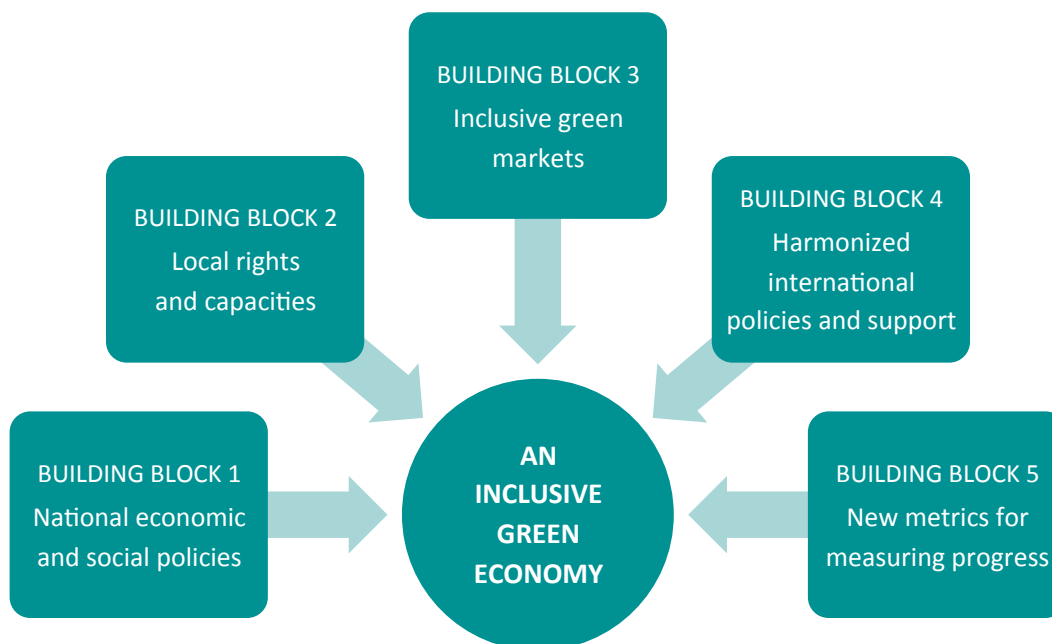


# Building an Inclusive Green Economy for All

*Opportunities and Challenges for Overcoming Poverty and Inequality*



Poverty-Environment Partnership

Joint Agency Paper

June 2012



Empowered lives.  
Resilient nations.



## About the Poverty-Environment Partnership

The Poverty-Environment Partnership (PEP) is a network of bilateral, multilateral, and UN agencies and international NGOs that aims to more effectively address critical poverty-environment-climate issues within the framework of international efforts to achieve the Millennium Development Goals.

### Other PEP Publications

- Poverty, Health and Environment: Placing Environmental Health on Countries' Development Agendas (2008)
- Making REDD Work for the Poor (2008)
- Linking Poverty Reduction and Water Management (2006)
- Sustaining the Environment to Fight Poverty and Achieve the MDGs—The Economic Case and Priorities for Action: A Message to the 2005 World Summit (2005)
- Investing in Environmental Wealth for Poverty Reduction: Background Paper for the 2005 World Summit (2005)
- Assessing Environment's Contribution to Poverty Reduction: Background Paper for the 2005 World Summit (2005)
- Environmental Fiscal Reform for Poverty Reduction (2005)
- Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation (2003)
- Linking Poverty Reduction and Environmental Management: Policy Challenges and Opportunities (2002)

Available at [www.povertyenvironment.net/pep](http://www.povertyenvironment.net/pep)

### Disclaimer

This publication has been prepared on behalf of the Poverty-Environment Partnership by a PEP Working Group including staff from Asian Development Bank, Australia (AusAid), Finland (Ministry for Foreign Affairs), Germany (GIZ), International Institute for Environment and Development, International Union for Conservation of Nature, OECD (Development Assistance Committee), United Nations Development Programme, United Nations Environment Programme, The World Bank, World Business Council for Sustainable Development and World Resources Institute. The views expressed herein do not necessarily reflect those of their respective governing bodies, or when applicable, the countries there represented.

The preparation, publishing and printing of this paper has been funded by the Governments of Australia (through AusAID) and the Federal Republic of Germany (through GIZ on behalf of the German Ministry of Economic Co-operation and Development).

# Contents

---

- 1 | Foreword
- 3 | Key messages for policy makers
- 5 | An inclusive green economy can reduce poverty and inequality
- 17 | Building inclusive green economies: Towards a shared policy agenda
- 30 | Moving forward
- 31 | References

# Foreword

---

While significant development progress has been achieved over the past two decades, with almost 650 million people moving out of extreme poverty in developing countries between 1990 and 2008, nearly 1.3 billion women, men and children have been left behind living on less than US\$1.25 per day. Even greater numbers suffer other forms of poverty and deprivation, and inequality both within and across countries has increased. Looking ahead, the challenge of overcoming poverty and inequality will be greatly compounded by ecosystem degradation, climate change and economic disruption, which disproportionately impact the poor and most vulnerable. These increasingly interlinked crises threaten hard-won development gains and prospects for continued progress. While calls for action have multiplied, the world's collective response has fallen far short of what is needed.

At the 2002 World Summit on Sustainable Development, the Poverty-Environment Partnership (PEP) launched the influential publication *Linking Poverty Reduction and Environmental Management*, with the core message that sound management of the environment is vital to fighting poverty and inequality and to achieving the Millennium Development Goals (MDGs). A decade later, as the global community prepares for the 2012 UN Conference on Sustainable Development, moving toward an inclusive and green economy is receiving growing political attention as a promising path to sustainable development and poverty eradication.

Examples of the green economy in practice show great potential for delivering a “triple bottom line” of job-creating economic growth coupled with environmental protection and social inclusion. However, there are significant barriers to realizing this potential on a large scale. To build an inclusive green economy that is equitable and sustainable will require carefully designed policies and targeted investments that enable low and middle-income countries and the poor to contribute to and benefit from the transition. Of particular importance is the need for governance and policy reforms that extend to poor people secure rights over the environmental assets that underpin their livelihoods and well-being, and that ensure a greater voice in decisions affecting how these assets are managed. At the same time, policies and measures such as green protectionism and aid conditionality that could adversely impact low and middle-income countries and people living in poverty must be avoided if the benefits of an inclusive green economy are to be realized.

This joint Poverty-Environment Partnership paper aims to stimulate a dialogue among developing country policymakers, development partners and other stakeholders on how best to support country-led efforts to build inclusive green economies. Through a shared commitment to putting into place the building blocks of a *green economy for all*, real and lasting progress can be made towards overcoming poverty and inequality and achieving sustainable human development.

**Bindu Lohani**  
Vice-President, Knowledge Management  
and Sustainable Development  
Asian Development Bank (ADB)

**Bob Carr**  
Minister for Foreign Affairs  
Australia

**Brigitte Walchshofer-Öppinger**  
Managing Director  
Austrian Development Agency (ADA)

**Marco Lambertini**  
Chief Executive  
Birdlife International

**Peter Seligmann**  
Chairman of the Board and CEO  
Conservation International (CI)

**Henrik Bramsen Hahn**  
Head, Environment, Energy and  
Climate Department, DANIDA  
Ministry of Foreign Affairs

**George C. Varughese**  
President  
Development Alternatives (DA)

**Andris Piebalgs**  
Commissioner for Development  
European Commission

**Heidi Hautala**  
Minister for International Development  
Finland

**Dirk Niebel**  
Federal Minister for Economic  
Cooperation and Development  
Germany

**Kanayo F. Nwanze**  
President  
International Fund for Agricultural Development  
(IFAD)

**Camilla Toulmin**  
Director  
International Institute for Environment and  
Development (IIED)

**Julia Marton-Lefèvre**  
Director General  
International Union for Conservation of Nature  
(IUCN)

**Masayuki Karasawa**  
Head, Office for Global Issues and  
Development Partnership  
Japan International Cooperation Agency (JICA)

**Kitty van der Heijden**  
Ambassador for Sustainable Development  
Ministry of Foreign Affairs  
Netherlands

**Brian Atwood**  
Chair, Development Assistance Committee (DAC)  
Organization for Economic Cooperation and  
Development (OECD)

**Maarten Hajer**  
Director  
PBL Netherlands Environmental  
Assessment Agency

**Johan Kuylensstierna**  
Executive Director  
Stockholm Environment Institute

**Martin Dahinden**  
Director-General  
Swiss Agency for Development and  
Cooperation (SDC)

**Elisabeth Barsk-Rundquist**  
Managing Director (o.i.c.)  
The Global Mechanism of the United Nations  
Convention to Combat Desertification (UNCCD)

**Mark Tercek**  
President and CEO  
The Nature Conservancy

**Helen Clark**  
Administrator  
United Nations Development Programme (UNDP)

**Achim Steiner**  
Executive Director  
United Nations Environment Programme (UNEP)

**Peter Bakker**  
President  
World Business Council for Sustainable  
Development (WBCSD)

**Manish Bapna**  
Interim President  
World Resources Institute (WRI)

**Jim Leape**  
Director General  
WWF International

# Key messages for policy makers

---

## An inclusive green economy can reduce poverty and inequality

- Developing countries confront an array of economic, social and environmental challenges to overcoming poverty and inequality that are unprecedented in their scale, complexity and growing interconnectedness. Ecosystem degradation and climate change, in particular, pose major threats to livelihoods and economies.
- In the face of these global challenges, 'business as usual' strategies for economic growth and development are no longer economically, socially or environmentally sustainable—a new approach is needed to accelerate poverty reduction and to achieve more equitable and sustainable development.
- Transitioning to an 'inclusive green economy' is increasingly recognized as an alternative pathway that can deliver low-carbon and climate-resilient development, significantly improved resource efficiency, healthy and more resilient ecosystems, and greater economic opportunities and social justice for disadvantaged groups.
- Evidence suggests that investing in improved natural resource and environmental management in rural and urban areas—such as sustainable forestry and fisheries, reducing carbon emissions or better urban planning and infrastructure—makes strong economic sense and can have a high social rate of return. This is particularly true for the rural and urban poor in low and middle-income countries who depend strongly on the environment for their livelihoods, health and well-being, and who suffer the most from environmental degradation and the growing impacts from climate change.
- Transitioning to an inclusive green economy that can deliver equitable and sustainable development is possible, but will not be automatic. Supportive policy, institutional and governance reforms and targeted investments at local, national and global levels are needed to remove barriers and to enable poor and vulnerable groups to participate in, contribute to and benefit from the transition.

## Building inclusive green economies: Towards a shared policy agenda

- Making an inclusive green economy work for the poor requires three separate but related conditions: (i) ensuring the leading role and political commitment of low and middle-income countries in their transition to an inclusive green economy; (ii) safeguarding the poor against any adverse impacts during the transition process; (iii) maximizing the opportunities for low and middle-income countries and the poor to capture the benefits that can flow from the transition to an inclusive green economy.

