Caste, Class and Gender: Multiple Disasters and Women-Headed Households in an Oriya Village

by

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Abstract

This study defines "multiple disasters" as when two or more natural hazards affect a vulnerable population in the same region, singly or in combination or collaterally, at varying magnitudes, and at different times (seasons, time of day, over varying return periods, of different duration). In such a situation, multiple disasters often produce complex crises in people's lives, mostly in the absence of an adequate and appropriate government response. In 2005, India was the second most disaster-affected country in the world after China, hit by floods, cyclones and droughts. The consequences for the poor in particular are known. However, little work has been undertaken on the specific ways recurrent multiple disasters affect women-headed households in rural areas. I respond to this gap by documenting women's social and personal experiences of multiple disasters in one of the most multi-hazard prone states of India, Orissa. The super-cyclone in 1999, subsequent floods in 2001 and 2003, and drought in 2002 have been taken as a case study. More specifically this research examined three issues: firstly the ways in which multiple disasters affected women-headed households and their livelihood assets in relation to their caste, class and gender; secondly, the study examined how the households survived; and thirdly, whether micro-credit initiatives help women to cope with multiple disasters and reduce their vulnerability. Strongly interdisciplinary, the research draws upon a several theoretical frameworks including sociology of disasters, disaster and development, gender and development and sociological and anthropological approaches to caste, class and gender. The study has two key theoretical concerns which are to do with, on the one hand, vulnerability to disasters, and on the other, with differential vulnerability of women-headed households in relation to their caste, class and gender.

Fieldwork was conducted for a period of 8 months (August 2003 – March 2004) in Tarasahi, a coastal village in Orissa. Ethnographic techniques like participant observation, in-depth interviews and documentary evidence were the methods used for data collection. The findings of this research suggest that social relations of caste, class and gender are as important as the multiple hazards themselves in entrenching women-headed household's vulnerability. Caste, class and gender boundaries, which appear to be fixed in Hindu women's lives, are both mutable and non-mutable, and also instrumental in diminishing livelihood resources in a multiple disaster situation. Social organisation, secondary food systems, self-help and governmental and non-governmental responses were some of the important coping strategies of women. Lastly, the findings on micro-credit suggest that credit distribution cannot achieve vulnerability reduction unless it is complemented by other financial services and government help. The research indicates serious policy implications, especially for multi-hazard prone places, and makes a substantial contribution to the wider literature on gender and disaster studies, the sociology of disasters, anthropological studies and development studies. It provides rich data at the localised level regarding multiple disasters, but does so from the women's perspective, adding new layers to the understanding of caste, class, gender and disasters.

Abbreviations

AAD	Australian Aid
AAI	Action Aid India
ARD	Appropriate Rural Development
AIPSN	All India Peoples Science Network
BBSR	Bhubaneswar
BGVS	Bharat Gyan Vigyan Samity
BPL	Below Poverty Line
BRAC	Bangladesh Rural Advancement Committee
CDF	Cooperative Development Foundation
CFLI	Canadian Fund for Local Initiative
CPSW	Centre for Professional Social Worker
CSSW	Centre for Social work
DFID	Department for International Development
DPAP	Drought Prone Area Project
DNN	Duryog Nivaran Network
DRDA	District Rural Development Authority
DWCRA	Development of Women and Children in Rural Areas
EO	Emergency Officer
ES	Economic Survey
GO	Government officials
GOO	Government of Orissa
GOI	Government of India
Govt.	Government
GP	Gram Panchayat
GROs	Grassroots Organisations
IAY	Indira Awas Yojona
ICDS	Integrated Child Development Service
IDNDR	International Decade of Natural Disaster Reduction
IFRC & RCS	International Federation of Red Cross and Red Crescent Societies
INGOs	International non-government organisations
IRDP	Integrated Rural Development Programme
ISED	Institute for Socio-Economic Development
Km	Kilo metre
KSSP	Kerala Sasthra Sahitya Parishad
MFI	Micro Finance Institution
MFO	Micro Finance Organisation
MYRADA	Mysore Resettlement and Development Agency

NABARD	National Bank for Agriculture and Rural Development
NFHS	National Family Health Survey
NGO	Non Government Organisation
NIE	New Indian Express
NPA	National Policy Agenda
OBC	Other Backward Classes
ODMM	Orissa Disaster Mitigation Mission
OHDR	Orissa Human Development Report
ORC	Orissa Relief Code
OSDMA	Orissa State Disaster Mitigation Authority
OSDR	Orissa State Development Report
OSG	Orissa State Gazetteer
PRADAN	Professional Assistance for Development Action
PDR	Panchayat Development Report
RRB	Regional Rural Bank
SAP	Sneh Abhijan Project
SC	Scheduled Caste
SEWA	Self Employed Women's Association
SGSY	Swarno Jayanti Swarojgar Yojona
SHG	Self Help Groups.
SLF	Sustainable Livelihood Framework
ST	Scheduled Tribe
UN	United Nations
UNDP	United Nations Development Programme
UNU	United Nations University
WDR	World Disaster Report
WFP	World Food Programme

Glossary of Oriya words

Apa	sister
Badam	pea-nut
Bali	sand mound
Balichod	sandy/ siltation
Barik	barber community
Batya	cyclone
Beelo	field
Behera	fishing community
Bhoi	Harijan community or former untouchables
Bhonda	papaya
Bindi	Artificial spot on forehead
Bodo-bodhee	big flood
Bonya	flood
Brahmin	upper caste
Chanda	monthly instalment for the SHGs
Chokodo	processed fodder
Chuda	flattened rice
Chulha	earthen oven/hearth
Daal	lentil curry
Dalma	lentil cooked with pumpkin, eggplant, potato, arum, radish and coconut
Donga	boat
Dongawala	boatman
Dhoba	Washermen community
Didi	sister
Ghosee	cow dung cakes
Goonda	rogue
Gud	jaggery
Gunda	processed fodder
Guntha	4 decimal of lands = 1 guntha 100 decimal = 1 acre
Gram panchayat	local administration
Haat	fair
Handi	aluminium cooking pot
Heshua	palm leaf mat
Ja	sister-in-law
Jhaugach	type of bush
Kalomo	type of aquatic plant
Keuto	fishing community – Behera community is also known as Ketuo

Khandayat	warrior and farmer community
Kichudi	lentil cooked with rice and vegetables
Kucha	dent road
Mastan	rogue
Lajo/Lajja	shame
Samity	SHGs
SHG	Self help groups

Chapter 1

Introduction

The inspiration for this research directly grew out of my voluntary relief work in the aftermath of the 1999 super-cyclone in Orissa. At that time, I was a post-graduate student social worker at the Tata Institute of Social Sciences (TISS), Mumbai. Through the auspices of the institute, I, along with 77 fellow student social workers went to Orissa in order to help the state government in relief activities. The team was stationed at Ersamma block in Jagatsinghpur district, one of the districts worst affected by the cyclone[1]. Together with three other student social workers I was assigned relief work in Ramtara, one of the remotest and worst hit villages in Ersamma block. We worked in Ersamma for a fortnight and helped the district Special Relief Commissioner with three types of relief activities: **a)** distributing relief, both food (like rice, flattened rice etc.) and non food items (such as clothes, blanket, utensils etc.); **b)** developing village development plans with the community; and **c)** selecting sites for *mamata gruha* (shelter homes) with the local government and the community, and identifying those who were made widows, orphaned, and uncared elderly widows by the cyclone. This last activity was one that preoccupied me, even after I had left the place. Afterwards I speculated as to what had happened to those widows whom we brought into the *mamata gruha*? How had they fared since? Had they relocated back in their original community? And most importantly, how had they coped with the post super-cyclone multiple disasters that had befallen Orissa, namely, the floods in 2001, drought in 2002 and flood in 2003 (the events that had occurred when this research began). It was this context of post-effect

[1] In the super-cyclone 10,000 people were killed and Jagatsinghpur district itself suffered 8,119 human casualties (Samal et al., 2003).

disasters in Orissa and my curiosity to return to this group of women to document their experiences that led me to design three broad research questions. Firstly, how have multiple disasters affected women-headed households, and their livelihood assets in relation to their caste, class and gender attributes? How have these households survived during and after these disasters? And thirdly, can micro-credit initiatives reduce women's vulnerability and help them to cope in a multiple disaster situation? The last research question was formulated whilst being in the field, because it was found that two NGOs Action-Aid (AA) and its partner organisation Bharat Gyan Vigyan Samity (BGVS) had promoted micro-credit groups in the researched area. However, this research also had some thematic questions, which emerged during the fieldwork in relation to these three broad research questions, and they are discussed in the next Chapter Two.

This chapter has three sections. The first section gives the historical overview of multiple disasters in Orissa, and their impact on the people. The second section discusses the "vulnerability" of the Oriya people constructed historically from 1800 – 2004, in order to put this research in context. This will become increasingly clearer in the succeeding chapters of this thesis whilst understanding the extension and manifestation of this vulnerability in women's life during the multiple disasters in a contemporary context. The third section sets the social and demographic details of Tarasahi, where this research was conducted.

"Multiple disasters," I define at the outset, as disasters triggered by multiple hazards in conjunction with vulnerable portions of the population in one particular place. The vulnerability of this population is largely due to historical and social factors, this is discussed in more detail later in Chapter Two. Multiple disasters pose serious

challenges to South Asia's development. In 2005, India was the second most disaster-affected country in the world after China hit by floods, cyclone and drought (CRED, 2005; Dilley et al., 2005). The consequences for the poor in particular, are well known. Little work has been undertaken, however, on the specific ways recurrent multiple disasters affect women-headed households in rural areas. Although the literature on "gender and disaster" in the South is quite extensive and rich. This mostly emphasises the impact of single disasters rather than multiple disasters. Much of the literature on gender and disaster copiously illustrates disaster as a gendered experience that has its roots in structural inequalities deeply embedded in society (Wisner, et al., 2004; Ariyabandu and Wickramasinghe, 2003; Enarson, 1998a, b; Vaughan, 1987; Stehlik et al., 2000; Cannon, 2002; Fordham, 1998). However, the cumulative effect of disasters on gendered experience received little attention. This research seeks to respond to this gap.

Several studies on gender and disasters have classified women-headed households as a socially vulnerable group, or vulnerable groups at high risk because of the non-universalisability of their subordinate social position, which is exacerbated through caste, class, age and so on (Wisner et al., 2004; Enarson, 2000; Wiest, 1998; Ariyabandu and Wickramasinghe, 2003). These studies, however, give limited ethnographic portraits of women-headed households affected by (multiple) disasters (Enarson, 1998). In fact, the sociology of disaster has a paucity of research or narrative accounts of women's (women-headed households) lived (psychological) and social experience of disaster that focus on the intersection of power relations in the household and at the community level (Enarson, 1998: 166; Fothergill, 1998; IFRC & RCS, 2004). This research aims to contribute to this paradigm by documenting women-headed households gendered living experiences in multiple

disasters and their coping mechanisms adopted to mitigate the impact of the multiple disasters over a period of five years (1999-2004). Although there are several studies (Rozario, 1997; Fordham, 1998; Khondker, 1996) that document women's experiences and their specific vulnerability in environmental disasters, these reflect a diverse group of women and contexts. Rozario (quoted case studies from Kafi in Bangladesh) documented the experiences of women without husbands affected by floods 1988, tornado 1989, and cyclone 1991 and refugees from Myanmar 1992. This particular article is useful for helping understand how the effects of disasters are socially and politically mediated and differentially distributed amongst women. In a similar vein, Fordham sees gender dimensions to disaster as instantiated through the instance of the destruction of women's much-loved homes in the floods in Strathclyde in 1994 and Perth 1993 in Scotland. Both Rozario and Fordham assess disaster exclusively according to location and the diverse individuals involved, rather than a particular group of women who experienced a series of disasters as part of their life-experience. Similarly, with Khondker's (1996) study of women's' experience in the village of Phalia Dighar in Bangladesh that experienced floods over three consecutive years – 1988, 1989, and 1990. Here, the researcher chose to concentrate only on the fresh memory of floods in 1992, rather than incorporating these in a bigger picture that included the earlier experiences. The novelty of my research is its documenting of multiple disasters in their totality through the experiences of the same group of women, over a period of five years (1999-2004), in one particular place. Consequently, it elucidates a multitude of policy implications and conceptual contribution for women and of multi-hazard prone places.

A historical overview and impact of multiple disasters in Orissa: Through governmental and non-governmental documents

Orissa is one of the states in the Indian union. It is situated in the east of the country, bordered by Madhya Pradesh to the west, Andhra Pradesh to the south, Bihar in the north and West Bengal to the east. Oriya is the language of the state. Orissa is one of the most highly prone, multi-hazard regions of the world. Its geographic location and climatic condition have meant that Orissa has historically been prone to multiple hazards, such as floods, cyclones and droughts (Bhatta, 1997; GOO, 2002c). Too much precipitation during the monsoon causes large-scale floods affecting farmland and property, whilst too little rainfall brings drought to the state. Tropical cyclones from the Bay of Bengal sweep into the low-lying coastal belt, often causing severe death and destruction. The most recent being the super-cyclone of 1999, which killed 10,000 people and immediately followed by two devastating floods in 2001 and 2003, and drought in 2002 (Bhatta, 1997; GOO, 2005; GOO, 2002c; New Indian Express (NIE), 1 September 2004).

Orissa's geographical proximity to the Bay of Bengal means that it is four to five times more likely to experience storms than it would if it were located in the Arabian Sea (Shiva and Emani, 2000: 3; Bosher, 2005). Tropical cyclones from the Bay of Bengal are highly destructive and widespread, especially when accompanied by storm surges, high winds and exceptional rainfall that cause the rivers to flood (GOO, 2002c; Bosher, 2005). Depressions in the tropics that develop into storms manifest themselves as tropical cyclones that occur in the south-west Indian Ocean, the Bay of Bengal and the Arabian Sea (Sivakumar, 2005: 4). Orissa is generally

vulnerable to cyclones from April – May and September – November (GOO, 2002 c). Despite its proclivity to storms and cyclones, Orissa's super-cyclone of 1999 was one of unparalleled intensity and devastation. The magnitude of its effects thus represents an important source of data for this study's analysis.

On October 1999, Orissa was hit by two cyclones within a period of two weeks. The first cyclone occurred on 17-18 October affecting two coastal districts: Ganjam and Gajapati, and the later cyclone on 29- 30th October affected 14 coastal districts out of 30. The Indian Meteorological Department (IMD) termed the later cyclone as a "super-cyclone," due to its high wind velocity of 270- 300 km per hour and its accompaniment by unprecedented tidal waves 5-7 meters high and torrential incessant rainfall for 48 hours that caused devastating floods in the major river basins (GOO, 2002c). The intensity of the cyclone was such that it killed 10,000 people, caused severe socio-economic devastation, instigated the Orissa Relief Code (the sole disaster policy document for the state), and lastly, put Orissa in the international limelight (GOO, 2002c). Consequently, there was an overwhelming relief response by the state, neighbouring states, NGOs, INGOs and the multinational organisations (GOO, 2005: 176).

Apart from cyclonic exposure from the Bay of Bengal, the people of Orissa are subject to the vagaries of complex river systems. Flood is therefore another major concern in the state. The major rivers that are predominantly responsible for flooding are; Mahanadi, Baitarni, Brahmani, Kathjori and Subarnarekha (GOO, 2005; Bhatta, 1997). These are all affected by heavy rainfall in the upper catchments area, which, along with unusual monsoon rainfall, causes their overflow. The problem is further exacerbated when floods coincide with high tides. These block the floodwater from

exiting into the sea, which thereby has a devastating affect on low-lying coastal areas. Drainage congestion is an increasingly major contributor to the problem of flooding in certain parts of coastal Orissa. The entire low-lying coastal belt, already highly prone to cyclones and storm surges from the Bay of Bengal, and annual monsoonal rainfall, has these problems compounded through the ever- increasing siltation of the river beds (Bosher, 2005; GOO, 2005; Bhatta, 1997).

"Flood is defined as the condition that occurs when water overflows the natural or artificial confines of a stream of other body of water, or accumulates by drainage over low-lying areas. A flood is a temporary inundation of normally dry land with water, […] overflowing of rivers, precipitation, storm surge, waves, […]" (Sivakumar, 2004: 3). From July – September, floods often occur in Orissa, when the rice plants are in the last ebb of their growth or in flower. The floods of 2001 and 2003, however, were remarkable, compared to post-independence floods (1982, 1994, and 1995) because of the extent of the flooding, which not only effected areas much further inland, but also lasted well over a month. In addition, they not only affected those areas already badly damaged by the super-cyclone of 1999, but once again destroyed houses, standing food crops causing widespread food scarcity, and displaced more than 200,000 people (GOO, 2003a).

Drought is another perennial problem in the coastal and western areas of Orissa. Approximately 70 per cent of the total cultivated area of the state is prone to drought (GOO, 2005). These areas also lack irrigational facilities; only 14 per cent of the state has irrigation provision, despite the fact that Orissa is an agro-based economy (Pradan, 2003). The dependence of agriculture on rain means that the slightest variation in rainfall makes drought a constant hazard.

"Drought is the consequence of a natural reduction in the amount of precipitation over an extended period of time, usually a season or more in length, often associated with other climatic factors (such as high temperatures, high winds and low relative humidity) that can aggravate the severity of the event. Drought is not a purely physical phenomenon, but instead is an interplay between natural water availability and human demands for water supply" (Sivakumar, 2005:3). The precise definition of drought is complex and often politically motivated, but there are generally three types of conditions that are referred to as drought – meteorological drought, hydrological drought and agricultural drought (ibid; GOO, 2002b)[2], as well as socio-economic as defined by the Orissa State Disaster Mitigation Authority[3] (OSDMA). For the most recent instances of drought, the government of Orissa has tended to favour more those definitions based on environmental factors over socio-economic conditions.

Drought has been a recurrent problem for Orissa, with the most critical period occurring generally from October to June. Orissa is predominantly an agrarian state, whose 64 lakh hectares of cultivable land only has irrigation facilities for some 35 per cent, the remainder reliant on rain-fed farming (GOO, 2002b). Furthermore, the

[2] Meteorological drought is declared when the rainfall deficiency for a particular area is 25 per cent less than its norm. Hydrological drought occurs when metrological drought intensifies and water resources are highly depleted, leading to the drying up of rivers, ponds, and a lowering of the groundwater table. Thirdly, agriculture drought is declared when insufficient rainfall results in inadequate moisture for a sufficiently long time so as to adversely affect crop growth leading to a significant reduction in yield. Finally, socioeconomic drought is not focussed on rainfall, as with other drought definitions, but is rather associated with the supply and demand of some economic goods or services affected by meteorological, hydrological, and agricultural drought (GOO, 2002b: 64-65).

[3] The Orissa State Disaster Mitigation Authority (OSDMA) is a government NGO under the aegis of the Department of the Home Office. The OSDMA was inaugurated in the aftermath of the super-cyclone of 1999 to deal exclusively with disaster mitigation measures in the state. The OSDMA's brief is oriented both towards co-coordinate with NGOs, INGOs and multinational organisations, as well as the implementation of disaster preparedness programmes and structural mitigation measures undertaken in the post super-cyclone phase geared to repairing the destructive impact (GOO, 2002b: 41; Samal, 2003).

total Kharif rice area, of which only 14 lakh hectares are irrigated, is also subject to frequent flood and drought, although interestingly these irrigated areas are excluded from the drought prone area programme (DPAP). Jagatsinghpur is one such district excluded from the DPAP area, because it has an average annual rainfall of 750 mm and above all more than 30 per cent of the net area sown under irrigation. Such factors automatically exclude it from DPAP consideration (CPSW, 1994: 173). Therefore, despite the recurrence of drought and drought spells in this district in 1991, 1992 (CPSW, 1994) and 2002, Jagatsinghpur district in general and Tarasahi in particular were not declared drought affected and hence were not entitled to relief, which indicates a woeful inadequacy of the conceptual definition of "drought" in this region.

The geographic and climatic conditions of Orissa have led to its experiencing multiple disasters causing recurrent physical and social destruction for people's lives over a sustained duration. (Table 1.1, below, illustrates these recurrent disasters that dramatically affect people's lives and which constantly undermine any attempts at forging security). According to the latest Orissa Human Development Report, the property lost through disasters in the 1970s was estimated at Rs. 105 crore, which increased nearly sevenfold in the 1980s and more than tenfold in the 1990s (GOO, 2005: 163). This indicates the sheer scale of the threat of natural calamities in a poor state like Orissa, which cause serious imbalances by placing heavy demands on revenue expenditure, i.e., expenses on restoring assets and reduction in revenue collection due to recurrent crop and property loss (GOO, 2005: 163).

