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# **The Rise of the Green Economies**

## **A Paradigm for the Developing World?**

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## Preface

by *Achim Steiner*

*(UN Under-Secretary-General, UNEP Executive Director)*

Thinking on the green economy has made remarkable advances in the past few years. From its beginnings as little more than an intriguing idea on the margins of environmental economics, it is now a powerful policy framework for governments around the world for reaching their sustainable development targets.

Driven by a growing understanding of ecological constraints and the knowledge that economic prosperity must fundamentally derive from good stewardship of natural resources and environmental wealth, governments throughout the world have started to explore ways to decouple growth from environmental degradation.

At the Rio+20 Conference in 2012, the international community recognized the green economy as a key tool with which countries could achieve that decoupling and attain sustainable development. To date, some 65 countries have embarked on green economy and related strategies, and 48 are taking steps to develop national green economy plans. At the same time, a healthy debate has continued about the green economy and its role within the sustainable development landscape.

Indeed, as we move towards implementation of the Sustainable Development Goals that will define the post-2015 development agenda, it is more important than ever to turn the lens upon the inclusive green economy. We must ask ourselves how this approach can help deliver key development priorities such as social inclusion, decent work, climate change mitigation and adaptation, and sustainable economic growth and poverty reduction.

As we reflect on these issues, this book can be a useful guide. It takes a systematic look at the green economy, examining how and where it has been imple-

mented, and to what effect. What shape does the green economy take at the national level, how does it reflect the variety of national contexts into which it must fit and what factors have led to successful implementation of policies? By approaching these questions from a number of analytical perspectives, the authors enrich our understanding of the inclusive green economy concept and its role in driving the global development agenda, both now and in the future.

This book is a welcome addition to the ongoing debate on sustainable development. It transcends economics to look at how inclusive green economy can contribute to environmental well-being, as well as more inclusive and equitable societies.

PART 1

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**TOWARDS  
A GREEN ECONOMY**



# Strategies for Implementing a Green Economy in Rapidly Emerging and Developing Countries

by *Steven Stone (UNEP)*

## 1 Introduction

While the concept of a green economy continues to evolve following the negotiations at the United Nations Conference on Sustainable Development in 2012 (Rio+20 conference), there is no doubt that a transition to a green economy is already underway.

From China's new 'ecological civilisation' concept to Ecuador's 'buen vivir' (living well) development goal, and from Nepal's National Youth Forum for Green Solutions to South Africa's Green Economy Accord, there is now growing evidence that countries are aspiring towards low-carbon, inclusive growth and environmental sustainability.

Some of these countries began their journey long before the concept of green economy started to gain traction, following the financial crisis in 2008. Bhutan first rejected gross domestic product (GDP) as an indicator of wealth in 1971, and chose instead to measure gross national happiness (Costanza et al. 2009). Barbados first declared building a green economy as a priority in its National Strategic Plan for 2006–2025, and has since set out to achieve many of its mid-term goals (UNEP, undated, a). Ghana first addressed the issue of fossil fuel subsidies in 2005, and redirected these funds instead for education, health, transport and rural electrification (IMF 2008).

Many more countries, such as Bangladesh, the Democratic Republic of the Congo, Pakistan and Zambia, have expressed interest in moving towards a low-carbon future that provides prosperity for their countries without creating environmental liabilities.



The Republic of Korea has helped drive a wave of support for a green economy approach by demonstrating the benefits to be gained from greening key economic sectors. In 2009, it announced its plans to launch a five-year Green Growth Plan and dedicated more than 80 percent of its economic stimulus package (equivalent to 38.1 billion US dollar in 2009) to improving its energy, fresh-water, buildings, waste and transport (HSBC Global Research 2009).

Even fossil-fuel rich countries, like Azerbaijan and the United Arab Emirates, are exploring how they can use their oil and gas revenues to help transition to a green economy.

What all of these countries have in common is their desire to promote sustainable development—creating opportunities for socially-inclusive economic growth that will not further drain the planet’s resources, but help protect them so they can continue to provide vital ecological services to all mankind.

Grounded in the principles of sustainable development, the transition to a green economy is considered a journey. As the Rio+20 declaration reaffirmed, each country must choose its own pathway towards an inclusive green economy—one based on its unique natural assets and national priorities. However, developing and emerging countries, in particular, should be supported by United Nations agencies, international organisations and financing agencies as they embark on this new path to build a more inclusive and sustainable economy.

