

Integration of non-conventional recourses for water security

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Concepción Marcuello

Directorate General for Water

Ministry for the Ecological Transition and the Demographic Challenge

Spain

Reuse in Spain

- Improving wastewater sanitation and treatment is essential for surface water bodies to be in good condition:
- 42% of the surface waterbodies in Spain do not reach their environmental objectives (according to RBMPs)
- The reuse of treated wastewater is an essential resource in the framework of the circular economy.
- Reuse and desalination are Incorporated in water balances for allocating resources - meeting reliability criteria and not deteriorating WB status

Reuse in Spain

- European leader in volume of reused water (1/3 of the total volume in the EU).
- 5th in the world in installed reuse capacity.
- Just over 25% of the WWTPs with more than 2,000 inhabitants in Spain are technologically prepared to offer tertiary treatments that enable the reuse of water.
- It is estimated that we reuse just over 400 hm³/year, about 10% of the treated wastewater.

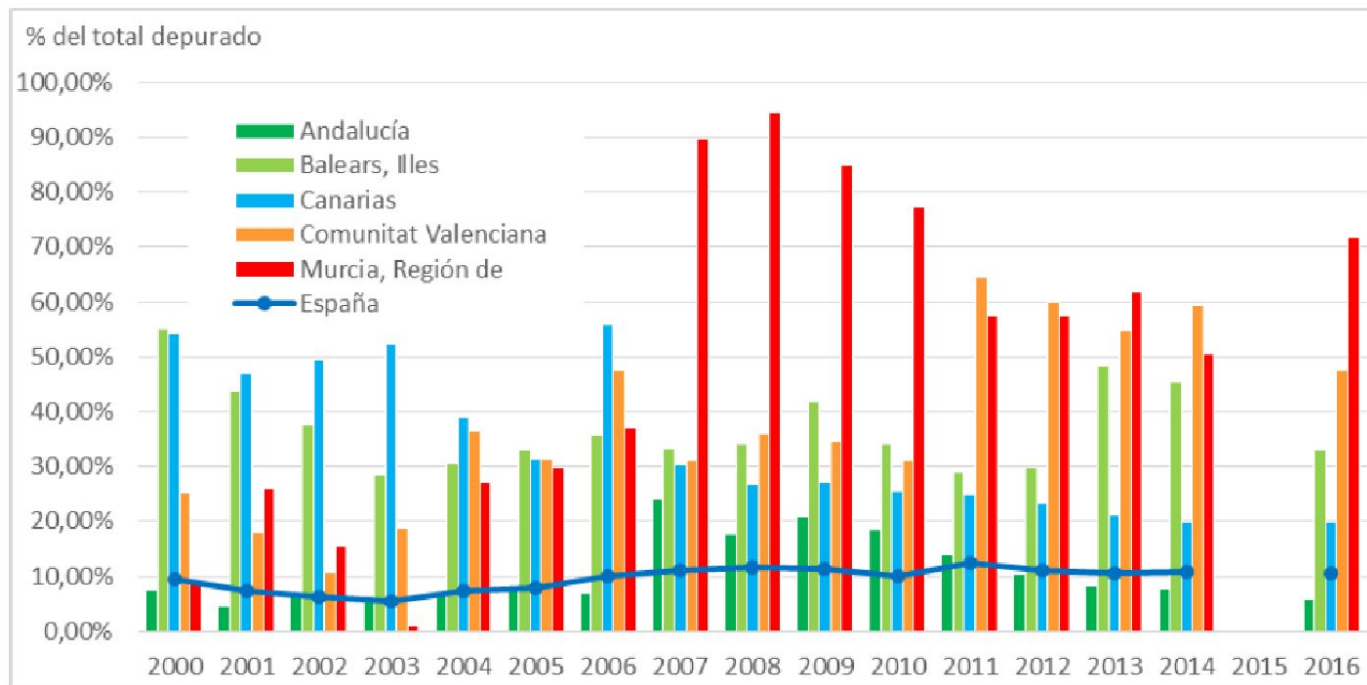
Reuse in Spain

Main uses of reused water:

- More than 60% is used for irrigation.
- Other uses:
 - Golf course irrigation.
 - Municipal uses: green areas, street cleaning...
 - Some industrial uses.
 - Environmental improvement of other water sources: recharge of aquifers, wetlands, improvement of ecological flows.

Challenges to promote reuse in Spain

- The volumes of reused water have not grown in recent years.
- Regulatory, financial, competence and technical barriers.



Regulatory framework for reuse

European:

- Directive 91/271/EEC: it simply states that "treated wastewater will be reused where appropriate".
- Directive 2000/60/EC: reuse is a complementary measure that makes it possible to gain efficiency in the use of water.

Regulation (EU) 2020/741, of May 25, 2020, on the minimum requirements for the reuse of water.

National:

- Hydrological Planning Regulation (RD 907/2007), which establishes requirements for Basin Hydrological Plans: Reuse is part of the water balances (taken as a source of water from returns) and the program of measures.
- RD 1620/2007 establishing a framework for the reuse of water: Quality requirements (standards and monitoring frequency for five uses) + Authorization procedure.

Regulation (EU) 2020/741

Risk management plan:

- Prepared by all responsible people in the water reuse system.
- It establishes the necessary requirements for the operator of the reclamation facility.
- Identifies hazards, risks, and appropriate preventive and/or possible corrective measures.

Milestones:

- June 2022: The Commission, in consultation with the Member States, establishes guidelines to support the application of the Regulation.
- June 2026 and every 6 years: Member States and the EEA will produce information on the result of the compliance check.
- June 2028: Review and update of the Annexes.

Regulation (EU) 2020/741

Where are we now in Spain:

- Development of guidelines for risk assessment, in accordance with current conditions in Spain (CEDEX, Hydrographic Confederations, ESAMUR and other operators)
- Develop new legislation for compliance and promote the reuse of water for agriculture and other uses
- Spanish Circular Economy Plan (2021-2023): Measures on water reuse (representing €315.5 million (19% of the Plan budget)).

Desalination in Spain

- Fundamental to meet the demands for water on the islands and on the Mediterranean coast.
- 4th country in the world in installed desalination capacity.
- We desalinate around 540 hm³/year.

