



# Investing in the Green Economy

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World Forum on Sustainable Economy

Lille, 19 November 2009

A multidimensional crisis rooted  
in patterns of development

# Multiple Crises

- **Fuel and food crises - 950 million people worldwide at risk of hunger and malnutrition**
- **Financial and economic crisis - threatening jobs worldwide & poverty reduction gains**
- **Decline in trade, investment, ODA and foreign remittances**
- **1% fall in growth can translate into 20 million people in poverty**
- **200 million jobs lost between 2007 and 2009**
- **Climate crisis – exacerbating the others**

# On a business as usual path...

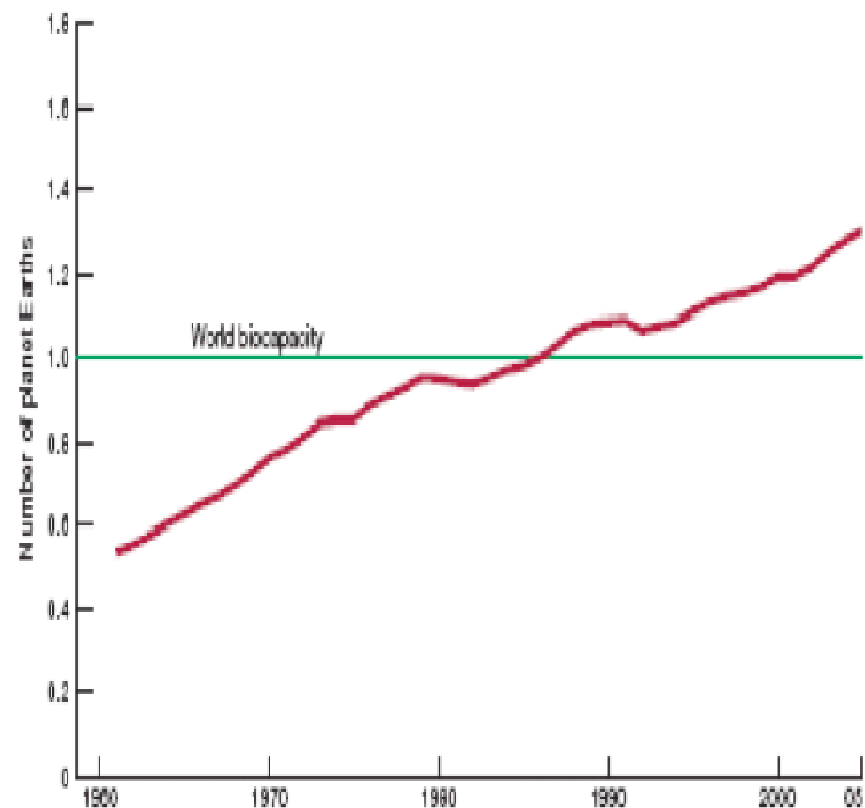
## By 2030...

- Global energy demand up by 45%
- Oil price up to USD 180 per barrel
- GHG emissions up 45%
- Global average temperature up 6°C
- Sustained losses equivalent to 5-10% of global GDP as compared to the 3% of GDP loss from the current financial crisis
- Poor countries will suffer costs in excess of 10% of their GDP

# Discounting Natural Capital

- 1981 – 2005: global GDP more than doubled, but 60% of world's ecosystems degraded/exploited unsustainably (MEA, 2005)
- Global GHG emissions at 42 GtCO<sub>2</sub> per annum are 5 times higher than the Earth can absorb ...
- 'Ecological Footprint' exceeds Earth's regenerative capacity...

