Are we running out of clean water?

eslvideo.com Quiz by: 13parvana

1. What percentage of the planet's surface is covered by water?

- ○ a.) 50%
- ○ b.) 71%
- ○ c.) 97%

2. By what year could up to 20 more countries experience water shortages?

- ○ a.) 2030
- ○ b.) 2040
- ○ c.) 2050

3. What is the main reason Earth cannot run out of freshwater?

- ○ a.) The water cycle
- ○ b.) Rainfall
- ○ c.) Ice caps

4. What percentage of Earth's liquid water is saltwater?

- ○ a.) 97%
- ○ b.) 3%
- ○ c.) 50%

5. How much of the potentially usable freshwater is frozen in ice caps and glaciers?

- ○ a.) One-third
- ○ b.) More than two-thirds
- ○ c.) Less than one-third

6. What percentage of humanity's water consumption goes to agriculture?

- ○ a.) 3.6%
- ○ b.) 4.4%
- ○ c.) 92%

7. How many major underground reservoirs are on track to be irreversibly emptied?

- ○ a.) 10
- ○ b.) 21
- ○ c.) 37

8. What is one way farmers are reducing their water impact?

- ○ a.) Using more fertilizers
- ○ b.) Special irrigation techniques
- ○ c.) Increasing crop size

9. What is the first step to reducing water use mentioned in the transcript?

- ○ a.) Reducing food waste
- ○ b.) Drinking less water
- ○ c.) Eating more meat

10. What lifestyle change could reduce up to one third of your water footprint?

- ○ a.) Eating more fish
- ○ b.) Adopting a vegetarian lifestyle
- ○ c.) Drinking more water

Transcript

From space, our planet appears to be more ocean than Earth. But despite the water covering 71% of the planet's surface, more than half the world's population endures extreme water scarcity for at least one month a year. And current estimates predict that by 2040, up to 20 more countries could be experiencing water shortages. Taken together, these bleak statistics raise a startling question: are we running out of clean water?

Well yes, and no. At a planetary scale, Earth can't run out of freshwater thanks to the water cycle, a system that continuously produces and recycles water, morphing it from vapour, to liquid, to ice as it circulates around the globe. So this isn't really a question of how much water there is, but of how much of it is accessible to us.

97% of Earth's liquid is saltwater, too loaded with minerals for humans to drink or use in agriculture. Of the remaining 3% of potentially usable freshwater, more than two-thirds is frozen in ice caps and glaciers. That leaves less than 1% available for sustaining all life on Earth, spread across our planet in rivers, lakes, underground aquifers, ground ice and permafrost. It's these sources of water that are being rapidly depleted by humans, but slowly replenished by rain and snowfall.

And this limited supply isn't distributed evenly around the globe. Diverse climates and geography provide some regions with more rainfall and natural water sources, while other areas have geographic features that make transporting water much more difficult. And supplying the infrastructure and energy it would take to move water across these regions is extremely expensive.

In many of these water-poor areas, as well as some with greater access to water, humanity is guzzling up the local water supply faster than it can be replenished. And when more quickly renewed sources can't meet the demand, we start pumping it out of our finite underground reserves. Of Earth's 37 major underground reservoirs, 21 are on track to be irreversibly emptied. So while it's true that our planet isn't actually losing water, we are depleting the water sources we rely on at an unsustainable pace.

This might seem surprising – after all, on average, people only drink about two liters of water a day. But water plays a hidden role in our daily lives, and in that same 24 hours,

most people will actually consume an estimated 3000 liters of water. In fact, household water – which we use to drink, cook, and clean – accounts for only 3.6% of humanity's water consumption. Another 4.4% goes to the wide range of factories which make the products we buy each day. But the remaining 92% of our water consumption is all spent on a single industry: agriculture.

Our farms drain the equivalent of 3.3 billion Olympic-sized swimming pools every year, all of it swallowed up by crops and livestock to feed Earth's growing population. Agriculture currently covers 37% of Earth's land area, posing the biggest threat to our regional water supplies. And yet, it's also a necessity. So how do we limit agriculture's thirst while still feeding those who rely on it?

Farmers are already finding ingenious ways to reduce their impact, like using special irrigation techniques to grow "more crop per drop", and breeding new crops that are less thirsty. Other industries are following suit, adopting production processes that reuse and recycle water.

On a personal level, reducing food waste is the first step to reducing water use, since one-third of the food that leaves farms is currently wasted or thrown away. You might also want to consider eating less water-intensive foods like shelled nuts and red meat. Adopting a vegetarian lifestyle could reduce up to one third of your water footprint.

Our planet may never run out of water, but it doesn't have to for individuals to go thirsty. Solving this local problem requires a global solution, and small day-to-day decisions can affect reservoirs around the world.