Chapter — 7

Role of organisations in managing disasters

Whether in the early stages of a disaster or after it is over, there is a period of crises in different forms, which afflict the communities that are affected. These include lack of access to communication, difficulties in access to food, shelter, electricity, and sanitation. Further, the fishing community and agricultural community, owing to their livelihood and location which bring them into close contact with the hazard (of possible cyclones and floods), and their vulnerabilities such as housing, uncertain and low income, and living in a disaster prone place, are always at risk. Over a period of time they have developed survival strategies and resilience. However, these communities who face disasters are able to cope better if they are also supported by other institutions, and the effects of disaster may then be of a lesser intensity than without such support. We discuss this issue with material gathered from the field, about the role of various institutions such as the government and non government organizations, in providing support to those affected by any disaster.

The crucial aspect to remember while discussing the role of various institutions is the predictability of the disaster. This suggests that institutions such as the government, which has better resources to help and build up the preparedness of the people, and non government organizations, have time to utilize the predictability of disasters to plan ahead to meet the disasters. When the risk is known the organizations can be prepared to tackle the fallout of disasters. Keeping in view the role of the government and non government organizations working in the disaster struck area, we also consider the people’s expectations from these institutions. Also, are the people satisfied with what they are offered when they are victims, or do they need any particular type of support in the long-term which is not related only to the immediate disasters. If that is the case what type of support do they want and what has been the response from these institutions? One has also to observe the work done at different levels of non-governmental organizations and government
institutions. In other words do the non-governmental organizations and
government institutions help the people in their efforts at coping with
disasters, or in any way complement the coping strategies of the people
who live in disaster prone areas?

One can then understand the impact of disasters both in the long term, in
relation to sustained development and livelihood, and in the short term in
relation to immediate survival, and those requirements that still need to
be addressed. The non-governmental organizations are the civil society
actors that by definition are not part of the institutions of the state.
However, there is always a possibility of collaborative work which was also
observed in the present study. The traditional institution of caste
panchayat that functions in the fishing village also has certain crucial
duties and role, related to disasters, and the day-to-day lives of the
people in the village. It will be considered as a civil society actor. We will
also see who are the actors in the state who handle disaster related issues
and the powers that they have, and thereby find out who has the decision
making and implementation powers when disasters occur. This would also
help in knowing how much of the disaster related issues are dealt with at
the local level, and how the state and non-governmental organizations
deal with disasters at various levels of the official hierarchy.

The kind of interaction that the people have with various government and
non-government institutions and organizations tells us how much the
community depends on them. The state’s disaster management plan
came into existence only after the 1999 super cyclone which had caused
enormous loss of life and property, and until then there was no such plan
to tackle any disaster such as the one we are considering i.e. cyclones.

**State and Civil society in disaster mitigation**

While discussing research on disasters it is essential to delineate various
roles that the Indian state performs, and the steps that it has taken in
relation to disaster mitigation. The decade 1990-2000 was declared as the
International Decade for National Disaster Reduction (IDNDR) by the
General Assembly of the United Nations in 1994 at the World Conference
on Natural Disasters Reduction at Yokohama, Japan. Along with it a resolution was also formulated to prepare a strategy and plan of action for a world that would be safer from natural disasters. The Government of India, which was also one of the signatories to this resolution constituted a High Powered Committee (HPC) in August 1999 for the preparation of a Disaster Management Plan for the country. Subsequently, the Disaster Management Act, 2005 came into force on twenty-sixth December 2005. This Act delineates the rules to be followed in the management of disasters and assigns various tasks to the State Governments and districts in consonance with disaster management. The states and districts have also formulated plans and policies to prepare for disasters (State Disaster Management Policy 2005).

We look at the measures taken by the state of Orissa to face the problems associated with recurring disasters of various types. Orissa faced the super cyclone of 1999 in which several thousand people died. It set up a State Disaster Mitigation Authority in the State called the Orissa State Disaster Mitigation Authority (OSDMA) in 1999, after this cyclone. OSDMA acts as the nodal agency for disaster reconstruction works, coordinates with the line departments involved in reconstruction, coordinates with bilateral and multi-lateral aid agencies, coordinates with UN Agencies, international, national, and state-level NGOs, promotes disaster preparedness at all levels in the state, and networks with similar and relevant organizations for disaster management (Orissa Human Development Report 2004).

The gram panchayat is the lowest level of governance and has direct interaction with people at the village level, and it has a major role in mitigating the impact of disasters. It is part of the three tier panchayati raj institutions which were constituted to bring governance closer to the rural people, and make them a part of the governance mechanism as well. Bosher et al (2007), while discussing the vulnerability of people to the effects of cyclones in Andhra Pradesh, also bring out aspects of accessibility to resources. In their discussion they emphasize the need to understand and assess social and economic forces that shape societies, in
order to assess vulnerability, rather than emphasizing only the physical hazards. Towards understanding vulnerability they formulated an index called RAVI or Resource Accessibility Vulnerability Index. This index was developed to appraise a respondent’s or community’s vulnerability. They calculate this index for various castes to find out the influence of caste on their vulnerability to cyclones. Among the four components of the Index are access to assets, access to public facilities, access to political connections and access to social networks. The key finding of the study is that caste identity has a crucial impact on access to resources in Andhra Pradesh. Castes that are lower in the social hierarchy tend to be more vulnerable as they lack access to important public resources and opportunities. Their condition is worse in multi caste villages where higher castes dominate, than in single caste villages. While discussing political networks they state that as the lower caste people cannot access or influence political leaders they tend to turn towards the local networks such as panchayats. The relationship with the mandal office is also important in relation to coping with disasters, as these officials are responsible for the distribution and control of resources at the local level.

In another study on panchayats, conducted on the 1993 floods in Jalpaiguri, West Bengal, Leiten and Datta show that despite newspaper reports suggesting a failure of panchayats in responding to the floods, their survey conducted in the worst affected villages of the district on the lines of sociology of disaster indicated “...that panchayats appear to have been galvanized into action and have mitigated the suffering of the flood victims” (Lieten and Datta 1995: 828). People in the panchayats of Falakata and Madarihat blocks in Jalpaiguri district, West Bengal, where the research was conducted were reasonably satisfied with the functioning of the panchayats in contrast to the reports in the newspapers. People were satisfied with the rescue and relief efforts provided immediately after the disaster by the local political leadership and officials. They were also satisfied that the relief was distributed evenly without deprivation (discriminating against the lower castes) or discretionary benefits.
Mitigation, risk reduction, and rehabilitation occupy major places in the literature related to disasters. Considerable emphasis has been placed on the rehabilitation efforts undertaken by civil society organizations as well as government organizations. Civil society organizations undertake relief and rehabilitation work such as providing food, clothing, and shelter to the disaster affected people. This aspect has been given some importance in the literature. Others have also argued about the growing role of civil society in disaster management activities such as mitigation which is very crucial, and needs more attention (Sajnani n.d). There has also been some discussion on the role of civil society as the link between the Government and the communities, and the functions of the civil society to provide relief to the affected people (Yadav n.d).

