UNSD

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United Nations Statistics Division (UNSD) and United Nations Environment Programme (UNEP)

QUESTIONNAIRE 2010 ON ENVIRONMENT STATISTICS

Section: WATER

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GUIDANCE

INTRODUCTION

The biennial data collection which is a joint activity of the United Nations Statistics Division (UNSD) and the United Nations Environment Programme (UNEP) contributes to the development of the UNSD International Environment Statistics Database. The data will be analyzed and consolidated by UNSD for use in international work and will be made available to users at UNSD's website.

The data requested in this questionnaire may be initially collected or compiled by different institutions in a country. The national statistical offices or ministries of environment are asked to bring together the data from these different sources.

Where a country has provided data to previous UNSD/UNEP Questionnaires on Environment Statistics, the 2010 Questionnaire has been pre-filled with these data. Countries are requested to add data for later years and to check the time series for consistency.

The definitions are listed in order of appearance of the variables. Where variables are repeated, the definition can be found where the variable first appeared.

Copies of the questionnaire are available online at http://unstats.un.org/unsd/environment/questionnaire.htm. Data from previous data collections are available at http://unstats.un.org/unsd/environment/qindicators.htm.

The water questionnaire asks for key information concerning water resources management in a country. The tables cover renewable freshwater resources, freshwater abstraction, distribution and use, and wastewater treatment.

Because of the complex nature of water-related environmental issues, countries are asked to provide additional information that assists the analysis and interpretation of the data in the Supplementary Information Sheet (W8).

A useful reference against which water resources data can be compared is the FAO Aquastat database: http://www.fao.org/nr/water/aquastat/main/index.stm.

Changes from the UNSD/UNEP Questionnaire 2008 on Environment Statistics:

Diagrams have been developed by UNSD to demonstrate the relationships between variables in Tables W1, W2, W3, W4, and W5. Respondents are encouraged to use the diagrams for clarifications on the concepts underlying the data requested in this questionnaire. Click on the cells to link to the corresponding variable in the tables.

Table W3 (W2 in the previous questionnaire) has been modified and renamed "Freshwater available for use".

The tables have been reordered to reflect a logical sequence to the underlying concepts (e.g., W2 was W3 in the previous questionnaire).

A data validation section is added next to each table. It includes two validation table types: time series validation and coherence validation. It will help both the country and UNSD to validate the data provided.

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STEPS TO FOLLOW

- ☑ Fill in the contact institution information at the top of each table.
- ☑ Check the pre-filled data and, if possible, kindly update in the table. Tables are pre-filled with data received from previous UNSD/UNEP Questionnaires. Check the pre-filled footnotes and correct them if necessary.
- ☑ If necessary, include footnotes to give additional information on data. Assign codes in alphabetical order (e.g., A, B, C...) in the first column to the right of the data and in the 'Footnotes' section below each table. Write your explanatory text in the footnote text column next to the associated code. If there are big data fluctuations in the time series, add footnotes to explain the large changes.
- ☑ Based on the definitions provided, fill in the tables as much as possible (see the Definitions Sheet). If a different definition or methodology has been used, explain the differences in a footnote or provide the definition and/or methodology applied in the Supplementary Information Sheet (W8).
- ☑ If data are not available for the years included in each table, provide the data you might have for other years and add a footnote for the years to which the data apply. Note that years 1990, 1995-1999 can also be viewed/edited: Select column E to column T, right-click, and select "Unhide".
- ☑ Provide as much information as possible in the footnotes on the source and data collection method for each value.
- ☑ **If the requested data are not available, leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country, or the value is less than half the unit of measurement, the cell should be filled with "0".**
- ☑ Report data in the requested unit. A conversion matrix is provided below the description of tables.
- ☑ Attach any documents or reference which could help UNSD to understand your data.
- ☑ After you have filled in the data for each table, check the flagged cases (in red) for data coherence in the data validation section next to each table.

Contact us: If you have any questions, contact the United Nations Statistics Division

- by mail: UN Statistics Division, Environment Statistics Section, DC2 -1416, 2 United Nations Plaza, New York, New York, 10017, USA
- by e-mail: envstats@un.org
- by fax: +1 (212) 963-0623
- by phone: Reena Shah at +1 (212) 963-4586, or Yongyi Min at +1 (212) 963-9296, or Daniel Clarke +1 (917) 367-7048 or Robin Carrington at +1 (212) 963-6234.

