The International Atomic Energy Agency (IAEA), through its marine Environment Laboratories in Monaco, continues to provide support to its Member States to develop and improve

The IAEA is co-focal lead of the UN Communities of Ocean Action on Ocean Acidification, a process to facilitate progress on more than 250 Voluntary Commitments that have been submitted by various stakeholders across the globe on SDG14.3. The Community of Ocean Action on Ocean Acidification is directly aligned with the goals and objectives of the UN Decade of Ocean Science for Sustainable Development (2021-2030).

The IAEA has recently set out 'Nuclear Technology for Controlling Plastic Pollution (NUTEC Plastics)' to assist Member States in integrating nuclear and isotopic techniques in their efforts to address plastic pollution. It builds on the IAEA's efforts to deal with plastic pollution through recycling using radiation technology and marine monitoring using isotopic tracing techniques. NUTEC is closely aligned with UN organizations such as the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) and will contribute to global efforts and initiatives.

The IAEA's NUTEC Plastics will strengthen and scale-up the development of nuclear and isotopic techniques to assess the spatial and temporal abundance and character of marine plastics to better understand their origin, transport mechanisms, as well as fate and impact. This includes the establishment of harmonized, standardized protocols to identify microplastics in environmental samples, analytical techniques that are in line with best practices and state-of-the-art science, and training for scientists and technicians.

Research to elucidate the effect that halogenated flame retardants have on the marine ecosystem has been pursued in the framework of two PUI initiatives on seafood safety and marine microplastics. New certified reference material is being developed, with low levels of halogenated flame retardants as one class of persistent organic pollutants being certified in marine biota.

The efforts of the IAEA's marine laboratories on the analysis of mercury and its highly toxic species methyl mercury were recognised when the IAEA officially joined the UNEP Global Mercury Partnership in 2020. The IAEA is assisting countries in implementing the UNEP Minamata Convention on Mercury by providing certified reference material. All these efforts are strengthening the reliability of analytical monitoring data for contaminants in the marine environment.

The IAEA continues to cooperate with the International Maritime Organization (IMO) and the contracting Parties of various international and regional Conventions related to the prevention of pollution and the sustainable use of the marine environment and its resources, such as: the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 and its corresponding Protocol (the 'London Convention' and the 'Protocol'), the Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention'), and the Hong Kong Convention for the Safe and

Upon the request of the Government of Mauritius in July 2020, the IAEA provided an emergency response to help the country to address potential environmental consequences of an oil spill accident occurred very close to the country shoreline. With the procurement of dedicated laboratory equipment and training of local staff, the Agency helped the national laboratories to increase their capacity to monitor the effects of the oil spill in the marine environment and associated volatile organic compounds in the air and to assess their potential toxicological impacts.

The IAEA provides science-based information and solutions to Small Island Developing States (SIDS) to address pressing marine topics, such as coastal pollution, habitat degradation and nuisance algal blooms, such as sargassum and ciguatera. In November 2020, a technical meeting with representatives of 13 SIDS nations from the Caribbean and South Pacific regions was held in Kingston, Jamaica, to discuss environmental characteristics and drivers of these new sargassum bloom events. Participants also explored ways in which science, and nuclear and nuclear-derived techniques in particular, may help in enhance understanding and improve the situation.

As of 2021, 18 Small Island Developing States (SIDS) Member States are involved in Technical Cooperation programme (TCP) projects and Coordinated Research Projects (CRPs) implemented by the IAEA Monaco based laboratories.