



Division of Technology, Industry,
and Economics
Economics and Trade Branch



Achieving Sustainability in the Fishery Sector

A Green Economy Perspective

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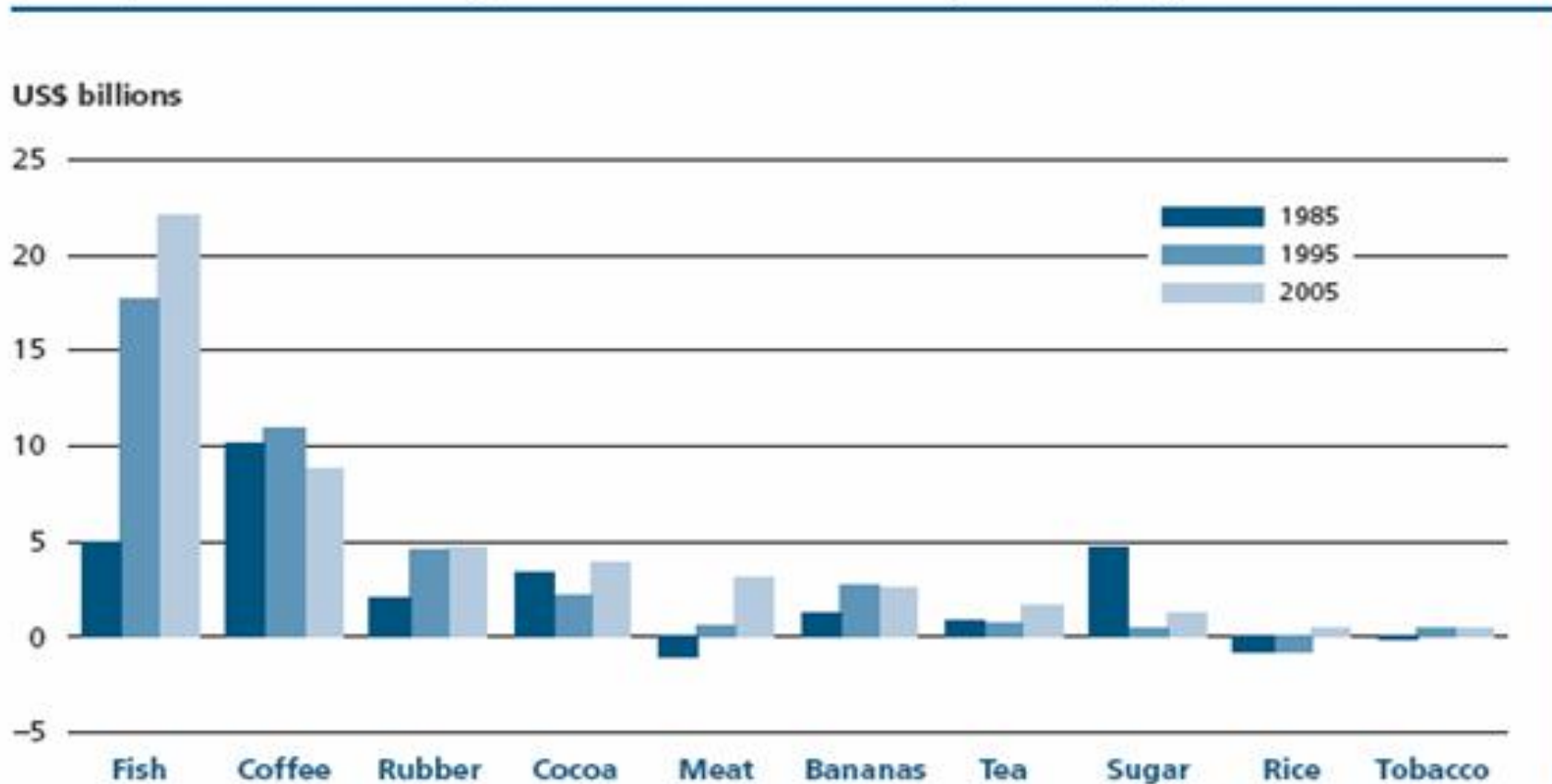
Livelihoods and Wealth Creation

