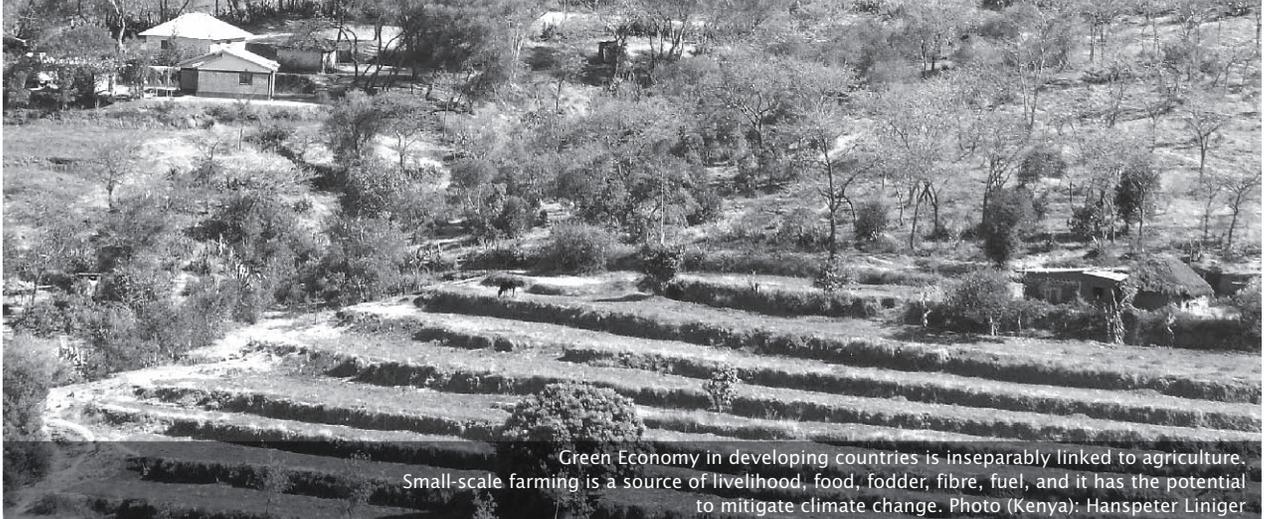


# research evidence for policy



Green Economy in developing countries is inseparably linked to agriculture. Small-scale farming is a source of livelihood, food, fodder, fibre, fuel, and it has the potential to mitigate climate change. Photo (Kenya): Hanspeter Liniger

## 'Green economy': development opportunity or buzzword?



Case study featured here was conducted in: Kenya

### Policy message

- A green economy is one where growth is accompanied by reduced carbon emissions and pollution, enhanced energy and resource efficiency, and maintained biodiversity and ecosystem services. Such an economy could address important global economic and development issues.
- Though closely interlinked, the development agendas of industrialised, transition, and developing countries differ considerably. Successful achievement of a global green economy will require harmonising these agendas and harnessing the unique potential of each context.
- In developing countries, green economy efforts must support multifunctional agriculture: it generates food and goods, income and environmental services, and could mitigate climate change.

- The term "green economy" has dominated international debates on development and environmental policies for the past two years. This can be attributed to the hope that a green economy will be a win-win solution for overcoming the current climate and financial crises. The green economy will play a key role at the United Nations Rio+20 Conference on Sustainable Development in June 2012. In view of the global challenges ahead, however, building a green economy and encouraging green growth alone will not provide the means necessary to guarantee comprehensive sustainable development. Market-based "green" measures must be complemented with deeper policy reform.

### Changing development paradigms

- The rapid emergence of the term "green economy" must be seen against the long- and short-term development policy and environmental policy background. A long-term perspective reveals four decades with dominant development paradigms alternating between a focus on economic development and growth and a focus on addressing the resulting problems. The economy-focused decades were the 1960s – emphasising "catch-up development" in the wake of decolonisation – and the 1980s – characterised by market-oriented development and structural adjustment. The 1970s and 1990s saw shifts in favour of remedying the increasing inequality and poverty and solving

social and environmental problems, eventually under the heading of sustainable development. In view of the contested track record of previous development policies, the turn of the millennium saw a reorientation towards the Millennium Development Goals (MDGs), which are a response to the failed transition to sustainable development. Despite considerable progress on a number of MDG targets, efforts generally failed to go beyond fighting the symptoms; drivers of unsustainable development were hardly influenced. Against this backdrop, the green economy can be seen as an initiative that not only tackles the causes of development problems, but also seeks to positively influence interdependencies between the economy, the environment, and politics.

