



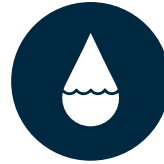
MAIN ENVIRONMENTAL CHALLENGES AND EFFECTS OF WATER CONSUMPTION



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WATER



Water withdrawal

Due mainly to greater water withdrawal, riverbeds are drying up with increasing frequency, thus disturbing the balance of aquatic ecosystems and more specifically increasing fish mortality.



Worldwide water stress

Water stress already affects all continents. Around 1.2 billion people, or nearly one-fifth of the world population, live in areas with physical water scarcity.



Waste water management and treatment

Poor management of sludge derived from waste water purification can lead to soil contamination. This sludge contains heavy metals such as copper, chromium, and lead.



Desalination, a future challenge for arid regions

Techniques used to desalinate water consume large quantities of energy. They can emit up to 680 grams of CO₂ per cubic metre of desalinated water.



Waste water pumping and treatment

Pumping and treatment are processes that consume large quantities of energy and thus produce high levels of CO₂ emissions. In the United States, water treatment plants emit 45 metric tonnes of CO₂ equivalent into the atmosphere each year.