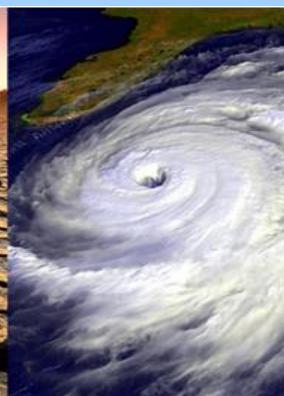


# Environment statistics surveys and censuses



Prepared by the Environment  
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**Third Meeting of the Expert Group on Environment Statistics  
New York, 20-22 April 2016**

# Environment statistics surveys and censuses

- Environment statistics surveys not as common as surveys or censuses of households, businesses
- UN member states, especially developing countries, less experienced with environment surveys
- Opportunity to benefit from sharing information
- Analysis of surveys shared with UNSD by NSOs or those found in public domain by UNSD
- Illustration of commonalities in surveys across countries
- Looking forward to have many environment surveys available online at UNSD webpage

*At its first session in 1947, the United Nations Statistical Commission (UNSC) emphasized the need for international statistical standards for the compilation and updating of comparable statistics in support of a large array of policy needs.*

*In view of the emphasis on international statistical standards throughout the history of the Commission, the following national accounts standards were produced:*

Source: <http://unstats.un.org/unsd/nationalaccount/hsna.asp>

- SNA 1953 (57 pages), '60, '64, '68, '93, 2008 (662 pages). SNA extensively uses household income and expenditure surveys
- SNA also uses enterprise surveys, price surveys, agricultural surveys or censuses, etc.
- Labour force surveys to households have existed for over 50 years. ILO in existence since 1919



# The SDGs and environment statistics surveys and censuses (some limited examples)

Goal 6: Ensure availability and sustainable management of water and sanitation for all.

- Indicators
  - 6.1.1: Percentage of population using safely managed drinking water services
  - 6.3.1 Percentage of wastewater safely treated

## FDES' Basic Set of Statistics

- 5.1.2.a. Population using an improved drinking water source
- 1.3.2.a.1. Concentration level of nitrogen (in freshwater)
- 1.3.2.a.2. Concentration level of phosphorous (in freshwater)
- 1.3.2.b.1. Biochemical oxygen demand (BOD)
- 1.3.2.b.2. Chemical oxygen demand (COD)
- ... and many more



# The SDGs and environment statistics surveys and censuses (some limited examples)

Goal 6: Ensure availability and sustainable management of water and sanitation for all.

- Indicators
  - 6.4.1 Percentage change in water use efficiency over time
  - 6.4.2 Percentage of total available water resources used, taking environmental water requirements into account (level of water stress)

## FDES' Basic Set of Statistics

- 2.6.1.c.1. Surface water stocks in artificial reservoirs
- 2.6.1.c.2. Surface water stocks in lakes
- 2.6.2.a. Total water abstraction
- 2.6.2.b. Water abstraction from surface water
- 2.6.2.c. Water abstraction from groundwater
  - 2.6.2.c.1. From renewable groundwater resources
  - 2.6.2.c.2. From non-renewable groundwater resources
- ... and many more



# The SDGs and environment statistics surveys and censuses (some limited examples)

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

- Indicator 11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities

FDES' Basic Set of Statistics:

- 3.3.1.a. Amount of waste generated by source
- 3.3.1.b. Amount of waste generated by waste category
- 3.3.1.c. Amount of hazardous waste generated
- 3.3.2.a.1. Total municipal waste collected
- 3.3.2.a.2. Amount of municipal waste treated by type of treatment and disposal
- 3.3.2.a.3. Number of municipal waste treatment and disposal facilities
- 3.3.2.b.1. Total hazardous waste collected
- ... and many more



# The SDGs and environment statistics surveys and censuses (some limited examples)

Goal 12: Ensure sustainable consumption and production patterns.

