see map pp. 10-11). Some are focusing on setting out the vision and use of planning tools to integrate green growth, others on policy reform and implementation, and others on developing the human and institutional capacities for good governance.

Some low-income countries, such as Ethiopia and Cambodia – have already designed national green growth strategies.

There is also growing experience with green growth in middle-income countries. For example, South Africa has launched a Green Fund in partnership with the

Development Bank of Southern Africa to provide various types of grants and concessional loans to support green cities and towns, the transition to a low-carbon economy, and environmental and natural resource management.<sup>1</sup> China has also prioritised green development in its 12th Five-Year Plan, and it is experimenting with a range of green growth policies, in particular aiming to reduce poverty through the creation of green jobs in the forestry sector. Government estimates indicate that from 2005 and 2020, about 1 million jobs per year could be created in planning new forests, reforestation, and forest management activities. Although mostly temporary, these activities could provide job opportunities for rural migrant and unemployed workers (OECD, 2012d). A mapping of other selected programmes demonstrates increasing scope and geographical coverage of green growth policies and programmes in different types of developing countries around the world today (see map, pp 10-11).

<sup>1</sup> See [www.sagreenfund.org.za/Pages/default.aspx](http://www.sagreenfund.org.za/Pages/default.aspx).

## Green growth strategies in Cambodia and Ethiopia

**Ethiopia and Cambodia** were among the first low-income developing countries to embark on national green growth strategies. Both national green growth strategies rely on attracting quality foreign investment for financing. They differ, however, in their aim and focus: Cambodia's strategy focuses on well-being, whereas Ethiopia's strategy focuses on climate change (and by extension, food security) and aims to raise the country to middle-income status.

**In Cambodia**, the Inter-Ministerial Green Growth Working Group adopted a National Green Growth Roadmap in 2010, emphasising access to water, agriculture, sustainable land use, renewable energy and energy efficiency, information and knowledge, better mobility, and finance and investments. A National Green Growth Master Plan is currently being developed to implement these objectives (UNESCAP, 2009).

**In Ethiopia**, the main framework for green growth is the Climate Resilient Green Economy Strategy, launched in 2011. Led by the Prime Minister's office, the strategy provides a vision, high-level commitment, plans and an extensive portfolio of investments. One goal is to increase GDP per capita by 475% by 2030 so as to move from least-developed to middle-income country status, while reducing greenhouse gas emissions by 35% below 2011 levels (which would be 64% below the projected business-as-usual level in 2030). The strategy also focuses on climate change adaptation in sectors such as agriculture, forestry and land use (EPA, 2011).

*Source:* EPA (Environmental Protection Authority of Ethiopia) (2011), Climate Resilient Green Economic Strategy, Addis Ababa; OECD, forthcoming (a) and (b), Inclusive Green Growth Case Studies in Ethiopia and Cambodia; UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific) (2009), The National Green Growth Roadmap, Phnom Penh.

# Green growth in practice in developing countries: selected examples

## Uganda

**Uganda: capacity development for green finance.** Established in 2006, the Uganda Carbon Bureau has been training the public, banking and private sectors in climate change and carbon finance. The aim is to build awareness about climate change, highlight the potential for earning carbon finance and scale up the participation of the financial and private sectors in the carbon market. Funded by the Danish International Development Agency (DANIDA), formal training is currently being provided to staff of the National Water and Sewerage Corporation, the East African Development Bank, the Uganda Investment Authority and the Uganda Bankers' Association (OECD, 2012e).

## Brazil

**Brazil's green stock exchange index.** In 2004, Brazil's BM&F BOVESPA became the first stock exchange worldwide to sign the UN Global Compact's ten principles in the areas of human rights, labour, environment and anti-corruption. It then signed the UN Principles for Responsible Investment in 2010. The index also launched a Corporate Sustainability Index in 2005: the only sustainability index in Latin America. The aim is to encourage sustainable business practice through financial rewards (Favaretto, 2012).

## Rwanda

**Rwanda's sustainable public procurement programme (Common Purchase for Progress),** will purchase 40% of the national strategic foodstock reserves from smallholder farmers' co-operatives. Through the reserve, the government has invested in and installed modern food storage infrastructure. Incomes of smallholder farmers are expected to improve over time thanks to this guaranteed market for a greater share of their agricultural harvests (WFP, 2012).

## Tanzania

**Tanzania: public environment expenditure review (PEER).** A PEER conducted in 2004 compared the government's real levels, trends and distribution of environmental expenditure to the ideal levels required to meet the country's linked environmental and poverty reduction objectives. By demonstrating the value of environmental investment for livelihoods, it contributed to a five-fold increase in the environment authority's budget in 2006 (Markandya *et al.*, 2006).

## Philippines

### Philippines: institutions for sustainable development.

The 1987 Philippine Strategy on Sustainable Development evolved into a national plan of action: the Philippine Agenda 21 in 1996. The process has been guided throughout by a semi-governmental multi-stakeholder body – the Philippine Council for Sustainable Development – the first of its kind in Asia. The council has been influential in advising the President, the legislature and the Cabinet on ways to integrate environmental considerations into economic and social policy making and planning. The council has also supported local initiatives to create local councils for sustainable development through technical assistance and training. By early 2000, 16 local units had been established (IISD and GIZ, 2004). The important role that local government units play as frontline agencies in the formulation, planning and implementation of climate change was further acknowledged in the country's 2009 National Climate Change Act.

