

CHAPTER - X

The Rasik Beel complex is an aggregate of five different wetlands formed by a common water flow of the River Raidak. It is a good house for numerous species of local and migratory birds and is now projected as a tourist's destination and as a bird reserve. This is one well-known wetland in the area not only for its winged guests but also for the aquatic flora and fauna. The desire for declaring Rasik Beel Complex as a Ramsar Site is in the mind of conservationists. But, even today there is no any major step by the authority to demarcate and declare it a wetland of international importance for the conservation of its local as well as the migratory biological elements.

The present attempt to understand the vegetation and flora of the Rasik Beel Complex is an attempt to develop necessary database so that this important wetland can be given much more weightage towards its selection as a Ramsar Site.

10.1. The Flora

The present floristic work on Rasik Beel Wetland deals with the recorded 124 angiospermic families, out of which 96 are dicotyledonous and the remaining 28 are monocotyledonous. The details of the numerical classification of the recorded floristic elements are shown in Table 8.1. Out of the recorded total of 614 species, 581 are angiospermic (dicotyledonous 428 and monocotyledonous 153), 3 gymnospermic and the remaining 30 species are pteridophytic.

Table 10.1. Numerical representation of different major taxa in Rasik Beel flora

TAXA	Numerical representation		
	Family	Genus	Species
Pteridophyta	17	25	30
Gymnospermia	03	03	03
Dicotyledonae	96	300	428
Monocotyledonae	28	97	153
TOTAL:	144	425	614

Table 10.2. Taxonomic distribution of recorded exotics in Rasik Beel flora

Taxa	Numerical representation		
	Cultured	Naturalized	Total
Pteridophyta	0	0	0
Gymnospermia	3	0	3
Dicotyledonae	38	52	90
Monocotyledonae	0	2	2
TOTAL:	41	54	95

In the back ground of local natural vegetation, the flora of the entire study area has been greatly modified. Main reason behind the changes is the establishment of tourism center around Rasik Beel. Clearing of local native vegetation developing plantations with desired species for ornamentation, fodder production, domestic requirement, etc. are the main reasons of modification. Critical analysis of the distribution pattern of all the recorded elements of the Rasik Beel flora

revealed that out of the 614 species, 95 species has been recognized as exotics. Of these 54 species looks completely naturalized and are surviving in the vegetation through self-perpetuation. However, a search into the basic distribution of recorded exotics revealed that 24 of these plants are basically Tropical American, 14 are from South America, 12 from Brazil and Mexico and only 6 species are coming from different other Asian regions.

10.2. Exotic Elements

Some of the naturalized exotics are dominating in the area's vegetation and are certainly changing the basic vegetation pattern. Some such species include *Ageratum houstonianum*, *Alternanthera paronychioides*, *Argemone mexicana*, *Chenopodium ambrosioides*, *Chromolaena odorata*, *Cleome rutidospermum*, *Croton bonplandianum*, *Eichhornia crassipes*, *Hyptis suaveolens*, *Lantana camara*, *Mikania micrantha*, *Mimosa invisa*, *Oxalis corniculata*, *Parthenium hysterophorus*, *Stellaria media*, and *Xanthium strumarium*. As the population of all these species are increasing very fast due to their very broad ecological amplitude, so, special attention need to be given to look after their population.

10.3. Phyto Sociology

In the pre monsoon Wetland Vegetation, *Salvinia cucullata* showing highest frequency and *Salvinia cucullata* showing highest density. In monsoon season, whole wetland vegetation turns to change and highest frequency and density shows by *Najas graminea*. In postmonsoon Wetland vegetation, *Salvinia natans* has highest frequency but highest density showing by *Azolla pinnata* subsp. *Africana*. Highest EH showing by *Schoenoplectus juncooides* in the pre monsoon Wetland vegetation. In monsoon wetland vegetation highest EH shows by *Colocasia esculenta* and *Typha elephantina* showing heist EH in the Post monsoon vegetation.

In premonsoon ground cover, *Acmella uliginosa* has maximum frequency and maximum density presented by *Achyrospermum wallichianum* *Duchesnea indica* showing maximum IVI. Highest EH presented by *Solanum indicum* This ground cover scenario has been changed in the monsoon vegetation and *Ageratum conyzoides* contain highest frequency. *Clausena excavate*. *Oplismenus burmannii* presented maximum abundance, highest density and also has maximum IVI. Maximum EH presented by *Clausena excavate*. *Pilea cordifolia* and *Synedrella nodiflora* presented highest frequency in the post monsoon ground cover which is totally different from previous season's floral structure. *Crinum amoenum*, *Molinaria capitulata* showing maximum EH in the post monsoon ground cover. Highest IVI presented by *Pilea cordifolia*.