Civil society is a concept that has seen several interpretations and thus, does not lead to a clear indication of what exactly characterizes or constitutes civil society. Most theorists agree that it comprises autonomous associations that exist independent of the state, associations that curtail the power of the state while simultaneously allowing individuals to manage their affairs directly. Civil society has its origins in European liberal thought, which is traceable to the late eighteenth century and early nineteenth century. This era marked the development of the distinction between civil society and the state (Keane 2009). The concept of civil society that referred to peaceful political order governed by law underwent a major transformation during the period of 1750-1850. “Contrasted with government, civil society meant a realm of social life – market exchanges, charitable groups, clubs and voluntary associations, independent churches and publishing houses – institutionally separated from territorial state institutions” (Keane 2009: 1).

As civil society became a forceful idea in mobilizing citizens against repressive states and reclaiming the private sphere in social life from the all encompassing state, it is posed as being in opposition to the state, and seen as a relationship of antagonism between the two. Some scholars even talk of civil society as an alternative to the state (Jayaram 2005). Chandhoke (1995), however, argues in favour of bringing back the
state into the discourse of civil society, to recognize the conflicts within civil society. Young (in Jayaram 2005) noted that state institutions have their own virtues and civil society has its own limitations. In another discussion, civil society is seen to be a mediating space between the family and the state. In the Indian context, religion, sect, language, dialect and ethnicity are important determinants of group interests and are often the bases of mobilizing people. Beteille (2000) says that there is a vague and unformed opinion that an alternative to the Western form of civil society may be found among traditional institutions of Indian society, and he considered caste as one possible candidate.

Civil society has been conceptualised in various ways. In the classical sense, civil society meant society that is civilised, and was equated with the state that is ruled by law and not by despotic decree. While Marx envisioned civil society as a cockpit of competing individuals for pursuing their private gains, Hegel included the impulse of citizenship in it. Thus, civil society includes not just economic but social and political institutions (Kumar 1993). Civil society embodied the idea of freedom in the world as it represents institutions and structures that acknowledge the mutual rights of self and others (Mahajan 1999). In another conceptualisation, civil society is a crucial part of democracy, and without civil society there is no democracy. According to this view, civil society creates a space for contestation from which people can counterpoise themselves against the power of the state, and in this process either replace or reform it (Chandhoke 1995). They can, thereby, keep a check on the centralised power of the state.

Civil society, according to Pelczynski (cited in Kumar 1993: 379) “is an arena in which modern man legitimately gratifies his self-interest and develops his individuality, but also learns the value of group action, social solidarity and the dependence of his welfare on others, which educate him for citizenship and prepare him for participation in the political arena of the state.” Civil society is then seen as not an end in itself but a means through which citizens can put forth their interests through collective action. In that sense civil society is said to be no stronger than the people
who constitute it. Therefore, for a strong civil society a strong, active and well informed citizenry is a necessary requirement. Civil society is considered as a political concept as it deals with power to advance and defend the economic, social, and political interests of the people (Naidoo and Tandon 2005). It is also seen as the universal development of intermediary institutions between the priest and the prince or between the household and the state. Uberoi (2005:72) makes a reference to Hegel’s conceptualising of a civil society as ‘the stage or phase of difference which intervenes between the family and the state, even if its formation follows later in time than that of the state.’ The sphere of civil society is the territory of mediation. In one sense that role is very visible in the role performed by the non-governmental organisations, that also constitutes the civil society, by mediating between the people and the government, and provide people at the grassroots the means to reach and interact with government authorities.

In the mid 19th century, Alexis de Tocqueville considered civic associations as the watchdog in a democracy. In recent years, Putnam supported the link between the state and civil society and acknowledged it as being important for the establishment of a strong, democratic tradition (Putnam 1999). Walzer (cited in Tandon and Mohanty 2003), however, denies any link between civil society and the state, and refers to civil society as an uncoerced realm of society, where social affairs are conducted without any reference or interference from the state or the market, such as voluntary organisations who work for the poor and needy. This argument is not entirely convincing as civil society is not an uncoerced realm of society, as some coercion also exists in this realm of societal activity. For example, civil society organisations are often under the control of funding agencies and their agenda to a large extent, and function not only according to their wish to work for others. Compulsions exist, and which affect their working. Civil society organisations at times collaborate with the state. One should also remember that it is the state that grants rights and freedoms to people, thereby also drawing the boundaries of political permissibility. It considers acts beyond these boundaries as uncivil, denying state protection. Thus, civil society is attentive to these aspects.
Civil society organisations such as NGOs in India may work with various departments of the government (Baviskar 2005) that are assigned the task of disaster management (Tandon and Mohanty 2003). Non governmental organizations or non-profit organizations form an important part of the civil society. They are engaged in activities such as implementing grassroots sustainable development, promoting human rights and social justice, protesting against environmental degradation, etc (Baviskar 2005).

Ball and Knight (2005: 20) state that civil society “creates capacities and leadership within communities that, if harnessed and nurtured, can transform local democracy and reshape the balance of power in favour of greater social inclusion, justice, dignity, equality of opportunity, and respect.” According to them it is the building block for a good society that values people regardless of age, gender, disability, and social background. They also talk about the importance of mutual responsibilities as in the form of the value of “trust” noted by Francis Fukuyama. According to Fukuyama (2001: 8,11) civil society serves to balance the power of the state and to protect individuals from the state's power. An abundant stock of social capital is presumably what produces a dense civil society, which in turn has been almost universally seen as a necessary condition for modern liberal democracy. Another way of approaching this question is through the concept of the 'radius of trust'. All groups embodying social capital have a certain radius of trust, that is, the circle of people among whom co-operative norms operate. If a group's social capital produces positive externalities, the radius of trust can be larger than the group itself. It is also possible for the radius of trust to be smaller than the membership of the group, as in large organizations that foster co-operative norms only among the group's leadership or permanent staff. A modern society may be thought of as a series of concentric and overlapping radii of trust. These can range from friends and cliques to NGOs and religious groups (Ibid).

While discussing civil society one must also remember that there can be unpleasant and unsocial groups which can also form part of civil society,
such as the mafia etc. In another context, as noted by Baviskar (2005), there are also cases of misappropriation of funds by NGOs. An NGO in Andhra Pradesh for example was involved in animal husbandry, but misappropriated and misused funds for several years. The funding agency turned a blind eye to it out of fear of adverse publicity.

Coordinated and organised efforts by international organisations to deal with disasters were lacking before 1971, nor was there any international organisation that had a permanent body to deal with disaster preparedness and responses. Even the United Nations did not have such a body. Several major disasters from 1968 to 1971 showed the international community how unprepared it was to deal with disasters. Since 1972, not only the United Nations but most of the major international agencies in the United Nations have instituted departments or offices that deal solely with disaster relief, preparedness and prevention. For example, emergency units were created in the United Nations Children’s Fund, Food and Agricultural Organization, United Nations World Food Programme, United Nations High Commissioner for Refugees, World Health Organization and Pan American Health Organization. The development of a more professional approach to disaster relief is noticed. A body of literature and manuals also emerged to provide guidance on a wide variety of disaster related issues such as the setting up of a refugee camp, assessment procedures, and food distribution techniques (Kent 1983).

