



INCLUSIVE GREEN GROWTH

The Pathway to Sustainable Development

LCS R net

September 18, 2012, Oxford UK

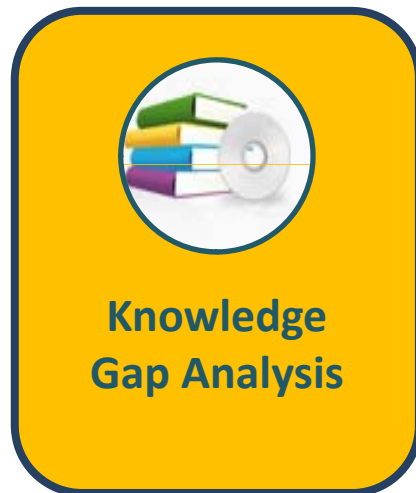
Stéphane Hallegatte, Office of the Chief Economist, SDN, The World Bank



GGKP's mission is to:

- i. enhance and expand efforts to identify and address major knowledge gaps in green growth theory and practice, and
- ii. help countries design and implement policies to move toward a green economy

through four main sets of activities:



Knowledge Creation and Dialogue





Knowledge for sustainable development

The Green Growth Knowledge Platform is a global network of researchers and development experts that identifies and addresses major knowledge gaps in green growth theory and practice. Through widespread consultation and world-class research, GGKP provides practitioners and policymakers with better tools to transition to a green economy and implement sustainable development.



GGKP already comprises two research programs, with several more on the way. [more](#)



Throughout the remainder of 2011, the GGKP will roll out a series of collaboration and discussion tools. Sign up for our email list to stay up-to-date.



From conferences and workshops to policy and projects, come back soon to learn about green growth initiatives around the world.



Several GGKP partners have already issued major reports on green growth and green economy. [more](#)

Inaugural GGKP Conference

GGKP will host its inaugural conference in January 2012 in Mexico City. The conference will assess the state of knowledge on green growth and yield an ambitious agenda for further practical research. We are partnering with the [Instituto Nacional de Ecología \(INE\)](#) of Mexico to organize the conference.

Get involved!

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Inclusive Green Growth

The Pathway to Sustainable Development

<http://www.worldbank.org/inclusivegreengrowth>



THE WORLD BANK

Green growth is...

...economic growth that is environmentally sustainable.

It is not a new paradigm, but aims to operationalize sustainable development by enabling developing countries to achieve robust growth without locking themselves into unsustainable patterns.

Green growth policies need to focus on what is required in the next 5-10 years to avoid lock-in and irreversible environmental damage.

