Expert Group Meeting
Institutionalizing Sustainable Development Indicators for Measuring Progress of National Strategies
Barbados, 17-19 September 2009

Integrating Climate Change into National Sustainable Development Strategies – the Role of Indicators

Matthias Bruckner
Division for Sustainable Development
Department of Economic and Social Affairs
United Nations

Outline

1. Role of national sustainable development strategies (NSDS) in addressing climate change
2. Indicators of sustainable development related to climate change

NSDS and climate change

- Climate change is a sustainable development issue, not just an environmental concern
  - Climate change threatens to erase progress made in achieving sustainable development goals, including the Millennium Development Goals.
  - Greenhouse gas emissions depend on economic and technological pathways.
  - Current emissions impact on the living conditions of future generations.
  - Poor and vulnerable countries are expected to face the greatest burden of climate change, while having contributed the least to the problem.

NSDS and climate change

- Benefits of addressing climate change in an NSDS
  - An NSDS provides a natural framework for climate change;
  - an NSDS facilitates the identification and valuation of co-benefits of climate change actions on other sustainable development issues;
  - an NSDS facilitates harnessing co-benefits from actions driven by non-climate objectives;
  - an NSDS enables country to identify and solve trade-offs between climate change and other objectives;

NSDS and climate change

- Examples of co-benefits:
  - Reducing emissions from combustion of (imported) fossil fuels can increase energy security.
  - Improved disaster risk management helps to address not only climate related events (droughts, floods,…), but also non-climate related ones (earthquakes, volcanoes)
  - Preserving forests to maintain natural capital and to sustain livelihoods also increases carbon absorption.

NSDS and climate change

- Benefits of addressing climate change in an NSDS
  - intergenerational equity is at the heart of the concept of sustainable development and of the climate change challenges;
  - as global partnership forms an integral part of the sustainable development agenda, an NSDS facilitates the consideration of other countries' concerns;
  - as an NSDS is a participatory process, it facilitates the engagement of non-state actors.

Country experiences

- Most countries address climate change in their NSDS
  - Forty-nine out of 60 countries included in a recent study by DSD explicitly reference climate change in their NSDS.
  - Large variations in type of coverage of climate change
  - Generally, mitigation is covered more extensively than adaptation, but exceptions exist.
  - Study available at http://www.un.org/esa/sustdev/csd/csd16/documents/bp12_2008.pdf

Country experiences

- Areas in which countries identify linkages to climate change mitigation
  - Renewable energy
  - Energy efficiency and energy saving
  - Forests
  - Transport
  - Eco-efficiency
  - Waste management
  - Housing
  - Agriculture

Country experiences

- Areas in which countries identify linkages to climate change adaptation
  - Disaster management
  - Climate observation and forecasting
  - Agriculture
  - Fishery
  - Water management
  - Forests
  - Economic development

Country experiences

- Some countries also explicitly link climate change to
  - Foreign policy
  - Technology transfer
  - Development cooperation
  - International carbon market, in particular CDM

Country experiences

- Wide range of policy instruments included in NSDS:
  - Economic (subsidies, tax exemption, …);
  - Regulations, mandatory and voluntary standards, voluntary arrangements with private sector;
  - Developing new and revising existing strategies and management practices;
  - Providing information;
  - Research;
  - Awareness campaigns.

Capacity-building

- Many countries express a need for capacity-building in this area
- UN DESA has just started a project on Integrating climate change concerns into NSDS in Latin America and the Caribbean
  - Special focus on climate change adaptation
  - Development of methodologies and indicators
  - Testing methodologies and conducting national capacity-building workshops

