

Mitigating the impacts of droughts: Unconventional Resources (Desalination)

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In a situation of water shortage, drought management plans consider different measures to face it. These measures act on the demand, the supply, the administrative organization, as well as on the water environment.

Some of the operational measures to adapt supply and demand include the following: campaigns to increase citizen awareness, use restrictions, penalties for excessive consumption, temporary reorganization of the exploitation systems of reservoirs and aquifers, mobilization of water reserves, and modification of supply priorities.

Unconventional resources (reuse and desalination) and the drought wells are some of the water resources that can be activated during a shortage situation. These resources play a very important role, especially desalination, since reused water volumes tend to decrease during droughts, and well pumping has a greater environmental impact than desalination.

The population increase in coastal cities (40% of the world population lives in coastal areas), the climate change, the improvements in technology and energy efficiency, as well as the reduction of environmental impacts, have made desalination an increasingly affordable solution for many countries. Spain ranks fourth in the world in desalination installed capacity.

At present, there are more than 20,000 desalination plants worldwide, with a combined production capacity of nearly 1% of the world's water needs.

This presentation includes Spain's experience in desalination, as well as the way this technology has allowed to maintain supply and economic activity, thus mitigating the impact of droughts and contributing to increase the water availability.