Table 1.1 Multiple Disasters in Orissa (flood, cyclone and drought) from 1951-2003

Year	Multiple Disasters
1951-1954	----
1955	Flood
1956	Flood
1957-1960	----
1961	Flood
1962-1964	----
1965	Severe drought
1966	Drought
1967	Cyclone, flood
1968	Cyclone, flood
1969	Flood
1970	Flood
1971	Severe cyclone, flood
1972	Flood, drought
1973	Flood
1974	Severe drought, flood
1975	Flood
1976	Severe drought, flood
1977	Flood
1978	Flood
1979	Severe drought
1980	Flood, drought
1981	flood, drought
1982	Severe flood and drought, cyclone
1983	----
1984	Drought, flood
1985	Flood
1986	Drought, cyclone
1987	Drought, cyclone
1988	Drought
1989	Drought
1990	Flood
1991	Flood
1992	Flood, drought
1993	----
1994	Flood
1995	Flood
1996	Severe drought
1997	----
1998	Drought
1999	Super-cyclone, flood
2000	Drought
2001	Severe flood
2002	Severe drought
2003	Severe flood

Source: Board of Revenue quoted in Samal (2003: 42); GOO, 2003a)[4].

The table above indicates that Orissa has been disaster prone. For some regions, this susceptibility is more pronounced. Jagatsinghpur district is one such region, within which we find Tarasahi. Jagatsinghpur district has eight blocks, all of which are

[4] Also see the Appendix – II for multi-hazard zones of Orissa.

susceptible to cyclone, flood and drought (GOO, 2003a - 04: 9). Yet the state government does not have a cogent policy for the effects of multiple disasters. Therefore, this study attempts to understand the impact of heightened multiplicity of hazards and its frequency in affecting a particular place and people. This is because multiple disasters that affect a specific area and their increasing occurrence have the effect of eroding peoples' exchange entitlements and endowments, so that recovery itself becomes tenuous, further weakening peoples' capability to cope and recover before another hazard strikes. Consequently, the nature of human adaptation to these complex and unstable environments in the absence of adequate and appropriate responses becomes a compelling issue for those living under such circumstances.

In this context, it is worth noting the historical impact of multiple disasters in this region. From the nineteenth century, the coastal provinces saw forced male out-migration and emigration as a consequence of disasters and the heavy land revenues imposed by the then British Empire. Recurrent floods, cyclones and droughts/famines destroyed people's staple crops, repeatedly causing widespread distress and a scarcity of food and hunger amongst the already impoverished (Bhatta, 1997; CPSW, 1994). In addition, mortality increased due to fever, cholera, and other diseases that broke out after the disasters. The lack of any measures dealing with destitution and impoverishment at the household level effectively meant that British government re-created and perpetuated peoples' vulnerability. There are aspects of this socio-economic predicament that are still visible even today in Orissa.

Male out-migration is still rampant, and particularly acute following disaster. In 1981, reasons for migration from the place of residence based on natural calamity were first included by the Directorate of Census Operations on Migration, revealing

the total migration rate from Orissa was 1, 56,424. Of which 420 migrated solely due to natural disasters from Cuttack district (undivided Jagatsinghpur) (Census of India 1991). This figure is expected to grow, given the increasing number of multiple disasters experienced by the coastal districts after the super-cyclone of 1999[5]. Unsurprisingly, Orissa is one of the poorest states in India with a very slow growth rate of 2.38 per cent (GOO, 2005). The rate of urbanisation is 14.91 per cent, the lowest among the major states in India. In 1999-2000, approximately 47.15 per cent of people were living below the poverty line, a shockingly high figure compared to the all-India average of 26.1 per cent (GOO, 2002c: 245). Orissa's agro-based economy saw growth in agriculture and animal husbandry slow appreciably in the 1990s to about 2 per cent, with some improvement in mining and quarrying in the primary sector (GOO, 2005:19). Orissa has the third lowest density of population after Rajasthan and Madhya Pradesh. It also has the highest infant mortality rate in the country (87 per thousand children in 2002), which indicates a low status on the human development scale. Orissa has also been declared a "severely food insecure region" of the country, due to its vulnerable rural population who have poor livelihood access, itself constantly susceptible to natural disasters (GOO, 2005:52).

Compared to the all-India level, Orissa has a relatively favourable sex ratio of 972 females per 1000 males; but female life expectancy (59.71 years) is slightly lower than that for males (60.05) and is much lower than the all-India average (63.87 years for males and 66.91 years for females) (GOO, 2005: 133). The literacy rate in Orissa

[5] According to local newspaper reports there were large numbers of male out-migration after the floods in 2003 from the districts of Jagatsinghpur, Kendrapara, and Puri. Nimapara block alone, in Puri district, reported 100 youths who fled their villages looking for jobs due to crop loss, lack of rehabilitation measures and failure on the part of the government to pay people's insurance for crop loss and other compensations (NIE 11th Nov. 2003, 17th Feb. 2004).

since 1951 has increased steadily from 15.80 per cent to 63.61 per cent between the years 1951 and 2001. The gap between male and female literacy continues to prevail since male literacy (75.95 per cent) outstrips female literacy (50.97 per cent) by 25 per cent (ibid: 136). According to the NFHS-2 (1998-99), 48 per cent of the female population suffers from nutritional deficiency and the prevalence of anaemia is high among women in the age group 15-49 (GOI, 1998). These social indicators bear testimony to women's grossly subordinate position in society, which percolates right down to the nutritional level and to access to resources. This is compounded by the fact that in economic terms, men spend more time (40.12 hours per week) in primary production than women (17.07 hours), due to women's extensive engagement with household and reproductive activities (34.77 hours per week). According to the 1991 census, only 27.28 per cent of the total workforce in Orissa was women. As main workers and as marginal female workers, they accounted for 58.2 per cent and 41.8 percent of the total female workforce respectively. The unorganised sector employs as much as 82.7 per cent of the total female workers (GOO, 2005: 145), which is a strong indicator for the socio-economic marginalisation of women in Oriya society.

A historical overview of "vulnerability" pre and post independence

Orissa enjoyed a flourishing economy based on maritime trade and metallurgy prior to the sixteenth century and the last home-grown ruler, Mukunda Deva. Orissa's heyday came to an end due to the decline in maritime trade because of siltation of the major river basins, and Mukunda Deva's decisive defeat at the hands of Raja Man Singh (Akbar's military general) in 1568. In 1751 Orissa succeeded to the Marathas after the death of the last *mughal* emperor Aurangazab, leaving the province

dismembered and particularly vulnerable to the British, who colonized it soon after their victory in Bengal on 14th October 1803. Orissa then continued under the British rule until India's independence in 1947 (Bhatta 1997; South Asian History).

During the mughal period Orissa was divided into five *sarkars* (divisions - Jaleswar, Bhadrak, Cuttack, Kalinga Dandapat and Rajamahendri) and was included in the *Subah* of Bengal. The British government virtually replicated the same structure of administration by putting Orissa under the Bengal Presidency[6] (Bhatta, 1997). At that time, Orissa was comprised of three coastal districts (Cuttack, Puri and Balasore) known as *mughalbandi* areas, and 17 tributary states known as *garjat* areas, each ruled by an indigenous *raja* (king), under the general supervision of the Commissioner. In 1805, Bengal laws were introduced in Orissa, and Puri was declared its capital, a situation that lasted until 1816, when the capital was transferred to Cuttack. Under the Bengal Laws, the British government introduced the land revenue system in Orissa through the *zamindari* (landlord) system and permanent settlement, which proved highly detrimental to the already impoverished producers and peasants in this region. In 1912, the British government created the Bihar-Orissa province and in 1936 Orissa became a separate province from Bihar, incorporating six districts and 24 tributary states (Bhatta, 1997). After independence, Orissa became 13 districts, later extended to 30 districts. In the process of extension, Jagatsinghpur (the researched district) was finally declared an independent district, separating from Cuttack district in 1993 (Samal, 2003).

The *zamindari* system introduced by the British under the permanent settlement increased the land revenues in Orissa. This directly forced many native landowners

[6] The Bengal Presidency under the British rule comprised Bihar, Orissa, Bengal and Assam, for which Calcutta was the capital.

and numerous peasants to give up their estates and ownership, subsequent to the heavy debts incurred through the hike and the meagre income received from agriculture after recurrent disasters and crop loss (Bhatta, 1997). The imposition of heavy land revenues and limited revenue remissions granted by the British government after the disasters, led to a situation of severe debilitation for *zamindars*, peasants and labourers. The British government's auctioning of the Oriya *zamindaris* (estates) in Calcutta in order to pay off the revenue debts incurred by them further compounded the problem. Many Bengali *zamindars* bought Oriya estates and created absentee landlordism in Orissa (Das, 2002) that cared little for the welfare of the peasantry and the labourers, who continued to be affected by recurrent multiple disasters. Likewise, the British government also destroyed the rich traditional salt industry in Orissa, which offered employment to thousands of people (Bhatta, 1997). By 1804, salt manufacturing also came directly under the salt regulations of Bengal, which increased the price of salt so that the poor could not even afford to buy salt for household consumption. Later, the import of foreign salt by the British completely destroyed the indigenous salt trade, causing mass unemployment and pauperisation. However, discontent of absentee landlordism and the destruction of the indigenous salt manufacturing industry ultimately gave rise to *Paik* Rebellion (against revenue) in 1817, but this was successfully suppressed by the British regime at that time (Bhatta, 1997). This history of political dislocation and a weakened capacity to cope with recurrent disasters has dogged the people of Orissa. Prior to the British rule, famine was uncommon, reported only every 50 years, a time scale that became three to four years during the colonial period. This drastic reduction in the time scale of an increasing number of disasters was indicative of an eroded capacity of the peasantry to cope and recover, further compounded by the impact of heavy taxation and

virtually no mitigating measures for pauperisation at the household level (Bhatta, 1997).

The post-independence era raised hopes for a stable democratic India, and the developmental state attained a centralised, omni-present and highly interventionist role, due to the urgent need for promoting economic growth and industrialisation (Kohli, 1991; 1994b; Puroshotaman, 1998). The Congress government of the 1970s initiated agricultural redistributive reforms, both through direct intervention and through rural development programmes, geared to address widespread poverty and the inequity of resource allocation. Such "hallmark" reforms shaped the political landscape. Unfortunately, both attempts at agrarian reform left poverty and vulnerability unscathed. According to Kohli (1994b) the land ceiling act failed to redistribute land effectively because of Indira Gandhi's highly centralised rule, not well dispositioned to grassroots support for the weak and poor against their socially powerful landlords. The lower-level state officials and their bureaucracy were rendered powerless in supporting the poor and the weak to fight back against the powerful upper caste, as well as against the upper class landlords in the villages. In certain cases, lower-level state officials actively obstructed the implementation of agrarian reforms, due to their cosy working relationships with the powerful rural elites (ibid).

The anti-poverty rural development programmes were another innovative complementary tool introduced by the government to tackle poverty (Rondinelli, 1986). The rural developmental programmes were initiated in all states in the 1970s (Bhose, 203). The intended beneficiaries for these programs were small-scale farmers, rural entrepreneurs, migrant workers, shifting cultivators, landless labourers,

low-income workers and so on. Following the agrarian reforms, integrated rural development represented a new experiment, soon to achieve dominance in developmental policy, thanks to its scope and offering a variety of inputs for coordination. Again, this very basic framework for the programmes, as argued by Rondinelli, became serious challenges to their effective functioning, creating paradoxes and generating political tensions and conflicts that posed complex administrative problems that ultimately resulted in their failure. Rondinelli further argued that the success of developmental programmes would depend on a "complex, integrated, and appropriate organisational network in rural areas" (1986: 134). This necessitates the development of an effective institutional structure for delivering services and technology to the rural poor. Incidentally in this regard the poorest states like Orissa, Assam and West Bengal remained the most neglected with the largest numbers of villages without *pucca* roads (Paul et al., 2004:923). The public distribution system (PDS), supposedly the major safety net for protecting vulnerable people against the adverse effects of economic reforms, is only used by 33 per cent of India's population and households, whilst the dependence on the PDS for food grains in the poorest states like Bihar, Orissa and Uttar Pradesh is only 5 per cent. Likewise in terms of health care, where the better off states like Gujarat, Kerala, Karnataka and Tamil Nadu have relatively better coverage of health facilities than do the poorest states. Although there have been substantial improvements in the provision of basic services in India over the past several decades, there still persists a statistically significant differential between urban and rural areas- with urban areas fairing better than the rural- and between richer and poorer states (Paul et al., 2004).

The rural developmental programmes additionally require strong and pervasive administrative support that *must* be complemented by highly dispersed structures of

participation, coordination, supervision and management for implementation at a localised level (Rondenelli, 1986). The national ministries, in this respect, were again largely ineffective, due to their centralised control that failed to coordinate between the centre, state and the departments. In this regard, Jenkins (1998) clearly illustrates how increasing rivalry and discontentment between states and the central government has had severe developmental implications for the Indian federal system, particularly after liberalisation. With the diminishing role and power of the Congress party after 1967, tensions have grown between national and provincial political forces, a situation which becomes much more dramatic when the centre and the states' are ruled by two different parties. Inter-state disparities and rivalries are widespread in India mostly to the disadvantage of poor states like Bihar, Orissa and Uttar Pradesh, which are not only politically weak, but are mostly incapable of protest. Inter-state rivalries, then, become manifest through disparities in services (discussed earlier), poor coordination of developmental programmes and inadequate grant allocation. Likewise, similar scenarios involving the centre and local states recur with regard to grant allocation in the aftermath of natural disasters (Samal, 2003)[7]. According to Jenkins, this lack of coordination between the state and the centre leads to the isolation of geographically defined sections of the poor and pertains to spheres for which they are less capable of defending their interests (1998:

[7] Samal argued that Orissa received only a very small grant from the central government. Table 1.2 is attached in the Appendix- IV to show the pattern of grant allocation received from the central government from 1975-2001. Compared to the super-cyclone of 1999, the impact of the earthquake in Gujarat 2001 was less devastating. Whilst there were twelve measures, including a surcharge on income tax, introduced in the Union budget for Gujarat, there were none introduced in the budgets of 2000-1 for Orissa. This can be attributed to two main reasons: firstly, the central government receives more revenue and funds for political campaigns from Gujarat than Orissa. Secondly, the BJP was in power at that time in New Delhi and in Gujarat, whereas this was not the case for Orissa. In the immediate aftermath of the super-cyclone *Biju Janata Dal*, a regional party headed by Naveen Patnaik ousted the Congress party, a victory repeated for his second term in 2003. Consequently, the state government has failed to elicit adequate benefits from the central government for damaged property and lives. The intermittent fund that the state received from the National Fund for Calamity Relief (NFCR) was not an adequate substitute for this (Samal, 2003).

210). Additionally, the organisational disjuncture between the central and the state government also contributes to the debilitation of weak governance, mis-management of funds, non-utilisation of funds, non-accountability, and widespread corruption: Orissa is here a prime example (Jenkins, 1998; Samal et al., 2003; Samal, 2003; NIE 2nd, 9th and 24th March 2004).

Both the land distribution reform and the rural developmental programmes undertaken in the post-independent era spectacularly failed to attain their goals of alleviating people's poverty and developing the rural economy. Poverty and vulnerability that were historically-constituted as argued earlier therefore remained. In the post-liberalisation phase, when the nation-state's role is increasingly undermined by the expansion of international capital, the developmental sector is undergoing severe challenges due to the increasing level of poverty and vulnerability in terms of an increasing likelihood of external shocks and stresses on poor households (Chamber, 1983; Wisner et al., 2004). This is discussed further in Chapter Three through the intervention of NGOs. In this contemporary context, the role of the state is both crucial and sceptical especially for the marginalised, despite the faith which the oppressed, marginalised, women and so on still have in the government (Kothari, 1997:148).

Disaster mitigation measures in Orissa

During colonial rule, the British government undertook certain mitigation measures aimed at attenuating the dangers of multiple disasters. However, these were mostly reactive and technocratic in approach. From 1850-1939, several Committees were set

up[8] as reactionary/responsive measures for events like floods, cyclones and droughts. The Committees' most oft recommended structural mitigation measures[9] for reducing the impact of both floods and drought, like elaborate system of canals; weirs across the Mahanadi, Brahmani and Baitarnai rivers; irrigation channels throughout the deltaic region for navigation; embankments to all the rivers; development of meteorological department and the extension of early warning reports from Calcutta to Orissa ports for signalling oncoming cyclones. Several of these technical measures were undertaken in the coastal provinces, but most were delayed through a lack of response and budget constraints, and were finally implemented only in the aftermath of the Great Famine in Orissa in 1866.

The Great Famine of Orissa (*Nan-ak-Durvigya*[10]), which killed 700,000 people, is seen as a landmark in the history of Orissa (Fiske, 1869). The British government was criticised for its sheer negligence of this region. The government considered Orissa's geographic isolation and the non-existence of any infrastructure here as the

[8] To mention a few important Committees formed during the nineteenth and twentieth centuries, see especially Harris Committee Report; J.P. Beadle's Report and Col. Arthur Cotton's Report, Flood Advisory Committee.

[9] Mitigation is defined as measures taken to minimise the destructive and disruptive effects of hazards and thus lessen the magnitude of disasters (Maskrey, 1989: 39). Mitigation measures can be of two types: structural and non-structural mitigation measures. Structural measures may include engineered and non-engineered structures. Engineered structures include simple dwelling to multi-story office blocks, embankments and dams etc. and non-engineered structures are those constructed by the owners themselves or by local carpenters and mason who generally lack formal training. Non-structural measures may include legal framework for enforcement, promotion and implementation of disaster mitigations measures, promotion of insurance to build safety standards, early warning system, agricultural mitigation measures etc. (see Davis and Gupta, 1990: 41-46).

[10] *Nan-ak-Durvigya*, the Great Famine of Orissa, has gained a historic reputation due to its severity and devastating effect. This famine surpassed all the other previous famines in its character and exhibited starkly the inadequacy of the Bengal administration. The famine affected the whole east coast from Madras to Bengal but it was intense in three districts of Orissa (Puri, Cuttack and Balasore) and some parts of tributary states. About 4 millions of people were severely affected. The Famine Commission of 1866 commented "the Famine in Orissa stands almost alone in this, that there was an almost no importation, and the people, shut up in a narrow province between pathless jungles and an impracticable sea, were in the condition of passengers in a ship without provisions" (Bhatta 1997: 107).

major cause of this famine. Consequently, the measures that were geared towards preventing future famines once again entailed structural measures like communication building, road and railway constructions, and canals for irrigation. As for non-structural measures, these were first instigated when the Indian Famine Commission came into being in 1880. Both these newly introduced structural and non-structural measures were seen as the hallmark of disaster mitigation in that era (Bhatta, 1997).

The Famine Commission of 1880 for the first time envisaged immediate measures for the people affected by disasters through relief measures, relief work, remissions of land revenue, improvements in communication for networking of relief, and the setting up of a relief fund (Bhatta, 1997; Samal, 2003). For the second Famine Commission of 1898, disaster mitigation was seen as an important aspect of disaster management throughout the year in order to predict famine and alert the state (Bhatta, 1997). And the third Famine Commission 1899 emphasised speedy relief, provision of fodder for cattle, speedy remission and suspension of land revenues, promptness in *taccavi* loan distribution, introducing fodder camps, and gratuitous relief to women, children and the destitute. Here, for the first time, the urgency of immediate need for vulnerable populations was translated into practical measures (Bhatta, 1997; Samal, 2003). As a result, the Famine Commissions during the British period were seen as exemplary for addressing the immediate need of people for the first time at the household level and for looking to prevent the large numbers of deaths caused in erstwhile famines (Samal, 2003).

However, the relief responses of the Commission were extremely short term and ad hoc in nature, due to the perception of multiple disasters as natural events.

Consequently, little was done to address either poverty or vulnerability, nor indeed to boost people's capacity to cope with multiple disasters. The lion's share was always apportioned and directed predominantly to structural over non-structural measures. The Commissions never mentioned the fight against poverty, mass unemployment, and the progressive vulnerability of people at the household level, where lives were intertwined with disasters and chaos (Bhatta, 1997). The British government perceived each disaster as a discrete natural event distinct from socio-economic background, but at the same time the government was perceptive enough to draw, *inter alia*, links between natural hazards like floods and drought phenomena, which led to the overlapping of prevention measures in the coastal province. This *inter alia* connectivity, though, remained largely unperceived in terms of the lives of the people affected by multiple disasters. Hence, the disaster responses failed to match people's needs at the grassroots level.