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DESCRIPTION OF TABLES

Table W1: Renewable Freshwater Resources
Table W1 covers the main components to assess the renewable freshwater resources and their availability in a country. Renewable freshwater (surface and groundwater) resources are replenished by precipitation (less evapotranspiration) falling over the territory of the country that ends up as runoff to rivers and recharge to aquifers (internal flow), and by surface waters and groundwater flowing in from other countries (inflow). The data requested in the table are usually based on hydrological/meteorological monitoring and modelling.
Table W2: Freshwater Abstraction
Freshwater can be abstracted from surface waters (rivers, lakes etc.) and from groundwaters (through wells or springs). Water is abstracted by the public or private bodies whose main function is to provide water to the general public (the water supply industry). It can also be directly abstracted from rivers, lakes, wells or springs by industries, farmers, households and others. The table asks for data on abstraction of freshwater, broken down according to the main activity of the water abstractor, as defined by the International Standard Industrial Classification of All Economic Activities (ISIC Rev. 4).
Table W3: Freshwater Available for Use
Table W3 covers the amount of water made available for use by adding up the various water sources (abstraction, desalination, reuse and net imports). Total water available for use is the net abstractions in the referenced year, plus freshwater from desalination, reuse, and imports, minus exports. Total freshwater use equals total water available for use minus losses during transport.
Table W4: Total Water Use
Table W4 asks for the overall amount of water used by the main ISIC groupings. Figures should include water delivered by the water supply industry, water directly abstracted by the user from ground or surface waters, and water received from other parties. Water abstracted but returned without use (for example, drainage water or mine water), should be excluded.
Table W5: Water Supply Industry (ISIC 36)
Table W5 focuses on the water supply industry, i.e., the public or private bodies whose main function is to provide water to the general public. It asks for the quantities of water delivered by the water supply industry to its customers (water users), broken down by the main ISIC groupings. It also asks for water losses and for the population served by the water supply industry. The term water supply industry is identical to 'public water supply' in previous versions of the questionnaire and it refers to economic units belonging to ISIC 36 (water collection, treatment and supply).

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Table W6: Wastewater Treatment Facilities

Wastewater can be discharged directly into water bodies, or may be treated to remove some of the pollutants before being discharged. This table asks for details (number, design capacity) of the wastewater treatment infrastructure, and covers treatment stations serving a larger population and independent treatment stations for a small number of households, as well as treatment stations for industrial wastewater. The amount and type of pollutants removed will depend on the technical specifications of the wastewater treatment plant. The table distinguishes primary, secondary and tertiary treatment according to the level of wastewater treatment (see definitions).

Table W7: Population Connected to Wastewater Treatment

The share of the resident population connected to public wastewater collecting system, to public wastewater treatment and to independent treatment facilities indicate the coverage and level of sanitation.

Table W8: Supplementary Information Sheet

Table W8 is where any relevant additional information can be added. For example, UNSD has provided a generic definition of freshwater in the Definitions sheet for this questionnaire. However, a more specific national definition (e.g., indicating a degree of salinity) would be useful for international comparisons.
In addition, countries are encouraged to provide or attach any complementary source of information such as website addresses, publications, results of surveys, etc., related to the water topic, particularly if countries encountered difficulties filling in the questionnaire.

CONVERSION TABLE

To Convert	To	Multiply by
gallons (UK)	l	4.54609
gallons (US)	l	3.785411784
m^3	l	1000
litre (l)	m^3	0.001
ml	l	0.001

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List of Definitions

Industry Classification

This questionnaire uses the International Standard Industrial Classification of All Economic Activities (ISIC Rev. 4) to attribute water abstraction and use to economic activities. The codes used in this questionnaire are listed below. For the full classification, see http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=27.

ISIC Code(s)	Questionnaire abbreviation	ISIC Rev. 4
E 36	**Water supply industry**	The water collection treatment and supply industry includes water collection, treatment and distribution activities for domestic and industrial needs. This includes abstraction of water for distribution from various sources (mainly surface water and groundwater), natural water (CPC 1800) treatment for distribution and the actual distribution of natural water (CPC 1800) by pipes, channels and other means. The operation of irrigation canals is also included; however the provision of irrigation services through sprinklers, and similar agricultural support services, is not included. (Remark: In earlier versions of the questionnaire, the term *Public Water Supply* was used instead of *Water Supply Industry*)
E 37	**Wastewater treatment (sewerage)**	This division includes: - operation of sewer systems or sewer treatment facilities - collecting and transporting of human or industrial wastewater from one or several users, as well as rain water by means of sewerage networks, collectors, tanks and other means of transport (sewage vehicles etc.) - emptying and cleaning of cesspools and septic tanks, sinks and pits from sewage; servicing of chemical toilets - treatment of wastewater (including human and industrial wastewater, water from swimming pools etc.) by means of physical, chemical and biological processes like dilution, screening, filtering, sedimentation etc. - maintenance and cleaning of sewers and drains, including sewer rodding.
A 01-03	**Agriculture, forestry and fishing**	**Agriculture, forestry and fishing** cover crop and animal production, hunting and related service activities, forestry and logging, fishing and aquaculture. This section includes the exploitation of vegetal and animal natural resources, comprising the activities of growing of crops, raising and breeding of animals, harvesting of timber and other plants, animals or animal products from a farm or their natural habitats.
C 10-33	**Manufacturing**	**Manufacturing** includes the physical or chemical transformation of materials, substances, or components into new products. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.
D 351	**Electricity industry**	**Production, transmission and distribution of electricity.** **For the purposes of this questionnaire, water for hydroelectricity generation (e.g., water behind dams) should be excluded.**
	Other economic activities	For the purpose of the questionnaire, **other economic activities** refer to all other economic activities not specified before.