## Vietnam

**Vietnam: strategic environmental assessment.** Under a new law, Vietnam has conducted a strategic environmental assessment (SEA) of its overall National Power Development Plan, rather than conducting environmental impact assessments of individual plans. The SEA has helped to clarify strategic economic choices and raise government awareness of biodiversity and tourism issues (OECD, 2012b).

## Thailand

**Thailand: encouraging investment in renewable energy.** The Small Power Producers programme (SPP), launched in 1992, allows independent producers to sell electricity to the national grid. By 2001, 1 958 MW of power had been supplied to the grid, but only 14% was renewable energy. Since capital costs were the most important barrier for renewable energy power generation, a pricing subsidy for renewable energy was introduced and awarded through competitive bidding. This led to 20 new renewable energy (biomass) SPPs, with a total capacity of about 240 MW. In 2006, the government set a target of 530 MW of renewable energy from SPPs and introduced fixed premiums for 230 MW generated from wind, solar, and municipal solid waste (Ruangrong, 2008).

## India

**India: building skills for green growth.** The Indian government is taking a thematic approach to the shortage of green economy skills. In some sectors, such as energy efficiency in buildings, agencies like the Indian Green Building Council and the Bureau of Energy Efficiency are conducting training programmes and a national certification examination for energy managers and energy auditors. The Ministry of Road and Surface Transport is organising skill development programmes for drivers and conductors of compressed natural gas (CNG) buses and attendants at CNG filling stations. Agricultural training institutes are providing training in plant protection, integrated pest management and locust control. Needs-based training programmes in new and emerging areas such as organic farming are organised by the Indian Council of Agricultural Research (Sanghi and Sharma, 2012).

## Indonesia

**Indonesia's energy subsidy reform.** Since the early 2000s, the Indonesian authorities have attempted to reduce energy subsidies. Most early attempts failed due to poor communication and stiff opposition to reforms. In 2005, the Indonesian government managed to double the price of diesel fuel and to almost triple that of kerosene. This was accompanied by an effective compensation policy – an unconditional cash transfer programme of USD 10 to 19 million to low income households. However, subsequent attempts to phase out energy subsidies in Indonesia faced strong public opposition and failed to get parliament's approval, despite the use of compensation programmes. The recent decision to give the government leeway to lower energy subsidies without parliament's approval is a step in the right direction. Importantly, communicating the benefits of reform and that it will not harm the poor will be crucial to overcome public resistance (Mourougane, 2010 and OECD, 2012c).



# Taking action at national and international levels

## An agenda for national action

While an increasing number of developing countries are implementing innovative policies to pursue green growth, these efforts are recent and limited in scope. Such efforts will need to be scaled up and broadened significantly to improve economic and environmental outcomes across the developing world. For this, developing countries will need to take full ownership of this transformative agenda. There is a need to recognise and exploit an untapped opportunities, including to use green growth policy reforms to boost domestic fiscal revenues and attract quality investment for years to come. Governments will also need to mobilise ministries of finance, development planning, labour affairs and line ministries; to mainstream green growth objectives and policies into every government department and most importantly, national budgets. As noted, it will be important to move away from project level to programmatic activities and policy level change.

A practical three-step agenda for action can help to guide developing country policy makers as they explore and pursue green policies:

1) **Establish leadership, a vision and plan for green growth:** National leadership, vision and strategies for green growth are critical to mainstream green growth objectives into existing development plans and policies, and to build support for national policy priorities in partnership with public, private and civil society stakeholders. This involves goal setting and integrating green growth considerations into existing planning processes, such as national development plans and budgetary systems. Strategic environmental assessment and public environmental expenditure reviews

are two policy instruments that have proven useful in integrating green growth into development, infrastructure and budgetary planning processes.