In the post-independence era the government of Orissa inherited the colonial legacy and built on it. The Orissa Relief Code (ORC) is still the only disaster policy document in the state that specifies how administrators identify crisis conditions, how they should respond and when they should do so during natural calamity (Currie, 2000, GOO, 1996). Although the government of Orissa drafted a disaster management bill after the super-cyclone, it has yet to be endorsed by the ministry (interview with OSDMA official, BBSR, 2003). After independence, the government replaced the word "famine" by "scarcity" and changed the Famine Relief Code to scarcity relief manuals in order to describe marked deteriorations of the agricultural season and crop failures based on rainfall, floods etc., thus overlooking the socio-economic factors of the place and the people that caused disasters in people's lives. Eventually the Orissa Famine Code of 1913 and 1933 was amended in 1980 as the

Orissa Relief Code, after 33 years of independence. The current Orissa Relief Code (ORC) was amended again in 1996. However, the sluggish amendment of the ORC in the post-independence era is a significant reflection of the bequest of the colonial relief legacy that tended to paralyse change. Excepting the additional regular deployment of anti-poverty programmes, the complementary District Contingency Plans that are kick-started after each disaster event, and the increasing intervention of NGOs to plug government intransigence in face of market affects, (discussed further in Chapter Three) not much has changed (Currie, 2002; Das, 2002; Bhatta, 1997; Samal, 2003; GOO, 1996).

In terms of structural measures, the Congress ministry under Nehru's rule undertook the Mahanadi valley project- in which the Hirakud dam was sanctioned to mitigate recurrent floods and droughts (Bhatta, 1997) as well as two other dam projects on the Brahmani and the Baitarni (Samal 2003). The Hirakud dam was finally completed in 1957; the Rengali dam on the Brahmani was completed in 1985, whilst the Bhimankund dam on the Baitarni River was cancelled. However, in the post-dam period, the Hirakud in particular - the longest earthen dam (at the time) - has provoked controversy. Critics are sceptical about the sustainability and the benefit that the people of Orissa have derived from this multi-crore, multi-purpose post-independence project[11] (GOO, 2002c; Samal, 2003; Mahlik, 2000; NIE, 2003; Bhatta, 1997).

[11] One view is that the construction of the Hirakud dam has drastically reduced large floods, but at the same time increased the frequency of medium and small scale floods in the state (Samal, 2003). Secondly, the increasing problem of deforestation and siltation (it is estimated that 12,000 acres of feet silt deposition occurs every year) has reduced 27.25 per cent of the capacity for water storage, so that it is anticipated that by 2020 the dam will be incapacitated, 37 years earlier than its planned life (NIE, 25 October, 2003). Thirdly, the mismanagement of dam water by government officials has been brought to the fore during the severe post-independence floods of 2001 and 2003 (GOO, 2002c; NIE, 2003). Inadequate weather forecasting, coupled with the ineffectiveness of the government to take prophylactic measures with regard to faster data collection and the discharging of dam water prior to

The super-cyclone of 1999, which had a devastating socio-economic impact, killing 10,000 people at the end of the twentieth century, changed people's perspectives. Government policies towards disaster management were consequently severely questioned, whilst the inefficacy of the ORC was brought to the fore (GOO, 2002c: I; Samal, 2003; Das, 2002). The current Relief Code spectacularly failed to cope with the super-cyclone, mainly because it was designed to address post-disaster relief modalities, rather than handling states of emergency and addressing people's pre-existing vulnerability (Das, 2002; Samal, 2003). This is discussed in more detail in the succeeding chapters Five to Seven of this thesis. However, the Sixth Finance Commission recommended that each state should frame a new Relief Code that would better reflect the contemporary context (Das, 2002), but no such action has yet taken place in Orissa. The extent to which peoples' needs and interests will be addressed in the new Code is difficult to gauge at this juncture.

The sheer devastating impact of the 1999 super-cyclone, coinciding as it did with UN's International Decade for Disaster Reduction[12] (IDNDR) (1991-2001), put Orissa in the international limelight, which led to an overwhelming relief response (Samal, 2003; Behera and Sarkar, 2003). In accord with policy under IDNDR, the government of Orissa was able to build a large number of cyclone shelters (and

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flooding (ibid) – have only compounded the severity of the hazards, peoples woes and miseries and the negative development of the state.

[12] The United Nations General Assembly, in December 1987, declared the 1990s as the International Decade for Natural Disaster Reduction (IDNDR). The primary objective of the Decade was to reduce loss of life, property damage and social and economic disruption caused by natural disasters, such as tsunamis, floods, landslides, drought and other calamities of natural origin through concerted international action in developing countries (Whitehouse et al., 1999).

concrete houses) in the post super-cyclone phase, thanks to funds received from national, international and multinational organisations. This is discussed in more detail in chapter Six. These agencies were largely influenced by the resolution adopted by the General Assembly of the UN, for which four out of five of its goals stressed the dissemination of technical information and the transfer of scientific and engineering knowledge for the mitigation of disasters in developing countries (Bankoff, 2001: 25; Senarclens, 1997). Consequently, structural measures, such as building concrete houses, cyclone shelters, embankments, dams, river management, GIS etc., attained primary importance over non-structural measures, despite the fact that evidence for their efficacy at household level was extremely ambiguous in Africa and Bangladesh (see Kaiser et.al., 2003; Haque and Zaman, 1994; Davis and Gupta, 1990; Zaman, 1999; Thomson and Penning-Rowsell, 1994). Like the British government in Orissa, the UN also operated under a colonial mode of development,[13] with little comprehension of peoples' vulnerability at the household level until the mid-term evaluation of IDNDR in 1994, when the UN was forced to re-consider non-structural measures due to the increasing number of human causalities and peoples' vulnerability to natural disasters. Consequently, the Orissa State Disaster Mitigation Authority (OSDMA), along with UNO also made a Community Contingency Plan (CCP) after the super-cyclone. CCP was later renamed Disaster Risk Mitigation, but its effectiveness for the floods of 2001 and 2003 was minimal, largely because of the restricted nature of its coverage, the constraints of funding, the exclusion of the local *panchayat*, and a shortage of human resources in the field (interview with a staff from UNDP-Orissa, March 2004).

[13] Senarclens argued the UN and UNDP are still impregnated with the paternalistic fervour for great colonial "adventures" and this was seen with regard to UNs technical assistance for the development of the developing countries (see Senarclens, 1997: 198).

Mitigation measures undertaken both pre- and post-independence were both structural and non-structural in nature, but with a greater emphasis on the former, which essentially failed to address peoples' eroding endowments and exchange entitlements at the household level, thus creating a perpetual state of chaos and crisis in peoples' lives. As a result, despite the plethora of disaster responses undertaken by the government, there was little respite for the poor and the marginalised, whose vulnerability at the household level went largely ignored.

Tarasahi[14]: The researched village

The researched village is a microcosm of larger Orissa and of multiple disasters generally. Tarasahi is one of the island villages[15] in Jagatsinghpur district. Jagatsinghpur district is one of the newest of the 30 districts of the state. It is surrounded by Kendrapara district, in the south by Puri district, in the west by Cuttack district, and in the east by the Bay of Bengal. The major rivers in the district are Mahanadi, Kathjori, Devi, Biluakhai and Paika. Due to its geographic location, all eight blocks of the district are susceptible to flooding, cyclone and drought. The

[14] According to the Panchayat Development Report (PDR, 2001) Tarasahi is relatively a newly found village (year unknown). This piece of island was discovered by a clan of *Tarai* or Boatmen. According to the villagers the island was covered by forest and the *Tarai* often visited the island to collect fuel, food and fodder. Eventually the *Tarai* settled in the island and the place came to be known as Toraisahi, which gradually evoluted to Tarasahi (PDR, 2001). (Translated from Oriya to English with the help of the SHG co-ordinators in Tarasahi, and the Field Officer of AA, Jagatsinghpur).

[15] There are quite a few island villages in coastal Orissa, for which the government lacks any data or reports (interview with OSDMA official, GIS Operator, BBSR). I personally know five such island villages, inclusive of Tarashi. My interactions with an international NGO called AID, revealed that their area of operation covered two such island villages in Kendrapara district, and I personally visited another two island villages in Jajpur district while conducting a field research on behalf of OSDMA and a NGO called COPHEE (Mohapatra and Ray, 2004). Due to the complicated river system in coastal Orissa, people often built their dwellings in the river basins, or on islands surrounded by more than one or two rivers (interview with Dr. Samal, BBSR, 2004). These islands are at high risk of multiple hazards due to their geographical peculiarity and seclusion.

headquarters of Jagatsinghpur is 114 kms. from the capital. According to the Census of 2001, the population of Jagatsinghpur is 10,57,323. The literacy rate here is 65.78 per cent. About 78 per cent of the population depend on agriculture for their livelihood (of which 46.40 per cent are cultivators and 21.14 per cent are agricultural labours). About 2.11 per cent of the main workers are engaged in livestock, forestry, fishing, orchards etc. (Samal, 2003: 16-17; GOO, 2003b: 8-9).

Tarasahi is a village under Balikuda block in Jagatsinghpur district. It was only in the year 2001 that Tarasahi became an independent *gram panchayat* (GP), separated from Macahogaon GP. Tarasahi GP consists of three other revenue villages - Beada (agricultural land); Chhelikulia (which consists of 64 people) and Tarasahi. According to the 1991 census, Tarasahi had a population of 2,050 spread over 12 wards. About 50.24 per cent of the population belonged to a scheduled caste and 49.75 per cent belonged to other castes (GOO). Tarasahi is surrounded by two rivers - the Debi and the Aloka on the western side, and the Bay of Bengal on the eastern side leaving the waterway as the only way of commuting to Tarasahi [16]. Due to its unique geographic location, the people of Tarasahi have experienced floods from the river Debi, a tributary of the Mahanadi river; cyclones from the Bay of Bengal, and drought due to the erratic monsoon and the total absence of irrigation facilities in the village. According to unofficial estimates, since 1955 Tarasahi has experienced two major cyclones (inclusive of the super-cyclone of 1999), seven floods, and three major droughts (PDR, 2001; NIE, 2003). Fortunately, there have been no human casualties in the post super-cyclone disasters, excepting one death occasioned by snake bite, revealing peoples ingenuity and resilience.

[16] See the political map of Orissa in the Appendix –I and map of Balikuda block in the Appendix- III.

Recurrent multiple disasters in the village have repeatedly caused the loss of houses, household assets, crops, erosion of agricultural lands, reduction in crop production due to an increase in salinity and sandy texture of the soil, death of livestock, destruction of women's kitchen gardens, plants and trees (Chapter Six). All these have typically left the people of Tarasahi angry and agitated at the loss of their assets that they manage to accumulate every year through extreme hardships, unsupported by any social security services or insurance. Consequently, the village has undergone tremendous socio-economic transitions and progressive underdevelopment in the absence of developmental activities and alternative livelihoods – causing complex and perpetual poverty and vulnerability for certain sections of society. In order to cope with the impact of recurrent disasters, Tarasahi has therefore seen forced male out-migration. As explained earlier, coastal Orissa in the nineteenth century experienced a significant male out-migration to Calcutta and adjoining areas of West Bengal (Bhatta, 1997; NIE, 2003, 2004), which also applied to Tarasahi. Almost all the male-migration reported to me in the village was towards Calcutta and West Bengal for casual work, often as shop assistants or in cowsheds, etc. (*mausi*, Noyonika Nayak, *Sarpanch*, Tarasahi, 2003)[17]. The nature of this migration is facilitated by the accessibility of these two states via road and railway, and through the phonetic similarity in the two state languages - Bengali and Oriya. Consequently, women headed significant numbers of households in the village.

The village lacks a much needed primary health centre, veterinary service and a concrete cyclone shelter, construction of which only began in April 2004. The village has only one *kucha* (dent road) main road that passes through the heart of the village

[17] In one of my conversations with the *Sarpanch*, I was informed that about 70 per cent of the households have either one or two members migrated out from Tarasahi. However, this research was limited to quantify this data, due to the nature of my study (2003, Tarasahi).

and ends at the bank of the river Debi. The only way of commuting to Tarasahi is by boat[18]. The village has no electricity supply. Only towards the end of my fieldwork did my host's son inform me that the first electricity pole had been implanted. Its limited rural infrastructure, physical seclusion and under-developed rural economy meant that Tarasahi remained remote and cut off from the rest of the world. The 12 wards in Tarasahi are divided into two halves by a rivulet. Six wards are located in the highland, the main lands north of the rivulet, and are inhabited predominantly by the upper caste and class of the village. The remainder six wards to the south of the rivulet are lowland, inhabited by the low and intermediary castes: these saw the first casualties during the disasters.

Tarasahi is a Hindu village and reflects the offshoot of jajmani system where the relatively newly settled villages attempt to replicate jajmani relationships having *Khandayats* (landed-militia caste) on the top and then complemented by functional castes or service providers: barbers, washermen, potters, milkmen and so on (GOO, 1990).Under the hierarchy of the caste system in Tarasahi, *Brahmin's* occupy the highest position, followed by *Khandayat* or the landed militias, and the *Mohanty* or the literate and scholars. After *Mohanty,* there are a large number of intermediary or middle castes, referred to in the constitution as Other Backward Classes (OBCs). To mention a few middle castes in Tarasahi are - *Behera,* or the fishing community; *Barik* or the barber community; *Goal* or the milkman community (literal translation in English). The lowest of all are the *Dhoba*, or the washer man community and *Bhoi*, the scavenger community (literal translation in English), who were together

[18] Tarasahi is a difficult place to access. Commuting to Tarasahi from Jagatsinghpur headquarters (approximate 23 kms) entail three hours of journey by road and crossing over the two rivers by boat. The boat fare is Rs. 3/- (return), which become highly dear to the day-labourer who travels outside the village daily in search of physical labour mostly during the harvesting time.

formerly untouchables and referred to in the constitution as Scheduled Castes (GOO, 1990; Appasamy et al., 1996). According to an unofficial estimate, 30.06 per cent of the population belongs to the high caste, about 19.6 per cent to the middle caste and 49.75 per cent to the low caste (calculated from PDR, 2001). This depiction of the caste structure, its hierarchies and divisions, provides a basic outline that ignores many of its nuances. For instance, in the intermediary caste, *Barik* is higher than the *Goal* and the *Keuto/Behera*. Likewise, the *Shetty* is higher than the *Bhoi* (ex-untouchables) and these highs and lows in the social ladder make significant difference in the ways they cope with the multiple disasters. This will be observed in the chapters Five and Six.

Each caste is endogamous and marries within their caste but outside their *gotra* (a birth status group). The caste tradition with regard to marriage, commensality and occupation are still strictly observed. As a result, each caste practices patrilineal kinships in which a woman is expected to leave her natal village after marriage and join her husband's village (the repercussions of such a practice on women's lives are discussed in Chapter Two). This marriage practice meant that all the women in this study came to the village after their marriages, except one, who was married inside the village in a different hamlet/ward. Widow marriage is still not permissible amongst the upper and intermediary castes, although the low castes are more lenient towards widow remarriage. However, none of the 12 respondents chosen for this study were remarried. Each caste in the village lives in an individual and independent *sahi* (hamlet/ward); and each *sahi* itself functions more or less as socially autonomous homogenous segments which share strong kinship bonds amongst their particular caste and community with/out disasters (GOO, 1990). With regard to commensality, upper castes do not accept cooked food from the low and intermediate

castes, although some relaxation of this rule has occurred in relation to the latter caste. However, the sharing of raw food, such as vegetables, food grains and so on, does occur between the upper caste and the low caste *Bhoi*s.

The primary occupations within the village are farming, fishing, rearing livestock, petty business, shopkeepers and agricultural labourers. These occupations are still governed largely by caste based norms, although a few exceptions exist in the cases of farming, petty business and entrepreneurial initiative supported by NGOs. Typically the upper caste and class in the village are landowners, school teachers, priests and shopkeepers. The intermediary/middle castes are mainly barbers, fisherman, and cattle rearers, although there are also shop keepers, farmers, and *Sarpanch* of the village. The low castes are largely landless and mostly engaged in agricultural and non-agricultural labour, with sporadic instances of sharecropping with high castes, cattle rearing, and petty business. A similar trend of occupation based on caste specificity is observed amongst the women-headed households of the village. The economy, which is based on agriculture and allied activities, is therefore highly impacted by multiple disasters, which are most acutely experienced by the low caste and women, who are unable to exchange labour for food due to the widespread destruction of crops, their lack of endowments, and their lack of access to resources. The discussion is resumed further in Chapters Five and Six of this thesis.

The women in the village are typically bound by gender norms and relations. Women from upper and intermediary castes are mostly engaged in reproductive work and family occupations, although there is more laxity within the low caste due to their landlessness. As a result, the respondents were largely involved in family occupations, except for the low caste women, who maintained both family

occupations and earned wages in people's fields or houses. Family occupations in Tarasahi mainly entailed cattle rearing, agriculture (one respondent from a sub-caste), cashew nut farming (one respondent from the upper caste), the petty dry fish business, and the selling of cowdung cakes (all low caste women). Restrictive socio-economic activities based on caste and class specificity, and family occupation, best suited the gender needs of women from upper and intermediary castes. Concomitantly, family based occupations also heightened women's vulnerability to multiple disasters due to the fragility of these assets, the lack of alternative avenues and the absence of social security services. I explore this in more detail later in Chapter Six.

Conclusion

Having mentioned the historical overview and physical characteristics of the place, people and disaster policies, this chapter attempts to set the scene for the succeeding chapters. Due to its unique geographic peculiarities, Orissa has historically experienced multiple disasters, which have served to augment people's progressive vulnerability pre- and post- British rule. The British government adopted various structural and non-structural measures towards mitigating disasters, which were seen as seminal in their time. The residue of colonial disaster policies still resonate in the current Code, which has inherited the Famine Codes that the government of Orissa has built upon. Additionally, the developmental state attempted to mitigate multiple disasters and people's poverty and vulnerability through anti-poverty programmes, dams, early warning systems, cyclone shelters, concrete houses etc. But these had a limited outcome in reducing people's vulnerability at the household level, due to the inherent administrational problems, and the exclusion of people's vulnerability and

disaster mitigation measures from the developmental agenda. People's vulnerability, which was constructed socially, politically and historically in Orissa, remained. Therefore, I take this chapter as a prelude in order to put the succeeding chapters in context, while documenting the experiences of some of the most vulnerable women-headed households during the multiple disasters in Tarasahi.

The next Chapter Two will attempt to clarify the key concepts of this thesis and explore further the pre-existing "vulnerability" specific to women-headed households and their "coping". Hence, vulnerability will constitute the main strand running throughout the thesis.

Chapter 2

Literature Review

In this chapter, I assess the literature for key concepts that are central to this thesis: "multiple disasters," "vulnerability," "women-headed household's vulnerability" and "coping". However, the discussion on "coping" is resumed in the following chapter Three. I assess the relevance of the existing literature for my work, and delineate how I understand and shift/expand these concepts. Since this thesis is primarily concerned with multiple disasters with particular reference to women-headed households, I focus on this from the outset.

Defining natural disasters and multiple disasters

In the previous chapter I often used the terms "hazard," "disasters" and "multiple disasters." In this section I define these terms and explicate their usage in my research. The International Strategy for Disaster Reduction (ISDR) defines a hazard as a "potentially damaging physical event […] (that) can have different origins: natural (geological, hydro meteorological and biological) or induced by human processes (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects. Each hazard is characterised by its location, intensity, frequency and probability" (2004). According to the International Encyclopedia of the Social Sciences, disasters are defined as "[…] sudden or rapidly developing events that disrupt the prevailing order of life and produce danger, injury, illness, death, loss of property, or other severe privations to large numbers of people residing within a common geographic area. Such events

are produced by a variety of natural and man-made destructive agents, including earthquake, epidemics, floods, hurricanes [or hazards] […]" (Fritz, 1968: 202). This generic definition of disaster given by the Encyclopedia, though dated, is quite useful for understanding the parameters within which "natural disasters" have been defined over the years by different actors, according to their differing agendas, but mostly founded on two approaches – the "dominant approach" and the "alternative approach" (Maskrey, 1989; Winchester, 1992).

