



## Panel on Green Growth & Sustainable Development New York, 26<sup>th</sup> October, 2009

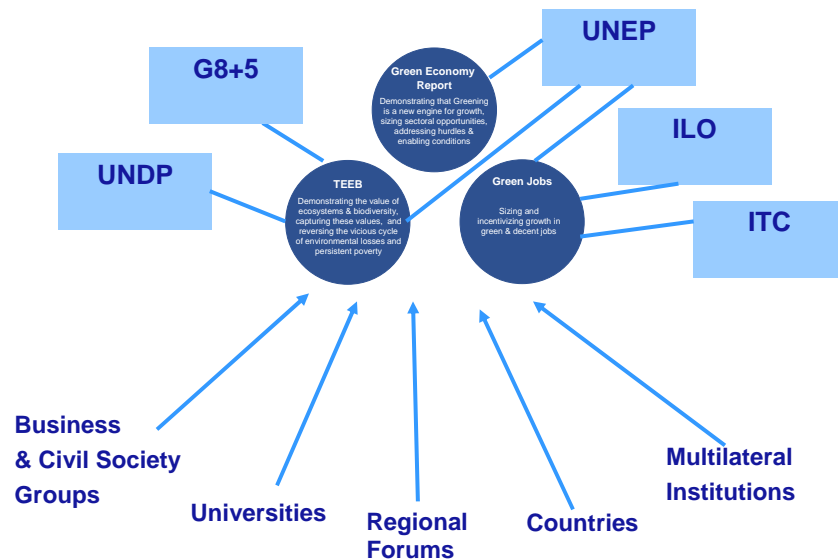
### UNEP's "Green Economy Initiative"

**Pavan Sukhdev**  
Special Adviser & Head, Green Economy Initiative  
UNEP

26.10.2009



## "Green Economy Initiative" a worldwide network of partners





## "Green Economy Initiative" a worldwide network of partners

EEA,  
ICTSD,  
IEA,  
ILO,  
IMF,  
OECD,  
UNCEB,  
UNCSD,  
UNCTAD,  
UNDESA,  
UNDP,  
UNECE,  
UNECLAC,  
UNEP,  
UNESCAP,

UNFAO,  
UNFCCC,  
UNIDO,  
UNSD,  
UNSGO,  
UN Foundation,  
World Bank,  
Center for American  
Progress,  
Pew Center,  
Peterson Institute of  
International Economics,  
Union of Concerned  
Scientists,  
World Resources Institute,  
Worldwatch Institute

De La Salle  
University,  
ECN,  
IIED,  
IISD,  
ITPS,  
KEI,  
LSE,  
Millenium Institute,  
Nagoya University,  
TERI,  
TRL,  
Universidade de Sao  
Paulo,  
University of Cape  
Town,  
University of  
Stellenboch



## UNEP's Green Economy Report

To show that Greening the Economy is..  
a new engine of "growth"  
a source of new & decent employment  
a sustainable solution to persistent poverty





## “GREEN JOBS REPORT”



- ✓ Renewable energy has more jobs than fossil fuels, and could reach 20 million jobs by 2030
- ✓ Climate change will continue to impact workers and their families, especially those dependent upon agriculture and tourism



United Nations  
Environment  
Programme



International Labour  
Organization



International  
Organisation  
of Employers



International  
Trade Union  
Confederation



## Mapping “Green Jobs” Potential..

Country	Renewable Energy	Building Energy Efficiency	Sustainable Transport	Sustainable Agriculture	Ecological Infrastructure
United States	2 million Jobs				
South Korea	171,000 Jobs	148,000 Jobs			350,000 Jobs
European Union	1 to 2 million Jobs				
United Kingdom	160,000 Jobs				
Thailand		182,000 Jobs			
Colombia				170,000 Jobs	
TOTALS...	20 million ?	..... ?	..... ?	..... ?	..... ?