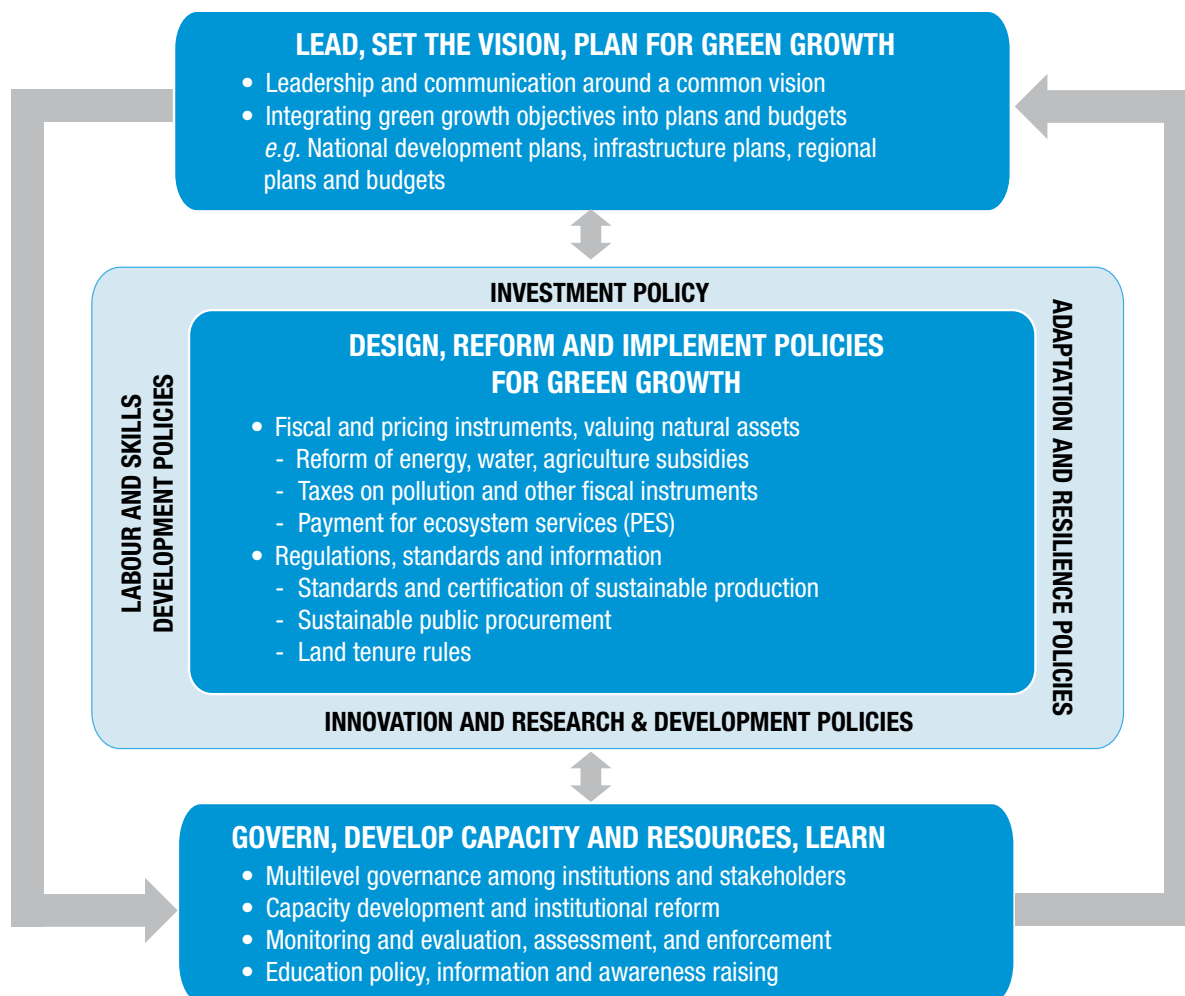
2) **Design, reform and implement policies that stimulate green growth:** these policies must broadly value natural assets and align incentives with green growth policy goals. Relevant policy instruments include:

- Taxes, pricing instruments, and mechanisms that value natural assets. These include, for example, reforming energy, water and agriculture subsidies; taxing air and water pollution; placing royalties on mineral extraction; and payments for ecosystem services.
- Regulations, standards and information policies. These include standards and certification of sustainable production, sustainable public procurement, and clear land tenure rules. Other types of regulatory policies are also relevant, including regulation of water, the energy efficiency of industrial production, of buildings, or of consumer products, as well as land-use regulations to ensure that new development in growing urban areas is environmentally sustainable and resilient to climate change.
- A set of cross-cutting policies to stimulate green growth in a systemic way: investment policy; innovation and research and development policy; labour skill policy; and resilience and climate adaptation policy.

### DID YOU KNOW?

Developing country governments will need to mobilise ministries of finance, development planning, labour affairs and line ministries to mainstream green growth objectives and policies into every government department and most importantly, national budgets.

## An agenda for national action on green growth in developing countries



- 3) **Strengthen governance, develop capacity and resources**, for learning and sound decision making to monitor, implement and enforce green growth policies effectively. This includes developing capacity and human resources in technical and managerial areas, and in assessment and monitoring at all levels of government. Mechanisms are also needed for broad multilevel governance and stakeholder engagement, education and raising awareness, compliance and enforcement capacity, and monitoring and assessment.

This three-step agenda for action on national green growth and development belongs to all stakeholders, including the private sector, civil society groups, academia, and ordinary citizens. While all

three areas are key for developing a robust policy framework, this agenda should be treated as a guide rather than a blueprint. Decision makers can pick and choose the most suitable entry points and policy mixes for their countries that will provide the incentives, allocate fiscal budgets, assess opportunities and progress and engage all stakeholders in learning and decision making to sustain natural resources and human well-being.