The "dominant approach" is the most conventional and defines disaster as an accident, triggered solely by natural hazards; an inevitable occurrence given an environment that is physically vulnerable. On this account, people need to protect themselves from environmental risks, which have little or no connection to people's vulnerability in everyday life (Winchester, 1992; Maskrey, 1989; Ariyabandu and Wickramasinghe, 2003). Put simply, natural disasters are attributable solely to the force of nature. This approach is the one favoured by the government, as well as by various international organisations. Natural forces are seen as the cause, and technology, as the solution, such that centralised reactive responses follow disaster events. The pre-existing vulnerabilities of people, under this approach, are barely acknowledged (Sury, 2000; Maskrey, 1989; Winchester, 1992; Wisner et al., 2004; Ariyabandu and Wickremasinghe, 2003). For instance, the emergencies database (EM-DAT) run by the Centre on the Epidemiology of Disasters (CRED) defines disasters as events "when at least 10 people are killed and/or more are affected and/or an appeal for international assistance is made or a state of emergency declared" (CRED, 2000 quoted in Sivakumar, 2005: 2). Likewise, the United Nations define disaster as "a serious disruption of the functioning of a society, causing widespread human, material or environmental losses, which exceed the ability of the

affected society to cope using its own resources" (GOO, 2005: 161). In other words, disasters tend to be defined according to socio-economic factors, such as loss of life, disruptions of livelihood and destruction of properties (as observed in the definition of the CRED and the UN). This overlooks the fact that geophysical or natural events only serve as the "trigger" that acts to "cause" or exacerbate disasters in already vulnerable people's lives (Zaman, 1999).

The Orissa Relief Code (ORC), the only existent disaster policy document for Orissa, defines natural disasters or calamities loosely around dimensional differentiation. Natural calamities which are fairly widespread are characterised as major disasters (for example drought, flood, cyclone and tidal waves etc.), whilst disasters which are localised are designated as minor disasters (for example gale wind, tornado, locust menaces etc.) (1996:2). However, the Code presumes that both types of disaster have the potential to cause food crises, human distress, physical deterioration, destitution and generally have a severe effect on people's lives (GOO, 1996:1-2). Consequently, relief measures are enacted according to the specificity and impact of each disaster (GOO, 1996: 2). According to the ORC, every natural disaster has specific defining characteristics. Such context-dependency has the advantage of allowing for a more realistic definition based on the locality and not entirely subservient to the number of human casualties and the amount of physical destruction and disruption as outlaid by CRED and the UN disaster definitions. On the other hand, it also serves to defer to the government machinery in defining disasters, mostly localised, and may therefore lead to an underestimation of the impact of any particular hazard on people's lives. For instance, drought in 2002 in Tarasahi and in other blocks of Jagatsinghpur district was not officially declared as such, despite its severe impact in some pockets of the district (interview with the

Emergency Officer, Jagatsinghpur District Headquarters, 2003; *Sarpanch*, Tarasahi, 2003; ward member of Ersamma, 2003). Correspondingly, the characteristic dimensional differentiation of the ORC is once again event based, triggered by hazard specificity, an orientation that overlooks pre-existing vulnerabilities and the fact that hazards only act as a "trigger" that exacerbates the vulnerability for already vulnerable people's lives. Therefore, with this paradigmatic centralised technocratic approach (which includes technology and technical assistance), reactive relief responses are considered as both appropriate and adequate means for reducing the impact of disasters on people's lives. Such an orientation is clearly visible in the UN Resolution for the IDNDR– discussed in the previous chapter.

In contradistinction, the "alternative" approach attempts to explain the differential effects of hazards on physical structures; on people, their economic activities and social relationships (Maskrey, 1989; Wisner et al., 2004). It does not deny the significance of natural hazards as trigger events, but emphasises instead the various ways in which the repercussions of social systems is to render people more vulnerable to the effects of disasters (Wisner et al., 2004) or multiple disasters. The vulnerability approach to disasters, which surfaced in the 1970s and early 1980s, rejected the dominant approach's assumption that disasters are "caused" simply by external natural events. Rather, its explanations attempted to outline the normal daily life of some vulnerable group, which, it was argued, was often difficult to distinguish from disaster conditions (ibid: 10). It was thereby further argued that disasters only act as an interface between an extreme physical environment and a vulnerable group of the population, due to a "[…] combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk" (Sivakumar, 2005).

Therefore, under this paradigm, disasters are not simply "natural" calamities but are hazards that interact with vulnerable portions of the population. Vulnerability can itself be traced back to quite "remote" roots and general causes, which entail socio-economic processes and political factors that are requisite for understanding why hazards affect people in varying ways and why people experience disasters differently (Sivakumar, 2005; Wisner et al., 2004; Winchester, 2000; 1992). Accordingly, when multiple disasters are comprehended under the rubric of vulnerability and social causation, the political implications and policy responses of the government assume a paramount importance (Gilbert, 1998). This then facilitates an investigation of the system and government responses, rather than simply pointing the finger at fate or natures fury. The alternative approach thereby opens up the sociological perspective on "multiple disasters." In contrary, the dominant approach, through its definition of disaster according to social and economic loss of life and properties, is more restricted in its ability to decipher how people in reality experience multiple disasters. However, each approach has different implications as to how government should respond.

Defining multiple disasters

There is a paucity of literature on the emerging concept of "multiple disasters." I have therefore relied on two recent publications, Moseley's "convergent catastrophe" (1999, 2002) and the World Bank's latest publication on "natural hazard hotspots," (Dilley et al., 2005), in an attempt to compare, contrast and assess the efficacy of the use of the term "multiple disasters."

In the context of this thesis, I define "multiple disasters" as when two or more natural hazards affect a vulnerable population in the same region, singly or in combination or collaterally, at varying magnitudes, and at different times (seasons, time of day, over varying return periods, of different duration). In such a situation, multiple disasters often produce complex crises in people's lives, mostly in the absence of an adequate and appropriate government response. Thus, the super-cyclone of 1999, two floods in 2001 and 2003, and the drought in 2002, all of which affected Tarasahi with little let up, is a true reflection of multiple disasters. Multiple disasters, then, have the potential to curtail production, reproduction, development, the survival of human beings and even instigate cultural breakdown. The term multiple disasters, as used in this thesis, refer to a series of disasters as they affect the same population in a specific place.

Moseley coined the concept "convergent catastrophe," in the context of arid Andean Cordillera, a place highly prone to multiple natural forces (seismic, volcanic eruptions, sand dunes, drought etc.) due to its susceptibility to plate tectonics and ocean/atmosphere interaction (1999:68). Moseley defined convergent catastrophe as when "two or more natural disasters transpire in close succession in the same region […] the collateral crises produces what can be termed as 'convergent catastrophe'" (1999: 59). Incidents of convergent catastrophe increase with the heightened frequencies and varieties of natural hazards, whilst their possible impact on the habitat means that people's recovery is likely to be tenuous, with an increased probability of collapse (1999; 2002). The fact that convergent disasters affect the same group of people, in the same place, over a significant period of time, enables us to view convergent disasters as analogous to multiple disasters.

Moseley, in adopting a geoarchaelogical perspective, differs from other disaster studies. His study is diachronic or long term and elucidates a very wide range of hazardous processes and their origins that occur on many different scales, including some that modern populations and their national planners are neither aware of nor immune to (1999: 60). However, this long view is limited in its ability to capture the short-term immediacies of disastrous tragedies and human suffering (Moseley, 2002:187), which is better understood through the multiple disasters approach. The multiple disasters that I focus on occur within a relatively short time span (my case study of Orissa concentrates on those that occur from 1999 onwards, although I have previously utilised data from 1955 to illustrate the pattern of multiple disasters from 1955. See chapter 1, table 1.1). The way that multiple disasters affect people's lives and their lived experiences is central to this work. Consequently, "vulnerability" analysis becomes pivotal for comprehending how the ever-increasing number of multiple disasters, in Orissa and elsewhere[19], affect people's lives. This emphasis on the "vulnerability" of those involved in multiple disasters offers a chance of mitigating their affect and carries powerful policy implications.

With the World Bank's "single hazard hotspot" report (2005), there has finally been an acknowledgement of multiple disasters. By "hotspot" the Bank defines "a specific area or region that may be at relatively high risk of adverse impacts from one or more natural hazard events" (Dilley et al., 2005:14). The hotspot is further categorised into two major types: a) single-hazard hotspots – in which "some areas or

[19] According to the World Bank report, a significant number of countries are exposed to multiple disasters, India being among the top 75 most disaster prone countries in the world. According to CRED, there has been a significant increase in both single and multi-hazards (600 disasters globally each year) and the relief costs associated with natural disasters was US$2.5 billion between 1992-2003. The World Bank emergency lending from 1980 – 2003 was US$14.4 billion. Of this, US$12 billion went to 20 countries amongst which India was the highest recipient of lending, as a consequence of earthquakes, floods and storms, followed by Turkey (floods) and Bangladesh (floods and storms) (Dilley et al., 2005).

region may be at relatively high risk of adverse impacts associated with one major natural hazard"; b) multi-hazard hotspots – in which "some areas may be subject to a variety of natural hazards and associated moderate to high levels of risk of loss. In some cases, the hazards themselves may be largely independent of each other; that is, the occurrence of one hazard does not significantly affect the probability that other hazards will occur. However, even if this is the case, the occurrence of one hazard might significantly affect the overall impact of other hazards" (2005:24). This latter is precisely what my analysis of multiple disasters uncovered. In Tarasahi, the super-cyclone of 1999 was quickly followed by devastating floods in the major river basins in 2001 and 2003 and a drought in 2002. These post-cyclonic disasters were in some respects consequences of the cyclone, whilst their cumulative and exponential effect brought socio-economic misery.

Unlike Moseley's model of convergent disasters, the multi-hazard hotspot model accords the highest priority to the vulnerability of those exposed to multi-hazards. However, vulnerability in terms of the multi-hazard hotspot is defined as "physical system vulnerability" and "social system vulnerability," in which the former often carries more weight than the latter. Physical system vulnerability tends to conceptualise engineering structures, such as relate to the weaknesses of buildings, whilst social system vulnerability is quantified as a complex function of social, economic, political and cultural variables (2005: 24-25). Such definitions tend to support the ideology of the UN and CRED (argued earlier) in defining disasters based on social disruption, property destruction and disruptions of livelihood and are unable to understand multi-hazards as "trigger" events that exacerbate the impact of multiple disasters on already vulnerable people's lives. In this respect, my use of multiple disasters, together with my emphasis on differential vulnerability, is

altogether different. It permits a comprehension of vulnerability not only as a physical and social phenomenon (explained above), but also as a debility that has been socially, historically and culturally constructed over a significant period in women's lives. Multiple hazards can thereby be seen as interacting with an already vulnerable population and exacerbating their predicament– mostly in combination with inappropriate policies that fail to understand people's pre-existing vulnerability and accordingly design policies to enhance people's coping capacity and their ability to rejuvenate before another environmental disaster strikes.

The hotspot report is novel in identifying multi-hazard prone countries and defining multiple disasters according to geographical, rather than social factors. As a result, the report provides for a more globalised and institutional perspective over the local. Whilst the multiple disasters account explicates the lived realities of people at a localised grassroots level. The World Bank's Country Assistance Strategies (CAS) for multi-hazard prone countries envisages participation of international relief organisation in anticipating relief and disaster management. Furthermore, it also proposes disaster risk as an integral part of development planning, and emphasises the necessity of a scientific approach to preparedness, - facilitated by a token emergency fund specifically earmarked for this purpose. Such an attitude, means that the CAS has failed to empower local government agencies, has overlooked gender vulnerability and failed to enhance people's coping strategies.

Contrariwise, my thesis investigates multiple disasters as a totality, rather than as discrete events as understood and narrated by women-headed households. Thereby, multiple disasters are revealed as eminently social and personal; the survival through human suffering based on pre-existing vulnerabilities. Elucidating the sociological

aspect of multiple disasters then enables one to investigate the positive and negative aspects of disaster responses that are implemented at a localised level for mitigating the impact of disasters. I now move on to explore the concept of "vulnerability."

Conceptualising vulnerability: Through empirical evidence

Understanding the "vulnerability" of a "vulnerable population" (apart from the physical characteristics of vulnerability discussed in Chapter One) - then becomes pivotal for my examination of multiple disasters in Orissa generally and Tarasahi in particular. The term vulnerability was introduced in the 1970s and became increasingly popular in the 1980s and onwards, despite there being- just as with its sister concept of disaster - no universal consensus towards its definition (Schneiderbaur and Ehrlick, 2004; UNU-EHS, 2005). Different scholars define vulnerability differently. If the World Bank defined vulnerability on the basis of the social and physical system (argued earlier); then the United Nations Development Programme (UNDP) defined it as "a human condition or process resulting from physical, social, economic and environmental factors, which determine the likelihood and scale of damage from the impact of a given hazard" (UNDP, 2004: 11 quoted in United Nations University (UNU-EHS), 2005).

In the context of this thesis, I have used the most popular definition offered by Chambers. According to Chambers, vulnerability "[…] means not lack or want, but defencelessness, insecurity, and exposure to risk, shocks and stress […]. Vulnerability here refers to exposure to contingencies and stress, and difficulty in coping with them" (1989: 1). Vulnerability reflects a lack of buffers against

contingencies such as social conventions (dowry, weddings, funerals, and bride wealth), disasters, physical incapacity, unproductive expenditure, and exploitation (ibid). Contingencies often force poverty ratchets, entailing asset depletion, the loss or sale of assets, making people poorer and permanently poorer, and more vulnerable and permanently vulnerable to becoming poorer and yet poorer still (Chambers, 1983: 103-104, 131). Vulnerability according to Chambers has two sides: an *external side* of risks, shocks, and stress to which an individual or household is subject and an *internal side* that is defencelessness, a lack of means to cope without an ensuing damaging loss[20]. A vulnerable population in multiple disasters experiences both, singly, or in combination, or simultaneously. I return to this point in Chapter Six and discuss it through the instance of loosing livelihood resources repeatedly in multiple disasters. Based on Chambers framework, the disaster sociologists (investigated in this thesis) (Cannon, 1994, 2002; Bankoff, 2001; Winchester, 1992, 2000; Hilhorst and Bankoff, 2004; Wisner et al., 2004) departed from Chambers and concentrated on natural disasters in relation to vulnerability analysis. Chambers approach enables us to perceive the interlocking disadvantages that poor households struggle against in their exposure to various contingencies. In his framework natural disaster is one of the contingencies, which has the potential to undermine the risk that hazards pose on households particularly in multi-hazard prone places. Taking natural disasters as a departure point, the disaster sociologists have deciphered the perilous impact that hazards/disasters pose on vulnerable sections of population because hazards may occur relatively and infrequently (Twigg, 2001a). Tarasahi is a prime example in this regard.

[20] Loss can take various forms, such as being physically weaker, economically impoverished, and socially dependent, humiliated, or psychologically harmed (Chambers, 1989: 1).

Robert Chambers was also the first to argue that vulnerability is not the same as poverty (Jaspars and Shoham, 1999), though both are inextricably linked. Following this line of argument, Cannon (1994) argued that it is true that the poor suffer most from disasters; still, it may not be the case that all the poor suffer. It is probable that those who have higher incomes and control more assets are likely to be less vulnerable physically, but a lack of information may render everyone vulnerable to hazards. Secondly, the livelihood and protection elements of vulnerability are also distinct, and may not always overlap completely: for example, occupants of concrete unsafe housing in earthquake prone areas may endure higher levels of vulnerability than those who are poorer but who live elsewhere in fragile dwellings (Cannon, 1994: 27). The correlation of vulnerability and poverty is highly significant, but concomitantly failure to distinguish vulnerability from poverty has severe policy implications because poverty is endemic and defined by professionals in terms of flows of income and consumption (Chambers, 1989). Anti-poverty programmes tend to concentrate on raising incomes or consumption and progress is measured according to these flows, which are then often taken as indicators of other dimensions of deprivation, including vulnerability (ibid, 1989). However, poverty is largely a consequence of class and social position and in itself provides an inadequate explanation of the differential impact of hazards (Cannon, 1994). I return to this point in Chapters Three and Seven, while discussing the potential of the micro-credit project in reducing women's vulnerability in a multiple disaster affected village.

Hilhorst and Bankoff (2004: 1-2) further argued that the determination of vulnerability is in itself a "complex characteristic" that reflects this non linkage between poverty and vulnerability, and the responses that fail to address the issue of

vulnerability. Disasters are not simply the product of one-off natural phenomena, but are equally a consequence of environmentally unsustainable development projects undertaken over time (ibid). Even the best intentioned relief operations can carry unforeseen consequences that create new vulnerabilities (Wilson and Wilson, 2004; Hilhorst and Bankoff, 2004) – largely through the failure to perceive people's needs. Understanding vulnerability requires more than a technology of reactive disaster policy management: it also requires an understanding of human agency that takes into account people's experiences and their perceptions of vulnerability and disasters. Only thus can people's needs be truly addressed (Hilhorst and Bankoff, 2004: 3). It was in this vein that the Duryog Nivaran Network (DNN), a direct offshoot of the mid-term evaluation of the IDNDR in 1994, insisted that the definition of vulnerability in the context of South Asia, be based on the practical need of people. The definition of vulnerability was thereby construed as a lack of security in four key areas - food, water, work and habitat (Twigg and Bhatt, 1998). "[…] shelter without water and shelter without work makes limited sense" (Pathak, 2000 quoted in Enarson, 2001). These practical needs of vulnerable people were assessed from the experience of the Gujarat earthquake of 2001. Addressing vulnerability in this manner, according to the basic needs of millions, has remained elusive; both in India and in developing countries, with or without disasters. For my case, the Orissa Relief Code in particular, displays a limited potential for addressing these basic needs.

Hilhorst and Bankoff (2004) also argued for the requirement to distinguish between a "vulnerable" population and "vulnerability" arising from the "politicisation of vulnerability." Vulnerability is politicised, when who receives what, how much, and in which manner or part of the world become issues to be decided by national and international policy-makers for a contemporary globalised economy (Bankoff, 2001;

Hilhorst and Bankoff, 2004). A vulnerable population are those more at risk, not simply because they are exposed to hazards, but as consequence of their marginality that puts them in a "permanent emergency" state (Bankoff, 2001). Marginality is determined by the combination of variables like class, gender, age, disability etc. that affects people's entitlement and empowerment to the basic necessities and rights as broadly defined (ibid: 25). Conceptualising vulnerability thus, imbues it with a political slant that not only fundamentally questions the technocratic approach, on the one hand, but also condemns the totality of the social structure that creates vulnerability, on the other. This is extended in the line of gender in the next section.

Vulnerability, however, is not only concerned with people and their everyday socio-economic existence, but also with history the present and future as essential products of the past (Hilhorst and Bankoff, 2004: 3). Vulnerability is dynamic; future-oriented (Wilson and Wilson, 2004), although the construction of vulnerability is a historical process which enables one to understand the contexts and roots of disaster causality (Hilhorst and Bankoff, 2004:3), or multiple disasters, in the context of Orissa (explained in Chapter One). It is not only the occurrence, frequency and intensity of environmental events that are significant, but also equally their sequence is of critical importance (Winterhaler, 1980 quoted in Hilhorst and Bankoff, 2004) in multiple disasters. History reveals that vulnerability is created over a long period of time (Hilhorst and Bankoff, 2004). It may well be the product of a dependency created by colonialism and destructive agents that are intrinsically embedded in social and natural systems, and that unfold in disaster processes over time (Duffield, 1994; Hilhorst and Bankoff, 2004; Oliver-Smith, 1999; Bhatta, 1994). Anthony Oliver-Smith suggests that, "a disaster is a historical event – and the aftermath of disaster is processes coming to grips with history" (1979 quoted in Hilhorst and Bankoff,

2004). It is the present condition (as the outcome of past factors) that transforms a hazard into a calamity by determining whether people have the resilience to cope with its effects or are rendered vulnerable to its consequences and to the next hazard (Hilhorst and Bankoff, 2002:4). This has important policy implications for applying knowledge of disasters and their historical management, to our present situation. Unfortunately, the structural and non-structural mitigation measures that today exist, as already outlined in the context of Tarasahi in Chapter One, fall woefully short on applying knowledge learnt from the historical question of vulnerability.

Vulnerability is not static; it is dynamic and has a time dimension (Wisner et al., 2004; Maskrey, 1989; Hilhorst and Bankoff). Vulnerability prevails at the intersection of different dimensions of time – short term, long term and cyclical (Hilhorst and Bankoff, 2004). Many vulnerable situations are temporary and change as life moves (age, policy responses towards disaster, resilient houses etc.) (Chapters Five and Six) (Wisner et al., 2004) through time, in variable fashion and in varying orders: "increasing, decreasing, accelerating, oscillating, concentrating and diffusing" (Hilhorst and Bankoff, 2004: 6). People's vulnerability gets constructed gradually over time, but varies considerably through variations in economic, social, environmental conditions and policy response (ibid: 6). The variation in vulnerability may be based on the hazard type (flood, cyclone, drought), and on the disaster responses designed by the state, local administration, NGOs and the community itself (Wisner et al., 2004; Hilhorst and Bankoff, 2004). The vulnerabilities of people may vary from flood to cyclone and to drought and should be reflected in the disaster (relief) response. This is explored in Chapters Five and Six. Unfortunately, these currently tend to elicit a uniformity of response that fails to differentiate between hazard types (Kent, 1987; Wijkman and Timberlake, 1984; Jackson and Eade, 1982).