Definitions for Water

Table	Term	Definitions
W1, 1	**Precipitation**	Total volume of atmospheric wet precipitation (rain, snow, hail, dew, etc.) falling on the territory of the country over one year, in million cubic metres (mio m^3).
W1, 2	**Actual evapotranspiration**	Total actual volume of evaporation from the ground, wetlands and natural water bodies and transpiration of plants. According to the definition of this concept in Hydrology, the evapotranspiration generated by all human interventions is excluded, except unirrigated agriculture and forestry. The 'actual evapotranspiration' is calculated using different types of mathematical models, ranging from very simple algorithms (Budyko, Turn Pyke, etc.) to schemes that represent the hydrological cycle in detail.
W1, 3	**Internal flow**	Total volume of river run-off and groundwater generated over the period of a year, in natural conditions, exclusively by precipitation into a territory. The internal flow is equal to precipitation less actual evapotranspiration and can be calculated or measured. If the river run-off and groundwater generation are measured separately, transfers between surface and groundwater should be netted out to avoid double counting.
W1, 4	**Inflow of surface and groundwaters**	Total volume of actual external inflow of rivers and groundwater, coming from neighbouring countries. Boundary waters should be divided 50/50 between the two riparian countries, unless other water sharing agreements exist.
W1, 5	**Renewable freshwater resources**	= Internal flow + Inflow of surface and groundwaters.
W1, 6	**Outflow of surface and groundwaters**	Actual outflow of rivers and groundwater into neighbouring countries and/or into the sea.
W1	**Long-term annual average**	Arithmetic average over at least 20 consecutive years. Please provide average over available period and indicate the length of the time period in the footnotes.
W2	**Fresh surface water**	Freshwater which flows over, or rests on, the surface of a land mass; natural watercourses such as rivers, streams, brooks, lakes, etc., as well as artificial watercourses such as irrigation, industrial and navigation canals, drainage systems and artificial reservoirs. For purposes of this questionnaire, water obtained through bank filtration is included under (fresh) surface water. Sea-water, and transitional waters, such as brackish swamps, lagoons and estuarine areas are not considered fresh surface water. **Bank filtration** is the use of existing geologic formations adjacent to surface water bodies to filter drinking water. Wells are dug in fine, sandy sediments next to water bodies and water is extracted from these wells. Water in the water bodies filters through the sediments, removing contaminants.
W2	**Fresh groundwater**	Freshwater which is being held in, and can usually be recovered from, or via, an underground formation. All permanent and temporary deposits of water, both artificially charged and naturally, in the subsoil, of sufficient quality for at least seasonal use. This category includes phreatic water-bearing strata, as well as deep strata under pressure or not, contained in porous or fracture soils. For purposes of this questionnaire, groundwater includes springs, both concentrated and diffused, which may be subaqueous.

Definitions for Water

W2, 1 & W3, 1	**Gross freshwater abstracted**	Water removed from any source, either permanently or temporarily. Includes abstraction by the water supply industry (ISIC 36) and direct abstraction by other activities, and water abstracted but returned without use, such as mine water and drainage water.
W2, 2	**Freshwater abstraction by water supply industry**	Water abstraction by economic units engaged in collection, purification and distribution of water (including desalting of sea water to produce water as the principal product of interest, and excluding system operation for agricultural purposes and treatment of wastewater solely in order to prevent pollution.) The water supply industry is classified as ISIC 36 in the International Standard Industrial Classification of All Economic Activities (ISIC Rev. 4).
W2, 6, W2, 16 & W2, 26	**Freshwater abstraction by Electricity industry (ISIC 351)**	**Excludes** water for hydroelectricity generation (e.g., water behind dams).
W2, 21	**Gross fresh groundwater abstracted**	Fresh groundwater removed from the ground, either permanently or temporarily. Includes abstraction by the water supply industry (ISIC 36) and direct abstraction by other activities, and water abstracted but returned without use, such as mine water and drainage water. Note artificial recharge is not deducted from this figure.
W3, 2	**Water returned without use**	Water discharged into freshwaters without use, or before use. Occurs primarily during mining and construction activities. Excludes discharges into the sea.
W3, 3	**Net freshwater abstracted**	= Gross freshwater abstracted - water returned without use.
W3, 4	**Desalinated water**	Total volume of water obtained from desalination of (i.e., removal of salt from) seawater and brackish water.
W3, 5	**Reused water**	Used water directly received from another user with or without treatment. Excludes water discharged into a watercourse and used again downstream. Excludes recycling of water within industrial sites.
W3, 6	**Imports of water**	Total volume of bulk freshwater that is imported from other countries as a commodity through pipelines or on ships or trucks. Excludes bottled water.
W3, 7	**Exports of water**	Total volume of bulk freshwater that is exported to other countries as a commodity through pipelines or on ships or trucks. Excludes bottled water.
W3, 8	**Total freshwater available for use**	= Net freshwater abstraction + Desalinated water + Reused water + Imports of water - Exports of water.
W3, 9 & W5, 2	**Losses during transport**	The volume of freshwater lost during transport between a point of abstraction and a point of use, and between points of use and reuse. Includes leakages and evaporation. Excludes losses due to illegal tapping and use of water which should be included in use figures in Table W4.