- While the transition to an inclusive green economy will be specific to the context of each country, five critical 'building blocks' are proposed that can provide a framework for a shared policy agenda between developing country governments, civil society, the private sector and international development partners:

### **Building Block 1: National economic and social policies**

Governments in low and middle-income countries will need to capture the higher economic returns that investments in sustainable use of ecosystems and in low-carbon and climate-resilient development can generate—and to ensure that these investments and revenues contribute to poverty reduction and inclusive growth. Conversely, governments should review economic and social policies to promote rural and urban development and poverty reduction—such as fiscal policies and tax regimes, micro-credit and business development services for small and medium-scale enterprises, and social protection measures and public works programs—to strengthen their focus on inclusive green economy outcomes.

### **Building Block 2: Local rights and capacities**

Poor women and men need rights and security of tenure over their natural resource wealth and the means and incentives to sustainably manage and benefit from these resources. This includes rights to information, participation and access to justice to ensure a voice in decisions affecting how these assets are managed and their benefits distributed.

### **Building Block 3: Inclusive green markets**

Innovative business models and an enabling policy and institutional environment are needed to build and expand the poor's access to markets and supply chains for green products and services—in ways that sustain and restore natural ecosystems, contribute to low-carbon and climate-resilient development, and provide better and more secure livelihoods.

### **Building Block 4: Harmonized international policies and support**

Higher-income countries need to ensure the coherence of their development, trade, technology, environmental and other relevant policies that influence the ability of low and middle-income countries to succeed in the transition to an inclusive green economy. At country level, development partners need to provide harmonized policy, investment and capacity development support for country-led approaches to developing and implementing inclusive green economy transition strategies.

### **Building Block 5: New metrics for measuring progress**

The transition to an inclusive green economy will require new metrics that go beyond the prevailing narrow focus on income poverty and Gross Domestic Product (GDP) to a broader way of tracking economic, social and environmental progress and well-being.

- To put these building blocks into place and move towards an inclusive green economy, governments and other stakeholders—poor and vulnerable groups and their local organizations, NGOs, the private sector, and development partners—will need to join forces and find new and innovative ways to work together.



# An inclusive green economy can reduce poverty and inequality

---

*"We all aspire to reach better living conditions. Yet, this will not be possible by following the current growth model . . . We need a practical twenty-first century development model that connects the dots between the key issues of our time: poverty reduction; job generation; inequality; climate change; environmental stress; water, energy and food security."*

UN Secretary General Ban Ki-moon

- Poverty, inequality and growth—the search for new solutions
- A new path—an inclusive green economy
- How the poor can benefit from an inclusive green economy
- Barriers to an inclusive green economy

## Poverty, inequality and growth—the search for new solutions

---

*The world faces an array of converging global challenges to overcoming poverty and inequality and achieving sustainable development that are unprecedented in their scale and complexity. Ecosystem degradation and climate change, in particular, pose major threats to livelihoods and economies.*

Despite significant progress over the past decade, poverty in its many dimensions remains widespread and inequality is on the rise. Globally, income poverty has fallen when measured by national averages, in large part because of rapid growth in China, India and parts of East Asia. Yet, some 1.3 billion people still live in extreme poverty earning less than US\$1.25 a day and some 900 million face hunger. Worse, progress across other dimensions of poverty is very uneven and there are significant regional disparities, with even greater numbers of people experiencing simultaneous deprivations in education, health and living standards (Chen and Ravallion 2012a; UNDP 2011).

Significantly, the distribution of poverty also is changing. The majority of people in poverty, particularly the chronic poor, are still found in rural areas, but a massive rural-urban transition is underway with growing numbers of the poor found in cities, where poverty is characterized by unsafe housing and sanitation, high cost of transport, and lack of access to energy. Further, a majority of the world's poor now live in countries that have advanced to middle-income status, many of which have high levels of inequality and social exclusion, particularly among women (Sumner 2011). Nevertheless, significant numbers of people remain trapped in poverty in low-income countries that are more vulnerable to internal and external shocks, and where poverty is more deeply entrenched.

Concurrently, the global financial and economic crisis, rising and volatile food and fuel prices, environmental degradation and the growing impacts of climate change are leading to significant and potentially irreversible economic, social and environmental costs, and because of their vulnerability, poor and marginalized groups are being hit the hardest (UNEP 2012; UNDP 2011). These crises can be traced, in part, to market and institutional failures that characterize national economies and conventional approaches to economic growth, and that hinder equitable and sustainable development. These include issues such as externalities, under-provision of public goods, missing markets, and insecure and inequitable property rights. In the face of these systemic problems and their growing impacts, 'business as usual' approaches toward economic growth and development are no longer economically, socially or environmentally sustainable.

## A new path—an inclusive green economy

---

There is growing recognition that transitioning to an 'inclusive green economy' can provide the means to address some of the systemic problems of the current economic system, and can generate more inclusive and sustainable growth by increasing the economic and social returns from investing in environmental improvement and low-carbon, climate-resilient development (see Figure 1).

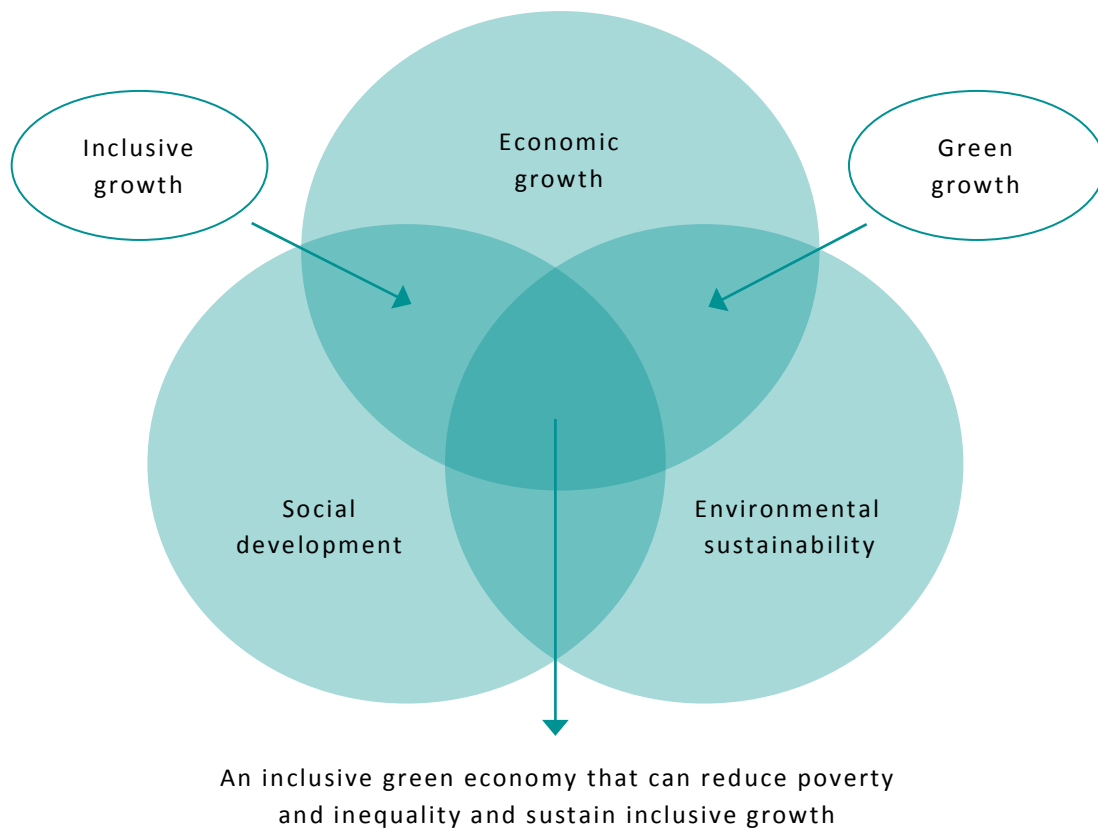
Figure 1 | Challenges of current economic system create green economy opportunities



*The transition to an inclusive green economy will be specific to the economic, social, environmental and political context of each country—there is no 'one size fits all' prescription and the transition process must be country-owned and led.*

Perspectives on the definition of and approaches to 'green economy' are diverse and evolving. An inclusive green economy can be broadly understood as providing pathways for bringing together the social, economic and environmental objectives of sustainable development in ways that can benefit poor and vulnerable groups and reduce inequality (see Figure 2).

Figure 2 | An inclusive green economy combines 'inclusive growth' with 'green growth'



Although transition strategies will need to address the particular opportunities and challenges of different national and local contexts, a number of key characteristics of an inclusive green economy can be identified (GEC 2012; OECD 2012):

#### Economic

- Supports resource-efficient, low-carbon and climate-resilient growth;
- Creates and sustains decent jobs, and expands other economic opportunities that benefit the poor, including in the informal economy;
- Stimulates innovation and adoption of green technologies that can benefit the poor;
- Diversifies and enhances the resilience of local and national economies;

#### Social

- Improves health and well-being, especially among the poor;
- Promotes equity, including gender equality;

- Builds social capital and enhances the resilience of local communities, especially among the poor.

### Environmental

- Increases productivity and efficiency of natural resource use;
- Reduces pollution and the impact of natural hazards, and improves management of environmental risk;
- Invests in restoring and sustaining ecosystem health and resilience.

### Governance

- Empowers citizens through access to information and justice and participation in decision-making, particularly among marginalized groups;
- Improves transparency and accountability in the public and private sectors, including better regulation of markets.

