

resolution LOS/SGR/2016: covering

## 15 January, 2016

The SPC plays a peripheral role in addressing the issue of marine debris, plastics and microplastics, as the Secretariat of the Pacific Regional Environment Programme (SPREP) is the Pacific agency with the mandate for this issue. In saying this, SPC has run collaborative projects with SPREP in the past, such as the "Think don't Throw" campaign in 2001/2002 to raise awareness in the Pacific at all levels on the discarding of rubbish, especially plastics, oils and fishing gear, from boats, and the negative impacts on marine resources and the marine environment.

In regard to the current request, three area are highlighted: (i) challenges posed by marine debris, plastics and microplastics;at.h(e)4n 0%e)4ilarine debthe

water column. The aggregators in many cases are old pieces of purse seine netting, made from synthetic materials. Most drifting FADs have a radio beacon attached so the drift of the FAD can be monitored and the FAD located. It is believed that most of the FADs are not retrieved at the end of the fishing season, but allowed to continue drifting as marine debris, and some wash up on the reefs of Pacific countries, with the aggregators tangling on the coral reefs. Regional agencies are looking into the issue, but it is unclear what will be done to address the increasing numbers of these drifting FADs that are now considered marine debris.

Discarded and/or lost fishing gear: This is an ongoing issue that has had many meetings in the past to try to address it, yet it remains an issue today. Concerns around "ghost fishing" and the entanglement of marine species, including endangered species such as turtles, continue, and it is almost impossible at present to locate the source of the lost or discarded fishing gear. FAO is convening a group of experts in April 2016 to look at the marking of fishing gear to address this issue, so that lost or discarded gear can be traced back to the source. This is a good initiative and one SPC staff person has been invited to participate in these consultations.

**Deep-sea minerals extraction**: Microplastic debris has become a pertinent marine topic and the deep sea has recently been indicated as a potential 'sink' for microplastic debris by Woodall *et al* (2014), who estimate that 4 billion plastic microfibres per km<sup>2</sup> are present in Indian Ocean seamount sediments. The interaction of deep-sea mining on settled microplastics has not been studied, though it is not currently considered an operational challenge. While the effects of larger plastic fragments have been studied (entanglement and ingestion etc.), there are limited studies on



the biological effects of microplastics in deep-sea sediments. Once biological effects become known, the cumulative impacts of microplastics and deep-sea mining may become of interest.

**Lost shipping containers**: There appears to be an increasing number of reports of offshore vessels hitting unseen objects in the water, with the most likely explanation being lost shipping containers that have not sunk, but are suspended in the water column close to the ocean surface. The number of lost and potentially dangerous containers near the sea surface is unknown, and locating this is very difficult. This is an increasing problem what needs to be addressed.

**Discarding of rubbish/plastics by any vessel**: While there are MARPOL requirements for merchant shipping, smaller craft (commercial and pleasure) in many countries are not covered by this. SPC in the past has run a campaign to raise awareness of the issue of discarding rubbish, especially plastics