From pre monsoon shrub, *Clerodendrum infortunatum* is dominating species and it makes middle green layer in that drought season. So, *Clerodendrum infortunatum* showing highest frequency, highest abundance, highest density, highest IVI. Highest SDI and highest EH presented by *Dendrocnide sinuate*, *Streblus asper* and *Morus indica*. In the monsoon, *Ichnocarpus frutescens* presented highest frequency with *Clerodendrum infortunatum* and start to change the middle layer of the vegetation cover. Highest density presented by *Ichnocarpus frutescens*. Highest EH presented by *Zizyphus mauritiana* and *Bridelia retusa*. Highest IVI presented by *Ichnocarpus frutescens*. Maximum dence middle layer seen in post monsoon season. *Lantana camara* showing highest frequency and highest density. *Solanum torvum* presented highest IVI. *Melastoma malabathricum* presented highest EH in the post monsoon shrub layer. From pre monsoon shrub data, highest SDI and highest EH presented by *Dendrocnide sinuate*, *Streblus asper* and *Morus indica*. *Zizyphus mauritiana*, *Bridelia retusa* and *Premna latifolia* presented highest SDI. In post monsoon shrub vegetation, *Melastoma malabathricum* presented highest EH.

In canopy layer of the vegetation, *Oroxylum indicum*, *Neolamarckia cadamba* and *Bischofia javanica* presented highest frequency. Highest density showing by *Bischofia javanica*.

In the tree vegetation, highest SDI presented by *Chukrassia tabularis*, *Polyalthia longifolia* and *Magnolia champaca*. Highest EH shows by *Polyalthia longifolia* and lowest by *Bischofia javanica*. Menhinick Indices (D) showing 1.626 and Margalef Indices (RI) is 22.811 in canopy cover.

10.4. Common Fauna

Biological diversity is not only deals with plants, it also deals with faunal and microbial diversity. During the study, very little attention was expended for observing and listing of faunal diversity. However, present survey recorded: 3 species of Annelids, 37 species of fishes, Amphibians 4 species, Reptiles 9 species, Mollusca 5, Mammals 9 and Birds 135 species.

10.4.1. Threats from Free Fishing: A large part of the beel area is allowed free for fishing. The villagers cultivate economically important exotic fishes in that area. There is no obstacle between the conserved and free-fishing areas. So, the exotic fishes are certainly migrating into the conserved area, thereby affecting the original ichthyofauna of Rasik Beel. Due to regular harvesting of fishes, the local fishermen are also disturbing the local and migratory avifauna and damaging the free-floating and other aquatic vegetation. Aquatic rotifers, molluscs, zooplanktons and phytoplanktons are also highly affected by due to fishing and related activities. Poor knowledge of NTFP collection by local villagers is also one important cause of disturbing the food production and food-web leading to the food crisis of aquatic birds. Ecotourism also seriously disturbing the local floral and faunal communities.

10.5. Introduced Ornamentals

From the present survey, 70 species of plants have been recorded, which are planted in the park, gardens and other conservatory sites. *Roystonea regia* has been planted on the forest margin near the entrance gate. *Polyalthia longifolia* planted almost in all sectors of park and gardens. *Nymphaea nouchali*, *Nymphaea pubescens*, *Nymphaea rubra* are abundant aquatic plants in the protected part of Rasik Beel complex near the park and Shishu Udyan. *Bougainvillea glabra*, *Bougainvillea spectabilis*, *Acalypha hispida*, *Aerva sanguinolenta*, *Alcea rosea*, *Artemisia indica*, *Barleria cristata*, *Barleria lupulina*, *Barleria strigosa*, *Bauhinia purpurea*, *Bauhinia variegata*, *Caesalpinia pulcherrima*, *Callistemon lanceolatus*, *Camellia japonica*, *Cereus repandus*, *Catharanthus roseus*, *Clitoria ternatea*, *Hibiscus mutabilis*, *Hibiscus rosa-sinensis*, *Impatiens balsamina*, *Impatiens trilobata*, *Ixora acuminata*, *Jasminum sambac*, *Mirabilis jalapa*, *Ocimum tenuiflorum*, *Ocimum basilicum*, *Piper nigrum* etc. are planted in the main park of the Rasik Beel only for beautification.