## Definitions

**Green economy:** an economy that “results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”. It is an economy where “growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services” (UNEP: <http://tinyurl.com/5v6prxp>).

**Green growth:** a policy focus that seeks to develop and deploy clean technologies that will fuel economic growth in a carbon-constrained world. These technologies must be adopted in the world’s largest carbon-emitting countries in both the near and the long term – namely, in transition countries and OECD nations (LaFleur et al. 2009).

**Green New Deal:** modern-day variation of the US New Deal, an ambitious programme launched by President Franklin Roosevelt to lift the USA out of the Great Depression through a strong government role in economic planning and a series of stimulus packages that created jobs. Today’s Green New Deal proposals are premised on the importance of decisive government action, but incorporate policies to respond to environmental challenges through a new paradigm of sustainable economic progress (Worldwatch Institute: <http://www.worldwatch.org/node/6174>).

- Green economy debates are also a
- response to the current climate and
- financial crises. The collapse of finan-
- cial markets in 2008 and the ensuing
- massive government programmes to
- support the economy and the bank-
- ing industry gave rise to the demand
- that financial support measures be
- used as an entry point for address-
- ing climate change. A “Green New
- Deal” was called for, focusing among
- other things on renewable energy
- resources and green technologies,
- reducing wastage, and expanding
- public transport. The aim was to
- maintain demand levels and open
- up new labour markets, while reduc-
- ing greenhouse gas emissions and
- climate change impacts. This sug-
- gestion was taken up by the United
- Nations Environment Programme,
- leading to an appeal to the G20 states
- to gear economic support towards a
- Green New Deal. The G20 summit in
- 2009 indeed stipulated that economic
- stimulus packages were to accelerate
- the transition to a green economy.

### Industrialised countries: aim to end economic crisis

- In 2008, a restructuring of the econ-
- omy along the lines of a Green New
- Deal seemed to come within reach.
- Several countries invested a consider-
- able portion of their economic rescue
- packages in “green” projects – among
- them the USA (12%), France (18%), and
- above all South Korea (79%) and China
- (34%) (UNEP 2009). Funds were used
- to develop energy-efficient technolo-
- gies and renewable energy, expand
- electricity transmission networks, and
- invest in fuel-efficient cars and rail
- transport. This created new employ-
- ment opportunities in environmentally
- friendly sectors, in an effort to coun-
- teract the impending massive loss
- of jobs due to the economic crisis,
- the continuous increase in productiv-
- ity, and general deindustrialisation.

However, efforts to create a meaning-ful link between the economic and climate crises began to falter after the failure of the Copenhagen Cli-mate Conference in 2009 and with the growing debt crisis in Western countries.

Industrialised countries see the green economy mainly as an opportunity to overcome the economic crisis, while simultaneously making some contri-butions to addressing climate change. The environment is largely reduced to carbon, and social development is equated with job creation. Solutions are expected to lie in new technolo-gies that will facilitate “green” eco-nomic growth. The lack of agreement on binding emissions reductions and the introduction of austerity meas-ures have diminished support for a comprehensive Green New Deal, and attention has shifted towards smaller steps to encourage “green growth”.

### Transition countries: growth offsets efficiency gains

Transition countries must play a key role in achieving the goal to halve global carbon emissions. China and India will account for more than a third of the world’s estimated 9 bil-lion people by 2050. Although China, Brazil, and India are making consid-erable efforts to build more energy-efficient economies, it remains ques-tionable whether their economic growth can be decoupled from fos-sil fuels and whether, ultimately, they can develop economically with a smaller ecological footprint. Current trends rather imply that eco-nomic growth continues to occur in step with an increase in resource con-sumption and greenhouse gas emis-sions, and economic development leads to rapid changes in consump-tion patterns. In China, meat con-sumption has increased by a factor of



“Green technologies” such as wind power have been dominated by Europe, North America, China, and India. While these markets accounted for 86% of total installed capacity at the end of 2009, there are signs that emerging markets in Latin America, Asia, and Africa are catching up. More details: [www.gwec.net](http://www.gwec.net), search entry “Global Wind Energy Outlook 2010”. Photo (China): Thinkstock

2.4 since 1990, while milk consumption has tripled. These changes lead to an enormous growth in demand, which by far offsets improvements in resource efficiency. Given that the transition countries are expected to double their gross domestic product within 8 to 15 years, environmental problems are much more complex, and the challenges for economic and social development, in view of the disparities, are enormous.

