#### First Meeting Of the Expert Group on Environment Statistics 26-28 March, 2014 New York

Experience and Challenges in compilation of Environment Statistics in India

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#### **Present Status**

- Systematic compilation commenced in 1997
- UN FDES 1984 framework broadly followed
- Annual Publication "Compendium of Environment Statistics: India" started in 1997
- <u>Latest Publication</u> available for 2013 (Published in Feb 2014)
- Broadly Covers five core parameters:
  - Biodiversity: Contains data on Biogeographic Zones, Plant Species Flora, Fauna, Forest etc.
  - Atmosphere: Air quality, Effluents from polluting industries (Sugar, Petrochemicals etc.), Coal, Gas, Petroleum products etc.
  - Land and Soil:: Land use, Agriculture, Mines, Minerals, Natural Disaster etc.
  - Water: Availability, Rainfall, Inland water resources etc.
  - Human Settlement: Birth, Mortality, Poverty, Housing, Sanitation, etc.

(compendium encompass statistics on natural resources, natural disasters as well as human activity and effects on the environment and human. In other word, almost every aspect is included)

# Challenges

- Environment Statistics collected from diverse official data source agencies
- India has established official statistical system which is decentralized in nature
  - Horizontal → horizontally decentralized with different Union Ministries/Departments and their Organisations having their own Statistical System
  - Vertical vertically decentralized with separate Statistical Agencies at provinces level (State/UTs)
- At Initial years, the challenges included
  - Data availability, timeliness, data gaps
- Challenge was to produce reliable statistics based on data received from various agencies
- Over the period these challenges have been sorted out to a greater extent.

### Challenges... contd.

- To equip the officers with the necessary knowledge and expertise.
- Central Statistical Office played a crucial role in supporting the training programmes for the staff of the various government Departments.

### **Recent Developments**

- Climate change is currently an important global issue with social, economic and environmental impacts.
- India has published for the first time, a publication titled 'Statistics related to Climate Change India, 2013' in November, 2013.
- This publication provides a compilation of Statistics related to climate and climate change.
- The publication has used a <u>frame work</u> developed by an Expert Committee constituted by CSO. The publication provides information on causal factors for
  - climate change(Green house Gases, Waste Generation, Forest Cover/area, forest produce and biomass, land use, water, Transport, Energy),
  - Impact of climate change(Ocean, Temperature and precipitation, Glaciers and landslides, Biodiversity, Health, Soil and Land, Agriculture, Disaster and extreme events)
  - Mitigation and Adaptation(Renewable energy, Energy use, Dry land agriculture, Afforestation, Quality Standards).

## Task Ahead

FDES 2013 challenges:

- India is also keen to adopt the 2013 frame work along with other nations. The 2013 frame work will be adopted the guidelines on implementation are finalized.
- India has actively participated in formulation of FDES 2013. India also participated in the pilot exercise before finalization of the frame work.
- Challenges
  - Data not available on regular basis
  - Data not available in case of many indicators/ statistics; data gap filling exercise is to be started
  - most of the core set of Environment Statistics can be compiled at National level.

## Suggestions

- Flexibility to implementing FDES 2013
- Capacity Building
  - Detailed training manual is to be developed
  - Training Statistical functionaries
  - Technical cooperation among countries coordinated by UNSD
  - A dedicated website for environment statistics

# Thank you