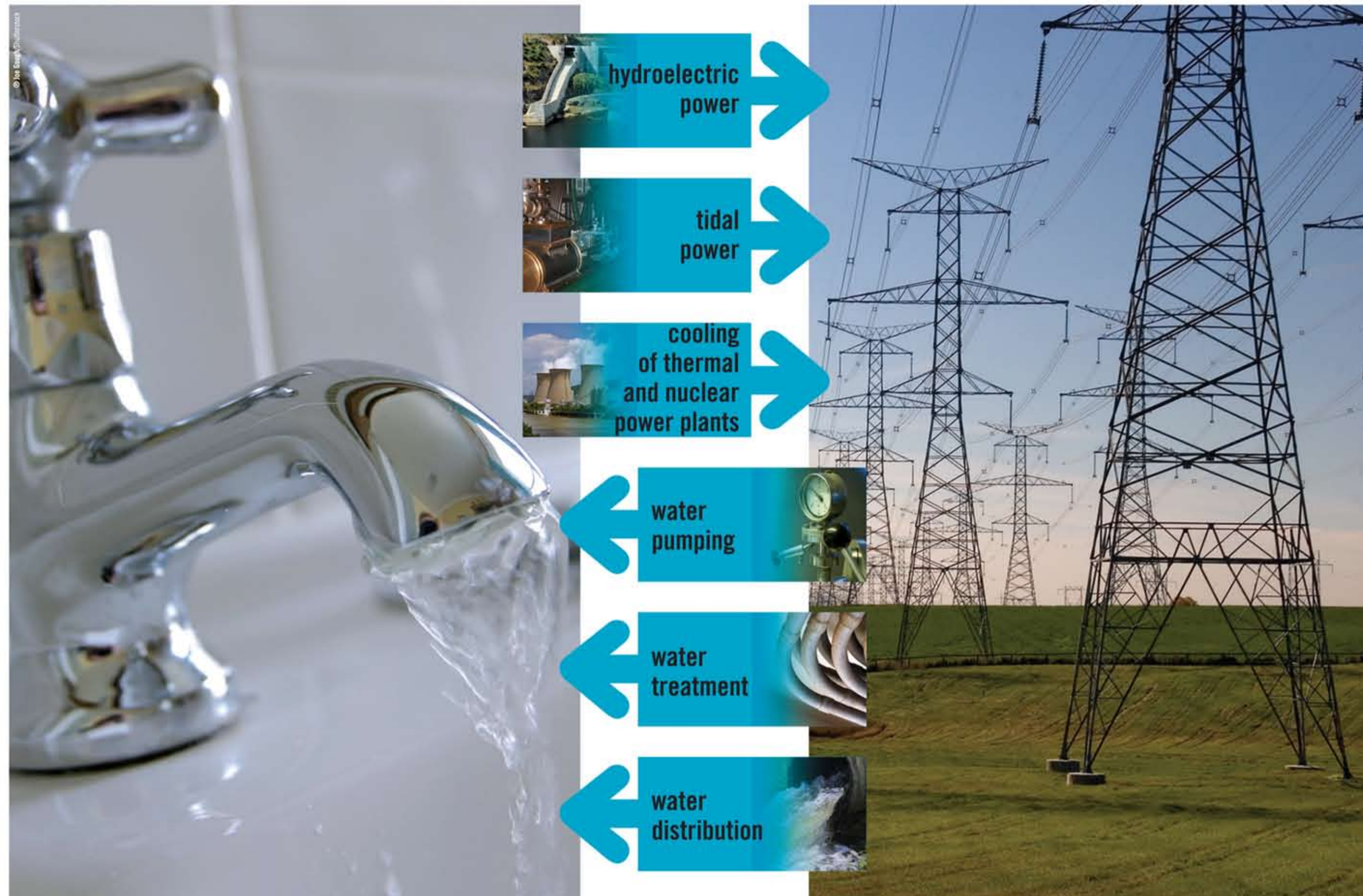
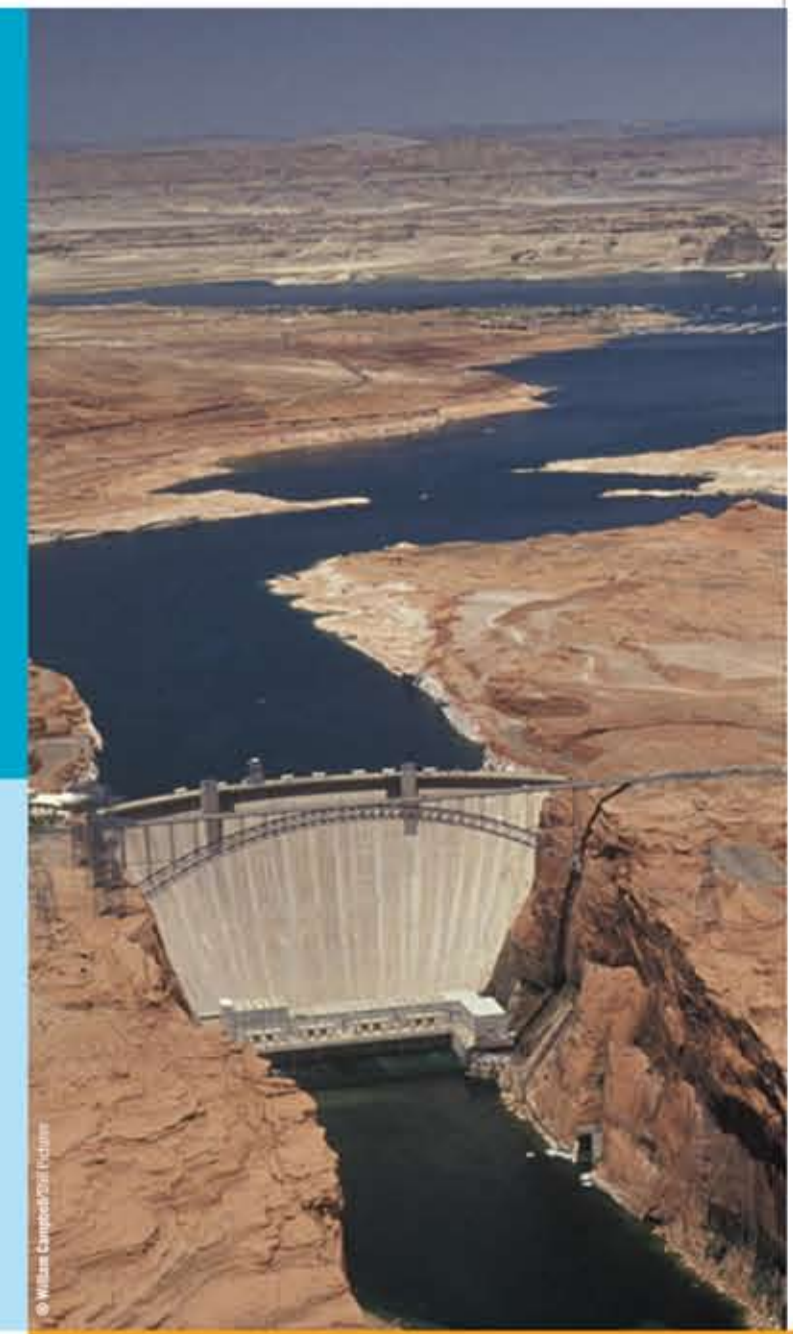