### Developing countries: 'green' yet unsustainable

Many of the above considerations also apply to specific economic sectors in developing countries. Their overall economic growth, however, cannot be discussed without focusing on agriculture, which employs more than half of the population. Small-scale farming in developing countries provides income for around 1.3 billion people and a livelihood for 2.6 billion women, men, and children. Although, particularly in Asia, the Green Revolution has enabled small farms to increase their yields, subsistence production remains important on farms that have been bypassed by mechanisation and productivity increases. Average yields of cereals remain low, and markets are poorly developed. Of the 1.4 billion people living in extreme poverty (defined as those living on less than USD 1.25/day) in 2005, approximately 1 billion – around 70% – live in rural areas (IFAD 2011).

In developing countries, the promise of a green economy is inseparably linked to overcoming poverty and social disparities and achieving food security. With the world population growing to 9 billion by 2050, and with consumption patterns changing, worldwide food and fodder production will have to grow by an estimated 70% (FAO 2009). Agriculture in developing countries – especially small-scale farming – will have to play a major role in feeding the world's population, based on its potential for greater productivity and the remaining land reserves in poorer countries. Transnational acquisitions of agricultural land, regarded by some as "land grabbing", herald a rapidly growing demand for agricultural resources. Developing countries' scarcely mechanised agriculture with minimal chemical inputs can certainly be described as "green"; yet it suffers from seri-

ous environmental problems – some a result of local land use (such as soil degradation and water scarcity), and others mainly a consequence of outside influences (such as climate change). The poorest countries are the most vulnerable to climatic changes: climate variability, extreme events such as floods or drought, and rises in temperature of 2°C and more jeopardise agriculture. In Africa, they may cost up to 3% of the national income. At the same time, many developing countries have a considerable potential to mitigate climate change. Agriculture worldwide accounts for around 15% of global greenhouse gas emissions, with approximately three quarters of these emissions occurring in developing countries. The related deforestation contributes about 11% of global greenhouse gas emissions, a considerable amount that could be avoided (IPCC 2007).

A successful green economy in developing countries will be one in which small-scale agriculture: (1) continues to provide employment for a large number of people; (2) achieves a massive increase in productivity without massive use of fossil fuels; (3) contributes to the mitigation of environmental problems; and (4) is capable of adapting to negative impacts of climate change (see Figure 1). The path towards this type of multifunctional agriculture cannot be left to the market – it will require profound policy reforms.

### Featured case studies

#### Sustainable land management

Achieving a green economy in developing countries means transforming land use. Agriculture, for example, is often "green" in poor countries due to a lack of mechanisation and fertiliser, yet still is not environmentally sustainable: degradation of soils and vegetation in the global South contributes greatly to global greenhouse gas emissions. Introduction of sustainable land management (SLM) can reduce such emissions. Using SLM, for example, the organic carbon of soils can be increased from less than 1% of degraded soils to 2–3%, helping to combat global warming. ([www.wocat.net](http://www.wocat.net))

#### Preserving multifunctional agriculture in developing countries

Sustainable agriculture in the South typically faces a triple challenge: (1) to produce food, feed, fibre and fuel for a growing world; (2) to adapt to climate change; and (3) to mitigate climate change. Multifunctional agriculture can address all these challenges and create ecological value. But its practitioners like agro-pastoralists often respond to emergencies – like droughts – by intensifying their use of resources. A study in Kenya showed, for example, that proactive adaptations to climate change in agro-pastoral livestock production are few. International cooperation can support the maintenance of multifunctional agriculture, in the case of the Kenyan agro-pastoralists by introducing new forms of savings, building capacity, and maintaining infrastructure (Ifejika Speranza 2010).

