

Uses of Water

Humans

- Water is used in many places, including: personal consumption, household consumption, agriculture, industry, and recreation.
- **Non-consumptive** water is water that can be reused.
- **Consumptive** water is water that is taken out of the ecosystem.

Study Tip

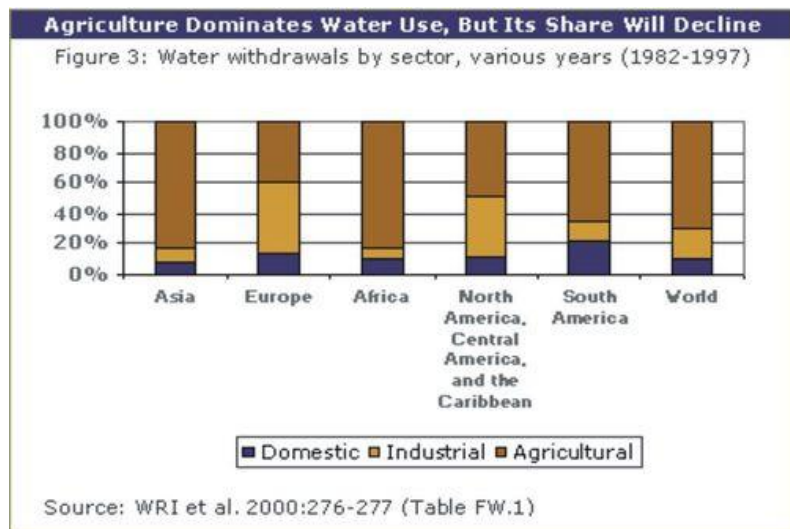
Think about how water is used in our daily lives. What are some ways we can turn consumptive into non-consumptive water?

Agriculture

- Wasteful methods of irrigation include: overhead sprinklers, trench irrigation, and flood irrigation (flooding fields with water). A large percentage of water never reaches the crops, either evaporating or leaving the field as runoff.
- A non-wasteful method of irrigation is **drip irrigation**.

Here, small amounts of water is delivered through pipes and dripped onto crops.

- Farmers do not use drip irrigation often, because drip irrigation technology is expensive. On top of this, the government usually pays for their agricultural water.



Aquaculture

- **Aquaculture** is a type of fish farming. Instead of plants, farmers raise fish, shellfish, algae, and aquatic plants.
- Raising some types of aquatic species can cause environmental problems. Natural landscapes can be lost to fish farms, and farmed fish can cause disruption in the ecosystem once they escape into the wild.

Industry

- Industrial use can include water used for manufacturing/chemical processes and cooling purposes.
- This accounts for approximately 15% of water use, with developed nations taking up a greater percentage than developing nations.

Household

- Household and personal use account for approximately 15% of water use. Most of this, however, is non-consumptive and recyclable.

Recreational

- Recreational use can include water used for swimming, boating, river rafting, etc. This makes up only 1% of water use.
- The most water-demanding recreational activity is golf, since irrigation is needed for large fields.

Environmental

- The use of water is environmental when wildlife habitats are built. For example, lakes are built to house fish and birds.
- This accounts for a tiny percentage of overall water use. The shortage of this water is creating a biodiversity loss.

Concept Check

- What is non-consumptive use versus consumptive use of water?
- What are some irrigation methods? What is the most water-saving method?
- What is aquaculture?

