



water
footprint
network

fair & smart use
of the world's
fresh water

Wednesday 22nd March 2017

Reducing wastewater by recycling packaging

This year's World Water Day (22nd March) asks us to consider how we can reduce, reuse and recycle wastewater and improve water quality. As our population increases, our growing demand for food and goods is leading to greater volumes of wastewater being generated. Today, water pollution caused by wastewater is rapidly becoming a global issue.

While cleaning and reusing wastewater will help alleviate this problem, it is also vital that we reduce the amount of water we pollute in the first place. A significant amount of wastewater is generated when producing industrial products and this results in degraded water quality which causes problems for both communities and nature in many parts of the world. In China, for example, a recent report indicates that four out of every five freshwater wells are 'unsafe' for drinking due to industrial and agricultural pollution. ⁽¹⁾

Of the many materials commonly used to make many of our daily products, five stand out as products that we interact with almost every day: steel; aluminium; glass; paper; and plastics. These same materials are also commonly used to make packaging for our products.

Globally, we produce 400 million tonnes of packaging each year. We rely on it to protect our food, clothes, electronics and other goods during transportation and storage. Yet to have this packaging around our goods, we put a great pressure on water resources in countries involved in producing the raw materials and in manufacturing of packaging, equivalent to **between 650 and 800 billion cubic meters of water annually**. When we produce any type of packaging, we need to use large amounts of water but at the same time we frequently pollute our water and that is an extra hidden cost on our packaging.

"Water pollution is measured using the 'grey water footprint'. It helps us measure the pressure we put on water resources as a result of pollution."

Water pollution is measured using the 'grey water footprint'. This is the amount of water needed to assimilate pollutants to levels that do not compromise water quality standards. It helps us measure the pressure we put on water resources as a result of pollution. The manufacture of packaging results in a large grey water footprint, with plastics and paper being the largest footprint.

The grey water footprint caused in the production of plastic packaging, for example, is up to 330 billion cubic metres per year. This amount is equivalent to 330,000 Empire State Buildings full of water and could supply all China with domestic water for six months.

Global annual grey water footprint of packaging



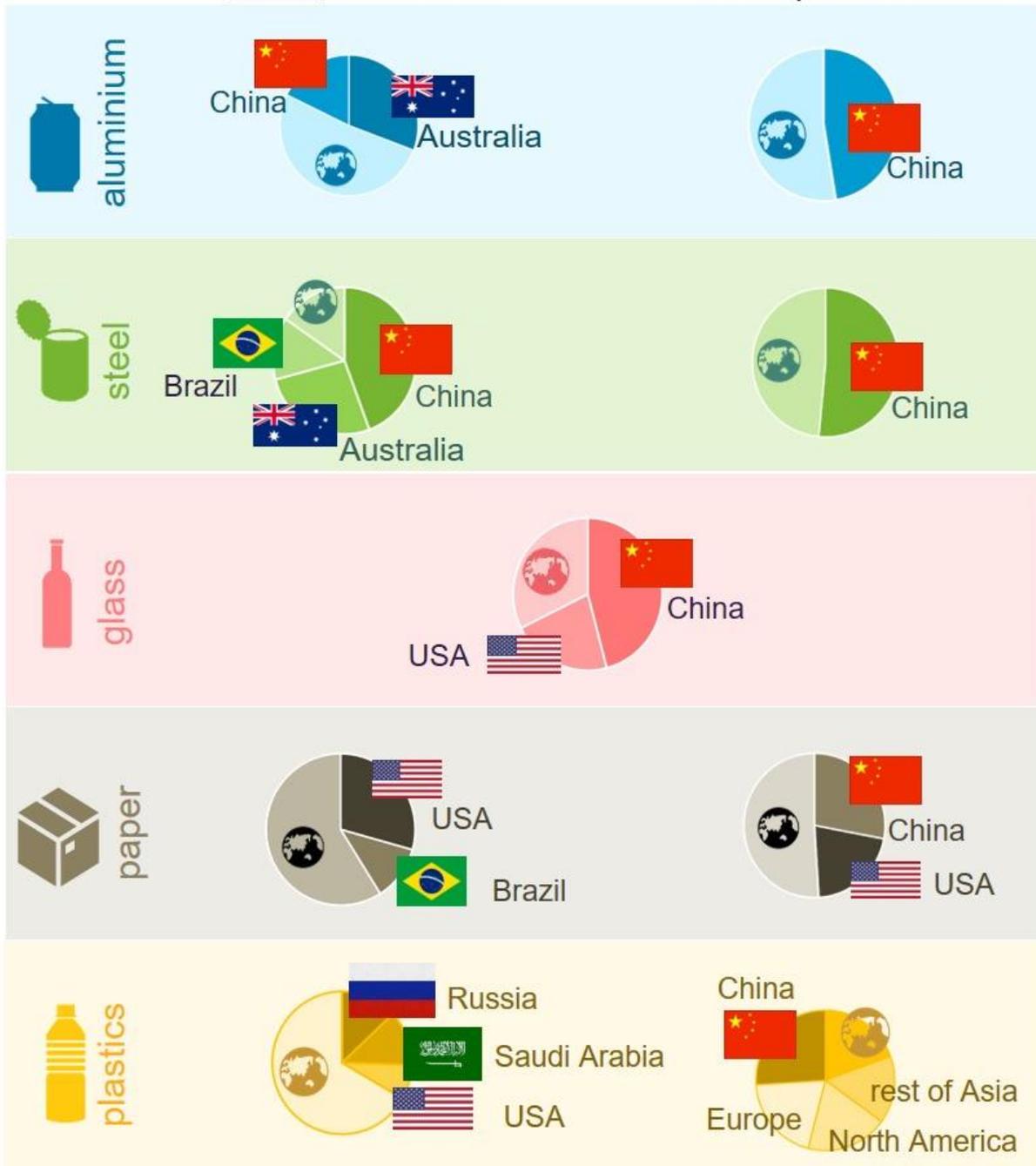
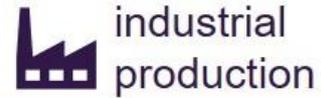
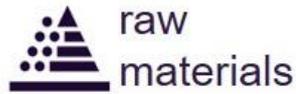
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In our interconnected world, the production of most of our goods, including packaging, is spread across many countries. For example, in order to make an aluminium beverage can, water is polluted in countries like Australia and Brazil where the raw material (bauxite mineral) is mined. More water is then polluted when the can is manufactured in countries like China, the main world producer of aluminium products.