## Investments in Ecological Infrastructure

Eg : SFPUC, Peninsula Watershed  
San Francisco



## Investments in Ecological Infrastructure

### Four-river restoration project





## Ecological Restoration for Adaptation



### ADAPTING TO *THREE* BIG CLIMATE IMPACTS

**1. Freshwater Scarcity** : Maintain and Restore Forests, Lakes, Wetlands

**2. Agricultural & Fisheries Productivity** : Forests for nutrients and freshwater flows, Mangroves and Coral reefs as fish nurseries, and small-scale natural buffers ( forest and grassland patches) agricultural areas

**3. Natural Hazards** : Storm & Cyclone damage reduction through Coral reefs, mangrove forests ; flood and drought damage limitation through forest cover



## Ecological Restoration for Adaptation



Table 3: Estimates of costs and benefits of restoration projects in different biomes

	Biome/Ecosystem	Typical cost of restoration (high scenario)	Estimated annual benefits from restoration (avg. scenario)	Net present value of benefits over 40 years	Internal rate of return	Benefit/cost ratio
		US\$/ha	US\$/ha	US\$/ha	%	Ratio
1	Coral reefs	542,500	129,200	1,166,000	7%	2.8
2	Coastal	232,700	73,900	935,400	11%	4.4
3	Mangroves	2,880	4,290	86,900	40%	26.4
4	Inland wetlands	33,000	14,200	171,300	12%	5.4
5	Lakes/rivers	4,000	3,800	69,700	27%	15.5
6	Tropical forests	3,450	7,000	148,700	50%	37.3
7	Other forests	2,390	1,620	26,300	20%	10.3
8	Woodland/shrubland	990	1,571	32,180	42%	28.4
9	Grasslands	260	1,010	22,600	79%	75.1

Note: Costs are based on an analysis of appropriate case studies; benefits have been calculated using a benefit transfer approach. The time horizon for the benefit calculation are 40 years (consistent with our scenario analysis horizon to 2050); Discount rate = 1%, and discount rate sensitivity by flexing to 4%, consistent with TEEB 2008). All estimates are based on ongoing analyses for TEEB (see chapter 7 TEEB DO forthcoming). As the TEEB data base and value-analysis are still under development, this table is for illustrative purposes only.



## Objectives of a Global Green New Deal

- 1 Revive the world economy, create new and decent jobs, and protect the vulnerable**
- 2 Reduce carbon dependency, ecosystem degradation, and water scarcity**
- 3 Eliminate persistent poverty by 2015.... achieve the MDG's**

From : Edward B. Barbier,  
"A Global Green New Deal",  
UNEP, Feb 2009



## Components of a Global Green New Deal

### ❖ International Policy Architecture

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

### ❖ Fiscal Stimulus in 2009-2010

- Energy Efficient Buildings
- Sustainable Transport
- Sustainable Energy
- Agriculture and Freshwater

### ❖ Domestic Policy Initiatives

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



## Components of a Global Green New Deal

**Most Important to Ensure Private Sector Investment..**

### ❖ International Policy Architecture

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

### ❖ Fiscal Stimulus in 2009-2010

- Energy Efficient Buildings
- Sustainable Transport
- Sustainable Energy
- Agriculture and Freshwater

### ❖ Domestic Policy Initiatives

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



## Objectives of a Global Green New Deal.. related to poverty

- 1 Revive the world economy, create new and decent jobs, and protect the vulnerable**
- 2 Reduce carbon dependency, ecosystem degradation, and water scarcity**
- 3 Eliminate persistent poverty by 2015.... achieve the MDG's**

From : Edward B. Barbier,  
"A Global Green New Deal",  
UNEP, Feb 2009



## Ecosystem Losses & Links to MDG's

Example : MDG # 1, 4, 5, 8...



MDG 1: Eradicate extreme poverty and hunger

MDG 8: Develop a Global Partnership for Development

MDG 5: Improve maternal health

MDG 4: Reduce child mortality

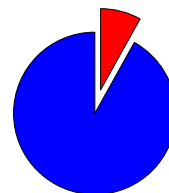


## Ecosystem Losses & Poverty

"GDP of the Poor" is most seriously impacted by ecosystem losses...

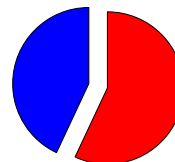
**India Example:** 480 Million people earn their livelihood mainly in small farming, animal husbandry, informal forestry, fisheries ...

