

Water surplus: more water supply available than demanded by people

Water deficit: people demand more water than there is actually available

Safe water: water which does not contain harmful bacteria, toxic materials/ chemicals and is safe for drinking, e.g. water from wells, springs, & protected boreholes.

Countries lacking water

- **Sudan** (LEDC) – dry weather, low annual precipitation of 160mm to 1000mm. This low amount of rainfall has to cater the needs of some 44 million people
- **Mali** – 2/3 of the country is a desert; rainfall is variable & unpredictable; 64% of people live below the poverty line

Countries with more than enough water

- **Greenland** – water supplies like those from melting glaciers are abundant in amount; only need to satisfy water demands of 58,000 people
- **United States** – high amounts of annual precipitation – 13,726 km³, which is more than enough to feed 313 million people; lots of natural water sources esp. rivers, glaciers, relatively free of natural disasters

Why there is better and reliable access to safe water in some countries than there are in others

- Some countries, especially MEDCs like United States have more finance to locate & collect water from water source, and then spend \$ on building purification/ desalination plants before distributing distilled water to people.
- Some governments e.g. that of Singapore & South Korea ensure that their population have quality water supplies throughout the country, and are willing to spend a considerable sum of money to raise drinkable water requirements. Other governments, however, would prefer to invest on other aspects of the country e.g. infrastructure and poverty, instead of quality of water supplied to locals.
- There may be lack of proper drainage systems, or even drains e.g. in Sao Paulo's shanty towns, thus sewage may pollute water supplies. Other countries like UK have complex piped systems which keep sewage separate from clean water, and these pipes, unlike areas like Sao Paulo, are well-managed so they don't leak.

Essay – Jakarta, Indonesia, how water schemes have improved its standard of living

With easier access of clean water through pipes, water supplies have become cheaper than it was before in Jakarta when safe water was more limited – people pay a subsidized bill, 1/3 of original amount. This means that people can spend more money on clothing, food, education etc. thus improving their quality of life, as they are more well-fed, and better educated.

The £60,000 project brought piped water to a shanty town in Jakarta called Marunda, thus the water is cleaner and sanitized, & reduces the risk of people suffering from water-borne diseases e.g. dengue/ poisoning from drinking contaminated water. This extends their life expectancy as they won't die earlier due to contagious diseases.

The clean water will give rise to fishing, and cultivation of crops and both can now be sustained with a clean, reliable water supply. This will provide people with food as well as jobs to earn a living, thus improving their standard of living as Jakarta becomes more economically sustainable. Crops and fishes can also be exported overseas or sent to food processing industries e.g. cotton textile production, allowing them to make more profits.

The project has enabled 1600 houses in Marunda to be connected to Jakarta's main water supply, allowing 12,000 residents to get a reliable supply of clean piped water directly to their homes. This makes it more convenient for them – won't have to share a single tap among many families.