10.6. Useful Plants

10.6.1. Trees: As much as 45 species of tree has been planted in the area which have good timber value. However, some of these are also having other types of importance too! Bird-food, bird-nesting etc. are desired characters in such a bird sanctuary. *Bischofia javanica*, *Magnolia champaca*, *Peltophorum pterocarpum*, *Shorea robusta*, *Swietenia macrophylla*, *Swietenia mahagoni*, *Tectona grandis*, *Terminalia arjuna*, *Terminalia bellirica* are planted by forest department basically for these purposes.

Salix tetrasperma is also introduced recently for the nature of its branching, which is very much suitable for bird nesting. *Terminalia arjuna* also planted in the middle Island and parts of Baroijan and Chhotoijan Beel areas for its Bird-nest supporting branching pattern.

10.6.2. Ethno-NTFP Plants: During the present study, survey for traditional uses of local plants was conducted in the nearby villages and in the markets and/or bazars of the nearby areas with the help of many local people, including collectors and medical practitioners. Most important of them

were Mr. Bipul Barman from Rasik Beel village and Mr. Dinu Barman, a traditional medicine practitioner of Bochamari village. A total of 283 species of useful plants recorded of which 92 species are medicinal, 27 species ethnoveterinary, 54 species as vegetable or edible fruit producing, 14 species used in various religious purposes, 4 species as spice, and 173 species used as fodder for their domestic animals. However, till date no detailed ethnobotanical survey has been conducted in the Coochbehar district though good proportion of district-population is tribal. Former kings of Coochbehar were encouraging Ayurvedic treatment and there was well established Ayurved Dispensary and an Ayurvedic Garden inside the Coochbehar Township. Sporadic publications records of Medicinal Plants (Bandyopadhyay *et al.* 2005) from some areas of Coochbehar and nearby districts. But, the fast reduction of natural vegetation in the entire region is also endangering the Medicinal Plants. So, it is now important to take up complete survey for Medicinal Plants in the entire area and to take up necessary measures for their sustainable conservation.

From the present survey, 614 species of plants are recorded from the study area, of which 283 species are used by local people to their daily life and in different social activities. But, only 52 species are recorded as marketable NTFP plants. But, the price fetched by the NTFPs in local markets is very low. As much as 92 species of medicinal plants, 27 ethnoveterinary plants, 54 edible plants as vegetable or ripe fruits, 14 plants used in various religious purposes, 4 plants use as spice are recorded from the study areas. However, only some edible fruits and few vegetables are marketed, others are collected by the people for their own use consumption and has no priced demand in the market.

10.6.2.1. Sources: *Aegle marmelos*, *Annona reticulata*, *Annona squamosa*, *Areca catechu*, *Artocarpus heterophyllus*, *Carica papaya*, *Cinnamomum tamala*, *Cinnamomum verum*, *Cocos nucifera*, *Curcuma longa*, *Litchi chinensis*, *Piper nigrum* etc not available in the forests areas, but those are cultivated in their forest villages and forests land of village side. *Aeschynomene indica*, *Colocasia esculenta*, *Enydra fluctuans*, *Lasia spinosa*, *Nymphaea nouchali*, *Nymphaea pubescens*, *Nymphaea rubra*, *Trapa natans* var. *bispinosa* etc they collected from Rasik Beel complex. *Amaranthus viridis*, *Amorphophallus bulbifer*, *Artocarpus lakoocha*, *Bambusa balcooa*, *Bambusa tulda*, *Chenopodium album*, *Chenopodium giganteum*, *Citrus limon*, *Citrus maxima*, *Dillenia indica*, *Dioscorea bulbifera*, *Diospyros malabarica*, *Elaeocarpus floribundus*, *Luffa acutangula*, *Luffa aegyptiaca*, *Lycopersicon esculentum*, *Momordica charantia*, *Musa balbisiana*, *Phyllanthus emblica*, *Sida acuta*, *Syzygium cumini*, *Tamarindus indica*, *Terminalia bellirica* and *Zizyphus mauritiana* they collecting from the forests.