## 2 Multiple Green Shoots

There is a strong business case to be made for moving towards a green economy, and developing and emerging countries stand to gain from pursuing these new opportunities. For example, the market for clean technologies is growing. The cost of solar photovoltaic panels has dropped dramatically since the 1970s to less than one US dollar for a kilowatt-hour today. In China, the government has a goal to produce 15 percent of its primary energy from non-fossil sources by 2020 (State Council of P. R. China 2014), while in South Africa, the government has ambitious plans to install solar water heaters in a large number of homes and businesses by 2030 (NPC 2013).

A new study produced by United Nations Environment Programme (UNEP) for the Government of Kenya indicates that under a green economy scenario, the country could achieve faster economic growth—five percent of GDP compared to 3.7 percent under a business-as-usual model—by 2030, while increas-

ing stocks of natural capital and reducing the ecological footprint of the economy. Real per-capita income for individuals could rise from 40,000 Kenyan shillings to as much as 64,000 Kenyan shillings, reducing the number of people living below the poverty line by an additional three percent (UNEP 2014).

In Peru, the bio-trade sector expects to deliver economic, environmental and social benefits, particularly for the country's rural poor. If the bio-trade sector maintains its current growth rate of 20 percent until 2020, employment could increase from 10,000 workers today to 60,000 workers. This will also contribute to poverty alleviation because it is estimated that each bio-trade worker usually supports a family of four to five people (UNEP 2012a).

These initiatives are what Achim Steiner, the UNEP Executive Director, calls “the tender shoots” of the green economy — the first rays of hope that an alternative future is possible.

The UNEP's report *Towards a Green Economy* (2011) shows that an investment of two percent of global GDP across ten key sectors, when backed by the right policies, can create a global shift to a more sustainable economic model — one that values nature and jobs. Developing and emerging countries, in particular, are eager to embrace this new development pathway precisely because they see the potential.

These countries not only have the most to gain from a green economy, but are also well-positioned to do so. Many developing countries have not invested in the fixed assets and infrastructure that limit them to the same outdated and inefficient technologies found in developed countries, and many still have substantial natural resources, which can directly benefit large portions of their population. This allows them to leapfrog developed nations, who must incur higher costs to make the transition to a green economy. However, developing and emerging countries still need access to resources, capacity building and technology if they are to embed this paradigm shift in their national policies.

### 3 Key Outcomes in Rio+20 Declaration

*The Future We Want* calls for new strategies and tools for countries to use as they transition to a low-carbon, resource efficient and inclusive economy (United Nations 2012). The declaration clearly establishes the green economy as a legitimate driver of sustainability, and it urges United Nations entities, governments, international institutions and non-governmental organisations to assist coun-

tries in their transition by responding to demands for technical assistance and policy advice, best practices and progress reports.

The declaration encourages “the implementation of green economy policies by countries that seek to apply them for the transition towards sustainable development as a common undertaking” (paragraph 59). It notes “the positive experiences in some countries, including in developing countries, in adopting green economy policies in the context of sustainable development and poverty eradication through an inclusive approach”, and welcomes “the voluntary exchange of experiences as well as capacity building” (paragraph 64).

More specifically, the declaration seeks support for countries interested in making the transition to a green economy, by inviting the United Nations system, in cooperation with relevant donors and international organisations, to coordinate and provide information upon request on: a) matching interested countries with the partners best suited to provide requested support; b) creating toolboxes and/or best practices in applying policies on green economy in the context of sustainable development and poverty eradication at all levels; c) establishing models or good examples of policies of green economy in the context of sustainable development and poverty eradication; d) developing methodologies for evaluation of policies of green economy in the context of sustainable development and poverty eradication; and e) bolstering existing and emerging platforms that contribute in this regard (paragraph 66).

In the area of green jobs, the Rio+20 declaration calls for a strategy on youth and unemployment, and notes the need for building capacity and sharing knowledge on decent work and job creation.

On the issue of metrics and indicators that can measure and track countries’ progress, the declaration recognises “the need for broader measures of progress to complement GDP in order to better inform policy decisions”, and it requests the UN Statistical Commission in consultation with other agencies to “launch a programme of work in this area building on existing initiatives” (paragraph 38).

