CHAPTER NINE

CONCLUSION

To fulfil the objective of our research we gave a full chapter (Chapter Four) on the definitional problems of the term 'cyclone'. To a meteorologist it denotes a low pressure of any magnitude with a converging spiraling wind system of any velocity, but in perceptive reality it is a phenomenon which creates disaster. To a layman cyclone always means to be a calamitous weather event with high velocity winds. In this case the Bengali term 'ghurni' embraces the meteorological spiraling movement and destructive winds as well.

Tornado, a weather phenomenon genetically different from tropical cyclones, is treated at par with tropical cyclones of short duration, by common people.

There is a journalistic approach towards definition of many scientific terms. After the Orissa cyclone of 1999 Indian journalists have introduced a new term as 'super cyclone' to address a severe cyclone with very high wind velocity and consequent disastrous situation.

Regarding physical parameters, intensity, frequency, points and time of cyclone hitting are variable throughout the east coast of India. Tamilnadu and Andhra Pradesh are more affected by non-monsoon severe cyclones. In West Bengal coast some severe cyclones occur in monsoon also.

It is sometimes difficult to distinguish between monsoon cyclones and non-monsoon cyclones as the date of arrival and withdrawal of monsoon varies from year to year. But the feature to be noted here is that monsoon depressions may be punctuated with severe cyclones of meteorological definition. These monsoon cyclones usually form near the coast and follow a monsoon trough whereas non-monsoon cyclones form in southern part of the Bay of Bengal.
October cyclones are erratic and have a tendency to change their direction suddenly. On an average the West Bengal coast was seldom on the severe cyclone track in the historical past. In fact the 1942 Medinipur cyclone was greatest cyclonic disaster of the last century.

Hitting of cyclones and its consequences are modified or intensified by coastal configuration, beach materials and floristic composition. The months of January and February are free from onshore cyclonic invasion. If cyclones are presumed to be naturally hazardous then the entire east coast is physically vulnerable. In West Bengal the immediate coast is inhabited by socially and economically marginalized people. Their caste name is 'Jalia' or 'Kaibarta'. In Indian caste system these people belong to the lower level of the society. By profession they are fishermen and in sea-fishing they have to face the brunt of the fury of cyclones. Most of them have no steady income. A sizeable portion of fishing community is poor and this poverty is transferred from generation to generation.

Landless labourers or people dispossessed of landed property due to other natural calamities or socio-political factors often opt for sea-fishing. Truncation of landed resource base due to rapid bank erosion along the river Muriganga forced the cultivators of Ghoramara to switch over to fishing. Migrated Bangladeshi refugees were not always welcome in the farm sector. These politically marginalized group have also taken fishing as an occupation in Kakdwip, Jambudwip etc.

But this does not necessarily mean that everybody connected with sea-fishing is equally affected by cyclones. Higher income group, particularly the trawler owners are least affected as the trawlers are insured. Extension of life insurance facilities have now reduced hazard loss in a family to a great extent. Monsoon is the season for sea-fishing. Monsoon depressions are regular and more predictable and fishermen get accustomed to monsoon weather. As fishing is more remunerative in this season fishermen consciously ignore
forecast of cyclones or severe cyclones. On the contrary fishing is not that important in the post-monsoon period but cyclone warning are given due importance by fishermen.

From a human ecological perspective if autotrophs (fishermen) are adversely affected by cyclones the other components in the trophic level are also affected locally and regionally. This is our observation in the West Bengal coast. One noteworthy observation is that Bangladesh radio transmits weather bulletin with a regular interval and due emphasis is given for fishermen. Our fishermen, therefore, listen to Bangladesh weather bulletin as precautionary step to combat with cyclone.

Maritime climate and coastal beauty are two natural factors for beach-tourism. But monsoon depressions deter tourists in the months of July August September. But tourist-flow in non-monsoon period is more vacation oriented and less weather dependent. Tourist-flow is high at weekends and during festivals. In West Bengal, October November are the months of festivals like Durga Puja, Lakshmi Puja (goddess of wealth), Kali Puja or Deepabali. Educational institutions remain closed at least for two weeks. Offices also remain closed on certain days. During these festivals Bengalees from other states come to visit their ancestral homes. Bengalees coming from land-blocked states have a preference for sea-side resorts. Though the flow is more towards Puri in Orissa, Digha also attracts a sizeable number of Bengalee tourists. Thus tourists' concentration at Digha in October is more vacation and festival oriented and less fair weather oriented in post-monsoon period.

Incidentally 1942 October cyclone is the severemost cyclone of the last century. Therefore, local people connected with tourists have vicarious experience of this severe cyclone. Digha is mostly visited by people from Kolkata and its suburbs. The time distance between Digha and Kolkata has been shortened after the opening of the Narghat bridge and tourists can quickly evacuate with cyclone warning. Persons who cater the needs of beach
tourists thus suffer. Because of poor gender ratio men folks suffer most economically and ultimately the whole family has to bear or share the loss of income. Permanent staffs in hotels and lodges are the least sufferers. Economic loss is maximum in higher income groups or big entrepreneurs like hotel and lodge owners.

Bakkhali is yet to develop as a prominent tourist centre. Barge facilities in Namkhana has increased tourist-flow but tourists rarely stay there for lack of desired tourist centre facilities.

Cyclones bring about changes in coastal configuration, damage engineered structures, uproot beach vegetation and thus reduce coastal beauty. For the time being tourist-flow may be suspended. Major findings about impacts of cyclones on coast in general and on fishing and tourism have been modelled in fig. nos. 6.1, 6.2, 6.3,7.1,7.2 and 8.4. All the models are self-explanatory.

Loss of income of low income group may be compensated when temporary job opportunities are opened at repairing sides of roads and embankments. Finally, media plays a crucial role in dissipating cyclone news particularly cyclone hazards. During 1942 the cyclone news was purposely suppressed by the government. All leading newspapers flashed the news of army movement in front pages. But the Orissa cyclone of 1999 was widely circulated all over the country. In this case television gave vivid visual reports on cyclone
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