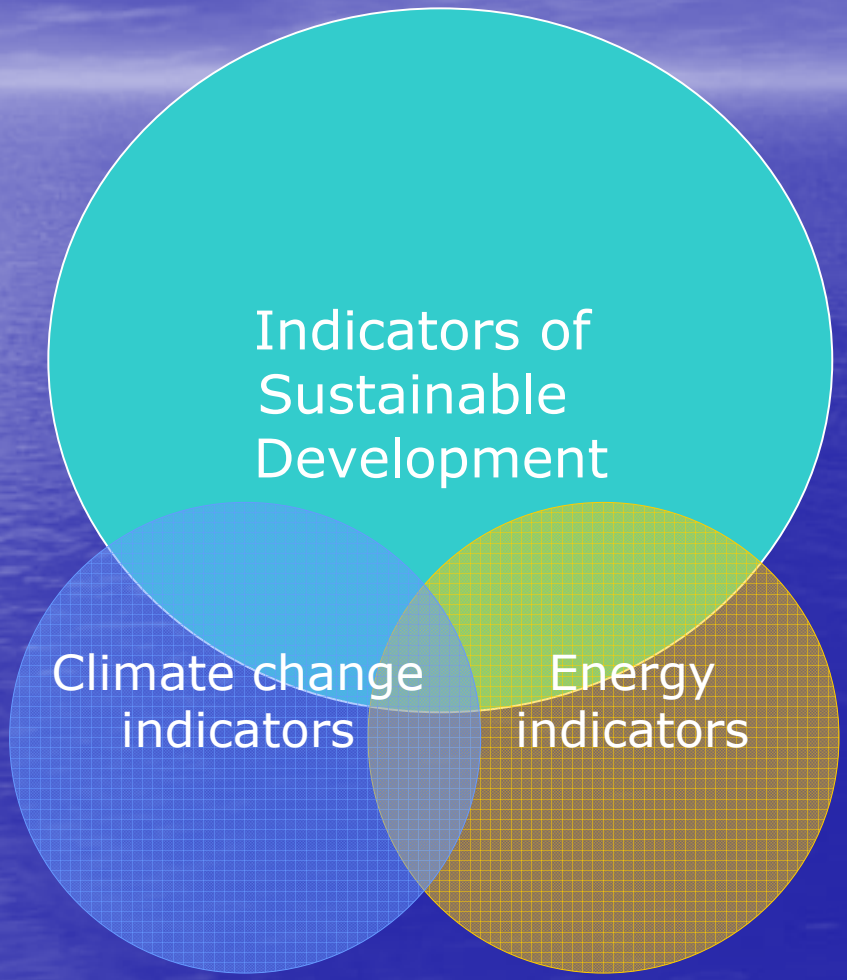
Indicators of sustainable development and climate change

- Existing sustainable development indicator sets are a useful point of departure for the derivation of indicators related to climate change:
  - This helps to identify the important linkages
  - It also helps to avoid duplication of efforts.
  - It may reduce reporting burden for agencies.

Indicators of sustainable development and climate change

- Linking climate change indicators to sustainable development indicators increases coherence among indicator sets.
  - This avoids risk of sending 'mixed' messages.
  - Coherence can further be increased by incorporating existing issue-specific sets of sustainable development indicators, for example
    - Energy Indicators of Sustainable Development
    - Biodiversity Indicators.

Indicators of sustainable development and climate change



Indicators of sustainable development and climate change

- Countries are using many indicators of sustainable development related to climate change as part of their indicators sets used for monitoring the NSDS.
- Identification of additional specific indicators is useful, e.g. climate indicators (Changes in temperature and precipitation patterns);
- Disaggregating of existing indicators may make them more climate relevant.

Main challenges

- Definitions of climate change adaptation are often vague.
  - People and economies adapt to a multiple factors, climate change being one of them.
  - If "development is the best form of adaptation", are all development indicators climate change related?
  - Climate change impacts and adaptation measures interact.

Main challenges

- Methodologies for measuring technology transfer are underdeveloped.
- Measuring the impact of carbon markets and related mechanisms is difficult
- Statistical classifications for indicators in some important domains remain incomplete.
- Data availability remains often a problem.
- Capacity for indicator computation and indicator analysis is important.

Main challenges

- Time lag between climate change policies and climate change impact
  - Policy measures on climate change mitigation and adaptation are in response to future climate changes.
    - Models and scenarios necessary to guide policies
  - Climate change impacts are uncertain
    - Extreme events can be devastating, but cannot be ignored ('Fat-tailed' distribution)

Thank You

Contact: Matthias Bruckner
Division for Sustainable Development
Department of Economic and Social Affairs
United Nations

email: brucknerm@un.org
http://www.un.org/esa/sustdev/index.html