Project Summary: Water Needs and Scarcity

Human Needs for Fresh Water

The United Nations estimates a minimum average human water requirement of **1,000 cubic meters per person per year**. The majority of this volume is allocated to the agriculture, livestock, and industry needed to support human life. For example, producing just one kilogram of wheat requires approximately 1.6 cubic meters of water.

Direct personal water use is estimated to be between 200 and 500 liters per day. A typical 200-liter daily breakdown includes: 2 liters for drinking, 15 for food preparation, 13 for general health, 90 for bathing, and 80 for flushing toilets.

The Global State of Fresh Water

The world's fresh water distribution is highly uneven. While countries like Brazil (18% of world's fresh water), Russia (13%), and Canada (9%) are water-rich, many other regions face severe shortages. For comparison, the entire Nile River, supporting ten countries, accounts for only 0.3% of the world's fresh water.

This leads to two distinct conditions:

- **Water Scarcity:** This refers to the physical, environmental *lack of natural fresh water sources*.
- **Water Poverty:** This is the socio-economic *consequence of scarcity*, defined as the condition where a person has access to **less than 1,000 m^3 per year**, which is below the minimum required for human, agricultural, and industrial needs.

Consequently, over **80 countries, representing 53% of humanity, suffer from water scarcity**, leading to widespread conditions of water poverty. This problem is worsening, as the global per capita share of water has decreased by 40% in the last 25 years.

Water Availability Classification (Per Capita, Per Year)

- **Less than 1000 m^3:** Scarce or poor
- **1000 - 1667 m^3:** Average
- **Greater than 1667 m^3:** Sufficient