- Indicator
  - 12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment
  - 12.5.1 National recycling rate, tons of material recycled

## FDES' Basic Set of Statistics

- 3.3.1.a. Amount of waste generated by source
- 3.3.1.b. Amount of waste generated by waste category
- 3.3.1.c. Amount of hazardous waste generated
- 3.3.2.a.1. Total municipal waste collected
- 3.3.2.a.2. Amount of municipal waste treated by type of treatment and disposal
- 3.3.2.d. Amount of recycled waste
- ... and many more

# Environment statistics surveys and censuses

- Focus today is on survey and census forms themselves, especially those on water and waste
- (Mostly) excluding other issues in data collection such as:
  - Sampling frame, sampling error, weighting, estimation
  - Efforts by NSOs to increase response rates
  - Use of business registers and classifications
  - Institutional arrangements and collaboration within a country

## Sources of environment statistics:

- Statistical surveys
- Administrative records
- Remote sensing and thematic mapping
- Monitoring systems
- Scientific research and special projects

Source: <http://unstats.un.org/unsd/environment/FDES/FDES-2015-supporting-tools/FDES.pdf>

## Environment statistics can:

- use surveys intended primarily to collect environment statistics. If so, survey design reflects the objective of producing environment statistics

## Or we can...

- ...add environment-related questions to surveys intended primarily to collect data on other topics

Source: <http://unstats.un.org/unsd/environment/FDES/FDES-2015-supporting-tools/FDES.pdf>

## Advantages of environment-specific surveys:

- survey frame and sampling used can be selected based on the requirements of environment statistics
- consistent concepts and definitions can be used in questions
- most suitable type of survey modes for collecting environment statistics can be selected

Source: <http://unstats.un.org/unsd/environment/FDES/FDES-2015-supporting-tools/FDES.pdf>

## Advantages of surveys over administrative data:

- can cover the whole target population consistently over time
- questionnaires can be designed to collect relevant and conceptually sound data
- rigorous sample designs and survey procedures, and stratification can be applied.

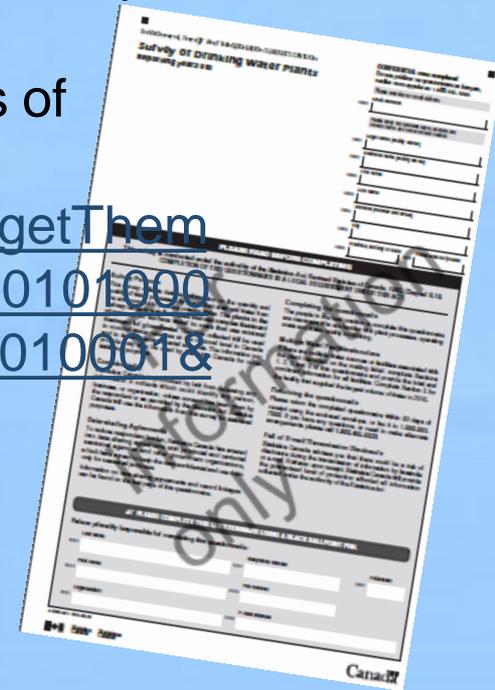
Source: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/1301.0Feature%20Article162005?opendocument&tabname=Summary&prodno=1301.0&issue=2005&num=&view=>