Fig. 2: HUMANITY'S ECOLOGICAL FOOTPRINT, 1961-2005

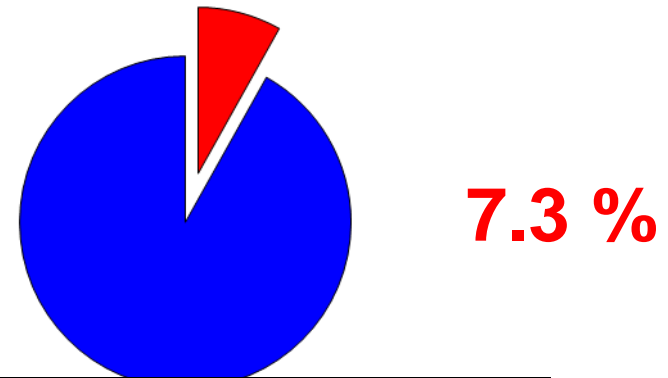


# Ecosystem Losses & Poverty

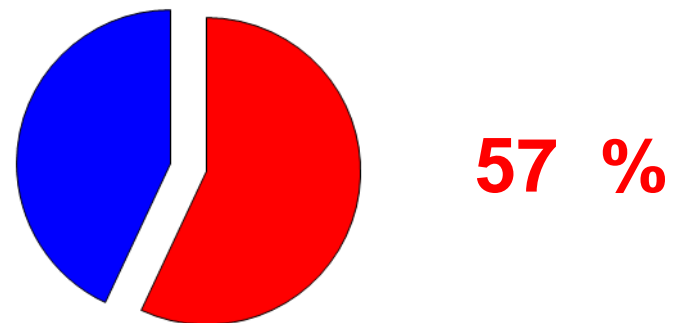
## Natural Capital in Wealth Creation

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

**Ecosystem services /  
classical GDP**

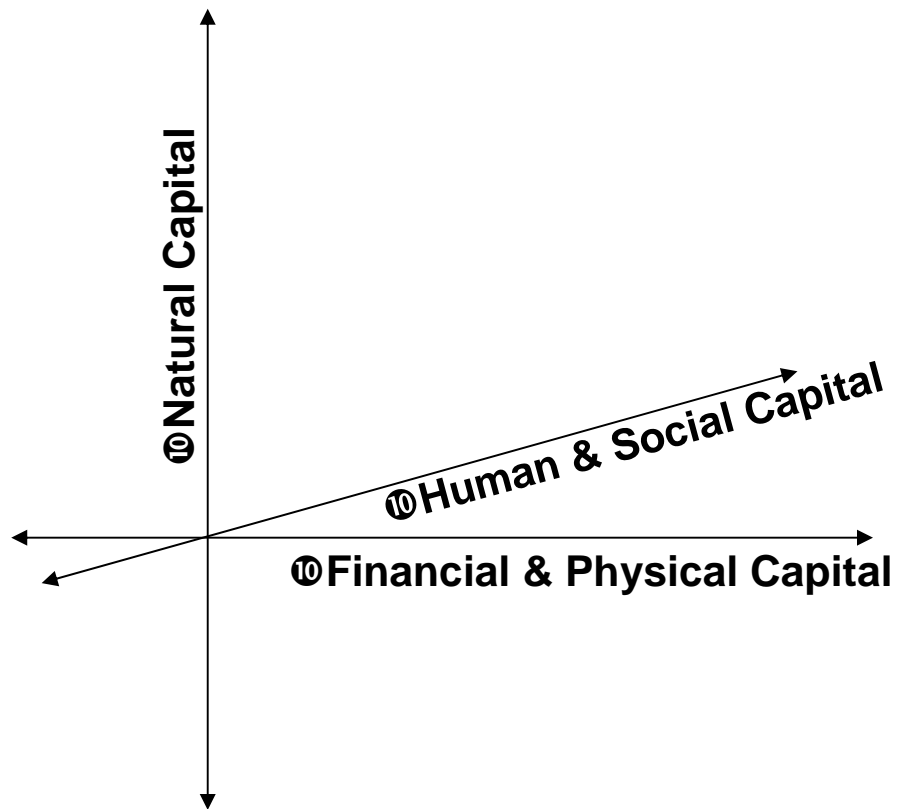


**Ecosystem services/  
“GDP of the Poor”**



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

# Our Capital Space... and our Economic Compass...



**“We cannot manage what we do not measure”**

Opportunity Amid Crisis

# The Global Green New Deal

- Revive the world economy, create new and decent jobs, and protect the vulnerable
- Reduce carbon dependency, ecosystem degradation, and water scarcity - 1% of GDP in green sectors over two years
- Eliminate persistent poverty by 2015...achieve the MDGs
- Seed a process of transformative change by rebalancing financial and economic capital, human capital and natural capital

