

Spotlight on...water and food

I actually had a very different article planned for this month. But all that changed on a particularly boring Tuesday morning when I spent some time watching a BBC special called “Future of Food”.

Much like power and water (as discussed last month), food is another thing we in the developed world often take for granted. Just like we can turn on the tap and get water or flick and switch and have power; we can go to the grocery store and have access to basically whatever we want, at a price we can afford.

However, what we don't often think about is that the price we pay at the store is different than the true price we pay for the food we eat. The true price has very little to do with money...it's tangled up in a web that links food production to oil, climate change, and (our current topic) water.

Farming is obviously linked to water, since vegetables require water to grow. Meat also requires water...since the growing animals require both food to eat (plants which require water), as well as water to drink (not to mention the large amounts of H₂O required to clean the animals and lots in an industrial setting).

So what exactly does this mean for the true price of food? Think about last month's article for a second. There's a limited amount of water, and we've already discussed how that water is being used both for human consumption and the creation of electricity. Now there's one more industry demanding its share...the food production industry. And remember, we still have the same amount of water.

How much water does it take to produce the food we eat? Here are some examples...

140L → 1 cup of coffee

1,000L → 1L of milk

1,350L → 1kg of wheat

3,000L → 1kg of rice

What does this mean?

Basically, this means that we have a problem...one that's only going to get worse in the coming years as the world population grows to a projected 9 billion people by 2050. Along with the general population boom there's going to be another growth spurt, and that's in the number of middle class people all over the world. This might not seem immediately important, but it's a very big deal because middle class families use more water. They drink more, clean more, use more power and eat more meat. In other words, they have a larger water footprint.

Aside from what we've talked about these last two months (the delicate relationship between water, power and the food industry), there are many other hidden effects of excessive water consumption. For example, when developed nations require more water they build more dams. This has severe environmental effects such as the destruction of wilderness, the creation of greenhouse gases from rotting vegetation (which in turn enhances climate change and only makes our water situation worse...but that's another story), altered stream flows and degraded ecological health.

More obviously, excessive water use (from all three things mentioned today) leads to the degradation of our natural bodies of water. Many of our rivers, wetlands and bays are being degraded, which causes another completely different set of consequences...none of them good.

A water footprint?

Yes, that's right; a water footprint. We've all heard of the carbon kind, but many of us don't pause to think about how much water we use every day. The water footprint of an individual, business or nation is defined as the total volume of freshwater that is used to produce the goods and services consumed by the individual, business or nation.