10.6.2.2. Ethnomedicinal Plants: From the present survey, 92 species are recorded as ethnomedicinal plants. So many plants which they use for treatment of disease, but the plants or plant parts they use as vegetable regularly or they eat ripe fruits regularly. Local kabiraj ie. Medicin practitioner suggested his patients to take regularly *Alternanthera sessilis*, *Amaranthus spinosus*, *Amaranthus viridis*, *Annona squamosa*, *Azadirachta indica*, *Carica papaya*, *Centella asiatica*, *Citrullus vulgaris*, *Citrus limon*, *Citrus maxima*, *Glinus oppositifolius*, *Mangifera indica*, *Morus alba*, *Paederia foetida*, *Piper longum*, *Premna latifolia*, *Psidium guajava*, *Punica granatum* etc for good health. And he also advice *Alternanthera sessilis*, *Amaranthus spinosus*, *Amaranthus viridis*, *Azadirachta indica*, *Carica papaya*, *Centella asiatica*, *Glinus oppositifolius*, *Paederia foetida* and *Premna latifolia* to use as regular vegetable.

10.6.2.3. Ethnoveterinary Plants: From the present survey, 27 species of plants are recorded, which are uses as ethnoveterinary medicinal plants. Somany plants which they use for human treatment also. *Alstonia scholaris*, *Amorphophallus bulbifer*, *Cannabis sativa*, *Nyctanthes arbor-tristis*, *Persicaria hydropiper* and *Vitex negundo* are poisonous plants, but the use these for removing lice or body sores or vermicides.

10.6.2.4. Poisonous Plants: From the present survey, 14 species of plants are recorded those are uses poisonous plants. Some poisonous plants they use include ethnomedicinal or ethnoveterinary plants. *Alstonia scholaris*, *Cannabis sativa*, *Careya arborea*, *Cheilocostus speciosus*, *Datura metel*, *Datura stramonium*, *Diospyros malabarica*, *Moringa oleifera*, *Murraya koenigii*, *Plumbago zeylanica* etc use as ethnomedicinal or ethnoveterinary plants. *Murraya koenigii* and *Moringa oleifera* they use as vegetable also. The ripen fruits of *Diospyros malabarica* is edible and very testy.

10.6.2.5. Religious & Cultural Plants: From the present survey, 19 species of plants are recorded to use in various religious activities. The leaves of *Aegle marmelos*, *Cynodon dactylon*, *Ocimum tenuiflorum* and *Saccharum spontaneum* and the fruits of *Aegle marmelos*, *Areca catechu*, *Datura metel*, *Datura stramonium* are uses in various worship. The *Tagetes patula*, *Tabernamontana divaricata*, *Malvaviscus arboreus* var. *penduliflorus*, *Hibiscus rosa-sinensis*, *Datura metel*, *Datura stramonium*, *Clitoria ternatea*, *Catharanthus roseus* etc flowers uses in worship. *Clitoria ternatea* flowers uses only in Shoni puja. Flowers and fruits of *Datura metel* and *Datura stramonium* uses only in Shiva puja.

10.6.2.5. Edible Plants: From the present survey, 54 species of plants are recorded as edible plants. Of these 3 species used as species. The tender shoots and leaves of 17 species use as vegetable. In addition, the fruits of 7 species and the long pedicel of 3 species of *Nymphaea* are used as vegetables.

Leaves and tender shoots of *Alternanthera philoxeroides*, *Alternanthera paronychioides*, *Alternanthera sessilis*, *Amaranthus blitum* subsp. *oleraceus*, *Amaranthus spinosus*, *Amaranthus viridis*, *Celosia argentea*, *Chenopodium album*, *Chenopodium giganteum*, *Coccinia grandis*, *Deeringia amaranthoides*, *Enydra fluctuans*, *Glinus oppositifolius*, *Ipomoea aquatica*, *Leucas indica*, *Malva verticillata*, *Momordica charantia* and *Piper longum* are used as vegetables. Pedicels of *Nymphaea rubra*, *N. pubescens* and *N. nouchali* are used as vegetables and their seeds are boiled or fried and eaten as substitute to rice. Fruits of *Momordica charantia*, *Coccinia grandis*, *Luffa aegyptiaca*, *Luffa acutangula*, *Ficus hispida*, *Carica papaya*, *Artocarpus heterophyllus* etc. are also used as vegetables.

Ripe fruits of *Annona reticulata*, *Annona squamosa*, *Artocarpus heterophyllus*, *Artocarpus lakoocha*, *Carica papaya*, *Citrullus vulgaris*, *Citrus limon*, *Citrus maxima*, *Dillenia indica*, *Dillenia pentagyna*, *Elaeocarpus floribundus*, *Litchi chinensis*, *Morus australis*, *Phyllanthus emblica*, *Syzygium cumini*, *Tamarindus indica*, *Trapa natans* var. *bispinosa* and *Ziziphus jujuba* are directly eaten. Seeds of *Piper nigrum*, bark of *Cinnamomum verum* and leaves of *Cinnamomum tamala* are used as spices.

