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Nor any drop to drink

Two thirds of the earth's surface is covered by water, perhaps the most abundant resource there is. Why then is the lack of water the reason for so much suffering, wars, intrigue, asks S.Ananthanarayanan.

All the water, of course, is not of the kind we can use, most is salt, sea water. Only 3.5 percent of all the water is fresh and potable, and again, most of it is locked in the polar ice caps as ice!

Only 0.01 per cent, or one part in 10,000, is in a form which people can use, in streams, rivers, lakes and groundwater aquifers. And then, well over half of this is out of reach, or lost as floodwater

Renewable but limited.

This potentially useful supply is, fortunately, renewable, by way of the water cycle, where water is constantly harvested from the sea by evaporation and poured back as fresh water, as rain - a natural, solar powered distillation plant! But it is getting increasingly evident that the supply is limited.

In 1996 it was estimated that humans were using over half the accessible fresh water, which is three times what they used in 1950. And the use is increasing! It is estimated that if the trend persists, then by 2030 we would need more water than all there is!

Need for regulation?

Clearly the rise in the use of water would reduce as less and less of it was available. But with so vital a resource involved, it is clear that great political and economic inequality would result. As it is, rainfall is not evenly distributed over the planet; and the US citizen already uses 100 times the water of a person in Burundi or Uganda.

Humans need about fifty litres of clean water a day to stay healthy - for drinking, washing, cooking and sanitation. But in 55 countries, this much is not possible, a billion people cannot access adequate drinking water, and half the world's population lacks basic sanitation.

More efficient use

Over 70 % of the world's water use is for agriculture, and almost all of it is inefficient use. In the traditional methods, not more than 40% of the water consumed gets to where it is needed. This over-irrigation is not only wasteful but also leads to water logging and rising of the water table. This could raise salts from deep underground to the surface, and 'salinzation' of the soil.

More efficient methods, like 'drip irrigation' optimize the use of water and could just stave a looming global water crisis. But water for irrigation is generally heavily subsidized and there is little incentive for farmers to turn to scientific ways. In developed countries, many industries are

recycling the water they need (largely for cooling), rather than discharging it after one round of use. Another approach is to reuse sewage water. Instead of regarding this as 'waste', for example, it can be transformed into nutrient-rich irrigation water with only relatively light treatment

But the world needs to understand that water is now a scarce resource, which needs to be taken care of!