

Government of Nepal National Planning Commission **Central Bureau of Statistics**

Global Set of Climate Change Statistics and Indicators National Consultation on the Draft Set Nepal's Experience

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Climate Change Issues in Nepal

- The Himalayas play a crucial role in supplying water to the continent, they are sometimes called the "water towers" of Asia
- Melting ice from the mountains provides lifegiving water to close to two billion people
- However, recently mountain region are at the forefront of climate change impacts with looming water crisis and huge losses due to disaster events

Climate Change Issues in Nepal cont...

- Nepal contributes only around 0.027 percent to total global emissions, although it is one of the countries most vulnerable to the impacts of climate change
- Nepal submits its second nationally determined contribution(NDC) document to UN outlining its targets for the next decade to reduce emissions and support vulnerable communities to adapt to the impacts of climate change
- The government strongly believes that these targets can be achieved as they have been set after consultation with various ministries, stakeholders and experts

Climate Impacts in Nepal



major problem

Low adaptive and

resilience capacity

children, disabled, elderly groups are mostly impacted by climate change

National consultation on the draft climate change indicators

Formation of technical committee leading by CBS including from Ministry of Forest and Environment & other stakeholders

• Meetings conducted and discussed about how we can contribute

Consultation workshop with stakeholders

- The discussions were made to develop indicators which can respond to main climate change policy questions in an internationally comparable way
- As provisioned in UNSD framework agreed to keep these as five areas to be consistent with the UNSD framework.
- Basically, indicators in Agriculture, Forestry and Other Land Use (AFOLU), Energy, and Waste sectors were discussed in priority on the basis of relevancy of Nepal
- Consensus was made to omit some indicators from global set, which are not relevant in the context of Nepal for example, issues related with ocean and other statistics which were beyond the scope of national assessment

Current status

- Separate Environment Statistics Section in CBS
- Regular publication of Environment Statistics (Censuses, Surveys, admin data)
- National Climate Change Impact Survey Report, Waste management Baseline Survey Report
- Second Nationally Determined Contribution (NDC) Report (Ministry)
- National Communication Report (Ministry)
- Community questionnaire is added in Population census where one of the thematic area is environment/disaster

Co-operation loop for environment & climate change statistics



National Climate Change Impact Survey 2016

A Statistical Report



Both of these publications inform corresponding indicators in the Global Set





Government of Nepal National Planning Commission **Central Bureau of Statistics** Thapathali, Kathmandu Nepal

Filled in information in Part 2 of the Global Consultation

| А | В | С | D | E | F | G | Н | 1 | J | К | L | М | N | 0 |
|--------|---------|-------|----------------|---|------|------------------------------------|-----------|-------------------------------|--------|----------------------------|----------|-----------------------------------|--------|---|
| Area 🕨 | Topic 🔸 | ~ | ▶ Indicator | Statistics | Code | Preliminar, <mark>≯</mark> Tier | Themes | ▶ National Data Sources | | Relevance | | Methodological Soundness | | Data Availability |
| | | | | | | | | | Yes/No | Reference/ Link | Partiall | Reference/ Link | Yes/Nc | Reference/ Link |
| | | 111 | Avera | ge increase of insurance premiums incurred due to clima | 5140 | 3 | Insurance | | | | | | | |
| | | | | Insurance premiums incurred due to climate change | 5141 | 3 | Insurance | National Ir | | | | | | |
| | Clima | te ch | ange j | public awareness and education | 520 | | | | | | | | | |
| | | 112 | Propo | rtion of population with access to climate information | 5200 | 3 | Education | | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Number of households with timely access to climate infor | 5201 | 3 | Education | NSO | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Number of people reached through climate change public | 5202 | 3 | Education | NSO/Envir | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | 113 | Extent | to which (i) global citizenship education and (ii) educat | 5210 | 2 | Education | Ministry o | | | | | | |
| | | | | | 5211 | | Education | | | | | | | |
| | | 114 | Numb | er of companies publishing sustainability reports (SDG 1 | 5220 | 2 | Corporate | NSO/Envir | | | | | | |
| | | | | | 5221 | | Corporate | reports | | | | | | |

Results on Perception of Climate Change

Informs indicator 112 in Global Set: Proportion of population with access to climate information

Households' knowledge on climate change

63.5⁹ 70.00 60.92 60.00 54.07 50.47 51.35 49.53 49.33 50.67 48.65 45.93 50.00 36.41 39.08 40.00 Response (%) 30.00 Yes 20.00 No 10.00 0.00 Hill Female Terai Male Mountain Ecological Belt Sex Total **Respondent's category**