# Some of the fruits of UNSD Environment Stats Section efforts so far...

	A	D	E	F	G
1	Country	Census or surveys	Years of the census or	Description	Links
3	Albania	Living Standards Measurement Survey LSMS 2005	2005	The Living Standards Measurement Study (LSMS) is a household survey program focused on generating high-quality data, improving survey methods, and building capacity. The goal of the LSMS is to facilitate the use of household survey data for evidence-based policymaking. It is led by The World Bank.  Section 2: module 13 Dwelling, utilities and durable goods; module 17 Identification of agriculture households	<a href="http://siteresources.worldbank.org/INTLSMS/Resources/3358986-1181743055198/3877319-1190309366854/alb05hhqeng.pdf">http://siteresources.worldbank.org/INTLSMS/Resources/3358986-1181743055198/3877319-1190309366854/alb05hhqeng.pdf</a>
11	Australia	Environmental Health and Wellbeing Survey	2002	It is conducted by South Australian Department of Human Services. Chapters related to environment statistics include: Health symptoms (section E), which relate to aspiratory problems and exposure to traffic pollution. Environmental issues (section F), which asks questions relating to noise or odour problems in the area.	<a href="http://www.health.sa.gov.au/pehs/PDF-files/local-env-survey-02.pdf">http://www.health.sa.gov.au/pehs/PDF-files/local-env-survey-02.pdf</a>
24	Bosnia and Herzegovina	Living in Bosnia and Herzegovina Survey	2004	Household questionnaire: Module 2: Housing; Module 11: Agricultural activities	<a href="http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTLSMS/0,contentMDK:21374237?pagePK:64168445*piPK:64168309theSitePK:3358997_00.html">http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTLSMS/0,contentMDK:21374237?pagePK:64168445*piPK:64168309theSitePK:3358997_00.html</a>  <a href="http://siteresources.worldbank.org/INTLSMS/Resources/3358986-1181743055198/3877319-1190298527311/LIBHQuestionnaireShowcards_w4.pdf">http://siteresources.worldbank.org/INTLSMS/Resources/3358986-1181743055198/3877319-1190298527311/LIBHQuestionnaireShowcards_w4.pdf</a>

# 1<sup>st</sup> example: Survey of Drinking Water Plants (2015). Statistics Canada

- For information only.
- 14 pages, 69 questions in length.
- Available in full here:  
<http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5149> (accessed 12 April 2016).
- Information describing survey, data sources and methodology, target population, sampling, data accuracy, etc.
- Generic link for more environment-themed surveys of Statistics Canada's:  
[http://www23.statcan.gc.ca/imdb/pIX.pl?Function=getThemeSV&PItem\\_Id=97413&PCE\\_Id=391&PCE\\_Start=01010001&CItem\\_Id=97413&CCE\\_Id=391&CCE\\_Start=01010001&lang=en](http://www23.statcan.gc.ca/imdb/pIX.pl?Function=getThemeSV&PItem_Id=97413&PCE_Id=391&PCE_Start=01010001&CItem_Id=97413&CCE_Id=391&CCE_Start=01010001&lang=en)







# Survey of Drinking Water Plants (2015). Statistics Canada

10. Select the unit on the left and the time period on the right for the capacity value in question 9.

## UNIT

- C1021 1  Cubic metres
- 2  Litres
- 3  Mega Litres (1 million litres)
- 4  Imperial gallons (1 imperial gallon = 4.5 litres)
- 5  U.S. gallons (1 U.S. gallon = 3.8 litres)
- 6  Other (*specify units clearly*):

C1022

## TIME PERIOD

- C1023 1  Per second
- 2  Per minute
- 3  Per day
- 4  Per year
- 5  Other (*specify*):

C1024

# Survey of Drinking Water Plants (2015). Statistics Canada

## SECTOR USE AND POPULATION SERVED

### INSTRUCTIONS

- Report the percentage of water used by the sectors identified and the population served for the facility identified on the mailing label. If there are multiple water facilities/sources being reported for the facility identified on the mailing label, report the combined total for all associated sources.

12. Of the total potable water produced, indicate the percentage consumed by each category below. If only some portions are known, indicate their percentages in the relevant boxes. If exact numbers are not known, please provide your best estimate. Consult with other departments within your organization if necessary.

	PERCENTAGE
Residential	C1027 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> %
Industrial, commercial, institutional, agricultural, municipal services and other non-residential	C1028 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> %
Losses from the distribution system (leaks, system maintenance and flushing)	C1029 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> %
Wholesale water provided to other jurisdictions	C1030 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> %
<b>TOTAL</b>	<b>1 0 0 %</b>

# Survey of Drinking Water Plants (2015). Statistics Canada

14. What was the size of the population served by this Drinking Water Plant in 2015? Indicate the number of persons, the number of connections or other units used. .... C1033

C1034 1  Persons

3  Other (specify):

2  Connections

C1035

15. What source(s) of information were used for the size of the population served? Mark all that apply.

C1036 1  Specific study/analysis for this facility

3  Census data

2  Water billing accounts

4  Other (specify):

C1037

# Survey of Drinking Water Plants (2015). Statistics Canada

## INSTRUCTIONS

- In the "Process Used" column, confirm either yes or no to all the water treatment processes listed below.

