



Bangladesh Disaster-related Statistics 2020

Climate Change and Natural Disaster Perspectives

BDRS 2020

Presented by:

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The Disaster Survey 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 0.30% of GDP; 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**

Environmental Statistics and Institutionalization in BBS



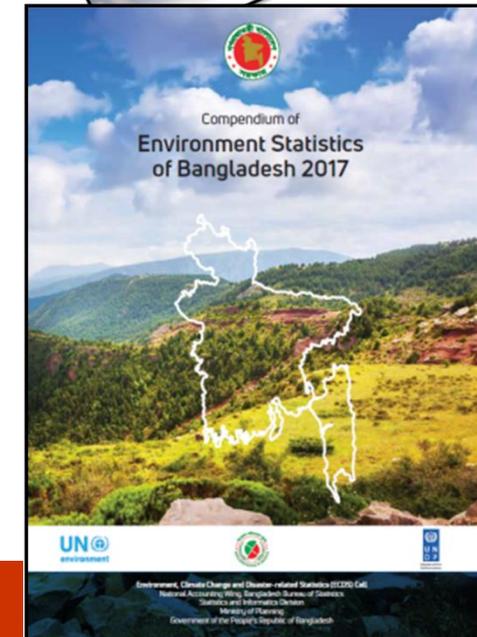
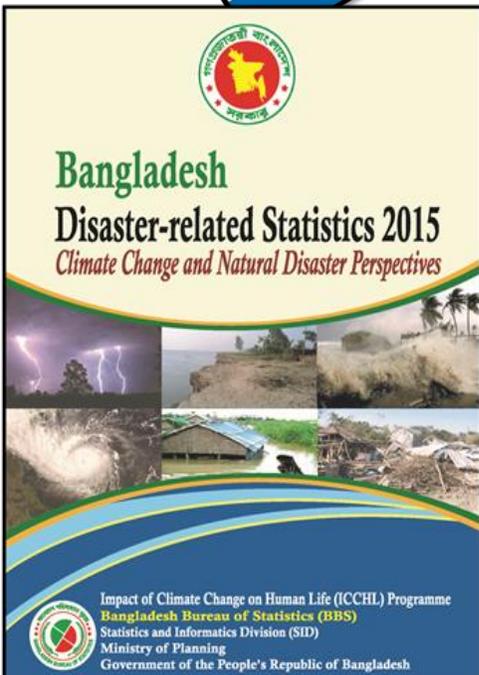
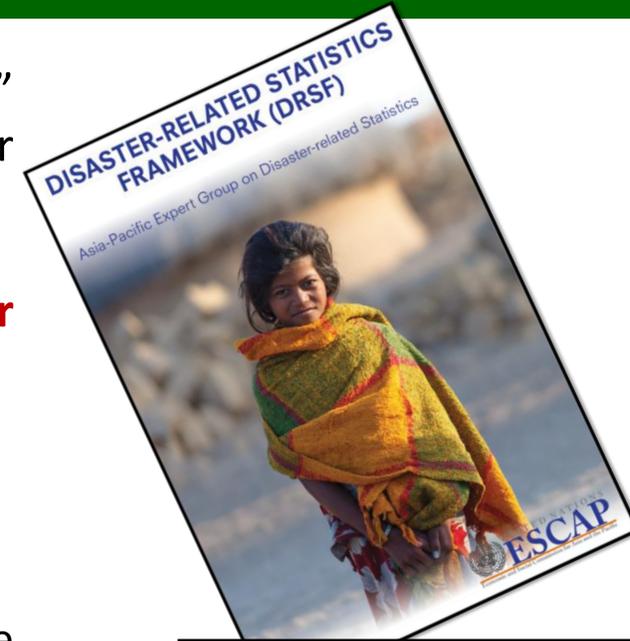
- ❖ Formed an “**Inter-Ministerial Technical Working Committee**” for producing “Environment, Climate Change and Disaster Statistics”;

- ❖ Established “**Environment, Climate Change & Disaster Statistics (ECDS) Cell**”;

- ❖ Piloting of the **Poverty Environment Accounts (PEA)**.

- ❖ 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**” under BESF 2016-2030;
- **Integrating Gender and Social Inclusion** in Environment, Climate Change and Disaster-related Statistics.



ECDS Project in strengthening environmental Statistics

The main objective: to generate environment, natural resources, bio-diversity, climate change and disaster-related statistics **for institutionalization of environmental statistics in Bangladesh**

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 [**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;
- 6) To collect and compile data and information from secondary sources of the **“Compilation of Bangladesh Environmental Statistics 2020 & 2023**; and
- 7) To strengthen capacity of District and Sub-District Statistical Offices **using tablets with digital applications for data collection** with real time.

MAIN OUTPUTS

- 1) Bangladesh Disaster-related Statistics (BDRS) 2020: Climate Change and Natural Disaster Perspectives
- 2) Compilation of Bangladesh Environmental Statistics 2020
- 3) Bangladesh Environmental Protection, Expenditure, Resource and Waste Management Survey 2021
- 4) Natural Resource: Experimental Ecosystem Accounts/Statistics in Bangladesh 2022
- 5) Multi-sectoral GIS integration of the affected population with area, deaths and missing population due to climate change and natural disasters
- 6) Compilation of Bangladesh Environmental Statistics 2023

The BDRS 2020 Fulfill the 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 Targets 4 of the SFDRR, as Data Source;

The ECDS Project will provide guidance and training on SDG’s Env Data to Ministries/ Divisions/org. and members of the NDCC Sub-committee

BDRS 2020

“Bangladesh: Disaster-related Statistics 2020: *Climate Change and Natural Disaster Perspectives*” under the ECDS Project