Main source of information about climate change



Statistics in the Global set: Number of households with timely access to climate information

Statistics in the Global set: Number of people reached through climate change public awareness campaigns

Filled in information in Part 2 of the Global Consultation

| Α | В | С | DE | F | G | Н | 1 | J | К | L | М | Ν | 0 |
|------|---------|--------------|--|---------------|-------------|--------------------|-------------------------------|--------|----------------------------|----------|-----------------------------------|--------|---|
| Area | Topic 🕨 | ~ | Statistics | Code • | Preliminar, | ▶ Themes | ► National Data Sources | | Relevance | | Methodological Soundness | | Data Availability |
| | | | | | | | | Yes/No | Reference/ Link | Partiall | Reference/ Link | Yes/Nc | Reference/ Link |
| | | | pH/acidity/alkalinity (FDES 1.3.2.f.1) | 2111 | 2 | Water qual | Ministry o | | | | | | |
| | Hazara | lous e | vents and disasters | 212 | | | | | | | | | |
| | 3 | 1 <u>Fr</u> | equency of hazardous events and disasters | 2120 | 1 | Disasters | | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | Occurrence of hazardous events and disasters (FDES 4.1.1 | 2121 | 1 | Disasters | Disaster ag | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | Occurrence of extremes of temperatures and precipitatio | 2012 | 2 | Disasters | Meteorolo | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | 3 | 2 <u>D</u> i | rect economic loss attributed to disasters in relation to glob | 2130 | 2 | Disasters | | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | Economic losses due to natural extreme events and disast | 2131 | 2 | Disasters | Disaster ag | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | Occurrence of hazardous events and disasters (FDES 4.1.1 | 2132 | 1 | Disasters | Disaster ag | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | GDP : | 1082 | 1 | Disasters | NSO | | | | | | |

Climate Induced Disasters and Impacts...

Informs indicator 31 in Global Set: Frequency of hazardous events and disasters

Households affected by disasters in last 25 years



Climate Change Impacts on Crops, and Livestock





Climate Change Impacts on Human Health

| Α | В | С | D | E | F | G | Н | I | J | К | L | М | N | 0 |
|--------|---------|-------|----------------|--|------|------------------------------------|-----------|--------------------------|--------|----------------------------|----------|-----------------------------------|--------|---|
| Area 🕨 | Topic 🕨 | ~ | , Indicator | Statistics | Code | Preliminar, <mark>≯</mark> Tier | Themes | National Data Sources | | Relevance | | Methodological Soundness | | Data Availability |
| | | | | | | | | | Yes/No | Reference/ Link | Partiall | Reference/ Link | Yes/No | Reference/ Link |
| | 3 | 34 🧕 | Climat | e refugees, migrant and displaced persons by climate cl | 2150 | 3 | Disasters | Disaster p | | | | | | |
| | | | | Number of people whose destroyed dwellings were attrib | 2151 | 2 | Disasters | Ministry re | | | | | | |
| 0 | Climat | te ch | nange d | and human health | 216 | | | | | | | | | |
| | 3 | 35 | Increa | se of cases of climate-related diseases | 2160 | 3 | Health | | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | ncidence of climate-related airborne diseases and condit | 2161 | 2 | Health | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | ncidence of climate-related water-related diseases and c | 2162 | 2 | Health | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | ncidence of climate-related vector-borne diseases (UN-E | 2163 | 2 | Health | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | 3 | 36 | Increa | se in heat and cold related illnesses | 2170 | 3 | Health | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | [incidence/mortality from] Heat and cold related illnesses | 2171 | 3 | Health | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |



Climate change impacts on human health in last 25 years

Climate Change and Natural Resources: Water and Biodiversity

| A | В | C | D | E | F | G | Н | 1 | J | K | L | M | N | 0 |
|------|-------|------|-----------|---|------|-------------|------------|--------------------------|--------|---------------------|--------------------------|-----------------------------------|--------|---|
| Area | Topic | * | Indicator | Statistics | Code | Preliminar, | Themes | National Data Sources | | Relevance | | Methodological Soundness | | Data Availability |
| | | | | | | | | | Yes/No | Reference/ Link | res/ivo / Partiall | Reference/ Link | Yes/No | Reference/ Link |
| | Fresh | wate | er absti | raction, supply and use | 209 | | | | | | | | | |
| | 2 | 28 | Freshv | vater abstracted as proportion of renewable freshwate | 2090 | 1 | Water reso | Meteorol | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | 1 | Freshwater abstracted (FDES 2.6.2.a) | 2091 | 1 | Water reso | Meteorol | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | 1 | Renewable freshwater resources (FDES 2.6.1.c) | 2092 | 1 | Water reso | Meteorol | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |

Observed changes on water resources in last 25 years



Observations

Climate Change and Natural Resources: Water and

Biodiversity...

| Α | В | С | D | E | F | G | Н | | J | К | L | М | N | 0 |
|---|---------|-------|-----------|---|------|----------------------|---------|-------------------------------|--------|----------------------------|----------|-----------------------------------|--------|---|
| | Topic 🔸 | ~ | Indicator | ▼ Statistics | | Preliminar,* Tier | Themes | ▶ National Data Sources | | Relevance | | Methodological Soundness | | Data Availability |
| | | | | | | | | | Yes/No | Reference/ Link | Partiall | Reference/ Link | Yes/No | Reference/ Link |
| | Distri | butic | on and | status of species | 242 | | | | | | | | | |
| | | 51 | Propo | rtion of population maintained within a species | 2420 | 3 | Species | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Species population (FDES 1.2.2.c.4) | 2421 | 2 | Species | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | 52 | Red lis | st index (SDG 15.5.1) | 2430 | 2 | Species | Ministry o | | | | | | |
| | | | | Number of red list species (FDES 1.2.2.c.1) | 2431 | 2 | Species | Ministry o | | | | | | |
| | | 53 | Specie | s habitat index | 2440 | 2 | Species | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Area of ecosystems (FDES 1.2.2.a.1) | 2441 | 2 | Species | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Known flora and fauna species (FDES 1.2.2.c.1) | 2442 | 2 | Species | Ministry o | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | | | | | | | | | | | |

Changes in the status of animal and plant species in last 25 years



Adaptation Measures

| A | В | С | D | E | F | G | Н | 1 | J | K | L | M | N | 0 |
|------|---------|-----|----------------|---|------|----------------------|-------------|-------------------------------|--------|----------------------------|----------|-----------------------------------|--------|---|
| Area | Topic 🔸 | ~ | ▶ Indicator | Statistics | Code | Preliminar,* Tier | Themes | ► National Data Sources | | Relevance | | Methodological Soundness | | Data Availability |
| | | | | | | | | | Yes/No | Reference/ Link | Partiall | Reference/ Link | Yes/No | Reference/ Link |
| | | 124 | Propo | rtion of agricultural area under productive and sustaina | 5260 | 2 | Agriculture | NSO/Minis | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Risk mitigation mechanisms (Subindicator of SDG 2.4.1) | 5261 | 2 | Agriculture | NSO/Minis | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Variation in water availability (Water use, Subindicator of | 5270 | 2 | Agriculture | NSO/Minis | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | | | | Use of agro-biodiversity-supportive practices (Subindicate | 5280 | 2 | Agriculture | NSO/Minis | yes | Planning Commission | yes | Climate Change Impact Survey 2016 | yes | Report on Climate Change Impact Survey 2016 |
| | : | 125 | Progre | ss towards sustainable forest management (SDG 15.2.1 | 5360 | 2 | Forests | Forestry d | | | | | | |
| 4 | | | | | - | | | | | | | | | |

Adaptation measures (farm based) adopted in last 25 years

Work on water and land conservation Start seed bank Use of cold storage Use of tunnel for vegetable farming Started mixed cropping Start agro-forestry Both livestock and crop farming Crop cultivation only Raise livestock only Agriculture insurance Livestock insurance Switch to another livestock Cultivate new crop Increase compost fertilizer Increase in-organic fertilizer Change crop cultivation time Improved seed Investment on pond Supplimental irrigation management Raise improved breed of livestock

Change cultivation technique

Agriculture skills training



Adaptatoni measures

Issues and challenges

- Data gaps
- Administrative data is not reporting on time
- Capacity development
- Coordination/collaboration
- Prevailing statistical laws and regulations have not been updated/amended
- Data sharing policy
- Weak statistical infrastructure
- Covid-19 Pandemic (First wave, second wave,)

Next steps

- Share the prefilled Consultation parts and discuss with the national focal point reporting to UNFCCC
- Share the prefilled Consultation and set up a meeting with technical committee to discuss Part I and assess most relevant indicators and data availability in the draft Global Set contained in Part II (Excel).
- Complete Part I and a draft of Part II (share draft with UNSD) and organize a second wider meeting (last week of July) with more stakeholders before finalization and submission to UNSD.



Thank you !!!

Your comments and queries are highly appreciated !!!