Definitions for Water

W3, 10 & W4, 1	**Total freshwater use**	Refers to the quantity of freshwater that is actually used in a year by end users including water delivered by the water supply industry (ISIC 36), water directly abstracted for own use and water received from other parties. Excludes freshwater returned without use. = Total freshwater available for use - Losses during transport (in Table W3) = used by (Household + Agriculture, forestry and fishing + Manufacturing + Electricity industry + Other economic activities) (in Table W4)
W4, 2	**Household freshwater use**	Freshwater used in the normal functioning of households (e.g., drinking and washing). It may include watering of a household garden but should not include freshwater used for commercial agriculture.
W4, 4	**Irrigation in agriculture**	Artificial application of water on land to assist in the growing of crops and pastures.
W5, 1	**Gross freshwater supplied by water supply industry (ISIC 36)**	Water delivered by water supply industry to the user. Includes losses during transport.
W5, 5	**Net freshwater supplied by water supply industry (ISIC 36)**	Gross freshwater delivered by public water supply industry minus freshwater losses during transport.
W5, 11-13	**Total (urban, rural) population supplied by water supply industry (ISIC 36)**	The percentage of the resident population connected to the water supply.
W6	**Wastewater**	Water which is of no further value to the purpose for which it was used because of its quality, quantity or time of occurrence. However, wastewater from one user can be a potential supply to a user elsewhere.
W6	**Urban wastewater treatment**	Urban wastewater treatment is all treatment of wastewater in urban wastewater treatment plants (UWWTP's). UWWTP's are usually operated by public authorities or by private companies working by order of public authorities. Includes wastewater delivered to treatment plants by trucks.
W6	**Other wastewater treatment**	Treatment of wastewater in any non-public treatment plant, i.e., industrial wastewater treatment plants (IWWP). Excluded from "other wastewater treatment" is the treatment in septic tanks.
W6	**Primary wastewater treatment**	Treatment of wastewater by a physical and/or chemical process involving settlement of suspended solids, or other process in which the Biological Oxygen Demand (BOD_5) of the incoming wastewater is reduced by at least 20% before discharge and the total suspended solids of the incoming wastewater are reduced by at least 50%.To avoid double counting, water subjected to more than one type of treatment should be reported under the highest level of treatment only.
W6	**Secondary wastewater treatment**	Post-primary treatment of wastewater by a process generally involving biological or other treatment with a secondary settlement or other process, resulting in a Biological Oxygen Demand (BOD_5) removal of at least 70% and a Chemical Oxygen Demand (COD) removal of at least 75%.To avoid double counting, water subjected to more than one type of treatment should be reported under the highest level of treatment only.
W6	**Tertiary wastewater treatment**	Treatment (additional to secondary treatment) of nitrogen and/or phosphorous and/or any other pollutant affecting the quality or a specific use of water: microbiological pollution, colour etc . The different possible treatment efficiencies ('organic pollution removal' of at least 95% for BOD_5, 85% for COD, 'nitrogen removal' of at least 70%, 'phosphorus removal' of at least 80% and 'microbiological removal') cannot be added and are exclusive. To avoid double counting, water subjected to more than one type of treatment should be reported under the highest level of treatment only.