10.6.2.6. Fodders: A total of 173 species of fodder plants have been recorded from the study areas. Of these 3 species – *Alpinia nigra*, *Zingiber montanum* and *Saccharum spontaneum* are cultivated to feed the herd of Deer under conservation, 27 species of fodder plants are totally aquatic; the leaves and twigs of 35 species of trees were found to be good fodder; 16 species of climbers were also as good fodder. *Aeschynomene indica*, *Alternanthea philoxeroides*, *Alternanthera paronychioides*, *Alternanthera pungens*, *Alternanthera sessilis*, *Amischootolype hookeri*, *Celosia argentea*, *Coix lachryma-jobi*, *Cyperus pangorei*, *Eichhornia crassipes*, *Enydra fluctuans*, *Hygrophila phlomioides*, *Hygroryza aristata*, *Ipomoea aquatica*, *Limnophila repens*, *Monochoria hastata* etc are very good fodder from aquatic habitat.

10.7. Main Threats

Rasik Beel complex become a popular tourist spot since 2003 after establishment of Ghorial, Tortoise, Deer and Leopard ex-situ conservation center. Local people, Tourists, Students regularly visited there and create threats.

10.7.1. Threats from Free Fishing

10.7.1.1. Threats to Native fishes: A large part of the beel area is allowed free for fishing. The villagers cultivate economically important exotic fishes in that area. There is no obstacle between the conserved and free-fishing areas. So, the original ichthyofauna of Rasik Beel regularly decreases. Natural habitat of the local fishes has been damaged and due to exotic fish culture, the food habit of local ichthyofauna has been changed. Local farmers use pesticide in their beel side cultivation lands and make a great threats to the native fishes.

10.7.1.2. Threats to Birds: Due to regular harvesting of fishes, the local fishermen are also disturbing the local and migratory avifauna and damaging the free-floating and other aquatic vegetation. Many times avifauna catches by the local people with fishing net. Nests and eggs of local aquatic birds also damaged by the fishermen in time of fishing. Poor knowledge of NTFP collection by local villagers is also one important cause of disturbing the food production and food-web leading to the food crisis of aquatic birds. Ecotourism also seriously disturbing the local floral and faunal communities. In picnic time more the 100 of Mick create noise in the forests within 100m of Beel areas and disturbing Birds.

10.7.1.3. Threats to other aquatic organisms: Aquatic rotifers, molluscs, zooplanktons and phytoplanktons are also highly affected by due to fishing and related activities. Fisher men damaging the natural habitat and uprooted and uplifted aquatic plants due to clearing the fishing area and damaging the faunal population.

10.7.1.4. Threats to Vegetation: Poor knowledge of NTFP collection by local villagers the forests vegetation facing threats. So many species like *Rauwolfia serpentine*, *Aristolochia indica* etc uprooted by the local people before flowering and fruiting. They collected fodder and fuel regularly by cutting of immature shrubs and juvenile trees and damaging the vegetation. In the picnic season, more than 100 picnic parties cooked their foods and enjoying in the marginal forests areas and damaging the forest vegetation. Tourists also damaging the forests vegetation.

10.7.1.5. Threats created by Foresters: For more tourists attraction and earn more money, Forest Department, Government and NGOs are establishing Tourism Business and Lodging system, Watch Towers etc and increasing ex-situ conservation and exotic plantation which makes threats to the local environments and natural population.

10.7.1.4. Threats to Wetlands: Local people acquired submerge and immerse lands for paddy cultivation. After 2 – 3 years of acquiring land, they establish house and the Wetland complex area decreasing every day.

10.8. Possible Remedies

10.8.1. Controlling Fish culture: Surrounding village people of the water bodies are fisher men and a large part of the beel area is allowed free for fishing. The villagers cultivate economically important exotic fishes in that area. It is not possible to stop fishing, but may possible to aware and proper training them about fish culture and how we save native fishes for our future. Need to made a barrier between the conserved and free-fishing areas. Forest Department can run a project to change their livelihood pattern. They need to proper training and economic help to change their life style and livelihood which can change them from fisher men to other. Young and educated villagers can involve for protection of the natural resources and forests.

Local farmers using pesticides in their crop field which is wash and flow to the beels causes to fish death. So, local farmers also need to proper awareness about this problems.