Water and energy

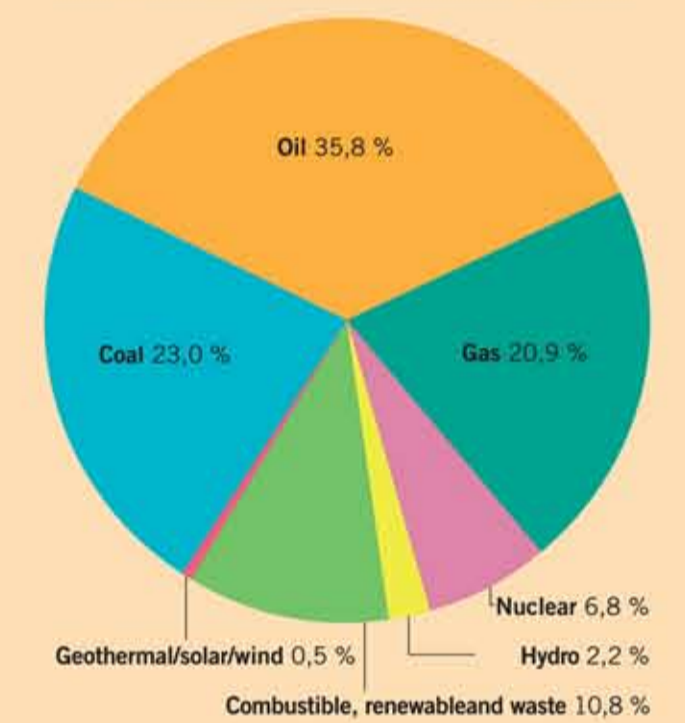
Water and energy are highly interconnected. Water plays a key role in generating energy, from its production function at hydroelectric power plants to its cooling function at thermal power stations. Energy is also essential for supplying fresh water, as it is used in such processes as pumping groundwater.