UNIT PROCESSES FOR WATER TREATMENT	PROCESS USED	
	YES	NO

### PRE-TREATMENT

23. Microscreening	C3004	1	<input type="radio"/>	3	<input type="radio"/>
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24. Other pre-treatment (specify):

C3005	<input type="text"/>	C3006	1	<input type="radio"/>	3	<input type="radio"/>
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### DISINFECTION/OXIDATION

25. Chlorination (hypochlorites or chlorine gas)	C3007	1	<input type="radio"/>	3	<input type="radio"/>
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26. Chlorine dioxide	C3008	1	<input type="radio"/>	3	<input type="radio"/>
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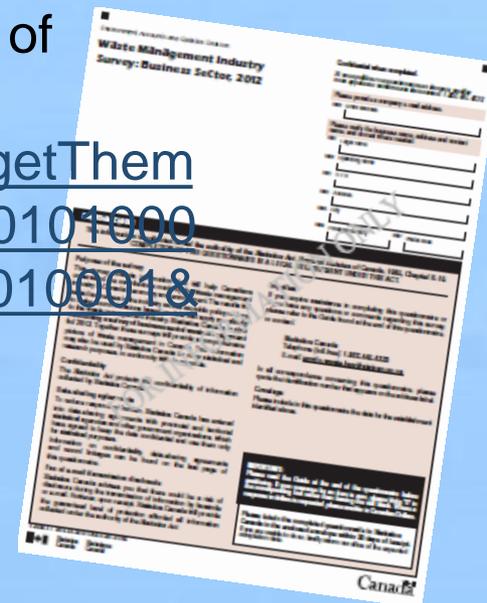
27. Chloramination	C3009	1	<input type="radio"/>	3	<input type="radio"/>
--------------------	-------	---	-----------------------	---	-----------------------

28. UV irradiation	C3010	1	<input type="radio"/>	3	<input type="radio"/>
--------------------	-------	---	-----------------------	---	-----------------------

Either Yes or No must be checked for each line item on the entire list prior to selections.

## 2<sup>nd</sup> example: Waste Management Industry Survey: Business Sector (2012). Statistics Canada

- For information only.
- 20 pages, 7 sections in length.
- Available in full here:  
<http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2009> (accessed 12 April 2016)
- Information describing survey, data sources and methodology, target population, sampling, data accuracy, etc.
- Generic link for more environment-themed surveys of Statistics Canada's:  
[http://www23.statcan.gc.ca/imdb/pIX.pl?Function=getThemeSV&PItem\\_Id=97413&PCE\\_Id=391&PCE\\_Start=01010001&CItem\\_Id=97413&CCE\\_Id=391&CCE\\_Start=01010001&lang=en](http://www23.statcan.gc.ca/imdb/pIX.pl?Function=getThemeSV&PItem_Id=97413&PCE_Id=391&PCE_Start=01010001&CItem_Id=97413&CCE_Id=391&CCE_Start=01010001&lang=en)



# Waste Management Industry Survey: Business Sector (2012).

## Statistics Canada

1.4 Please indicate which of the following waste management activities and/or services this company provides in the province/territory indicated in question 1.1. See definitions at the back of this questionnaire. Mark all that apply.

### Non-hazardous waste (garbage), recyclables and organics

- 105  Waste collection, residential
- 106  Waste collection, non-residential (IC&I and CRND)
- 134  Waste hauling or transportation
- 108  Recyclable material collection/organic material collection, residential
- 109  Recyclable material collection/organic material collection, non-residential
- 112  Recycling/organic processing services (e.g., material recycling facility, composting facility)
- 110  Waste transfer station
- 114  Waste disposal/processing facility
- 135  Other non-hazardous waste services (please specify) 136

### Hazardous waste

- 107  Waste collection
- 111  Waste transfer facility
- 113  Waste treatment
- 137  Waste recycling
- 115  Waste disposal facility
- 138  Other hazardous waste services (please specify) 139

# Waste Management Industry Survey: Business Sector (2012). Statistics Canada

## Section 3 - Waste diversion: Organic material processing and recycling Organic material processing (composting, anaerobic digestion)

Please include all quantities of food waste, materials from source separated organics programs (SSO), leaf and yard waste as well as Christmas trees and pumpkins.