OBJECTIVES: *to document and measure*

- Socio-economic characteristics of Household in disaster prone area
- Disaster-induced agricultural production losses (Crops, Livestock, Poultry)
- 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:

- Are aligned with SDGs, SFDRR, Nat. Five Year Plan and Other Successive Plans;
- Based on UNESCAP' DRSF and, Disaster Management Act 2012 and SOD;
- 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

For Further Information

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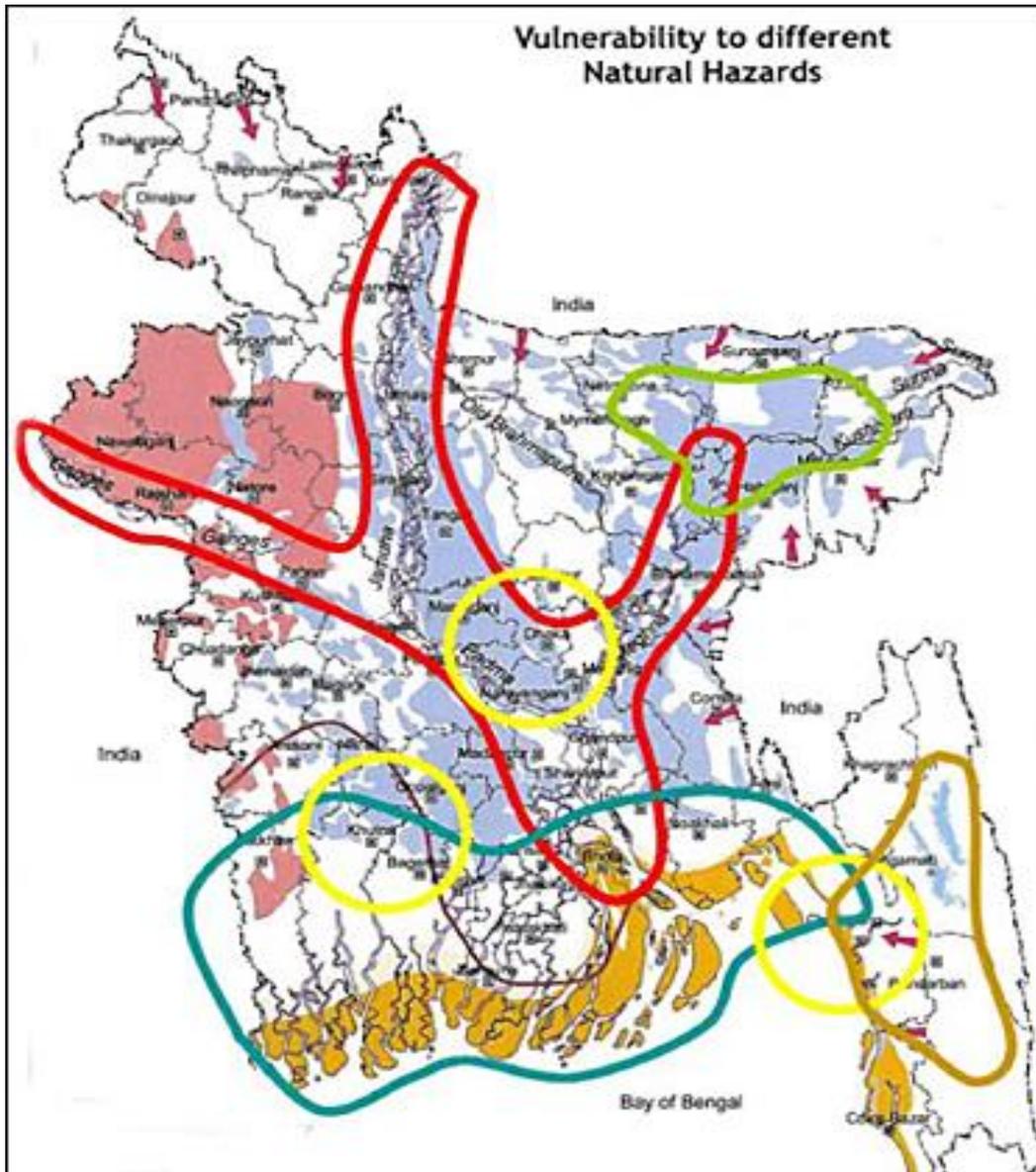


Background: Country Context

Recognized globally as one of the most vulnerable countries to Climate Change and Natural Disaster:

- ❑ **Geographical location and Area:** **147** Thousand sq. km
- ❑ **Multiplicity of rivers:** Over **405** rivers, (Including **57** trans-boundary river)
- ❑ **Deltaic landscape:** **80%** floodplain
- ❑ **Population:** **166.5** Million (2019)
- ❑ **Population density:** **1116**/km² (2018)
- ❑ **Population in Disaster Prone Area:** **12.64 %** (2015 ICCHL)
- ❑ **Slum Population in Urban Area:** **2.23** Million (2014)
- ❑ **Average Life Expectancy:** **72.6** Year (2019)
- ❑ **Per Capita Income:** **2064 in US\$** (2019-20p)
- ❑ **GDP Growth Rate:** **5.24 %** (2019-20p)
- ❑ **Annual Inflation Rate:** **5.65 % (2019-20)**
- ❑ **Poverty rate:** (Upper **20.5 %** and extreme **10.5 %** (2019))
- ❑ **Resilient Country:** Regular and Devastating **disastrous** events

Background (Risk Mapping)



Inventory of the vulnerable areas for

1. droughts (pink),
2. floods (light blue),
3. surges (yellow ochre) and
4. hot spots related to large rivers (in red),
5. coast (blue), urban centres (yellow),
6. haor/wetlands (green) and
7. hill tracts/soil erosion (yellow (ochre)).

Source: CEGIS