## How the poor can benefit from an inclusive green economy

---

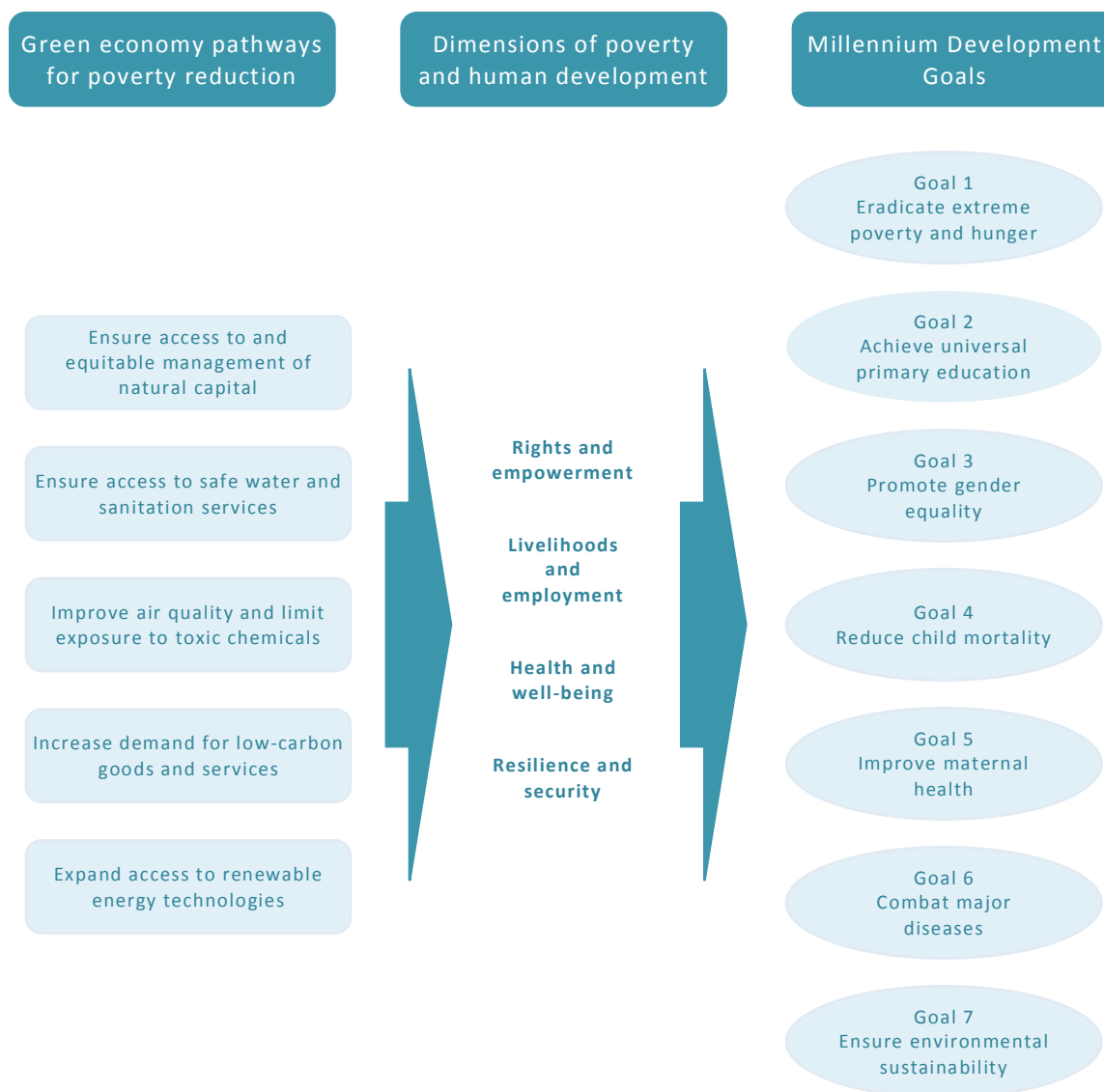
*Examples of an inclusive green economy in practice show great potential for delivering a “triple bottom line” of job-creating economic growth coupled with environmental protection and social inclusion.*

Economic and social progress is dependent upon the health of the environment. Environmental assets—such as fertile soils, clean water, forests and biodiversity—yield income and support livelihoods, provide safety nets for the poor, contribute to public health, and help drive economic growth.

Evidence suggests that investing in improved natural resource and environmental management in rural and urban areas—such as sustainable forestry and fisheries, reducing carbon emissions or better urban planning and infrastructure—makes strong economic sense and can generate high social rates of return (World Bank 2012; TEEB 2010; Pearce 2005; WRI 2005 and 2008). This is particularly true for the rural and urban poor who depend strongly on the environment, and who suffer the most from environmental degradation and the growing impacts from climate change.

By improving the management and value of environmental assets while reducing environmental degradation and pollution—and ensuring that the benefits are equitably distributed—an inclusive green economy can deliver low-carbon and more climate-resilient development, significantly improved resource efficiency, healthy and more resilient ecosystems, and greater economic opportunities and social justice for poor and vulnerable groups (ADB et al 2012). These green economy pathways, in turn, can improve the livelihoods, health and resilience of poor women and men. Some of these links are illustrated in Figure 3.

Figure 3 | Inclusive green economy pathways, poverty reduction and the MDGs



**Livelihoods.** The majority of poor households depend on environmental assets for their incomes and livelihoods—particularly rural households dependent on farming, fishing, hunting and non-timber forest product collection, but also urban households involved in informal sector employment in recycling, water and energy distribution. For example, ecosystem services and other non-marketed goods have been estimated to account for between 47 and 89 percent of the so-called “GDP of the poor” (the effective GDP or total source of livelihood of poor rural households), although these contributions are largely ignored by official statistics (TEEB 2010).

However, because environmental assets are often under-valued by markets and economic systems, as well as the barriers that the poor often face such as insecure resource rights, natural resource-dependent livelihoods have provided more of a 'safety net' than a route out of poverty. In practice, poor households often try to reduce their natural resource dependence to escape poverty, but in the absence of reliable social protection and other means of support to help make the transition, they often are forced to migrate away, rely on remittances or turn to illegal activities. This can change if inclusive green economy strategies lead to policy and governance reforms that give poor women and men greater security of access to environmental assets, and make these environmental asset-based livelihoods more profitable and a viable path for moving out of poverty.

**Health.** Health is closely linked to the quality of the environment, especially for poor women and children. Up to one-fifth of the total burden of disease in developing countries, and a large proportion of childhood deaths, are associated with environmental risk factors—and preventive environmental health measures are as important and often more cost-effective than health treatment (PEP 2008). An inclusive green economy can deliver better and more equitable health outcomes by significantly reducing these environmental risk factors in rural and urban areas by: more secure access to water and agricultural land to improve nutrition; access to clean household energy to reduce exposure to indoor air pollution; access to clean water to reduce exposure to water-related diseases; improved environmental infrastructure for sanitation, drainage and waste collection; and 'green' urban transport to reduce chronic disease and injuries and improve equity.

**Resilience.** Poor and vulnerable groups are most affected by climate-related shocks. An inclusive green economy can reduce the impacts from weather changes and extreme weather events in rural and urban areas by strengthening the resilience of local communities and ecosystems, and can reduce conflict driven by natural resource scarcity and ecosystem degradation.

*An inclusive green economy can generate income and employment opportunities for poor households, providing a route out of poverty—and poverty reduction can unleash the capacity of the poor to build an inclusive green economy.*

Movement toward a green economy already is expanding opportunities for new products, services and technologies with the potential for generating significant revenues for national economies and new income and employment opportunities for the poor. A major review led by the International Labour Organization (ILO) and the United Nations Environment Programme (UNEP) identifies eight key sectors with the most potential: agriculture, forestry, fishing, energy, resource-intensive manufacturing, recycling, buildings and transport (ILO et al 2012). For example:

- In the agriculture sector, investment to enable smallholder farmers to adopt greener farming practices has boosted productivity and improved access to markets, as in Uganda with organic farming (see Box 1).
- Many low and middle-income countries still have significant forest areas and/or high potential for forest restoration, which will increase in value with the growth of ecosystem service markets and payment schemes such as REDD+ (Reduced Emissions from Deforestation and Forest Degradation). According to the ILO/UNEP study, international investment of US\$30 billion per year into REDD+ could boost full-time employment by up to 8 million in developing countries.

### Box 1 | Greening agriculture can increase yields and reduce poverty

Green agricultural practices can boost productivity and contribute to poverty reduction. A review by Pretty et al. (2006) of 286 best practice initiatives adopted by farmers in 57 low-income countries showed an average yield increase of nearly 80 percent—including integrated pest and nutrient management, conservation tillage, agroforestry, aquaculture, water harvesting and improved livestock management. Small farms in Africa in particular achieved higher yields and incomes by converting to sustainable farming methods.

The global market for organic food and beverages is projected to reach US\$60 billion in 2011, or a three-fold increase since 2000. Organic agriculture is practiced on an estimated 37 million hectares in 160 countries—a four-fold increase over the past decade—largely in developing countries in response to changing global demand. Three-quarters of the world's 1.8 million organic producers are in developing countries, in particular India, Uganda, Mexico, Ethiopia, Tanzania, Peru, Turkey and Burkina Faso (UNCTAD 2011). Uganda's organically certified agriculture has jumped from almost US\$3 million in revenue in 2003 to almost US\$23 million in 2008. In terms of price premiums for Ugandan farmers, certified pineapple, ginger and vanilla was 300, 185 and 150 percent higher respectively than conventional production (UNEP 2011).

- Many low and middle-income countries are rich in ecotourism resources. Ecotourism is projected to generate revenues of US\$240 billion in 2012—much of this in developing countries such as Brazil, Belize, Kenya, Gabon, Botswana, Costa Rica and Nepal (UNCTAD 2011).
- Low-income countries with less developed infrastructure, particularly in urban areas, are well-positioned to benefit from increased investments in energy efficiency, emission-reducing technology and climate-proofed infrastructure as long as the investment climate is attractive and competitive. This has significant potential for employment creation given adequate investment in skills development and strengthening capacity of the small and medium-sized enterprises that dominate the sector.
- Many low-income countries and poor regions in middle-income countries have abundant sources of renewable energy and can benefit from investments to harness these resources. Box 2 provides examples from Ethiopia, Mongolia and Tunisia.

There are growing numbers of green technologies that can generate new income and employment opportunities for the poor, but so far few countries are benefiting. These technologies require a strong emphasis on export-led growth, and often require up-front investment in research and development and innovation capacity. Some developing countries have been making major progress, but they are few in number and primarily middle-income countries. In other cases, low-income countries can benefit by creating employment opportunities that cater to the domestic market. For example, in Bangladesh a program to distribute small solar panels to poor rural households has delivered clean electricity to over 1.2 million families, generating employment for several thousand women and some 60,000 new jobs in downstream activities (ILO et al 2012). Another example is South Africa, which is rolling out plans for distributing one million solar water heaters by 2014 (South Africa 2011).



## Box 2 | Renewables provide energy and revenues in Ethiopia, Mongolia and North Africa

Ethiopia has sub-Saharan Africa's largest renewable energy drive underway. The Adama Wind Power project, financed by the Export-Import Bank of China, is halfway completed with 17 of its 34 wind turbines constructed to produce 51 megawatts. Six wind energy projects and a geothermal project will increase capacity by over 1000 megawatts, powering Ethiopia's development and providing a source of revenue from sales to neighboring countries (Tekleberhan 2012).

Mongolia also is positioning itself as the hub of an Asian clean energy "supergrid" to supply Russia, China, the Koreas and Japan. The first 50 megawatt wind farm—developed by the private sector at a cost of US\$120 million—is under construction near Ulan Bator, Mongolia's capital city on Salkhit Uul ("Wind Mountain"). And the opportunities are almost endless—the sparsely populated grasslands of Mongolia have the potential to generate 2.6 terawatts of renewable energy per year (Walsh 2012).

Similar developments are underway for solar energy in the deserts of north Africa. In Tunisia, NUR Energie Ltd, and their Tunisian private partner, Top Oilfield Services are developing the world's largest solar project to date. With the endorsement of the Desertec Foundation, this project will supply European consumers with a constant 2,000 megawatts of electricity (Norris 2012).

The state can also play a role in generating "green jobs" in the rural economy through public employment schemes for landscape restoration—such as South Africa's Working for Water and India's Rural Employment Guarantee Scheme—and in urban areas through urban renewal programs (see Box 3). However, some of what are classed "green" jobs in the informal waste sector and in some small-scale natural resource management activities are jobs that poor people undertake because they have no other option. It is important not to overstate the employment potential of "green jobs" and to focus on new and decent jobs that really benefit the poor. South Africa has led the way with a *Green Economy Accord* to create 300,000 green jobs by 2020 in a landmark agreement involving 12 government departments, businesses and all three labor federations representing 2.5 million workers (South Africa 2011).

