The Tip of the ‘Pollutionberg’

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Ocean Plastic Pollution

Plastic - the pictures and videos of dead sea birds with their crops full of it; helpless seals strangled in it; turtles tangled in it; water covered in it; children immersed in it; the marine plastics problem is very visible and clearly shocking. The emotional appeal of these images has more impact than logic or scientific data. They are likely to drive real action. That is good, but is it good enough?

It is great news that the UN resolved to overcome the ocean plastics pollution challenge by passing a Resolution [Eng Esp Fra] at the UN Environment Assembly in Nairobi in early December 2017.

It is essential that this Resolution is converted into action quickly. The action needs to avoid unintended consequences and almost all of it is action that must be taken on land, often far from the sea.

Even biodegradable plastics take time to break down and in the meantime their damage is done. Plastics should never enter the water atall.

The UN Resolution calls on states and others to “develop and implement action plans for preventing marine litter and microplastics, encouraging resource efficiency, including prevention and increasing collection and recycling rates of plastic waste and re-design and re-use of products, materials and avoiding the unnecessary use of plastic and plastic containing chemicals…” Clause 4.c.(emphasis added)

The Resolution clearly recognises that prevention is better than cure, that most of the problem comes from the land and is linked with other forms of water pollution. This is the clue to an even bigger problem.

The visible tip of the pollutionberg

Visible marine plastic pollution is only the tip of the global ‘pollutionberg’. Just as with an iceberg, an even bigger problem is the much greater amount of unseen pollution that contaminates water as it flows through all life, including humans, from highest hills to the deepest oceans.

Every day millions of tonnes of faecal matter, nutrients, chemicals, particles and sediment, together with dangerous pathogens and heat, all resulting from human activity, are dumped into the world’s rivers, lakes, underground aquifers and eventually the oceans.

The damage this does to human life, health and well-being, as well as to ecosystems and the environment is enormous, unmeasured and much of it irreversible.

Because most of it is unseen and ‘downstream’ of those who are responsible for it, little or no action is taken. It has been called the blind-side of the water cycle. Unlike the floating plastics, it generally can’t be seen so it is easily forgotten. Nevertheless, the consequences are devastating.

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Many impacts of water pollution

The impact of water pollution on human health has been called the ‘hidden tsunami’. This is because around 2 million people are killed every year by water pollution This is nearly ten times more than those who died in the Indian Ocean Tsunami of 2005.

The value of economic losses due to this pollution is very hard to measure. These losses affect many parts of the economy including tourism, property, industry and food production. They undoubtedly run to $trillions each year and strip points from nations’ productivity.

In the past the natural processes in water and on land were able to absorb and destroy the effects of manmade pollution so that its harm was only felt locally. Today the volumes of pollution discharged by rising populations and growing use of synthesised materials greatly exceed the capacity of natural processes to absorb it. The impacts are now very wide and getting worse.

Water pollution and air pollution are closely interlinked. Water pollution gives rise to algal blooms, that discharge greenhouse gasses, that stimulate extreme climatic events, that exacerbate water pollution thus creating adverse feedback loops, that make matters even worse.

Linking the visible and the invisible water pollution to drive action.

Facts like these make it important to take the opportunity now to link the visible and the invisible parts of the ‘pollutionberg’. They are connected and need to be dealt with by using the same approach: prevention, reduction, removal, reuse and remediation.

The UN Environment Assembly of 2017 passed another Resolution on “Addressing water pollution protect and restore water-related ecosystems” [Eng Esp Fra] This Resolution recognizes how pressures of urbanization, industrial and agricultural activity and poor sanitation impact water quality and quantity adversely. It shows that water is both a recipient and a carrier of pollution and that the quality of freshwater and ocean water is linked.

The Resolution calls on all governments to prevent and mitigate water pollution by taking active measures to improve wastewater collection and treatment, better regulation, monitoring and use of data. It stresses the need for States to implement the SDG Target to “halve by 2030 the amount of untreated wastewater reaching waterbodies”. Given that best estimates suggest that 80-90 % of wastewater globally is discharged to nature without any treatment, this target looks ambitious, but, on the other hand it is inadequate.

Both the Resolutions stress the interconnectedness of freshwater and ocean water pollution.

Nutrient pollution

Both Resolution also stress the importance of dealing with nutrient pollution. The principle causes of nutrient pollution are ‘diffuse sources’ which, unlike ‘point sources’, are difficult to identify and capture. They are primarily due to agriculture and urban runoff.

Targeting this was the only part of the UN-Water proposals [Link] for the water SDG that did not make it to the 2030 Agenda for Sustainable Development [Link].

A renewed effort is needed to drive action to overcome this rapidly growing and dangerous kind of pollution. It is responsible for the more than 500 recognized ‘dead zones’ in the oceans. Indicators for diffuse nutrient pollution and ocean plastics pollution need to be added the current SDG monitoring and reporting system.
An opportunity to be grabbed

Public and political pressure needs to be exerted to raise awareness of the need to use products carefully and dispose of them safely. Pressure is needed to ensure that governments allocate sufficient funds to build and operate wastewater and solid waste systems, to train regulators to control and monitor pollution and to limit the use of polluting substances and keep them out of all waters. The visible and emotion provoking effect of floating plastic pollution can be used as a catalyst for action on the bigger unseen problem of water pollution.

About AquaFed

The International Federation of Private Water Operators is a unique global knowledge hub. Founded in 2005 as a non-profit organisation, it has over 400 members in more than 40 countries. AquaFed links private water and wastewater operators with multilateral organisations and the international water sector. Its goal is to find solutions to the world’s water challenges as part of a broader sustainability agenda.

AquaFed connects international organisations and public authorities to practitioners to ensure that practical expertise and best practices supported by technology transfer, training, research and innovation deliver sustainable solutions.

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