Statistics of Water Resources in Russian Federation

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The Institutional Structure of Information

Formation of the official statistical information on water resources is carried out by parties of official statistical accounting in accordance with the Federal statistical work plan approved by the Federal Government of 06.05.2008 year. №671-p

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Renewable freshwater resources

Renewable resources of fresh surface water are estimated on the estimated annual flow of rivers.

To assess the dynamics of water resources for a given area, the influx from the outside of the territory is taken into account, as well as the local flow generated in the territory, and the outflow from the territory. The sum of influx and the local flow indicate the total water resources of the territory.

Data source on water resources: the outcome of regular measurements of water levels and water outflow at observation points on the rivers, included in the hydrological network of Roshydromet.

Information on the groundwater resources on the territory of Russian Federation, is formed according to the state monitoring of subsoil, exercised by Rosnedra.
The reliability and quality of information on water resources is ensured through:

• Conducting observations according to common standards, approved by Roshydromet regulations and guidance documents.

• Metrological certification of measuring instruments and regular calibration.

• Use of automatic measuring devices, to direct transmission of measurement results in the database of data collection centers.

• Regular methodical inspection of observation units to monitor their compliance with the requirements of guidance documents on methods and means of measurement.

• Unified standard treatment measurements of river flows for the calculation of the quantitative characteristics of water resources.

• Using computer technology to detect certain errors in the data and make the necessary adjustments, systematization and generalization of data obtained from observations, calculations of water resources and other components of the hydrological mode of rivers. The most effective means of computer control over water data is the analysis of complex and combined charts of the elements of the hydrological regime.

• A mandatory review and adjustment, if necessary, of published materials on water resources.
The Roshydromet developed and maintained:

Technological system "River-mode", intended for the preparation and publication of yearbooks on hydrological basins of major rivers of the country under the title "Annual data on the regime and resources of surface waters" (SWC), a part of which are published data on river flows.

Technological system «SWC – Water Resources», designed for preparation and publication of the annual illustrated guide «Use and quality of surface and ground water resources», which presents the results of the assessments of water resources of the Russian Federation, federal districts and the country as a whole, as well as the largest and most important river basins from economic and ecological perspectives. This guide is prepared in cooperation with Roshydromet Rosvodresursy and Rosnedra.
Data sets

- The total volume of fresh water intake
- Abstraction of freshwater (by kinds of economic activities, harmonized with the NACE (Rev.1.1))
- Water exploitation index

Sources

- Federal statistical observation of the form № 2-TP (water sector) «Data on water use» - reporting - legal entities and individual entrepreneurs, who carry out water use activities or receive water

The publication of the State report on the state and protection of the environment in Russian Federation for 2013, page 17.

«The index allows to determine the extent to which freshwater resources are used. In international practice the water exploitation index (WEI) is used for estimation - the ratio of total annual intake of surface and ground freshwaters, in relation to the total volume of renewable freshwater resources (in percentages). The threshold index value WEI, which serves as a basis for distinguishing between the regions with a strained and tense water regime is about 20%. High tension is indicated in cases where WEI exceeds 40%. The overall WEI index value in Russia is less than 2%.»
The overall level of water consumption (C3)

Data sets
- The total volume of available freshwater resources
- The total volume of freshwater consumption
- Loss of water when transporting
- The use of fresh water (by economic activities, corresponding with NACE (Rev.1.1)

Sources
Federal statistical observation of the form № 2-TP (water sector) «Data on water use» - reporting - legal entities and individual entrepreneurs, who carry out water use activities or receive water

The publication of the State report on the state and protection of the environment in Russia for 2013, page 17.

«The index allows to estimate the level of water resources development and accessibility of water to meet the household needs, determine the effectiveness of measures for rational water consumption, and measures to improve the water management systems for industrial needs»
Data quality control
Freshwater treatment (C2)
The overall level of water consumption (C3)

Quality control of the data provided in the course of logical and arithmetic control:

1. correctly completed form by the respondents, in accordance with the instructions for completing the form,
2. control of reception - transfer of water between water users,
3. Comparison of the obtained data in relation to data from previous years.
Обеспечение качества данных

- **Availability** (the form № 2-TP (data on water use) and instructions on form filling, available on the website of Rosstat [www.gks.ru](http://www.gks.ru))
- **Accuracy** (the form № 2-TP (data on water use) -reporting - legal entities and individual entrepreneurs, who carry out water use activities or receive water)
- **Consistency** (using the National Classification that corresponds with NACE (Rev.1.1))
- **Interpretability** (user information presented in form of tables, charts, cartograms, government reports, etc.)
- **Actuality** (data on water resources and their use being developed and published- annually)
- **Timeliness** (development of data on renewable water resources and water use - May)
Dissemination of information

✓ State report on the state and protection of the environment (prepared and distributed by the Ministry of Russia)

✓ State report "On the status and use of water resources of the Russian Federation" (prepared and distributed by the Ministry of Russia)

✓ Official statistical publications of Rosstat
Государственный доклад «О состоянии и об охране окружающей среды Российской Федерации»