However, understanding the vulnerability specificity of hazards and instigating an effective response is dependent on political will. It depends largely on the willingness of current governments to respond, in their respective countries and constituencies, devoid of any vested interest (Wisner, et al., 2004; Cuny, 1987; Maskrey, 1989; Jaspar and Shoham, 1999), and primarily considering people's needs and requirements as they emerge out of any elevated sequence of multiple disasters.

Vulnerability analysis also goes beyond vulnerability and builds on people's resilience. In this respect, Winchester argues vulnerability as "[…] the relative ability of an individual, household, households or community to withstand and *recover* [my own italic] from a shock such as a cyclone or flood or in other words: resilience. By including recovery within these definitions, vulnerability is released from the strict confines determined by exposure and aids the understanding that the major forces governing (cyclone) vulnerability are not necessarily physical" (2000:24). Winchester's findings are based on two decades of research at Devi Seema, in Andhra Pradesh, an important neighbouring state of Orissa. Despite the Andhra government's effort to reduce vulnerability through structural measures, Winchester observed an increase in out-migration and widespread agriculture labour debts amongst his poor respondents. By contrast, farmers in the village have prospered since 1977, despite intervening cyclones and flooding, thanks to an established income base secured by assets (land, animals, and equipment) that enables them to build strong houses and sheds. In addition, their social standing was reflected in their economic credit worthiness with the government alliances who controlled the distribution of government resources, enabling them to gain access to resources and thus recover quickly after the cyclone of 1977. Winchester's study is thus important for illustrating how the historical development of an area, its local political economy

and its underlying power relations, are fundamental to understanding the causes of vulnerability and people's ability to recover from disasters, or multiple disasters, thereby. The degree of people's vulnerability and their ability to recover from disasters and multiple disasters, are directly related to the forces that govern everyday lives. People's vulnerability is only accentuated by the incidence of cyclones and flooding (or droughts) and is not principally caused by them (Winchester, 1992, 2000). Such a conclusion will be further put to the test in light of my ensuing analysis of women-headed households in the following section.

Women-headed households and their vulnerability

Vulnerability and the everyday economic processes that are a product of people's vulnerability to disasters have been widely discussed, particularly by Disaster sociologists and vulnerability analysts, as argued in the previous section. However, gender vulnerability and its relationship to the social experience of disasters, has received far less attention (Enarson, 1998). Concomitantly, "gender and disaster" study remains an underdeveloped field that is unable to provide disaster students with a feminist disaster framework (ibid). Consequently, the targeting of gender vulnerability and its treatment presents a daunting task, not only in challenging the dominant technocratic approach of national and international governments, but also in challenging the patriarchal power structures that act to increase women's vulnerability and amplify it after a disaster (Wisner et al., 2004). Responding to gender issues and needs in a disaster situation therefore requires not only a policy framework, but also a theoretical understanding to decipher those factors that underpin gender vulnerability and which already disadvantage women prior to any

environmental disaster. In this section, I have specifically attempted to analyse why women-headed households are more vulnerable and the reasons for these vulnerabilities – in order to understand how these become amplified with multiple disasters. Such a step is crucial for conceptualising women's "needs" and hence for effecting the requisite policy measures.

It was only with the mid-term evaluation of the IDNDR, in Yokohama in 1994, that the UN addressed women and children's vulnerability to natural disasters (Enarson and Morrow, 1998a, b). Subsequently, various round-tables were organised, resulting in publications and conferences, and institutes for women (ibid). However, addressing women's vulnerability at the localised level remains more rhetorical than real. For South Asian countries in particular, the gap between government responses to the gendered experience of disasters and everyday gender vulnerability, persists (Enarson, 2002; Ariyabandu, 1999). Although gender related vulnerabilities are increasingly included in the disaster prevention, mitigation and preparedness (DMP) programmes of the relief NGO's[21] in the developing countries, in practice, such strategies are little more than lip service (Benson et al., 2001). Given this, it is important to re-emphasise that gender is a live issue before, during, and after multiple disasters, and that disaster policies need to be oriented towards meeting gender needs in order that the entrenchment of gender vulnerability does not itself become a factor further exacerbating disasters. However, before extrapolating the reasons of women's vulnerability, I have first attempted to define who are these women-headed households in this research, and how are they defined in the available literatures in the ensuing section.

[21] The disaster-oriented organisations are informally known as relief NGOs, although these agencies may actually be regular development organisations with a strong focus on disaster mitigation (Matin and Taher, 2001).

Defining Household

Rao defined "household" as a "[…] residential unit or "living arrangement" of a family or "domestic group" (*kutumba* or *samsara*). The domestic group, minimally consisting of a man, woman and their offspring (often referred to as the "elementary family" by anthropologists/sociologists) has long been considered the "bedrock underlying all other family structures" (1992: 50-51). Put simply, "family" has a biological substratum and is based on alliance/kinship, related to sexuality and procreation, while "household" is embedded in "domestic work," (Pennartz and Niehof, 1999). The Census Organisation of India does not define whether by family it means an elementary, extended or joint family. From 1881 to 1961, it treated the unit of "family" as synonymous with "household". It was only in 1961 that the Census made a distinction between Census house (which includes shops, offices and buildings, occupied or vacant) and Household, consisting of a group of people who commonly live together and take food from a common kitchen, but not mentioning their relationships. In 1971 a distinction was created between Households, consisting of people related by blood, and Institutional Households, made up of unrelated people (Rao, 1992). However, these definitions offer little evidence of non-normative households headed by women. In this regard I quote Martha Chen who defined "household" [in the context of widow households] as when the inhabitants pool resources and share food from a common hearth (2000:205). This is because the living arrangements of widow householders (main focus of this research) constantly change and vary across various states and regions of India. Therefore the concept of household suggests not a static and insulated unit but one that is constantly shaped by societal changes and processes (Lardinois, 1992; Rao, 1992; Kalpagan, 1992). This was pertinent with regard to the women-headed households in my research because

they constantly negotiated and re-negotiated their living arrangements for their survival, sustenance and prosperity. It was observed that the upper and middle caste women, who normally lived in nuclear households, pooled their resources together with their kin and neighbours during the multiple disasters and cooked and shared food from a common hearth both inside and outside the emergency shelter (see Chapters Four and Five). Furthermore, widows were observed living in joint households (explained later) but which split up into nuclear households in order to benefit from the relief or developmental programmes offered by governmental and non-governmental organisations during and after disasters. The micro-credit loan is one such prime example (Chapter Seven).

According to sociologists and anthropologists the composition and types of domestic groups and their functions may vary between societies and across different ethnic groups in the same society (Harris, 1999; Rao, 1992; Majumdar, 1992). As a result there is a division of opinion amongst the social scientists as to whether the type of family should be determined on the basis of its "form" or the "function" it performs, and which in turn determines the "type of household" (Rao, 1992). By form it is understood that household is regarded merely as "shelter" or arrangement which accommodates the "family establishment". Hence, it is determined by the composition of the family. The term "function" is understood to include not only the biological functions of sexual gratification and reproduction, but also the functions of socialisation and economic or subsistence arrangements that may vary across societies (Rao, 1992). For instance the extended family in India is also referred to as the "joint family" due to certain distinctive characteristics. Concomitantly it must be mentioned that there is a lack of consensus amongst the social scientists in defining "joint households" in India (Lardinois, 1992; Rao, 1992). Some have rested their

definition on the basis of its composition (or genealogical model); others have preferred the functions it performs. In contrast to the joint family, the "nuclear family" is generally seen as an elementary family where the form and function of the family is confined to the basic group consisting of man, woman and their unmarried offspring, who generally constitute a single residential unit (Rao, 1992). However, it is hard to find nuclear households in a pure sense in either the east or west because these households often receive help and support from their extended families (Lardinois, 1992). In the context of this research it is worth questioning whether nuclear and joint households as defined by the social scientists make much sense to the lived realities of widow householders. I return to this point in the section on "living arrangements" of widows later in this chapter.

In India, the joint family has different meanings in law and sociology (Rao, 1992; Lardinois, 1992). According to classical Hindu law, (derived from Manu's *Dharmashastra*) the family unit was mainly defined by the common property it owned and was not concerned with the residential or household unit. The Hindu law is apparently not much concerned with the distinction between the elementary family and the joint or extended family (also observed in the Census) as conceived by sociologists/anthropologists. Instead its primary focus is on the constitution of the property holding group and the persons having rights of maintenance from the property-holding group, rather than the constitution of the household group. Thus it is clear, that while under the Hindu law, the joint family consists of all males lineally descended from a common ancestor and includes their wives and unmarried daughters, it is not compulsory for the sons or male descendants to live together in a common or "joint households". Members may live apart and may have no cordial social relations, yet they may still belong to a "joint family" (Rao, 1992).

On the other hand the sociologist's conception of joint family had evolved from the ancient patriarchal family. This view of joint family as partrilineal, patrilocal family consisting of patriarchal head, and all the male members enjoying a higher status, has been taken for granted as a cultural ideal (Rao, 1992). This has also come to be accepted by the government as the most prevalent type of Hindu family and is reflected as such in the analysis of the Census Surveys. But this approach has led to minimal exploration or even obliteration of other types of "domestic groups" like the matrilineal or matrilocal (ibid; Majumdar, 1992) or other types of women-headed households. Research has rather overemphasised the classic model of normative households at the expense of non-normative ones. Furthermore, due to the concentration of social scientists on the polemics of "classification" and "labelling" the types of families as nuclear, extended or joint, mainly of the upper castes or propertied classes, the empirical investigations of the common people, or families and households of the scheduled castes or other economically weaker sections remained an under-researched area (Rao, 1992; Kalpagam, 1992). In this light, some of the nuances of joint and nuclear households as lived and headed by 12 socio-economically marginalised widows in Tarasahi were interesting. Before I explain this later in this chapter, I have first defined women-headed households as I understand them in the context of this thesis.

Defining women-headed households

Women-headed households are not an aberrant, pathological category but are one formed through various social, economic and personal processes. There are many facets to women-headed households. Studies have highlighted women-headed households as "a unit where an adult woman (usually with children) resides without a

male partner due to desertion, death, being single" (Chant, 1997:5), or because of male migration to metropolitan cities (Lingam, 1994). Alternatively, women-headed households have been constituted according to the woman's major share of earnings, with control over household income and resources, or again as control and authority over the resources of the household, including the earning of other members, without her direct participation in income earning activities (Islam, 1993). Although the term "women-headed households" encompasses a wide range of domestic arrangements (Chant, 1999), it will be used here only to refer to units headed by widows (usually with children) which perform the functions of socialisation, and economic subsistence for the household (Rao, 1992). Sociologically these households have been termed as *de jure* households in contrast to the *de facto* households (Moser, 1993; Chant, 1997).

De jure signifies that the male partner is permanently absent due to death or separation, such that the woman is legally single, divorced or widowed. *De facto* signifies a male partner who is "temporarily" absent, due to migration brought about by conditions such as war, disaster, or insecurity, and that the woman is not the legal head of the household and is often in fact perceived as dependant, despite her responsibility for the organisational and financial aspects of the household (ibid). The dramatic rise in the incidence of such households has forced planners to acknowledge their significance[22]. However, policy is still formulated according to

[22] Women headed households are now an increasing phenomenon worldwide (Moser, 1987; Chant, 1997). It is estimated that women head one-third of the world's households (Moser, 1993: 17). About 75 million of them in 114 developing countries provide food for almost 377 million people (Mukherjee, 2002: 14). In Orissa, they account for approximately 10 per cent of households (Panda, 1997). From the sixth five-year plan onwards, the government of Orissa has undertaken various rural developmental programmes for women-headed households, such as DWCRA, IRDP and ICDS. However, these have suffered from errors of selection, a lack of gender perspectives, poor market linkages, lack of supervision, poor credit facilities, and poor project planning (ISED, 1993; GOO, 2002c; GOO 1993-94). With the predicted increase in the number of (multiple) disasters for the near future (Cannon, 2002; Dilley et al., 2005), the needs of this most vulnerable and poverty stricken

widespread assumptions based on normative criteria that ignore the socio-economic reality of the subjectively lived experience of these households (Moser, 1993; 1987; Chant, 1997). Understanding these subjectivities and their differential needs is therefore crucial for the success or failure of government policy in Orissa and elsewhere, particularly after disasters.

In economic terms, *de facto* households may be better off than *de jure* households thanks to remittances received from their husbands, but the former may be equally vulnerable if this stops. Such cases are far from rare. There are multitudes of instances where the migrated male head has set up a second family in his destination place, or in certain instances, has only managed to find inferior casual jobs (Chant, 1997). *De jure* households (the dominant group of my research) with no such scope for receiving money from anywhere else, are overburdened by their "triple role" (productive, reproductive and community work) and constitute the poorest of the poor in those households where the mother is the sole adult income-earner supporting many dependant children (Moser, 1993: 18). Therefore, women-headed households are not a homogenous category and policy makers ought to be aware of the multiplicity of their needs and design their policies accordingly.

Several other studies have clearly confirmed the strong link between women-headed households and poverty (Mencher, 1993; Islam, 1993; Panda, 1997; Chant, 1997; Chen, 2000), which render them highly vulnerable to any environmental disasters. In rural areas of Tamil Nadu and Kerala, Mencher (1993) observed that women-headed households were the poorest of the poor, with household income rarely supplemented

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section of the population assumes paramount importance, especially if the objective is to arrest women's further marginalisation and impoverishment.

by contributions from relatives, in cash or kind, and this despite considerable regional class, caste, and religious variations (1993: 203). This relationship between women-headed households and poverty was confirmed in another study by Panda, for Orissa (Panda, 1997)[23]. This study suggested that women-headed households were burdened by meagre incomes and time constraints that their children were disadvantaged in accessing social services, and that female headship and poverty were strongly linked (Panda, 1997: WS-81).

The intrinsic link between poverty and the vulnerability of these households, coupled with the specific gender attributes of the head householders (their physical and social vulnerability), mean that they tend to be disproportionately affected by disasters, a characteristic that it is anticipated will further worsen until and unless adequate measures are put in place to address this linkage between women's poverty and their vulnerability to disasters. However, Chant in her recent articles has challenged the linkage that is most often drawn between women headship, poverty and the" intergenerational transmission of disadvantage" to their children. Chant argued that most research had overlooked the real cause of women's subordination while linking women headship with poverty. It also neglected several other factors including the "secondary poverty" of women in male-headed households; heterogeneity of female-headed households; intra-household distribution and finally the multidimensional and subjective concept of poverty lived empirically by women householders (see Chant 2004a, b; 199). While this debate is invaluable in the context of this research I have kept it at bay. This is because all the 12 respondents fell below poverty line and their lived reality was precarious due to the taboos and stigma attached to widowhood in

[23] Panda investigated both *de facto* and *de jure* women-headed households in a rural setting in (western) Orissa. Nearly 20 per cent of women in his study were headed by women. Of these, two-thirds (12.6 per cent) were headed exclusively by women without spouses (Panda, 1997).

Hindu religion, which prescribes and proscribes women's socio-economic mobility and avenues (Chen, 2000; Dreze and Chen, 1992, 1995; Chakravarty, 2003). The discussion is resumed in the next section when looking at the reasons for women-headed households' pre-existing vulnerabilities in the context of environmental disasters.

Living arrangements and headship

The living arrangements of the 12 respondents in this research were complex rather than simple. Based on the sample size of 550 widows in seven states of India, Chen observed 18 different types of living arrangements[24] (see Chen 2000: 206-245). Some of these living arrangements are extremely relevant in the context of my research but they were not lived distinctively, rather in combination. Of the 12 respondents, the three upper caste respondents lived in both joint and nuclear households; six middle caste women had similar living arrangements to the upper caste; and the four low caste women lived on their own in nuclear households. And all the respondents lived in their in-laws village than in their natal village.

Living arrangement of the upper castes

To begin with the upper caste women, Konika Mohanty and Tilotoma Biswal lived in joint households after their husband's death; while Lolita Nayak lived in a nuclear household adjacent to her *de facto* sister-in-law. Konika Mohanty lived with her two

[24] They are joint living with in-laws, adjacent living, support from in-laws, support from parents and brothers, living with sons, joint living with married sons, adjacent living with their sons, alternate living, separate living, support from sons, daughters, living with sons-in-law, live-in-sons-in-law, mothers and daughters, support from daughters, widows on their own, and other living arrangements, which include adopted children, step children, and itinerant living.

sons, one married with two children and another unmarried but economically independent. Her eldest son was unemployed for many years until a month before my fieldwork he received some clerical work in a biscuit factory in Puri; while her youngest son was a school teacher of a local school. Chen (2000) calls this kind of arrangement as “joint living” an idealised picture in which a widow lives with one or all of her married sons. Carol Vlassoff (quoted in Chen, 2000) classified widows who live with sons into three broad groups: a) those who are totally dependant on their sons; b) those who are not totally dependant on their sons; and c) those who are the primary breadwinners and have dependant sons living with them. Classification of this sort begs definition of a household and headship based on both “composition” and “functions” performed by a widow and other members rather than based on a “elementary family” type (argued earlier) (Rao, 1992). Konika Mohanty, a widow of 57 years can fit into the first two classifications offered by Vlassoff. Although living with her sons, Konika was the owner of 5 acres of land but eroded now (Chapters Five and Six). She was also the owner of her homestead, which was adjacent to her *de facto* sister-in-law. She also received a monthly widow’s pension and earned some money by selling her cow’s milk. She was often the decision maker of the household with regard to food, welfare of her grand children and her sons etc. but at times she looked up to her two sons for her physical and emotional care. Furthermore, based on her woman headship she was also the beneficiary of the Indira Awas Yojona (IAY), a centrally sponsored housing scheme designed specifically for women-headed households in rural areas and the micro-credit loan offered by Action-Aid (AA) (Chapters Five - Seven). In addition when Konika required help during a crisis she managed to seek some help and support from her only brother. To me all these characteristics typify her as the head of the joint household.

On the other hand, Tilotoma Biswal, a childless widow lived with her brothers-in-law after her husband's death. Chen calls this kind of arrangement with in-laws as "the classic form of household – the projected ideal". Under this model the maintenance of the widow is undertaken by the joint household of her late husband. Of all the respondents Tilotoma was a deviation because her headship was less prominent in her household. Although she was a beneficiary of the micro-credit loan, which was offered based on her economic vulnerability, her brothers-in-law supported her by offering food and clothes in her everyday life. The only property she owned was a one room mud house and a cow bought as a part of the micro-credit group (Chapters Seven). She also mentioned rotating her stay between her brother's house and her brother-in-law's, which Chen calls "alternate living". Based on these characteristics I define Tilotoma as living in a joint household and not the head of the household.

Unlike the other two, the third respondent from the upper caste (Lolita Nayak) lived in a nuclear household with her 15-year-old daughter. Her homestead was adjacent to her *de facto* sister-in-law and hence she shared a common courtyard with her. The two women helped each other during the time of disasters (Chapters Five to Seven). Apart from that Lolita was recurrently supported by her brothers and two wedded daughters – both financially and non-financially. The pattern, potential and backlash of such recurrent support from kin and extended families are examined further in the context of multiple disasters in the analytical chapters of this thesis (Chapters Five – Seven).

Living arrangement of the middle castes

Of the six middle caste respondents, two (Sulochona Behera and Manimala Behera) lived in joint households with their children and elderly, unproductive fathers and mothers in-law. Similarly Chen observed that 3 per cent of widows in her study live with their elderly in-laws. In such cases, it is often observed that in-laws rather than the widow stand to gain because it is the widows who end up supporting them (2000: 208). This was typically the case for Sulochona and Manimala who were the major breadwinners and decision makers of their households. They were also instrumental in securing support from their natal family during a crisis or in their everyday lives. After the super-cyclone when the joint household was divided, Manimala along with her young son got the responsibility of maintaining her elderly mother in-law (which her husband had to do if he were alive), while the father-in-law was taken care of by her elder brother-in-law. On the other hand, Sulochona along with her three young daughters had no option but to fend for her in-laws after her husband's death because her husband had been the only son. However, in both the cases the Census Surveys consider the elderly fathers-in-law as the heads of the household because of blatant prejudice prevalent amongst the enumerators, based on normative families rather than using the "economic" and "cultural" criterion when defining "head" of the household (Rao, 1992; Kalpagan, 1992). Consequently this leads to "gaps" in the definition and analysis of the data regarding household (ibid). Due to the functions that these two women performed in their everyday life, I call theirs women-headed households in my research.