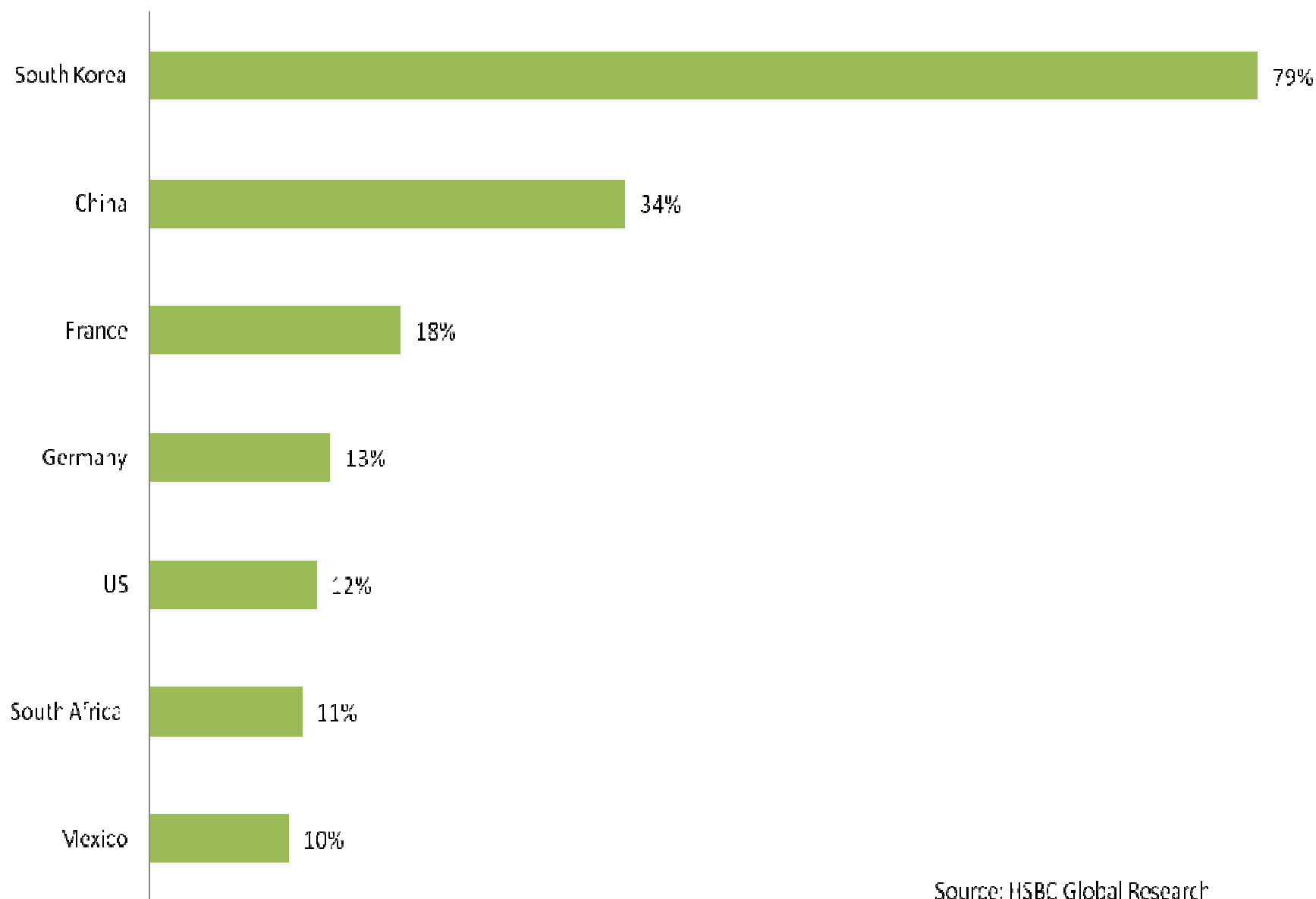
**From** : “Rethinking the Economic Recovery: A Global Green New Deal”, UNEP, Feb 2009

# Green Stimulus Slow to Materialise

Country	Stimulus \$bn	% of GDP/GNI	Green Stimulus \$bn	% of green stimulus	Green stimulus as % of GDP
Australia	26.7	2.49	2.5	9%	0.2
China	586.1	13.88	221.3	38%	5.2
Japan	485.9	10.03	12.4	3%	0.3
Korea, Rep	38.1	4.44	30.7	81%	3.6
France	33.7	1.12	7.1	21%	0.2
Germany	104.8	2.74	13.8	13%	0.4
UK	30.4	1.09	2.1	7%	0.1
US ARRA	787	5.27	94.1	12%	0.6
US EESA	185	1.29	18.2	10%	0.1
Canada	31.8	2.03	2.6	8%	0.2