## Six policy tools to integrate the environment into economic decision making

Policy tool	Contribution to green growth	Examples from developing countries	Lessons learned to date
<b>Taxes, pricing instruments, and mechanisms that value natural assets</b>			
Energy subsidy reform	Energy subsidy reform is an important step in “getting the price right” to reduce GHG emissions and air pollution and free up government money to promote long-term growth through improved health and education. Energy subsidy reform can also reduce energy demand by avoiding artificially low fuel prices.	<p><b>Indonesia:</b> removing energy subsidies and providing direct cash transfer to low income households</p> <p><b>Ghana:</b> removing energy subsidies and promoting higher governmental spending on other public development objectives</p>	<ul style="list-style-type: none"> <li>• Early research and stakeholder consultation is important</li> <li>• A coherent reform strategy with clear objectives needs to be accompanied by flanking measures to compensate disadvantaged groups</li> <li>• Public expenditure freed up from energy subsidies should be used to finance other public priorities</li> <li>• Reform needs to fit implementation capacity</li> </ul>
Reform of environmental taxes and fees	Environmental fiscal measures (taxes and fees) can raise fiscal revenues while furthering environmental goals. They can also free up economic resources or generate revenues that can help finance the poor’s access to water, sanitation and electricity services.	<p><b>Cameroon:</b> taxation on forest management</p> <p><b>Colombia:</b> water pollution tax</p> <p><b>China:</b> pilot pollutant trading schemes</p>	<ul style="list-style-type: none"> <li>• Map out and engage the winners and losers of these policy reforms</li> <li>• Allocate some of the revenues to sustaining the taxed resource, <i>e.g.</i> monitoring and enforcement of taxed activities, helping firms invest in pollution control technologies</li> <li>• Match instruments to implementation capacity</li> <li>• Build the capacity and credibility of implementing agencies</li> </ul>
Payments for ecosystem services (PES)	PES can increase the efficiency of natural resource management by putting a price or a value on provision of ecosystem goods and services. By doing so, PES encourages the conservation and even enhancement of natural assets while contributing to local livelihoods and increasing the incomes of those who manage the resources.	<p><b>Costa Rica:</b> targeting bundled services of carbon, water, biodiversity and landscape</p> <p><b>Mexico:</b> watershed services</p> <p><b>China:</b> sloping lands conversation programme</p>	<ul style="list-style-type: none"> <li>• Effective PES programmes should clearly identify ecosystem service providers. They should have differentiated payment levels to reflect different levels of environmental service provision</li> <li>• PES design should specifically tackle high transaction costs for small-scale providers; government needs to establish clear PES regulations to protect the economic gains of those providers with limited bargaining power</li> <li>• Capacity development measures should be part of PES implementation</li> </ul>
<b>Regulations, standards and information policies</b>			
Standards and certification of sustainable production	Goods and services that are certified as having been produced in a way that sustains natural assets can increase in market value and market share, which can benefit participating producers, improve environmental practices and help maintain the long-term sustainability of natural assets.	<p><b>Malaysia, Indonesia and Solomon Islands:</b> forest certification</p> <p><b>Kenya, Tanzania and Uganda:</b> East African Organic Products Standard</p>	<ul style="list-style-type: none"> <li>• Ensure that certification programmes address local differences in conditions</li> <li>• Ensure that smallholder farmers can access and benefit from the certification schemes and that these schemes can be used by informal economy producers</li> <li>• Foster demand of certified products while retaining the appropriate degree of rigour in the standards and assessment</li> </ul>
Sustainable public procurement	Sustainable public procurement can shape consumption and production to support green growth objectives, generate new domestic markets and provide examples of good practice for business and consumers.	<p><b>Colombia:</b> green criteria attached to procurement policy including life-cycle analysis of products</p> <p><b>Costa Rica:</b> pursuing sustainable procurement by outsourcing the supply chain management of car tires</p>	<ul style="list-style-type: none"> <li>• Link green procurement with value in the context of life-cycle costs and benefits assessment</li> <li>• Identify and prioritise high-impact goods and services</li> <li>• Build multidisciplinary teams including government procurement officers, lawyers and environmentalists</li> <li>• Consider pilot initiatives with built-in incentive-based instruments</li> <li>• Provide suppliers with advance information on procurement policy changes</li> </ul>
Land tenure	A well-defined and transparent tenure rights system can provide income-generating opportunities for land holders, improve the management of natural assets, and also enable efficient collection of property revenue via district taxes and fees, so as to allow public authorities to support sound land management practices and planning.	<p><b>Malawi:</b> land reforms targeting community-based land development with complementary capacity development measures</p> <p><b>Rwanda:</b> systematic land tenure registration</p>	<ul style="list-style-type: none"> <li>• Secure the right land rights for the right people</li> <li>• Invest in technical and institutional infrastructure for land tenure administration</li> <li>• Understand local context and involve non-governmental actors</li> </ul>



## Cross-cutting policies for growing green

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Investment, innovation, skill and labour force development, resilience and climate adaptation are priority policy areas as they provide the conditions for stimulating and sustaining growth.

