

SURVEY ON IRRIGATION SYSTEMS

LEGAL BASIS

Survey on irrigation systems is conducted on the basis of Law on Official Statistics („Official Gazette of RS“, No. 104/2009);

METHOTODOLOGICAL BASIS

This survey is aimed at collecting the data on water quantities used for irrigation according to type of water supply and irrigation method. The survey also provides the data on:

- Irrigation facilities and devices (pumping stations and sprinkling aggregates);
- Utilized agricultural area under irrigation system;
- Irrigated area and water consumption by sown crops, applying all three irrigation methods.

Reporting units, statistical units

The Survey on irrigation includes reporting units (business entities and farm cooperatives) dealing with agricultural production and rendering agricultural services and/or managing irrigation systems, i.e. which activity relates to water consumption in agriculture and is defined in the section Agriculture, forestry and fishing, division 01 – Crop and animal production, hunting and related service activities, as well as local units dealing with irrigation even though their prevalent activity does not belong to this section.

Survey coverage

The survey covers all business entities that perform their production activity on the entire territory of the Republic of Serbia. Starting from 1999 the Statistical Office of the Republic of Serbia has not at disposal and may not provide available certain data relative to AP Kosovo and Metohija and therefore these data are not included in the coverage for the Republic of Serbia (total).

Method, time and sources for data collection

Data collection is done by the reporting method, meaning that the reporting unit uses its available documentation and records to fill in the questionnaires in the first quarter of the current year. If related records are non-existent for certain data, competent persons will make an evaluation.

The reporting unit forwards the completed questionnaire, for the previous year, to the relevant statistical authority on which territory its head office is located according to the deadline as defined in the annual plan.

Obligation to protect individual data

The results of the survey are published as aggregates, considering the principle of individual data protection according to the Law on Official Statistics.

List definitions of main items – indicators

River basin is a river with all its tributaries if they are not counted as a separate basin.

Underground water relates to water stocks beneath the land surface.

Surface water refers to all running or stagnant waters on the surface of the Earth found in streams, rivers (watercourses), lakes, accumulations, etc, as well as in artificial waterways for the purpose of irrigation, creation of navigation canals, etc.

Self supply is abstraction of water by the user for own final use.

Used water involves all water quantities that have been used for irrigation, by the reporting units and during the reporting year.

Utilized agricultural area is land area utilized for agricultural production. Utilized agricultural area includes arable land and kitchen gardens, orchards, vineyards, meadows and pastures.

Irrigated area is presented as area totally or partly irrigated in the reporting year. It often happens that areas equipped with irrigation devices are not irrigated due to versatile reasons, such as: shortage of water, absence of farmers, land degradation, damages, organizational problems, etc.

Irrigation refers to construction, use and maintenance of facilities and devices applied for timely and continuous bringing of water to agricultural land, aiming at providing high and constant yields of agricultural crops.

Surface irrigation is a melioration method when water from the source moves over and across agricultural area, by simple gravity flow, in order to wet it and to infiltrate into soil.

Sprinkling is an irrigation method when water is via pipelines piped from the source to sown areas where it is distributed by overhead high-pressure sprinklers.

Drop-by-drop is method of localized irrigation when water is via pipelines piped to each particular plant at the position of roots, either from the surface or directly via the network of pipes, valves and drippers.

Level of data representativeness (*territorial, CA*)

The obtained data are representative by river basins, on national level and by regions, while data on Kosovo and Metohija are unavailable.

Harmonization with international recommendations, standards and practice

The methodological solutions relative to this survey are partly adapted to international recommendations and standards:

- Water Framework Directive, WFD - 2000/60/EC;
- JQ OECD/Eurostat – Water Statistics;
- JQ UNSD/UNEP – Environmental Statistics;
- Questionnaire REQ - Regional Environmental Data Collection - Inland water;
- FAO– Agricultural resources - Land use and irrigation questionnaire
- Development of “agri-environmental” indicators, COM/2006/508 final, for monitoring the integration of environmental concerns into the common agricultural policy) - SEC 2006/1136.

DESCRIPTION OF THE SURVEY MANAGEMENT

Bodies in charge of the survey management

Preparations and conduction of this survey involves:

- Statistical Office of the Republic of Serbia: Group for Environmental Statistics in Belgrade, Statistical Department of AP Vojvodina and regional offices of Statistical Office.
- Secretariat for Administration – Statistical Sector, City of Belgrade

Obligation to provide data

The obligation to provide data is laid down in Article 26 and penalty provisions relative to the refusal of providing data or providing incomplete and false data in Article 52 of the Law on Official Statistics (“Official Gazette of RS”, No 104/2009).

Timetable of the main phases of the survey, including data publishing

Conducting the survey on irrigation encompasses the activities that are realized in accordance with the annual plan of official statistics, adopted by the Government of the Republic of Serbia

- Distribution of the questionnaires to regional organizational units, Statistical Department of AP Vojvodina and Secretariat for Administration – Statistical Sector, City of Belgrade, (September)
- Delivery of inputted and controlled material, (October), for Vojvodina (November)
- Logical and computer control, (December)
- Preliminary data, (December)
- Final data, (December)

SURVEY TOOLS

Questionnaire and instructions for filling the questionnaire

For conducting the survey on irrigation, applied is the questionnaire “Annual survey on irrigation, (VOD-4)”, with the enclosed instructions.

Electronic form of the questionnaire with the instruction is available on the website of the Statistical Office of the Republic of Serbia: www.stat.gov.rs.

List of nomenclatures and classifications used in the survey

- Code list of watercourses
- Classification of Activities (CA – 2010, “Official Gazette of RS”, 54/10)
- Regulation on Nomenclature of Statistical territorial Units (“Official Gazette of RS”, No 109/09 and 46/10)

All documents are available on SORS website: www.stat.gov.rs.

List of publications in which the survey results and the relevant methodology are published

- Statistical Yearbook
- Statistical Pocket-book
- Eco-bulletin
- Statistical Release, ZS20 – Irrigation
- Website: www.stat.gov.rs

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