## Box 3 | Green jobs through urban renewal in Lagos, Nigeria

Lagos has a population of about 20 million, making it one of the three largest cities in the world. With improved governance, public and private investment is pouring in. This has led to major improvements in livelihoods, and to a healthier environment with slum upgrading, reduced congestion, tree planting and improved drainage and waste water treatment (Femi, 2012). 4000 jobs relating to environmental improvements have been created for local unemployed youth. Over 200 new buses have been purchased, privately-run ferry services expanded and a light rail scheme is under construction. Lagos state has led the country with the first state level office for public-private partnerships (Olokesusi 2011).

## Barriers to an inclusive green economy

*While an inclusive green economy can benefit the poor, it is critical to assess the potential costs associated with the transition and how the poor will be impacted.*

While the longer-term impacts of achieving an inclusive green economy generally will benefit the poor—the shorter-term impacts of the transition can vary for poor people, low and middle-income countries and in rural and urban areas. Impacts can arise at a national level in terms of impacts on exports and government revenues, and at the household level. Poor people can be impacted both as producers and consumers, and sometimes impacts can vary from one to the other. It is important to assess these complex impacts carefully and define under what conditions a green economy can be pro-poor, rather than simply to assume that it will be equitable as illustrated in Table 1 for low-income countries and poor producers.

**Table 1 | Green economy trends and potential impacts on low-income countries and the poor**

Rural green economy trends	Low-income countries	Poor producers
Fossil fuel energy price rises	+/- Depends if a fossil fuel exporter or not	- Higher farm input prices
Higher demand for sustainable agricultural products	+ Higher exports	+ If smallholders can benefit
Increase in renewable energy production	+ Energy diversification, reduced energy costs, and export revenues	+/- Depends if high tech or for small scale producers
Increase in ecosystem rehabilitation	+ Higher ecosystem productivity	+ Job gain if labor intensive schemes
Increase in biofuels	+/- Potential benefits, but also trade-offs	+/- Depends if poor keep land rights
Ecotourism demand increases	+ Increases revenues	+ If provides employment
Forest ecosystem values rise	+ Increases revenues	+ If poor benefit
Urban green economy trends	Low-income countries	Poor households
Fossil fuel energy price rises	+/- Depends if fossil fuel exporter or not	- Higher prices (eg transport)
Decarbonising urban space and settlements	+ Benefits should outweigh costs	+/- If produces labor intensive employment
Expanding public transport	+ Benefits should outweigh costs	+ If provides jobs and improved access to public transport
Low-carbon and renewable resource manufacturing	+ Increases revenues	+ If produces labor intensive employment

*Poor people and low-income countries need to be safeguarded against potential impacts and costs during the transition to an inclusive green economy.*

Low-income countries are unlikely to impose such reforms on themselves, but they may be affected by global changes such as increases in biofuel demand, or trade policies that promote environmentally friendly imports or restrict environmentally damaging exports. Some of these reforms will benefit low-income countries, but there may also be some who are negatively affected and compensation or tariff exemptions will be required. Box 4 illustrates this with respect to biofuels with Brazil showing some good practices to benefit poor people.

#### Box 4 | Impacts of biofuels on LDCs and poor people

While the exact figures are contested, there is agreement that global demand for biofuels has increased world food prices. One of the most rigorous studies (IFPRI 2008) estimated that 39 percent of maize price rises and 20 percent of rice price rises were due to biofuel demand. This has led to some concerns with biofuel targets being set by the European Union and United States. A 2008 study estimated that over 10 million people could be pushed into poverty in India due to these targets and their impact on food prices (Wiggins et al 2008). At the same time, as some poor people lose out, particularly those in urban areas who buy their food, other poor people and developing countries could benefit from the rise in food prices especially if they can produce biofuels.

Currently, developing countries account for over 40 percent of world bioethanol production and 12 percent of world biodiesel production. However top producers remain middle-income countries such as Brazil, China, Thailand, Colombia, Korea, Malaysia and India. There is also evidence that in most developing countries non-poor landowners tend to benefit more from growing biofuels (Leturque et al 2009; UNCTAD 2011). Some countries have sought to address this, such as the Brazil Social Fuel Seal programme, which provides incentives to biodiesel producers that buy from small-scale and family farms (German et al 2011).

*A major impact of the green economy is the rise in fossil fuel prices which may have some negative impacts on poor people, especially in the short term and if they are not addressed. Cash transfers provide an alternative to fossil fuel subsidies and can be more sustainable economically, socially and environmentally.*

Price rises in fossil fuels in recent years have already hit poor consumers and producers hardest in both urban and rural areas through increased food prices, higher costs for farm inputs and general increases in the costs of living. Here again, compensation and other safeguards will be required through the welfare system. However, fossil fuel subsidies are generally not the answer as the poor typically benefit from only a small share of subsidies (except possibly in the case of subsidies for kerosene). At the same time, because the poor spend a larger proportion of their income on basic goods such as food, water and energy, they can be disproportionately affected if subsidies to these goods are removed. Cash transfers can be an effective alternative, as they can be targeted

to benefit those poor population groups that are really in need, and can be used flexibly by poor households to meet priority needs. Therefore, welfare transfers and other strategies, such as redirecting funds previously spent on subsidies into education and health care, may be necessary (see Box 5).

#### Box 5 | Safeguarding the poor—why fossil fuel subsidies are not the best way to reduce poverty

Global fossil fuel subsidies totalled US\$409 billion in 2010 and are projected to reach US\$660 billion in 2020, or 0.7 percent of global GDP. It is estimated that removing these subsidies would reduce global carbon dioxide emissions by almost 7 percent (IEA 2011). These subsidies exist in many developing countries, often on the grounds that they benefit the poor—but is this true? The answer is clear—they are not.

Subsidies are an extremely inefficient means of assisting the poor—only 8 percent of the US\$409 billion spent on fossil-fuel subsidies in 2010 went to the poorest 20 percent of the population (IEA 2011). Also, fossil fuel subsidies are hugely costly. In some countries such as Yemen and Indonesia, the subsidy is more than the combined health and education budget.

First, it is necessary to distinguish different types of fossil fuels. Kerosene is more widely used by the poor than other petroleum products so here the subsidy can be more pro-poor. Second, the savings from the subsidy reduction must be invested in pro-poor expenditures that are better targeted on the poor than fuel subsidies. This has been the approach followed by Ghana and Jordan. Ghana combined its reduction in fossil fuel subsidies with removal of school fees, increased health expenditure in rural areas and investment in mass transportation. In Jordan, subsidy reductions were used to finance increases in the minimum wage, increased pensions and a direct cash transfer to poor households (Coady et al 2006).

So governments need to make more careful choices to ensure that fossil fuel subsidy reductions are pro-poor and clearly communicate them to the public to ensure political acceptability. If this succeeds, governments can make choices that are pro-poor as well as ensuring more efficient use of energy and greater incentives for renewables.

# Building inclusive green economies: Towards a shared policy agenda

---

*"We will play our part to spearhead the transition to a green economy in Africa . . . by supporting the necessary systemic and institutional transformations to ensure that green economies contribute to sustainable development and poverty reduction objectives, including improving welfare and the quality of life of Africa's citizens. We call on all development partners to accompany Africa in this journey."*

African Union Conference of Ministers of Economy and Finance, 2011

- Enabling conditions for transitioning to an inclusive green economy
- Building block 1: National economic and social policies
- Building block 2: Local rights and capacities
- Building block 3: Inclusive green markets
- Building block 4: Harmonized international policies and support
- Building block 5: New metrics for measuring progress

## Enabling conditions for transitioning to an inclusive green economy

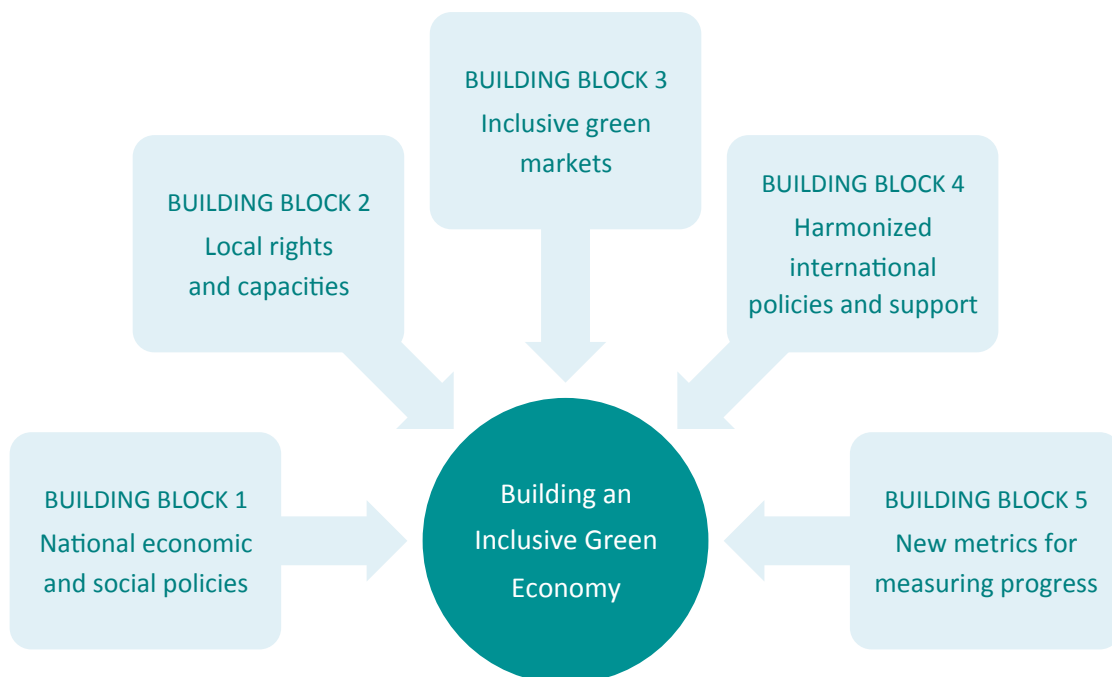
*Although the transition to an inclusive green economy can benefit low and middle-income countries and people living in poverty, this is by no means guaranteed.*

Making growth more inclusive and equitable as a core national policy objective underpins the transition to an inclusive green economy. Governments will need to ensure that 'green economy' policies also promote poverty reduction and poverty reduction policies also promote an inclusive green economy in order to maximize synergies and minimize any trade-offs.

Removing barriers and creating the enabling conditions needed for poor and marginalized groups to truly contribute to, and equitably benefit from, an inclusive green economy will require strategic choices by the public and private sector. Three separate but related conditions are required to make an inclusive green economy work for the poor: (1) ensuring the leading role and political commitment of low and middle-income countries in their transition to an inclusive green economy; (ii) safeguarding the poor against any adverse impacts during the transition process; and (3) maximizing the opportunities for low and middle-income countries and the poor to capture the benefits that can flow from the transition to an inclusive green economy.

