

The disastrous impact of the pandemic in terms of plastic pollution

"COVID pollution: impact of COVID-19 pandemic on global plastic waste footprint", an article published in the journal Heliyon in February 2021, was written by David E. Bassey, Nsikak U. Benson and Thavamani Palanisami. It looks at the plastic waste generated globally as a result of the pandemic – used gloves, protective medical suits, face masks and hand sanitiser bottles – and attempts to assess its environmental footprint and its impact on our ecosystems. This single-use waste production has occurred on such a massive scale that the beneficial effects of recent global efforts to reduce the use of plastics could be shattered. The majority of this waste has another particularity: it is biomedical in nature and therefore requires specific treatment, which makes this new crisis more complex.

#1

Due to the explosion in the number of infections, the vast majority of countries have either imposed or strongly recommended the wearing of face masks to reduce the transmission of the virus. The consumption of single-use plastic products and materials has spread beyond the medical world to the general population. However, this practice predates the pandemic in some Asian countries. The figures are clear: It is estimated that 1.6 million tonnes of single-use protective equipment waste is generated worldwide every day. Around 585 million tonnes of such plastic waste is estimated to have been produced during the course of 2020. For example, between the start of the pandemic and March 2020, the amount of medical waste generated and treated had increased by 23% in China.

#2

A significant proportion of this waste is disposed of in open or uncontrolled landfills, and therefore falls outside the traditional processing management systems. Since they are not biodegradable, they can contain and accumulate toxic pollutants and pathogens, which represents a significant health risk. The toxicity of SARS-COV-2 to marine organisms is still unknown, but since virus molecules have been detected in sewage samples in the Netherlands, Australia and the United States, the situation is extremely worrying. One way or another, this waste consists of organic and inorganic pollutants and will have an effect on both human health and that of terrestrial and marine organisms, although the extent of its impact is still to be determined.

#3

The capacity of existing waste management facilities is woefully inadequate. This problem is even more acute in low- and middle-income countries with large populations. Their facilities are often outdated, thus hindering their ability to ensure effective waste management. Overall, the health sector faces an innovation gap in creating new equipment that is made of non-plastic material and can be reused after disinfection and sterilisation. Biomedical waste management strategy needs to be totally rethought in order to respect six essential steps: identification, collection, separation, storage, treatment, and disposal. Awareness-raising and training are also required.

The opinion of Géraud Guibert, the Chairman of LFE

Measures are urgently needed for a real management strategy for waste produced as a result of the health crisis, both in France and throughout the world.