

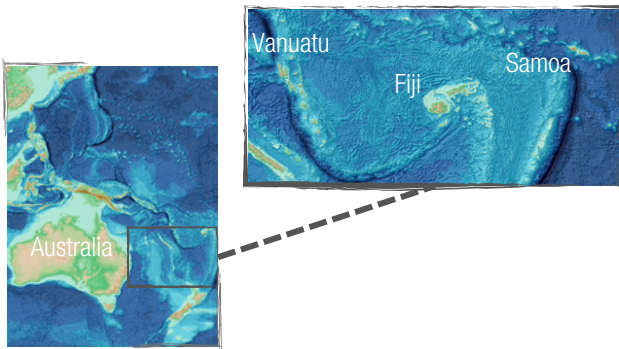
November 2022

GLOBAL ISSUES WITH PLASTIC POLLUTION

- Since the early 1950s, the use of plastics in everyday life has increased due to its durability, lightness, and low production cost.
- Between 2002 and 2015 the plastic production was the same as the amount produced in the previous 52 years, (1950 and 2002).
- 10% of all mismanaged plastics leak into the oceans, mainly coming from food packaging, bottles, straws, and grocery bags.
- The main source of plastic waste flow in the oceans is land-based, 80%. The other 20% comes from sea-based activities.



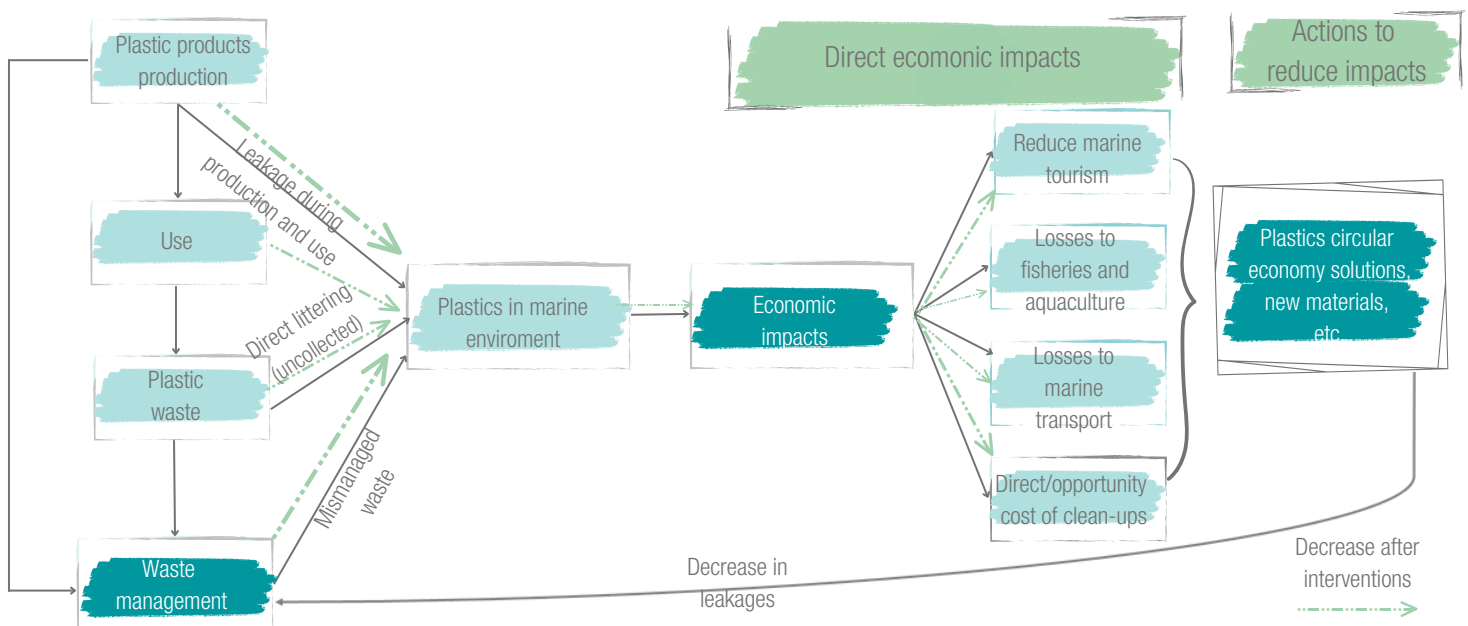
WHAT IS THE PROJECT ABOUT?



- In 2019, with support from the Norwegian Agency for Development Cooperation (Norad), IUCN launched the Plastic Waste-Free Islands (PWFI) project.
- The initiative's overarching goal is to drive the circular economy agenda forward and to reduce plastic waste generation and leakage from island states.
- The project consists in assisting several island nations in the Pacific and Caribbean region to reduce plastic waste generation and eliminate leakage to the ocean on which they depend.
- The PWFI was implemented in Fiji, Samoa, and Vanuatu in the South Pacific, and in Antigua and Barbuda, Grenada and Saint Lucia in the Caribbean Region.

