Governess initiated by general public in minimising land based marine debris from thirteen islands of Cochin Backwater, Arabian Sea

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Abstract

Cochin Backwater, the main contributor of the Vembanad Lake, the largest coastal lake along west coast of India is under stress from hectic activities of urbanization. Shakti , a science based women NGO in association with the Department of Economics, St Teresa's College, Ernakulam conducted a survey during 2016-2017 in selected wards on waste disposal methods in Kadamakkudy Grama Panchayat to evaluate the quantity of waste generated and the litter thrown into the canals which ultimately contribute to the marine debris of the coastal waters of Kerala.

Introduction

It is observed that Plastic contributed 80-90 % of the non-biodegradable waste. Materials like tyres, plastic sacks, thermocol, footwear, toys,centre bags , and ghost nets accumulated in the open ground and the inside canals. Ninety % of immemorable plastic carry bags are being burned. During monsoons everything is flushed out into Cochin Backwater and the coastal waters of Arabian Sea. Kaladharan et al., 2017 Kripa et al., 2016; and Saha, 2017 reported the loss of biodiversity and the reduction in fishery in the coastal waters of Arabian Sea. As an NGO addressing issues in coastal environment we explained that burning plastic is injurious to health. Plastic thrown in the canals has formed a thick bed in the bottom causing ecological degradation affecting benthic resources. Prawns and the and the fish, pearl spot, the delicacy of Kerala and the marine biodiversity are at loss. The public is aware of the decreasing trend in number and quantity of fishes caught by them. We interacted with house wives and learned that the fishermen were elusive to government rules. We explained the damage done to the marine wealth by indiscriminate dumping and they realized the gravity of the problem . They were advised to keep the damaged nets and plastic material at their residence and hand over to agency doing recycling. A re-visit after one year showed that the inside canals and the boat jetties are mostly devoid of plastics.

Methodology

The villagers of the islands are practicing traditional fishery and Pookkali paddle cum prawn cultivation and economically they belong to the medium and low income group. On enquiry they stated that waste is not a problem since everything is deposited in the surrounding open ground or water bodies surrounding the islands.

Members of SHAKTI KERALA visited houses in Kothad Island and distributed guidelines to the residents and requested them to segregate waste according to the guidelines.

Results

To familiarize residence with green protocol we initiated collecting all the waste generated in a day from selected houses with the help of women in the locality. Both bio-degradable and non-bio-degradable waste was weighed separately and the total waste was calculated.

Conclusion

We hope to submit a report to Government of Kerala to implement this practice in the coastal villages. This intervention by Shakti initiated waste management at source.

Acknowledgements

The author expresses deep gratitude to the UN Environment Division for the travel grant awarded. Thanks are also due to the organizers of GIMDC for their invitation to participate. We are also indebted to the Kerala State Council for Science Technology and Environment for the financial support to carry out this study.

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- Key words: islands, Plastic, biodiversity, awareness.