Chapter 8
Conclusion

It is not unusual to find people who have lived in hazardous locations for many years, and have faced the condition of recurring disasters of various kinds in the place where they live. While their place of living is by choice, a question that may be legitimately posed is, why do they choose to live in this place if it means having to encounter periodic disasters. And more to the point, why did their forebears choose to live in this place, when there were alternative locations available, presumably without attendant risks of living there. We may not be able to answer these questions, inasmuch as we cannot speak for the people who first settled in these areas and were the ancestors of our study villagers. The present study has chosen to examine two communities who live very close to the sea, in a disaster prone area of coastal Orissa to consider the difficulties of living there, and what they do to survive recurring disasters. Understanding how people who face disasters survive them, and also their way of life in normal times is the subject of our study.

While much is talked about how people actually survive disasters, less is said about their way of life when they stay in disaster prone locations and pursue risky occupations. While the intention of the study has been to understand how people cope with disasters and live with the ever present possibility of their recurrence at any time, their perception of disasters is an important aspect that was considered. What were also observed were the contrasting perceptions of these people who faced the disasters, and the organisations and agencies that provide support during and after disasters, namely government and non-government agencies and organisations. Among the questions that are not often discussed are: who do they depend on to get help in the normal course of life as well as survival during disasters; whom do they consider as their own people and how do they define such bonds between the people of “their community”. Interacting with these people of the two villages over a period of several weeks resulted in a gradual understanding of the way of life of the people.
in both the villages. We were also particularly interested in the question of the social institutions that were instrumental in their survival as well as resilience to disasters. We had also to see what were the factors that facilitated their rehabilitation and revitalisation following the latest disaster. An unhappy fact to be recorded is that disasters in this area were a recurring phenomena, and even when they were just about trying to recover from one disaster, there could be another one that struck that area. In certain seasons of the year, cyclones were phenomena that recurred several times. The cumulative effects of these recurring disasters also, in our view, contributed towards hindering their efforts of getting out of the condition of acute poverty.

The understanding that we began with was that a sense of community was a factor that supported their efforts to survive disasters as well as recover as far as they were able, from these recurring disasters. Looking at the conceptualization of communities, we went back to Durkheim and Tonnies who had formulated certain thoughts about communities. Ferdinand Tonnies had distinguished between two forms of communities, gesellschaft and gemeinschaft. Emile Durkheim had distinguished between solidarity of two kinds, organic solidarity and mechanical solidarity. The present study has considered later conceptualisations of community as well, and the earlier contributions of Tonnies and Durkheim are not found in the same form as they had originally stated them. What we have now in the conceptualisation of community are characteristics such as a shared past, a common way of life, and common institutions. Face to face interactions that were a major characteristic of community membership according to Durkheim and Tonnies are also found in these study villages. These interactions have significant importance in these villages, especially for the fishermen community, who depend on such interactions while working together to earn their living. They also depend on a daily basis on the villagers for support in taking care of their families when they are fishing. To the fishermen, the physical boundary of the village is another defining feature that indicates who are included within, and constitute their own people. Staying within the same village boundary they come to the immediate help of whomever needs it, rather than
depending on neighbouring villages (people in other villages would also be pre-occupied in saving their own and families’ lives and property).

**Impact of disaster**

Disasters affect different parts of life such as occupation, income, health, and have an impact on family members, and the community at large. There are different actors who work in the events of a disaster cycle i.e., pre-disaster, during the disaster and post-disaster phase. In the present study of the villagers in the fishing village and the agricultural village, the local government i.e., the statutory panchayat, the disaster management authority and the non-governmental organisations operate in the study area. What we had to first look at in the event of a disaster is the impact it has on the lives in terms of livelihood, property and houses for both the agriculturist and fishermen community. Fishermen also have the risk to life due to their occupation which requires them to face the sea every day. For the agriculturists the problem is the direct impact on their occupation by flash floods and storms that destroy their crops. We realised that for the fishermen and the farmers the underlying problem is the location and place where they live, which is prone to disasters.

**Perception of a disaster**

Perception of disasters varies from one community to another, depending on the impact of the disaster. For fishermen even smaller storms cause havoc on their livelihood, i.e. fishing, which requires them to regularly venture into the sea. Their perception of a disaster includes even the smaller storms that stop them from going to sea for fishing. For the farmers, cyclones of higher intensity that destroy their crops are seen as disasters. As their houses are strongly built and they do not face the sea as the fishermen do, smaller storms do not affect their life or livelihood and do not constitute as a disaster for them. This shows the marked difference in the understanding of disasters. The definition of disasters in the disaster management plan has a disaster as something that kills ten or more people and results in enormous economic loss for several people.
For the people themselves it varies from one group to another, depending on the impact that the natural event has on their livelihood and life.

