

# Data Sources in Environment and Climate Change Statistics



**Tenth Meeting of the Expert Group on Environment Statistics**  
**New York, 3, 4, 6 and 10 October 2023 (virtual)**  
**Session 2.3.1**



# Outline

- ❑ Statistical Surveys, including Censuses and Specialized Surveys
- ❑ Population and Housing Censuses
- ❑ Statistics and Indicators that can be sourced from Censuses
- ❑ Specialized Surveys
- ❑ Conclusion



# Statistical surveys (including censuses and specialized surveys)



# Exploring New Areas of data collection in Environment and Climate Change Statistics (2)

- The Environment Statistics Section (EVSS) has been collaborating with the Secretariat of the Pacific Community (SPC) who have developed a module and source book aimed at collecting Climate Change data. <https://www.spc.int/>
- The Section is working in close collaboration internally with the Demographic Statistics Section in reviewing environment-related questions in the population and housing censuses (PHC).

<https://unstats.un.org/unsd/demographic-social/census/document-resources/>



# Exploring New Areas of data collection in Environment and Climate Change Statistics

UNSD has been reviewing existing Censuses and surveys for many years to support countries in adding new or expanding existing questions. There has been:

- Substantial increase in the number of surveys and censuses available [online](#) (over 100).
- Better outreach to countries who have provided surveys in several languages other than English (e.g. Arabic, French, Portuguese, Spanish).
- Filterable by themes (13) separately or combined, country and year.
- A range of 27 countries spanning six regions (Africa, Asia, Europe, North America, Latin America and the Caribbean, Oceania).
- Relatively heavy focus on the themes of waste and water (32/90 surveys) but ongoing work on climate change and other themes.

Search

water

Select Country

Select Theme

- Agriculture
- Air and climate
- Climate Change
- Energy
- Environmental health
- Environmental information and education
- Environmental protection expenditure
- Fisheries
- Forests
- Household
- Inland water resources

Select Year

Filter Clear Back

## Australia, Agricultural census, 2015

Country: Australia Year: 2015 Theme: Land and agriculture

[Document Link](#)

[Background Link](#)

## Australia, Land management practices survey 2013

Country: Australia Year: 2013 Theme: Land and agriculture

[Document Link](#)

[Background Link](#)

## Australia, Rural environment and agricultural commodities survey 2014

Country: Australia Year: 2014 Theme: Land and agriculture

[Document Link](#)

[Background Link](#)

## Botswana, Agricultural censuses questionnaire - Form I Identification, 2015

Country: Botswana Year: 2015 Theme: Agriculture

[Document Link](#)

[Background Link](#)

## Botswana, Agricultural censuses questionnaire - Form II Traditional Farmers, 2015

Country: Botswana Year: 2015 Theme: Agriculture

[Document Link](#)

[Background Link](#)

## Botswana, Agricultural censuses questionnaire - Form III Traditional Farmers, 2015

Country: Botswana Year: 2015 Theme: Agriculture

[Document Link](#)

[Background Link](#)

## Botswana, Agricultural censuses questionnaire - Form IV Commercial Farmers, 2015

Country: Botswana Year: 2015 Theme: Agriculture

[Document Link](#)

[Background Link](#)

## Brazil, Forestry activities, 2013, Portuguese

Country: Brazil Year: 2013 Theme: Forests

[Document Link](#)

[Background Link](#)

# Population and Housing Censuses (PHC)



## Environment as a Separate Section or with unique questions

The UN Principles and Recommendations informs on topics to be included in a Population and Housing Census.

Censuses have traditionally included questions, and in some cases a separate section, on environmentally-related issues such as disposal of waste, water quality, toilet facility, source of energy, type of fuels used, etc.

Unique questions or separate sections, however, are still in the developmental stage or are very rare.

Although not exhaustive, some examples of countries having separate Environment sections or unique questions are:

- In 2000 round of PHC **Belize** was the only country in the world found to have a separate section on environment in the census;
- In 2010 round **Belize** and **Trinidad and Tobago** each had a separate section on the Environment.
- In 2020 round **Grenada** and **Tanzania** each had a separate section on the Environment. Tanzania added several new questions, including on climate change, in this round.
- In 2000 round of PHC **Niue Island**, a territory in the Pacific Islands, Kiribati and Hungary included unique questions on specific environmental issues.

# Statistics and Indicators from the Global Set that can be sourced from Censuses





# Statistics and Indicators from the Global Set

The following are **SOME** examples which can be sourced from Censuses:

- 17. Population growth (Tier 1)
- 18. Urban population as a proportion of total population (Tier 1)
- 24. Livestock units per agricultural area (Tier 2)
- 25. Use of nitrogen fertilizers per hectare of total agricultural area (cropland and pastures) (Tier 2)
- 83. Customer price of drinking water (Tier 2)
- 84. Water production cost (Tier 2)
- 85. Area of biofuels (and other non-food crops) as a proportion of total agricultural area (Tier 3)
- 86. Population relying on subsistence and pastoral farming (Tier 3)
- 92. Buildings (settlements) vulnerable to climate change (Tier 3)
- 93. Coverage of essential public health services (Tier 3)
- 147. Buildings adapted to climate change (Tier 3)
- 155. Water use per capita (Tier 2)

# Specialized surveys



# Specialised Surveys

Surveys are an additional method of data collection

Questions/module on the environment can be added to existing surveys e.g. LFS, HHS, MICS, etc.

Specialized Surveys can be developed -

- Several surveys can be found on UNSD's website e.g. on water and waste and more are expected to be added including on Climate change.
- The Global Consultation conducted by UNSD in 2021 on the draft Global Set revealed information from a wide range of countries on specialised surveys or modules added to existing surveys.



# Specialized Surveys on the Impact of Climate Change and Disasters

## Example of Nepal and Bangladesh

- From the Global Consultation on the draft Global Set which UNSD conducted in 2021, 12 responses indicate that NSO's developed specialized climate change surveys, or modules within an existing census or survey. These 12 responses demonstrate likely movement in the direction of NSOs increasingly being more closely involved in data collection on climate change statistics in future.
  - The Central Bureau of Statistics (CBS) of Nepal developed 2 dedicated surveys on the impact of climate change in 2016 and 2022.
  - The questionnaire cover impact of climate change including loss and damage information.
- <https://unstats.un.org/unsd/envstats/censuses/?selectName=&selectCountry=Nepal&selectYear=>
- Bangladesh Bureau of Statistics conducted 2 specialized surveys on Climate and Disasters in 2015 and 2021.

[https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/096977ca\\_4741\\_4b33\\_8214\\_7b994b64205c/2022-03-31-06-03-ac568722a963626ccfd77d872857f66b.pdf](https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/096977ca_4741_4b33_8214_7b994b64205c/2022-03-31-06-03-ac568722a963626ccfd77d872857f66b.pdf)



## Conclusion

The PHC continues to be a major source of Environment/ Climate Change data.

With the UN Principles and Recommendation rev3 being revised, there is huge window of opportunity to expand the topics to be covered in a PHC. Representatives are urged to collaborate with the EGES chair who is a member of the Census task force, on this.

Where feasible, it is advisable as countries have successfully done in the past, to

- expand existing sections on Environment/ Climate Change in the PHC questionnaire by adding more relevant questions
- explore inclusion of a separate section in the PHC
- include a module on the environment/climate change in existing surveys
- develop specialised surveys as many countries have successfully done.

*UNSD urges countries to use the search tool on our website and send us feedback; also feel free to send us any survey instruments you have used or are aware of to [envstats@un.org](mailto:envstats@un.org)*

Thank You!

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