This can be achieved through a variety of supportive governance and institutional reforms; regulatory, tax and expenditure-based economic policies and incentive mechanisms; social protection policies and programs; and other instruments. Five 'building blocks' of an inclusive green economy that can reduce poverty and inequality are proposed that can provide a framework for a shared policy agenda between developing countries, development partners and other stakeholders (see Figure 4).

Figure 4 | Five building blocks of an inclusive green economy



## BUILDING BLOCK 1:

### National economic and social policies

---

Key areas for policy action	Examples
<ul style="list-style-type: none"><li>▪ <b>Mainstreaming.</b> Integrate inclusive green economy objectives into national and sub-national planning and budgeting processes.</li></ul>	<ul style="list-style-type: none"><li>▪ China Five Year Plan with targets for energy efficiency, renewable energy and afforestation.</li><li>▪ South Africa's Green Economy Accord.</li></ul>
<ul style="list-style-type: none"><li>▪ <b>Macroeconomic and sector policy.</b> Environmental fiscal reforms (including subsidy reforms) and regulatory and information-based policies to encourage more sustainable economic behavior and raise revenues.</li></ul>	<ul style="list-style-type: none"><li>▪ Indonesia payment for Reduced Emissions for Deforestation and Degradation.</li><li>▪ Namibia improved fishery management and increased rent capture.</li></ul>
<ul style="list-style-type: none"><li>▪ <b>Social protection policy.</b> Local and national governments can promote social protection programs that promote climate resilience and ecosystem improvements.</li></ul>	<ul style="list-style-type: none"><li>▪ India Mahatma Gandhi Rural Employment Guarantee Scheme (MGRS).</li><li>▪ South Africa Working for Water Program.</li><li>▪ Philippines National Greening Program.</li></ul>

*Governments in low-income countries can ensure they generate the higher economic returns from sustainable use of ecosystems and climate mitigation by including these objectives in plans, budgets and sectoral policies.*

Low-income countries can strategically promote an inclusive green economy by mainstreaming such objectives into their plans and budgets as South Africa and China are starting to do. They can seize the opportunities for higher economic and social returns from investing in environmental improvement and climate mitigation and adaptation by putting in place appropriate policies, regulations and enforcement capacity—including the institutions and property rights needed to facilitate pro-poor investments in sustainable agriculture, natural resource management and access to renewable energy. Demand for a green economy can also be stimulated by government spending—for example, investments in urban renewal and greening programmes in Lagos, Nigeria (see Box 3) or South Africa's Green Economy Accord—and by appropriate regulations to encourage higher economic returns—as China and India are doing with their own climate mitigation strategies or as Uganda has done for organic agriculture (see Box 1).

*Natural resource revenues provide opportunities and challenges. Countries can implement fiscal policies to carefully invest and equitably distribute natural resource revenues, and manage the resource base to sustain future flows, in order to reduce poverty and bring about a "resource blessing" rather than a "resource curse."*

At the macro level, economic flows from environmental and natural resource assets—minerals, agricultural lands, forests and fisheries—often are much more important to the economies of low-income countries than to more industrialized countries, a trend that has been growing with recent commodity price rises. This also applies to agricultural commodities such as cocoa, coffee, cotton

or bananas that are grown on a large scale but need to adhere to social, labor and environmental standards. An inclusive green economy may lead to further increases in the values of these environmental assets—both for conservation purposes and their extractive use. The challenge for countries will be to manage the trade-offs between the returns from environmental conservation versus extractive use in order to maximize benefits in the short and medium term and to sustain the resource base, as illustrated by the example from Indonesia in Box 6.

### Box 6 | Incentives to protect forests in Indonesia

Governments are now starting to receive payments for protecting forests to reduce climate emissions, safeguard biodiversity and support indigenous peoples. Indonesia is at the forefront and has committed from now to the year 2020 to reduce its emissions by 26 percent with its own resources and by 41 percent with external support. Many development partners are providing funding including Norway who has pledged US\$1 billion. The Indonesian government has published a national plan to achieve these emission targets and is now translating these into action at the state level. In January 2012, it was announced that following a one-year moratorium on logging in Kalimantan, this would be translated into protection of 45 percent of Kalimantan's forests or approximately 24 million hectares (CIFOR 2012).

However, there are many governance and institutional challenges to ensure that REDD+ truly benefits poor forest-dwellers. A key principal to ensure that REDD+ is pro-poor is the right of free, prior and informed consent for affected people and safeguarding the rights of indigenous people through implementation of the UN Declaration on the Rights of Indigenous Peoples (Forest Peoples Program 2012; UN 2007).

*Governments must ensure green economy benefits reach the poor, including aligning poverty policies and programs so that they support pro-poor green economy outcomes.*

Governments must ensure that the poor are equipped and empowered with access to land, water (for drinking, sanitation and irrigation), sustainable energy and other resources, skills, credit and technologies to take advantage of new opportunities linked to an inclusive green economy.

Governments can review policies to promote rural and urban development and poverty reduction—such as fiscal policies and tax regimes, micro-credit and business development services for small and medium-scale enterprises, and social protection measures and public works programmes (see Box 7)—to strengthen their focus on inclusive green economy outcomes and to help ensure that disadvantaged groups benefit.



### Box 7 | “Green social protection” for reducing poverty, restoring ecosystems and climate adaptation in South Africa, India, China, Philippines and Rwanda

The area of “green social protection” is a key way to achieve both poverty reduction and a green economy. The approach first started in South Africa with the Working For Water programme which began in 2004. It has now spread to India through the Mahatma Gandhi National Rural Employment Guarantee Scheme (NREGA) provides guaranteed 100 days of employment to poor people in India. Driven by local priorities, already 80% of these investments are linked to ecological restoration and climate adaptation activities including water conservation, drought-proofing, afforestation, minor irrigation and renovation of traditional water bodies, desilting of tanks, land development, flood control and drainage in water-logged areas. Of the 2.7 million works being undertaken in over 600 districts, it is estimated that nearly 80 per cent are water, land and forestry-related (Sharma 2012). In China, 12 million hectares have been reforested through the Sloping Conservation Project in one of the poorest regions of China.

Now such schemes are moving to least developed countries such as Rwanda’s Vision 2020 Umurenge Program (VUP), managed by the Ministry of Local Government (MINALOC) and focusing on land conservation, water management and afforestation. This is now being adapted to take account of disaster risk reduction and climate change which were included as new areas in Rwanda’s National Social Protection Strategy (Siegel et al 2011). These schemes have also become known as “adaptive social protection” combining traditional social protection with climate change adaptation and disaster risk reduction (IDS 2009).

There are also growing links between conditional cash transfers for social protection and the environment and climate change. Indeed payments for ecosystem services and for reduced emissions from deforestation and forest degradation (REDD+) are a form of conditional cash transfer – with the cash intended to be conditional on reduced emissions. However, so far the rigorous link to poverty targeting has been missing from such payments (Persson 2012). The Philippines is now leading the way with its National Greening Programme, which aims to increase food security and protect the environment by planting 1.5 billion seedlings on 1.5 million hectares over 6 years – which is double the afforestation level achieved over the last 25 years. Most innovatively is the programme will be linked to the existing conditional cash transfer scheme (GIZ 2011).

## BUILDING BLOCK 2:

### Local rights and capacities

---

Key areas for policy action	Examples
<ul style="list-style-type: none"><li>▪ <b>Tenure rights.</b> Strengthen land and natural resource ownership and access rights of poor and marginalized groups.</li></ul>	<ul style="list-style-type: none"><li>▪ Niger farmer-managed natural regeneration.</li><li>▪ Nepal community-based forestry.</li><li>▪ Southern Africa community-based natural resource management.</li><li>▪ FAO Committee on World Food Security "Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests."</li></ul>
<ul style="list-style-type: none"><li>▪ <b>Access to information, participation and justice.</b> Enhance local access to information and participation in decision-making, and to the legal system.</li></ul>	<ul style="list-style-type: none"><li>▪ India citizen tribunals and social audits to strengthen local capacity to secure and exercise rights.</li></ul>

*Local actors – local governments and civil society organizations – are at the frontline of implementing and supporting an inclusive green economy.*

The community level is where the interlinkages between the economic, social and environmental dimensions of an inclusive green economy are most clearly manifested. Improved management of ecosystem goods and services, carried out by socially sustainable local institutions, increases the health and productivity of local environmental assets, which can expand and secure the local green economy and result in more secure and robust local livelihoods (PEI 2011).

Local and national governments need to ensure that any increased returns in poor and marginalized areas rich in green economy opportunities, such as renewables or forests, actually benefit local communities and are invested nationally in poverty-reducing expenditures. In urban areas, city governments are at the forefront of responding to and mitigating climate change and this can have major benefits for the poor.

Local actors can hold national governments accountable to ensure that the needs and concerns of poor women and men are 'mainstreamed' in the formulation and implementation of inclusive green economy strategies, policies and programs.

*Empowered poor women and men can mobilize and organize themselves to benefit from and contribute to an inclusive green economy so that they can achieve better and more secure livelihoods.*

Moving toward an inclusive green economy requires that the interests of poor and marginalized women and men are protected through greater democratic governance, with local communities

having greater control over the environmental assets on which they depend for their livelihoods and well-being, including land tenure, water access and forest management.

Using their capital assets—human, social, financial and physical capital—poor people can maximize the benefits they can generate from their natural capital in order to achieve sustainable livelihoods. For this to happen, poor women and men need to gain and exert influence over the political, economic and social processes that determine and, all too often, constrain their livelihood opportunities. Empowerment of poor people secures their rights and provides them with more control over assets, which will drive long-term poverty reduction (WRI 2005 and 2008).

Strong and enforceable land and resource rights—the rights to access, control, transfer and exclude others—are linked to improved agricultural production, poverty reduction, and economic growth. Stronger property rights, including customary tenure systems, can help rural people hold onto their land and natural resources when threatened with loss of access or expropriation. Secure tenure also incentivizes sound land and environmental management because landholders have confidence that they will capture the benefits from those investments—such as successful experiences with community-based forestry in Nepal and India or community-based tourism in southern Africa.

### BUILDING BLOCK 3:

## Inclusive green markets

---

Key areas for policy action	Examples
<ul style="list-style-type: none"><li>▪ Governments, companies and NGOs can develop, and promote local access to, green product and service markets and sustainable supply chains through incentive and information-based policies and programs.</li></ul>	<ul style="list-style-type: none"><li>▪ Uganda organic agriculture certification scheme.</li><li>▪ Costa Rica payment for ecosystem services.</li></ul>
<ul style="list-style-type: none"><li>▪ OECD and middle-income governments can create incentives for sustainable consumption and production to facilitate sustainable supply chains.</li></ul>	<ul style="list-style-type: none"><li>▪ Certification schemes such as the Gold Standard for carbon credits.</li><li>▪ ISEAL sustainability standards.</li></ul>

*The private sector, including small, medium and large-scale companies and the informal sector, has a key role to play in driving innovation and building inclusive green markets and supply chains for an inclusive green economy.*

At the core of the transition to an inclusive green economy is a shift to sustainable systems of production and consumption through innovation and technology. The scale of investment, innovation, technology development and employment creation required is beyond the range of the public sector alone. Business has a central role in this shift and is poised to increase dramatically its efforts in this area. A growing number of companies around the world have already put sustainability at the forefront of their strategy, recognizing the urgency of global environmental, social and economic challenges. The transition will need to occur primarily through the identification, development and deployment of new technologies, products, services and supporting business models. This innovation process is a core competency of business, but governments can help to minimize risk through clear and consistent market signals and an enabling regulatory framework.