Civil society is discussed in this study for two reasons, one being the role of non-governmental organizations in disaster management, as part of civil society. Secondly, the role of local institutions that do not form part of the government machinery, but as part of the community initiatives, in managing the day to day life in normal times and also at times of disasters. One such institution is the caste panchayat. A caste panchayat functioned in the fishing village, even to the extent of being more significant in certain parts of the people’s lives than the statutory gram panchayat. The literature on fishing villages have also indicated the presence of caste panchayats.
Organisations at work in the study areas

There are several organizations working in this disaster prone area of Orissa. First, the state government’s Orissa State Disaster Management Authority has been working in the area since 1999. There are a few non-governmental organizations as well, which have been involved in disaster mitigation work. Apart from these organizations, the caste panchayat in the fishing village also functions in the manner of a civil society organization, where people are able to look out for themselves without the intervention from the state.

Fig 7.1 Different actors involved in disaster management in the study area

Orissa State Disaster Management Authority

The role of the state comes into play through several of its agencies. The disaster management authority of the state of Orissa organizes the disaster management tasks at the state level, further extending their work
to the district, block and village levels, with the revenue department, the district collector and the gram panchayat as the other important actors participating in the process. There are three stages of interventions in disaster management comprising pre-disaster, response and rehabilitation, and recovery phase. The intention is to include and coordinate the work of all the stake holders such as government departments, non-governmental organizations, and the communities facing disasters. The nodal department to administer disaster management is the revenue department of the state. The Orissa Disaster Management Authority (OSDMA) coordinates actions in the pre-disaster and post-disaster phases.

The Orissa State Disaster Management Authority (OSDMA) has been instrumental in providing support to the villages in various ways. However, this organization came into existence only after the 1999 super cyclone, due to the high level of mismanagement of resources, and the loss of life and property that occurred in the wake of this cyclone. It was set up by the Government of Orissa as an autonomous organization, and was later registered under the Society’s Registration Act 1860 as a non-profit charitable institution to work for the people of Orissa. This was constituted even before the Disaster Management Act of India came into force in 2005. OSDMA as it is known has since then been working to mitigate the impact of various disasters that have struck Orissa from time to time. OSDMA has several offices. The head office is situated at Bhubaneswar the state capital, and all the activities of disaster management in the state are monitored from this place. Its jurisdiction extends to all parts of the state. From being called Orissa State Disaster Mitigation Authority its name was later changed to Orissa State Disaster Management Authority, under the revenue and disaster management resolution, as it came under the department of revenue. The main aim of this organization is to provide relief, take restoration and reconstruction measures in coordination with bilateral, multilateral agencies, UN agencies, and NGOs at the state level. OSDMA has been involved in the formulation of disaster preparedness plans at the gram panchayat, block, and district levels, and has undertaken the Disaster Risk Management
programme to mobilize and motivate people to better prepare themselves to face disasters at the grass-roots level. Stakeholders and disaster managers at the district level are helped to face natural disasters in a more effective manner (Orissa Human Development Report 2004).

OSDMA and the United Nations Development Programme (UNDP) have been working together in Orissa and have been providing training in disaster management tasks, such as training communities to undertake search and rescue operations as well as on health safety in disasters. UNDP has been assigned the task of promoting and coordinating mitigation efforts in developing countries by the United Nations (Board on Natural Disasters 1999). It has built hundreds of cyclone shelters in the coastal areas of the state.

Voluntary organizations and the UNDP and OSDMA are networking with each other in the area of study. This networking creates easier understanding of the problems related to various aspects of the communities, as different actors such as NGOs or government act at different levels. NGOs have a ground level picture, such as, what kind of diseases afflict the people during disasters, what problems of shelter do they face; and the state and district level authorities of the government have a macro picture of the problem such as locating the vulnerable areas at the level of state and district.

The state disaster management policy, 2005, also entrusted the OSDMA with the task of identifying and focusing attention on vulnerable groups, and those who become vulnerable in the event of a disaster, and undertake a systematic risk assessment of different types of disasters. The OSDMA has been assigned the role of coordinating the concerned Government departments, NGOs, bilateral and multi-lateral agencies, professional groups and the disaster affected communities, with a view to bringing about synergy in Disaster Management. The OSDMA has been assigned the task of playing a nodal role in the process of imparting training in Disaster Management to officers posted to key positions in the field, elected people’s representatives, government officials, NGOs,
community leaders, teachers, students and disaster response task forces (special task force to manage disasters).

The OSDMA has been working on these aspects but the vulnerability analysis of groups is not seen anywhere. The primary focus as we observed during the study is on the immediate disaster situations of response and recovery, and that was mostly on training in evacuation and rescue works. OSDMA has built two cyclone shelters in the study area. These shelters are large buildings that have the capacity to accommodate about five hundred people. This capacity is not high considering the size and population of villages being far more than 500 people. However, this shelter is essentially built for emergency purposes, for those who do not have *pucca* houses or safer places in which to take shelter during cyclones or floods. As mentioned by the fisheries department and the villagers, efforts are being made to build *pucca* houses as that would also enhance resilience to face disasters. The first floor of the cyclone shelter building has a big hall room where the people are actually accommodated. The lower part of the building has no room but only pillars to support the structure.

There is a disaster mitigation cell called the ‘District Emergency Cell’ that is situated at the Chatrapur block and includes the study villages. This cell oversees disaster related problems in the whole district. The cell has members from the United Nations Development Programme appointed as district project officers who coordinate NGOs and managers of cyclone shelters, and who collaborate with OSDMA and district disaster management authorities, in imparting training to disaster managers at the ground level as well as to the people who live in disaster prone places.

**District disaster management and people’s coping with disasters**

OSDMA functions at the district level, and through the district administration with the district collector as the key decision maker. One of the important facets that needs to be realized is that the policies and plans made at the national level and state level are related to providing a
well defined and organized direction to act during emergencies, and lessen
the confusion of roles that generally leads to mismanagement. They are
detailed guidelines for coordinated action in various phases of disasters.
It should also be kept in mind, however, that these plans and policies are
meant to be acted on at the time of disasters. They have been prepared
for practical use and have a very important role as they deal with disaster
situations and their management, and aim to reduce the destructive
effects of the disasters.

The national and state plans do not identify the vulnerability of specific
regions and areas of the district or blocks. Institutions of local government
(panchayats) enable the assessment of their area and the vulnerabilities
that the local area may face. There is always scope for the gram
panchayats to effect changes in the plans in any particular local crisis and
depending on the place. Examining the district plan of Ganjam showed
that the disaster proneness of the place is well assessed in the plan.
However, the assessment is related more to the susceptibility of the
region to a disaster (i.e., a coastal region prone to cyclones) rather than
assessing the vulnerability of the people staying in the region. It is crucial
to understand the vulnerability of the people staying here, focusing on
their occupational vulnerabilities and poverty related aspects of housing,
food, income, which were seen in an earlier chapter as major factors
inducing vulnerability in the people staying in these villages. Accordingly,
groups that reside in such risk prone areas require assistance in different
forms, as there is more than one type of disaster (as seen in the
agricultural village, farmers also face occasional dry seasons or droughts,
which affect their livelihood), or different effects of a single disaster on
different groups, owing to differences in vulnerabilities such as what we
found among fishermen and agriculturists in the present study.