- **Green investment policies** can help governments create the enabling conditions to shift and scale-up private sector investment in resource efficient and more resilient, greener sectoral practices, while also creating opportunities for green businesses. Investing in green infrastructure delivers basic services more efficiently; minimises wasted energy, water or other natural resources; supports the sustainable production of natural resources; reduces greenhouse gas emissions; and increases resilience to climate change and natural disasters. Such investment needs to be backed by relevant planning mechanisms and financial policies and regulations that provide incentives and transitional support for new green technologies, green innovation and market creation. Information policies, corporate environmental reporting, education, consumer awareness and public outreach will also promote green business activity and change consumer behaviour.
- **Green innovation policies** can lower the costs of green growth in developing countries. This involves not only the development and diffusion of new and existing technologies, but also collaboration between countries and different actors, as well as new approaches to planning, systems and work practices that can contribute to greener growth. Bottom-up approaches which adapt readily available and low-cost technologies may be more suitable to developing country contexts. Such innovation can be stimulated by fostering existing skills to match local innovation and ideas to local needs. Efforts to stimulate green innovation should thus also focus on building the skills to adopt and adapt imported technologies.
- **Greening skills development policies.** Shifting to green growth can mean new skills, particularly for workers who need to shift from “brown” to green industrial practices. Labour market policies and skills development programmes can: 1) identify the skills needed through surveys and other instruments; 2) inform people of available training and education opportunities; 3) provide income support, such as unemployment benefits, to help workers adjust; and 4) engage with enterprises to up-skill their workers as an integral part of their business development.
- **Climate adaptation policy can make growth more resilient.** Green growth cannot be sustained without resilience to climate change impacts and natural disasters and protecting human well-being and natural and economic assets. Some of the most relevant measures include: 1) timely and comprehensive climate change risk and vulnerability assessments; 2) insurance and risk-sharing mechanisms; 3) sector-specific policies such as integrated water resource management and ecosystem-based adaptation; and 4) social protection tools. Some of these measures will directly avert negative impacts on income, physical assets and human welfare (e.g. ensuring basic services and businesses are not disrupted by extreme events, or that they can continue under increasingly severe climatic conditions). Other adaptation measures will support more general economic and development aims, such as protecting infrastructure networks and people.





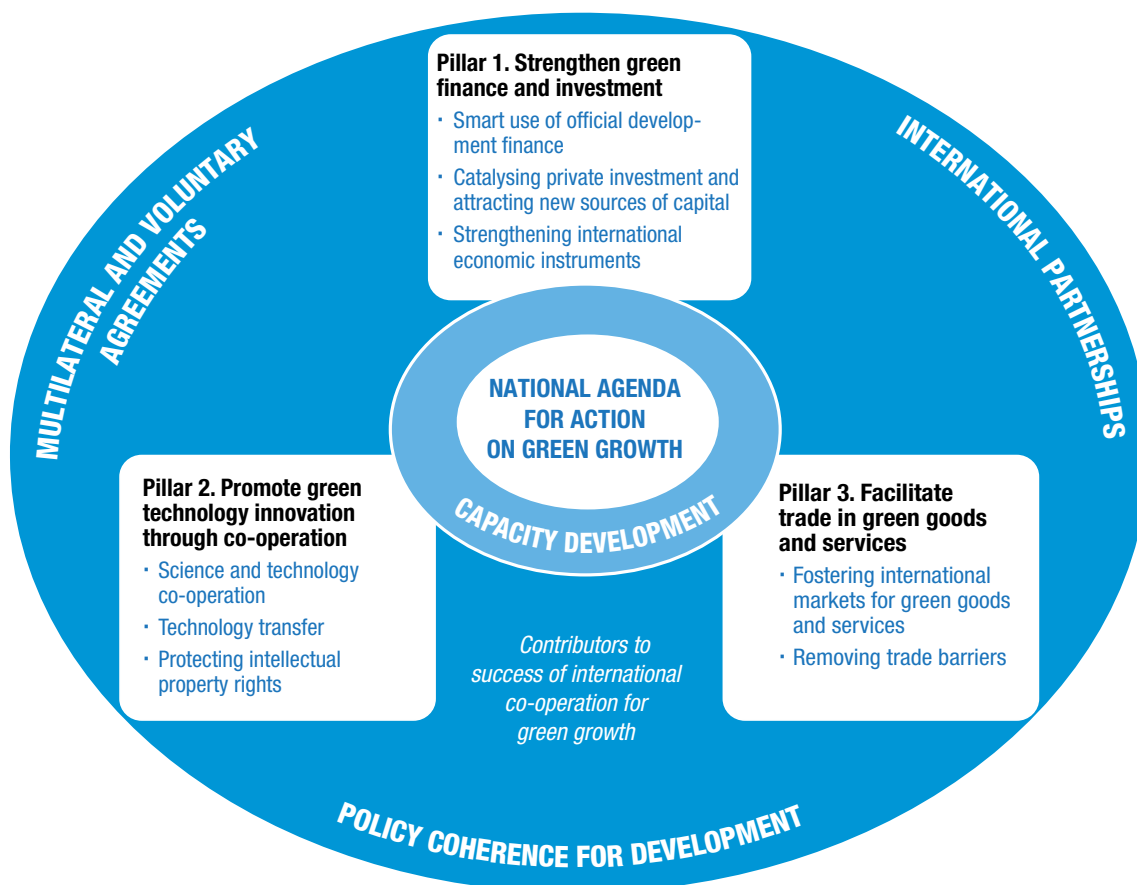
# An agenda for international co-operation to support green growth in developing countries

Successfully shifting to a model of growth that sustains natural assets over time will require the engagement of all countries. The international community can play a crucial role in helping developing countries make the shift, especially by providing assistance to manage the short-term trade-offs of going “green”. Recognising developing country concerns that implementing green growth will be expensive, international co-operation can also ensure access to external and domestic sources of green financing and investment, technology and innovation, and facilitate trade in green goods and services. An agenda for action for international co-operation will be built on at least three pillars. But fundamentally, donors need to integrate green growth into all development co-operation activities, and ensure they support partner countries in their pursuit of specific green growth goals.

