
Copyright © United Nations Environment Programme, 2011

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made. UNEP would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from UNEP.

Citation

UNEP, 2011, *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication - A Synthesis for Policy Makers*, www.unep.org/greeneconomy

Disclaimer

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations Environment Programme concerning the legal status of any country, territory, city or area or of its authorities, or concerning delimitation of its frontiers or boundaries. Moreover, the views expressed do not necessarily represent the decision or the stated policy of the United Nations Environment Programme, nor does citing of trade names or commercial processes constitute endorsement.

Layout and printing by:
100 Watt, St-Martin-Bellevue, France
Tel. +33 (0)4 50 57 42 17



UNEP
promotes environ-
mentally sound practices
globally and in its own activities.
This publication is printed on 100%
recycled paper, using vegetable -based
inks and other eco-friendly practices.
Our distribution policy aims to reduce
UNEP's carbon footprint.

Contents

List of Figures	iii
Acknowledgements	iv
Foreword	v
Introduction	01
From Crisis to Opportunity.....	01
An Era of Capital Misallocation.....	01
What is a Green Economy?.....	02
How Far are we from a Green Economy?.....	03
How to Measure Progress towards a Green Economy.....	05
Towards a Green Economy.....	05
Key Findings	06
A Green Economy Recognizes the Value of, and Invests in, Natural Capital.....	06
A Green Economy is Central to Poverty Alleviation.....	10
A Green Economy Creates Jobs and Enhances Social Equity.....	13
A Green Economy Substitutes Renewable Energy and Low-carbon Technologies for Fossil Fuels.....	15
A Green Economy Promotes Enhanced Resource and Energy Efficiency.....	16
A Green Economy Delivers More Sustainable Urban Living and Low-carbon Mobility.....	21
A Green Economy Grows Faster than a Brown Economy over Time, while Maintaining and Restoring Natural Capital.....	23
Enabling Conditions	28
Establish Sound Regulatory Frameworks.....	28
Prioritize Government Investment and Spending in Areas that Stimulate the Greening of Economic Sectors.....	29
Limit Government Spending in Areas that Deplete Natural Capital.....	30
Employ Taxes and Market-based Instruments to Promote Green Investment and Innovation.....	31
Invest in Capacity Building, Training and Education.....	33
Strengthen International Governance.....	33
Financing the Green Economy Transition	35
Conclusions	38
Annexes	40
Annex I: Annual Green Economy Investment (by sector).....	40
Annex II: The Threshold 21 (T21) Model.....	42
Annex III: Impacts of Allocating an Additional 2% of GDP towards Greening the Global Economy Relative to 2% in Business as usual.....	43

List of Boxes, Tables and Figures

BOXES

- Box 1.** Towards a Green Economy: Twin Challenge04
- Box 2.** Grameen Shakti Programme in Bangladesh12
- Box 3.** Feed-in Tariffs: An Example from Kenya16
- Box 4.** Resource Efficiency and Waste: Examples of Regulation and Pricing Policies19
- Box 5.** Recycling and Waste: An Example from Brazil19
- Box 6.** Examples of Green Transport Policies in Action23
- Box 7.** Accounting for Inclusive Wealth27
- Box 8.** Energy Subsidy Reform: Some Examples31
- Box 9.** Eco-taxes: A Double Dividend for Jobs and the Environment32
- Box 10.** An Example of Long-term Investing: The Norwegian Pension Fund Global 36

TABLES

- Table 1.** Natural Capital: Underlying Components and Illustrative Services and Values.....07
- Table 2.** Trends in Forest Cover and Deforestation08
- Table 3.** Global Fisheries Subsidies10

FIGURES

- Figure 1.** Projection of the global demand for water09
- Figure 2.** Global progress towards Millennium Development Goals target to reduce the number of people without access to adequate sanitation services to 1.7 billion people by 201511
- Figure 3.** Total employment in the energy sector and its disaggregation into fuel and power, and energy efficiency under a 2% green investment scenario14
- Figure 4.** Investment in sustainable energy, 2004-2009 (US\$ billion)15
- Figure 5.** Global relative decoupling trends (1980-2007)17
- Figure 6.** GDP per capita vs. municipal solid waste per capita 18
- Figure 7.** The make-up of total food waste20
- Figure 8.** IPCC projections of CO₂ mitigation potential in 203022
- Figure 9.** Projected trends in annual GDP growth rate25
- Figure 10.** Impacts of the green investment scenario relative to business as usual for selected variables (per cent + / -)25
- Figure 11.** Energy-related CO₂ emissions—breakdown of reductions achieved in a 2% green investment scenario relative to baseline business as usual projections26

Acknowledgements

Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication is based on the working chapters of the Green Economy Report (GER), which were prepared by the following coordinating authors: Robert Ayres, Andrea Bassi, Paul Clements-Hunt, Holger Dalkmann, Derek Eaton, Maryanne Grieg-Gran, Hans Herren, Cornis Van Der Lugt, Prasad Modak, Lawrence Pratt, Philipp Rode, Ko Sakamoto, Rashid Sumaila, Ton van Dril, Xander van Tilburg, Peter Wooders, and Mike Young. Contributing authors and reviewers of the chapters are acknowledged accordingly in each chapter.

The synthesis report was led by Pavan Sukhdev, Special Adviser and Head, Green Economy Initiative, UNEP, and coordinated by Steven Stone, Chief, Economics and Trade Branch, UNEP under the guidance of Sylvie Lemmet, Director, Division of Technology, Industry and Economics, UNEP. Substantive contributions were received from Anna Autio, Nicolas Bertrand, Derek Eaton, Fatma Ben Fadhl, Marenglen Gjonaj, Moustapha Kamal Gueye, Leigh-Ann Hurt, Ana Lucia Iturriza, Cornis Van Der Lugt, Desta Mebratu, Robert McGowan, Asad Naqvi, Sheng Fulai, Benjamin Simmons, Niclas Svenningsen and Vera Weick.