source: HSCB 2009, UNEP

## Green Stimulus Ranking as % of Total Stimulus of August 2009 (UNEP GGND Update to the G20 - September 2009)



Source: HSBC Global Research

# Global Green New Deal Components

## **International Policy Architecture**

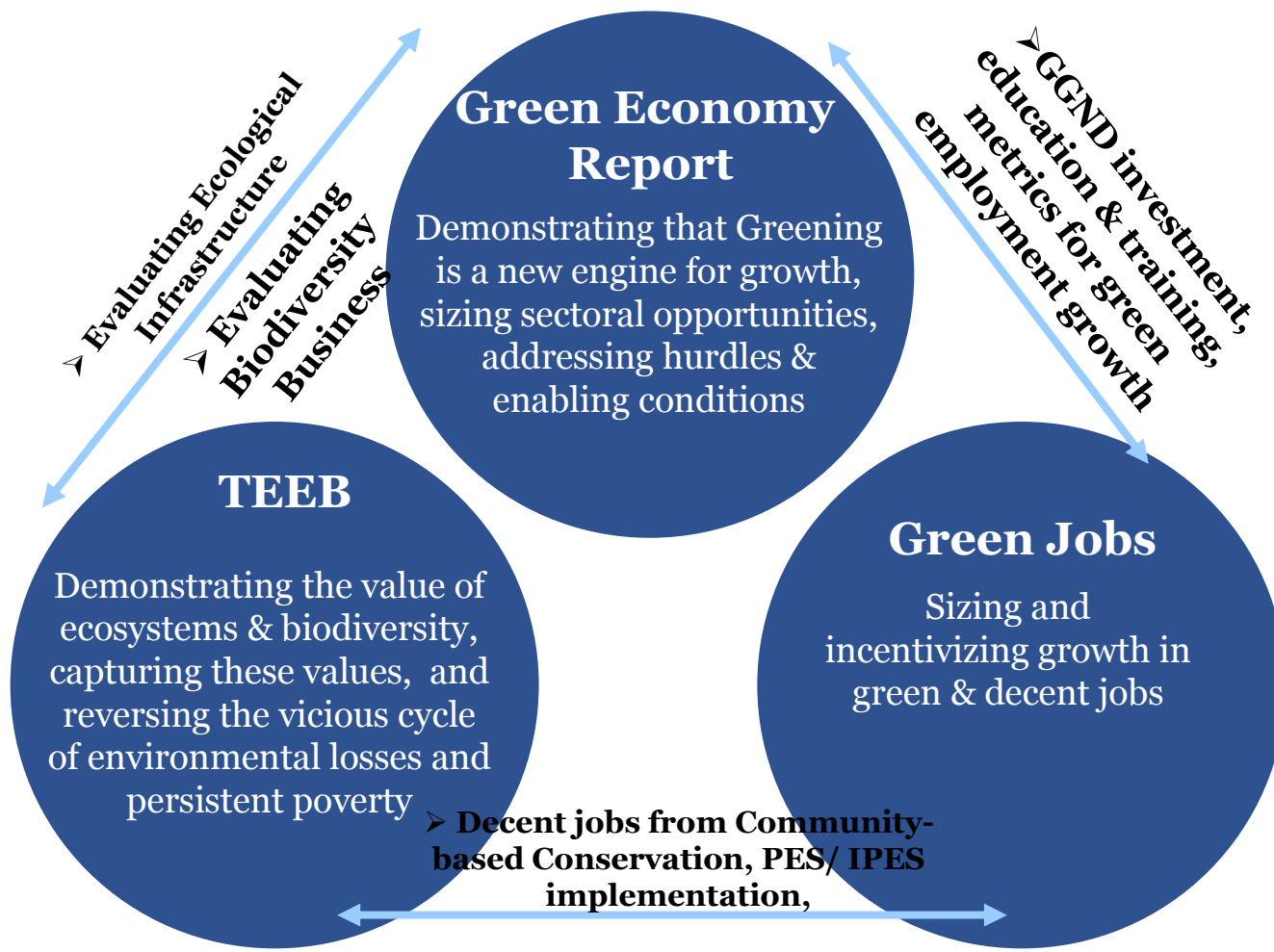
- **International Trade**
- **International Aid**
- **Global Carbon Market**
- **Global Markets for Ecosystems Services**
- **Development and Transfer of Technology**