The three main pillars of an agenda for international co-operation are:

- 1) Strengthening green finance and investment, including through better targeting use of official development assistance (ODA), other types of official development finance and private investment.
- 2) Promoting green technology innovation through co-operation and building capacity for endogenous green innovation and adoption, as well as to protect intellectual property rights and enabling conditions for successful technology transfer.
- 3) Facilitating trade in green goods and services through fostering international markets, removing tariff and non-tariff trade barriers, and building capacity in developing countries to allow more producers to participate and benefit from growing international markets.

## An agenda for international co-operation on green growth in developing countries



The agenda for international co-operation offers many opportunities to help accelerate the transition to green growth in developing countries. For example:

- Emerging evidence shows that investing in natural capital pays higher social dividends than investing in polluting and resource-intensive conventional infrastructure, on which development programmes have largely focused in past decades. Hence donor countries are committed to stepping up their efforts to mainstream green growth into development co-operation and can help developing countries strengthen strategic planning to better access available official development finance for green growth through a range of instruments: from sectoral support to budgetary support, and from grant instruments to providing risk guarantees to leverage private capital. A country-owned agenda for action on green growth is needed to guide successful development co-operation.
- As part of the broader flows of official development finance for environment, climate change finance is set to increase substantially throughout the next decade as developed country governments and private sector agents scale up resources to meet the target of USD 100 billion annually by 2020 as pledged by industrialised countries under the Cancun Agreement of the UN Framework Convention on Climate Change (UNFCCC). A key to effective use of such funding is to ensure it delivers outcomes with

multiple co-benefits for sustainable development.

- Developing countries can benefit from creation of international and national economic instruments such as payments for ecosystem services, to deliver global environmental benefits including biodiversity or carbon sequestration; opportunities already exist to sell carbon credits to developed countries through the Clean Development Mechanism; similar international schemes may be feasible for biodiversity. For example, rough estimates suggest that as many as 25-50 million low-income households in developing countries could benefit from policies to reduce (greenhouse gas) emissions from deforestation and forest degradation (REDD) by 2030 (Milder *et al.*, 2010).
- Developing countries that promote green growth with sound green investment policies can mobilise domestic resources for development and attract external finance, including foreign direct investment. For example, Ethiopia has estimated that implementing Climate Resilient Green Economy Strategy will cost 150 billion over the next 20 years, and a significant amount of that is expected to come from external development finance.
- Technology co-operation and international commitment in removing tariff and non-tariff trade barriers for green goods and services are also important factors in easing developing countries' green growth transition.



## DID YOU KNOW?

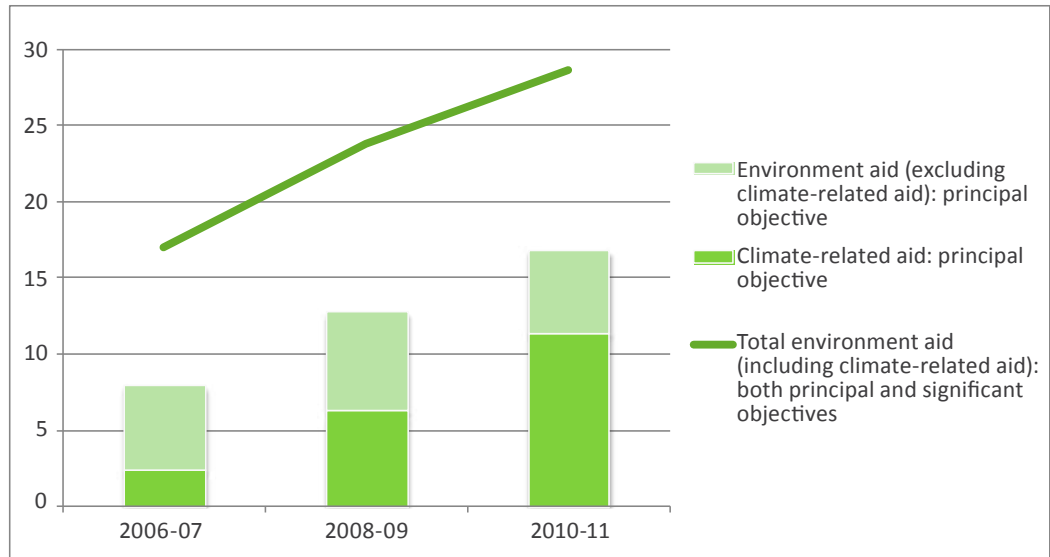
Rough estimates suggest that as many as 25-50 million low-income households in developing countries could benefit from policies to reduce emissions from deforestation and forest degradation.

## DID YOU KNOW?

The amount of annual average bilateral aid commitments from DAC members targeting environment as a “principal objective” has more than doubled since 2006-7, reaching USD 17 billion in 2010-11. Annual average bilateral aid commitments targeting climate change as a “principal objective” have quadrupled since 2006-07, reaching almost USD 12 billion in 2010-11.

