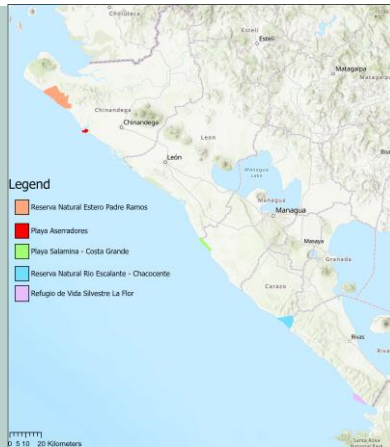


Innovation and community engagement to reduce plastic pollution in Nicaragua

Overview

Fauna & Flora's Nicaragua team works on the Pacific coast with coastal communities, businesses and policymakers to understand barriers and opportunities to reduce business and household plastic pollution.



Local solutions

Developing sustainable alternatives to Single Use Plastics (SUPs): Together with the National Institute of Agricultural Technology (INTA) and the local partner BIOMETEPE, the team has championed and led the engineering of biodegradable items made from banana leaf. They are currently piloting the development of plates for street food vendors in coastal communities and have seen an increased interest in the prototype.

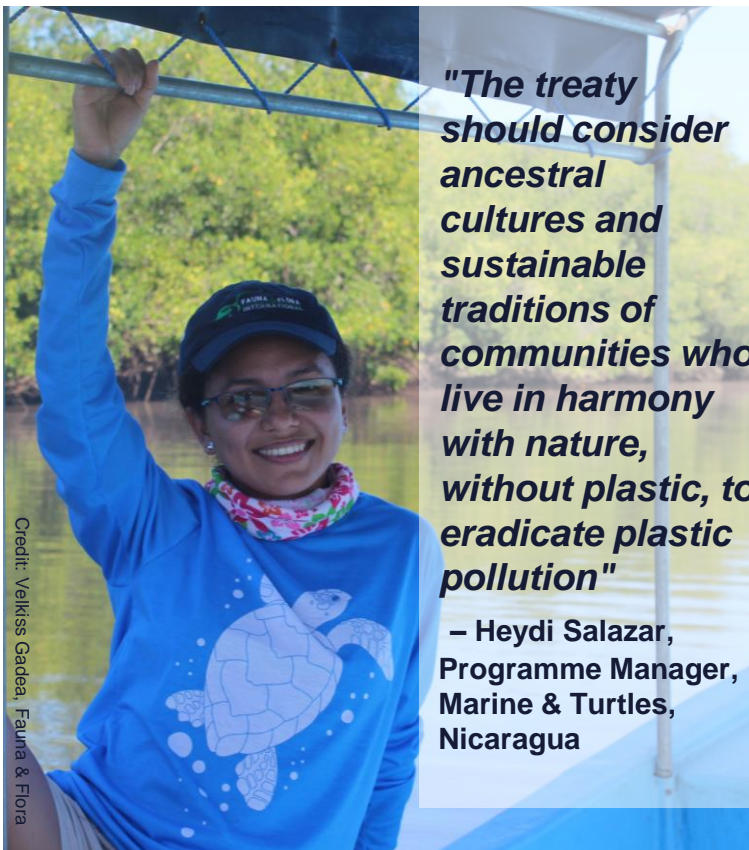
Support national efforts to tackle plastic pollution: The team works with municipalities to understand the impact of plastic pollution and improve solid waste management by catalysing the campaign "My cleanest municipality". This competitive campaign awards and recognises publicly municipalities free of plastic waste.

Raise awareness through community beach clean-ups: Together with local partners such as Mujeres Tejedoras de Astillero, ANÁHUAC, COOTUEPAM, and Casa Carey, workshops to repurpose plastics and clean-up activities are organised to educate communities on the issue and provide a cleaner environment for people and wildlife.

Key successes

Excellent results from the pilot study: Positive responses to the use of the biodegradable packaging prototype made from banana leaf. Additionally, growing interest from national authorities in the development of sustainable alternatives to SUPs.

Active involvement of communities, municipalities and other state institutions in activities that promote beach cleanup and waste sorting which help mitigate the impact of plastics on the environment.



Credit: Vekiss Gadea, Fauna & Flora

Recommendations for the Plastics Treaty

1. Focus on production reduction versus end-of-life interventions and adhere to the waste hierarchy principle
2. Create space & means for negotiators to learn from local communities who have developed pragmatic, locally appropriate & impactful solutions to plastic pollution.
3. Measures to tackle legacy plastic pollution must be locally appropriate and ecologically sensitive to prevent further harm to biodiversity and communities most at risk
4. A precautionary approach must be adopted and all alternative plastics on the market and in development must be subjected to a full life cycle analysis to avoid unintended consequences.

Local impacts of plastic pollution

- **Species:** Plastic pollution in Nicaragua impacts sea turtles, seabirds, marine mammals and fish nurseries. On sea turtle nesting beaches, plastics can hinder female turtles during nest site selection, which can disrupt egg laying.
- **Ecosystems:** Plastic pollution affects coastal rocky reefs, mangroves and estuaries which leads to negative impacts on fish stocks, altering food webs and thus reducing biodiversity.
- **Health and livelihoods:** In Nicaragua 38% of the fish coming from artisanal fishing is for national consumption and 62% is exported (INPESCA, 2013). Plastic pollution puts local communities at risk as they depend on fisheries for food and income.

Lessons learnt

Key learning:

- There is an urgent need to **reduce plastic production and usage**, especially SUPs, to decrease pollution levels in the natural environment.
- Alternatives to plastic in development, such as the biodegradable packaging prototype made from banana leaf, must be subjected to a full life cycle analysis to **avoid unintended consequences** on people and biodiversity.
- Waste management must be carried out such that the **impacts of emissions across the full life cycle and/or breakdown of plastic products at the end of life are minimised** to reduce impacts on local communities, biodiversity and the natural environment.
- Diverse contexts hold their own unique challenges, which must be considered when designing **locally appropriate solutions**. The involvement of community members and governmental institutions is key to generate more effective solutions to plastic pollution.
- To mitigate existing plastic pollution, **locally appropriate, ecologically sensitive clean-up** can prevent further harm to biodiversity.

Challenges:

- Expansion of the biodegradable packaging prototype from banana leaves to other geographic areas requires further financial investment and faces direct competition from subsidised plastic products.
- Access to government funding is difficult and mitigating the impact of plastic pollution requires further action and funding.
- Despite mitigation efforts with clean-ups, plastic pollution keeps affecting key sea turtles nesting sites, stressing the need to reduce plastics at source.



“Plastic pollution is taking marine life to a worrying status of vulnerability, making it necessary to take immediate and innovative measures to reverse the damage generated over time” - Jorge Lezama, Nesting Beach Coordinator, Nicaragua

Future project ambitions

Strengthen the leadership of the local partner BIOMETEPE to catalyse the development and distribution of the biodegradable packaging prototype from banana leaves.

Work with fishing communities to improve management of Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG) and reduce impacts on marine biodiversity.

Engage local partners and government to take the lead in mitigating and stopping plastic pollution in areas important to sea turtles and for the wider marine ecosystem.

Continue beach clean-up campaigns with local communities and partners as a means of raising awareness and providing sea turtles with cleaner nesting sites.

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