- 144 nations possess marine fisheries
- Primary source of animal protein to nearly 1 bn people (20% of global population)
- 79% of world fishery production takes place in developing countries
- 37% of production is traded, more than half from developing countries
- 35 million people derive income from fishing, 170 million if post-fishing activities are included



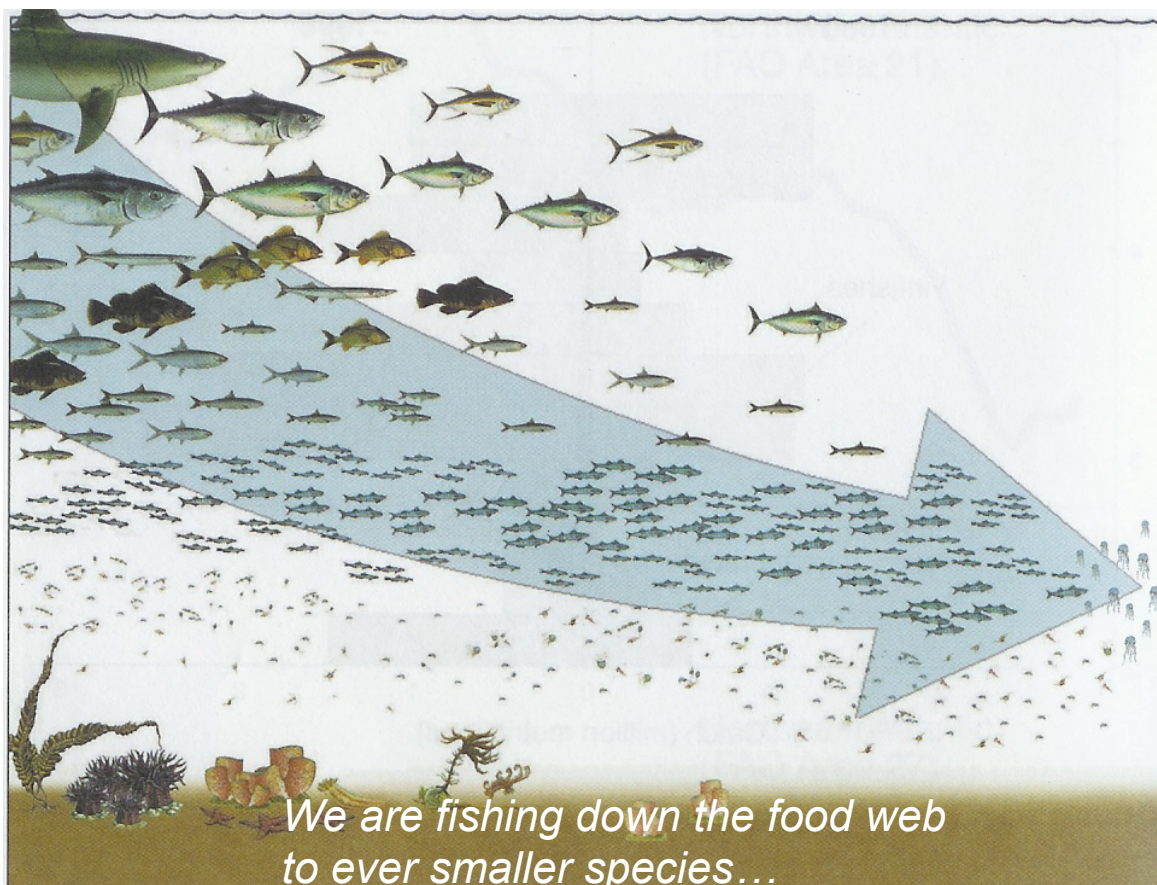
Fish is a Key Trade Commodity for Developing Countries

Net exports of selected agricultural commodities by developing countries



Source: FAO (2008). State of the World Fisheries and Aquaculture.

