The use of the revised FDES in Bhutan

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A Danida (Danish Development Aid) project carried out by Statistics Denmark

- Two components aiming at providing support to the National Statistics Bureau in Bhutan:

- Environmental Statistics developed

  Mission by Ole Gravgård and Thomas Olsen

  Thimphu, Bhutan 27 August – 07 September 2012

- Environmental Accounts initiated

  Mission expected to be carried out during 1st quarter 2013

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Development of Environmental Statistics in Bhutan – main mission activities

- Assessment of current situation of environmental statistics

- Organising the results of the assessment using the revised FDES

- Workshop with stakeholders and National Statistics Bureau (NSB) staff

- Training session on environment statistics and accounts

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Assessment of current situation of environmental statistics

Two full days with meetings with stakeholders:

National Environment Commission Secretariat

Dep. of Planning and Policy (DPP), Ministry of Agriculture & Forests (MoAF)

MoAF, Department of Forests and Park Services

Gross National Happiness Commission

Department of Agriculture, National Soil Sevices Centre

The Biodiversity Centre

National Land Commission

Ministry of Economic Affairs, Department of Geology and Mines

Ministry of Economic Affairs, Hydro-Met Services Department

Ministry of Economic Affairs, Department of Renewable Energy

Thimphu City Corporation

Yangki Automobiles

Meetings and discussions with NSB staff

Familiarisation with NSB publications and plans

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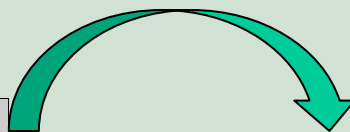# Organising the results of the assessment using revised FDES

- The draft revised FDES was used to organise the information gathered during meetings with NSB and stakeholders,etc.

- For each FDES environment statistics item it was, as far as possible, indicated
  - whether basic data is available
  - if statistics already exist (and in that case: where)
  - what is the relevance for Bhutan
  - who are the primary stakeholders/primary data sources

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Organising the results of the assessment using revised FDES – continued

- The UNSD pilot template was used as a starting point with a few adjustments to make it fit better to the specific purpose of the assessment of the mission and the situation in Bhutan

In the table below, please provide information on your ability to produce the statistics that are listed in the draft Core Set for each topic. This information relates to your assessment of the topic as a whole.

A. Topic No.	B. Topic	C. Relevance of topics at the national level. (If the topic is of little or no relevance, completion columns D and E to the right is optional.)	D. Availability of statistics for this topic of the draft Core Set, at the national level?	E. Main reasons why the production of statistics within this topic is not satisfactory. Please check all that apply.	F. Institutions responsible for collecting data on this topic. Please check all that apply.	G. Requirements for collection/reporting on this topic. Please check all that apply.
				Component 1		
1	1.1.1	Atmosphere, climate and weather	☐ High relevance ☐ Average relevance ☐ Little relevance ☐ No relevance	☐ Highly satisfactory ☐ Satisfactory ☐ Not satisfactory	☐ Resource constraints ☐ Methodological/Technical difficulty in collecting ☐ Insufficient quality ☐ Accessibility ☐ Lack of institutional set-up/coordination ☐ Other difficulties in data collection. Please specify:	☐ NSO ☐ Ministry of Environment or equivalent institution ☐ Other institution(s) Please specify	☐ National requirement ☐ International requirement

Component 1: Environmental Conditions and Quality			Priority	
Topic 1.1.1: Atmosphere, climate and weather	a. Temperature	1. Annual averages		5.7
		2. Long-term annual averages		
		3. Monthly averages		5.7
		4. Annual minimum and maximum monthly average		5.7
	b. Precipitation	1. Annual averages		5.8
		2. Long-term annual averages		
		3. Monthly averages		5.8
		4. Annual minimum and maximum monthly average		5.8
Topic 1.1.2: Hydrographic characteristics	a. Lakes	1. Surface area	Short term	5.2
		2. Location		
	b. Rivers	1. Surface area		5.2
		2. Location		
	c. Reservoirs	1. Length		
		2. Surface area		5.2
		3. Location		
	d. Watersheds	1. Description of main watersheds		
Topic 1.1.3: Geological and geographic information	a. Geologic, geographic and geomorphologic conditions of terrestrial areas and islands	1. Length of border	Short term	
		2. Area of country or region		5.2
		3. Geographical location		
		9. *Characteristics of landforms* (e.g., location, area and height, as applicable, for plains, hills, plateaus, dunes, volcanoes, mountains, sea mounts, etc.)		5.5, 5.6