The significant role the private sector will play in a green economy transition is also highlighted. The declaration calls for enhanced corporate reporting on sustainability indicators (paragraph 47), something UNEP and its partners have advocated for many years.

Other actions mentioned in the declaration, especially relevant to developing and emerging economies, include references to phase out harmful and inefficient fossil fuel subsidies that “encourage wasteful consumption and undermine

sustainable development”. It also asks governments to consider reflecting on the environmental impacts of such policies.

The general sentiment resulting in the Rio+20 conference is that those countries wishing to push ahead with green economy reform agendas to transform their economies should be encouraged and supported in the development of their national plans.

## 4 Strategies for Advancing a Green Economy

Despite countries’ different geographies and political and economic persuasions, many are already creating national strategies and, in some cases, mounting regional efforts to advance a green economy that will help them address unemployment, inefficient industry, environmental risks and outdated policies. While priorities, resources and asset base may vary, there are some key enabling conditions that national governments can adopt, such as: establishing sound regulatory frameworks; prioritising government investment and spending in areas that stimulate green growth and green sectors, while limiting spending in areas that deplete natural capital; employing market-based instruments, incentives and taxes; and investing in capacity building.

*The Future We Want* also notes the need for new green economy measures—again, such tools that can help guide national policymakers as they create new green economy policies and evaluate their progress moving forward.

Examples being set by national governments are also driving regional action. With poor access to energy, especially in Sub-Saharan Africa, the East-African Community has decided that energy security is a priority. Since 2007, Uganda, Kenya, Tanzania and most recently Rwanda have all introduced feed-in tariff policies, which have had a direct impact on renewable energy businesses in the region. It is hoped that such cooperation will also help stimulate much-needed investment (World Future Council 2013).

Across the continent, various government conferences and forums have provided high-level endorsement for the concept of green economy as a means for achieving sustainable development and poverty eradication. Following the Rio+20 conference, the African Union launched a programme to facilitate funding and technical assistance to help countries pursue this agenda.

In Asia, governments have responded to the Rio+20 call for action in part due to the need to reduce consumption and pollution across a number of sec-

### Box on Barbados: Social partners support key to national implementation

This small island state first adopted the green economy concept as part of its national plan in 2005. The process was given further impetus in 2009, when the then Prime Minister committed Barbados to become “the most environmentally advanced, green country in Latin America and the Caribbean”. The Government of Barbados then established a partnership with UNEP to help achieve this goal, which began with a scoping mission and macroeconomic assessment of five key sectors and four cross-cutting issues. A green economy technical committee, including representatives from national ministries, government institutions, non-governmental organisations and the business sector, was created to oversee the technical inputs. In addition, the country’s Social Partnership—previously established to deal with the country’s economic and social challenges—was also selected by stakeholders as the most appropriate body to oversee the implementation and monitoring of the country’s Green Economy Roadmap (UNEP et al. 2012).

tors. Cambodia, China, Indonesia, Nepal, the Philippines, the Republic of Korea and Vietnam have all adopted green economy policies at a national level. Bangladesh, Pakistan and Papua New Guinea have also sought assistance to begin this journey.

In Latin America, a Green Economy Study for Mexico underway is assessing different fiscal and economic policy mixes to encourage investment in select key sectors with the aim of stimulating inclusive growth, green jobs and environmental sustainability, as well as economic competitiveness. In January 2013, a high-level roundtable on green growth, called “Public policies for an inclusive development: Mexico 2013” organised by the Economic Commission for Latin America and the Caribbean, the Inter-American Development Bank, the Organisation for Economic Co-operation and Development and the World Bank, reconfirmed that the country’s future economic growth must be greener and more inclusive.

In the Caribbean, following the Barbados example (see box above), several countries have expressed their interest in developing their green economy strategies (UNEP, undated, b). The European Union has recently funded a region-wide initiative that will focus on working with governments in Haiti, Jamaica and Saint Lucia to develop their national strategies.

In West Asia, regional meetings have transitioned from green economy dialogue to action. In 2012, the United Arab Emirates Strategy for Green Development outlined the country's intentions to become a world leader in the export and re-export of green products and technologies, while maintaining its environment and economic growth (WAM 2015). In Jordan, one of the region's poorest economies, "environmentally-sustainable economic development" was adopted as a key theme in the country's 2006–2015 National Agenda (National Agenda Steering Committee 2005). In 2010, the Minister of Environment launched a green economy initiative in Jordan. An international team of experts then identified several critical sectors that Jordan could focus on to advance its efforts, and many of these recommendations are being considered by the government.

