

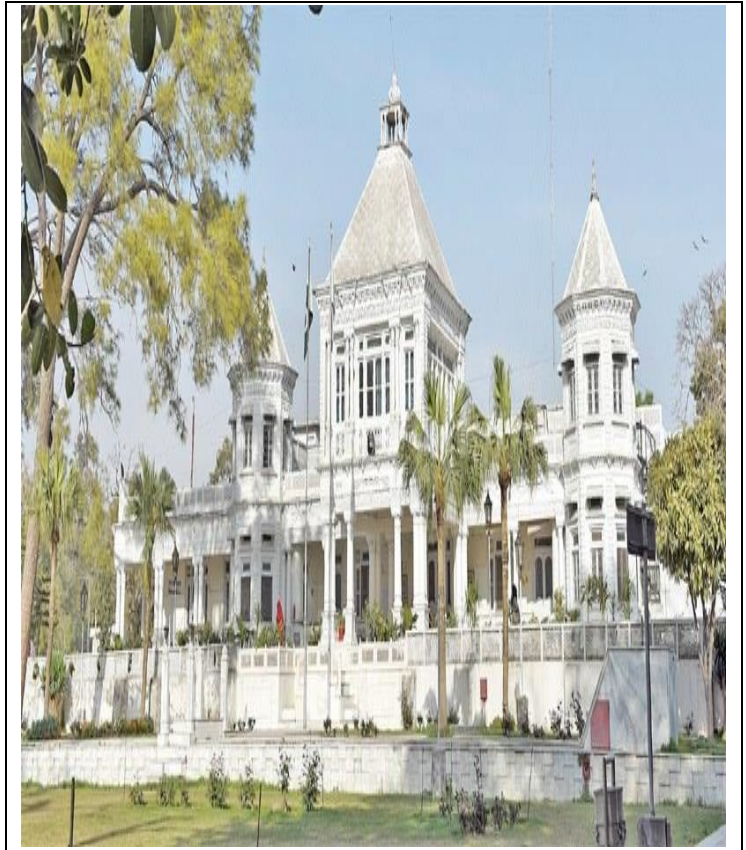


How plastic pollution causing climate change: A case study of first marine protected area of Pakistan (Astola Island)

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Astola Island is the first marine protected area of Pakistan acknowledged on June 15, 2017. This is also known as Jazeera Haft Taller (Island of seven hills). It covers an area of 6.7km² in width, 240 feet high above sea level and buffer zone of 401.47 km². It is a rich biodiversity hotspot, inhabiting endangered species like Green turtle, Hawksbill turtle, and Arabian Humpback whale. It is the home of a variety of birds e.g. Lars hemprichii, Artic Skua, Sooty gull and almatian pelican. A saw-scaled Russell's viper is endemic to Island. Marine ecology of Astola Island is affected by plastic pollution resulting in coral destruction, global warming, climate change, water pollution, and coastal erosion. Astola is uninhabited offshore largest island due to high tides and fishing-off Season Island remains unpopulated mostly from June to August. Due to different reasons plastic converted into micro plastics. Environmental micro plastics are a complex cocktail of toxicants which transfer the plastic associated chemicals to humans. Ingestion of microplastic by aquatic organisms released plastic associated chemicals into animal's gut and subsequently transfers to aquatic food web. Plastic pollution is not just an oceans issue but it's a climate issue. In this case study find microplastic level in the soil sediments and water samples of Astola Island. The collection of plastic waste was also done from Astola Island and then converted into different product like oil, char and gas in the pilot scale pyrolysis reactor.



Currently i am doing M.Phil (Environmental Sciences) from Fatima Jinnah Women University, the mall Rawalpindi Pakistan. I am working as a volunteer in IUCN attending 7th Asia regional conservation forum in 2019. Recently, presented a poster in North America Conservation Congress Biology NACCB 2020 in July 27-31, 2020 (virtual conference).

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