

FOR A BETTER LIFE

A World Half Full

Our perspective on water is our collective Achilles heel

By Muneef Ahmad

In the Greek mythological tale of the warrior Achilles, his mother Thetis, dipped him in the mystical river Styx in order to make him invulnerable. In the process, Thetis was remiss to dip the heel from where she held him thereby leaving him vulnerable at that one spot. This is the root of the modern day expression, "Achilles heel," referring to someone's weak spot. The tale however also reminds us of an ancient view related to water that transcends to the modern day. If such a tale were to be told centuries from now, it is interesting to speculate on what our society's perspective on water would be.

At the outset, there is a need to acknowledge the blessing that has been provided for us as almighty Allah has described the provision of this essential necessity of life in Surah Waq'ia:

"Have you ever considered the water which you drink? Is it you who cause it to come down from the clouds - or are We the cause of its coming down? It comes down sweet - but were it Our will, We could make it burningly salty and bitter: why, then, do you not give thanks unto Us?" (56:68-70)

While water covers over 70% of earth's surface, the United Nations estimates that over 1 billion people do not have access to fresh water. How did such a terrible situation come to pass? And more importantly, what can we do about it?

SUPPLY: YOU ONLY MISS THE WATER...

The key to understanding our water supply is to recognize that there is the same amount of water circulating globally today as there was in pre-historic times. It is the demands we impose on the water cycle that results in the return of a lesser volume of water than was extracted.

"Have you ever considered the water which you drink? Is it you who cause it to come down from the clouds - or are We the cause of its coming down? It comes down sweet - but were it Our will, We could make it burningly salty and bitter: why, then, do you not give thanks unto Us?"

- 56:68-70

Consider the metaphor of smoothing out the earth's crust put forward in the book, Water. If we did this, water on the earth would cover the crust to a depth of 2700m. But more than 97% of this volume is ocean water that is too salty for human use. The remaining 2.5% accounts for freshwater stocks, making the depth over our hypothetical crust only 70m deep. Aside from a trivial amount that is constantly locked into plants, fog, cloud or rain, a substantial 2/3 of this remainder is locked in the polar icecaps and permanent snow cover. Moreover, a large percentage lies imprisoned in the pores of sedimentary rock. What we're left with in terms of available fresh water is a layer over the crust that is a total of 1.82m deep. Put another way, if the world's water supply were stored in a 5-L container, the amount of fresh water available to humans would not quite fill a teaspoon¹.

DEMAND: ... WHEN THE WELL RUNS DRY

The answer to why 1 billion people have no access to fresh water is that while "water" is in abundant supply, fresh usable water is scarce. Furthermore, the geographic distribution of this freshwater is the crux of the challenges faced by humanity today. For freshwater use in a country such as Canada, the breakdown of overall usage is as follows²:

- 64% is committed to power production operations;
- 14% is used by the manufacturing sector;
- 12% is consumed by municipal systems (i.e. directly by us in our everyday use);
- 9% for irrigation and the rearing of livestock;
- 1% for mining operations.

While industrial users consume a staggering 78% of national demand, as individuals we have a great responsibility to control the 12% of municipal use. Environment Canada reports the average Canadian uses approximately 329 litres of fresh water per day which is in stark contrast to the per person average of 140 litres per day in Europe³. How do we use our water in Canada?

- 30% flushed down toilet;
- 35% in showers and baths;
- 20% for clothing washing;
- 10% for drinking, food prep & dish washing;
- 5% for general cleaning.

GOING DRY-ER

Measures to assist in water conservation are categorized under the following headings: Reduce, Repair and Retrofit. The first two examples below are considered easy to implement and the third one requires more of an initial investment. While we should be conscious of how our money is spent, we often put-off initial "green investments" as the payback periods for these products are considered too long. Perhaps a better approach would be to consider our investment in these initiatives as premiums for the necessity we will provide future generations much the same as we treat ourselves with certain luxuries today.

