

Sustainability and Waste

Before you Begin

Over the past three hundred years, technology has unquestionably enhanced the life and wellbeing of a greater portion of humanity than in all of the human history that went before. Ordinary people can now live longer, healthier and more fulfilling lives than even the mightiest people of earlier times.

One with the greatest promise, comparable to that of the coal and oil which fueled the industrial revolution, and the Green Revolution which saved so many from starvation, is the wide spectrum of materials called Plastics. Life today, whether in the richest or poorest communities, is unthinkable without these materials. They pervade every activity, every nook and corner, of human existence. From materials to build houses, through buckets to carry and store water, to automobiles and appliances for mobility and productivity, finally to packaging for preserving food – human survival is hard to imagine today without the use of plastics.

Unfortunately, the very properties that make them valuable – versatility, durability, multiple uses, resistance to degradation – have, within a century after their introduction into the market, made them into a life-threatening menace.

Plastics now also pervade every habitat and every nook and corner of the planet's environment. In the home, tiny particles of plastic (“micro-plastics”) pervade the indoor air and settle on food and eating utensils, creating health hazards that are only now beginning to be recognized, but already thought to be quite dangerous.

In the streets and landfills of cities and villages, remnants of plastic bags get eaten by animals, only to strangulate their internal organs. In the oceans, from the surface to the bottom of the deepest trenches, pieces of plastic testify to the presence, possibly far away, of human “civilization”. The Pacific Gyre, a (continent-sized) island made entirely of waste plastics 1.6 million sq. km – three times the size of France – floats aimlessly feeding sea-birds, fish and whales with an indigestible diet of non-degradable plastic. No sea life can survive such poisoning.

The solution is not to ban all plastics all of a sudden. That was necessary and possible in the case of DDT, CFCs and leaded petrol. What is now needed is an immediate stoppage of plastics use that is either not essential or is substitutable by other more environmentally benign materials. And, of course, urgent support must be given to research and innovation to develop alternatives that bring the same benefits but do no harm.