Current practice: Fishing Down the Food Web



- ❑ Open Access & Perverse Subsidies are key drivers of the loss of fisheries
- ❑ Half of wild marine fisheries are fully exploited, with a further quarter already over-exploited
- ❑ *At risk : \$ 80-100 billion income from the sector*

At risk : Health ... over a billion rely on fish as their main or sole source of animal protein, especially in developing countries.

Source: Ben ten Brink (MNP) presentation at the Workshop: *The Economics of the Global Loss of Biological Diversity* 5-6 March 2008, Brussels, Belgium. Original source: Pauly

Underperforming Assets

- The total value added from global fisheries was \$17 billion in 2005;
- Global marine fisheries are currently underperforming in economic and social terms.
- The sector is subsidized by \$27 billion.
- Main problems:
 - Stock depletion
 - Overcapacity
 - The loss of potential economic benefits in global fishery estimated at \$ 50 bn p.a.

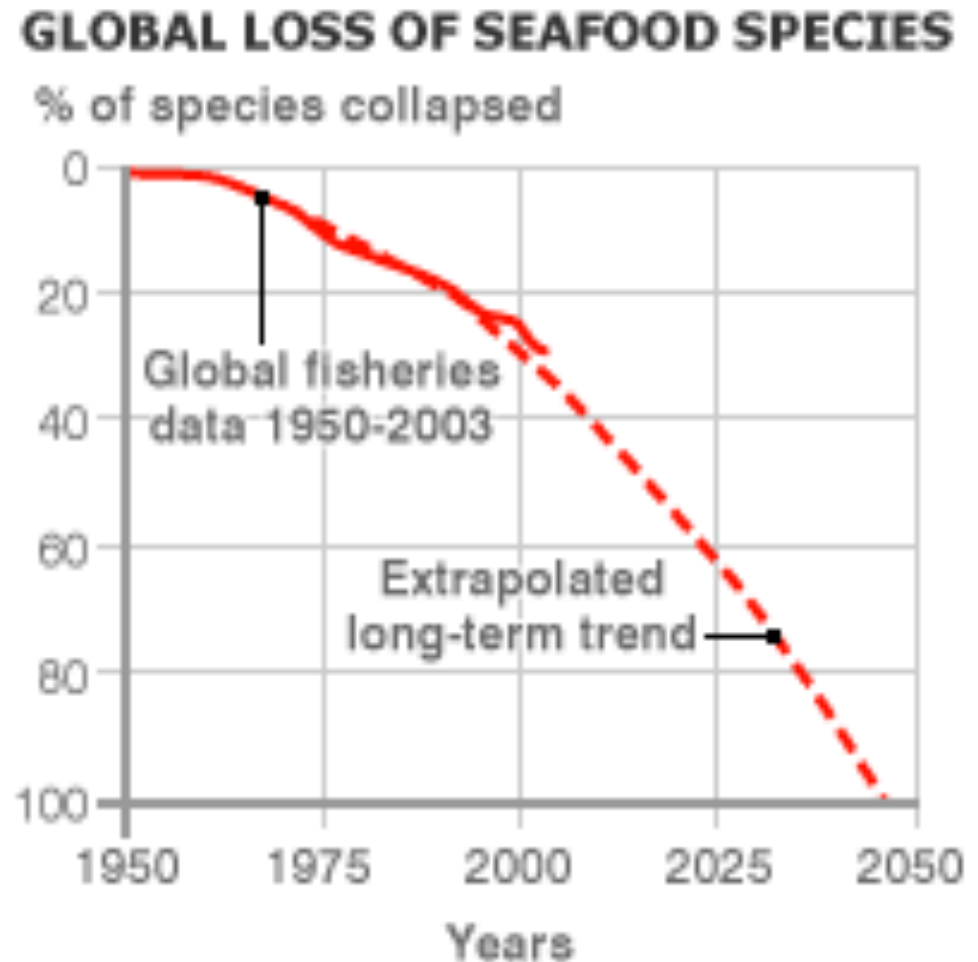
Fisheries Subsidies

World total (US\$ billions)	
Good	7.9
Bad	16.2
Ugly	3.0
Total	27.1

Heading Towards a Collapse of Global Fisheries

Most of commercial fish stocks are overexploited and threatened (80%):

- 19% overexploited
- 52% fully exploited
- 8% significantly depleted
- 1% recovering FAO (2008)



*Science Article Nov 2006:
Threat of Collapse by 2048*

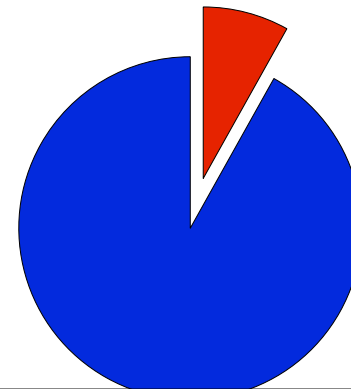
Greening the Fishery Sector

Costs and Returns on Investment

Measurement and Valuation: Counting the Wealth of Nations

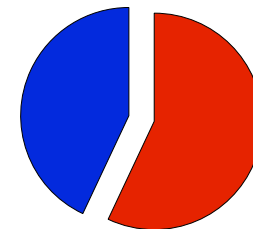
India Example: 480 Million people earn their livelihood mainly in small farming, animal husbandry, informal forestry, fisheries ...

Ecosystem services / classical GDP



7.3 %

Ecosystem services/ "GDP of the Poor"



57 %

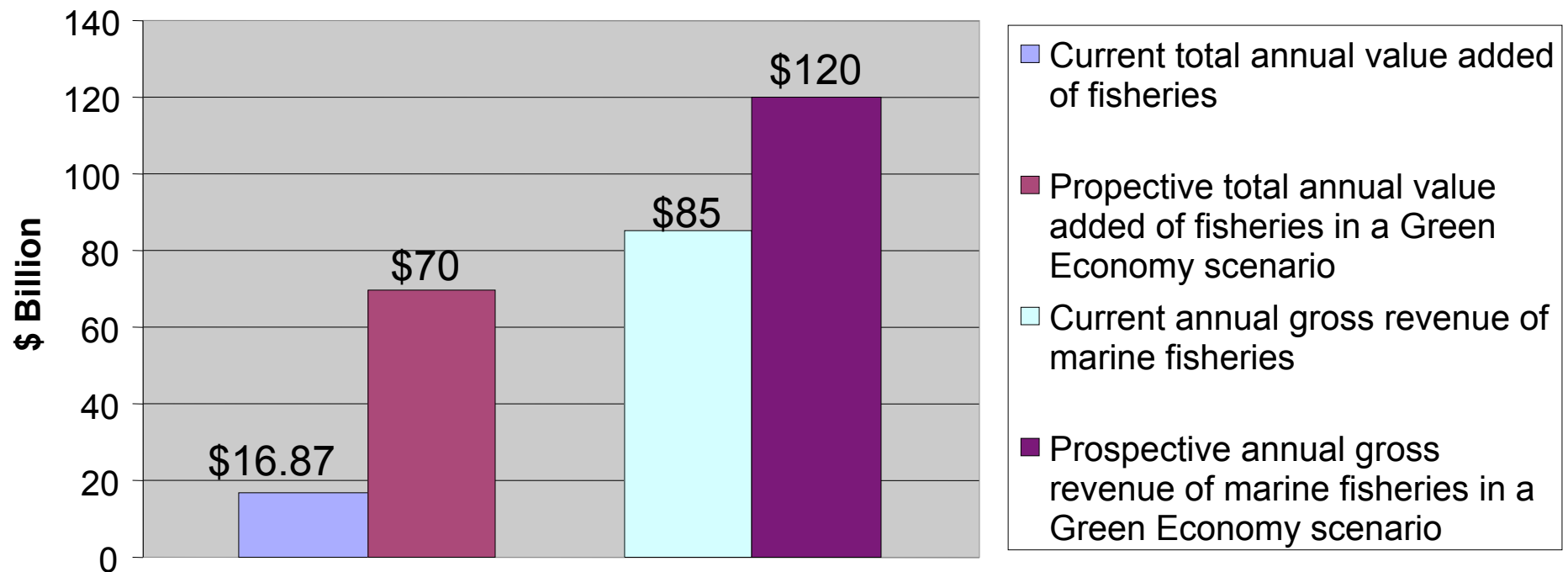
Source: GIST's Green Accounting for Indian States Project, 2002-03 data