An important aspect of disaster management is the administrative
preparedness to face disasters. Early warning is one of the means to
enhance disaster preparedness and the disaster management system. It is
through early warnings that many of the possible losses caused by
disasters can be minimized, and the communities and related institutions
get sufficient time to prepare for the event. The major problem that occurred during the 1999 super cyclone that affected the study area (and the rest of Orissa as well) was the delay in receiving any early warning (Dash 2002). When warnings were given, people did not take them seriously and were not prepared for the cyclone in its particularly severe intensity. Educating or making the community aware of the various warnings and how they need to respond to them is an important part of the preparedness process (Parida 2004). In the administrative preparedness at the district, the responsibility to provide early warnings rests with the district officers such as sub collectors, and Block development officers. At the village level it rests with the gram panchayat sarpanch. In the study villages people reported that the sarpanch of the panchayat provides early warnings of advancing cyclones. People in both the villages indicated that early warnings are extremely significant in preparing for cyclones. The fishermen claim that they can predict an approaching cyclone by looking at the sea. However, in the farming village as they do not observe the sea as closely as the fishermen, they depend solely on the sarpanch or the official warnings on cyclones. Fishermen are also alert to the warnings by the officials as the intensity of the cyclone or even the approximate date on which it would hit the coast cannot be judged by the people. They also know that cyclones or storms may change their course, or at times subside. These specificities about the storm can only be received from time to time from the official warnings. Depending on the warnings, they may withhold their fishing trips to the sea. If an evacuation is required, that may be undertaken well before the disaster. This is possible only with advance warnings of cyclones. Government agencies are the first to disseminate early warnings of approaching disasters such as cyclones, and only then do other actors such as NGOs come into action (District Disaster Management Plan Ganjam 2007-08). The collector of the Ganjam district organizes police personnel, fire personnel, medical personnel, vehicles, etc., in the disaster prone areas, to be prepared to immediately respond to the areas that require relief. There is a government primary health centre in the fishing village where there is a doctor but he comes to the health centre only occasionally. He does not go to the agricultural village.
While talking about past experiences, people stated that following disaster warnings and severe rain, people were evacuated to the cyclone shelters. They were warned by block officials and the sarpanch of the gram panchayat about the approaching cyclonic storms and they were asked to move to the nearby cyclone shelter. It is left to the people to decide whether to move when cyclonic storms of lower intensity strike, but in severe cyclones they are advised to evacuate and move to the cyclone shelters to avoid casualties. They are provided with relief material only when the district collector declares it as a disaster or emergency situation. Otherwise, relief is not provided. This is a difficult situation for the people as they cannot get relief even when they require it, but have to depend on decisions of officials at the district level i.e., civil supply officer and collector. These officials study the maps of the district, and decide which are the inaccessible areas that may get cut off during disasters and require emergency relief. In the cyclonic or stormy weather, as the fishermen cannot go fishing, their earnings are non-existent during such periods, and they need to miss meals on such occasions as a means of coping with reduced incomes. As they are poor even when there are no cyclones, they sometimes miss meals to cope with poverty. This is not considered a viable form of coping in any literature on disasters, but one should consider this as an action that was taken due to the force of circumstances and not out of choice, and as a result of the combined factors of both the cyclone and poverty.

The district disaster management officials of Ganjam also join civil society organizations and allot them an area or functions, and also make a list of available resources that the organizations have so that they can also be distributed efficiently. The collaboration of civil society and state agencies was mentioned during conversations with state and civil society officials. They were aware of what the other does and the functions of each. The disaster management plan of Ganjam district focuses mainly on the immediate disaster related phases, and lists the stocks and inventories that are available, and the phone numbers of various authorities who need to be contacted in the event of a disaster. It does not talk about the problems of the communities that extend over a longer period, such as
troubles related to their livelihood, and providing more or less permanent solutions to them. As we have earlier noted as well, the vulnerability of the fishing community to disasters is due to their occupation that forces them to venture into the sea every day and also to live on the seashore. Every time they are out fishing they face the danger of drowning, or being caught in smaller storms, which may not have much of an effect on the land. Their meagre earnings also reduce their ability to build up resilience by constructing better houses, or buying bigger and mechanised boats that could result in higher earnings and concomitant improvements in their lives. The case is different for the farmers as they do not face such risks to their lives due to their occupation. But they are nevertheless vulnerable to cyclones although their lives are not much less at risk. It is also evident that certain occupations require that communities have to stay in places that are more vulnerable to disasters than others, as in the case of fishermen. In such cases they would require greater assistance during disasters than a blacksmith for example or a daily labourer who lives in a village away from the sea, their occupations and lives being less affected, for example, by cyclones. Therefore, it would be desirable to categorise certain groups vis-à-vis their vulnerabilities to various disasters, to better understand their situation and what assistance they need in times of disasters.

The needs of the people and roles of various organisations at times do not match, and the efforts taken by these organisations do not help people in their daily life or in their coping efforts. For example, flash floods are very destructive for the farmers in the study area, and the farmers have been constantly asking for the construction of an embankment for a long time, which has not yet been built. These embankments can prevent losses from disasters that they otherwise incur almost every year. Under the state disaster management policy, embankments fall under disaster reconstruction work. However, this has not been provided to the farmers. They are very disappointed as the embankment can save their crops from being washed away by flash floods, and even more from being damaged by sea water which destroys the productivity of the soil for a long term. It may be possible for the people themselves to take the initiative and get
the embankment built, but that has not happened either. Thus, these people have continued to be vulnerable.

The emphasis in various plans and policies of the government is on the communities, to make the vulnerability reduction programmes community driven, and to integrate disaster management and development policy, and planning with good governance. However, although community involvement is visible, it is only as passive recipients of the training programmes, rather than as active participants in any discussion on how to tackle the disaster situations. There is no means to ascertain the needs of the people in terms of short term requirements as in the immediate disaster situation, and long-term requirements that pertain to livelihood related uncertainties. Nothing is discussed about the risks and losses involved due to the disasters and the lack of an alternative livelihood. While there is interaction between the communities and the other actors on different issues ranging from health to disaster management, the frequency of interaction is very low especially with the disaster management officials. People expressed their dissatisfaction with the infrequency of visits by the government officials to understand their situation or listen to their needs. As the vulnerabilities that these villagers face are also related to their daily activities of occupation and income, the issue not only requires efforts from disaster management experts but also from those officials and institutions that are to deal with problems of the people, related to their daily work. The fishermen want information on how to get loans to buy motors, for use in their fishing boats so that they can earn higher incomes. But there has been no response from the fisheries department or the NGOs who work with fishing communities. Getting loans periodically would not be easy for the fishermen because of their risky occupation and low incomes and also their inability to repay earlier loans. Ways of generating funds by creating self help groups can be utilised by the NGOs, and people can be mobilised to help themselves, as they have been other wise doing through the caste panchayat funds.
Interaction between people and the government