**Vulnerability**

These two communities stay in the same part of the coast and face the same hazards, but with marked differences in the problems that they face during disasters and the kind of losses they incur. The analysis in the present study highlights different vulnerabilities ranging from economic vulnerability of income and occupation, social vulnerabilities caused through belonging to a particular caste or language group, education and place of residence. Both the agricultural and fishing community face difficulties in their income earning activities, as well as threats to their lives and property. While disasters are a problem in themselves, even their normal day to day life when there are no disasters is only a little better due to the extreme poverty that they live in. The distress caused by poverty appears to have a greater impact on the fishermen, because of lower incomes as well as the more risky lives that they live. Events become disasters when they interact with the people and their vulnerabilities. In the case of the two communities, their problems are not only due to the cyclones that strike them from time to time, but also the lack of regular income that can provide them with better living standards, and additional support to build their resilience to withstand disasters. Poverty hinders the building of disaster resistant houses, being able to afford higher education of their children, able to eat better and therefore build their health and resistance to disease, get better health care, and also in paying premiums for insurance against risk to lives and property. Their daily life is itself a struggle with poverty.

As the fishermen are very poor and not skilled in any other occupation, the question of safety to life is preceded by their need to seek a livelihood. They are ready to risk their lives to make sure they can procure a meal a day for themselves and their families. This is possible only by undertaking fishing everyday, as the chances of getting fish is low in general, therefore, even during times of unsettled weather they undertake fishing ventures. Although the research was started with the question of coping
with disasters by the communities, it is understood that coping with disasters is only one part of life for people who live in disaster prone places. Their other trouble which contributes significantly to the exacerbation of disasters is their state of extreme poverty. Their struggle for living does not end with the disasters but their struggles persist even at other times, and throughout their lives. For the farmers the problem lies with the impact that cyclones and floods have on their crops, where their income is lost from the destruction of existing crops.

Income generated from a good crop or a successful crop is meant to last for several months, till the next crop brings in additional income. For the fishermen the income from fishing comes on a day to day basis. When the occupation generates an income on a day to day basis, losses for the fishermen for instance, are for the period of the disaster and when they cannot go fishing. For the farmers whose incomes come only after their crops are harvested and sold, disasters have a longer impact, because they have to wait for the next income after their crops are grown and harvested, and this could be several months. Thus, the impact on the fishermen is related to a shorter time, while for farmers it is longer term damage.

Perceiving the possibility of the family becoming destitute after the death of the main earner has motivated the people in the fishing village to take life insurance for themselves. They have also insured their boats. It has been a positive move although in no way is it a life saver for the fishermen themselves. It is more a secondary support that has helped the families. While fishermen find this useful to an extent, it is yet to find a place in the farming village. None of the farmers have taken up life insurance or crop insurance schemes, nor did they seem aware of crop insurance in the agricultural village. If the crops are insured the losses from crop loss would be considerably less for the farmers. It would not force the farmers to take heavy loans even for bare survival. There is the need to bring awareness among the farmers on insurance schemes although insurance has an additional cost of premiums that would require the agriculturists to save at least a part of their income.
It is understood that the vulnerabilities of these people are related to their low income and uncertain income, and lack of alternative occupation. They strive to build up resilience against disasters by building *pucca* houses, opting for insurances, getting children educated to be able to shift to safer occupations. A strong house is a major requirement for the fishermen who live very close to the sea. Farmers in the neighbouring agricultural village have managed to construct *pucca* houses that have made their lives safer than earlier. Disasters have killed more people in the fishing village due to the collapse of their houses, but a majority of them still live in *kuchha* houses because they have not had the resources to build *pucca* houses.

Building cyclone shelters is a welcome move by the government and NGOs. Despite the efforts that people in both the villages have taken to build their resilience, they still struggle and need assistance from organisations of the state as well as voluntary organisations in their survival and coping, because of their lack of a stable and higher income to build resilience. The non governmental organisations and government have provided support to the people in those areas where they are weak, such as shelters, and rescue drill to provide them with knowledge on first aid and timely evacuation.

Education is another factor that helps in building resilience against disasters. It has gained importance in both the villages, but even more so in the fishing village, after fishermen noticed the changes that education has brought in the lives of some of the people in the fishing village. Fishing is a risky occupation and is less rewarding as well. After getting school and college education a few from the village have moved out of fishing, or have taken up fishing business rather than going for actual fishing. This not only reduced their risk to life but also increased their income. The reduced risks that these people faced motivated other people to educate their children, with the hope that they would get better paying jobs. It is mostly those who are illiterate who remain in fishing because they have no alternative occupation that they can take up, while those who have got educated have pursued some other job, or if they are in fishing related work are in the fishing business. In the farming village too,
education is being given priority and the present generation (school going age) is getting educated, although they do not immediately intend to leave farming.