Definitions for Water

W6	**Independent wastewater treatment**	Collection, preliminary treatment, treatment, infiltration or discharge of domestic wastewater from dwellings generally between 1 and 50 population equivalents, not connected to a wastewater collection system. An example is septic tanks. Excluded are systems with storage tanks from which the wastewater is transported periodically by trucks to a wastewater treatment plant.
W6, 2	**Design capacity (volume)**	The average daily volume that a treatment plant or other facility is designed to treat.
W6, 3	**Biochemical Oxygen Demand (BOD_5)**	Amount of dissolved oxygen required by organisms for the aerobic decomposition of organic matter present in water. This is measured at 20 degrees Celsius for a period of five days. The parameter yields information on the degree of water pollution with organic matter.
W6, 3	**Design capacity (BOD)**	The quantity of oxygen-demanding material that wastewater treatment plants are designed to treat daily with a certain efficiency. For secondary treatment plants the BOD-capacity is mostly limited by the oxygenation capacity, i.e., the quantity of oxygen that can be brought into the water to keep the oxygen concentration on a suitable level.
W6, 4	**Actual occupation (volume)**	The average daily volume of wastewater that treatment plants actually treat.
W6, 5	**Actual occupation (BOD)**	The average quantity of oxygen-demanding material that wastewater treatment plants treat daily (with a certain efficiency). For secondary treatment plants the BOD-capacity is mostly limited by the oxygenation capacity, i.e., the quantity of oxygen that can be brought into the water to keep the oxygen concentration on a suitable level.
W6, 17	**Sewage sludge production (dry matter)**	The accumulated settled solids, either moist or mixed, with a liquid component as a result of natural or artificial processes, that have been separated from various types of wastewater during treatment. Data on dry weight should be provided. If data are only available for wet weight, please fill in the data for wet weight and specify in a footnote.
W7, 1	**Population connected to wastewater collecting system**	The percentage of population connected to the wastewater collecting systems (sewerage). Wastewater collecting systems may deliver wastewater to treatment plants or may discharge it without treatment to the environment.
W7, 2	**Population connected to wastewater treatment**	The percentage of population whose wastewater is treated at wastewater treatment plants.
W7, 4	**Population with independent wastewater treatment (e.g., septic tanks)**	The percentage of population whose wastewater is treated in individual, often private facilities such as septic tanks.
W7, 6	**Population not connected to wastewater treatment**	The percentage of the resident population whose wastewater is neither treated in treatment plants nor in independent treatment facilities.
	Freshwater	Freshwater is water that contains only minimal quantities of dissolved salts, especially sodium chloride, thus distinguishing it from sea water or brackish water.
	Brackish water	Water that is saltier than freshwater and less salty than sea water. Technically, brackish water contains between 0.5 and 30 grams of salt per litre, but most brackish water have a concentration of total dissolved salts is in the range of 1,000-10,000 milligrams per litre (mg/l).
	Sea water	Sea water is water from a sea or ocean. On average, sea water in the world's oceans has a salinity of ~3.5%. This means that for every 1 litre (1000 ml) of sea water there are 35 grams of salts (mostly, but not entirely, sodium chloride) dissolved in it.

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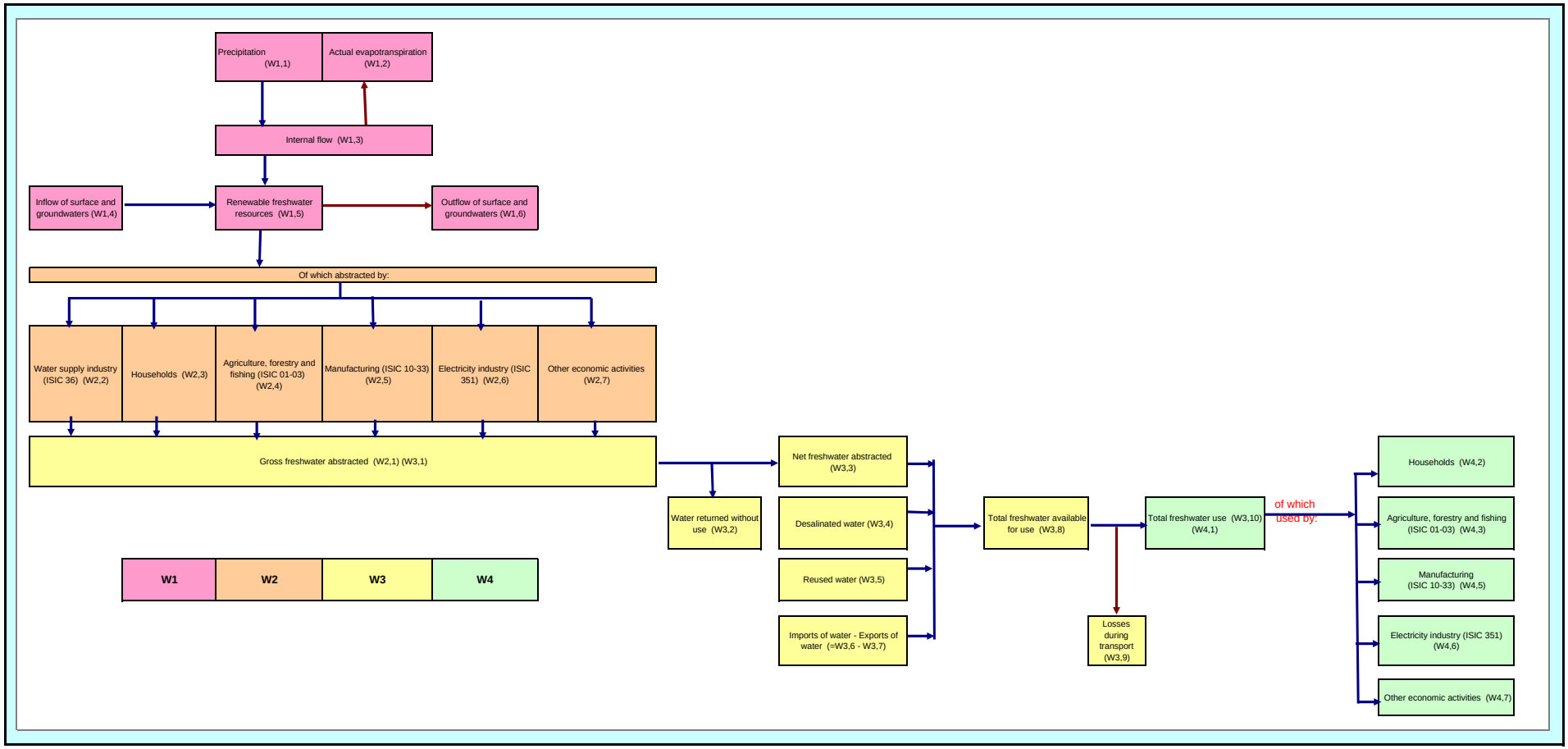
This diagram has been developed by UNSD to demonstrate the relationships between variables in Tables W1, W2, W3, and W4. Respondents are encouraged to use this diagram for clarifications on the concepts underlying the data requested in this questionnaire.