If we improve energy systems, we can save not only energy, but also the water used to produce the energy. In the same way, if we improve water supply systems, we can save a great deal of the energy required to supply water.

Total primary energy supply by source

Source: UN-WWDR2, based on data from the International Energy Agency (2004).

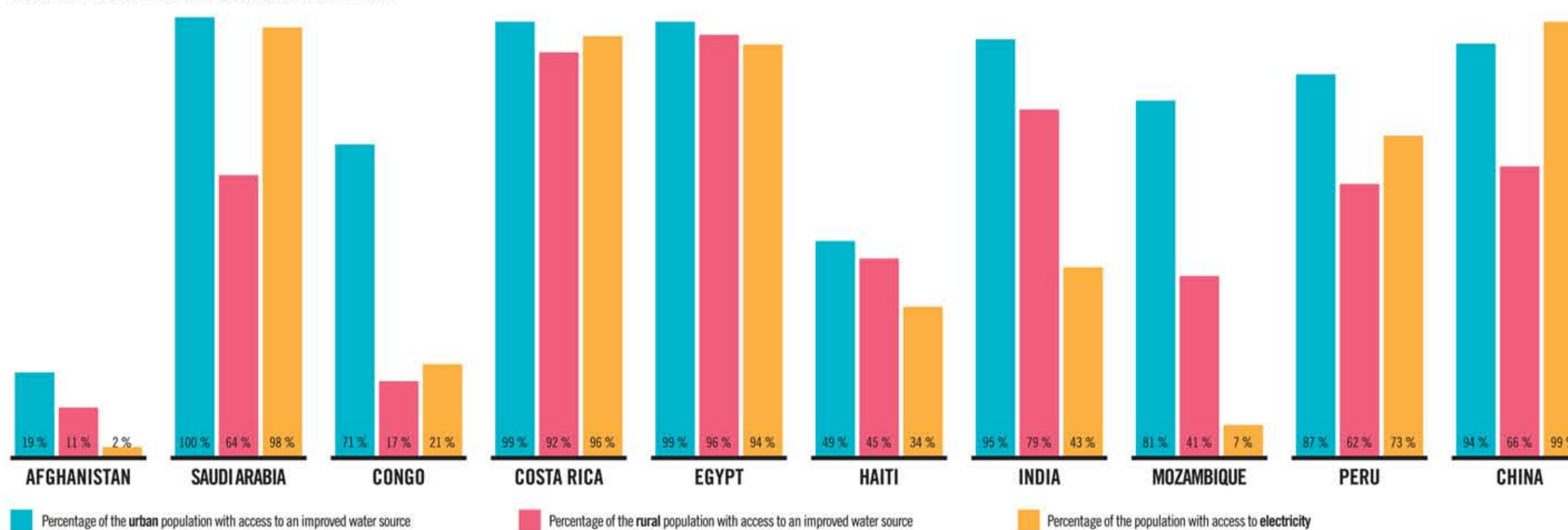


The rapid increase in worldwide investment in renewable energy has made it possible to generate power in a more efficient and environmentally friendly manner, while at the same time saving a great deal of water.

Large dams can generate a significant amount of energy, but they also lead to environmental and social impacts of varying magnitude. Small hydroelectric power plants are an alternative, above all for supplying electricity to sparsely populated rural areas.

Access to electricity and water in a sample of countries (2000)

Source: Based on 2003 World Bank data published in the UN-WWDR2.



Though there is still a long way to go to ensure universal access to water supply and sanitation, in many developing countries the power supply is still lower. Over 2 billion people in these countries do not have access to electricity.

The relationship between water and energy is often disregarded. In the current context of a growing world population and the resulting increase in water and energy demand, integrating the management of these two resources is essential, as it allows greater conservation and efficiency in their use.