Name and owner of facility	Year opened	Quantity of materials entering the facility  (metric tonnes)	Sources of materials (percentage) (Please see definitions at the back of this questionnaire)			Material disposed as processing residue (e.g., contaminated materials) (%)
			Residential  (%)	Non-residential (IC&I and CR&D)  (%)	Totals should equal 100%	
	331	332	368	369	100%	371



# Waste Management Industry Survey: Business Sector (2012).

## Statistics Canada

### Recycling

3.3 In 2012, did this company own and/or operate a material recycling facility (MRF), recycling centre or drop-off depot (municipally or privately owned) where materials were prepared/collected for recycling?

385  Yes ▶ Go to question 3.4

No ▶ Go to section 4

3.4 Please complete the following.

Name and owner of facility	Sources of materials (percentage) (Please see definitions at the back of this questionnaire)				Material disposed as processing residue (e.g., contaminated materials) (%)
	Residential (%)	Industrial, commercial and institutional (IC&I) (%)	Construction, renovation and demolition (CR&D) (%)	Totals should equal 100%	
25	228	229	230	100%	386





# Waste Management Industry Survey: Business Sector (2012). Statistics Canada

## Section 5 - Exports and imports of non-hazardous materials

### Exports and imports of waste (garbage) for disposal/processing

Name and owner of facility	Location/Address	Quantity of waste sent to another province/territory <i>(metric tonnes)</i>	Quantity of waste sent to the U.S.A. <i>(metric tonnes)</i>
	616	617	618

	Quantity of waste from other provinces/territories <i>(metric tonnes)</i>	Quantity of waste from the U.S.A. <i>(metric tonnes)</i>
Total waste imported for disposal/processing ►	651	653

# Waste Management Industry Survey: Business Sector (2012). Statistics Canada

- 3-4 pages of explanations, definitions and conversions
- Terms defined include: waste, waste management industry, anaerobic digestion, bottom ash, ferrous metals, hazardous waste, organic materials, recyclable materials, white goods, wood waste
- Conversions: cubic yard to cubic metres, kilograms to pounds, metric tonne to kilograms to pounds

# Business Registers & Environment Statistics (too important to neglect completely)

## **A Frequently Asked Question and answer from the Australian Bureau of Statistics:**

### ***How were details of my business obtained?***

*For most business based collections, details of businesses are obtained from the Australian Business Register. This contains the names and addresses of all businesses that have a registered an Australian Business Number with the Australian Taxation Office... the ABS maintains a list of businesses which it regularly profiles to ensure details are up to date.*

*For some surveys, business details may be obtained from other administrative data sources.*

Source: <http://www.abs.gov.au/websitedbs/d3310114.nsf/home/Survey+Participant+Information+-+Business+FAQs>  
(accessed 15 April 2016)

Two examples of commonalities across countries in surveys:

- Sanitation
- Drinking water

Regrettably, household surveys collecting social and related statistics with environment statistics added to them were more easily found rather than environment statistics surveys

# Sanitation and related

Mauritius,  
2011 Housing  
Census

Albania, Living  
Standards  
Measurement Survey,  
2005

HU6 TOILET FACILITIES (Main only)	Not shared	Shared
(i) Flush toilet connected to sewerage system	1 <input type="checkbox"/>	2 <input type="checkbox"/>
(ii) Flush toilet connected to absorption pit	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(iii) Flush toilet connected to septic tank	5 <input type="checkbox"/>	6 <input type="checkbox"/>
(iv) Pit latrine - water seal	7 <input type="checkbox"/>	8 <input type="checkbox"/>
(v) Pit latrine - other	9 <input type="checkbox"/>	10 <input type="checkbox"/>
(vi) Other		11 <input type="checkbox"/>
(vii) None		12 <input type="checkbox"/>