## Trends in OECD DAC member countries’ environment aid (including climate-related aid), 2006 to 2011

Commitments in billion USD, constant 2010 prices



### Notes:

- A number of activities fall under “climate-related” aid, and are thus included here, however they are not recorded as “environment” aid (USD 2.7 billion in 2010-11); this might for example include a large hydro-electric facility.
- “Climate-related” aid covers both adaptation and mitigation aid as from 2010 only.

Source: OECD/DAC Creditor Reporting System (CRS).





## International co-operation for green growth: some examples

Using ODA to boost energy access through renewable energy technologies. Bilateral ODA for power generation has been increasing on average and in 2009 stood at almost USD 3 billion – over 40% of which funded power generation from renewable sources. A number of feasibility studies, research ventures in solar and renewable energy are also currently being funded with ODA. In 2010, Spain lent USD 139 million to Morocco for constructing a solar-thermal plant. Spain has provided almost USD 300 million to Tunisia for two wind energy parks. Energy access is also a key focus of bilateral support. Through the ACP-EU Energy Facility the EU has been involved in more than 130 projects in African, Caribbean and Pacific countries. With resources of about EUR 340 million committed, this facility has attracted co-financing of about the same amount from other public and private sources. Overall, the countries involved have been able to bring modern energy services to between 12 and 13 million people (OECD, 2012d).

**Climate Public Private Partnership for developing countries.** The UK government, in collaboration with the International Finance Cooperation and Asian Development Bank, launched the Climate Public Private Partnership in January 2012. Through two new commercial funds, this initiative is designed to leverage up to 30 times of private capital for every one pound provided by the UK taxpayer. The partnership will support projects to deliver clean, renewable and efficient energy, new technology and protect natural resources in emerging and developing countries. It is estimated that the initiative could generate more than 7GW of clean, reliable energy – equivalent to 66% of current UK renewable energy capacity – and create 40,000 jobs (DFID, 2012).

**Technology co-operation for building a low-carbon society.** The government of Japan carries out technological collaboration with developing countries through its Science and Technology Agency. For example, it is working with the government of Malaysia to develop a policy roadmap for a low carbon society through its programme on Low Carbon Society Scenarios for Asian Regions. It is also collaborating with the Indian government to develop a low-energy consumption sewage treatment technology (see [www.jst.go.jp/global/english/kadai/index.html](http://www.jst.go.jp/global/english/kadai/index.html)).

**Aid for trade in fostering markets for green goods and services.** Motivated by the role of trade as an engine of economic growth and poverty reduction, development co-operation agencies have been supporting the Aid-for-Trade Initiative. This initiative aims to strengthen the trade capacity of developing countries (such as in trade policy and regulations), address any adjustment costs incurred by trade reforms, support trade infrastructure development and production capacity, and assist in implementing trade agreements. Aid-for-Trade has been growing significantly, and reached USD 33 billion in 2010. The donor community increasingly considers the Aid-for-Trade Initiative as a mechanism for facilitating action on climate change and stimulating green growth in developing countries, in part because of the stringent environmental conditions attached to regional trade agreements, but also because such support often targets capacities for trading environmental goods and services. Recently these programmes have helped developing countries adopt organic standards; enhance value chain development; and train officials in trade policy on environmental goods and services and environmental protection measures, and participating in regional and multilateral trade and environmental negotiations (OECD, 2012 f & g).

**Enhancing capacity to green national development processes.** In Mozambique, more than 70% of public investment comes from international development assistance. Development co-operation agencies therefore have an important role to play in supporting the national goals to address environmental issues through development planning and policy and through greening other national policies and mechanisms. The Netherlands and Denmark have provided capacity support to the Ministry of Co-ordination of Environmental Action. With the support of the World Bank, environmental units have also been created in various line ministries. Nevertheless, institutional capacity remains weak and core environmental functions are not yet fully effective. One of the problems is institutional complexity at the sector level. Another may be that donor capacity building initiatives tend to be geared towards delivering project outputs rather than on the performance of core or programmatic environmental functions of the government. A lesson from the Mozambique case is to target core environmental functions across multiple government domains at programmatic level rather than directing them towards a project's specific objectives and activities (OECD, 2012e citing Cabral and Francisco, 2008).

Source: OECD (2012d), Development Co-operation Report: Lessons in Linking Sustainability and Development, OECD, Paris; DFID (2012), Mitchell: Private Sector to Tackle Climate Change, Press Release, London; Japanese Science and Technology Agency, <http://www.jst.go.jp/global/english/kadai/index.html>; OECD (2012f), Aid for Trade and Green Growth: State of Play, OECD, Paris; OECD (2012g), Aid for Trade in 2010: Continued Growth, Modest Outlook, OECD, Paris; OECD (2012e), Greening Development: Enhancing Capacity for Environmental Management and Governance, OECD, Paris; from Cabral, L. and D. Francisco (2008), Environmental institutions, public expenditure and the role of development partners: Mozambique case study, Final Report, DFID, London.

