CHAPTER TEN

THESSES

In the previous chapters we have addressed tropical cyclones as physical phenomena in the east coast of India and their impacts on sea-fishing and beach-tourism in the West Bengal coast. There is a gap of nearly 150 years when H. Piddington first coined the term ‘cyclone’ in 1849 and the recently introduced 'super cyclone' in 1999. Social and political background was different when Piddington started his investigation from today’s socio economic and political environment in the Bay of Bengal coast. The scientific terminology has been chiselled over the years but there is still a gap between scientific meaning of the term and its social connotation at local regional and global level. This is the first thesis of this research work. An observation on the average occurrence rate of tropical cyclone over different oceans shows that North Indian Ocean (Bay of Bengal and Arabian sea ) experiences minimum number of cyclones but in terms of negative impacts of cyclone India and Bangaldesh are the worst affected countries.

In the Bay of Bengal cyclones may originate at different points over the oceans but for impact analysis more significant is the points of hitting. In this respect Tamilnadu and Andhra Pradesh are inflicted more by severe cyclones. West Bengal coast is a relatively safe zone. This is our second thesis.

In West Bengal coast absence of physical barriers like Eastern Ghats and north south alignment of the Ganga delta help cyclonic system to penetrate far inland, when compared to the Andhra or Tamilnadu coast. Even in West Bengal the Medinipur coast differs strikingly from the Sundarban coast in terms of coastal geomorphology. Beach materials in West Bengal vary from sand mixed loam to clay. Loose sands in huge amount are to be found at Chennai,Gopalpur on Sea and at Puri. So sand blowing during severe cyclones is a less experienced phenomenon in West Bengal. Coastal mangrove vegetation in Sundarban absorbs primary impacts of severe cyclones. Thus
coastal configuration, beach materials and coastal floristic composition are
three important variables in onshore movements of cyclonic system and their
effects on the physical space. Our third thesis, therefore, is that these three
variables should be given required emphasis on spatial (physical) impact
studies.

Cyclone-inflicted spatial changes are transferred to the communities using that
space. By spatial changes we mean modification of inherited physical features
and alteration of man-made features. This spatial perspective cannot be
ignored in impact analysis of any natural events with risk potentialities. This is
the fourth thesis of this research work.

Fishing in India is a caste specific occupation till today and this fishing caste
occupies a lower level in the caste system. For this they have a lower social
status particularly in rural Bengal. To this may be added low economic status,
sometimes self acquired, sometimes inherited. Some points in respect of
severe cyclones are vulnerable as have been reported in relevant chapters and
these vulnerable points in physical space are occupied by these socially and
economically vulnerable groups. Physical political and economic factors often
transform a cultivator to a landless labourer as we have noticed among
agricultural communities settled along bank erosion prone Sundarban rivers
and among migrated communities from erstwhile East Pakistan and present
Bangladesh. These people often opt for sea-fishing in coastal areas where sea-
fishing is also a risky job in terms of cyclone and storm surges. The
convergence of physical vulnerability and socio-economic vulnerability
increases the probability and intensity of social hazards acquired from a
physical event like cyclone. This fifth thesis is applicable to all developing
countries. Situation worsens if cyclones strike in an environment which is
unstable politically as was the case in Bangladesh in 1971.

Tourism in West Bengal is more vacation-oriented and less climate sensitive.
This sixth thesis is well exemplified if we take examples from the months of
October-November. During this period rivers are in full spate. So, storm surge of small magnitudes may create floods. There are standing crops in the fields. Agriculture and agricultural communities are adversely affected but tourist-flow continues because of festival oriented vacation facilities in this period.

During our investigation we tried to address a question whether compartmentalization of pre-monsoon, monsoon and post-monsoon cyclones is a valid proposition for impact analysis. Our investigation shows that degree of social hazardousness is dependent on various pre and post cyclone situations. The post monsoon (but pre winter) cyclones become disastrous if fishermen and small entrepreneurs in tourism have already been adversely affected by monsoon floods. The lag effects of monsoon distress are continued in post monsoon period, situation deteriorates even if there is a cyclone of moderate intensity. Lag effects of that cyclone are again transferred to winter season. It has been noted that occurrence of cyclone is minimum in winter. Urban tourists enjoy winter vacation in Digha but poor people be they in primary, secondary or tertiary activities, have to bear the lag effects of monsoon depression and post monsoon cyclones in cyclone free winter months. So, like resource process hazard process is also a process in continuum. We give special emphasis on this seventh thesis in impact analysis.

Role of media is a decisive factor in dissipating cyclone news, creating public awareness and opinion and forcing governments to take appropriate steps. The cyclone of 1864 was highly publicized by the media and the British government whereas in 1942 the Second World War news received priority from media. In fact, the cyclone of 1942 was suppressed by the government and media as well. The Andhra cyclone of 1990 and the Orissa cyclone of 1999 drew global attention and many countries extended or at least expressed their desire to extend their helping hands. More objective and stronger the role of media lesser would be the negative impacts of cyclones and other natural disaster. This is eighth and final thesis after a thorough investigation in our study area.