The international journal of science / 5 December 2024

nature

A plastics treaty is urgently needed, but getting it right will take time

Although the latest talks ended without a final agreement, nations have pledged to keep talking – and that is no small achievement.

More than two years ago, *Nature* urged the international community to put science front and centre as nations embarked on talks to agree a treaty to end plastics pollution. Such an agreement is needed urgently. Around 400 million tonnes of plastics are produced each year, and this figure is expected to double by 2040. Of all the plastics that have ever been produced, only about 9% have been recycled. If left unchecked, and if the world is to limit global warming to 1.5 °C above pre-industrial temperatures, plastics production and disposal are projected to be responsible for 15% of permitted carbon emissions by 2050.

But the effort to curb plastics pollution is, at best, a work in progress. The latest round of talks in Busan, South Korea, broke up on 1 December without a treaty being formally agreed. Campaign groups and representatives of many countries – especially island states, which see the effects of plastics pollution every day, as plastics wash up on their coastlines – were visibly angry and frustrated.

The meeting's outcome was not a surprise. International agreements can take years to finalize. This is particularly true of complex accords that involve the regulation of individual chemicals and chemical products. Talks on the United Nations Chemical Weapons Convention took more than a decade, from start to finish, before the agreement opened for signatures in 1993.

The makings of a text for a plastics treaty are now in place and negotiators will reconvene within a year to continue talks. Although delegates' frustrations are justified, the commitment to continuing the discussions and the ambition of most participating countries to secure a strong agreement are positive, says Samuel Winton, a researcher at the Global Plastics Policy Centre at the University of Portsmouth, UK, who is studying the negotiations as they unfold.

There have been five rounds of negotiations since talks on an agreement got the green light at the UN Environment Assembly in March 2022. The proposed agreement will cover polymers and microplastics – particles less than five millimetres long – and products that contain them. It will include a list of named products to be regulated.

> **"The makings of a text for a plastics treaty are now in place."**

There will also be provision for chemicals and products to be exempt from the treaty, but the criteria for these are yet to be defined.

The treaty will have a "financial mechanism" – that is, some form of funding attached. Who will contribute, what the fund should total and what it is intended to be used for all remain to be agreed. Some of these questions might end up being parked until after the treaty text has been finalized and the first conference of the parties (or COP meeting) is held. We know from COP meetings on other topics that it is extremely difficult for participants to reach an agreement when there are too many issues in contention.

One area on which the latest meeting reached, at best, a fragile consensus was the part of the text that says that any eventual agreement must cover the "full life cycle" of plastics. This was in no small part because what is meant by full life cycle still needs to be defined. Most countries interpret it as including both the production and disposal of plastics. However, some 30 countries that extract and sell fossil fuels – including Kuwait, Russia and Saudi Arabia – oppose the idea of setting limits on plastics production and would prefer the treaty to concentrate on regulating waste flows.

This is an area in which a role for scientists will be key, both to help define terms according to a consensus of the evidence and to undertake research to bridge any knowledge gaps.

That said, scientists have found it hard to get access to talks on the treaty. This is partly down to logistics – there are around 2,000 accredited observers allowed to attend the talks, out of a total of 3,300 participants, and meeting rooms cannot accommodate these numbers. Another reason, according to researchers at the Centre for Science and Environment, a think tank in New Delhi, is that some decisions were made in closed groups of countries that did not permit observers to attend. This is not a positive development, because it risks undermining trust in what should be a transparent process.

Observers represent industry, non-governmental groups and academic research. So far, each negotiating session has seen more representatives from the fossil-fuel industry than the last, according to the Center for International Environmental Law, a non-governmental organization in Washington DC (see go.nature.com/3zgjzba). These voices cannot be allowed to dominate. The UN Environment Programme, based in Nairobi, is the overall host for the talks, and has still not announced how it will formally incorporate independent scientific advice. It should delay no further in addressing this: a formal role for scientists is essential. Both the treaty's text, including its definitions, and the post-treaty implementation plans must be based on an accepted consensus of the research evidence.

It is clear that the majority of countries do not want a weak treaty and are not going to compromise just to get a text over the line. And although all nations are looking to protect their own interests, no country doubts the need for an agreement to end plastics pollution. The status quo cannot continue – and scientists must guide the way, both during the negotiations and to ensure that the treaty, once finalized, is observed.