## **Domestic Policy Initiatives**

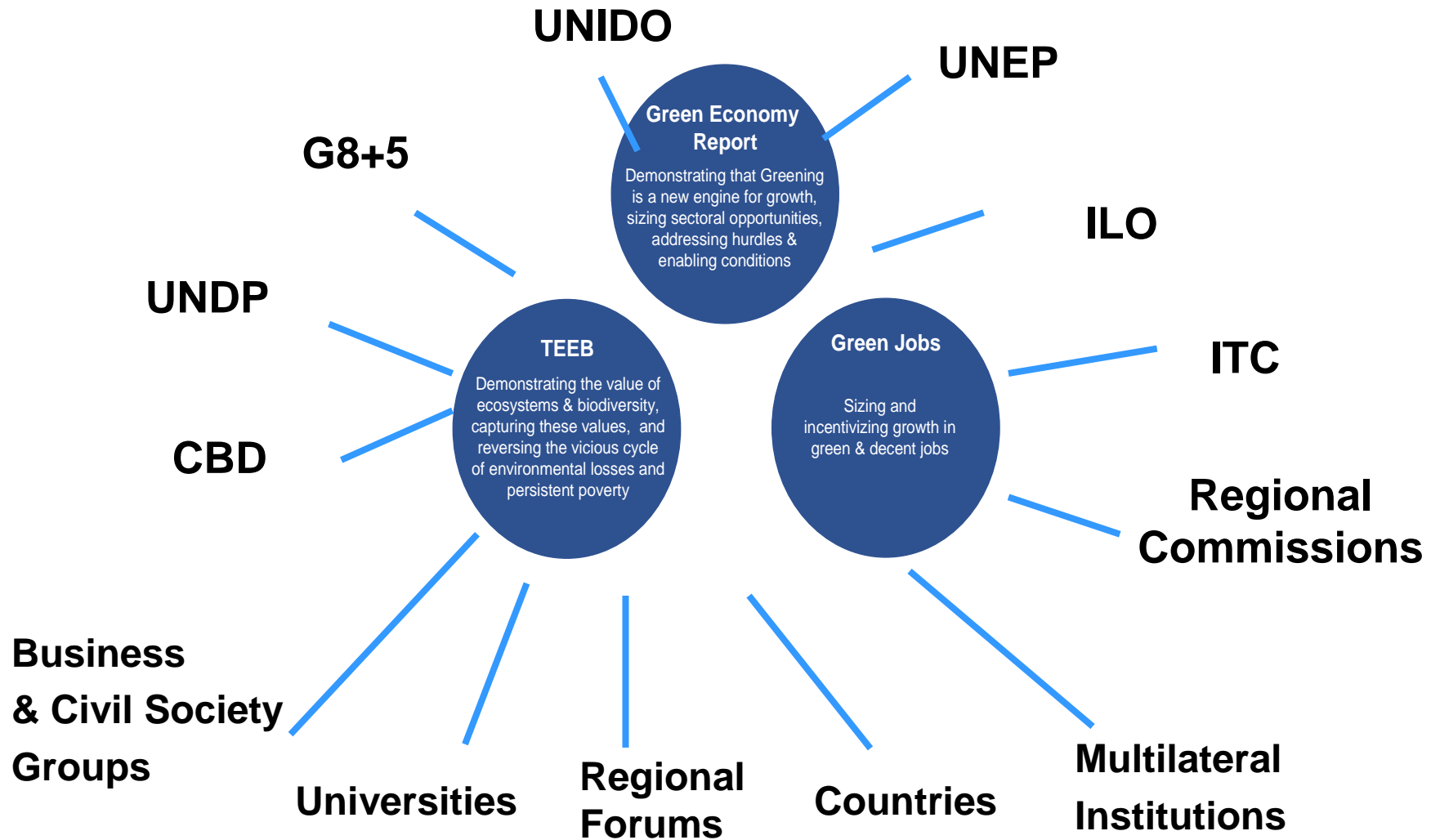
- **Perverse Subsidies**
- **Incentives & Taxes**
- **Land Use and Urban Policy**
- **Integrated Management of Freshwater**
- **Environmental Legislation**
- **Monitoring and Accountability**

