



**First Expert Forum
for
Producers and Users of Disaster-related Statistics**

(Online Meeting, Date: 07-10 June 2021)

Climate Change-related Statistics
An Example of Bangladesh



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Climate Change-related Statistics 2020 in brief:

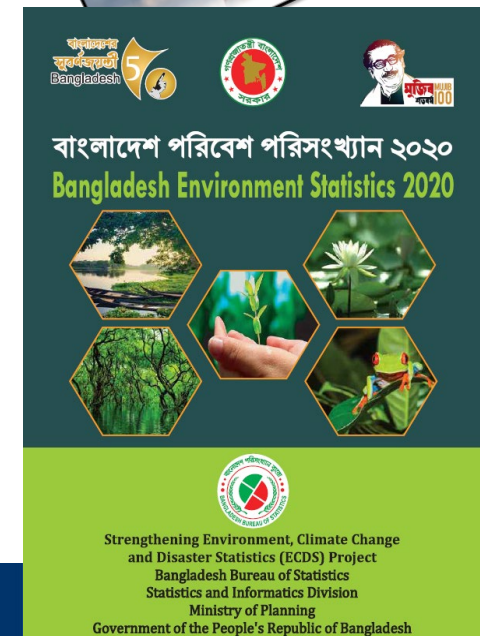
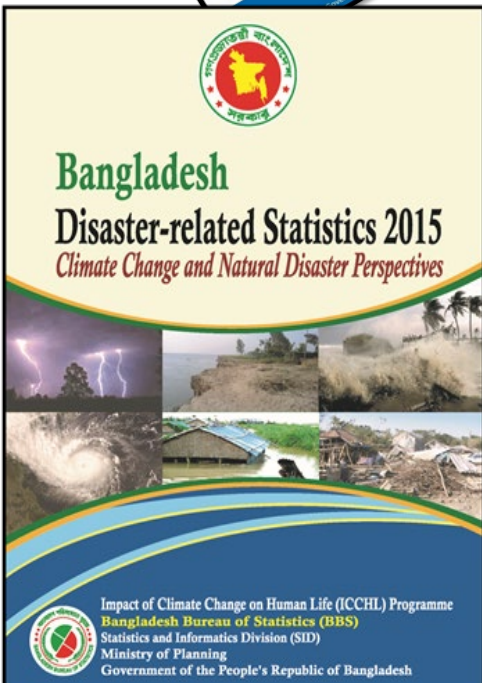
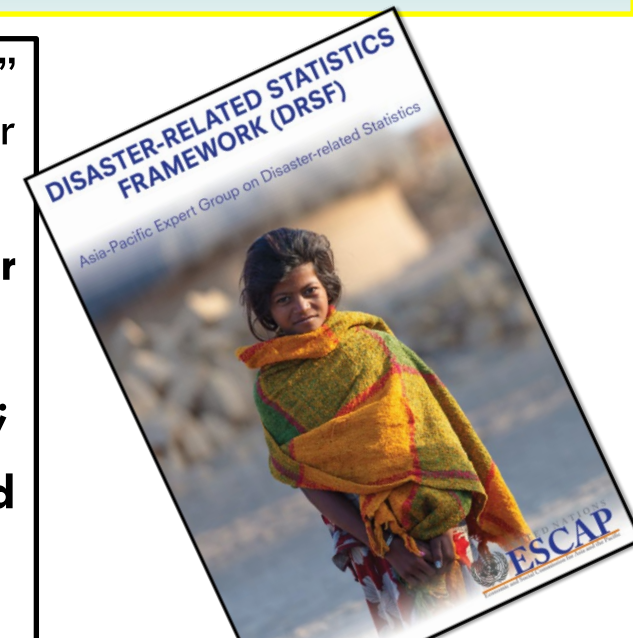
- ❖ Bangladesh is one of the world's most disaster and climate **vulnerable**, at the same time most **resilient** countries, due to the frequent, regular, and devastating disasters
- ❖ If nothing is being done, Bangladesh **will not be able to attain SDGs** targets; and thus the need to keep strengthening disaster and climate measures
- ❖ In 2015, BBS **conducted household survey** to 150,000 samples to measure: the household characteristics, disaster-induced losses in key sectors, health conditions, status of vulnerable populations, disaster / climate knowledge
- ❖ **Salient findings:** Disaster losses is 1.30% of GDP at the HH levels; water-borne diseases affect up to 94.20% households, river and coastal erosion caused 70% of land damage.
- ❖ Bangladesh already addressed many disaster / climate **challenges**, but there are problems in mainstreaming into development, partly due to: complex accountability among agencies, lack focal points, lack technical expertise and **gaps in disaster data**.
- ❖ Therefore, the need to **update** the data through the BDRS 2020
- ❖ The framework, variables, indicators, and sampling methods relatively stay the same