HU7 BATHING FACILITIES (Main only)	Not shared	Shared
(i) Bathroom inside with running water	1 <input type="checkbox"/>	2 <input type="checkbox"/>
(ii) Bathroom inside without running water	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(iii) Bathroom outside with running water	5 <input type="checkbox"/>	6 <input type="checkbox"/>
(iv) Bathroom outside without running water	7 <input type="checkbox"/>	8 <input type="checkbox"/>
(v) None	0 <input type="checkbox"/>	

What type of toilet does your dwelling have ?

WC INSIDE THE HOUSE	1
TWO OR MORE WC INSIDE	2
WC OUTSIDE, WITH PIPING	3
WC OUTSIDE, WITHOUT PIPING	4
OTHER (SPECIFY)	5

What type of toilet is available for your HH?

Flush toilet.....	1	
Pit latrine .....	2	
Other/ Specify .....	3	/ ___/

Is the toilet used only by your HH or do other HHs use it?

This HH only.....	1	
Shared.....	2	/ ___/

Is the toilet inside or outside the dwelling?

Inside dwelling .....	1	
Inside building.....	2	
Outside building .....	3	/ ___/

Bulgaria, Integrated Household  
Survey, 2001

# Sanitation and related

WRITE ZERO IF NOTHING

(2.26) What type of toilet is used by your household?

HOUSEHOLD FLUSH (CONNECTED TO MUNICIPAL SEWER)	1
HOUSEHOLD FLUSH (CONNECTED TO SEPTIC TANK)	2
HOUSEHOLD NON-FLUSH	3
COMMUNAL LATRINE	4
NO TOILET	5

Nepal, Living  
Standards  
Survey, 2010

**10. Is there a flushable toilet in this dwelling?**

- 1) yes
- 2) no

Poland, sample  
survey, dwelling  
module, 2011:

# Drinking water and related

(2.19) Where does your drinking water come from?

PIPED WATER SUPPLY	1	
COVERED WELL	2 ▶	(2.22)
HAND PUMP/ TUBEWELL	3 ▶	(2.22)
OPEN WELL	4 ▶	(2.22)
SPRING WATER	5 ▶	(2.22)
RIVER	6 ▶	(2.22)
OTHER SOURCE	7 ▶	(2.22)

(2.20) Do you have water piped into your house?

YES	1
NO	2

(2.21) How many hours per WEEK does your household have tap water?

HRS/WEEK

(2.22) How much did you pay for water over the last 12 months?

RUPEES

Nepal, Living Standards Survey, 2010

Bulgaria, Integrated Household Survey, 2001

What is the main type of water supply does you dwelling have?

Piped public .....	1	
Own system / pump /well.....	2	
River .....	3	→31
None (specify).....	4	→31 / ___/

Where is the tap located?

Inside dwelling.....	1	
Inside building .....	2	
Outside building.....	3	/ ___/

How do you obtain hot water?

Central district system.....	1	
Central building system.....	2	
Own electric boiler.....	3	
Own gas boiler .....	4	
Heating it on coal/wood fire.....	5	
Other (specify).....	6	/ ___/

# Drinking water and related

414 What is the main source of water?

CONNECTED	1
PUBLIC NETWORK TAP	2
TANKER	3
RIVER/CANAL/CREEK/ WHEEL	4
OPEN WELL / COVERED WELL	5
POND LAKE	6
SPRING	7
KEHRIZ (MAN-BUILT SPRING)	8
OTHER (SPECIFY)	9

