

Technical report

Reproductive biology of *Scleractinian* corals in Andaman and Nicobar Islands"

Dr.C.Raghunathan,
Zoological Survey of India,
Andaman and Nicobar Regional Centre, Port Blair.

During the Period : August 2014 to July 2017

The salient features project:-

- ✓ Corals are found in our country in Andaman and Nicobar Islands, Gulf of Maanar, Lakshawadeep and Gulf of Kuchchh. In Andaman and Nicobar, corals constitute 6% of the total continental shelf. It is the most diverse reef of the world consisting of fringing ,patchy and barrier reefs. Barrier reef of Andaman and Nicobar Islands is about 320 k length with 4 m deep and occupies an area of 1021.46 km²
- ✓ As per data available, extensive bleaching of corals occurred in 2010 and 2016 due to change in ocean current resulting in water temperature >28°C and which lasted more than a month. As on 2017 only 34.94% were live corals
- ✓ The study selected *Scleractinian* corals which from the corals reefs in Andaman and Nicobar Islands

Major findings:

- I. All corals even after decline regenerated, however the rate of regeneration differs from species to species
- II. Increased sedimentation rates adversely affect coral regeneration .Maximum sediment was recorded during September 2016 at North Bay of A&N islands while minimum sedimentation was seen at Pongibalu during February 2017
- III. It is recommended that corals plates or coral nurseries are developed for regeneration of corals rather than breaking of corals from living reefs for regeneration and damaging the reef.

- IV. The data on the *Scleractinian* corals obtained through the project can be utilised for the preparation of management action plan as well as enforcement of effective conservation of the corals and reefs.
- V. Training on the coral recruitment and transplantation study and survey and monitoring techniques of corals adopted for this study will be useful to enhance the reef areas wherever the status of corals is poor
- VI. New reef areas can be developed with the knowledge of reproductive biology and successful transplantation method.
- VII. Broken parts of the *Scleractinian* corals can be used for the formation of coral garden in a new area.