Sargassum management brief

In light of recent and recurring influxes of sargassum on the islands of the Dutch Caribbean, the Dutch Caribbean Nature Alliance has drafted a management brief, "*Prevention and clean-up of Sargassum in the Dutch Caribbean*", to help guide the process of collecting and disposing of large quantities of the invasive seaweed. The management brief is heavily adapted from the Management Brief put together by Hinds et al. (CERMES/ GCFI/SPAW Management Brief, 2016) for the Caribbean region.

Large quantities of pelagic sargassum began washing onto the shores of Caribbean nations in 2011, and by 2018 the problem had become so severe that some beaches were covered in meters high piles of the seaweed. All six islands of the Dutch Caribbean have suffered to a varying degree depending on currents, winds and the topography of each island. On Saba, for example, the impact has been limited as the island has few bays and its coastline primarily consists of rocky shores. Other islands have been hit much harder. March 2018 saw the worst sargassum invasion to date for Bonaire, and bays such as Lac Bay and Lagun are experiencing fish die-offs and important damage to seagrass beds and mangrove forests.

The two species of pelagic sargassum that are washing onto the shores of our islands are *Sargassum natans* and *S. fluitans*. The sargassum grow into large, dense mats that wash ashore and threaten fragile and endangered coastal ecosystems such as mangroves and seagrass beds as well as significantly disrupting the livelihoods of communities, especially those associated with the tourism and fishing sectors. Pelagic sargassum is typically associated with the Sargassum Sea in the Atlantic where it occurs naturally; the sargassum coating Caribbean coastlines is believed to originate from a region located off the northeast of Brazil, in the North Equatorial Recirculation Region (NERR) of the Atlantic Ocean.

Figuring out how to clean and dispose of the large quantities of sargassum washed up has been a real headache for the coastal communities affected. So far no real solution has been found, and options are often difficult to implement and expensive. The fact that the strandings are highly variable in terms of quantity and sites affected makes these irregular events hard to predict and therefore mitigate. The main goal of this management brief is therefore to assist government officials, coastal managers, beach caretakers and coastal residents of the Dutch Caribbean by offering guidance on how best to sustainably manage the sargassum, based on up-to-date information on the recent 'sargassum influxes' and lessons learnt to date. We present a range of feasible, cost-effective and environmentally sound solutions for removing sargassum close to shore and on beaches in the least damaging way, as well as current solutions for the use and valorization of collected sargassum.

The Sargassum Management Brief can be found at:
https://www.dcnanature.org/wp-content/uploads/2019/02/DCNA-Sargassum-Brief.pdf

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