The remaining four middle caste respondents lived with their young children in their husband's village in nuclear households headed by them. Their houses were also

adjacent to their nearest kin and at times they shared a common courtyard. Apart from Ullash Behera, who was often helped by her brother, the other three respondents received support from their sons-in-law and at times married daughters came to live with them when their husbands migrated to Calcutta to earn money.

Living arrangement of the low castes

Three of the four low caste respondents lived on their own, in a nuclear household, in their husband's village with young children. The fourth respondent Chumki Bhoi, had two unmarried adult sons. These households also lived adjacent to their nearest kin and shared a common courtyard. According to Chen widows who live on their own and manage to raise and care for their young children are the "most vulnerable" group. Similarly in my research this group was shown to be the most vulnerable one. They were the poorest of the poor, lacked land or assets and received no support from their kin due to the poverty stricken conditions of their siblings (more in Chapters Five-Seven).

Therefore the 12 women I interviewed, 11 were widowed head of households, living with their children in their husband's village, and one from the upper caste lived in a joint household. They earned their living by rearing livestock, cultivation (one respondent from an upper caste), cashew farming (one respondent from an upper caste), the petty dry fish business, day-labouring and selling cowdung cakes (low caste women). Children's wages amongst the lower castes, and their help with rearing livestock, cooking and doing other household chores was crucial to the women households in the village. The women heads of these households were largely instrumental in decision making, especially when arranging financial or non-

financial support from kinship and neighbourhood networks during times of need. For instance, they will send one of their children to the village of their birth in order to borrow money or rice after disasters, or send messages to the same village by word of mouth, or visit a neighbour or money-lender over several days to attempt to secure credit. These activities were typically performed by women. Lastly, these women were found to be largely poor, had less than one acre of land, were mostly illiterate, dependent on their kin, had no alternative sources of livelihood, and were in debt to moneylenders and neighbours. These characteristics exemplify the respondents as poor, powerless, vulnerable, and with limited productive endowments and exchange entitlements (Beck, 1989), made worse by the absence of insurance coverage and social security services that might replenish their lost assets in the face of multiple disasters.

Reasons of women-headed household's vulnerability

In this particular section, I attempt to explicate and analyse the particularity of women-headed households' vulnerability and poverty, based on the findings of multidisciplinary analysis, such as the anthropological works of Dube, 1996, 1997; Chakravarti's feminist studies, 2003, 1999; the sociological studies of Mencher, 1993, and Chen and Dreze, 1992, 1995; the complex emergency analysis of Bushra and Lopez, 1994; and the gender and disaster work of Rozario, 1997; and Khondker, 1996.

Caste and women

According to the eminent feminists Uma Chakravarti (2003, 1999) and Leela Dube (1996, 1997), women's subordination and vulnerability in India is grounded in the Hindu caste system and patriarchal kinship practices, which put women at a highly disadvantaged position in their everyday lives. In times of disaster, this subordinate position increases the likelihood of women's vulnerability to environmental hazards (Cannon, 2002; Enarson, 1998).

M.N. Srinivas defines caste as a "hereditary, endogamous, usually localised group, having a traditional association with an occupation, and a particular position in the local hierarchy of castes. Relations between castes are governed […] by the concepts of pollution and purity, and generally, maximum commensality occurs within the caste" (Srinivas, 1962: 3). Accordingly, the following features can be seen to be prominent: caste is an inherited property; a caste is an endogamous unit; the members of each caste have an occupation or trade to pursue; castes are graded in a local hierarchy; and notions of pollution and purity govern the nature and extent of the relationship between castes (Karanth, 1996: 92). Whereas, "class is an economic concept; classes are not communities but exist where people share a "specific component of their life chances," especially as determined by their economic position" (Sharma, 1999: 12). However, the hierarchical relationship between "caste" and "class" in Indian society cannot be understood outside their mutual impact (Chakravarti, 2003). They are intertwined and interlinked. Whilst the former is based on a ritualised purity, with the *brahamana* on top and the (former) "untouchables" or the low caste at the bottom, the latter is based on political and economic status, with landlords at the top and landless labourers at the bottom, representing a unique form

of inequality that is perpetuated by the caste system. In fact, it is the unequal access to resources and power that constitutes the crux of the caste system in terms of lived experience, for which the pure-impure dichotomy merely obscures (Chakravarti, 2003: 12). Dube argues that in the perpetuation of caste and class practices, women play an important role as *de facto* custodians, reproducing the caste system via interrelated themes like food and ritual practices, maintaining the continuity of occupations, and finally through marriage and sexuality practices (Dube, 1996). The latter two aspects will be investigated in the ensuing sections.

However, it is argued that the linkages between caste groups and the strong walls erected between sub-castes have begun to crumble over the years, due to exogamous marriages, independent movement, the increasing impact of dowries, education, industrialisation, urbanisation and through the reservation of seats for low castes in local governing bodies (Srinivas, 1962, 1996; Karanth, 1996; GOO, 1990; Patnaik, 1969). In the context of India, therefore, caste is dynamic, changing over time and at times of disasters, assumes specific forms. I return to this point in Chapter Five of this thesis and examine whether caste and purity are mutable in a multiple disaster situation or takes a rigid shape. Karanth argued that caste in rural India is a non-static feature, characterised by mobility. This mobility is manifest through an increasing dissociation with hereditary occupations, in both rural and urban India. However, Dalits or Scheduled Castes, still experience difficulty in moving away from their traditional occupations due to the non-availability of alternative opportunities and the extent to which other castes avail themselves of such opportunities (Karanth, 1996:92). In addition, there is a weakening of the pure/impure dichotomy but again as far as the lower castes are concerned, there is a general relaxation on commensal

restrictions, but this is observant mostly amongst the adjacent castes, rather than to castes of a higher rank (Karanth, 1996; Sharma, 1999).

The caste system in Orissa is not as rigorous and discriminatory as in South India (GOO, 1990). It has been suggested that the nationalist movement of Mahatma Gandhi and Gopabandhu Das, and the Great Famine of Orissa in 1866 were instrumental in loosening the rigidity of the caste system under colonial rule: the former through different castes being forced to share the same jail accommodation and the latter because of the communal sharing of victuals during the Famine (GOO, 1990: 288). I return to this point in Chapter Five through the instances of the survival and displacements stories of women in the multiple disasters. A study conducted by Patnaik (1969) in three villages in the Berhampur district of Orissa in the post-independence period, (though dated) provides important evidence of this. Patnaik observed a relaxation in the caste rigidity, commensality and social mobility between the upper and lower castes and also within castes,[25] as an affect of industrialisation, easier movement and communication between villages for the low castes, universal adult franchise through statutory panchyati raj and community development programmes. All these contributed to the alteration of acceptable thought and work patterns of the people (ibid: 56).These changes that have taken place since the late 1950s are nonetheless very important (Sharma, 1999), but the impact of social mobility on women, comprehended within specific castes, is worth looking at due to my first research question: How have multiple disasters affected women-headed

[25] The latter is due to the complexity of the caste system in Orissa and the different social and ritual status that each intermediate and low caste position claims (Patnaik, 1969; GOO, 1990). For instance, there are a large number of intermediate castes who are artisans, cultivators or traders, stone carvers or *Pathuria*, sweetmeat makers or *Guria*, barber or *Barik*, fishermen or *Keuto* etc. It is thus very difficult to lump them together in a ritual or social status, as a social and ritual distance in marital and commmensal relationships is maintained among themselves (GOO, 1990: 290).

households, and their livelihood assets in relation to their caste, class and gender? To seek answer for this particular question, in the first place it is important to contextualise the living experience of caste, class and gender in women-headed households' lives.

According to Srinivas (1996), strategically located groups can move up in the local hierarchy of the caste ladder through political power, the acquisition of land, trade, and migration to other regions. However, such mobility always resulted in the loss of "freedom" for women who have additionally been subjected to a harsh sex code at the household or at the community level[26], which acts to re-enforce women's unequal position in a society (Dube, 1997). In the context of Orissa, women are typically bound by caste practices and gender norms, which in turn restrict women's social mobility. A study conducted by Menon (2000), amongst the upper caste Hindu women in the temple town of Bhubaneswar in Orissa, observed the internalisation of Hindu values by women, women's limited mobility outside their homes, an emphasis on reproductive work, and the downgrading of the widow's social status after her husband's death. However, these practices pertained to upper caste Hindu women and it was found that the rigidity of codes varied according to region and according to caste in Orissa (Patnaik, 1969; GOO, 1990). For instance, the upper caste women in Tarasahi had limited mobility outside their homes, whereas this was not the case for low caste women and widows, whose economic destitution and less restrictive social norms were necessarily more flexible. Unsurprisingly, all the women that I interviewed, excepting two, said that they were illiterate. Women were poorly represented in the village structures, local *panchayat*, village committees (*gram*

[26] For some heart rendering case studies, one can see Dube (1997) when women were punished or killed for transgressing caste practices in rural areas.

sabhas) and in decision-making bodies, apart, that is, from the women SHGs introduced by NGOs in the post super-cyclone phase. Outside of the latter, the communal decision-making activities of women were non-existent. I return to this point in Chapter Seven through the instance of the micro-credit groups.

Endogamous marriage

Endogamous marriage within one's own caste but outside of the exogamous category of *gotra*[27] (a birth status group), is one of the primary characteristics of the Hindu caste system in Orissa. Such marriage is predominantly practised through patrilineal kinship, where a woman is bound to leave her family home and join her husband's house (Menon, 2000; GOO, 1990). As mentioned earlier, all the respondents bar one came to the village after their marriage. According to Chen and Dreze, this typical marriage practice restricts women's choice of marriage outside of their own caste and also isolates women who are cut off from their patrilocal residence, thus constituting a major factor for the subsequent plight of the widow's deprivation (Chen and Dreze, 1995; 1992). Endogamous "marriage" and the "transfer" of a young bride is a crucial event in terms of a woman's emotional life. Her legal and social status and entitlement as a coparcener in her birth locality comes to an abrupt end, excepting her entitlement to a few residual rights and gifts (Chen and Dreze, 1992; GOO, 1990). This patrilocal residence is of profound significance to widows, who are unable to "return" to their parental home (or to their brothers) after their husband's death, but must remain in their husband's house. This in turn restricts women's freedom to leave their husband's village and to elicit the support they often so badly need to live there happily (Chen and Dreze, 1992: WS-84; Everingham,

[27] Where the members are believed to have descended from the same ancestor.

2002). As mentioned earlier, none of the respondents remarried and all remained in their husband's village. Except for two respondents, none of them were invited to rejoin their natal home after their husband's death, although all of them wanted to remain in their husband's village so as not to lose the home that had been bequeathed by their in-laws. Furthermore, the distance between the natal and in-laws village is of profound importance in women's lives, due to their limited mobility and the impact that this distance has on women's coping mechanism, during and after multiple disasters.

Patrilineal descent and inheritance is another source of women's vulnerability, because the male line inherits the property, excluding daughters (Chakravarti, 2003; Chen and Dreze, 1992; Dube, 1997). In Orissa, irrespective of castes and religions, patrilineal inheritance is the norm (GOO, 1990). The Hindu Succession Act of 1956 (HAS) guaranteed widows a share in her husband's property and also conferred inheritance rights on the daughters (ibid, 1990). However, in practice, daughters largely fail to claim their rights to their father's immovable property, either through fear of upsetting their relationship with their brothers, or through the threat of social stigma (Kabeer, 1992; Agarwal, 1992; GOO, 1990). In my interviews, none of the respondents from the upper and middle castes claimed any inheritance from their natal home, which they feared would upset their relationship with their brothers and might cause the cessation of the intermittent gifts that they gratefully received, having no adult sons or husbands to help provide. In the case of the low castes, the respondents had even less options to exercise these rights, due to their siblings' landlessness and poverty. However, all the respondents inherited some property, such as their homes and small plots of land, from their in-laws subsequent to their

husbands' death. Therefore, socio-cultural practices and a limited endowment and entitlement typically marginalised these women prior to any environmental disasters.

Sexuality and honor/*lajo*

Endogamous marriages also create a special kind of male control over female sexuality, in which the dominant role of caste and kinship becomes inseparable from the domination of women (Dube, 1997; Chakravarti, 2003). The management of female sexuality attains paramount importance for the caste system in which "a girl must be guarded properly […] [from] sexual desire […] need control and harnessing […] even after they are married" (Dube, 1997: 50). The responsibility of protecting and controlling female sexuality, for an unmarried girl, rests with her natal or patrilineal male kin, and for a married woman up until menopause, with her husband, her husband's kin or else with what Dube terms as the "corporate control" which goes beyond kinship[28]. Analogously, if an unmarried girl's sexuality has to be protected, the wife's sexuality has to be controlled and a widow's sexuality, abruptly terminated by denying her sexuality (Chakravarti, 2003; 1995). The termination of a widow's sexuality occurs through the expectation that she lead a secluded ascetic life, maintains celibacy, wears white clothes, and leads a reclusive life, dependent on others' for her well being, or in extreme cases opting for *sati* - an act that mostly takes place amongst the upper castes in North India (ibid; Chen and Dreze, 1992; Chant and Brydon, 1989). However, the intensity of an institutionalised marginality of widowhood varies across caste and class and by region in India. Although the social restrictions on widow's lifestyle and the seclusion expected of her tend to

[28] "South Asia shows a special kind of male control over female sexuality, rooted in patrilineal ideology and in a consciousness of territoriality and group solidarity, which may be called corporate control" (Dube, 1997: 51).

become more rigid the higher up the caste hierarchy she is (Chen and Dreze, 1992; Chakravarti, 1995). Likewise, widow remarriage varies across caste, class and by region, with limited options for widows to escape the status quo.

In the context of this thesis, the expectations of widowhood were not as rigorous as in north India (for instance *sati*, or shaving the head). Despite this, the widowed respondents did maintain a simple life with less ritual practices, practiced celibacy, wore white clothes, had limited social mobility (mostly for the upper and middle castes), depended on their kinship, and were responsible for the maintenance of their households. However, of overriding importance is the fact that the norms regarding female sexuality and widows' sexuality in particular, play an important role during and after disasters by putting these households at high risk. This is instantiated in women's access to "shelter" and government "relief" responses, which will be the subject of further examination in Chapters Five and Six.

Honour/*izzat/lajo* for Hindu women plays an important role, both for women's economic and their non-economic activities. Chakravarti elaborated the notion of honour/i*zzat*/prestige or *lajo* that can be measured by the degree of respect shown by others. A particular caste (no matter how much honour is ascribed to that particular caste) or an individual family may gain or lose honour through money and power. However, another manner in which a family can gain or lose honour is through the behaviour of women (ibid). For Hinduism, women are the guardians of family honour through their virtue and modesty, and transmit the lineage of the caste largely through their male offspring. The failure to maintain these traits can bring dishonour to the family and sully the purity of their caste (Chakravarti, 2003; Kabeer, 2000). Women are therefore seen as repositories of family honour– as the father's daughter,

as a wife and mother in her husband's house, and as a good widow after her husband's death. Women at the bottom of the caste hierarchy also experience a certain social code and pressure from their male kinsmen, although they do not have the reputation of being as strict and austere as the women from upper castes (Dube, 1996, 1997). This may partially be accounted for by the difference in material resources that makes the physical labour of lower caste women outside of the home important for their families' survival (Illaiah, quoted in Chakravarti, 2003: 86-87).

Chakravarti and Dube have extensively examined women's collective honour/prestige/*izzat*. However, they provide no discussion of the fluidity of this concept for disaster situations. Does honour/prestige/*izzat* break down during multiple disasters, or is it recreated in a more intensely normative fashion? I return to this particular question in more detail in Chapters Five and Six. However, we can initially note that research into natural disasters in South-Asia (Khondker, 1996; Rozario, 2000; Rashid and Miachaud, 2000), and war-induced famine in the Horn of Africa (Bushra and Lopez, 1994) revealed a mixed response from women in accessing relief centres, refugee camps, and cyclone/flood shelters under dire circumstances. All confirm the preservation of honour/prestige as being absolutely paramount to women.

Women in particular are vulnerable both physically (dislocation, pregnancy, sexual violence and rape) and socially (lack of command over resources of the community) during natural or non-natural disasters (Bushra and Lopez, 1994; Rozario, 1997), affects that are often more disastrous than the hazard itself. Sexual violence and rape are often consequential to disasters, where women in particular are maimed, raped and killed. For instance, the trafficking of women during the floods in Bangladesh

(Rozario, 1997), the raping of women on their way to the cyclone shelters (Wickramasinghe and Ariyabandu, 2003), or inside the shelters as reported in the aftermath of Hurricane Katrina in New Orleans (BBC, 2005), or in the camps of Banda Aceh and Sri Lanka after the Tsunami (Felten-Biermann, 2005). The consequences of rape or the perceived fear of sexual assault are then real enough to self-exclude women from accessing government responses, because they entail long term physical and mental health consequences, and long term economic survival (Bushra and Lopez, 1994). The loss of honour following rape or sexual abuse may lead to women's desertion by their family, bringing dishonour to the family and lineage, causing ostracism, or making them unable to find any marriage partners in later life (Bushra and Lopez, 1994; Rozario, 1997; Rashid and Miachaud, 2000) given the importance attached to Hindu women's sexuality. As a result, women's sexuality, marriage, the family values of motherhood, widowhood, honour/shame, and the conformity to culturally defined norms of behaviour are all under threat during environmental disaster. Under such circumstances, the evidence shows that disasters either push women to overcome gender conventions (CARE-Cambodia, 2002; Rozario, 1997; Khondker, 1996), or forces them to adopt a rigid normative code in the absence of any male members (Bushra and Lopez, 1994; Khondker, 1996) or the requisite government measures. This subject will be examined further in the context of multiple disasters in Chapters Five and Six and their affect on women-headed households in relation to their caste, class and gender.

Productive role of women

Honour/izzat also largely decides (Hindu) women's economic role (Kabeer, 2000), who is supposed to do what kind of job, where and how? There are a significant

number of poor widow heads of households from upper castes, for example, who often face the dilemmas between social and cultural norms and their survival needs (Chen and Dreze, 1992). On the one hand, caste norms would confine women to their homes, whilst on the other hand necessity often dictates that they find work outside in order to ensure family survival. Low caste widows though have an advantage of being able to seek jobs outside of their homes, but are equally vulnerable to the double bind of low menial jobs and unequal wages in the labour market[29] (Lingam, 1994; GOO, 2005). The most important question is whether these class specific occupations for women are flexible enough to accommodate the experience of multiple disasters. The governmental and non-governmental organisations operating in Tarasahi provided "relief work," but the extent to which this succeeded in incorporating the different castes and classes of women, is a question that will be assessed in Chapter Six.

The general restrictions on the productive role of women, based on a social status hierarchy, also creates a gender-based division of labour and distinct spheres of economic activity, which further accentuate women's poverty and vulnerability (Chen and Dreze, 1992: WS-85). The gender-based division of labour designates certain types of work as male and others as female. For instance, ploughing, marketing and constructing a house is typically a male task, but carrying sand, plastering mud walls, poultry rearing, and tending to kitchen gardens are typically female tasks. Likewise the home or private sphere is predominantly the female's domain, the public sphere of markets, roads and towns predominantly the males, whilst the intermediate sphere of fields and villages is both male and female. Such

[29] There is continuing a difference in the male and female wages in Orissa. In private work in rural areas, the average daily wages for males and females is Rs. 31.14 and Rs. 23.34 respectively, while it is Rs. 39.02 for males and Rs. 27.07 for females in the urban areas (GOO, 2005).

distinctions further delimit women's economic opportunities, especially after a husband's death (Chen and Dreze, 1992: WS-85). One of the concerns of this study is the examination of what happens in these distinct spheres in multiple disaster situations. Are gender relations and gender norms relaxed, or are they exacerbated? And how do women negotiate with gender segmented work in re-constructing their houses when repeatedly affected by multiple disasters? I return to these questions in Chapter Six.

The literature utilised in this section has been extremely useful for conceptualising women's vulnerability prior to any environmental disasters, but the manner in which women negotiate caste, class and the gender division of labour during and after multiple disasters, is little perceived. I return to these raised issues in Chapters Five and Six of this thesis.

Conclusion

The vulnerability analysis of disaster situations emphasises that multiple disasters are caused when multiple hazards interact with vulnerable sections of population in the same place. In addition, the vulnerability to multiple disasters is largely constructed socially, politically, economically and historically. Accordingly, the reasons for women-headed household's vulnerability were delineated along the lines of caste, class, honour and gender, which put women at a disadvantaged position prior to any environmental disasters and enhance the plausibility of experiencing the impact of multiple disasters differentially over others. This unaddressed nature of women's pre-existing vulnerability remains at the heart of policy weaknesses. Vulnerability is then the main theme that binds my thesis together. In following this line, I explore in

the subsequent chapters (Five, Six and Seven) how this pre-existing vulnerability re-enacts during the multiple disasters (Five), and diminishes women's livelihood assets (Six). Therefore, any measures directed towards reducing the impact of multiple disasters should incorporate women's pre-existing vulnerability (Seven) and the vulnerabilities produced by the multiple disasters. This is explored further in the following chapter Three, which will build upon the "coping strategies" of the respondents, and of "micro-credit" in reducing poverty and vulnerability of women-headed households produced in a multiple disaster situation.