Reduce

Our shower is the heaviest water user in the house, averaging flow rates of between 15 to 20 litres per minute. A low flow showerhead can provide excellent pressure at a maximum flow of 9.5 litres per minute. This means a typical household could save up to 1000 litres of water each week resulting in cost savings on water and electric bills⁴. Or we could start using buckets the old fashioned way!

Repair

Leaky faucets can be deceptively large water wasters. A tap, leaking at a rate of only one drop per second, can waste about

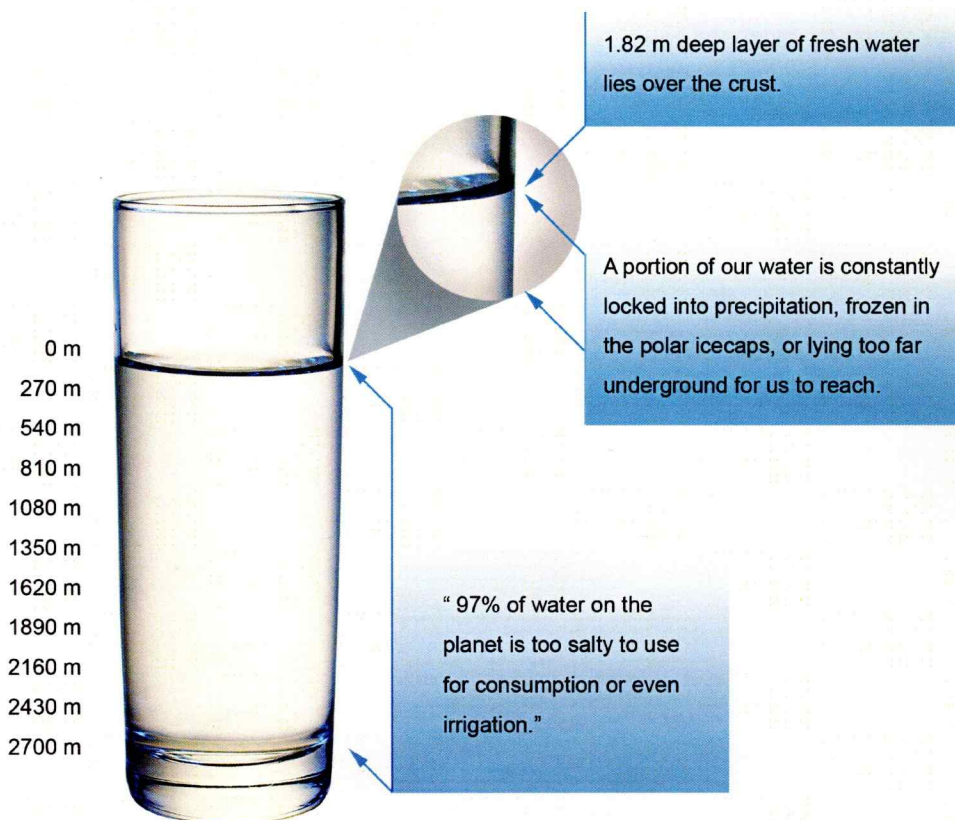
10,000 litres a year. The problem is often a worn-out washer, which costs pennies to replace⁵.

Retrofit

Toilets older than ten years may use 18 litres or more per flush. Replacing the toilet can provide the opportunity to purchase a low flush model. A low flush toilet using 6-litres per flush means a 70% reduction in water use over a standard toilet.

PERSPECTIVE

In North America, consumption of fresh water suggests that our perspective is that supply is both abundant and infinite. This is our Achilles' heel. Misuse of this natural resource will jeopardize future generations' access to fresh water. The glass we drink from as a global race is the world we live in. How we choose to use this resource is a reflection of our own perspective. Let us choose to see this world positively, as half full rather than half-empty, and implement positive changes at an individual level. ■



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- 3 Water: No Time to Waste - A Consumer's Guide to Water Conservation. Environment Canada, 1995. {http://www.ec.gc.ca/WATER/en/info/pubs/nttw/e_nttw8a.htm}
- 4 & 5 Ibid.