The interaction between people and the government actors is not restricted only to disaster management. The government has several roles in the lives of people who stay in such a hazardous place. The interaction between the people and the government is on different planes although interactions are infrequent. As respondents indicated, the interactions are related to disaster preparedness pertaining to mock drills (the drills include rescue and evacuation, first aid, shelter management etc.) and indications of what the villagers are required to do. The government officials with whom village people interact are from the district disaster management cell who are assigned the task of conducting mock drills, and UNDP officials who are also involved in such training. Among elected representatives, the gram panchayat sarpanch is the one who interacts with the people on a regular basis. The government organizations train them in different health related measures such as cleanliness and hygiene, keep their living premises clean, keep drinking water covered, and implement healthier toilet practices by avoiding open defecation, and building closed toilets in the premises of the homes (which people are reluctant to build). The lack of reserve resources and the loss of livelihood during a disaster, or even when cyclones do not turn into disasters, are their main concerns. People indicated that mock drills are conducted once a year without taking any feed back from them on whether the drills prove useful or have been of any use even during smaller storms. However, the people themselves indicated that some of the training that the organizations provided are useful, especially the training in first aid and evacuation.

Role of the sarpanch and local government

In accordance with the state Disaster Management Policy 2005 and Disaster Management Act 2005, disaster management has been in a decentralized form in the study area. The sarpanch of the gram panchayat acts as the link between the block and the villages. People inform him about water problems, electricity and other such needs which he brings to the notice of the block administration and the electricity department. He
also looks after the roads of villages under his supervision. However, the sarpanch does not have the power to bring noticeable transformation to the conditions of the people. The sarpanch was unable to do anything about a dilapidated house near his own house, or allocate funds or bring it to the notice of the revenue officer to repair it and help the poor person. According to the sarpanch, powers to declare a disaster or emergency situation and bring help in terms of relief also do not lie with the gram panchayat. The block officials and revenue officers who come once a year have the ultimate control over distribution of relief in disasters.

The sarpanch has functions to perform in the management of disasters such as distribution of relief among the villagers i.e., food materials, match sticks, and kerosene, supplied to him by the block office. Even though the sarpanch gets to know the first hand problems of the people, relief stocks are not kept with the sarpanch but are kept at the block office. This is to maintain safety and avoid any kind of misappropriation and pilferage of the resources. The trouble with this practice is that the villages in the interior are neglected when estimating the relief needs of the affected parts in the district. If the resources are at hand there could be immediate relief provided, as sometimes even though the area is not the worst affected in terms of death of people, because of the lack of work, which cannot be carried out in hazardous weather, starvation and illnesses of various kinds follow from the lack of income.

The interaction of the people with the sarpanch of the gram panchayat is quite frequent, at times involving him to sort out their daily problems and squabbles, in both the communities.

According to the head of the caste panchayat as well as people of the fishing village, the sarpanch of the gram panchayat has to include the caste head in the distribution of relief material in the fishing village, and only with his support can he go ahead with the distribution. In the present case (when the field work was carried out) even though the sarpanch was from the same fishing village, when there was any such distribution of relief, the caste panchayat head was consulted by the sarpanch as he (caste head) holds an important position in the village, and he coordinates
and maintains order in the social life of the people of the fishing village. Evidently, the caste panchayat and its role are recognized by the government organizations. Voluntary organizations too work in collaboration with the caste panchayat when they provide relief material. The sarpanch also takes the help from the caste panchayat in mobilizing people to take up construction works in the village, while building or reconstructing roads and broken houses, clear the roads and wells of debris that fell during disasters. When projects for the construction of roads or any other public construction is undertaken in the village, the people’s help and that of the caste panchayat are sought and received.

An interaction with the disaster management authorities

Officials at different levels of disaster management were interviewed, including Orissa State Disaster Management Authority officials at the headquarters in Bhubaneswar. They indicated that they worked at the state level and coordinated with the district disaster management authorities. They keep data on the districts affected by disasters, identify which are the most disaster prone districts, and consider how to coordinate with the different ground level officials and arrange for funds and relief at the state level. The district officials mentioned that at the district office they keep track of various NGOs, and what they are working on, whom to collaborate with during disasters and during normal times. They were also curious to know the reasons why certain communities still choose to stay in places that are disaster prone, and who are affected almost every year. The officials were not sure of the causes themselves, nor was any attempt made to understand the reasons why people chose to stay there. The district officials also indicated that there is a building code that they are trying to implement, and they have started the implementation by building the district office building in accordance with the code. They showed the disaster management plans that were prepared for the particular term (2007-08). They stated that they conduct mock drills at the village level in coordination with UNDP officials and the sarpanch, to enable the maximum number of people to be made aware of
the drills, and specifically targeting the youth. They acted according to the guidelines laid down in the Disaster Management Act, 2005.

In an interaction with the disaster management officials at the block level, they indicated that prompt action is taken whenever there is a disaster and they do not wait till the disaster has taken a toll. They act instantly when they get orders on evacuation, and relief distribution from the collector. However, they also mentioned that not every storm qualifies as an emergency, and it depends on the intensity of impact that calls for action.

Overall, the government has a considerable role in the management of disasters. Their help in the form of cyclone shelters, early warnings and distribution of relief are very important from the people’s point of view. People in the fishing village and agricultural village depend on the government for help in times of disasters, and expect assistance in their occupation in normal times. While they have received relief during higher intensity cyclones, during smaller storms no help has been provided to them, and their needs of occupation have not been met. For the farmers, the building of embankments is essential, but the government has not got it done. The essential point is that people in both the villages have expectations from the government that has partly been met but not in full. The cyclone shelter is very well appreciated and found useful by the people, as they are poor and many have not been able to afford building a cyclone proof house, especially, in the fishing village. Other than this, people have mostly struggled and managed on their own during smaller storms.

Civil Society, and coping with disasters

Non-governmental organizations

Civil society refers to the uncoerced realm of society, where social affairs are conducted without any reference to or interference from the state or market (Walzer in Tandon 1992). In the present context civil society
organizations or the non-governmental organizations have a major role to play along with the state. While civil society is meant to include voluntary organizations that work independently of the state’s intervention or control, even the traditional panchayat that functions in the village can be considered as a civil society organization. There are many voluntary organizations that have been working in this place, especially with the fishing community. There is an organization whose main objective is to work for the fishermen. It has been working in this area for more than two decades. It has its head office at Ganjam. They focus on livelihood and disaster management issues. In terms of livelihood, its main focus is to provide the fishermen with additional income by buying fish from them and making *papads* and pickles out of them, and then send these to places such as Tamil Nadu, Mumbai, and Goa. They also provide relief during cyclones by arranging food materials, shelter, drinking water etc. They have also involved local people to be part of the task force to perform rescue operations during cyclones. This organisation has a first aid van that goes to villages to provide first aid during cyclones. Villagers are also provided with training by the organization (the NGO that works for the fishing community) to provide first aid to the victims.