Chapter 3

Coping and micro-credit: Role of individuals and NGOs in vulnerability reduction

In the previous chapter (Two) I assessed the literature for key concepts that are central to this thesis: "multiple disasters," "vulnerability" and "women-headed household's vulnerability." "Coping" is another key concept central to this thesis. Throughout, I argue that the coping strategies and the capacity to access resources of women-headed households, is fundamental to their ability to renew their lives and livelihoods. However, some further clarification of these concepts is thereby required and so it is to the various meanings attributed to them in the literature, to which I turn in the ensuing section. Later in the chapter I have looked at the role of "micro-credit" in reducing women's vulnerability from the available literature. In order to help the respondents cope with the multiple disasters, the two NGOs - Action-Aid (AA) Bhubaneswar (BBSR) and its partner organisation Bharat Gyan Vigyan Samity (BGVS) initiated women's micro-credit groups in Tarasahi. Since vulnerability is the main strand of this thesis, probing into the role of micro-credit in helping women cope and reducing their vulnerability produced by the multiple disasters is crucial. The last section of this chapter focuses on the brief profile of AA and BGVS.

In the absence of appropriate disaster responses, the coping patterns of women-headed households from different caste and class were diverse. For the convenience of the reader I have attempted to group those in two overarching categories derived from the existing literature on natural calamities and seasonal trough time (Beck, 1989; Agarwal, 1990; Mukherjee, 2004; Currie, 2000; CARE-Cambodia, 2002; Taal,

1989; Jiggins, 1986). Firstly, it is the moral economy or external support systems (kinship and friendship ties) (Agarwal, 1990) that are also known as micro-societies[30] (family, neighbourhood, workplace) (Currie, 2000). However, under this rubric of external support system, I have also considered the governmental and non-governmental responses as coping mechanisms. With no long term perspectives on mitigating the impact of the multiple disasters, governmental and non-governmental responses (micro-credit - discussed later) were seen as coping strategies by women because they were initiated after each disaster. The discussion is resumed further in Chapters Five and Six. Secondly, it is food derived from the secondary food system[31], a source that is not, strictly speaking, economic (common property resources (CPR), forest, micro-environment) (Mukherjee, 2004). These categories are discussed in more detail in the sections that follow my definition of coping.

Blaikie et al., define coping during disasters: "[…] as the manner in which people act within existing resources and a range of expectations of a situation to achieve various ends. In general, this involves no more than 'managing resources', but usually means how it is done in unusual, abnormal, and adverse situations" (1994: 113).Coping is not only a survival strategy, but also the maintaining of other human needs, such as the need for respect, dignity, and the maintenance of family, household and community cohesion (ibid). It may be a strategy adopted by individuals and groups (communities, societies) as a means of engendering survival and/or prosperity (Hoffmann and Oliver-Smith, 1999), not only biologically, but also in terms of

[30] Micro-societies can take a multiplicity of forms; the family, the neighbourhood, the workplace, local schools and community associations. Galston notes that these micro-societies require "special kinds of bonds of intimacy, continuity and stability; bonds based in a language of commitment, responsibility, duty, virtue, memory, solidarity, and even love […]" (quoted in Currie, 2000: 113).

[31] Food from forests, from common property resources and from micro-environments - produced without the application of technology in the strict economic sense – termed as secondary food system (Mukherjee, 2004: 15).

livelihoods (Macrae and Zwi, 1994). Coping mechanisms are time and context-specific, emerging from particular situations within a socio-economic-cultural *milieu*. They can also be transmitted between one individual and another and from one generation to the next (Cuny, 1982).

In every society there are varieties of internal and external social structures that help individuals and families cope through difficult periods and each person knows how to react and use the various mechanisms available in time of adversity (ibid: 1982). According to Jon Anderson (quoted in Bankoff, 2001), a person's reaction to hazard is not random, unordered and wholly immediate, but follows from "the principal cognitive, affective and evaluative schemes salient and relevant to definitions of the situation in the victim culture" (2001: 31). Therefore, poor people have coping strategies which are highly complex and diverse, varying by region, community, social group, household, gender, age, season and temporality (Chambers, 1989). These reduce vulnerability and enhance security against the increasing shock of contingencies or widespread political and natural disasters that drain people's reserves and thus leave them less able to cope with future needs and crises (ibid, 1989:3). The pattern, potential and sustainability of these internal and external social structures in the context of multiple disasters and in women's life are explored in Chapters Five and Six. The coping experiences are not discussed separately rather they are integrated with the text and the narratives.

Bankoff states that, "[…] Perhaps beyond the concept of a society's vulnerability lies that of a culture's adaptability: it is the measure of the two that ultimately determines its exposure to risk […]" (2001: 31). In association with the issue of vulnerability, coping strategies are important for understanding how individual households and

people cope with their vulnerability (Edkins, 2000). Consequently, from the mid 1980s onwards, a growing body of literature emerged drawing attention to how vulnerable groups attempt to survive against growing environmental and economic stress. However, the emphases remained more on coping as a food strategy during drought, famine, hunger periods and famine induced by war (see Agarwal, 1990; Jiggins, 1986; Beck, 1989; Chambers, 1989; Taal, 1989; Mukherjee, 2003; Sogge, 1994; Bushra and Lopez, 1994), than during floods and cyclones (Twigg, 2004). Whilst coping as an aspect of governmental food and non-food items tended to be excluded entirely. However, the coping strategies of my respondents explicate the latter phenomenon and patterns. I return to this point in Chapter Six through the instance of relief food, reconstruction of houses and cattle death.

Studies reveal that community and kinship ties play a crucial role in minimising vulnerability, especially at the onset of crop failures, the depletion of food stocks, when food prices are high (Taal, 1989), or during drought and famine (Agarwal, 1990). Women typically play a significant role in the cultivation of such social relationships with their neighbours and their blood family in such adverse times through complex reciprocal gift-giving systems. Although, the frequency of visits to the place of birth may vary according to the physical distance and because of the predominance of patrilineal marriages amongst Hindu families (Agarwal, 1990: 367). The shared rearing of livestock, mutual support networks in looking after children, the offering of loans as an expression of support, friendship and solidarity, are some other instances of help that operate within kinship and friendship ties in times of distress (Beck, 1989: 25-29; Bushra and Lopez, 1994). However, the coping literature tends not to give an ethnographic account of whether kinship ties for a widow regenerates or degenerates when she is recurrently affected by disasters. This

study therefore explicates the unique coping mechanisms that emerge, withdraw and are adopted by women with their kinship and neighbourhood groups in the wake of multiple disasters and inadequate government and non-government responses.

Food from the "secondary food system" provides a lifeline for the poor during famine, floods, droughts, cyclone, earthquakes etc. (Mukherjee, 2004). Food derived from the secondary food system attains paramount importance in people's lives when government responses fail to address people's needs. In fact, food derived from the secondary food system provides essential vitamins, proteins, and calories, otherwise missing in the primary food (ibid) or relief food supplied by the government to the poor. In this respect, women and children typically play a crucial role in gathering food from forests, CPR and micro-environments, providing up to 30 per cent of the total consumption of rural households during drought or other calamities (Jodha, 1990 quoted in Mukherjee, 2004: 16; Agarwal, 1990). The collection of fuel (such as twigs, branches, leaves and cowdung) and the gathering of wild foods whenever and wherever possible, are some other typical coping mechanisms women employ for food (Beck, 1989). Despite the profuse documentation of women's expertise in utilising the secondary food system during the times of drought, famine, and trough, the role of secondary food for women-headed households during floods and cyclones, and the mechanisms women employ to gather it, is apparently less researched. I address this lacuna through the instances of my respondents during the floods in Tarasahi in Chapter Six.

Lastly, if coping mechanisms show people's ingenuity and survival in adverse situations, "coping" itself has its own limitations. For women with dependants, this means longer working hours (Sogge, 1994), as a consequence of the greater "double

burden" resulting from the lack of adult labour and their income-earning power; and the problems of "accessibility" to resources without male members during disasters (Bushra and Lopez, 1994; Vaughan1987; CARE-Cambodia, 2002). Kinship ties, that play a crucial role in minimising vulnerability, are also eroding rapidly over time for women (Agarwal, 1991; Taal, 1994; Currie, 2000). This decline in social responsibility is often illustrated through rising levels of theft, *goonda* activity and other forms of crime against women, as observed by Currie in the drought affected western areas in Orissa (Currie, 2000). Additionally, the increase in the abandonment of widows, widowers and old parent's by their sons, as observed in Bangladesh, or through the general decline of support for women (Agarwal, 1992) provide further evidence of this trend. However, the kinship ties that are generally in decline due to recurrent disasters and the depletion of people's resources, do not provide evidence for their absolute disappearance (ibid). This trend is examined further in the context of this thesis in Chapters Five and Six.

Concomitantly, the secondary food system is also being depleted through the effects of recurrent disasters, the over-exploitation of resources, the privatisation of common property resources, and the seasonal nature of this type of food, which may not coincide with lean times or disaster periods (Agarwal, 1991; Beck, 1989; Mukherjee, 2004). Therefore, the depletion of these "other" entitlement's in Sen's term (1981) means increase in vulnerability, and an increased vulnerability in turn places strain on diversified coping mechanisms, making women more vulnerable to any predictable disasters in future – mostly in the absence of government and non-governmental responses that fails to meet people's real needs. This is examined in Chapter Six of this thesis. Therefore, coping then is a strategy of the marginalised that deserves our respect, for in this lays a tenacity to cling onto and carry life

forward. However, this incontrovertibly arises from a position of marginality and vulnerability.

In Chapter One it was observed how the modern state failed to enhance peoples coping mechanisms at a household level. The ensuing section explores the role of the NGOs in addressing women's vulnerabilities in multiple disasters and enhancing their coping mechanisms through micro-credit.

NGOs and Development

The post independence Indian nation-state was characterised as an omni-present and a highly interventionist democratic state because of its dominant role in social welfare and developmental activities (discussed in Chapter One) (Purushothaman, 1998; Kohli 1991, 1994a, b; Chan et al., 1998; Herring, 1999). Today the state is seen as ineffective in dealing with poverty, a result of its declining interventionism which began under Indira Gandhi and received a further severe jolt under the austerity program of new economic policy or new policy agenda (NPA)[32] (ibid; Chan and Clark, 1998; Herring, 1999). Throughout the history of socio-economic development, NGO's have played an important role in plugging the developmental gap. Even before independence, many voluntary associations existed on the peripheries of the public domain (Beteille, 2002; Purushothaman, 1998), but they

[32] This Agenda is informed by two basic sets of beliefs, *neo-liberal economics* and *liberal democratic theory* (Moore, 1993; quoted in Edwards and Hulme, 1995; Eade, 2000). Firstly, markets and private initiatives are considered the most efficient mechanisms for achieving economic growth and creating jobs that generate the wealth needed to sustain livelihoods. Due to NGOs erstwhile involvement in social welfare activities, they became the ideal vehicle for addressing poverty in countries where governments lacked the resources to ensure health and education etc. (Edwards and Hulme, 1995; Eade, 2000). Secondly, NGOs and GROs are seen as essential intermediaries for the 'democratisation' process and essential components of a thriving "civil society," as well as essential mediators for a successful economic agenda. NGOs and GROs are supposed to act as counterweights to state power in protecting human rights, promoting pluralism, opening up channels of communication and participation, and offering training grounds for activists etc. (Edward and Hulme 1995: 4).

began to acquire a more prominent *modus operandi* as a direct result of the NPA (Bhose, 2002; Beteille, 2002).

Under this NPA, NGOs are now the "favoured child" of national agencies and International NGOs (INGOs), disbursing aid and facilitating developmental objectives in the South. Consequently, the 1980s and 1990s have witnessed an explosion of NGOs and grassroots organisations (GROs) in both the North and the South, where they are active in both relief and development work (Edwards and Hulme, 1995; Eade, 2000; Benson et al., 2001; Lewis, 2002). It is estimated that the number of development NGOs in the North has grown from 1,600 in 1980 to 2,970 in 1993, and the 176 INGOs in 1909 to 28, 900 by 1993 (Edwards and Hulme, 1995: 3). Over the same period the total spending of these NGOs has risen from US $2.8 billion to US$ 5.7 billion, at current prices. Likewise, NGOs in the South grew rapidly where political conditions were propitious (ibid). It is estimated that in India alone, there are some one million NGOs involved in different developmental activities (Salamon and Anheier, 1997 quoted in Pearce, 2000). Although it is difficult to comprehend the sudden increase of NGOs in the North and South, there is a good deal of evidence to suggest that this growth (and to a lesser extent, that GROs also) is directly related to the increasing availability of official funding under the NPA (Edwards and Hulme, 1995:4; Lewis, 2002).

The NGO intervention in the South, though, has raised two major criticisms of their interventionist role for a globalised world economy. Mark Duffield argued, from the point of "complex emergency," that the correspondence of internal emergencies with the external responses received in the 1980s, led to the "internationalisation of public welfare" (Duffield, 1994b). In crude terms, this process has been characterised by

NGOs or INGOs replacing the state in the provision of basic welfare services, which in turn weakened the state and led to the inception of various contractual relationships; between INGOs and NGOs, or NGOs and GROs, or NGOs/INGOs and government. These relationships, in turn, have led to the forced adoption of new strategies, such as the safety-net system[33], or public service contracting, or the subcontracting of humanitarian relief (Duffield, 1994a, b; Edward and Hulme, 1995; Lewis, 2002). Consequently, we have seen the increasing politicisation of humanitarian aid, both in relief and developmental work (Duffield, 1994b). In net terms, NGOs now collectively transfer more funds and resources to the South than the World Bank (ibid: 1994b). This historic shift of donor funding to NGOs rather than states, resulted in a dramatic increase in relief work for NGOs, with many of them being co-opted by donors as their implementing agencies (Duffield, 1994a; Edward and Hulme, 1995).

Wood offers another perspective on NGO intervention, which seeks to balance the advantages against the disadvantages of the same. Wood's "franchise model" stresses the limitation of any claims to universality for a market in which there exists no generalised morality regarding economic transactions and exchange. Further, he points out that government often face questions of legitimacy, such that they are regarded with suspicion and hostility by international funders aware of cases of corrupt governance in Asia and Africa (Wood, 1997; Morales and Serrano, 1997). Consequently, this has resulted in the fragmentation of delivery systems, through NGOs, private organisations, management companies, quasi-NGOs, consultants and led to the sidelining of political parties and unions in the process (Wood, 1997: 84).

[33] The safety-net system in Africa is divided into two parts: compensatory or developmental programmes targeted for relief operations.

This is in fact the paradox of neo-liberal views on good government, which on the one hand emphasise the need to undermine state monopoly for service provision and the allocation of resources, and which thereby, by restricting the government's role, reduces the necessity of the government to be good and efficient (Wood, 1997: 83). According to Wood, the solution lies in the integration of the triumvirate of interests - state, NGOs (or community), and the market; so that they are no longer mutually exclusive, but co-operative. The consequences, for the community, of independent interventions by each actor, could be severe, and this was precisely what occurred in Tarasahi through the instances of the "livelihood restoration project" undertaken by the two NGOs – AA and BGVS. I return to this point in Chapter Seven. NGO's often tend to be rather insular, ignoring or overlooking existing societies' vulnerabilities that stem from socio-political-economic structures that inform social interaction (employment, credit, exchange of services) and which are sustained through poverty, inequality, and socio-cultural practices (like caste, class and gender differences in India) (Wood, 1997: 86). Besides, NGOs are often overstretched, under resourced, limited in area and coverage, and frequently face major logistical and political constraints (Duffield, 1994b; Wood, 1997).

There is a need for negotiation and networking between these actors; although in reality this is easier said than done, thanks to contestation over the roles and interests of the state, NGOs and the community (Benson et al., 2001). The exchange of ideas, perspectives and good practice can help foster understanding, but co-ordination between government and non-government is highly dependent on the willingness, by government and funders, to work within a bureaucratic *milieu* (ibid). Simultaneously, there is a fear that co-ordination can also lead from "everybody's business to nobody's business," undermining the important function of government and local

institutions, who ultimately bear the responsibility for citizen welfare, and from which aid often appears far removed in a less than complementary role (Benson et al., 2001; Christoplos et al., 2001).

Micro-credit and NGOs

The history of micro-credit, also known as SHGs in India is quite diverse and deep-rooted, due to the integration of development missions and the general aim of promoting livelihoods (Fisher and Sriram, 2002). Historically, the facilitation of finance in India broadly occurred through three chronological phases (ibid). In the first phase, up until the 1960s, developmental objectives were pursued through the financial sector and focussed on the delivery of agricultural credit through co-operatives. In the second phase, subsequent to the disappointment with the former, attention shifted to the commercial banks, and in this process 20 major commercial banks were nationalised in 1969 and 1980 (Mosley, 1996). The network of Regional Rural Banks (RRBs) was also established in the 1970s and the National Bank for Agriculture and Rural Development (NABARD) was instituted in 1982 to refinance the banks. The IRDP and DWCRA (anti-poverty programmes targeted at women) were inaugurated in 1979 through loans from these banks, which purchased livestock and irrigation facilities for the rural poor and landless (ibid). The second phase came to an end in 1989, when the first official loan waiver severely undermined the credit discipline (Fisher and Sriram, 2002). The third phase began with a financial crisis in the early 1990s brought about by economic liberalisation measures that forced competition with the foreign private banks. This led to the restructuring of the commercial banks, the freeing of interest rates, and the consolidation of government self-employment schemes into Swarna Jayanti Swarozgar Yojana (SGSY) etc. The

impact of this restructuring continues even today, with the sharing of responsibilities between NGOs and others (Mosley, 1996; Fisher and Sriram, 2002; Harper, 1998).

Poor people's access to finance was helped by the massive boost to micro-credit that occurred in the post-economic liberalisation phase in India and elsewhere (Fisher and Sriram, 2002). Micro-credit is now increasingly used as a major tool of development, by national and international organisations, and by women's organisations, independently or through contractual relationships with NGOs, GROs and others. Micro-credit is now the fastest growing and largest micro-finance industry in the world, particularly with the growth of women's savings and credit groups. It is estimated, micro-credit will benefit some 17 million women by 2008 (Fisher and Sriram, 2002; Carr et al., 1996; Khandker, 1996).

"In a phase in the international development endeavour in which ideology is out of fashion, the search is on for practical, workable solutions to the deep seated challenges of poverty. According to some, micro-credit seems to provide just such a solution"- with its own trade associations, dedicated finance, training and other support organisations, and help the poor to work their own way of poverty and vulnerability (Fisher and Sriram, 2002:19). SEWA, MYRADA, BASIX and PRADAN are just some of the micro-finance pioneers in India that are to be commended. The success of micro credit has been described as a "new world," a "shot at real progress in combating poverty" that brings the bank down to the people (Harper, 1998:6; Dichter, 1997; Twigg, 2004; Wisner et al., 2004). In other words, micro-credits have delivered the "holy trinity of outreach, impact and sustainability" to the poor, thus reinvigorating the development sector in the post-liberal phase (Fisher and Sriram, 2002). In so doing the two dominant schools of micro-finance –

the finance school and the poverty school have succeeded in out-reaching to the poorest and offering financial sustainability (ibid).

However, Fisher and Sriram argue that to allow the dominance of this framework would severely restrict the potential development ends of micro-finance as a means. This is due to its ever-increasing techno-managerial perspective and a minimalist credit approach that insists that credit enables poor people to work their own way out of poverty. In this respect Fisher and Sriram emphasise development as the need for micro-financial services that should go "beyond micro-credit" and include a "basket of financial services" like *savings, consumption, loans and insurance* (Rutherford, 2000; quoted in Fisher and Sriram, 2002; Harper, 2000). The provision of a "basket of financial services" then becomes particularly important in disaster prone areas (Wisner et al., 2004), or in the context of multiple disasters for arresting recurrent capital loss (livestock, house, crops) that remains unprotected through a lack of access to insurance coverage for the poor and the marginalised. On their own, micro-financial services are unable to solve poverty, or to address people's vulnerability to disasters. They can only serve as a complementary tool within a broader strategy for reducing poverty and vulnerability and helping women cope. Because the success of micro-enterprise depends on a wide range of resources (e.g., natural, human, social and financial capital) and opportunities (markets and policy and the institutional environment) as emphasised by the sustainable livelihood framework (SLF, 1999-2000) and working within the triangular relationship between the state, community and NGO, as emphasised by Woods (1997).