Iraq, Household  
Socio Economic  
Survey 2012

Malawi, Integrated Household Panel Survey, 2013

<p>F36 What is your <u>main</u> source of <u>drinking</u> water?</p> <p>PIPED INTO DWELLING. . . 1          PIPED INTO YARD/PLOT. . . 2          COMMUNAL STANDPIPE . . .3          OPEN WELL IN YARD/PLOT. 4          OPEN PUBLIC WELL. . . . 5          PROTECTED WELL IN YARD/PLOT. . . . .6          PROTECTED PUBLIC WELL. .7          BOREHOLE . . . . . . .8          SPRING . . . . . . . .9          RIVER/STREAM. . . . .10          POND/LAKE. . . . . . .11          DAM. . . . . . . . .12          RAINWATER. . . . . .13          TANKER TRUCK/BOWSER. . 14          BOTTLED WATER. . . . .15          OTHER (SPECIFY) . . . . 16</p>	<p>F37 What was the total cost of <u>drinking</u> water for your household last month?</p> <p>IF NONE, ENTER 0 AND CONTINUE TO F38.</p> <p>MK</p>	<p>F38 How long does it take you to walk (ONE WAY) to the main water source from your dwelling?</p> <p>IF THE WATER SOURCE IS ON PREMISES, RECORD 99 FOR TIME AMOUNT AND CONTINUE TO F39.</p> <table border="1"> <tr> <td></td> <td>MINUTE..1</td> </tr> <tr> <td></td> <td>HOUR....2</td> </tr> <tr> <td>TIME AMOUNT</td> <td>TIME UNIT</td> </tr> </table>		MINUTE..1		HOUR....2	TIME AMOUNT	TIME UNIT	<p>F39 Do you use the main water source...</p> <p>ALL YEAR AROUND...1&gt;&gt;&gt;F41          ONLY RAINYSEASON...2          ONLY DRY SEASON...3</p>
	MINUTE..1								
	HOUR....2								
TIME AMOUNT	TIME UNIT								

# Drinking water and related

## Niger, Household Living Conditions and Agriculture, 2011

(6.18) what is the principal source of drinking water for the household?

### WATER FROM A TAP

- 11 Inside the dwelling
- 12 In the courtyard/concession
- 13 Neighbor's tap
- 14 Neighborhood fountain/public tap

Dry season

### OPEN WELL

- 15 Open well in the dwelling
- 16 Open well in the courtyard/concession
- 17 Open well somewhere else

### COVERED WELL OR BOREHOLE

- 18 Covered well in the dwelling
- 19 Covered well in the courtyard/concession
- 20 Protected well somewhere else
- 21 Borehole

Rainy season

### SURFACE WATER

- 22 Organized source
- 23 Non organized source
- 24 River/Lake/Dam

### OTHER SOURCES

- 25 Tanker truck
- 26 Traveling vendors (Garoua)
- 27 Bottled water
- 28 Mini AEP
- 29 Rain water
- 30 Other

(6.19) What is the distance (in meters) that separates the dwelling and the principal source of drinking water during the dry season?

If the source is in the dwelling, write 0 ► (6.21)

(6.20) How long (in minutes) does it take to go to the principal source of drinking water during the dry season?

Time taken to go

Minutes

Time taken to collect the water once at the source

Hours/Minutes

 / 

(6.21) What is the distance (in meters) that separates the dwelling and the principal source of drinking water during the rainy season?

If the source is in the dwelling, write 0 ► (6.23)

## Observations on water and waste surveys:

- Household surveys suitable for data collection on water or waste at final consumption. They are useful for data on drinking water and sanitation (& other topics such as a building's materials, energy consumption, type of energy, etc.)
- Businesses classified by industry much more suitable for data collection on other aspects of water and waste. Hence the importance of:
  - Industrial classification (e.g. International Standard Industrial Classification of All Economic Activities, Rev. 4)
  - Business registry/registrar

Likely that SDG agenda will influence environment statistics surveys and censuses like the MDG agenda may have done to other surveys

### Questions to experts:

- How do you (and NSOs in general) feel toward confidentiality of surveys (bearing in mind the Fundamental Principles of Official Statistics)?
- Can surveys and censuses be more freely shared by NSOs?
- How can a single online repository of environment-related surveys (available on the UNSD webpage) best service member states' needs?
- Can UNSD serve as an intermediary for facilitating dialogue on survey analysis between countries?
- How can one analyse the effectiveness of a particular question within a survey?

**Principle 6.** Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.