# Making the Economic Case for Reform and Transition to a Green Economy

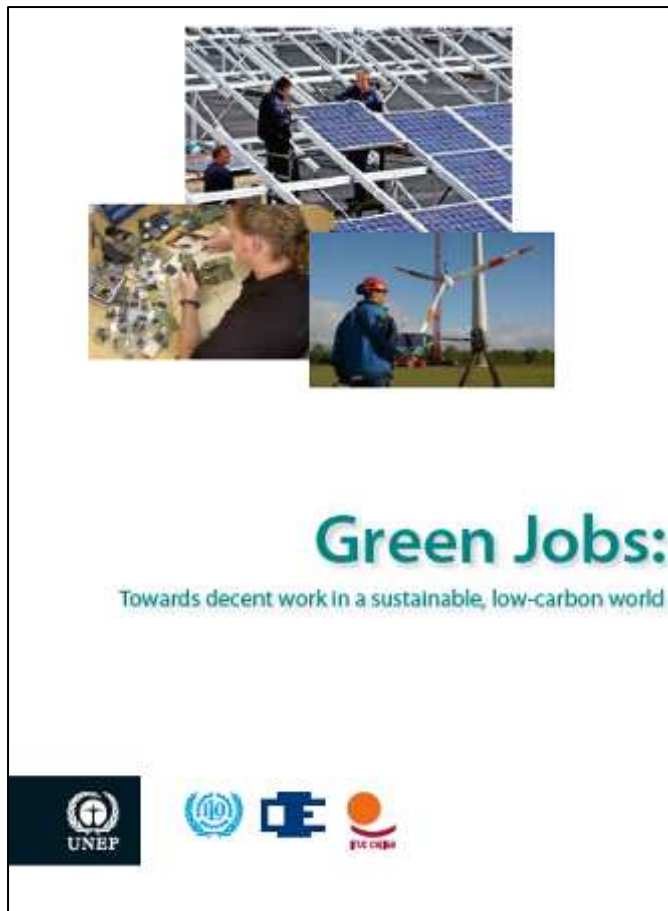
# The Green Economy Initiative



# A Wide Global Network



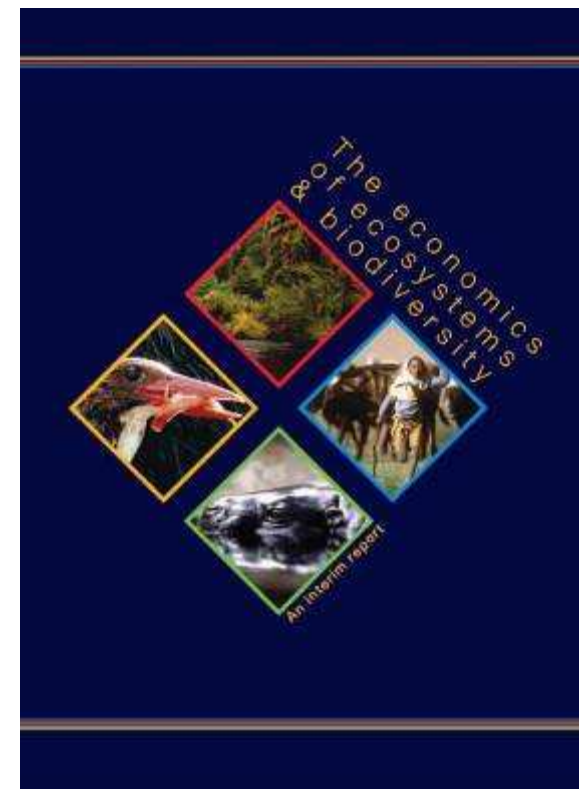
# Green Jobs



- “Where capital flows today, jobs follow tomorrow”
- How does ‘greening’ impact employment ?
- What are the key sectors at risk ? What are the key sectors of opportunity ? What is the net change?