**Community**

This study has focused to a greater extent on examining the effect of community, and its relation to the adaptation and survival of people who live in a disaster prone area. The link between caste groups, their occupations and the bond of togetherness intertwined with trust of getting help from the community during disasters is seen here. This inter-relation has a bearing on their survival during periods of crisis. The fact that both villages are located in a disaster prone area and are in occupations that have their own share of risks, also leads to the strengthening of a sense of community, and the feeling of oneness. The distance from other villages and towns, and frequent disasters, require them to stay together and help each other as a community, for a safer existence. The occupation that they pursue demands group work, especially for the fishing village. The risks to life and livelihood further heighten their interdependence. In the case of farmers, the vulnerability of their crops to frequent water surges leading to economic losses, binds the community together. They need each others assistance in recovering from losses in terms of physical assistance to clear the damaged crops, close the openings from where water surges in, and also provide monetary help to those in need. Their resilience (both villages) is related directly to their survival when they live so close to perennial disasters and starvation. They have very little margin to relax and recoup as they live in a disaster-prone place and in a state of acute poverty. They have to get back to work to survive as they have either very little savings or no savings most of the time, nor any other means of earning to buy food.

The people themselves express their notion of oneness by highlighting important activities. In their accounts, they display their unity and closeness by choosing to go fishing only with their own community men. They choose only their own community men to work as intermediaries and manage the fishing business with the wholesalers outside the village.
When there are situations of crisis such as cyclones, they depend primarily on the community members for assistance. They also depend only on their own community members in times of any other personal problem. To those in the fishing village, their caste members are also their community (the other group that lives in the village interacts with the fisher men but are not considered part of the fishermen’s ‘community’ in the manner in which they see it). In the agricultural village, at times of disasters the entire village is seen as the community, even though there are two different caste groups in the village. During normal times they remain essentially separate, though they have several areas in which they interact with each other. Brahmin landowners and Khandayat agriculturists interact in agricultural activities, because Brahmins do not cultivate their own land but depend on Khandayat farmers. Religious activities involving Brahmin priests and Khandayat people also involve regular interactions. All this forms the basis for a closer interaction in times of disasters, where they help each other, and come together for survival. Whatever the case, the community is a necessary social construction, in the context of the precarious existence of these people who live near the seashore. It is the community that is seen as the one which preserves their existence through the disasters that periodically strike this place.

Poverty has also made the people of the respective villages come together at times of disasters. In the case of the fishermen their closeness is also at normal times due to their high risk occupation. While cyclones call for immediate efforts of rescue and recovery, the problem of poverty requires them to depend on each other and the community at large (in the case of the fishermen) to help each other whenever they need funds at the time of marriage, education of children or health care, or sometimes to meet even their daily needs of food. Aspects of solidarity are seen in such cases. One can say that the strength of the community is related to the level of risks that a community faces. The higher the risks that a community faces, the closer and stronger the bonds between members. The two communities who face disasters manifest solidarity and
community feeling, that are instrumental in meeting and overcoming the disasters.

The importance of togetherness in the survival of the fishermen is also displayed through the festivals which they celebrate. The festivals not only provide them a common forum to contribute towards the village funds, but also a sense of belongingness to the community. Hence, the importance of solidarity in surviving poverty and disasters is seen in the fishing community. The fishermen not only depend on their fellow villagers for disaster relief, but during normal times too they work with each other and share the fish catch among the group that goes together for fishing. They also realise the importance of getting a catch, hence, when a group of fishermen has completed its fishing venture successfully and there are more fish nearby, they send this information to other fishermen of their own village who are also fishing. They charge forty percent of the catch as a price for informing the other group about the presence of the fish.

**Role of civil society, and government organisations**

Analyzing the roles played by state organizations and the functioning of the non governmental organizations and looking through their efforts in the light of people’s coping efforts, we found that one of the major problems of the people inhabiting the disaster affected coast is the livelihood. It is entirely dependent on nature and in this area prone to various disasters. Therefore, policies are required that are directed towards making the present livelihoods sustainable, and also provide them alternative livelihood to reduce the vulnerability of income and occupation, and thereby, poverty as well. Non governmental organizations working in the fishing village have made some effort by introducing the production of fish products in the fishing village, but that also requires more of an involvement of the people.