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





## GND "Next Steps" : Sustained Investment in a "Green Economy"

Eg : South Korea's 5-Yr Green Growth Plan  
3 Action Plans, 10 Policy Directions, 50 Specific Projects  
2009-2013

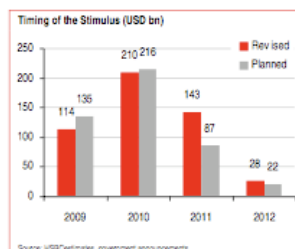
### Three action plans and 10 policy directions in Korea's 5-year green growth plan

3 Action plans	10 Policy directions
Measures for climate change and securing energy independence	1. Reduce carbon emissions
	2. Decrease energy dependence on oil and enhance energy self-sufficiency
	3. Support adapting to climate change impacts
Creation of a new growth engine	4. Develop green technologies as future growth engine
	5. Switch industry into green
	6. Develop cutting-edge industries
	7. Set up infrastructure for Green Economy – set up new tax schemes to attract private funds into green industries
Improving quality of life and strengthening the status of the country	8. Green city and green transport
	9. Green revolution in lifestyle
	10. Enhance national status as a global leader in green growth

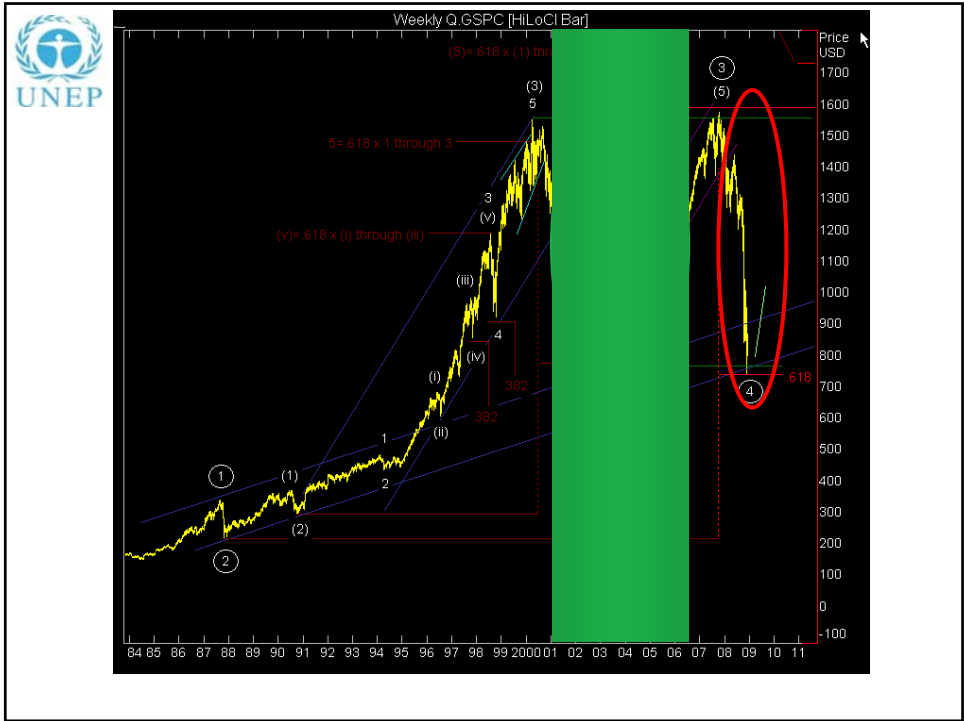


## GND Execution Risks...

	Feb, 2009	July, 2009	% Change
<b>Fiscal Stimulus Announced</b>	\$ 2,800 Billion	\$ 3,130 Billion	+ 12%
<b>Of which : "Green Stimulus"</b>	\$ 430 Billion	\$ 512 Billion	+ 19%
<b>Of which : "2009" Plan Deployment</b>	\$ 121 Billion (28%)	\$ 114 Billion (22%)	- 9%



... the risk of deferral or mis-direction of planned "green" investments needs to be proactively managed ...




**Thank You !**

26.10.2009