CHAPTER VII

SOCIO-ECONOMIC ASPECTS OF WETLANDS OF RUDRASAGAR AREA
CHAPTER – VII

SOCIO ECONOMIC ASPECTS OF WETLANDS OF RUDRASAGAR AREA

Man’s dependence on the environment around him is greater than worldly comforts and society; he consumes larger amount of materials and energy than does any organisms. The distribution of population and the level of economic development of an area depend on the interaction between man and his environment. The rapid growth of world population in recent decades has destroyed the ecological balance. Pandey and Rao (1997), mentioned that for the greater comforts and security, man exploit nature’s free goods to the extent of reducing its natural capacity for self-stabilization. As a consequence of this outright dis-regard of the impact of these activities on the environment, numerous environmental problems have arisen. Fores and Yudianto (2004), stated that Lake Zapotlan in West Java has undergone significant hydrologic imbalances because of the increased urban population and associated anthropogenic activities in the basin.
As a part of nature, majority of the wetlands throughout the globe are under increasing threat due to various factors connected with man's action. According to Chatrath (1992), some of the main threats faced by wetlands are encroachments, pollution, changes of water quality, excessive tourism load, over exploitation of Fisheries Resource, reduced arrival of migratory birds etc. Besides, people of the fringe village area are connected with regular grazing and rearing of their domestic cattle and buffalo herds in the wetland system resulting an adverse effects on the floristic composition and quality of the aquatic environment. According to Anantapadmanavan (1976), grazing may increase the turbidity value of the water body of the wetlands resulting adverse effects on the light penetration power causing low productivity of the wetland ecosystem. Man's action on the wetlands cause the biotic and physico-chemical changes of the ecosystem. Sharma (2000), mentioned that in the U.S.A. Lake Erie is the excellent example of eutrophication due to man-made problems. Shrinkage of water area is another danger of the wetlands existence. In recent years many wetlands are being encroached for building house and for other purposes like growing rice and vegetables. According to Dugan (1994), about 50% of the wetlands of the world has been lost due to the conversion of the wetlands into agricultural lands. Narayanan (1992), stated that construction of dams
and bands affects the water flow and modifies the behaviour of the wetlands. Peluso and Usunoff (2002), mentioned that in the low income countries, the lack of properly trained human resources and funds are the major drawbacks in evaluation of the risks to human health from drinking unsafe water, let aside making decisions on how the local water resources are to be managed.

A large number of wetlands are currently facing the problem of water pollution. Some general causes for the pollution are anthropogenic activities like agricultural, industrial and human settlement nearby wetland areas. Agricultural causes initiate eutrophication and shrinkage of area. The inflow of chemical fertilizers and pesticides into the wetlands can result eutrophication and degradation. Among the industrial activities, disposal of pollutants into the water body is the main cause of water pollution. Pollution generally changes the water quality of the wetlands. The destruction of the wetlands results in decrease of biodiversity, increase in salination, decrease of fertile top soil, damage to nutrient cycle and upset the hydrological cycle of the globe (Devi, 1998). De-Roy (1992), mentioned that Loktak Lake in Manipur is seriously threatened on account of damaging land use practices in its catchments, over-exploitation of resources by a burgeoning and its growing population and its growing demand for land and food.
It is generally observed that the socio-economic condition of the poor section of the fringe village people is always attached to the wetlands. They generally use the wetlands for different purposes. Therefore, to observe the socio-economic considerations of the fringe village people of the wetlands, a suitable questionnaire has been prepared and distributed among the inhabitants of different villages. These were then collected and analysed.

In Rudrasagar area, there are about 23 nos. of villages comprising about 45,000 populations. In the northern part there are three big villages viz. Dichial Gaon (Part), Na Ali Christian Gaon and Salaguria. Towards south, the villages are Kaloogaon, Deolia Gayan Gaon, Dimow Pathar, Magarahat Chetia-Changmai Gaon, Namdang Kumar Gaon. In the eastern part of Rudrasagar area Halwa Bhakat Gaon, Meteka Pathar, Bezgaon and Salaguria (Part) are located while in the western part Pathalial Gaon, Bhatiapar Bongaon, Sensuagaon, Rupahigaon, Lahingiagaon and Dichial Mathadang Gaon are located.

Results of the investigation show that 35% of the total populations of these villages belong to the Fishermen families, others comprising general, the Ahom and different communities of SC and ST categories. The socio-economic conditions of the poor section is below average. Pisciculture, agriculture, duck rearing, sericulture are the main occupations of these people.
SOCIO-ECONOMIC

Encroachment in Wetland Areas

Fishing Practice in the Wetlands
However, results show that the occupation of 58% of the total population is business. This includes pisciculture (21%), sericulture (12%), duck rearing (9%) and agriculture (16%). The percentage of employed population is 14% percent while unemployed is 28%. Generally, the economically weak or poor section of the people are directly or indirectly related to the wetlands. Since wetlands are the granaries of plant and animal resources, people often visit the wetlands to collect their traditional medicinal plant species resulting in the affect on phytosociology and extensive siltation in the wetlands. 20% of the people use the shallow submerged regions of the wetlands for cultivations of rice and robi crops. In this case, all the people apply chemical fertilizers in their cultivated lands which results in the increase of nitrogeneous nutrients in the wetlands and thereby induce eutrophication.

As the population in the catchments and vicinity of the wetland has grown, the pressure to bring more and more land under cultivation mounted. Besides, the people of the fringe villages occupy illegally the wetland areas and they build houses and thereby destroying this precious wealth of nature. 0.7% of the people use the wetlands as the feeding grounds for their domestic cattle and buffalo herds. In some cases, people use to keep their domestic animals on the bank of the wetlands.
which results in excessive siltation in the wetlands. 15% of the people collect the aquatic macrophytes for feeder purposes. There is no restriction on fishing in the wetlands of Rudrasagar. 13% of the people has the habit of fishing practice. However, the quantity fish caught has been declining over the years because of the presence of crude oil contents in the wetlands. Fishing practices affect on the growth and development of the macrophytes of the wetlands.

Besides these, a part of the weaker section of the population use the water body of the wetlands for drinking purposes. Since the wetlands are polluted by crude oil, they often suffer from different intestinal diseases.

However, the followings are some important points for the conservation of wetlands of Rudrasagar area:

1. Physical survey and satellite mapping of the wetlands delimiting of boundaries is an urgent necessity.

2. A detailed resource inventory of each selected wetlands in Rudrasagar area is the most effective conservation action, which will give the base for formulation of a concrete conservation strategy.
3. The best way to protect the wetlands is not by legislation but by educating people on the importance of wetlands. The fringe village people of the wetlands of Rudrasagar don't have any idea about the importance of their wetlands. Voluntary organizations should be involved closely in this programme.

4. There should be an enduring organizational structure for ensuring protection and wise use of the wetlands. Members should be coped from the fringe village areas to get fruitful results.