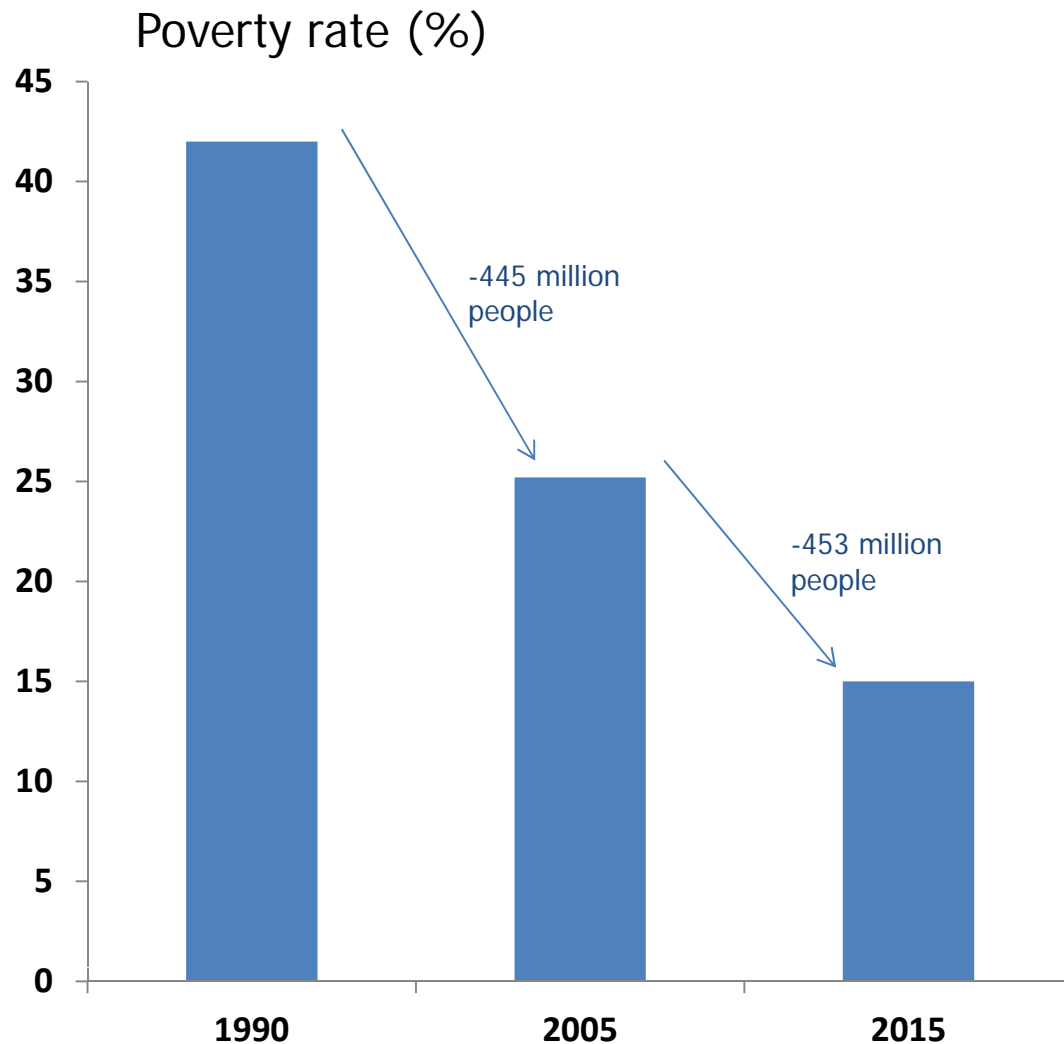
Inclusive Green Growth

1. Necessary
2. Efficient and thus affordable
3. Affordable but challenging

1. Necessary

**MAKING DEVELOPMENT SUSTAINABLE
REQUIRES GREENING GROWTH**

Continued and more inclusive growth is needed



- GDP per capita still very low in developing countries:

