

Water grabbing

“Clear, sweet fresh water,” wrote Petrarch, by many considered a precursor of Italian literature. Before him, St. Francis dedicated two of the first lines of his world-famous Canticle of the Creatures to water: “Praised be You, my Lord, through Sister Water, who is very useful and humble and precious and chaste.” Water is a symbol, a cult, the protagonist of holy books and rituals in the religions from all over the World, from Hebraism to Christianity, from Islam to Hinduism, venerated from ancient times by Greeks, Assyrians, Egyptians, Sumerians...



The River Euphrates, along the banks of which one of the most ancient civilisations in the world developed

There is nothing surprising about this: starting from the fact that human civilisation developed along the banks of large rivers or along the coasts, and that the plants that we grow and on which we feed are made up for the most part of water. Even our bodies are made up of about 60% by H₂O, a percentage that varies according to our age, body mass index and gender. About three quarters of our hearts and brains are composed of water and in our lungs this percentage rises to 83%. Even our bones, while apparently “dry”, contain 31% of H₂O. The water in our bodies serves very many functions, such as regulating its temperature, lubricating our joints and nourishing our brains.

As you know, the earth’s surface too is to a large extent covered in water (around 70%). Yet what is just as important to know is that only 2.5% of the volume of H₂O on the Earth is fresh water, and mostly preserved in the polar icecaps in the form of ice. On the whole, therefore, humanity can count on 93 thousand cubic kilometres of fresh water (more than two and a half times the contents of the Adriatic Sea), which means - converting this figure into per capita availability – that each of us, on average, has around 7800 cubic metres of H₂O every year. Yet there is a but. Or rather, two. The first has to do with the fact that, due to the increase in population and consumption, this figure is destined to drop to 5 thousand m³ (the equivalent of around two Olympic swimming pools). The second, on the contrary, is that water is not in any way evenly distributed on our planet. It is enough to remember that, in Italy, there are less than 3 thousand cubic metres available to each citizen (there were 3587 in 1962), while in Syria, there are around 300.

Our lifestyle – the food choices we make, consumption of other commodities, the energy we use – have a significant effect on our per capita water impact. Production of meat, for example, has a very high water impact; suffice it to say that you need 780 litres of water to produce a 500 g pack of pasta, while a medium sized steak takes around 4650 litres. Obviously, this does not mean that we cannot eat meat, but that eating the correct quantity (two 70-100 gram portions a week) is good not only for our health but also for the environmental balance and, therefore, for all of us.



A group of women in India drawing water from a well

At present, in western countries, this water impact is growing disproportionately and, to date, a US citizen consumes, on average, 1280 cubic metres a year, a European 700 and an African 185. And “water inequalities” become even more glaringly obvious if you think that about 1 billion people have no access to safe drinking water and over 2 billion have no access to sanitation services.

Indeed, one of the 17 Sustainable Development Goals (SDGs) set by the United Nations in its Agenda 2030 is to “Ensure availability and sustainable management of water and sanitation for all”. The UN in fact predicts that by 2030 about 47% of the world’s population will be living in water-stressed areas and that already today there are very many food and humanitarian crises linked to scarcity of water, especially in some high risk areas, like the Middle East or Africa. The paradox that we are witnessing is therefore an increase in per capita water consumption and at the same time a reduction in global access to water resources. But how is that possible? The answer lies in the uneven distribution of water. This is an imbalance that is rooted partly in geographical and geological reasons, partly in authentic wars, economic or military, to grab blue gold. As Emanuele Bompan and Marirosa Iannelli explain well in their book “Water Grabbing – Le guerre nascoste per l’acqua nel XXI secolo” (Water Grabbing – The hidden 21st century water wars), there are numerous areas of friction due to the water crisis: from the Nile Valley to the Mekong area, from Colombia to Nevada in the United States.

Contemporary models of consumption and food trade (as we said, excessive consumption of meat, waste or concentration on a limited number of products, like soy beans) increasingly often come into conflict with the populations living in the areas where available water is already insufficient. In order to satisfy global economic and commercial, as well as political needs - sometimes unwittingly, because of our habits - we only increase the inequalities and deny others like ourselves what the UN recognised in 2010 as a fundamental human right, the right of access to water and sanitation.



Cotton: exportation of it all over the world is responsible for large flows of “virtual water”

Precisely to understand and assess the cost of our consumption in terms of water, Tony Allan of King's College in London, a famous British university, has invented "virtual water", which describes the quantity of H₂O required to produce a given commodity. Thanks to this concept, we are now able to quantify the equivalent amount of water that we in fact export, by exporting a specific commodity. Approximately 70% of global water use is due to farming, the products of which are used both as food, and in industry and manufacturing (for example, cotton is the plant that overall covers the greatest share of virtual water flows at global level). Yet there are also other sectors that are under accusation, first and foremost the energy sector. By building dams, consuming water to generate electricity (for example the coal-fuelled generating plant in Kusile in South Africa consumes 71 million litres a day), extracting gas from bituminous sand or irresponsibly producing biofuels, this sector is one of the most costly in terms of water.



The Three Gorges Dam in China

Progress of knowledge and technological-scientific development give us new tools every day to respond to the phenomenon of water shortage and conduct ourselves responsibly. But technology and science alone are not enough. The whole of society - from ordinary citizens to legislators, from entrepreneurs to environmentalists - must join together in a cultural, social and political battle for fair and just management of water.

by Anna Pellizzone

For further information:

- Water Grabbing – Le guerre nascoste per l'acqua nel XXI secolo, by Emanuele Bompan and Marirosa Iannelli, EMI