There are different levels of staff in this NGO which works in the fishing village, who perform different tasks and work at the ground level i.e., actually working with the people. There are staff who deal with the fish *papad* business. There are female staff who are assigned the task to make the *papad*, arrange for the labour to make the *papads*. There are male staff members to buy fish from the fishermen. There are other higher level members who are the coordinators and organizers of the NGO and do not actually work at the ground level, but work at the managerial level in organizing these programmes in different villages in Ganjam district. The NGO also deals with business related issues of not only purchasing fish from fishermen but also sending the fish products for sale to other states.

There are some other organizations, one of which is a Christian organization that works primarily on disaster management and health.
There is another organization that works on HIV/AIDS, and specially counsels young men from the fishing village who are intending to migrate to cities, and many other men who are seasonal migrants. According to a staff member working in this NGO, cases of HIV/AIDS have been found in fishing villages in this area. As the fishermen are away from their families, they frequently visit sex workers and face a high risk of being infected by HIV/AIDS. Similar findings were stated by Salagrama (2006) about other fishing communities of coastal Orissa. They often transmit the infection to their spouses, and in the process there has been a perceptible increase in the cases of HIV/positive in these villages. However, the NGO has also focused on disaster management, rescue operations, first aid, and evacuation. They have a continuing interest in issues such as HIV/AIDS, water and sanitation issues, and also education. Some trusts have built cyclone shelters in these villages, which work as school buildings during normal times and as cyclone shelters during cyclones.

Several NGOs worked in the fishing village but none in the agricultural village. The task of a NGO that works in the fishing village is to provide assistance to the fishermen in their occupation, and as they are situated in this disaster prone area they moved into disaster management activities as well. Some twenty years ago when the NGO started working with the fishing groups it did not have disaster management as part of its work. However, it later felt the need for disaster mitigation work, particularly after the 1999 super cyclone. The NGO concentrates on the fishing communities living in the coastal belt of Ganjam district. There is a small office of this NGO in the fishing village (Noliyanuangan), which is a subsidiary unit, while the main office is in Ganjam. The people, however, stated that their activities are limited during normal times, and now-a-days they are busier in giving interviews to television networks and journalists on papad making than actually helping people to reduce their vulnerabilities. People were sceptical about the benefit of having the NGO nearby, and do not find the NGO’s normal activities helpful in solving their livelihood problems.
The NGO is far more acceptable and useful in the immediate situation of the disaster and response. The people of the village accept the fact that the NGO does provide first aid to the injured, etc. In the farming village even this kind of NGO activity is not visible. They do not have any NGO that works in the agricultural village. They are dependent on the government agencies such as OSDMA to help them during disasters, through their disaster management cell or the emergency cell that works in Chatrapur block.

The NGOs do not occupy a major place in the life of the fishermen as the benefits from the activities of the NGOs have not reached the villagers, unlike the role of the state which seems to be much more visible and useful though not sufficient. The lives of the fishing villagers go on as usual without much impact from the pickle and papad making business that the NGO is involved in. HIV/AIDS awareness is essential and useful but does not solve their problems of poverty. Overall the efforts of NGOs are insufficient in comparison to the needs of the villagers in the fishing village. The problems of the agricultural village are qualitatively different since we did not find a single NGO working there despite the various needs of the village.

The civil society function of the caste panchayat in the fishing village

Towards meeting the requirements of disaster management there is a provision under the state policy for the mobilization of resources, to enhance the resources available with the State government. For this purpose assistance from the Union Government, public and private sector, multi lateral and bi-lateral agencies, UN organizations, Civil Society, and charitable organizations are also sought. In this endeavour, the state policy also mentions that communities and individuals would be encouraged to raise resources necessary for immediate relief from within the community itself, and to access the Community Disaster Management Fund and institutional credit. However, efforts of this type have not been brought into practice by the government. Rather, the community has by itself, at least in the case of the fishermen, been doing this for long.
This has been achieved by the caste panchayat in the fishing village. The caste panchayat has a crucial function in the context of disasters, by acting as a buffer for the villagers. In the event of a disaster and loss of income for the fishermen, the panchayat provides funds for their recovery. The money comes from contributions that villagers make during the *thakurani jatra*. Respondents indicated that even during normal times if a fisherman is sick and cannot earn for several days, he can borrow money from the panchayat fund and return it later. Sometimes, the caste panchayat also collects funds as security against losses in disasters, which are later used for village work. Towards meeting this expense they keep a day’s catch to augment the fund. Thus, this traditional institution occupies a place in building the resilience of the people. People also stated that they depend on the caste panchayat for all these matters, to solve daily trifles to major occupational problems. They have considerable confidence and trust in the panchayat. The *gan mukhiya* (headman) remarked that he realizes his responsibilities and plays an active role in dispute settlement. During disasters the village works as a collectivity and the caste panchayat takes part in coordinating and encouraging people to help each other in building damaged houses, helping the old and injured, and giving monetary assistance to the people who have lost their earners or their houses. The gram panchayat *sarpanch*, and relief agencies have to consult the caste panchayat to distribute relief material, as well as take help from the villagers of the fishing village in relief distribution.

**Expectations and perceptions of communities**

**Connotation of disaster for different stakeholders**

Communities that live in disaster prone areas have been exposed to disasters for several generations and have developed ways of preserving their lives. However, there is an increased possibility of survival, and swifter recovery with additional assistance from institutions such as state organizations and non governmental organizations, which have larger resources to provide support during emergencies. An important factor to be noted is the wide difference between the perception of a disaster by the communities who directly face the disasters, and the authorities who
seek to minimise the effects of disasters. This differing perception is closely connected with how disasters are dealt with, and whether timely and necessary support are given whenever people require them.

For the state a disaster means a catastrophe or calamity that results in substantial losses in life and property and of a magnitude so as to be beyond the coping capacity of the community of the affected area (Disaster Management Act 2005). The emphasis is on considerable loss of life and property, before an event can be declared as a disaster. For the people in these villages, however, even lower intensity cyclones prove disastrous, which affect their crops or their fishing activity. When a cyclone warning is issued it is a word of caution that a cyclone is approaching, which at this time is a hazard and not yet a disaster. But for the people fishing along the coast, it means a loss of income because a squall at sea means that no fishing can be carried out. Therefore, the situation is grave for the people when their occupations and income are affected even though the state may not call it a disaster. Thus, even when the state has not perceived a disaster in this particular place for several years, the people have faced real hardship every year, each time there has been a cyclonic storm and heavy rain.