Women need to be included as partners in disaster mitigation as well as in the process of building a sustainable livelihood. They are a major part of the community and important part of the occupation. Being deeply
involved in the occupations, they are also affected by disasters, economically and physically.

A community fund is also a measure used by the villagers to build their chances of survival. Individual efforts at survival are not only difficult and costly, but with most families being very poor, hardly a feasible means of living and surviving in a disaster prone area. Thus, community involvement is both necessary and a practical means of survival. One of the means that they have devised to is creating a common fund in the village, to be used during disasters, as a contingent fund. We have also suggested that solidarity between people of the village are also a significant means of facing disasters, both among the fishing village as well as the agricultural village. With a risky occupation, and living so near the sea, the reasons stand out more forcefully for the fishermen to be together in their occupational life as well as that of living in times of disasters.

Income in the fishing village is very low, and most fishing families have an income that is well below the poverty line. This means, a single family finds it virtually impossible to get a subsistence income and simultaneously save money for contingency purposes. Even insurance premiums are paid by women for the men of their families engaged in fishing, because the men have no savings at all to pay such premiums. Women undertake extra work to earn more, save, and pay the premiums. However, the community raises funds through getting a part of the fish catch, payments at times of festivals, and thereby have funds for the villagers in times of stress. The role of caste panchayat is crucial in the community (fishing community), and it performs a very important function in the lives of the community members. The state had mentioned the idea of a community fund for disaster management, but could not put it into practice, nor has the state been able to mobilize people to contribute to such funds. The caste panchayat on the other hand has been collecting and managing the fund in the fishing village for several generations. The members of the panchayat who are chosen by the villagers not only maintain order at work and in village life but also
maintain the village contingency fund. The people have trusted them to manage the funds carefully. However, as the fund is very important for the fishing community, they have created a committee comprising the fishermen themselves to make sure the fund is not misappropriated. The major task of collection and usage of funds lies with the caste panchayat.

Traditional institutions such as the caste panchayat have a clearer role to play in contexts such as seen in the fishing village, where serious economic problems as well as a high risk occupation and living conditions, make the presence and active functioning of such institutions more of a necessity. While they have a crucial role in maintain order in the occupation, as well as play a role in the welfare of the people, they are more likely to support its functioning and contribute towards its work. On the other hand, in a place such as the agricultural village, where the risks are not perceived as being high, either in terms of a risky occupation, or even the possibility of risks to their lives on a regular basis, does not encourage people to contribute funds for any common associational activity. They do not even have the need for a traditional caste panchayat to function as in the fishing village.

Overall, we could not only understand how the already existing knowledge of coping with disasters actually works, but also found how traditional organisations can be a major help in disaster management. We also understood that disasters have different connotations for different groups, depending on the impact of disasters on their occupations and lives. Farmers who incur tremendous losses in these disasters need to be alerted to the possibility of crop insurance, which may reduce their losses to some extent. The active involvement of NGOs in disseminating information to people would be another positive step. Disasters, as defined by the Government or NGOs has a different meaning from the manner in which people who actually face disasters understand them, particularly those as the fishing and agricultural communities whom we observed.

While the lives of these people are not always threatened every time there is a disaster, their livelihoods are certainly affected more often, and leave
a severe impact on groups such as the fishermen. Thus, sustained and responsive efforts from various organisations are required to meet such needs, not only when the disasters cause more extensive damage and losses to lives and property. Since government or non governments organisations live outside these communities, their disaster relief efforts would also be longer in arriving, and may take some time to get focused. It may help, if they were also trained along with the villagers, in meeting disasters, more so since disasters such as cyclones are a certainty every year. In any case there are special response groups trained under the disaster management plan of the district and youth of the villages are also provided training separately, hence, incorporating this idea would not be problematic.

Knowing how they manage their lives in normal times provides us knowledge on the process of what constitutes risks and disasters to the people, and how coming together on common occasions such as festivals and living in close proximity to each other strengthen their inter-relations and bonds between them, and facilitates survival during disasters. Whether it is the agricultural people or fishermen, interdependence is established and assistance is always present for all villagers. The impact of disasters, however, affects the strength of the social ties. The study concludes that social structures and social relations (community bonding) are developed over time and maintained to face disasters that affect the livelihood and life of the people in the cyclone prone agricultural and fishing villages of Orissa coast. A vulnerable occupation with irregular income makes one community more vulnerable than the other. The necessity to understand the nuances involved in disasters is essential for both policy makers and implementing authorities. The people, who face these disasters every year, and on several occasions each year, know these differences and effect on their lives, and have known them for generations. It is for people who are from outside their villages to now get a better understanding of the differences that exist between disasters of different intensities, and how they affect the people in each case.