## Implementing the three pillars of international co-operation on green growth

### PILLARS

#### Strengthen green finance and investment

- Provide more timely and targeted development co-operation support through green growth mainstreaming, stakeholder engagement and awareness raising
- Support developing countries' policy reform processes designed to attract and boost private investment
- Use external public finance to more effectively engage the private sector at early stages of development
- Mobilise new sources of capital, e.g. pension funds and other institutional investor

#### Promote green technology innovation through co-operation

- Involve developing countries in defining science and technology research agendas, priorities for international co-operation, and participation in collaborative research
- Build endogenous capacity for innovation within developing countries, including through education
- Promote strong intellectual property rights systems and encourage knowledge sharing across national boundaries

#### Facilitate trade in green goods and services

- Supporting market development for green goods and services
- Target demand-side policies, such as public procurement policies and consumer education programmes.
- Remove non-tariff trade barriers, build capacity for international trade and ensure developing countries' equal participation in international standard setting, such as labelling and eco-certification regimes

### MOVING FORWARD



The success of international support to green growth in developing countries will depend on a number of factors.

First and foremost is the need for developing countries to determine their own agenda for actions and priorities for green growth in a manner that resonates with their national circumstances and development contexts. These priorities should guide the support from international community. Second, international institutions will need to be flexible enough to respond to these inevitably different needs and to help developing countries fill knowledge and experience gaps, and to advance their green growth priorities including key policy reforms. Third, a strengthening of international collaboration through multilateral environmental agreements and other international (binding and voluntary) policies on trade, development and resource management – such as the

Convention on Biological Diversity and the Extractive Industry Transparency Initiative – can provide resources and technical support for developing countries pursuing green growth. Fourth, OECD countries will also need to reform their own national policies to make them more coherent and consistent with development policies and developing countries' efforts to green growth. This is vital because incoherent policies are both inefficient and can undermine any progress made in simultaneously promoting green growth and development. Finally, more informal or voluntary international partnerships on green growth, both public and private, can facilitate peer-to-peer learning and share lessons.

Building on existing experience, a few recommendations are proposed here on how best the international community can move forward with providing tailored support for green growth to developing country partners.

# How to monitor progress towards green growth?

Measuring progress is an integral component of any national or international green growth policy. Without a measurement agenda or robust statistics, countries will not know whether they are making progress towards their green growth objectives. The OECD has developed a green growth measurement framework that divides indicators into four groups reflecting the main features of green growth: the environmental and resource productivity of the economy, the natural asset base, the environmental dimension of quality of life and the economic opportunities and policy responses (OECD, 2011b). The international community is now also moving ahead – notably through a partnership between the OECD, UNEP, the World Bank and the Global Green Growth Institute – to adopt a common framework for measuring and monitoring progress on green growth.<sup>2</sup>

These same international organisations have committed to continue to work with developing countries to strengthen their capacity to measure progress towards green growth and some are already implementing a green growth measurement framework. One important development is the System of Environmental-Economic Accounting (SEEA), which is the first international statistical standard for environmental-economic accounting.<sup>3</sup> Nations are now implementing the SEEA and it will help improve the comparability and consistency of the data needed to develop green growth indicators. Support for implementation of SEEA is part of broader international co-operation efforts that aim to enhance capacity in developing countries for inclusive and relevant statistical systems, in particular through the Partnership in Statistics for Development in the 21st Century Consortium (PARIS21).<sup>4</sup>

<sup>2</sup> The Green Growth Knowledge Platform (GGKP) scoping paper “Covering on a set of green growth indicators” will be launched at its Annual Conference, taking place in Paris on 4-5 April 2013.

<sup>3</sup> SEEA website:  
[www.unstats.un.org/unsd/envaccounting/seea.asp](http://www.unstats.un.org/unsd/envaccounting/seea.asp).

<sup>4</sup> See [www.paris21.org](http://www.paris21.org).



## DID YOU KNOW?

By explicitly accounting for the environment and the value of natural assets, green growth expands traditional definitions of wealth to include well-being, and the quality of growth and development.





# The time for green growth is now

The national and international initiatives presented here show the many sustainable development co-benefits of green growth. Now is the time to seize the opportunities and start to deliver these benefits on a large scale. The Millennium Development Goals (MDGs), which have guided development co-operation efforts and development policies over the last decade, are due to expire in 2015. The international community is working towards a new development framework, and this will incorporate the sustainable development goals (SDGs) as agreed at the United Nations Conference on Sustainable Development in 2012 (Rio+20). Green growth is emerging as a guiding framework for delivering these goals, so we now have the opportunity to scale up

efforts to achieve sustainable development. To truly “get to zero” (i.e. eradicate absolute poverty), a new commitment from global leaders to combat poverty while greening national growth patterns is needed. This is a cost-effective way forward, which will allow countries to benefit from greater efficiency and productivity of natural resource use, greater and more appropriate innovation to promote green growth and sustainable development, and new markets – international and domestic – for green technologies, goods and services. But more importantly, if we do not act today, the development achieved so far could be significantly eroded and future opportunities for growth seriously compromised.





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A wooden suspension bridge with thick ropes and wooden planks, stretching across a dense, lush green forest. The bridge is the central focus, leading the eye from the foreground into the deep woods. The surrounding vegetation is vibrant and dense, with various shades of green and brown tones from the trees and branches.

“Green growth is not a luxury - it is a way of delivering sustainable development and global security for all”