**Are the organisations approachable?**

Even though the people in these villages have survived disasters in the past and are also making their own efforts to build up their resilience, they live in a perennial state of poverty. Any enhancement to accessing resources that the state or non governmental organisations provide would add to their efforts towards not just survival but a better quality of life. This access is essential, especially during times of crisis such as disasters, and lean seasons in the year. Interactions with the people would make the government and non government authorities aware of the problems that these people face and would also help people solve their problems of occupation and disasters. However, if these organisations are not approachable or do not pay regular visits to the villages, their assessment of the problems that villagers face would be less than reliable and villagers’ access to resources would not be possible for them.
In our study we have considered the question of approachability of the villagers to the organisations working in these villages. The respondents felt that organizations are not approachable. They cannot talk about their problems to the NGOs, and in that sense the accessibility or reach to the organizations is very limited. They are not consulted by the organizations while formulating any plan related either to their occupation or disaster preparedness, so as to know the actual needs of the people. Whatever assistance is provided to them is entirely on the basis of assessments made and the decisions taken by the higher authorities in the organisations, who generally take into consideration a macro picture of the problems. There is no evaluation of the work done to see if the policies really proved helpful to the people. However, the state disaster management policy of Orissa has provided guidelines that the people facing disasters need to be consulted in all these matters, or at least their indigenous knowledge (for example, their dependence on sand dunes for protection from cyclones) is to be given some consideration. Even without such recognition by the government and non government agencies, the people use their indigenous knowledge for their survival. However, without such concern from the government there has been a problem affecting the use of indigenous knowledge. As mentioned earlier, sand dunes on which the villagers depend to act as a natural barrier for their safety from cyclonic winds has been on a decline due to the removal of sand from these dunes for construction purposes by people from outside the village.

In terms of disaster preparedness, it is the school going children and youth who are taught rescue operations, which they are asked to teach other family members later on. The mock drills are conducted involving only the youth.

Villagers in the fishing village have some complaints about the institutions working here. For example, voluntary organizations who worked in this area did not employ educated people from the fishing village to work for them, and preferred to employ people from outside. The educated youth of this village are eligible to fill the vacancies that the voluntary
organizations had, but no consideration was given for these people. As the villagers indicated, their main problem in meeting disasters is related to their occupation. Assistance in the form of jobs (other than fishing) would be of much help, along with the training on disaster preparedness.

As far as coping with disasters is concerned, the villagers explicitly stated that there is no immediate help from the organizations (private or government) to meet any disaster unless it is declared a disaster according to the Disaster Management Act 2005. The help comes in the form of relief only when the situation is grave, which is analyzed and decided at the district collector’s office and the official just lower than the collector, regarding what should be classified as a grave or serious condition, requiring relief. Coping is related to various aspects such as occupational uncertainties, housing, food etc. But the main issue is occupational uncertainty which leads to risk taking such as fishing in rough sea that may prove very dangerous to their life as well. This aspect is not addressed by the organizations (state and non-governmental organizations who work together). The concern of the organizations is mostly related to health, which is obviously an important issue, but according to the people the issue of occupational uncertainty is important as well and needs attention too. The concern for immediate relief is of particular concern when they have problems with the organizations, because the organisations gauge the severity of the natural event, and decide whether assistance is required, and therefore, the people feel their situation during disasters even if is bad is often not taken into account by the organisations.

If we further analyze the issue of lack of immediate help from the state or NGOs in coping with or adapting to the disasters, certain questions should be asked. One of the essential means of preparedness to face disasters is to have contingency funds. This type of fund helps people procure their daily requirements, especially immediately after disasters, because of uncertainties in their income and livelihood. The fishing village has taken this issue into account and created a fund not only for the purpose of facing disasters, but also for contingency requirements in the village,
owing to the fact that fishing is a risky occupation, and there is considerable uncertainty about a regular income.

The people of both the villages, but more so in the fishing village, are not happy about the lack of any help in terms of alternative income. The fishing village want to pursue an alternative occupation that can provide them with a steady income, especially during the aftermath of disasters, when they cannot pursue their regular occupation of fishing. The risk to livelihood and loss of income during the cyclone seasons are major problems for the fishermen. The non-governmental organization was providing a limited income by utilizing the labour, and the fish that these people caught, and organized them to prepare fish products which they sent to other states. The people say it has been a source of income mostly for the non-governmental organization rather than for the village people. This is because the people are not directly benefited by whatever profits the organization gets, as only minimum wages are given to the small number of people who were asked to assist the NGO workers in making the fish products and packaging them. Therefore, the people have been very reluctant to get involved in the production. They have mostly been supplying fish to the organization, which actually does not provide them any different occupational option or any profit even though they want to pursue it. The fishermen want to get more involved in the work, and take part in the whole process of producing fish products. The fisheries department and OSMDA and NGOs need to take steps to help them get a good market for the products or for direct sale of their catch in the local markets, as well as in the state level markets, and train them in managing the production and sales in a profitable manner. Only then can there be any use of such an extension of the fishing activity. However, there is the problem that if there is a market available for fish, the women (who sell from door to door or in the markets in the nearby town) would be marginalized even from the modest sale of fish that they usually carry out. This problem can be solved if women can also take part in the local market to sell fish as usual, as they have been doing in the past.
While examining the livelihood issues among fishermen and farmers, the issue of poverty is a perennial constant, more so among the fishermen. Problems related to the lack of alternative livelihood persist. They are not able to earn much from this occupation. The villagers actually lose on choosing the range of lives (in the sense that Amartya Sen (1985) uses this phrase) because they do not have any alternative occupation and no freedom or opportunities to pursue either an alternative occupation or improve their own occupation and earn well. Nor are they able to attain what they value, that of satisfaction in the occupation which they currently pursue, and to which they are emotionally attached. They would be really happy if they can pursue it with less of risk and more stable earning. The people in the fishing village miss out on many opportunities due to their lack of education and lack of information and technological knowledge, to pursue the occupation in which they have skills, but is carried out in a manner that has considerable risks and poor returns.

The need of the hour is to make the livelihood sustainable, that can make these occupations (fishing and agriculture) ‘shock absorbent’ and able to withstand disasters. Livelihood comprises capabilities, assets and activities required for a means of living (Twigg 2001). Sustainable livelihood is defined as the livelihood that can cope with and recover from stresses and shocks and maintain and enhance its capabilities and assets both now and in the future while not undermining the natural resource base (Scones in Farington 1999). It would be even better if the people are engaged by the NGOs or the government while undertaking such productions of fish products which are sold in other states, or even other items that can provide sustenance to a wider section of the village population. If they had superior facilities for fishing and associated business of fish products, then they can build up savings from increased earnings, which would make their livelihood more resilient to disasters. Salagrama (2006), in his study found that the fisheries department has been trying to work on it by introducing techno centric models, but there is a mismatch between the traditional fishing and the superimposed technologies. His findings suggest that the marine fishing activity that is a community activity with labour intensive technologies, has now shifted to capital intensive techniques. In
the process it has affected the traditional fishermen by making their traditional knowledge redundant. Some people have benefited from this shift but the majority have become wage earners and are not being able to get access and adapt to the sudden introduction of new fishing technology.