“The grey water footprint caused in the production of plastic packaging could supply China’s households with water for six months.”

Many of the regions where mining and production of packaging materials occur are already severely impacted by water pollution and water scarcity, such as China, Brazil and the USA.

Main packaging producing regions



Rest of the world

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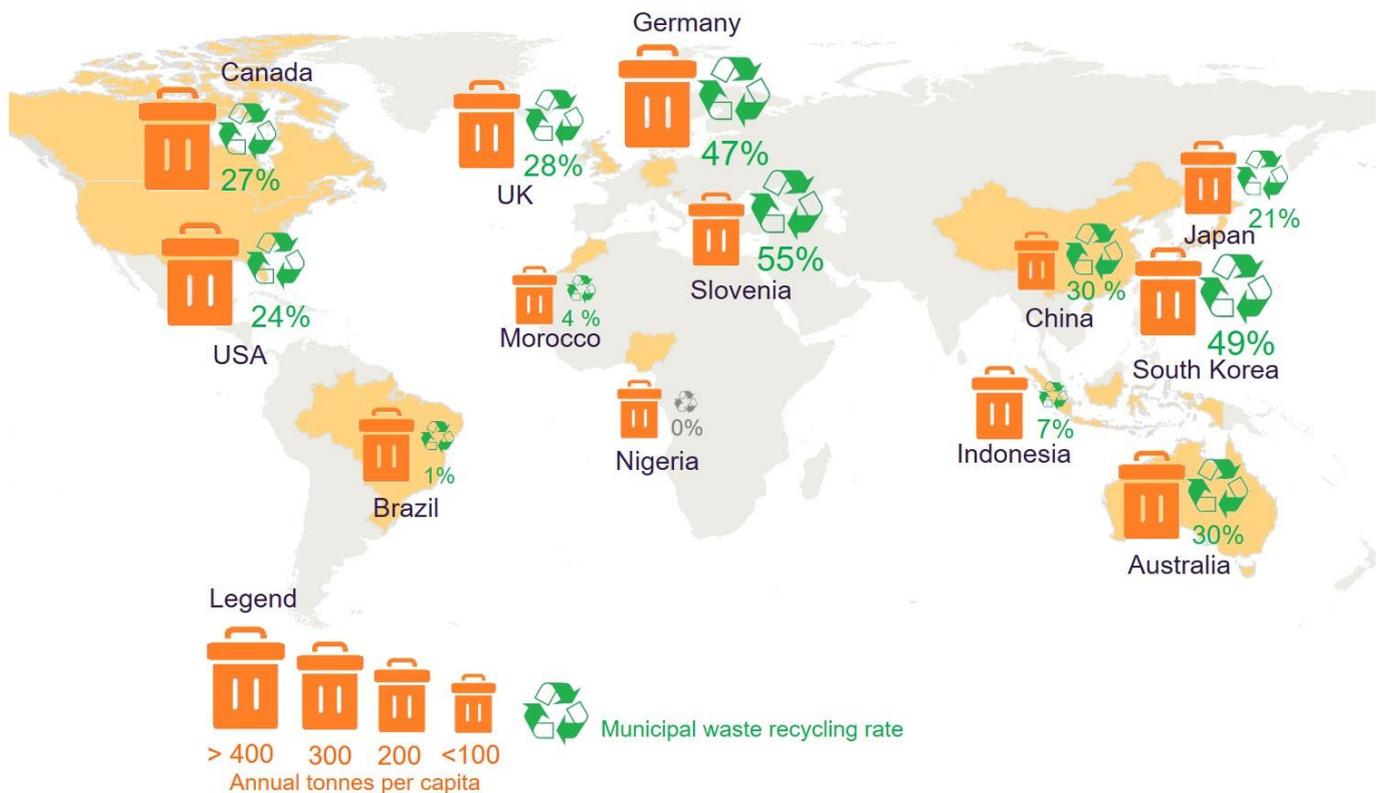
Source credit: Water Footprint Network

While there is much that companies can do to reduce the amount of pollution caused during the production of packaging, citizens can also significantly improve

water quality around the world by reducing the amount of packaging they use and by recycling.

Global recycling rates are currently low ⁽³⁾. The country with the highest levels of recycling (for plastics, paper and board, glass, steel and aluminum) is Slovenia (55%), with South Korea (49%) and Germany (47%) following closely behind. However, many other countries fall far behind, such as Brazil (1%), the USA (24%) or the United Kingdom (28%). Meanwhile, the USA, Canada, Germany, United Kingdom and Australia have the highest levels of waste produced per person. Recycling will not only reduce water pollution but can also contribute to reducing water scarcity.

Annual non organic municipal waste production per capita and recycling rates



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The future is in our hands. By recycling plastic, paper, glass, aluminium and steel, we can all help improve water quality and contribute to a sustainable world in which clean fresh water is accessible to all.

References

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