Diagram: Summary of freshwater resources, freshwater abstraction, distribution and use.



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Country: **Contact institution:**

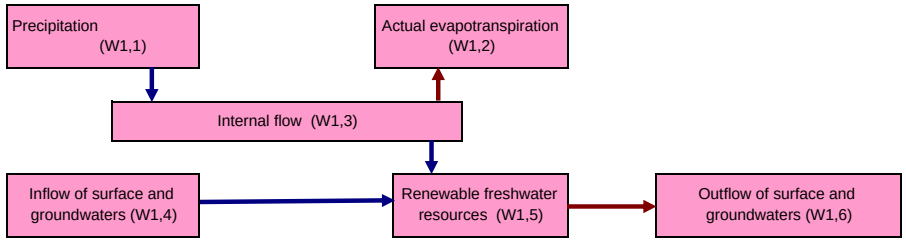
Table W1: Renewable Freshwater Resources

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	Long-term annual average	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	Precipitation	mio m^3/y													
2	Actual evapotranspiration	mio m^3/y													
3	Internal flow (=1-2)	mio m^3/y													
4	Inflow of surface and groundwaters	mio m^3/y													
5	**Renewable freshwater resources (=3+4)**	mio m^3/y													
6	Outflow of surface and groundwaters	mio m^3/y													

Notes :

- Precipitation figures should be based on representative precipitation measurements from across the country and the country's climatic zones.
- Long-term annual average is the arithmetic average over at least 20 consecutive years. Please provide average over the available period and indicate the length of the time period in the footnotes.
- If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the titles of the original sources (e.g., surveys or administrative records).
- Data can also be viewed/edited for years 1996 -1999. Select column H to column T, right-click, and select "Unhide".



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Footnotes

Code	Footnote text

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Table W2: Freshwater Abstraction

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Water abstracted													
1	**Gross freshwater abstracted (=11+21) (=2+3+4+5+6+7) (=W3,1)**	mio m^3/y												
	Of which abstracted by:													
2	Water supply industry (ISIC 36) (=12+22)	mio m^3/y												
3	Households (=13+23)	mio m^3/y												
4	Agriculture, forestry and fishing (ISIC 01-03) (=14+24)	mio m^3/y												
5	Manufacturing (ISIC 10-33) (=15+25)	mio m^3/y												
6	Electricity industry (ISIC 351) (=16+26)	mio m^3/y												
7	Other economic activities (=17+27)	mio m^3/y												
	Surface water abstracted													
11	**Gross fresh surface water abstracted (=12+13+14+15+16+17)**	mio m^3/y												
	Of which abstracted by:													
12	Water supply industry (ISIC 36)	mio m^3/y												
13	Households	mio m^3/y												
14	Agriculture, forestry and fishing (ISIC 01-03)	mio m^3/y												
15	Manufacturing (ISIC 10-33)	mio m^3/y												
16	Electricity industry (ISIC 351)	mio m^3/y												
17	Other economic activities	mio m^3/y												
	Groundwater abstracted													
21	**Gross fresh groundwater abstracted (=22+23+24+25+26+27)**	mio m^3/y												
	Of which abstracted by:													
22	Water supply industry (ISIC 36)	mio m^3/y												
23	Households	mio m^3/y												
24	Agriculture, forestry and fishing (ISIC 01-03)	mio m^3/y												
25	Manufacturing (ISIC 10-33)	mio m^3/y												
26	Electricity industry (ISIC 351)	mio m^3/y												
27	Other economic activities	mio m^3/y												

Notes :

- This table covers water abstraction from water bodies (rivers, lakes, groundwater etc.) by the abstractor.
- Water for hydroelectricity generation purposes should be **excluded** from electricity industry.
- If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the titles of the original sources (e.g., surveys or administrative records).
- Data can also be viewed/edited for years 1996 -1999. Select column H to column T, right-click, and select "Unhide".