For small and medium-sized enterprises (SMEs) to play a major role in an inclusive green economy that provides economic opportunities for the poor, policymakers need to improve the enabling environment. For larger companies, there is growing recognition of the need to integrate sustainability considerations into core business strategy in response to product and supply chain dependencies on natural resources and other ecosystem services and to realize the major business opportunities associated with a transition to an inclusive green economy. This strategic response is building on existing corporate social responsibility programs, but can generate more substantial transformation through direct alignment of core business goals with positive societal impacts.

There already are examples of business innovations that simultaneously generate business value while delivering economic opportunity to the poor and enhancing biodiversity and ecosystem services. There is significant potential for further 'win-win-win' alignment in many agricultural supply chains, forest products and low-carbon energy (among others). But business needs to improve decision making regarding poverty and biodiversity/ecosystem services to further support

the transition at scale, and to ensure that activities and investments are not having negative consequences for poor people and the environment. Box 8 provides some cutting-edge examples.

### Box 8 | New business models for an inclusive green economy

**CleanStar Mozambique** (agriculture, food and fuel production) is a partnership of Novozymes and Cleanstar Ventures helping smallholder farmers in Sofala province implement an environmentally restorative agroforestry system on their land. Whatever the families do not consume themselves, they can sell to the company, thus greatly improving their nutrition levels while also more than tripling their incomes. From the surpluses sold to the company, CleanStar Mozambique will produce a range of food products as well as a cleaner, ethanol-based cooking fuel. These will be sold into urban markets – notably Maputo – replacing the current predominant use of charcoal, which is a significant driver of deforestation. Once the trees have reached maturity (about five years), the company will also produce a substitute for imported diesel based on the oilseeds of the trees.

**Jain Irrigation Systems** (agriculture, water) is the largest manufacturer of efficient irrigation systems worldwide and a processor of fruits and vegetables. The company provides farmers with micro-irrigation systems (MIS), seeds and other inputs to produce more and better crops, and then purchases fruits and vegetables for processing and sale to export and domestic markets. The use of drip and sprinkler irrigation, as opposed to traditional flood irrigation, is estimated to reduce water use by 500 million cubic meters per year. As a result of the efficiency improvements, farmers are increasing their net incomes by US\$100 to US\$1,000 per acre depending upon the crop, meaning the MIS investment pays for itself typically in less than one year.

**Natura** (non-timber forest products, cosmetics) is a Brazilian cosmetic, fragrance and personal hygiene products company that has adopted the sustainable use of Brazilian biodiversity as a business model since 2000, combining scientific research and the knowledge of traditional communities. In Natura's 'Ekos' line the company is partnering with local communities to develop a range of 100 cosmetic products sourced from native species. Natura partners with communities in accordance with the principles of the Convention on Biological Diversity and seeks to promote fair trade, sustainable use, social development and biodiversity conservation. The company has developed partnerships with 26 communities, who in return for providing access to the natural ingredients and their traditional knowledge receive direct payments/benefit sharing and benefits from other investments made by Natura in community development initiatives.

**Unilever** (agriculture, food production) is developing the commercial use of allanblackia trees that grow naturally in the wet tropical forests of Africa. This species of tree produces a large fruit pod, containing seeds that are rich in oil. This oil is unique in its composition and melting behaviour. Spreads containing allanblackia oil (like 'Flora' and 'Becel') remain stable at room temperature and melt quickly upon eating. In 2008, the European Commission cleared allanblackia oil for use in spreads and it is now used in Unilever products on sale in Europe. This presents an opportunity for the company to develop sustainable agricultural practices with local farmers to ensure preservation of BES in growing regions. Unilever are already working with 10,500 smallholder farmers in several countries to develop allanblackia production.

## BUILDING BLOCK 4:

### Harmonized international policies and support

---

Key areas for policy action	Examples
<ul style="list-style-type: none"><li>▪ <b>Policy coherence.</b> OECD countries can ensure coherence of aid, trade, technology and other policies to support inclusive green economy transitions in developing countries.</li></ul>	<ul style="list-style-type: none"><li>▪ Agreement by the G20 to phase out fossil fuel subsidies (see Box 9).</li></ul>
<ul style="list-style-type: none"><li>▪ Development agencies can provide harmonized support for country-led efforts to define and implement a nationally-owned strategy for transitioning to an inclusive green economy.</li></ul>	<ul style="list-style-type: none"><li>▪ Indonesia and South Africa have defined a Green Economy vision which the international community can support</li></ul>

Broader international development policies on aid, trade and technology and the coherence of these policies remain as relevant as ever to poverty reduction in developing countries and should remain part of an inclusive green economy agenda. National efforts to transition to an inclusive green economy must be complemented by an enabling international environment aimed at expanding the development opportunities of low and middle-income countries.

*OECD and middle-income governments can support the transition to an inclusive green economy in ways that reduce poverty within their own countries and in low-income countries.*

OECD and middle-income country efforts to transition to an inclusive green economy can provide new opportunities for low-income countries. For example, a major push by OECD and middle-income countries to invest in renewable energy technologies can create new jobs and economic benefits, while reducing the cost and expanding the availability of these technologies to developing countries.

It is imperative that fast-track and future financing provided by OECD countries for climate change adaptation and mitigation are additional to existing ODA budgets, and are spent within developing countries in ways that complement the objectives of poverty reduction, climate adaptation and climate mitigation.

*Development agencies and international organisations can play a key role by supporting country-led processes for moving towards an inclusive green economy.*

Some developing countries do not have ready access to adequate analytical expertise and institutional capacity to effectively plan and implement inclusive green economy strategies and where requested the international community can provide support. However, development agencies should provide harmonized support in response to a country-driven, nationally-owned process to define what an inclusive green economy means in their national and local context and how it can best be achieved.

### Box 9 | Policy coherence by world's 20 biggest economies—agreeing to phase out fossil fuel subsidies

In 2009, members of the G20—the world's twenty largest economies—agreed to phase out their fossil fuel subsidies. This path-breaking political declaration, if implemented, is estimated to save US\$300 billion and reduce 10 percent of greenhouse gas emissions by 2050. So far, 20 countries have provided detailed plans on phasing out fossil fuel subsidies. However, with rising oil prices, the political imperative to retain subsidies remains strong. However, there have been some successes with some middle-income countries leading the way—for example, China and Indonesia have pursued gradual but dramatic declines in their subsidies. Among OECD countries, the United States has recently embarked on a high profile campaign to reduce fossil fuel subsidies as part of a broader policy aimed at enhancing energy security and investment in clean energy.

Development agencies need to avoid externally-driven or mandated "green economy strategies" that risk running in parallel to a country's own national political and economic decision-making process. This requires greater harmonization across development agencies and international organizations in their ongoing support for climate-resilient and low-emission strategies and other processes such as Nationally Appropriate Mitigation Actions (NAMAs) and the National Adaptation Planning process (NAPs). Support will only be effective if these strategies and processes are nationally-led and mainstreamed into a countries' planning and budgeting system. Countries such as Indonesia and South Africa are already at the forefront of defining such a national green economy vision to be implemented across government and integrated into national, sectoral and subnational plans and budgets with donor support.

For low-income countries at an earlier stage in their economic development, the promotion of an inclusive green economy is less about transformation of existing structures and more about putting in place policies and systems to influence future choices—for example, about what sort of emissions pathway a country will follow as its economy develops.

While national ownership and country leadership is paramount, development agencies will face a tension on assessing "how" green is an economy. This is a real concern and raises fears among developing countries of green conditionality (Verzola 2012). Lessons on development effectiveness and the need to avoid divisive and largely unsuccessful ex-post conditionality need to be applied. It will be important for development agencies to take a broad, non-prescriptive view on an inclusive green economy.

## BUILDING BLOCK 5:

### New metrics for measuring progress

---

Key areas for policy action	Examples
<ul style="list-style-type: none"><li>National governments can adopt revised or new inclusive green economy and sustainable development targets and indicators, and expand their national accounting frameworks to include natural capital accounting.</li></ul>	<ul style="list-style-type: none"><li>Bhutan Gross National Happiness Index.</li><li>Mexico green growth indicators.</li></ul>
<ul style="list-style-type: none"><li>International community can support implementation of Environmental-Economic Accounts framework agreed by the UN.</li></ul>	<ul style="list-style-type: none"><li>Wealth Accounting and Valuation for Ecosystem Services (WAVES) partnership.</li></ul>

For the foreseeable future, growth and development in low-income countries will be based largely on improving agricultural production and generating sustainable revenue from non-renewable natural resources such as minerals and oil and renewable natural resources such as forests and water. In order for this to be truly sustainable, especially under climate change, countries must be able to integrate the value of natural capital into their national accounting systems and development plans.

The transition to an inclusive green economy will require new metrics that go beyond the prevailing narrow focus on Gross Domestic Product (GDP) to a broader way of tracking economic, social and environmental progress. In a landmark decision, the United Nations Statistical Commission at its 43rd Session in 2012 adopted the System of Environment-Economic Accounts (SEEA) *Central Framework* as the first international standard for environmental-economic accounting. Countries now can adapt and apply the SEEA using a common methodology as is currently done for GDP (UNSD 2012b). This is already being piloted with economic decision-makers in selected low-income countries (see Box 10). By moving to a System of Environment-Economic Accounts, low and middle-income (and other) countries can better account for stocks and flows of natural resources relevant to environmental and economic issues, and use this to help track their progress towards transitioning to an inclusive green economy.

Using a wider set of indicators on green growth, Mexico is applying the OECD methodology proposed in *Towards Green Growth: Monitoring Progress – OECD Indicators*. So far, Mexico has identified 18 groups of feasible indicators such as CO2 productivity, energy productivity, water productivity, water and land resources, environmental goods and services, energy pricing, and environmentally-related taxes. Bhutan has pioneered the measurement of well-being indicators through the Gross National Happiness (GNH) index combining economic, governance, ecological and cultural indicators. Bhutan's Planning Ministry—renamed the Gross National Happiness Commission—screens all new policy proposals to ensure that they contribute to GNH objectives.



### Box 10 | Applying the System of Environment-Economic Accounts (SEEA)

The System of Environmental-Economic Accounts (SEEA) is the statistical framework that provides internationally agreed concepts, definitions, classifications, accounting rules and standard tables for the environment and its relationship with the economy. The SEEA framework follows a similar accounting structure as the System of National Accounts, but in addition to human and man-made capital also includes natural capital (UNSD 2012a).