Investment: Addressing Excess Capacity

- 20 millions vessels in operation globally
- Reducing the over-capacity could be achieved.
 - careful targeting of the most ecologically damaging surplus capacity,
 - livelihoods of artisanal and poor are treated equitably.
- An estimated total investment needed to reduce fishing capacity to maximum sustainable yield would be between \$220- 320 billion worldwide.

Annual value added and gross revenue of marine today versus in a Green Economy scenario (\$ bn)

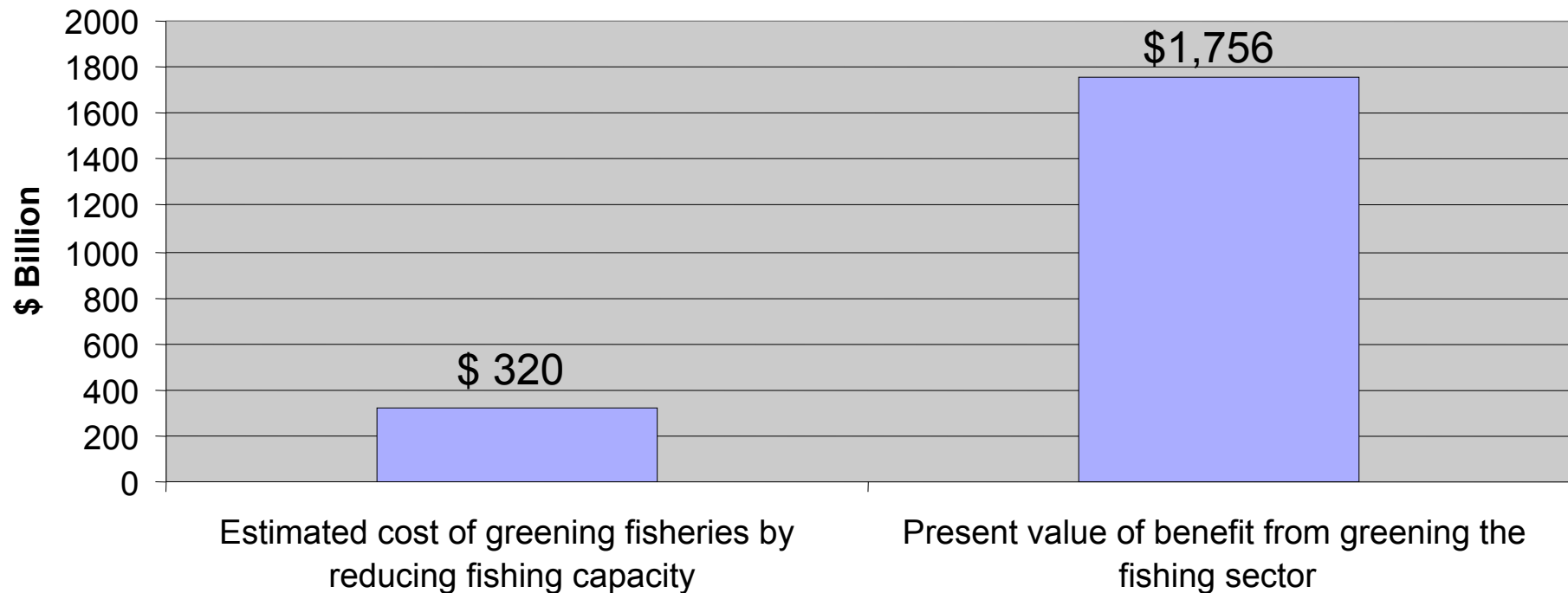
Source: Green Economy Report, UNEP, 2011