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Footnotes

Code	Footnote text

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Country: **Contact institution:**

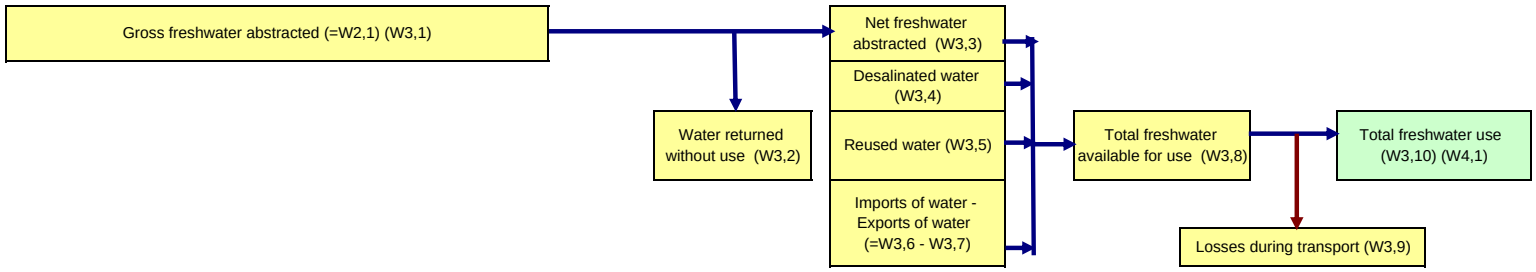
Table W3: Freshwater Available for Use

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	Gross freshwater abstracted (=W2,1)	mio m^3/y												
2	Water returned without use	mio m^3/y												
3	**Net freshwater abstracted (=1-2)**	mio m^3/y												
4	Desalinated water	mio m^3/y												
5	Reused water	mio m^3/y												
6	Imports of water	mio m^3/y												
7	Exports of water	mio m^3/y												
8	**Total freshwater available for use (=3+4+5+6-7)**	mio m^3/y												
9	Losses during transport	mio m^3/y												
10	**Total freshwater use (=8-9) (=W4,1)**	mio m^3/y												

Notes :

- Gross freshwater abstracted is water removed from any source, either permanently or temporarily. Includes abstraction by the water supply industry (ISIC 36) and direct abstraction by other activities, and water abstracted but returned without use, such as mine water and drainage water.
- Water returned without use is water discharged into freshwaters without use, or before use. Occurs primarily during mining and construction activities. Excludes discharges into the sea.
- Losses during transport includes evaporation and should be greater than or equal to Table W5, line 2 (which pertains to ISIC 36 only).
- If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the titles of the original sources (e.g., surveys or administrative records).
- Data can also be viewed/edited for years 1996 -1999. Select column H to column T, right-click, and select "Unhide".



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Footnotes

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Table W4: Total Water Use

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	**Total freshwater use** (=2+3+5+6+7) (=W3,10)	mio m^3/y												
	of which used by:													
2	Households	mio m^3/y												
3	Agriculture, forestry and fishing (ISIC 01-03)	mio m^3/y												
4	*of which* for irrigation in agriculture	mio m^3/y												
5	Manufacturing (ISIC 10-33)	mio m^3/y												
6	Electricity industry (ISIC 351)	mio m^3/y												
7	Other economic activities	mio m^3/y												

Notes :

- This table covers all water uses, including self-abstracted water, water supplied by public or private water industries, and water received from other parties.
- Water for hydroelectricity generation purposes should be **excluded** from electricity industry.
- If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the titles of the original sources (e.g., surveys or administrative records).
- Data can also be viewed/edited for years 1996 -1999. Select column H to column T, right-click, and select "Unhide".

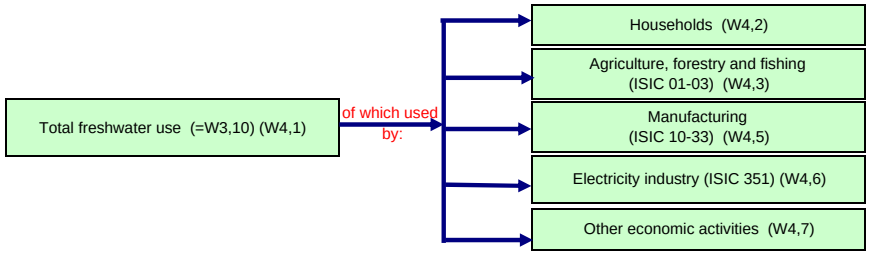

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Table W5: Water Supply Industry (ISIC 36)

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	Gross freshwater supplied by water supply industry (ISIC 36)	mio m^3/y												
2	Losses during transport by ISIC 36	mio m^3/y												
3	*of which:* Losses by evaporation	mio m^3/y												
4	Losses by leakage	mio m^3/y												
5	**Net freshwater supplied by water supply industry (ISIC 36) (=1-2) (=6+7+8+9+10)**	mio m^3/y												
	of which supplied to:													
6	Households	mio m^3/y												
7	Agriculture, forestry and fishing (ISIC 01-03)	mio m^3/y												
8	Manufacturing (ISIC 10-33)	mio m^3/y												
9	Electricity industry (ISIC 351)	mio m^3/y												
10	Other economic activities	mio m^3/y												
	Population supplied by water supply industry (ISIC 36)													
11	Total population supplied by water supply industry (ISIC 36)	%												
12	Urban population supplied by water supply industry (ISIC 36)	%												
13	Rural population supplied by water supply industry (ISIC 36)	%												

Notes:

- This table covers water supplied by water supply industries, whether under public or under private control. It corresponds to what was called public water supply in previous questionnaires.
- If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".
- Water for hydroelectricity generation purposes should be **excluded** from electricity industry.
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the titles of the original sources (e.g., surveys or administrative records).
- Data can also be viewed/edited for years 1996 -1999. Select column H to column T, right-click, and select "Unhide".