The priority is to support developing countries in applying these tools, as evidence suggests that natural capital may be a third to a half of their total national wealth – a much larger share than in OECD countries. The Economics of Ecosystems and Biodiversity (TEEB) program is one such effort, and establishment of the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) will help to strengthen the evidence base for assessing and valuing natural capital. A global partnership for Wealth Accounting and Valuation of Ecosystem Services (WAVES) is now applying the SEEA approach to selected developing countries. One country is Madagascar, where the work has been approved by the Ministry of Economy and Industry, starting with valuing selected ecosystems for their economic costs and benefits and how these costs and benefits are distributed among people including poor households (WAVES 2012).

# Moving forward

---

*Robust green economies are not going to materialize if all that takes place is a 'retrofitting' of the prevailing economic system . . . one of the litmus tests will be whether it empowers and engages people every step of the way and whether it takes to heart the perspectives of poor communities and especially the interests, knowledge, and priorities of women in these communities.*

*Nidhi Tandon, Oxfam*

Evidence of movement toward a green economy is growing. Developing countries already are demonstrating examples of an inclusive green economy in practice—from small-scale interventions to major national programs and policy actions.

Accelerating the transition to an inclusive green economy requires innovations from all corners of the world, and calls for new modes of global cooperation that go beyond the two-dimensional division between 'developed' and 'developing' countries. Policy learning and experience sharing must be promoted in all directions and not just from North to South. All stakeholders have important roles to play. Governments and other stakeholders—poor and vulnerable groups and their local organizations, NGOs, the private sector, and development partners—will need to join forces and find new and innovative ways to work together to build an inclusive green economy for all.

## References

---

- ADB (Asian Development Bank), UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific) and UNEP (United Nations Environment Programme). 2012. *Green Growth, Resources, and Resilience: Environmental Sustainability in Asia and the Pacific*. Bangkok. Available online at <http://www.unescap.org/esd/environment/flagpubs/GGRAP/documents/Full-Report.pdf>
- AU (African Union). 2011. *Ministerial Statement, 4th Joint Annual Meetings of the AU Conference of Ministers of Economy and Finance and ECA Conference of Ministers of Finance, Planning and Economic Development*. Addis Ababa, Ethiopia, 28-29 March 2011.
- AGRA (Alliance for a Green Revolution in Africa). 2012. *Tanzania and the new "Green" Biotechnologies*. Available online at <http://www.agra-alliance.org/content/news/detail/1368>
- Arze del Granado, J., D. Coady and R. Gillingham. 2010. *The Unequal Benefits of Fuel Subsidies: A Review of Evidence for Developing Countries*. IMF Working Paper WP/10/202. Washington DC: International Monetary Fund.
- Birdlife International. 2011. *Empowering the Grassroots – Birdlife, Participation, and Local Communities*. Cambridge, UK. Available online at <http://www.birdlife.org/community/2011/12/empowering-the-grassroots/>
- Chambwera M., J. MacGregor and A. Baker. 2011. *The Informal Economy*. London: International Institute for Environment and Development. Available online at <http://pubs.iied.org/pdfs/15515IIED.pdf?>
- CIFOR (Centre for International Forestry Research). 2012. *Indonesia sets aside 45% of forest-rich Kalimantan to be world's lungs*. Available online at <http://blog.cifor.org/7144/indonesia-sets-aside-45-of-forest-rich-kalimantan-to-be-worlds-lungs/>
- Coady, D., M. El-Said, R. Gillingham, K. Kpodar, P. Medas and D. Newhouse. 2006. *The magnitude and distribution of fuel subsidies: evidence from Bolivia, Ghana, Jordan, Mali, and Sri Lanka*. IMF Working Paper WP/06/247. Washington, DC: International Monetary Fund. Available online at <http://www.imf.org/external/pubs/ft/wp/2006/wp06247.pdf>
- Dalal-Clayton, D.B. and S. Bass. 2009. *The challenges of environmental mainstreaming: experience of integrating environment into development decisions and institutions*. London: International Institute for Environment and Development. Available online at <http://www.environmental-mainstreaming.org/documents/Synthesis%20report%20-%20published%20pdf.pdf>
- DFID (Department for International Development, United Kingdom). 2008. *DFID Research Strategy 2008-2013*. London. Available online at [http://www.dfid.gov.uk/r4d/PDF/Outputs/consultation/DFID\\_ResearchStrategy2008HIGHRES.pdf](http://www.dfid.gov.uk/r4d/PDF/Outputs/consultation/DFID_ResearchStrategy2008HIGHRES.pdf)
- FPP (Forest Peoples Programme). 2012. Available online at <http://www.forestpeoples.org/guiding-principles/free-prior-and-informed-consent-fpic>
- German, L., G.C. Schoneveld and P. Pacheco. 2011. Local social and environmental impacts of biofuels: global comparative assessment and implications for governance. *Ecology and Society* 16(4): 29. Available online at <http://dx.doi.org/10.5751/ES-04516-160429>

- GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit). 2011. *A Policy Brief on Environmental Conditional Cash Transfers (eCCT)*. Environment and Rural Development Program, Philippines. Available online at [http://www.enrdph.org/docfiles/7Sept2011\\_ECCT\\_Policy%20Brief\\_\[print\].pdf](http://www.enrdph.org/docfiles/7Sept2011_ECCT_Policy%20Brief_[print].pdf)
- GEC (Green Economy Coalition). 2012. *Principles for a Green, Fair and Inclusive Economy* (Version 3, May 2012). Available online at <http://www.greeneconomycoalition.org/sites/gec.dev.iiedlist.org/files/Principles%20of%20a%20green%20economy%20v3.pdf>
- GEC (Green Economy Coalition). 2011. *Green Economy: Everyone's talking about it*. Available online at <http://www.greeneconomycoalition.org/document/green-economy-analysis-uncsd-submissions>
- GSP (United Nations Secretary-General's High-Level Panel on Global Sustainability). 2012. *Resilient People, Resilient Planet: A future worth choosing*. New York: United Nations. Available online at <http://www.un.org/gsp/report>
- Hallegate, S., G. Heal, M. Fay and D. Treguer. 2011. *From Growth to Green Growth: A Framework*. Policy Research Working Paper No. 5872. Washington, DC: World Bank. Available online at [http://www.wds.worldbank.org/servlet/WDSContentServer/WDSF/IB/2011/12/07/000158349\\_20111207171314/Rendered/PDF/WPS5872.pdf](http://www.wds.worldbank.org/servlet/WDSContentServer/WDSF/IB/2011/12/07/000158349_20111207171314/Rendered/PDF/WPS5872.pdf)
- Hoff, H. 2011. *Understanding the Nexus*. Background Paper for the Bonn2011 Conference: The Water, Energy and Food Security Nexus. Stockholm: Stockholm Environment Institute. Available online at [http://www.water-energy-food.org/documents/understanding\\_the\\_nexus.pdf](http://www.water-energy-food.org/documents/understanding_the_nexus.pdf)
- IEA (International Energy Agency). 2011. *IEA analysis of fossil-fuel subsidies*. World Energy Outlook 2011. Paris. Available online at [http://www.iea.org/media/weoweb/2011/ff\\_subsidies\\_slides.pdf](http://www.iea.org/media/weoweb/2011/ff_subsidies_slides.pdf)
- ILO (International Labour Organization), IOE (International Organisation of Employers), ITUC (International Trade Union Confederation) and UNEP (United Nations Environment Programme). 2012. *Working towards sustainable development: Opportunities for decent work and social inclusion in a green economy*. Geneva: ILO. Available online at [http://www.unep.org/PDF/Workingtowards\\_full.pdf](http://www.unep.org/PDF/Workingtowards_full.pdf)
- Jansen, R. and S. Bass. 2012. *A national vision for a green economy emerges from Botswana*. Available online at <http://www.greeneconomycoalition.org/know-how/national-vision-green-economy-emerges-botswana>
- Jarvis, A., A. Varma and J. Ram. 2011. *Assessing green jobs potential in developing countries: A practitioner's guide*. Geneva: International Labour Organization. Available online at [http://www.ilo.org/global/publications/books/WCMS\\_153458/lang-en/index.htm](http://www.ilo.org/global/publications/books/WCMS_153458/lang-en/index.htm)
- Khor, M. 2011. *Risks and Uses of a Green Economy Concept in the Context of Sustainable Development, Poverty and Equity*. Research Paper No. 40. Geneva: South Centre. Available online at [http://www.southcentre.org/index.php?option=com\\_content&view=article&id=1598%3Arisks-and-uses-of-the-green-economy-concept-in-the-context-of-sustainable-development-poverty-and-equity&Itemid=335&lang=en](http://www.southcentre.org/index.php?option=com_content&view=article&id=1598%3Arisks-and-uses-of-the-green-economy-concept-in-the-context-of-sustainable-development-poverty-and-equity&Itemid=335&lang=en)
- Leturque, H. and S. Wiggins. 2009. *Biofuels: Could the South Benefit?* ODI Briefing Paper 48. London: Overseas Development Institute. Available online at <http://www.odi.org.uk/resources/docs/3397.pdf>

Norris, V. 2012. *Here Comes the Sun: Tunisia to Energise Europe*. HuffPost (posted 28 January 2012). Available online at [http://www.huffingtonpost.com/vivian-norris-de-montaigu/nur-energie-tunur\\_b\\_1239117.html?ref=world](http://www.huffingtonpost.com/vivian-norris-de-montaigu/nur-energie-tunur_b_1239117.html?ref=world)

OECD (Organization for Economic Cooperation and Development). 2012a. *Green Growth and Developing Countries: A Summary for Policy Makers*. Available online at <http://www.oecd.org/dataoecd/40/38/50526354.pdf>

OECD (Organization for Economic Cooperation and Development). 2012b. *Greening Development: Enhancing Capacity for Environmental Management and Governance*. Paris. Available online at <http://dx.doi.org/10.1787/9789264167896-en>

OECD (Organization for Economic Cooperation and Development). 2009. *Climate Change Adaptation, Disaster Risk Reduction and Social Protection*. Background Paper in *Promoting Pro-Poor Growth: Social Protection*. Paris. Available online at <http://www.oecd.org/dataoecd/63/10/43514563.pdf>

OECD (Organization for Economic Cooperation and Development). 2008. *Natural Resources and Pro-Poor Growth: The Economics and Politics*. Paris. Available online at [http://www.oecd.org/document/53/0,3746,en\\_2649\\_34421\\_41808627\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/53/0,3746,en_2649_34421_41808627_1_1_1_1,00.html)

OECD (Organization for Economic Cooperation and Development) and World Bank. 2012. *Promoting Inclusive Growth: Challenges and Policies*. Paris. Available online at [http://www.oecd.org/document/13/0,3746,en\\_2649\\_34605\\_50161037\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/13/0,3746,en_2649_34605_50161037_1_1_1_1,00.html)

Olokesusi, F. 2011. *Lagos: The Challenges and Opportunities of an Emergent African Mega-City*. Paper Presented at the NISER Seminar Series on 5 July 2011. Available online at <http://nisonline.org/downloads/July2011NRSSpaper.pdf>

Pearce, D. 2005. *Investing in Environment Wealth for Poverty Reduction*. Background Paper for the 2005 World Summit. Available online at <http://www.povertyenvironment.net/pep>