ECONOMIC ASSESMENT OF MARINE PLASTICS

The impacts of marine plastics on the fisheries and tourism sectors in 2019 were estimated for Fiji, Samoa and Vanuatu. Impact estimates were based on both plastic accumulation and leakage into the marine environment from these countries and other countries in the Southern Pacific.



Plastics impact fisheries through dumped catch, fouling incidents, net repairs and time lost cleaning nets; while ghost fishing can generate additional revenue losses. Tourism can be impacted when tourists are no longer willing to visit, due to plastic litter on beaches. In order to avoid this impact, beach clean-up costs need to be incurred. These, and other factors, are costs associated with marine plastic pollution.

Other economic and social impact

Marine plastics when impacting sectors, can also affect other issues, such as:

- Employment
- Food security
- Balance of trade



Impact on marine wildlife

- Ingestion
- Entanglement
- Colonisation
- Contact or coverage
- Chemical impacts



BROADER ISSUES

Impact on marine and coastal ecosystems

In addition to direct impacts, marine plastics can also have negative effects on marine ecosystems, such as: Coral reefs, mangroves and seagrass beds, which can have further economic impacts.

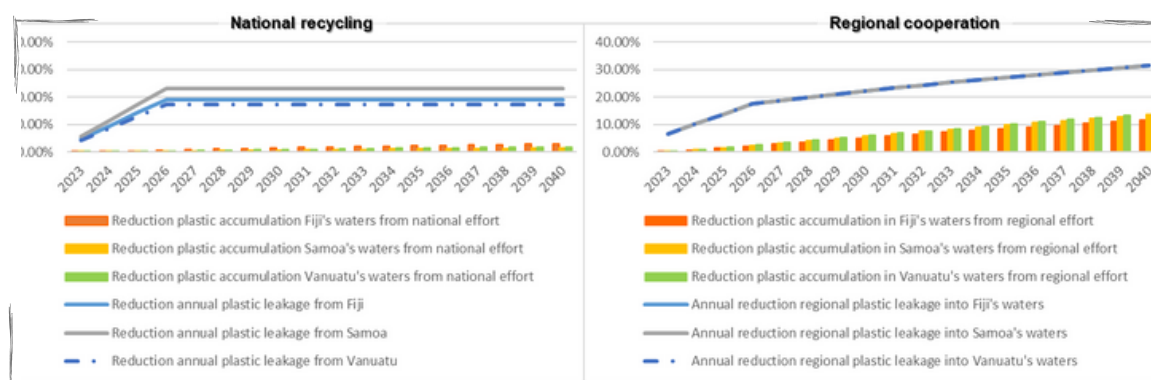
Marine plastics in marine protected areas

As there are no physical limits, marine plastics also accumulate in marine protected areas (MPAs), reducing their conservation effectiveness, and impacting the ecosystem services provided by MPAs.

ESTIMATING FUTURE IMPACTS OF RECYCLING

For Fiji, Samoa and Vanuatu the potential reduction in plastics leaking into their respective marine environment, as well as the potential reduction in plastics accumulating, were estimated for 2023-2040, considering the impact of only a national recycling system in each country, as well as a regional effort to reduce plastic leakage into the middle of the Southern Pacific by 12 island nations that are located there.

By implementing a national recycling system, it is estimated that Fiji, Samoa and Vanuatu can reduce their total leakage by 18%, 22% and 16%, respectively. It is estimated that this will reduce total accumulation of plastics in the marine environment on average around 2% in each country. Regional cooperation, whereby countries reduce plastic leakage into the Southern Pacific could, however, reduce plastic accumulation in the marine environment of each of the three project countries by an estimated 13% on average.



FINAL REMARKS

- Data on plastic flows, plastic accumulation and its impacts are fundamental to understand the issue and evaluate potential solutions.
- Marine plastics create negative direct but also indirect, effects on the economies of Fiji, Samoa and Vanuatu.
- The impact of recycling at generating environmental and economic benefits is at its highest when implemented through regional cooperation. This highlights the importance of working together through regional and global mechanisms to address plastic waste and leakage.
- To make recycling profitable, there is a need for solutions that can generate financial benefits from recycling, such as the development of alternative value chains. It is key to involve informal waste collectors and existing businesses to further expand reuse and recycling of plastic waste.
- Plastics are only one of multiple stressors affecting the marine environment. Broader assessments are needed to understand the direct and indirect economic impact of the different environmental impacts affecting the Pacific, as well as other seas and oceans.

More information:
 (1) Mitterpergher et al. (2022). The economic impact of plastic pollution in Fiji. IUCN, Gland, Switzerland. (2) Raes et al. (2022). The economic impact of plastic pollution in Samoa. IUCN, Gland, Switzerland. (3) Jain et al. (2022). The economic impact of plastic pollution in Vanuatu. IUCN, Gland, Switzerland