

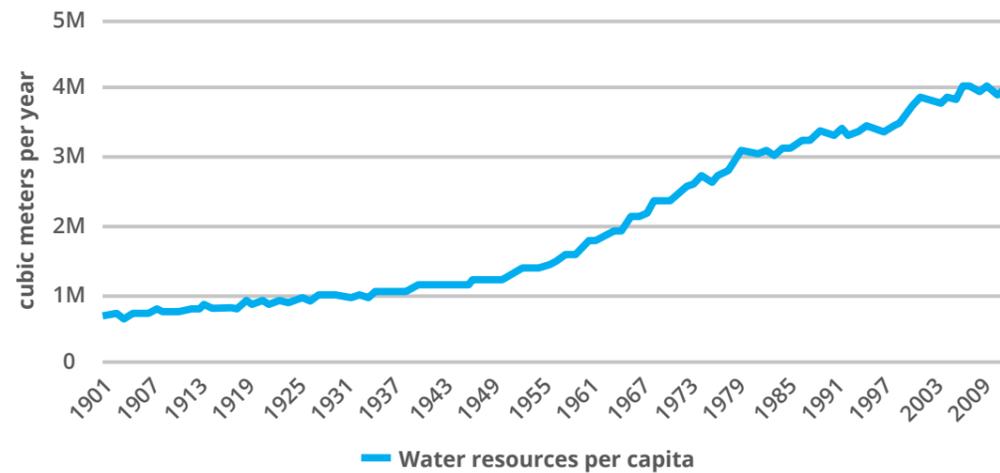
6.3.1 How and why is the demand for water changing?