What we found in the present study is that fishing communities such as the one here pursue an occupation at the subsistence level, and greatly depend on their community members including the women, and the caste panchayat that guides their work. The fishermen work in coordination with each other and follow certain rules in conformity with a group activity. There is more of discipline and coexistence involved and a place for shared work and earnings. They also uphold the norms of common property use by not over exploiting resources, but help each other get catches without overexploiting the coastal resources. Now-a-days, however, bigger fishing companies and fishermen enter the business from outside the village, and take away the fish without paying any heed to community norms of coexistence and sharing of earnings.

The problem here is that while the fishermen from outside this village, with bigger mechanized boats, not only catch fish from areas near the seashore, they also go for deep sea fishing with their larger and more sophisticated boats. The people from the village do not have such facilities, and not only lose the nearby fish but do not have the wherewithal for deep sea fishing. This reduces their ability to make a catch, and they need to take more risks in going out to catch fish (i.e. even in inclement weather, for instance). These people are ready to use modern technologies, though at the moment it is only by hiring motors for their small boats from people outside the community who in return take a share from the fish catch.

The people of the fishing village also want to be more active participants in the production of fish products because that has already been introduced to them by the NGO, and they need to take it more seriously and carry it forward as an extension of their regular fishing occupation. In this process even the women will be a part of the production process of
making *papads* and pickles. Another source of income is when fishermen make poultry food out of those fish that get sand inside because of being dried on the sand and having become uneatable.

Fishermen are open to vocational training that can provide them alternative income in the aftermath of disasters. They emphasize that they want a long-term solution which focuses on the occupational hazards that they face, and protects them, or at least builds their resilience in terms of income earning, and reduce the risk of loss of income and the possibility of starvation. In terms of sustainable livelihood, if their income is diversified there would be less stress on one resource base and less dependence on one income source, increasing their resilience to face disasters.

The fisheries department has taken care of the fishing needs to some extent by building large concrete beds on the beach where they can dry fish under the sun. This is important because when there was no such facility the fishermen had to dry the fish in the sand where the sand got into the fish, and both the quality of the fish and its price were thereby considerably reduced. But now with the beds to dry fish, the sand does not get into the fish, and the price and demand are much higher than earlier. The fisheries department also provides housing loans every year which is provided on a lottery basis to a single person from the village. With only one person benefiting from the housing loan in a year, however, the majority of fishermen who do not have their own house have to find alternative sources of funds to build their own houses. This becomes problematic for building resilience, as the house is one of the main means of protection in cyclones. People in both the villages mentioned that due to the lack of government support they have borrowed money from money lenders and friends to build *pucca* houses, as they have realised from past experience that *kuchha* houses cause more deaths, whereas *pucca* houses protect them in disasters. The efforts by the government are not sufficient to tackle the problems of the people or help them in coping with disasters.
Assistance by the government in the form of providing bigger, mechanised boats at subsidised cost to the fishermen would be beneficial. They would fetch them a better catch and would reduce their risks of going fishing every day. They can also go deep sea fishing. At present they use non-mechanised small boats, small sized catamarans and sometimes use outboard motors on these smaller boats. The outboard motors only marginally enhance their catch of fish, though they also increase their risks by enabling them to go further out to sea than they would have done in rowing boats.

There is no support for the agriculturists from voluntary organizations, because the disasters are not considered as life threatening, though they affect their occupation. Agriculturists have been facing problems of crop loss in severe cyclones, and from heavy rains that cause floods. Their problems of lack of adequate water during the dry seasons and proper distribution of available water have been a regular problem as well. They expect support from the voluntary organizations in solving these problems.

All the disaster management related plans and policies aim to follow a multi-hazard approach to disaster management, and bring in a shift from a relief and welfare approach to a rights and entitlement-based approach to humanitarian assistance. However, as indicated by the village people themselves, i.e., those who face the disasters, they do not feel that it is practiced in a manner that involves people in the implementation process.

Recognizing the greater vulnerability of infants, children, elderly, physically and mentally challenged, during and after emergencies, the main task of rescue or evacuation is not carried out by outside volunteers who appear in the affected area only after considerable time has passed. Rather, the initial rescue tasks are performed by the community itself. The villagers mentioned that they take care of the aged and vulnerable and try to rescue them first and take them to safer places. Therefore, it would be much more beneficial if the rescue workers who are from outside the community are also trained along with the villagers. This kind of joint action would provide the first responders better help and there would be
much more co-ordinated action between the community people and the outside rescue workers. 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 may not be problematic.

The state policy emphasizes efforts to strengthen roads, bridges, embankments, canals, drains, dams, public and community buildings, power transmission & distribution networks and other critical infrastructure in the state with a view to making them disaster resistant. Adoption of disaster proofing of houses is mandatory and enforced by the concerned authorities. However, needless to say, most of the people do not have resources to even build *pucca* houses, let alone disaster proof. Encroachment of identified vulnerable and environmentally fragile areas is prohibited. Even so, large quantities of sand have been moved or taken away from the coastal parts (as in the study area), which is very detrimental for the communities staying there, as they depend on the sand for protection against high speed wind and cyclones.

According to the disaster management policy, guidelines are provided stating the need to inculcate a culture of preparedness and prevention, and incorporate disaster management in the educational system and curricula at all levels. The students should be exposed to mock drills to develop the requisite skills to use during disasters. This guideline is followed in the schools in these villages and the students are the ones who get trained in rescue and other disaster mitigation abilities. However, there lies a problem of missing out the girls, who generally drop out after class 7. The problem also lies in the fact that when the students who are mostly boys are trained in rescue and evacuation they are expected to go back and teach their parents and other family members these skills. However, family members often miss out in getting any training in rescue, evacuation and first aid. On asking respondents who were older people, and past the school going age, they expressed ignorance about the details of what is taught in the schools and they were only aware that some rescue training is given to their children.
The state has decided to take the initiative in risk transfer by supporting insurance for various people. “The State Government, wherever necessary, in collaboration with the Government of India will promote effective and comprehensive insurance coverage.” This has been mentioned in the Orissa state disaster management policy 2005. It is an especially welcome measure for the fishermen, as they face daily risk while fishing. The insurance provides the family economic security to some extent, if the main earner dies. The agencies have not been successful in attracting the farmers to the schemes, nor have they properly elaborated the schemes to them. They aim to ensure higher insurance coverage through increased awareness on this subject. The awareness is higher in the fishing village.

The problem that the villagers in both the villages face does not constitute only of disasters or the immediate impact of disasters which the organisations have focused on. Poverty has not been dealt with by the organisations. The efforts of the people themselves in raising a community fund as in the case of fishermen, are much more than whatever has been provided by the organisations. Although building a cyclone shelter, and providing training in evacuation and first aid have proven very useful, more efforts are required to tackle occupational problems for both fishermen and agriculturists. The state and NGOs appear to lack this understanding of the poverty and occupational situation of the people.

\[\text{\footnotesize\textsuperscript{1}}\] Training programmes are organized for builders and masons to adopt appropriate construction technologies for building disaster resistant houses (State Disaster Management Policy 2005).

\[\text{\footnotesize\textsuperscript{2}}\] Sand dunes are natural shock absorbers against cyclonic winds and water surges.