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Workshop with stakeholders and NSB Staff

- After the initial assessment of environmental data and statistics a workshop with all stakeholders and NSB staff was arranged

- The principles and aims of environmental statistics and accounting were presented

- The FDES list of env. statistics with assessment was presented and discussed with stakeholders

- Based on comments and discussions a few adjustments to the list were made

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FDES core set and prioritization

After the workshop and further discussion with NSB staff the full FDES list with assessment was cut down to the Core Set of FDES environmental statistics with a few additional non-core set items (e.g. characteristics of land forms, electricity production and installed capacities)

For each of these items a preliminary prioritization was made: *short term, medium term and long term development*

An indication of already existing statistics was added

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Example of prioritization of FDES core+ items with indication of already existing statistics

Component 1: Environmental Conditions and Quality			Priority	Statistical Year Book
Topic 1.1.1: Atmosphere, climate and weather	a. Temperature	1. **Annual averages**	Short term	5.7
		2. **Long-term annual averages**		
		3. **Monthly averages**		5.7
		4. **Annual minimum and maximum monthly average**		5.7
	b. Precipitation	1. **Annual averages**		5.8
		2. **Long-term annual averages**		
		3. **Monthly averages**		5.8
		4. **Annual minimum and maximum monthly average**		
Topic 1.1.2: Hydrographic characteristics	a. Lakes	1. **Surface area**		5.2
		2. **Location**		
	b. Rivers	1. **Surface area**		5.2
		2. **Location**		
	c. Reservoirs	1. **Length**		
		2. **Surface area**		5.2
		3. **Location**		
	d. Watersheds	1. **Description of main watersheds**		
Topic 1.1.3:Geological and geographic information	a. Geologic, geographic and geomorphologic conditions of terrestrial areas and islands	1. **Length of border**	Short term	
		2. **Area of country or region**		5.2
		3. **Geographical location**		
		9. *Characteristics of landforms* (e.g., location, area and height, as applicable, for plains, hills, plateaus, dunes, volcanoes, mountains, sea mounts, etc.)		5.5, 5.6
Topic 1.2.1: Soil characteristics	a. Soil characterization (also in 2.4.1.a-c)	1. **Area of soil types**	Medium/Long term	
	b. Degradation (also in 2.4.1.a-c)	1. **Area affected by soil erosion**		
		2. **Area affected by desertification**		
		3. **Area affected by salinization**		
		4. **Area affected by waterlogging**		
		5. **Area affected by acidification**		

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Next steps

- The NSB is currently following up on the mission:

- A questionnaire based on the FDES list was sent to stakeholders to obtain further information on data availability and views on relevance

- Another workshop was arranged with stakeholders for further discussion and seeking conclusions on the FDES list of environmental statistics

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Some conclusions on the use of the draft revised FDES in Bhutan

- It was very useful to use the FDES for the organization of the information collected during the mission

- The organisation of the statistics (components, topics, etc. seems logical and it was easy to understand and explain to NSB staff and stakeholders

- The full list is overwhelming, therefore the *core set* of FDES statistics is necessary/useful, when you start from scratch.

- In this case it was useful, though, to add a few extra items to obtain a *core+ set*

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More conclusions

- There is a need to complement the revised FDES with more detailed explanations on the individual environment statistics items. The draft text is not comprehensive enough for beginners. Implementation guidelines are needed

- All in all, we found that using the FDES in Bhutan was a success, and the FDES was well received by NSB and stakeholders

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Thank you very much for the attention !

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