Thanks also go to Joe Alcamo, Aniket Ghai, Peter Gilruth, Sylviane Guillaumont, Mark Halle, Marek Harsdorff, Moira O'Brien-Malone, Nick Nuttall, Peter Poschen, Kees van der Ree, Kenneth Ruffing, and Mathis Wackernagel for their important review and comments. A special thanks of appreciation go to Edward Barbier for his review and substantive inputs. Any remaining errors and omissions are the responsibility of the authoring team alone.

The Green Economy Report was produced in close partnership with the International Labour Organization (ILO). The tourism chapter was developed in partnership with the World Tourism Organization (UNWTO).

Also to be recognized are Annie Haakenstad, Kim Hyunsoo, Kim Juhern, Tilmann Liebert, François Macheras, Dominique Maingot, Dmitry Preobrazhensky, Alexandra Quandt, Pascal Rosset, and Dhanya Williams for their research assistance, and Désirée Leon, Rahila Mughal, and Fatma Pandey for administrative support.

Foreword

Nearly 20 years after the Earth Summit, nations are again on the Road to Rio, but in a world very different and very changed from that of 1992.

Then we were just glimpsing some of the challenges emerging across the planet from climate change and the loss of species to desertification and land degradation.

Today many of those seemingly far off concerns are becoming a reality with sobering implications for not only achieving the UN's Millennium Development Goals, but challenging the very opportunity for close to seven billion people – rising to nine billion by 2050 – to be able to thrive, let alone survive.

Rio 1992 did not fail the world—far from it. It provided the vision and important pieces of the multilateral machinery to achieve a sustainable future.

But this will only be possible if the environmental and social pillars of sustainable development are given equal footing with the economic one: where the often invisible engines of sustainability, from forests to freshwaters, are also given equal if not greater weight in development and economic planning.

Towards a Green Economy is among UNEP's key contributions to the Rio+20 process and the overall goal of addressing poverty and delivering a sustainable 21st century.

The report makes a compelling economic and social case for investing two per cent of global GDP in greening ten central sectors of the economy in order to shift development and unleash public and private capital flows onto a low-carbon, resource-efficient path.

Such a transition can catalyse economic activity of at least a comparable size to business as usual, but with a reduced risk of the crises and shocks increasingly inherent in the existing model.

New ideas are by their very nature disruptive, but far less disruptive than a world running low on drinking water and productive land, set against the backdrop of climate change, extreme weather events and rising natural resource scarcities.

A green economy does not favour one political perspective over another. It is relevant to all economies, be they state or more market-led. Neither is it a replacement for sustainable development. Rather, it is a way of realizing that development at the national, regional and global levels and in ways that resonate with and amplify the implementation of Agenda 21.

A transition to a green economy is already underway, a point underscored in the report and a growing wealth of companion studies by international organizations, countries, corporations and civil society. But the challenge is clearly to build on this momentum.

Rio+20 offers a real opportunity to scale-up and embed these “green shoots”. In doing so, this report offers not only a roadmap to Rio but beyond 2012, where a far more intelligent management of the natural and human capital of this planet finally shapes the wealth creation and direction of this world.

Achim Steiner
UNEP Executive Director
United Nations Under-Secretary General



GREEN economy
Foreword

Introduction

From Crisis to Opportunity

The last two years have seen the idea of a “green economy” float out of its specialist moorings in environmental economics and into the mainstream of policy discourse. It is found increasingly in the words of heads of state and finance ministers, in the text of G20 communiqués, and discussed in the context of sustainable development and poverty eradication.¹

This recent traction for a green economy concept has no doubt been aided by widespread disillusionment with our prevailing economic paradigm, a sense of fatigue emanating from the many concurrent crises and market failures experienced during the very first decade of the new millennium, including especially the financial and economic crisis of 2008. But at the same time, we have seen increasing evidence of a way forward, a new economic paradigm – one in which material wealth is not delivered perforce at the expense of growing environmental risks, ecological scarcities and social disparities.

Mounting evidence also suggests that transitioning to a green economy has sound economic and social justification. There is a strong case emerging for a redoubling of efforts by both governments as well as the private sector to engage in such an economic transformation. For governments, this would include leveling the playing field for greener products by phasing out antiquated subsidies, reforming policies and providing new incentives, strengthening market infrastructure and market-based mechanisms, redirecting

An Era of Capital Misallocation

Several concurrent crises have either sprung up or accelerated during the last decade: crises in climate, biodiversity, fuel, food, water, and of late in the financial system and the economy as a whole. Accelerating climate-changing emissions indicate a mounting threat of runaway climate change, with potentially disastrous human consequences. The fuel price shock of 2008, and a related flare up in food and commodity prices, both indicate structural weaknesses and risks which remain unresolved. Rising demand, forecast by the International Energy Agency (IEA) and others, suggests an ongoing dependence on oil and other fossil fuels and much higher energy prices as the world economy struggles to recover and grow.

As regards to food security, we are seeing neither widespread understanding of the nature of the problem, nor globally collaborative solutions for how we shall feed a population of 9 billion by 2050. Freshwater scarcity is already a global problem, and forecasts suggest a growing gap² by 2030 between annual freshwater demand and renewable supply. The outlook for improved sanitation still looks bleak for over 2.6 billion people; 884 million people still lack access to clean drinking water.³ Collectively, these crises are severely impacting our ability to sustain prosperity worldwide and to achieve the Millennium Development Goals (MDGs) for reducing extreme poverty. They are compounding persistent social problems from job losses, socio-economic insecurity and poverty, and threatening social stability.

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_15225