PEI (United Nations Development Programme-United Nations Environment Programme Poverty-Environment Initiative). 2011. *Enabling Local Success: A Primer on Mainstreaming Local Ecosystem-Based Solutions to Poverty-Environment Challenges*. Nairobi. Available online at <http://www.unpei.org/knowledge-resources/publications.html>

Persson, U.M. and F. Alpízar. 2012. *Conditional Cash Transfers and Payments for Environmental Services. A Conceptual Framework for Explaining and Judging Differences in Outcomes*. Environment for Development Discussion Paper Series DP 11-06. Available online at: <http://www.rff.org/RFF/documents/EfD-DP-11-06.pdf>

PEP (Poverty-Environment Partnership). 2008. *Poverty, Health and Environment: Placing Environmental Health on Countries' Development Agendas*. Washington, DC: World Bank. Available online at <http://www.povertyenvironment.net/pep>

Pretty, J. 2006. *Agroecological Approaches to Agricultural Development*. Prepared for the World Development Report 2008. Available online at <http://www.rimisp.org/getdoc.php?docid=6440>

Raworth, K. 2012. *A Safe and Just Space for Humanity: Can We Live Within the Doughnut*. Oxford, UK: Oxfam GB. Available online at <http://www.oxfam.org/sites/www.oxfam.org/files/dp-a-safe-and-just-space-for-humanity-130212-en.pdf>

Scoones, I. 1998. *Sustainable Rural Livelihoods: A Framework for Analysis*. Institute of Development Studies, Working Paper 72. Available online at <http://www.ids.ac.uk/idspublication/sustainable-rural-livelihoods-a-framework-for-analysis>

Siegel, P.B., J. Gatsinzi and A. Kettlewell. 2011. *Adaptative Social Protection in Rwanda: A No-Regrets Approach to Increased Resilience in a Territorial Planning Approach*. Paper prepared for the Conference on Social Protection for Social Justice, Institute of Development Studies, UK, 13–15 April 2011. Available online at <http://www.ids.ac.uk/files/dmfile/Siegeletal2011AdaptiveSocialProtectioninRwanda02CSPconferencedraft.pdf>

Sharma, R. 2012. *NREGA and climate change*. Article in The Indian Express (17 December 2009). Available online at: <http://www.indianexpress.com/news/nrega-and-climate-change/555219/>

South Africa. 2011. *South Africa's Green Economy Accord, 29 November 2011*. Available online at <http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=23648&tid=50584>

Sumner, A. 2010. *Global Poverty and the New Bottom Billion: What if Three Quarters of the World's Poor Live in Middle-Income Countries?* Brighton, UK: Institute for Development Studies. Available online at <http://www.ids.ac.uk/files/dmfile/GlobalPovertyDataPaper1.pdf>

Tandon, N. 2012. *Women and the green economy*. Available online at <http://www.greeneconomycoalition.org/know-how/women-and-green-economy>

Tekleberhan, M. 2012. *Adama Wind Power Project, Ethiopia Progressing*. Ethiopian Business Portal (Thursday, 12 January 2012). Available online at: <http://www.2merkato.com/20120112774/adama-wind-power-project-ethiopia-progressing/>

TEEB (The Economics of Ecosystems and Biodiversity). 2010. *Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB*. Available online at [http://www.teebweb.org/Portals/25/TEEB%20Synthesis/TEEB\\_SynthReport\\_09\\_2010\\_online.pdf](http://www.teebweb.org/Portals/25/TEEB%20Synthesis/TEEB_SynthReport_09_2010_online.pdf)

Tougiani, A., C. Guero and T. Rinaudo. 2008. *Community mobilization for improved livelihoods through tree crop management in Niger*. *GeoJournal*, Vol. 74, Number 5, 377-389. Available online at <http://www.springerlink.com/content/y2p64655317v14q6/>

UN (United Nations). 2011. *The Millennium Development Goals Report 2011*. New York. Available online at [http://www.un.org/millenniumgoals/11\\_MDG%20Report\\_EN.pdf](http://www.un.org/millenniumgoals/11_MDG%20Report_EN.pdf)

UN (United Nations). 2007. *Declaration of the Rights of Indigenous Peoples*. New York. Available online at [http://www.un.org/esa/socdev/unpfii/documents/DRIPS\\_en.pdf](http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf)

UNCTAD (United Nations Conference on Trade and Development). 2011. *Building a Development-Led Green Economy*. UNCTAD Policy Brief. Geneva. Available online at [http://unctad.org/en/docs/presspb201111\\_en.pdf](http://unctad.org/en/docs/presspb201111_en.pdf)

UNDP (United Nations Development Programme). 2012. *Triple Wins for Sustainable Development: Case Studies of Sustainable Development in Practice*. New York. Available online at <http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/triple-wins-for-sustainable-development/>

UNDP (United Nations Development Programme). 2011. *Sustainability and Equity: A Better Future for All*. Human Development Report 2011. New York. Available online at [http://www.gm.undp.org/HDR\\_2011\\_EN\\_Complete.pdf](http://www.gm.undp.org/HDR_2011_EN_Complete.pdf)

UNDP (United Nations Development Programme). 2010. *The Real Wealth of Nations: Pathway to Human Development*. Human Development Report 2010. New York. Available online at <http://hdr.undp.org/en/reports/global/hdr2010/chapters/>

UNDP (United Nations Development Programme). 2009. *Green Jobs for the Poor: A Public Employment Approach*. Poverty Reduction Discussion Paper. New York. Available online at <http://www.undp.org/content/dam/aplaws/publication/en/publications/poverty-reduction/poverty-website/green-jobs-for-the-poor-a-public-employment-approach/PG-2009-002-discussion-paper-green-jobs.pdf>

UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific). 2012. *Low Carbon Green Growth Roadmap for Asia and the Pacific: Turning resource constraints and the climate crisis into economic growth opportunities*. Bangkok. Available online at: [www.unescap.org/esd/environment/lcgg/](http://www.unescap.org/esd/environment/lcgg/)

UNEMG (United Nations Environment Management Group). 2011. *Working towards a Balanced and Inclusive Green Economy: A United Nations System-wide Perspective*. Geneva. Available online at <http://www.unemg.org/IssueManagementGroups/GreenEconomy/GreenEconomyreport/tabid/79175/Default.aspx>

UNEP (United Nations Environment Programme). 2012. *GEO5 Global Environment Outlook: Summary for Policy Makers*. Nairobi. Available online at [http://www.unep.org/geo/pdfs/GEO5\\_SPM\\_English.pdf](http://www.unep.org/geo/pdfs/GEO5_SPM_English.pdf)

UNEP (United Nations Environment Programme). 2011. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. Nairobi. Available online at <http://www.unep.org/greeneconomy/GreenEconomyReport/tabid/29846/Default.aspx>

UNEP (United Nations Environment Programme). 2010. *Driving a Green Economy Through Public Finance and Fiscal Policy Reform*. Green Economy Initiative Working Paper. Available online at [http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER\\_Working\\_Paper\\_Public\\_Finance.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_Working_Paper_Public_Finance.pdf)

UNEP (United Nations Environment Programme), UNCTAD (United Nations Conference on Trade and Development) and UN-OHRLS (Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States). 2011. *Why a Green Economy Matters for the Least Developed Countries*. Available online at [http://www.unep.org/greeneconomy/Portals/88/documents/research\\_products/Why%20a%20GE%20Matters%20for%20LDCs-final.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/research_products/Why%20a%20GE%20Matters%20for%20LDCs-final.pdf)

UNSD (United Nations Statistics Division). 2012a. *The System of Environmental-Economic Accounts (SEEA): Measurement Framework in Support of Sustainable Development and Green Economy Policy*. Available online at <http://unstats.un.org/unsd/envaccounting/Brochure.pdf>

UNSD (United Nations Statistics Division). 2012b. *System of Environmental-Economic Accounting, Central Framework*. Available online at [http://unstats.un.org/unsd/envaccounting/White\\_cover.pdf](http://unstats.un.org/unsd/envaccounting/White_cover.pdf)

Verzola, P. and P. Quintos. 2012. *Green Economy: Gain or Pain for the Earth's Poor*. IBON International Policy Brief. Quezon City, Philippines. Available online at: [http://iboninternational.org/resources/policy\\_briefs/114](http://iboninternational.org/resources/policy_briefs/114)

Walsh, D. 2012. *Marshalling the Winds of Mongolia*. Green Blog, The New York Times online (22 February 2012). Available online at <http://green.blogs.nytimes.com/2012/02/22/marshalling-the-winds-of-mongolia/>

WAVES (Wealth Accounting and the Valuation of Ecosystem Services). 2012. *Moving Beyond GDP: How to factor natural capital into economic decision making*. Available online at [http://www.wavespartnership.org/waves/sites/waves/files/images/Moving\\_Beyond\\_GDP.pdf](http://www.wavespartnership.org/waves/sites/waves/files/images/Moving_Beyond_GDP.pdf)

Wiggins, S., E. Fioretti, J. Keane, Y. Khwaja, S. McDonald, S. Levy and C.S. Srinivasan. 2008. *Review of the indirect effects of biofuels: Economic benefits and food insecurity*. Report to the Renewable Fuels Agency. London: Overseas Development Institute.

World Bank. 2012a. *An update to the World Bank's estimates of consumption poverty in the developing world*. Available online at [http://siteresources.worldbank.org/INTPOVCALNET/Resources/Global\\_Poverty\\_Update\\_2012\\_02-29-12.pdf](http://siteresources.worldbank.org/INTPOVCALNET/Resources/Global_Poverty_Update_2012_02-29-12.pdf)

World Bank. 2012b. *Inclusive Green Growth: The Pathway to Sustainable Development*. Washington, DC. Available online at <http://www.worldbank.org/inclusivegreengrowth>

World Bank. 2005. *Environmental Fiscal Reform: What Should Be Done and How to Achieve It*. Washington, DC. Available online at <http://siteresources.worldbank.org/INTRANETENVIRONMENT/Publications/20712869/EnvFiscalReform.pdf>

WRI (World Resources Institute). 2011. *A Compilation of Green Economy Policies, Programs and Initiatives from Around the World*. Available online at [http://pdf.wri.org/green\\_economy\\_compilation\\_2011-02.pdf](http://pdf.wri.org/green_economy_compilation_2011-02.pdf)

WRI (World Resources Institute) in collaboration with UNDP (United Nations Development Programme), UNEP (United Nations Environment Programme) and World Bank. 2008. *World Resources 2008: Roots of Resilience—Growing the Wealth of the Poor*. Washington, DC. Available online at <http://www.wri.org/publication/world-resources-2008-roots-of-resilience>

WRI (World Resources Institute) in collaboration with UNDP (United Nations Development Programme), UNEP (United Nations Environment Programme) and World Bank. 2005. *World Resources 2005: The Wealth of the Poor—Managing Ecosystems to Fight Poverty*. Washington, DC. Available online at <http://www.wri.org/publication/world-resources-2005-wealth-poor-managing-ecosystems-fight-poverty>