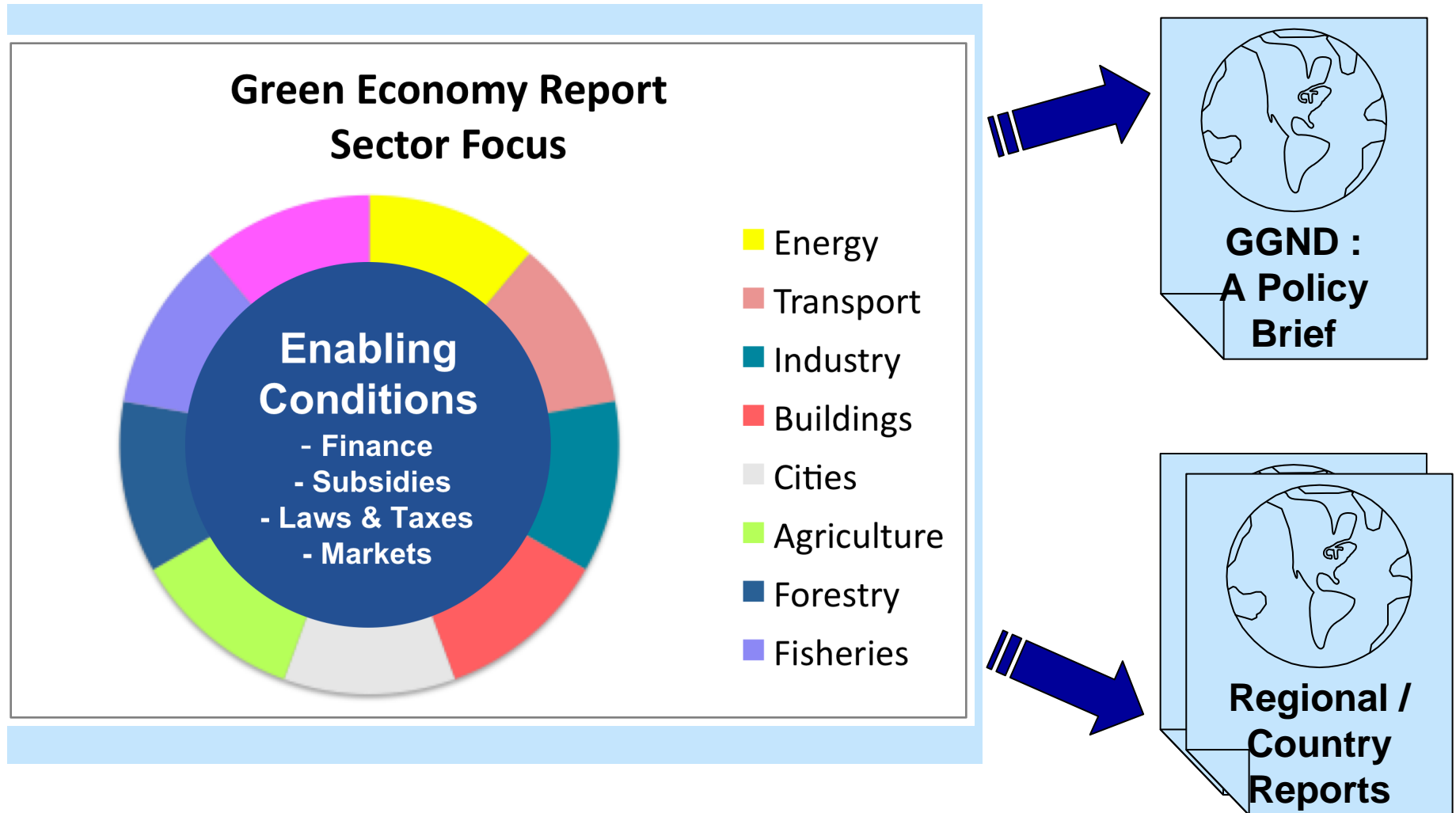
# The Economics of Ecosystems and Biodiversity (TEEB)

- Economic size & welfare impact of losses is huge
- Strong link with poverty & risk of MDG's failure
- Discount rates are ethical choices



# Green Economy Report

## Making the Economic Case for Reform



# Challenges facing Agriculture Today

- **Declining productivity:** Globally, the growth rate of agricultural productivity is declining, and climate change will exacerbate this trend.
- **Water:** Agriculture accounts for 70 per cent of global freshwater use and is also responsible for most surface water pollution.
- **Climate change:** About 13% of global greenhouse gas emissions come from agriculture, mainly due to its heavy reliance on nitrogen fertilizers.
- **Subsidies:** Agricultural production is dependent on subsidies, particularly in developed economies. In 2008, agricultural subsidies in OECD countries amounted to US\$265 Bn.
- **Prices:** Food prices have been instable, driven in hikes by fuels prices
- **Land:** Land scarcity and land degradation, declining soil fertility and increasing erosion are leading to desertification.

# Green Economy Opportunities

- **Productivity:** 114 cases of conversion to organic/near organic in Africa showed 116% increase in productivity.
- **Market:** Global trade of organic reached US\$50 billion.
- **Economic gains:** 97% of revenues generated in Europe/North America; more than 80% of producers are in Africa, Asia and Latin America.
- **Employment:** 30% more jobs per ha than non-organic in East Africa; 178,000 new jobs in Mexico.
- **Environment:** CO2 emissions per ha 48% to 68% lower. High potential for sectoral CDMs and other carbon finance