1990: \$1,200

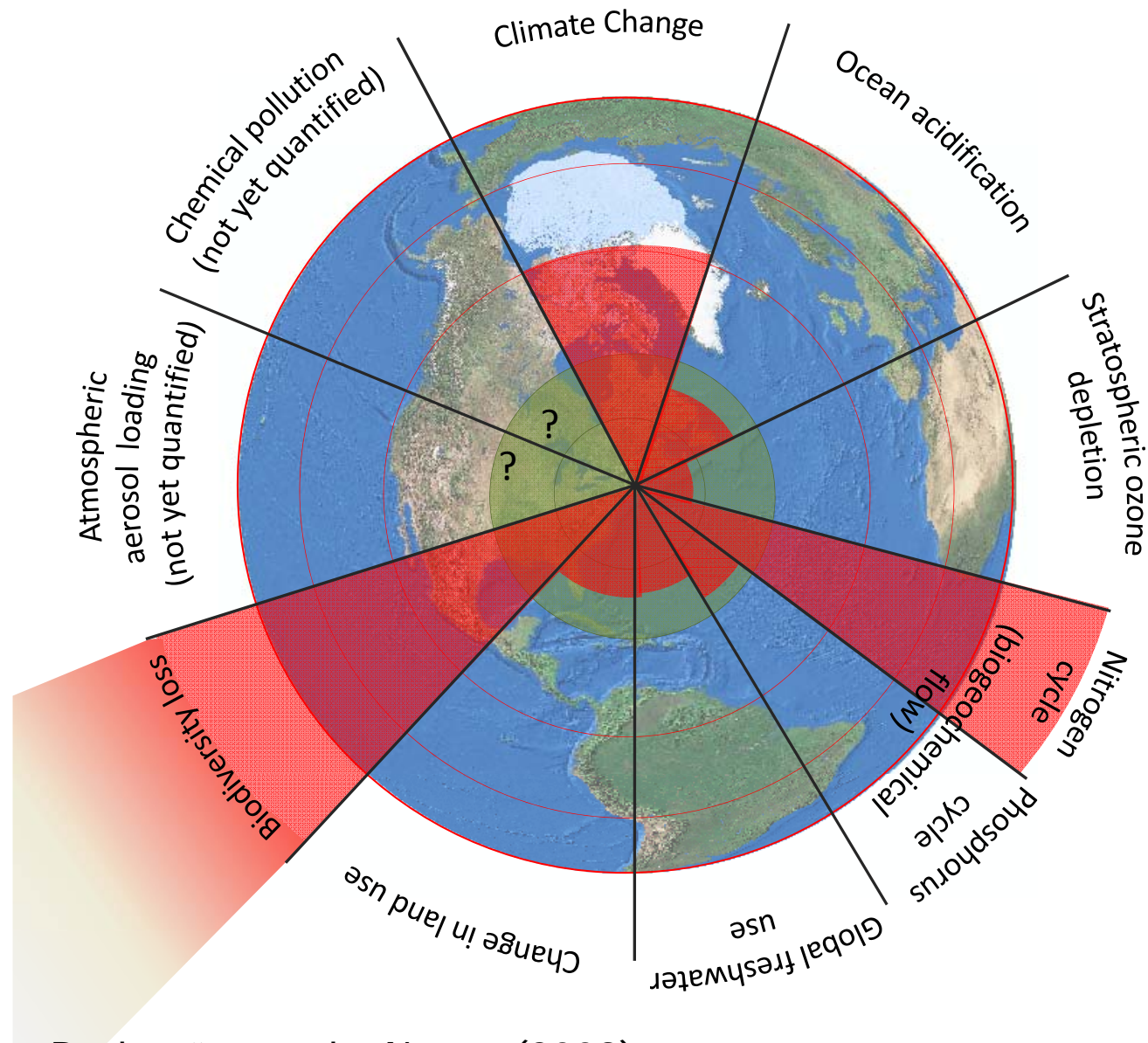
2010: \$2,300

2030: \$4,700*

- 918 million people still expected to live in poverty by 2015

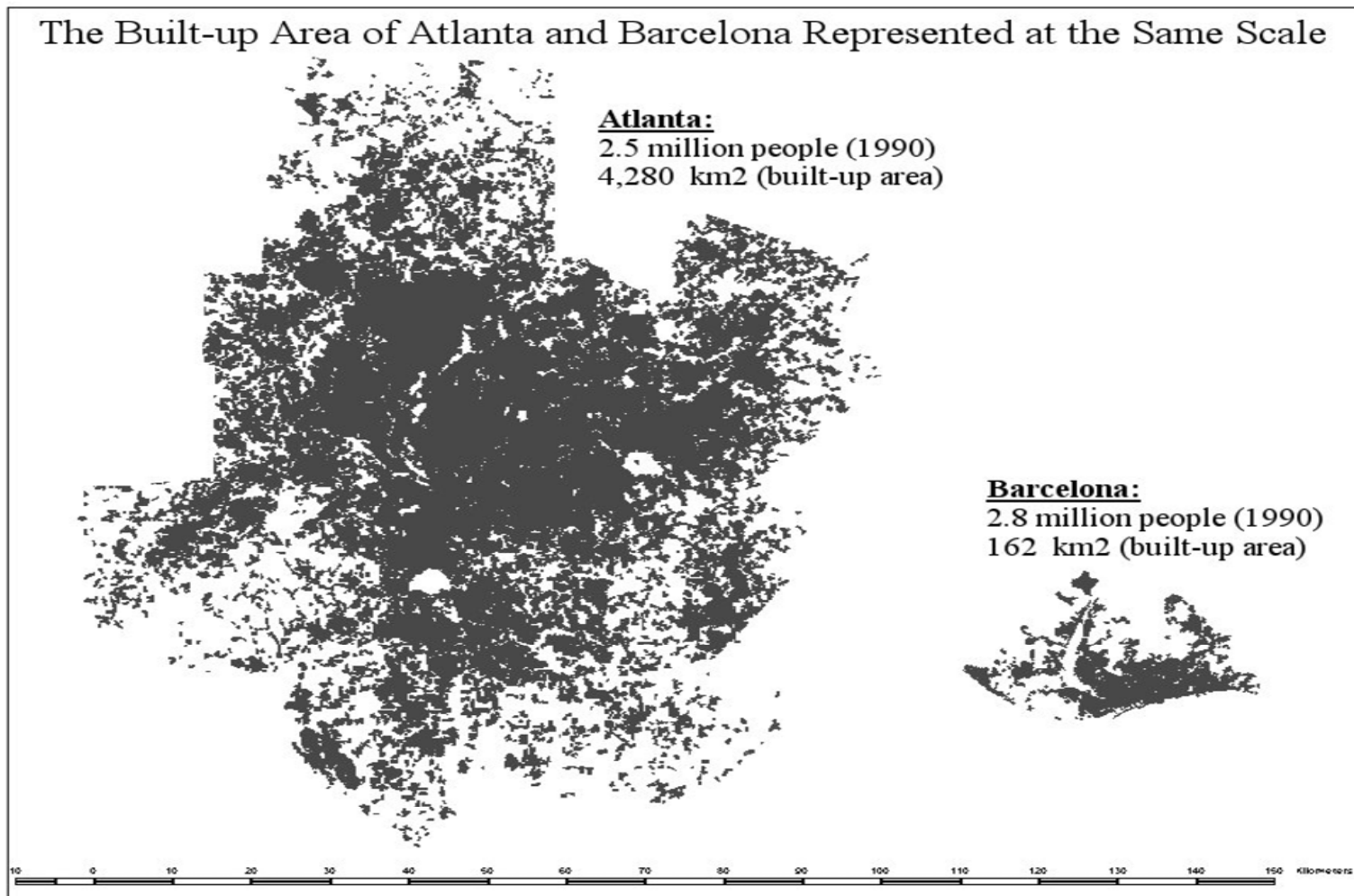
*: in \$2010, using WB growth projections

Environmental: General degradation



Source: Rockström et al., *Nature* (2009)

“Grow dirty and clean up later”
does not work for everything...



2. Efficient and thus affordable

**CURRENT INEFFICIENCIES CREATE
OPPORTUNITIES TO GREEN GROWTH**

Starting from growth theory...

$$Y = \gamma f(A, K, L, E)$$

The function f describes the production frontier.

The production frontier depends on technologies, physical capital, human (and social) capital, and natural capital E .

Production depends on the efficiency γ ($0 < \gamma < 1$) of the production system.

Environmental policies can increase “production factors”

$$Y = y f (A, K, L, E)$$

Loess plateau - before





Environmental policies, competitiveness and jobs

$$Y = y f (A, K, L, E)$$

Environmental policies:

- lead to innovation
- cost less than expected and can improve productivity
- impacts vary across industries