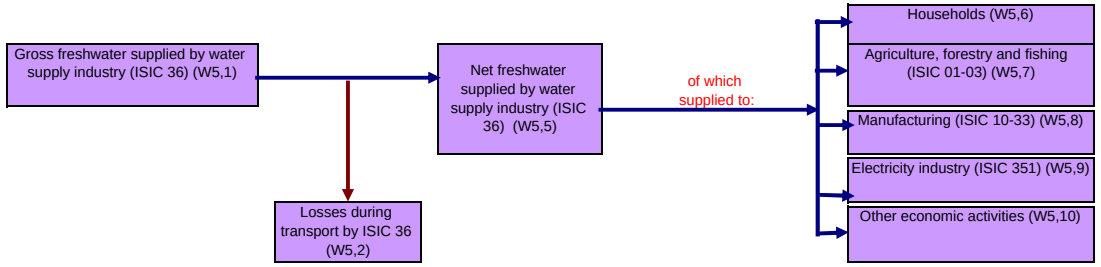

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Table W6: Wastewater Treatment Facilities

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
URBAN WASTEWATER TREATMENT														
	Primary wastewater treatment													
1	Number of plants	Number												
2	Design capacity (Volume)	1000 m^3/d												
3	Design capacity (BOD)	1000 kg O_2/d												
4	Actual occupation (Volume)	1000 m^3/d												
5	Actual occupation (BOD)	1000 kg O_2/d												
	Secondary wastewater treatment													
6	Number of plants	Number												
7	Design capacity (Volume)	1000 m^3/d												
8	Design capacity (BOD)	1000 kg O_2/d												
9	Actual occupation (Volume)	1000 m^3/d												
10	Actual occupation (BOD)	1000 kg O_2/d												
	Tertiary wastewater treatment													
11	Number of plants	Number												
12	Design capacity (Volume)	1000 m^3/d												
13	Design capacity (BOD)	1000 kg O_2/d												
14	Actual occupation (Volume)	1000 m^3/d												
15	Actual occupation (BOD)	1000 kg O_2/d												
INDEPENDENT WASTEWATER TREATMENT														
16	Number of plants	Number												
17	Design capacity (Volume)	1000 m^3/d												
18	Design capacity (BOD)	1000 kg O_2/d												
19	Actual occupation (Volume)	1000 m^3/d												
20	Actual occupation (BOD)	1000 kg O_2/d												
OTHER WASTEWATER TREATMENT														
	Primary wastewater treatment													
21	Number of plants	Number												
22	Design capacity (Volume)	1000 m^3/d												
23	Design capacity (BOD)	1000 kg O_2/d												
24	Actual occupation (Volume)	1000 m^3/d												
25	Actual occupation (BOD)	1000 kg O_2/d												
	Secondary wastewater treatment													
26	Number of plants	Number												
27	Design capacity (Volume)	1000 m^3/d												
28	Design capacity (BOD)	1000 kg O_2/d												
29	Actual occupation (Volume)	1000 m^3/d												
30	Actual occupation (BOD)	1000 kg O_2/d												

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Table W6: Wastewater Treatment Facilities

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Tertiary wastewater treatment													
31	Number of plants	Number												
32	Design capacity (Volume)	1000 m^3/d												
33	Design capacity (BOD)	1000 kg O_2/d												
34	Actual occupation (Volume)	1000 m^3/d												
35	Actual occupation (BOD)	1000 kg O_2/d												
SEWAGE SLUDGE PRODUCTION														
36	Sewage sludge production (dry matter)	1000 t												

Notes:

- To avoid double counting, water subjected to more than one type of treatment should be reported under the highest level of treatment only.
- If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the titles of the original sources (e.g., surveys or administrative records).
- Data can also be viewed/edited for years 1996 -1999. Select column H to column T, right-click, and select "Unhide".

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Table W7: Population Connected to Wastewater Treatment

• Unhide to view/edit previous years • If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	Population connected to wastewater collecting system	%												
2	Population connected to wastewater treatment	%												
3	*of which* at least secondary treatment	%												
4	Population with independent wastewater treatment (e.g., septic tanks)	%												
5	*of which* at least secondary treatment	%												
6	Population not connected to wastewater treatment (100% - (2) - (4))	%												

Notes :

- If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the titles of the original sources (e.g., surveys or administrative records).
- Data can also be viewed/edited for years 1996 -1999. Select column H to column T, right-click, and select "Unhide".

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Table W8: Supplementary Information Sheet

Please insert the national definition for freshwater below:
Please provide supplementary information below, such as: calculation method used for various inflows and outflows; the reference period covered in the long-term annual averages; the methodology used for estimating evapotranspiration, additional categories of national water use statistics, etc.
Please describe the difficulties encountered in filling in the questionnaire.