# Areas for Green Investment

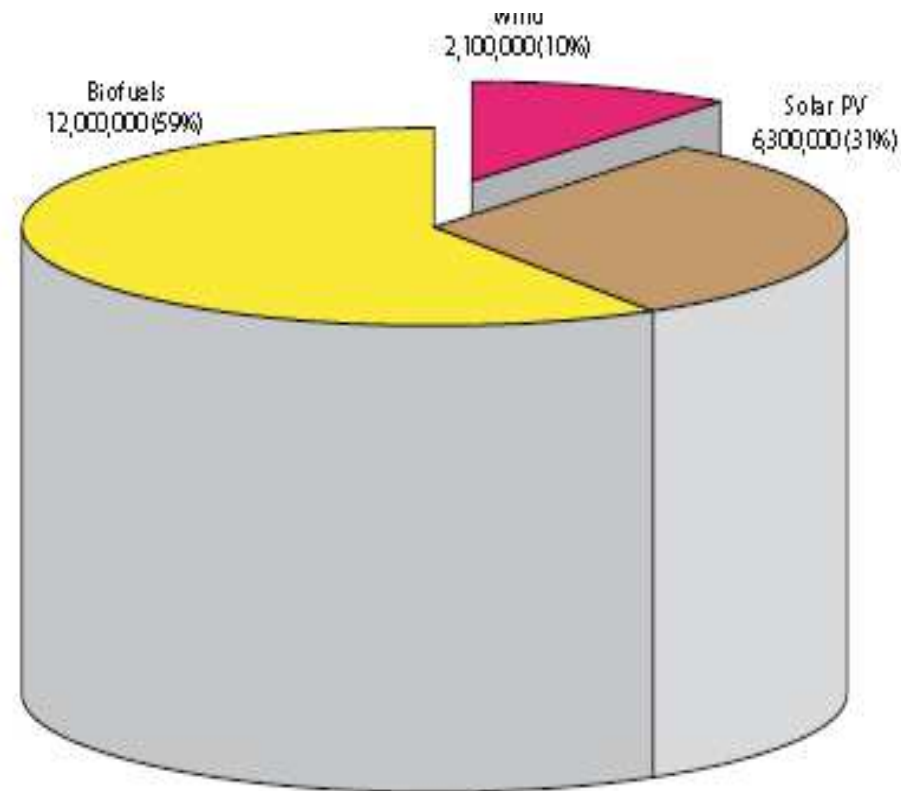
- Storage and transport infrastructure, to reduce post-harvest losses;
- Value addition by processing of harvested produce;
- Infrastructure for production, marketing and trade in organic fertilizers and biological and integrated pest control methods;
- Improving irrigation infrastructure and its efficiency,
- Green Banks and/or micro-credit for farmers and SMEs.

# Challenges facing Energy

- **Energy security:** Current patterns of energy production and distribution still leaving billions without access to modern forms of energy; global stress about future energy supply.
- **Climate change:** About 25% of global greenhouse gas emissions come from the power sector, all energy-related emissions would account for half of GHG emissions.
- **Health:** Energy related pollution is responsible for more death than malaria and tuberculosis combined.
- **Subsidies:** Global energy subsidies range from US\$240 to US\$310 billion/year or around 0.7% of global GDP, but there is inadequate support for renewable energy development.
- **Prices:** Unstable prices affecting food prices and government revenue.

# Green Economy Opportunities

- About 2.3 million jobs in renewable energy sector in comparison to 2 m employed in oil & gas refining industry in '99.
- Globally, investing US\$630 bn in the renewable energy sector by 2030 would create 20 million additional jobs:
  - 2.1 million in wind energy
  - 6.3 million in solar PV
  - 12 million in bioenergy



Green Jobs in Renewable energy, 2030

# Green Buildings



- Investments in improved energy efficient buildings = 2-3.5m jobs in Europe & USA.
- Germany retrofitting existing housing stocks to improve energy efficiency. So far, over 200,000 apartments retrofitted, 25,000 new jobs created and 116,000 existing jobs sustained.
- In Australia a proposed US\$ 3b green housing over 4 years is expected to reduce GHG emissions by 3.8mtons/year = 160,000 jobs

# Green buildings

- Eastgate building in Zimbabwe uses less than 10% of the energy of a conventional building its size.
- Eastgate's owners saved \$3.5 million on a \$36 million building because an air-conditioning plant didn't have to be imported.
- Rents are 20% lower than in other buildings.

Eastgate building in Zimbabwe mimics cooling mounds of termites.



*Source: Mick Pearce*

# Enabling conditions for investment in a green economy

# Buildings blocks

- Place green investment at core of fiscal stimulus
- Include green investment in regular budget
- Create public-private funding mechanisms
- Create domestic enabling conditions (fiscal/pricing policy, standards, education & training)
- Create enabling international conditions (trade, ODA, technolog transfer, IPRs, climate agreement)

# More Information

**UNEP Green Economy Website**

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