Costs of greening fisheries versus present value of benefits from greening

Estimated cost and benefits of greening fisheries (\$ bn)

Source: Green Economy Report, UNEP, 2011



The Benefits of Greening Fisheries

- Rebuilding depleted stocks and putting in place effective management could increase marine fisheries catch from about 80 million tonnes to an estimated 112 million tonnes a year.
- Generate a total catch value of about \$119 billion a year, against the current \$85 billion.
- Greening the fisheries sector will lead to an increase in net gains (added value) globally from \$16.87 bn to \$69.56 bn a year. This is a net increase of \$52.69 bn a year.

Financial requirements

- Adapt fishing fleet including removing excess capacity;
- Promote use of appropriate fishing gear.
- Easing bad subsidies, resettling, re-training and compensating especially in DCs.
- Strengthening markets in fisheries products.
- Promoting partnerships between researchers and fishers.

Green Economy Advisory Services



- Technical assistance to countries **seeking to make a transition to a Green Economy**
- Rapid response to countries with **strong commitment** to Green Economy

Supporting the development of strategies to green national economies building on national development priorities, forging extensive partnerships, and enhancing analytical capacities in countries.

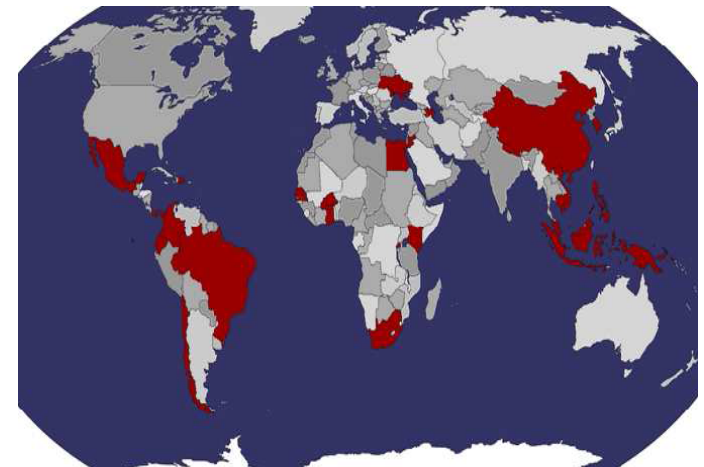
Advisory Services - Current Engagement

Action completed

- **Asia:** East Asia Low-carbon Green Growth Report as an input to East Asia Forum
- **China:** Green Economy Forum, Green Economy in Chongqing City – starting sectoral studies under a 2nd phase China project, to feed into 2011-2015 plan

2010 – 2011 rollout countries

- **Rep. Korea:** Review of Green Growth Plan
- **Africa:** Regional project (Burkina Faso, Egypt, Ghana, Kenya, Rwanda, Senegal, South Africa)
- **East Asia:** Indonesia, PNG, Philippines
- **Europe:** Armenia, Moldova, Ukraine; Azerbaijan
- **Latin America and Caribbean:** Barbados, Brazil, Mexico – seeking to launch a regional initiative in the Caribbean
- **West Asia:** Jordan, League of Arab States





More Information



UNEP Green Economy Website

<http://www.unep.org/greeneconomy/>