No “green job” miracle

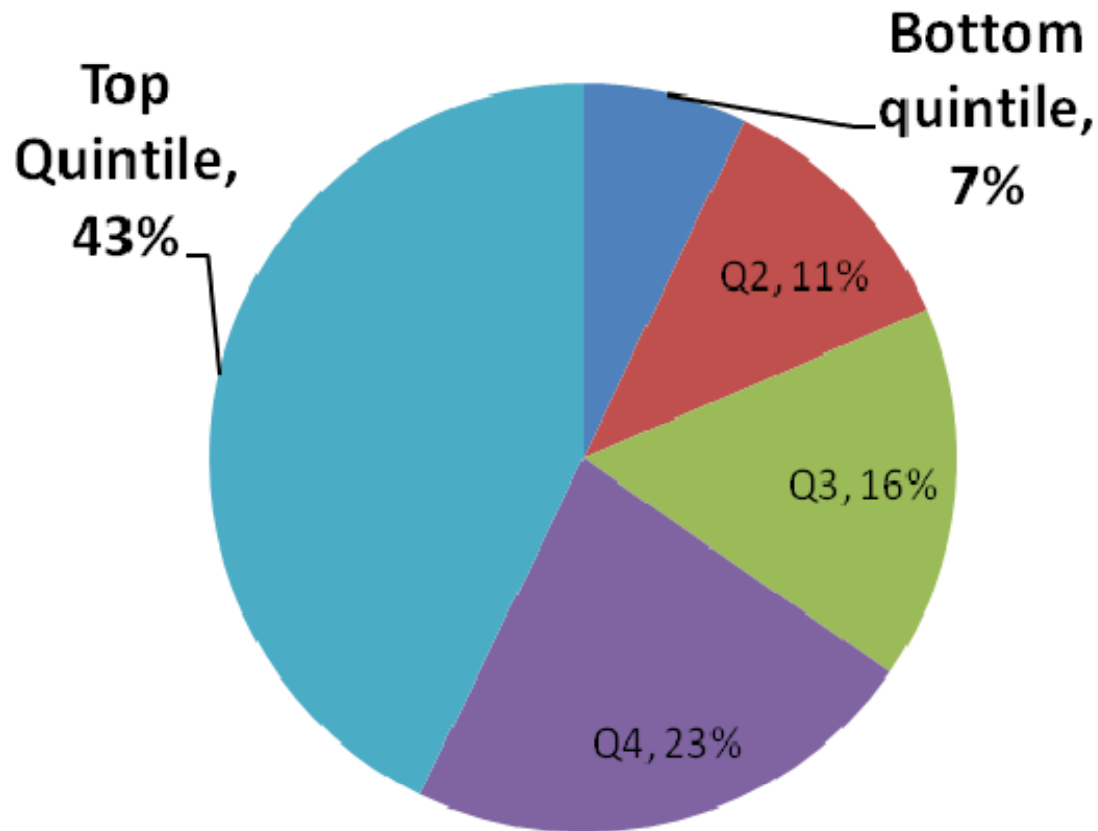
(especially if other inefficiencies are not corrected),

But environmental policies are no “job killers”

The poor need not be hurt

Replacing fuel subsidies with better targeted safety nets helps the poor

Average distribution of energy consumption subsidy benefit across 20 countries



3. Affordable but challenging

**POLITICAL ECONOMY, ENTRENCHED
BEHAVIORS, AND FINANCIAL NEEDS**

Focus on what's urgent and entails more positive local co-benefits

Co-benefits Inertia/ Irreversibility risk	Trade-offs (to be considered at higher level of income or paid for by external funds)	Synergies (attractive regardless of income, provided that financial mechanism can be found)
Lower inertia and irreversibility risk (i.e. action is not urgent)	<ul style="list-style-type: none"> • Lower-carbon, higher-cost energy supply • Stricter wastewater regulation 	<ul style="list-style-type: none"> • Drinking water and sanitation • Lower-carbon, lower-cost energy supply • Loss reduction in supply • Demand management
Higher inertia and irreversibility risk (i.e. action in urgent)	<ul style="list-style-type: none"> • Reduced deforestation • Coastal zone protection 	<ul style="list-style-type: none"> • Land use planning • Public urban transport • Fisheries catch management

Influence behaviors and social norms

- **Get “prices” right**
- But understand their limitations:
 - Create alternatives to improve price elasticity
 - Address market imperfections
 - Political economy constraints
- Combine with regulations
- Combine with “nudging”



Innovative finance and green industrial policies

- Even when investments pay for themselves... they imply additional financing needs.
- Need for new sources, but also project preparation finance, better cost recovery, and risk-management schemes.
- After due analysis and with care, support to specific technologies or sunrise industries is needed.



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