## 5 The United Nations' Coordinating Role

Following the Rio+20 conference, the United Nations Secretary General Ban Ki-moon mandated UNEP to co-lead the coordination and delivery of the key outcomes pertaining to national implementation. Now, in response to *The Future We Want*, UNEP and three other United Nations agencies—the International Labour Organisation, the United Nations Industrial Development Organisation and the United Nations Institute for Training and Research—have launched a new Partnership for Action on Green Economy (PAGE), which aims to provide countries with the tools and services required to build their green economy plans. The partnership will draw on the expertise and experience of each of these individual institutions to provide a comprehensive and coordinated suite of tools and technical assistance to 30 countries between now and 2020. Moreover, the partnership intends to serve as a 'nucleus' for other United Nations agencies, so countries can access all the assistance needed to advance their green economy strategies.

PAGE will focus on four components at the country level: advisory services, research, capacity building, and training and policy dialogues. PAGE will offer a suite of coordinated services, ranging from technical assistance and new research tools, to policy analysis and capacity building, as well as practical training in areas such as economic and fiscal policy, green jobs and the sustainable management of natural resources. It will also host a series of high-level policy dialogues, which will provide a platform for national governments and other stakeholders to share their progress and lessons learned.

In parallel, efforts will continue to promote inclusive wealth accounting, as well as the development of new indicators and metrics for measuring progress towards a green economy. UNEP recently released the first in a series of publications, *Measuring Progress Towards an Inclusive Green Economy* (UNEP 2012b), at its first global workshop on indicators in December 2012 (UNEP 2012c).

As a founding partner of the Green Growth Knowledge Platform (GGKP) with the Global Green Growth Institute, the Organisation for Economic Co-operation and Development, and the World Bank, UNEP is leading the research stream on green growth indicators to ensure policymakers and other stakeholders share their experiences and best practices moving forward (GGKP, undated). Through broad consultation and research, GGKP provides practitioners and policymakers with tools to foster economic growth and promote sustainable development.

For several years now, UNEP's Finance Initiative has been working with its private sector partners — including 200 financial institutions — to build the business case for sustainable management and reporting. It is especially focused on capacity building and training for national and regional financial institutions in emerging and developing countries. In Rio, a handful of countries, including Brazil, Denmark, France, and South Africa — all of which have helped pioneer sustainability reporting in their respective countries — created the Group of Friends of Paragraph 47, which aims to promote sustainability reporting by sharing their experiences (UNEP 2013).

Perhaps one of the more contentious topics covered in the declaration is the reference to harmful and inefficient subsidies, such as for fossil fuels. UNEP is continuing to address these inconsistencies in policies at the national level, while raising the bar on governments at the global level. Reforming fossil fuel subsidies is a realistic reminder of the battle ahead if we are to create a new economic paradigm — one that values growth and nature.

## 6 Conclusion

The progress to embrace a green economy has been slow and steady. The United Nations declaration mandates this work now be accelerated and scaled up to meet the increasing demands from developing and emerging countries.

The green economy — or rather, the numerous green economies — when they emerge, will be based on strong institutions, on good governance, and commu-

nities that value nature and human equity. They will be based on leadership at the local and national level, and they will be forged because they represent an alternative to the future we do not want. They will be based on markets that have been shaped to meet human needs and aspirations. And most critically, they will serve the goal of improving human welfare and social equity, while reducing environmental risks and ecological scarcities.