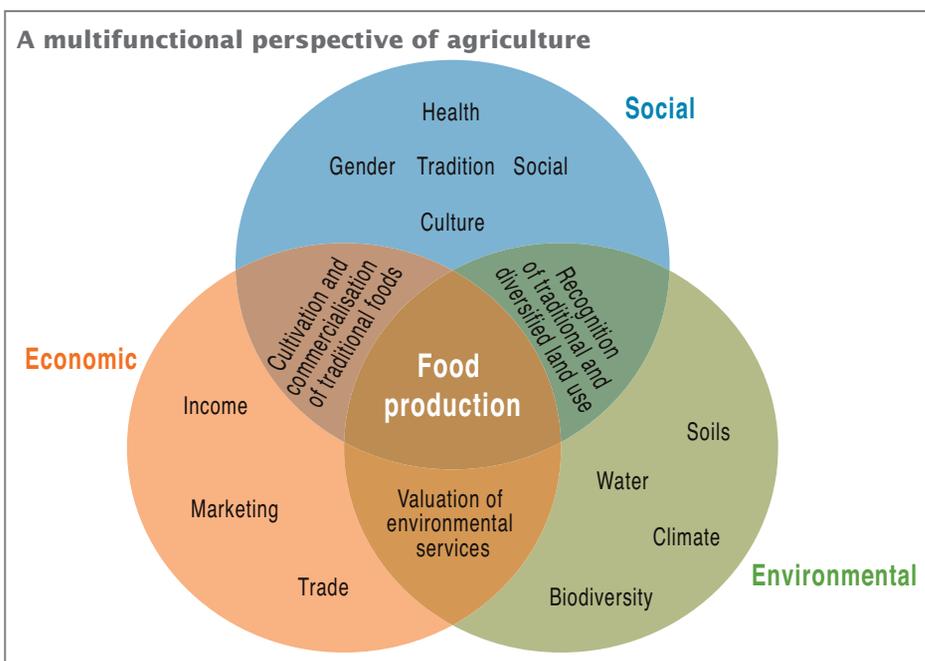


Figure 1: Multifunctional agriculture is a multi-output activity producing not only commodities (food, fodder, fibres, and biofuels), but also non-commodity outputs such as environmental services. Graphic: Ketill Berger, UNEP/GRID-Arendal. IAASTD, [www.agassessment.org](http://www.agassessment.org) (see "global report")



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## Policy implications of NCCR North-South research

### The green economy: a global challenge

If we are to achieve a “green economy”, the following aspects are crucial:

First, the meaning of a green economy varies in different development contexts. The problems faced by industrialised countries are very different from those in transition and developing countries, and the opportunities for developing a green economy are accordingly different. Industrialised countries are mainly concerned with overcoming the economic crisis, creating jobs, and addressing climate change problems. While some transition countries are investing in energy efficiency, their rapid economic growth and cultural change may counteract efficiency gains. In developing countries, any efforts towards a green economy must reduce poverty, improve social equality, and aid food security – multifunctional agriculture is key here.

Second, a narrow understanding of the term as a low-carbon economy – common in industrialised countries – is insufficient and needs to be broadened to include environmental aspects and socio-cultural development. Particularly in transition and developing countries, addressing poverty, inequality, and complex environmental problems will be paramount. The term should thus move closer to the more comprehensive concept of sustainable development.

Third, a green economy can provide a new impetus for global efforts to tackle issues of development and the environment. Whether and how this opportunity can be seized will be determined by future regulations and measures adopted at transnational levels and across various development contexts. In the case of developing countries, a green economy is inextricably linked to employment and productivity gains as well as adaptation to and mitigation of climate change. The process leading up to the Rio+20 summit in 2012 and beyond is key in this respect.

### Further reading

- **Ifejika Speranza C.** 2010. Drought coping and adaptation strategies: Understanding adaptations to climate change in agro-pastoral livestock production in Makueni district, Kenya. *European Journal of Development Research* 22:623–642. doi:10.1057/ejdr.2010.39.
- **IFAD.** 2011. *Rural Poverty Report 2011*. <http://www.ifad.org/rpr2011/>
- **FAO.** 2009. *Declaration of the World Summit on Food Security*, Rome, 16–18 Nov 2009. Rome: Food and Agriculture Organization of the United Nations. <http://tinyurl.com/y8dy3ku>
- **IPCC.** 2007. *Climate Change 2007: Synthesis Report*. Geneva: International Panel on Climate Change.
- **LaFleur V, Purvis N, Jones A.** 2009. *Double Jeopardy: What the Climate Crisis Means for the Poor*. Brookings Blum Roundtable 2008. Washington, DC: Brookings.
- **UNEP.** 2009. *UNEP Yearbook: New Science and Developments in Our Changing Environment*. <http://www.unep.org/yearbook/2009/>

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### This issue

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