10.8.2. Awareness about migratory Birds: Villagers need to aware about migratory Birds and how can we care them and save them. Villagers can be involved in floral and faunal survey and as a tourist guide with proper training. Fisher men need to training to save nests and egg of aquatic birds during their fishing and creating distance to migratory birds dominated areas.

10.8.3. Training about Natural resources: Poor knowledge of NTFPs collection by local villagers is also one important cause of damaging natural resources. So, need to regular awareness programme about collection procedure of various natural resources, collection time, government and scientific formalities and procedure. And also create a market for the collected forests products where the collectors would not be cheated by the agents.

10.8.4. Controlling Ecotourism: Tourism business is the most popular business to Forest Departments, Tourism Departments, NGOs etc and not possible to stop this tends. But it should be controlled by proper rules and acts by the Government. Tourism related personnel should be trained and knowledgeable and also nature loved than money. Picnic spot need to shifted away from the water bodies.

10.8.5. Save water bodies: Local people acquired submerge and immerge lands for paddy cultivation. Forest Department should take step to stop those activities with the help of other administrative section and Land Department.

10.9. Final Assessment

In the back ground of local natural vegetation, the flora of the entire study area has been greatly modified. Main reason behind the changes is the establishment of tourism center around Rasik Beel. Clearing of local native vegetation developing plantations with desired species for ornamentation, fodder production, domestic requirement, etc. are the main reasons of modification. Rasik Beel Wetland deals with the recorded 124 angiospermic families, out of which 96 are dicotyledonous and the remaining 28 are monocotyledonous. Out of the recorded total of 614 species, 581 are angiospermic (dicotyledonous 428 and monocotyledonous 153), 3 gymnospermic and the remaining 30 species are pteridophytic. Out of the 614 species, 95 species has been recognized as exotics. Of these 54 species looks completely naturalized.

Biological diversity is also very rich. From the present survey 3 species of Annelids, 37 species of fishes, Amphibians 4 species, Reptiles 9 species, Mollusca 5, Mammals 9 and Birds 135 species has been recorded.

This forest and Beel complex is the mother of local forest villagers. Their life and livelihood depends on the Forest parts and wetlands. From the present survey, 614 species of plants are recorded from the study area, of which 283 species are used by local people to their daily life and in different social activities. But, only 52 species are recorded as marketable NTFP plants. The price fetched by the NTFPs in local markets is very low. As much as 92 species of medicinal plants, 27 ethnoveterinary plants, 54 edible plants as vegetable or ripe fruits, 14 plants used in various religious purposes, 4 plants use as spice are recorded from the study areas. 173 species used as fodder for their domestic animals. However, only some edible fruits and few vegetables are marketed, others are collected by the people for their own use consumption and have no priced demand in the market.

A total 70 species of ornamental and garden plants have been recorded, which are planted in the park, gardens and other conservatory sites. And as much as 45 species of tree has been planted in the area which have good timber value.

Salix tetrasperma is introduced recently for the nature of its branching, which is very much suitable for bird nesting. *Terminalia arjuna* also planted in the middle Island and parts of Barojan and Chhotojan Beel areas for its Bird-nest supporting branching pattern.

Rasik Beel complex is a popular tourist spot and there establishes Ghorial, Tortoise, Deer and Leopard ex-situ conservation center cum rehabilitation centre by the Forest Department. Local people, Tourists, Students regularly visited there and create threats.

A large part of the beel area is allowed free for fishing. The villagers cultivate economically important exotic fishes in that area. There is no obstacle between the conserved and free-fishing areas. So, the exotic fishes are certainly migrating into the conserved area, thereby affecting the original ichthyofauna of Rasik Beel. Due to regular harvesting of fishes, the local fishermen are also disturbing the local and migratory avifauna and damaging the free-floating and other aquatic vegetation. Aquatic rotifers, molluscs, zooplanktons and phytoplanktons are also highly affected by due to fishing and related activities. Poor knowledge of NTFP collection by local villagers is also one important cause of disturbing the food production and food-web leading to the food crisis of aquatic birds. Ecotourism also seriously disturbing the local floral and faunal communities. In the picnic season, more than 100 picnic parties cooked their foods and enjoying in the marginal forests areas and damaging the forest vegetation. Tourists also damaging the forests vegetation. Local people acquired submerge and immerse lands for paddy cultivation. After 2 – 3 years of acquiring land, they establish house and the Wetland complex area decreasing every day.