## Literature Cited

- Costanza, R. et al. (2009): Beyond GDP: The need for new measures of progress. The Padree Papers 4. Boston University.
- GGKP (Green Growth Knowledge Platform) (undated): Metrics and indicators. [<http://www.greengrowthknowledge.org/research-program/green-growth-metrics-indicators>; February 3, 2015]
- HSBC Global Research (2009): A climate for recovery. [[http://www.globaldashboard.org/wp-content/uploads/2009/HSBC\\_Green\\_New\\_Deal.pdf](http://www.globaldashboard.org/wp-content/uploads/2009/HSBC_Green_New_Deal.pdf); October 10, 2014].
- IMF (International Monetary Fund) (2008): Fuel and Food Price Subsidies: Issues and Reform Options. Washington, D.C.: IMF.
- National Agenda Steering Committee (2005): 2006–2015 National Agenda. Jordan we strive for. [<http://inform.gov.jo/en-us/By-Date/Report-Details/ArticleId/5/2006-2015-National-Agenda>; February 3, 2015].
- NPC (National Planing Commission) (2013): National Development Plan 2030. Pretoria: Republik of South Africa.
- State Council of P. R. China (2014). Energy Development Strategy Action Plan (2014–2020).
- UNEP (United Nations Environment Programme) (2011): Towards a green economy: pathways to sustainable development and poverty eradication. Nairobi: UNEP.
- UNEP (United Nations Environment Programme) (2012a): Green economy sectoral study. Biotrade – a catalyst for transitioning to a green economy in Peru. [[http://www.unep.org/greeneconomy/Portals/88/documents/research\\_products/BioTrade\\_Peru.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/research_products/BioTrade_Peru.pdf); February 3, 2015].
- UNEP (United Nations Environment Programme) (2012b): Measuring progress towards an inclusive green economy. [[http://www.unep.org/greeneconomy/Portals/88/documents/research\\_products/Measuring%20Progress%20report.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/research_products/Measuring%20Progress%20report.pdf); February 3, 2015].
- UNEP (United Nations Environment Programme) (2012c): Measuring the future we want. [<http://www.unep.org/greeneconomy/WorkshopsConferences/MeasuringTheFutureWeWant/tabid/105556/language/en-US/Default.aspx>; February 3, 2015].
- UNEP (United Nations Environment Programme) (2013): The Group of Friends of Paragraph 47. [<http://www.unep.org/resourceefficiency/LinkClick.aspx?fileticket=3isrXNnQfeo%3d&tabid=105011&mid=139149>; February 3, 2015].



- UNEP (United Nations Environment Programme) (2014): Green economy assessment report — Kenya. [<http://www.unep.org/greeneconomy/ResearchReports/GreenEconomyAssessmentReportKenya/tabid/133003/language/en-US/Default.aspx>; February 3, 2015].
- UNEP (United Nations Environment Programme) (undated, a): Barbados' pathway to a green economy. [<http://www.unep.org/greeneconomy/AdvisoryServices/Barbados/tabid/56246/Default.aspx>; February 3, 2015].
- UNEP (United Nations Environment Programme) (undated, b): Caribbean Green Economy Project. [<http://www.unep.org/greeneconomy/AdvisoryServices/CaribbeanGreenEconomy/tabid/105702/Default.aspx>; February 3, 2015].
- UNEP (United Nations Environment Programme), University of West Indies and the Government of Barbados (2012): Green economy scoping study — synthesis report. Barbados. [[http://www.unep.org/greeneconomy/Portals/88/documents/SYNTHESIS%20REPORT\\_Barbados.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/SYNTHESIS%20REPORT_Barbados.pdf); February 3, 2015].
- United Nations (2012): The Future We Want. [<http://www.uncsd2012.org/thefuturewewant.html>; February 3, 2015].
- WAM (Emirates News Agency) (2015): UAE launches first state of Green Economy Report. 19.01.2015. [<https://www.wam.ae/en/news/emirates/1395275308565.html>; February 3, 2015].
- World Future Council, the Heinrich Böll Stiftung and Friends of the Earth (2013): Powering Africa through Feed-in Tariffs Advancing renewable energy to meet the continent's electricity needs. [[https://www.boell.de/sites/default/files/2013-03-powering-africa\\_through-feed-in-tariffs.pdf](https://www.boell.de/sites/default/files/2013-03-powering-africa_through-feed-in-tariffs.pdf); February 3, 2015].

The need to achieve a green economy has recently gained more and more attention. International organisations, governments and representatives from civil society and the private sector have put forward suggestions for a successful transition to a green and low-carbon economy. Around the world, a patchwork of local, regional and national green economy strategies has developed. This is also due to the UN Conference on Sustainable Development in 2012, “Rio+20”, which built up momentum in the discourse surrounding transition to a green economy. The outcome encourages countries to build a common understanding of how economic policy can commit to sustainable development and eradication of poverty. With conceptual reflections on the status of the green economy discourse and with insights from numerous country case studies, this book aims at offering some guidance on this important area for global environmental and development governance.

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