Past and present global water trends

GLOBAL WATER USE

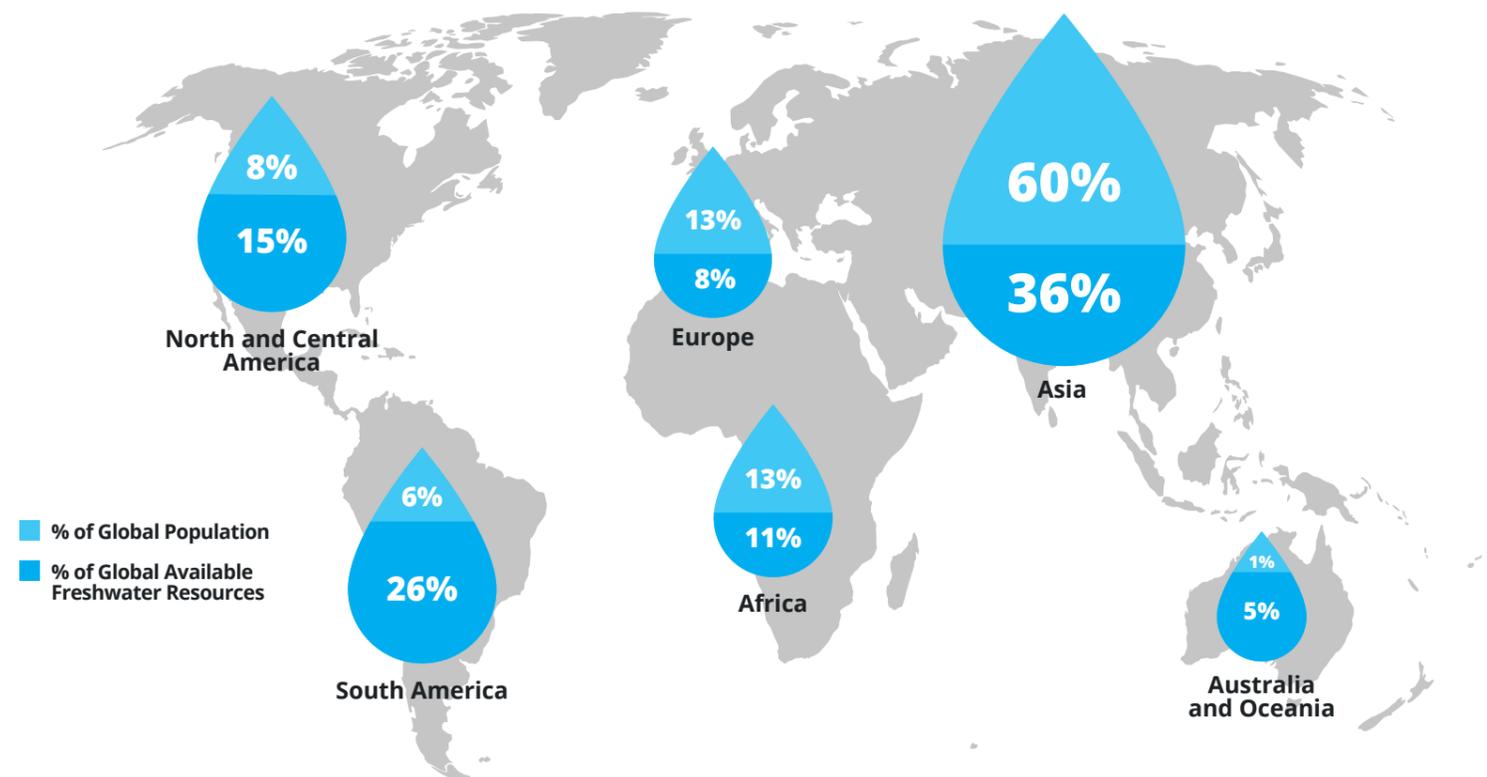
Water Withdrawal in the World by year

(Million of cubic meters)



The following map shows the population increase compared to global freshwater resources available

Students: Describe the relationship shown of population increase compared to global availability of freshwater resources.



By 2025, an estimated 3 billion people will be living below the water stress threshold. Between 1995 to 2025, global population and per capita water consumption are projected to grow at a compound annual growth rate of 1.16 per cent and 0.67 per cent respectively.

Densely populated and developing regions of the world like Asia and Africa are expected to face the maximum water stress.



What do we use water for?

The largest use of water is for agriculture, producing goods and fibre to feed and clothe the growing population. Worldwide, agriculture accounts for 70% of all water consumption, compared to 20% for industry and 10% for domestic use. In industrialised nations, however, industries consume more than half the water available for human use. Belgium, for example, uses 80% of the water available for industry.

Changes in water uses over time

The world population tripled in the 20th century, and water use for human purposes multiplied six-fold. Changes in lifestyle and eating habits in recent years are requiring more water consumption per capita. The production of biofuels has increased sharply in recent years, with significant impact on water demand. Between 1,000 and 4,000 litres of water are needed to produce a single litre of biofuel. Energy demand is also accelerating, with corresponding implications for water demand.

6.3.1 How and why is the demand for water changing?

What is your water footprint?

Each day we drink between 2 and 4 litres of water. You use a lot more water through washing, bathing, and flushing the toilet – you will use about 95 litres in a five-minute shower, for example. This, however, is only a small fraction of the total amount of water you will use in a day. Our food and clothing contain embedded water. This is water that has been used to grow our food and make our clothes. Each of us uses 2,000-5,000 litres of embedded water a day. So, as consumers we have a water footprint – the impact of our water use on the planet. Our water footprint is a measure of our individual water use and our impact on this vital resource.

Water footprint of different foods you may consume



24,000 litres
1kg of chocolate



15,500 litres
1kg of beef



4,400 litres
1kg of olives



1,500 litres
1kg of sugar



140 litres
1cup of coffee

What is water security and why is it important?

We need water to maintain water supplies, provide hygiene, grow food, and supply industrial processes. Without sufficient water, our health and the development of our economies could suffer.

Water security is an important aim for a country. It means having enough water to maintain the population's health and keep people fed, and for the economy to develop sustainably – without damaging the prospects for future generations. Achieving water security creates enormous benefits.

Why water security is important for countries

