



# MANZI'S NEWS



A Newsletter for Manzi's Water Wise Club Members

August 2017

## World Population Day

Hi Friends,

I am very excited to talk to you again! I hope you are all looking forward to this month's newsletter. The 11<sup>th</sup> July was World Population Day. In this month's issue you are going to learn about human population growth in the world and the role you play as an individual. Human population growth means the way in which human numbers increase in the world. World Population Day was started in 1989 by the United Nations Development Programme to raise awareness on issues related to population and its relationship to the environment and economic growth. The census (the counting of people in the world) that was conducted in 2015 suggests that there are approximately 7.3 billion people in the world. In the year 2000, there were 6.1 billion people in the world. With this statistic it is believed that 3000 more people are born into the world every 20 minutes. However, in that same amount of time, another plant or animal becomes extinct, adding up to 27 000 extinct species per year.



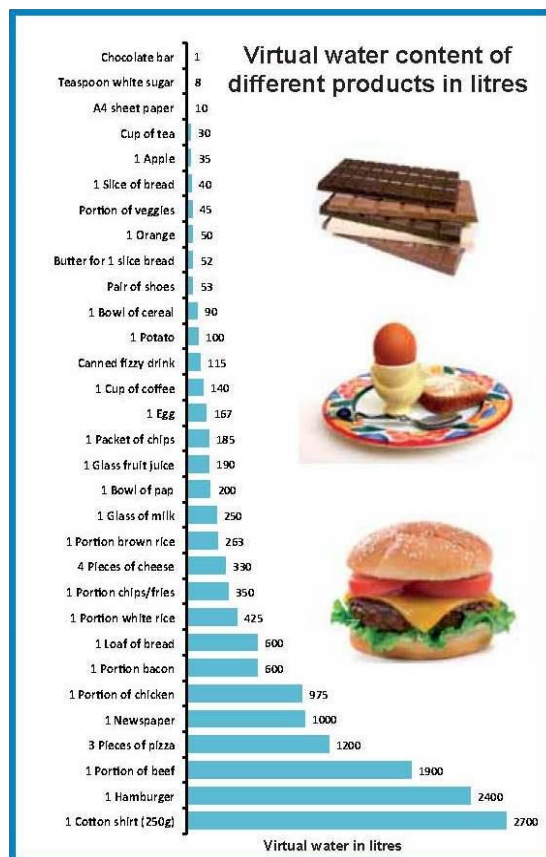
Credit: [www.saveandbegreen.com](http://www.saveandbegreen.com)

All of us in the world are dependent on the environment for food, water, air, clothes and shelter. When a person is born, it means that more needs to be taken from the environment. There is an increase in the demand for food, water and land.

An increase in human population also leads to the destruction of wetlands, marine ecosystems and forests. The quality of water in rivers and dams also decreases. This all leads to overexploitation of natural resources such as wildlife, medicinal plants, freshwater and marine fish, etc. 50% of the world's commercial marine fisheries are fully exploited whilst 25% are being overexploited. It is believed that 663 million people don't have access to safe drinking water around the world. All this requires us as human beings to do something for the environment.

## Activity

Virtual water is the water used to create the goods and services that we consume and use. It is the amount of "hidden" water used to produce a product (e.g. a chocolate bar) or a service from start to finish. The image below shows the amount of "hidden" water that is used to produce each item.



It has been worked out that one person uses about 3400 litres of water per day both directly and indirectly, i.e. virtual water. Take the number of family members and multiple them by 3400 litres. Then multiply that result by 365 days to see how much water that is used in a year. Example:

$$3 \text{ family members} \times 3400 \text{ litres} = 10\,200 \text{ litres of water per day.}$$

$$10\,200 \text{ litres} \times 365 \text{ days} = 3\,723\,000 \text{ litres of water per year.}$$

In order to work out how much this costs the family you need to convert it to kilolitres. There are 1000 litres in a kilolitre, i.e.

$$3\,723\,000 \div 1000 = 3723 \text{ kilolitres.}$$

If water costs on average of R12.00 a kilolitre then

$$3723 \text{ litres} \times R12.00 = R44\,676 \text{ per year.}$$

Now add an imaginary brother and an imaginary sister to your family as if your family were to expand. Example:

$$5 \text{ family members} \times 3400 \text{ litres} = 17\,000 \text{ litres of water per day.}$$

$$17\,000 \text{ litres} \times 365 \text{ days} = 6\,205\,000 \text{ litres of water per year.}$$

$$6\,205\,000 \div 1000 = 6205 \text{ kilolitres.}$$

$$6205 \text{ litres} \times R12.00 = R74\,460 \text{ per year.}$$

	<b>3 Family Members:</b>	<b>5 Family Members:</b>	<b>Increase of:</b>
<b>Amount of water per year:</b>	<b>3 723 000 litres</b>	<b>6 205 000 litres</b>	<b>2 482 000 litres</b>
<b>Cost per year:</b>	<b>R44 676</b>	<b>R74 460</b>	<b>R29 784</b>

You can see that these is a large increase in water and money just by adding these 2 children, and this is just for water! Please discuss this with your parents and get their feelings about it. Remember the more people added to the earth, the more the impact.



Remember to be Water Wise.

Lots of love

**Manzi**

References: [www.unfpa.org](http://www.unfpa.org);  
[www.randwater.co.za](http://www.randwater.co.za);  
[www.overpopulation.org](http://www.overpopulation.org)