Development of Environmental Statistics in Bangladesh



- ❖ Formed an “Inter-Ministerial Technical Working Committee” for producing “Environment, Climate Change and Disaster Statistics”;
- ❖ Established “Environment, Climate Change & Disaster Statistics (ECDS) Cell”;
- ❖ Piloting of the Poverty Environment Accounts (PEA) 2017;
- ❖ Pilot Survey on Sex, Age and Disability Disaggregated Data (SADDD) for DRR & CCA 2021
- ❖ **Publications:**

- **Bangladesh Disaster-related Statistics 2015:** Climate Change and Natural Disaster Perspectives;
- **DRSF** UNESCAP study with Fiji, Indonesia, the Philippines;
- Published “**Bangladesh Environmental Statistics Framework (BESF) 2016-2030**”
- “**Compilation of Bangladesh Environmental Statistics 2017 & 2020**” under BESF 2016-2030; &
- **Integrating Gender and Social Inclusion** in Environment, Climate Change and Disaster-related Statistics 2020.



Strengthening Environmental Statistics in Bangladesh

The Main Objective: to generate environment, natural resources, bio-diversity, climate change and disaster-related statistics for institutionalization of environmental statistics under ECDS Project, BBS

SPECIFIC OBJECTIVES:

- 1) To conduct the climate change and natural disaster-related statistical survey to **monitor the impacts of climate change** and disastrous events;
- 2) To develop natural resource accounts/statistics [**Experimental Eco-system Accounts (EEA)**] align with “System of Environmental Economic Accounting (SEEA)” and BESF 2016-2030.
- 3) To conduct **Environmental Protection Expenditure and Waste Management Survey**.
- 4) To assess the **damage and loss** of agricultural production, equipment/machineries, land and soil, residence, infrastructure etc. due to climate change and natural disaster;
- 5) To assess or measure the **affected population with area, deaths and missing population** due to climate change and natural disasters with multi-sectoral GIS integration; and
- 6) To collect and compile data and information from secondary sources of the “**Compilation of Bangladesh Environmental Statistics 2020 & 2023**.”

The BDRS 2020 and SDGs Indicators:

■ Directly: 1.5.1, 1.5.2, 11.5.1, 11.5.2, 13.1.1, 12.5.1, 15.3.1 and Partially: 11 Indicators as Data Source;

Fulfill the 4 Targets of the SFDRR, as Data Source and the ECDS Project is providing guidance and training on SDG's Env Data to Ministries/ Divisions/org. and members of the NDCC Sub-committee

Methodology of the BDRS 2020

OBJECTIVES: *to document and measure*

- Socio-economic characteristics of Household in disaster prone area
- Disaster-induced agricultural production losses (Crops, Livestock, Poultryes)
- Damage and loss of cultivable land and useable land;
- Damage and loss of residence (dwelling), cowshed, kitchen
- Health and sanitation condition from the natural disaster prone area;
- Vulnerability of the women, children, aged persons and person with disability; and
- Perception and knowledge about climate , environment, and disasters.

SAMPLING FRAME

- 1) Geographically to cover the entire area except territorial enclaves;
 - 2) Survey Frame: A mauza/mahalla list of containing the dominant mauzas in terms of natural disaster prone mauzas under 64 district;
 - 3) Two-Stage Sampling Frame with Kish Allocation formula:
 1. a simple random sampling (SRS) selection of the mauzas/mohallas (PSUs) within the stratum under the districts.
 2. a systematic sampling of 30 Households from each of the selected PSUs.
- 1) Allocation of sample:
- 4,240 PSUs (mauzas/mahallas) from
 - 30 thousand highest disaster affected PSUs against 12 main disasters
 - 127,200 households for district estimation.

SCOPE AND COVERAGE

- Geographically, covering the entire country.
- To cover disaster prone areas (mauzas/mahallas),
 - a mauza/mahalla list containing the dominant mauzas/mahallas across the disaster prone areas under 64 districts will be generated.
 - Mauzas/mahallas are simply called as a Primary Sampling Unit (PSU)
- The To capture various data and information of the sample households pertaining to their livelihood activities in relation to the direct and indirect impacts of climate change and natural disaster.
- It will not attempt to collect information on the climate parameters or components like temperature, rainfall or anything in relation to carbon emission, greenhouse gas etc.

Questionnaires of BDRS 2020

The New Features of BDRS 2020 Questionnaire:

- Aligned with SDGs, SFDRR, Nat. Five Year Plan and Other Successive Plans;
- Based on UNESCAP' DRSF and, Bangladesh Disaster Management Act 2012 and Standing Order on Disaster (SOD) 2019;
- Added new elements:
 - a) Deaths b) Injured c) Disabilities d) Missing e) Climate Induces Migration f) unemployment g) Gender Integration h) GIS Integration etc.; and
- Using Mobile and Web Application using MDM Software for data collection.

Challenges

- ❖ **Issues with data** accessibility, quality and timeliness;
- ❖ **Complex accountability** among BBS and Other Sectoral Agencies/Organizations;
- ❖ **Operational Gaps**
 - in the Integration in national planning process
 - in the development of institutional mechanism for implementation;
 - in technical capacities for developing new surveys;
 - in the designation of Focal Point from respective agencies/org
- ❖ **COVID-19** Pandemic

Thank You!



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