Session 2: Exploring the concept of Low Carbon Development

“How does Low Carbon Development link with the concept of a green economy and fit into the overall sustainable development paradigm and how does it or can it influence systemic change?”

Available at: http://www.maps programme.org/knowledge-sharing/
A story of definitions

- Sustainable development (SD)’ and ‘green economy’ have their origins in the 1980-90s, whereas the low-carbon development (LCD) discourse is recent.
- SD addresses the trade-off between 3 dimensions: i) economic development (resource intensive development, competitiveness); ii) social development, poverty alleviation; and iii) environmental conservation.
- ‘Green economy’ has a narrower focus on economic development. Quantitative and qualitative economics. Interpretations depend on the underlying economic theory.
- LCD is a concept that embraces the challenge to reduce carbon emissions while advancing socially and economically.
Key messages

• LCD approach captures best the environmental and economic development challenge in developing countries, including mitigation

• LCD is the concept that best accommodates mitigation as a major part in the challenge between carbon emissions reductions and continuous development

• LCD it is then a way of conceptualizing the objective of the UNFCCC “stabilize concentrations of GHG in the atmosphere, while allowing developing countries to proceed in a sustainable manner”
Key messages

• LCD as the process towards a low carbon economy (LCE), which represents a final state
• LCE is also widely used in the developed countries and refers to a transition from an already developed economy to a less emissions-intensive trajectory. In developing countries, in turn, the transition to a LCE needs to be part of the developing process
• Simplistic growth driven approaches to LCD also exist in literature
In our view, LCD is...

...the process of socio-economic and human progress, which minimizes the output of GHGs. This process requires the participation of capable, free individuals in the society as a whole. Individual freedom and capability depend on political, economic and social arrangements. The process cannot be left to the belief in self-regulating markets or government as a provider of public goods. Poverty alleviation is not a natural side effect of LCD, because its benefits are not equally distributed among the society. Individuals cannot access and participate equally, because opportunities are uneven. Therefore, LCD needs the will of the powerful as well as political interventions that addresses both market and system failures to ensure a more equal distribution and access to the opportunities and benefits of low carbon development. Access, freedom and inclusion for poor communities to the low carbon economy are key to poverty alleviation.
Poverty in the core of LCDS

• Poverty demographics have changed. Whereas in 1990, approximately 93% of the poor lived in LICs, in 2007 almost two thirds lived in MICs (according to Sumner 2010)
• The majority of the world’s poor people live in relatively economically and politically stable middle-income countries, where industrialization based on fossil fuels advances, and the climate change versus development trade-off is a pressing reality
Literature on poverty and mitigation

- The literature on poverty and climate change focuses mostly on adaptation.
- The mitigation literature focuses mostly on the environmental and economic dimensions, while ‘poverty and climate change’ literature focuses on the social and environmental dimensions.
- While adaptation is widely accepted for having a strong developmental contribution, mitigation only recently emerged in the literature as a serious issue for development.
- Energy access considered one of the most crucial issue to tackle in this context.
A development issue

- Economic and social development and poverty eradication are the first and overriding priorities of developing countries (UNFCCC in Rio 1992, still true in Rio 2012 (?)
- Differentiated challenges: high emitters try to find lower carbon intensive developing paths, others try to remain low carbon while advancing socio-economically
- Making development more sustainable is a major contribution to mitigation
- Alignment with national priorities, enables effective, speedy and sustainable mitigation action
A development issue: a research challenge

Development paths, without climate policy

IPCC SRES A1FI Scenarios

IPCC SRES B1 Scenarios

IPCC SRES A2 Scenarios

Source: (Morita & Robinson 2001: 151, fig. 2.14)
A development issue: a research challenge
Development paths, then climate policy

Mitigation scenario 1

Mitigation scenario 2

GHG emissions

Time

Manure management

Aluminium

Enteric fermentation
A development issue: a research challenge
Starting point

A

Development

Time

2. Current situation

1. Development goal

3. Intervention

B

GHG emissions

Time

1. Base Year

2. Drivers

3. Intervention
A development issue: a research challenge
Economy-wide assessment

✓ Simple assessment vs linking bottom-up and top-down models
✓ Link sectoral and economy-wide models: key to address issues crucial to the development of climate-compatible policy by understanding the social and economic implications of mitigation
✓ Need to link economy-wide results with MA-level assessment of co-benefits
A development issue: a research challenge

Other tools and analytics

- Robust methodology to prioritize and select Mitigation Actions!

Other tools:
- Integrated Assessment Models (IAMs)
- System dynamics
- Multi-criteria analysis
- Action Impact Matrix
- Macroeconomic models (e.g. growth models)
Thank You

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