

CHAPTER. 04:

CONCLUSION:

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The study reports that the coast of Sutrapada consists of rich diversity of ichthyofauna. The reported numbers of species are comparatively more than other major landing centers of the Gujarat. During observations, it was found that the catch consists of the juvenile forms of the ichthyofauna. Commercially and ecologically fishes are very important thus the diversity of fishes needs to be conserved, values and managed properly. The present study will emphasize the proper management of the fishery and conservation of the fishes at Sutrapada coast. Gujarat state fishery presently dominated by fishes like ribbonfishes (*Trichiurus lepturus*), Bombay duck (*Harpodon nehereus*), croakers, carangids, threadfin breams, lizard fishes, tuna (*Euthynnus affinis*, *Thunnus tonggol*, *Katsuwonus pelamis*, *Thunnus albacores* and *Sarda orientalis*), seerfish, pomfrets, catfish, flatfishes etc. Sutrapada is being a second largest and developing fish landing center of Gir-Somnath district. It holds the 1/3rd diversity of the total diversity recorded from Gujarat. Many collected fishes are having economic importance and sold after collection in the local fish market. During this study period, 114 fish species belonging to two classes, 18 orders, 55 families and 93 genera were identified. The most dominant family found was Carangidae followed by Scombridae, Sciaenidae, Carcharhinidae, Clupeidae etc. and rest families constituted of single or two species only. Species of family Carangidae is highly commercially valuable and also use as game fish exception with species (*Atropus atropus*, *Alepes kleinii*, *Scomberoid estol*) are of less commercial value. In the family Engraulidae, *Coilia mystus* is the subsistence fisheries where as others species are of commercial value, followed by family Nemipteridae (*Parascolopsis eriomma*) which is subsistence fisheries, from family Sciaenidae species like *Otolithoides biauritus* is a commercial whereas *Otolithes ruber* is having less commercial value and *Roncador stearnsii* is a game fish. The exception among them is the species, *Sardinella maderensis* in the family Clupeidae which is highly commercially exploited in Gujarat. India is one of the largest fish producing nations in the World. India possesses a total of 2492 marine fish species of total world marine fish resources. The highest number of marine species diversity was reported from Andaman and Nicobar Island. A study reported 1,121 species from the east coast and 1,071 species from the west coast of India. The present study records 114 species which shares 4.57% of the total diversity found in India. This represents the importance of Sutrapada fish landing center in diversity as well as fisheries point of view. As per

IUCN category list out of all 114 species 71 are under Least Concern (LC), 16 Not evaluated (NE), 15 Data Deficient (DD), 04 Vulnerable (VU), 04 Near Threatened (NT) and 02 Endangered (EN) categories. Fisherman from Sutrapada go for intraday as well as multiday fishing for 2 to 10 days covering areas like Mumbai, Dwarka, Porbandar, Diu etc. depending on days. For one day fishing they depart from their base at morning or noon and travels 5-6 hours to reach the fishing ground. Gillnet is operated at night or after the Sunset. The net is released into the water and kept drifted with the current till the operation of net is completed. The time taken for haul varies depending on the fish catch. Usually, the haul made per trip were 4-5 and generally, 5-6 hours were taken for one haul. Nets are usually operated at 20-45 m depth. Fishing operations were confined to the surface and mid-depth zones at the fishing grounds. The fisherman gets back to the coast to unload the catch in the morning as well as afternoon hours. Generally, the manpower required was 8 per unit. Crafts operated usually are the Outboard machine (OBM) gillnetters operated off Sutrapada village were fiber reinforced plastic (FRP) coated. There were about 381 OBM gillnetters in Sutrapada and most of them were active in fishing. The fisheries activity solely depends on either fishermen community working by birth or skilled workers and entrepreneurs. Demographic survey to understand the status and the needs of such fishermen community is very much essential. The sex ratio of local fisherman involved in fishing activity of Males was higher than Females, having 57 males and 29 females. The sex ratio of fisherman is 66.27 % of the total population is whereas 33.72% are female in Sutrapada bunder. The fishing activity is mostly done by all age groups; however, larger age groups individual involved in fishing activity was between 31-40 years.

The residential status of the fisherman staying in the coastal vicinity was higher. Majorly the fishermen were having their own house. There were some fishermen who were migratory and have moved there for some time during the fishing period.