In this regard, SEWA and PRADAN (two different organisations) have been outstanding in addressing both women's poverty and their vulnerability, using micro-

credit as both means and ends. However, such instances constitute the exception rather than the rule and this most certainly did not prevail in Tarasahi. The process of organising, on the one hand and service delivery, on the other, are to some extent inseparable, but the hierarchy of means and ends is important for its differential outcomes (Fisher and Sriram, 2002). SEWA, the oldest MFO formed in 1974, approached "social intermediation"[34] as a means and finance as an end, facilitated through a "basket of financial services" (like savings, loans, and insurance) provided on an informal basis and that were geared to helping women survive and grow, with and without recurrent environmental disasters (Fisher and Sriram: 51). Through the process of social intermediation, SEWA also encouraged women's organisations to address not only women's immediate practical needs after disasters, but also their strategic needs, through lobbying for women's rights and issues, both on the national and international stage (more in Chapter Seven) (Zabwala, 1998; Bhowmick and Jhabvala, 1996).

PRADAN and MYRADA, two large NGOs by contrast, used micro-finance as a means and social intermediation as an end. This model is known as SHG model, pioneered in the 1970s gave much more scope for group members to participate in decision-making processes. This is the model that was promoted by AA and BGVS in Tarasahi. Under this model, a group of up to 20 members, (usually women) is formed with the help of an external catalysing agent (typically an NGO), with a cycle of micro-finance being initiated with mutual savings and credit. With the demonstration of successful mutual savings, an external agency may then lend additional capital to the group (Fisher and Sriram, 107-108). "Empowerment" and

[34] Social intermediation can be understood as the process of building the human and social capital required for sustainable financial intermediation with the poor (Ledgerwood, 1999 quoted in Fisher and Sriram, 2002).

"ownership" are two major tenets of this approach, with SHG members collectively taking on many responsibilities, such as savings, interest rates, the allocation of loans, the distributing of surpluses and policy matters. The SHG model takes financial service as a foundational means, from which it can address women's issues, such as vulnerability, their empowerment, the promotion and protection of their livelihoods, and the facilitation of women's self-management of their own resources (ibid; Kanitkar, 2002). The potential and scope of this model is put into further test in Chapter Seven through the instance of the SHGs in Tarasahi.

However, SHGs which are also known as "people's organisations," are often risky, due to the high rates of illiteracy amongst its members', low computational skills, poor market linkages of the project, and sometimes corrupt or inefficient service providers (Titus, 2002). In addition, there are often internal organisational problems; a lack of unity, a neglect of the "poorest of the poor," the creation of scapegoats, and an additional load on women's double burden (Harper, 2002). Sometimes, the credit given to SHGs for desired objectives is used or misused for "smoothing consumption," an act that is often counterproductive in that it increases debts that fail to be repaid (Fisher and Sriram, 2002). This may occur through the catalyst NGOs mismanagement, which, in failing to perceive women's needs, can further damage the spirit of women's membership. Concomitantly, too much concentration on "financial intermediation" can undermine the importance of "going beyond credit," and of offering a "basket of financial services" in high-risk disaster prone areas (Twigg, 2001b; Fisher and Sriram, 2002). Under such circumstances, SHGs may actually increase women's vulnerability rather than reducing it. This is examined in Chapter Seven in the light of the SHGs formed in Tarasahi. In the next section I

outline the profile of the two NGOs - AA and BGVS who initiated the SHGs in Tarasahi.

Profile of the two NGOs: Action Aid (AA) and Bharat Gyan Vigyan Samity (BGVS)

Action Aid is an international NGO working with the world's poorest people in more than 35 countries across Africa, Asia, Latin America and the Caribbean. Action Aid India (AAI) began its operation in India1972, and AA-BBSR Regional Office (RO) came into existence in the year 1995. Prior to the super-cyclone AA-BBSR concentrated much of its work on western Orissa, facilitating intervention against the chronic drought that had plagued the western districts for over 100 years. But the sheer impact of the super-cyclone in 1999, led the organisation to participate in relief work and later initiate rehabilitation work in the two worst hit blocks of Jagatsinhgpur district - Balikuda and Ersamma.

Since its inception in 1972, AA-BBSR has constantly sought relevance within the much larger efforts of the state and non-state development programmes in its attempts to address poverty. In the 1970s AA-BBSR focussed its work on education, with an emphasis on primary and vocational education. In the early 1980s the organisation moved on to specialising in non-formal education. In the late 1980s their Approach to Rural Development (ARD) provided significant inputs to long term multi-sectoral integrated rural development programmes for poverty alleviation at community level. In the early 1990s the organisation shifted to working towards empowering groups of poor people in poverty stricken pockets. Fighting poverty,

empowering the poor and facilitating processes that assist the poor to achieve their rights became the key themes, which are currently the major organisational objectives of the Indian office (AAI- Country Strategy Paper, 2002-2003). Despite historical meanderings through various developmental outlets, fighting against the poverty that exists amongst the most downtrodden remained the key objective of this organisation.

Bharat Gyan Vigyan Samity (BGVS)

BGVS[35] started as a Peoples Science Organisation (PSO) where some like minded scientists from Bhawa Atomic Research Centre, came together voluntarily with the vision of transmitting laboratory science to the common people. The PSO was later federated and named the All India People's Science Network (AIPSN) under the aegis of Kerala Sasthra Sahitya Parishad (KSSP) an NGO in Trichur, Kerala. Since then it has been a self-reliant organisation raising funds through its journals and publications. To bring science down to common people, the AIPSN faced the difficulties of widespread illiteracy amongst the Indian citizens. So the AIPSN decided to target literacy as their first mission. In order to do so, the AIPSN worked with the government of India in the National Literacy Mission, which came to be known as "Total Literacy Campaign" (TLC) in the year 1990.Towards the last phase of TLC (year 1995), AIPSN was rechristened as Bharat Gyan Vigyan Samity (BGVS) under the Society's Registration Act. Since then the BGVS has become an institutionalised voluntary organisation with a structure from the grassroots level to

[35] Due to the poor record keeping and documentation of this particular organisation the profile of the NGO, has been written mostly based on my personal interviews with the field volunteers, office workers, District and State Co-ordinators of BGVS (Jagatsinghpur District Office and State Office, 2003-04, BBSR). Some of the data have also been collected from their leaflets and handouts (BGVS, 1996; 1997).

the national level. In the post literacy phase (1992-96) the TLC was further extended to create the People's Learning Campaign (PLC) under the aegis of the government, encompassing vocational training, and a shift from conventional literacy to "land literacy" and "health literacy". In 1995 the NGO initiated a "Continuing Education" (CE) Campaign, which was also supported by the GOI. After this campaign, BGVS shifted its approach from process oriented work to Pilot Projects because in the post-literacy phase the organisation decided to display the accumulated learning from their erstwhile projects.

The BGVS in Orissa came into existence during the National Literacy Campaign (NLC). In the first phase NLC was implemented in 400 districts of India, and Orissa was one of them. Currently BGVS Orissa has 20 formal district offices and is informally present in 10 districts. There are more than 5,000 volunteers in 20 districts. Volunteers are not selected rather they emerge in the process. Incidentally the National Annual Conference of BGVS conducted in BBSR coincided with the event of the super-cyclone in 1999. Although relief and rescue work seemed a digression from the objectives of the NGO the overwhelming need was so acute due to the devastating impact of the super-cyclone that the governing committee decided to deploy their volunteers. In the immediate aftermath of the super-cyclone, volunteers were therefore active in relief and rescue work in BBSR and its adjoining areas (interview with a BGVS staff, BBSR, 2003).

Genesis of the partnership between AA and BGVS

The profile of the two NGOs given above shows that neither of them had much orientation, experience nor expertise in disaster work prior to the super-cyclone. The

enormous destruction of the super-cyclone drove both the organisations into a rescue operation based on humanitarian grounds. Within a fortnight, the Orissa Disaster Mitigation Mission (ODMM)[36], an umbrella of 34 NGOs, was formed, as a brain child of BGVS, CYSD and others'. Endowed with the strategic talents and resources of 300 field volunteers, the BGVS was later invited by AA-BBSR to join them in partnership for long term rehabilitation work. By then AA-BBSR was able to raise rehabilitation funds (worth £818,100) from international donors (Department for International Development (DFID), Australian-Aid (AA), Canadian Fund for Local Initiative (CFLI) and the World Food Programme (WFP) for 20 GPs of Jagatsinghpur district. The partnership was agreed in the immediate aftermath of the super-cyclone and finally discontinued in January 2006[37].

In reality this alliance was not easy to implement and was a shaky partnership from the start. Both organisations suffered due to differences in their objectives and *modus operandi*. The BGVS, being a highly nationally spirited NGO strongly opposed the ideas AA-BBSR borrowed from international donors; whereas AA-BBSR being an internationally funded organisation encountered recurrent difficulties in implementing their agenda. However, the issue of foreign funding was resolved when AA-BBSR diverted the international donors fund to a third party local NGO, who then passed money to BGVS as a local fund. This helped to sustain the relief and rehabilitation projects. Initially in the tenure of their partnership, both organisations made ample adjustments in the best interest of the on-going projects,

[36] ODMM is an umbrella organisation of 34 local NGOs in Orissa formed immediately after the super-cyclone to facilitate effective rescue, relief and rehabilitation work. The genesis of ODMM was to eschew duplication of relief; offer a forum for NGOs and government organisations to brainstorm ideas and strategies, and also offer a one window service for the convenience of the international funding organisations (District Co-ordinator, BGVS, 2003-04; District Manager of ODMM, February, 2004, BBSR).

[37] Informed by one of the AA staff through email conversation (9 September 2006).

but organisational discontent due to different ideologies later grew into internal organisational problems. This was reflected in the village amongst the micro-credit groups. Disinterest amongst the SHG co-ordinators and others involved in the social intermediation process, demotivated the SHG membership and hindered their development. The discussion is resumed in Chapter Seven of this thesis.

Conclusion

Firstly, this chapter looked at the coping mechanisms of women-headed households, in association with their social organisation (kin and neighbourhood) and the secondary food system. Secondly, it dealt with the potential of micro-credit (external help) initiated by the NGOs in Tarasahi to help women to cope with multiple disasters. Micro-credit is now the fastest growing industry in the world, particularly targeting the poor and women because of their need for poverty and vulnerability reduction. As vulnerability is central to my thesis, this chapter primarily argued that micro-credit can be successful in reducing vulnerability if it offers other financial services like savings, insurance and credit. It should also work within the triangular relationship of the state, community and NGO, as each player has their own limitations. This contention is examined further in Chapter Seven when the potential and efficacy of the SHGs promoted by AA and BGVS in Tarasahi are assessed. The following chapter offers an account of my fieldwork experiences and methods of data collection for this research.

Chapter 4

Methodology

The fieldwork for this study was undertaken between August 2003 and April 2004. The initial scope of this project was specific – to return to Ramtara, the village in which I conducted my relief work after the super-cyclone, to locate the *mamata gruha* (MG) dwellers, to document their relocation stories and to assess the effect of later disasters. However, on my return to Ramtara I met the ward member and a few others in the village, who reported not experiencing the two floods following the super-cyclone, due to the geographical peculiarities of that place. As a result, I was left with the option of looking for an alternative village, because the objective of my research was to study women's experiences in the multiple disasters. Hence, I chose Tarasahi, in lieu of Ramtara[38] but in the same district, which experienced multiple disasters due to its proximity to the coast. Its geography and its experience of multiple disasters made Tarasahi an ideal site for my fieldwork. In Tarasahi, though, there was no MG that had been set up by the government in the aftermath of the super-cyclone. Hence, I selected 12 widows for my in-depth interviews, with the support of the local *panchayat*.

This chapter has four sections. The first section looks at the fieldwork preparation. The second section looks at the research methods (participant observation, interviews and documentary evidence) used for the data collection during my fieldwork. The third section focuses on the validity, reliability and data analysis. The final section

[38] However, I did spend couple of weeks in Ramtara towards the end of my fieldwork. I met all the MG beneficiaries in Ramtara and interviewed them about their rehabilitation stories in the post super-cyclone phase. But they have not discussed in this thesis partly due to the objective of my research, which wanted to document the lived experiences of the multiple disasters.

looks at the dilemmas and ethical concerns that a participant observer experiences while being in the field.

Fieldwork preparation: Selecting Tarasahi and scope of this research

From the start, the research methodology conceived for this study was largely qualitative[39] in nature. Particular research methods adopted to collect data were participant observation, complemented by interview techniques and documentary evidence. Other sociological methods, such as survey research, experimental methods and statistical measures could have been important for explicating reports on multiple disasters, but they would not have sufficed as a method of field research for a non-familiar, non-Oriya female researcher in a remote rural village documenting the gendered living experiences of multiple disasters and disaster responses pertaining to five year period (1999-2004). None of these methods could have encapsulated the subjective of social life and multiple disasters (Burgess, 1991). This will become increasingly clear from the data analysis of the succeeding chapters. Accordingly, ethnographic techniques like participant observation became an essential tool for conducting my fieldwork, supported by in-depth interviews. Furthermore, this study required flexibility in its methods and process, one that permitted my movement between the researched village, the town, and the capital-where my other two informants, government officials and NGO staff were located.

[39] Burgess (1991) defined qualitative research as series of research strategies: participant observation, in-depth interviews, unstructured or semi-structured interviews. "[…] the focus is upon strategies that allow the researcher to learn about the social world at the first hand. […] 'to get close to the data' and provide opportunities for […] concepts from the data that are gathered" (1991: 2-3).

Fieldwork[40], in this respect, offered the flexibility that facilitated the scope for triangulating several sources of data, to a number of accounts and events, enabling a maximum range for the validity of my collected data with regard to my research objectives (Finch and Mason, 1990; Burgess, 1991).

The approach and methods which inform this research were then those of social anthropology and (early) sociologists who used observational methods, participant observation, fieldwork, unstructured interviews and the collection of statistical and documentary evidence to study a different culture (both western and non-western societies) (Burgess, 1991; Okely, 1994). Although both these disciplines developed considerably through some interchange of methods, the division between them have been maintained conceptually (see Okely, 1994). Social anthropology was formerly seen as the study of a different culture (non-western societies), mainly by westerners, but has shifted to "home" societies (for the reasons of this shift one can see Burgess, 1991); whereas sociology's empirical work was concerned mainly with western societies of which the sociologist was a member (ibid, 1994). Okely argued while studying their own society, sociologists "could be more presumptuous in knowledge of the wider social context"; whereas this may not be the case for a social anthropologist because "[…] the society as a whole was largely unknown to the researcher and undocumented" (ibid, 1994: 19). However, Burgess argued that a sociologist can encounter similar circumstances while researching in his/her own society where "the people studied live in a different socio-cultural world and hold different perspectives from those adopted by the researchers" (1991: 23). This would

[40] "Fieldwork" among the social anthropologist is synonymous with the collection of data using observational methods (Burgess, 1991). According to sociologists fieldwork refers to "observation of people *in situ*; finding them where they are, staying with them in some role which, while acceptable to them, will allow them intimate observation of certain parts of their behaviour and reporting it ways useful to social science but not harmful to those observed" (Hughes, 2002: 139).

apply, for instance to sociologists researching street dwellers, homeless people (see Henslin, 1990), drug addicts, prostitutes etc., making the sociologist both a "stranger and familiar" and an "insider and an outsider" in his/her home society (Burgess, 1991). This dichotomy (insider/outsider and familiar/stranger) that a sociologist experiences has invoked criticism in terms of the validity and reliability of their collected data, that it could be biased, oversimplified and presumptuous (Burgess, 1991; Okely, 1994). But according to Burgess when such criticisms are bestowed upon the sociologists they are mostly based on the assumption that the situations are either totally familiar or totally strange, without understanding that the same social setting can exhibit both strangeness and familiarity in tandem. In order to avoid bias, presumptuous and oversimplified data, according to Burgess (1991) a sociologist should maintain detailed field notes, simultaneous data analysis and develop questions informed by an "interactionist perspective".

The symbolic interaction that I had with my respondents can be understood as descriptive observation and focussed observation, which are linked to the kinds of questions that are asked by the participant observer (Spradely, 1980; quoted in Burgess, 1991). With descriptive questions, the aim is to gather a general description of the setting and a detailed description of the social situation, which may lead to focussed questions in this particular situation (ibid). During my interaction with three different informants (women-headed households, NGOs and GOs) positioned in the village, town and the capital, my descriptive questions were on disasters, women's everyday lives and their experiences of disasters, their external support system and governmental and non-governmental responses. Based on these observations, the comments made by the informants and my general interest in symbolic interactionism, I concentrated my questions still further to include – how disasters

are experienced and defined differently by upper, middle and low caste women in Tarasahi; how beneficial the governmental and non-governmental responses are; and what the coping strategies are of women from different castes and classes during and after multiple disasters. These questions allowed me to move from the generic to detailed features. Furthermore I needed to take account of the actions and activities of my three respondents in order to avoid bias. As a result it was important to consider perspective in the angle from which the observations could be made (Burgess, 1991). In the context of this research, my perspective was that of a [female] researcher, researching women's experiences in multiple disasters. This suggested I take account the perspective of women-headed households in the village, and non-governmental and governmental officials positioned in the village level, panchayat level, district level and at the capital. While gathering perspectives from different respondents, I used a set of concepts derived from interactionism: caste, class, gender and multiple disasters (was discussed in Chapters Two and Three). This in turn led towards a series of grounded concepts that is concepts which were used by my respondents, to come to terms with the situation in which they were located (Burgess, 1991). This is discussed further later in this chapter.

In light of the debate discussed earlier, the research methods used for this study then fall into the paradigm/epistemology of both social anthropology and sociology. Being a PhD candidate in the Sociology Department at Warwick University, it is clear that this research is sociological in nature. This is consistent with my research objectives, which sought to document the experiences of women-headed households in multiple disasters in Orissa. However, the research is also social anthropological in nature because its aim was also to document women-headed households' stories from their own perspective and in their own socio-cultural *milieu*, which meant that I

lived with my research subjects in some disaster affected rural villages in Orissa. Although I "had a distinct advantage as a sociologist" in the words of M.N. Srinivas (quoted in Burgess, 1991) in studying my own society[41]; I was nevertheless going to study a culture which was unfamiliar to me. I was born in West Bengal and had no personal connection with or exposure to Oriya culture apart from my fifteen days relief work after the super-cyclone in 1999. Doing my fieldwork in Orissa meant learning the Oriya language, knowing about the social and cultural traits of the state and the people, living in a rural village, identifying gatekeepers for this research, talking to women in their socio-cultural context etc. My research objectives and the methods adopted for the data collection typically fall at the intersection of social anthropology and sociology research methodologies.

Gaining access to Tarasahi

Being un-familiar to the place, my "preresearch research"[42] preceded my fieldwork. From the UK, I first communicated with the Orissa State Disaster Mitigation Authority (OSDMA), an independent government NGO, exclusively assigned for the management of disasters in the state. I received their letter of assurance to help me during my field work. This represented the first entry point to the field. Likewise, I used the "gatekeeper" strategy to identify and locate my other informants, NGOs and women-headed households, upon my arrival in Orissa. Subsequently, this "ongoing

[41] For instance my ability to learn the Oriya language within a short span of time due to its phonetic similarity with Bengali, authenticity, facilitating my rapport building in the field - discussion to be resumed later.

[42] Johnson introduced this term as the precursor to the attempt to gain entrée to a setting (for example, the selection of a setting; and how to collect information, etc.). Preparation is important because gaining and managing a successful entrée to field research will decide its preconditions, and negotiation may have important consequences for how the research is viewed, socially, by members of the locality (Johnson, 1975).

access"[43] to the field continued both inside and outside the village during my eight months fieldwork with the help of various gatekeepers in my everyday life in Orissa. Ongoing access, particularly inside the village, was possible through voluntary and non-voluntary informants who were extremely useful in offering "descriptive" information, as and when required, for the completion of this research. Furthermore, the gatekeeper strategy seemed to offer more chance of success for research that dictated that I spend six months in the village.

I arrived in Bhubaneswar (BBSR), the capital of Orissa, in the month of August, 2003 with the monsoon at its peak. I arranged my temporary accommodation in one of the Ford Fellow's houses for a few days[44]. Later, I moved to a small rented flat in BBSR with the help of a member of staff from CARE-India (also referred by another Ford Fellow in the UK). I kept this flat as my base for the rest of my fieldwork, although I spent most of my time in the village and in Jagatsinghpur. On my seventh day in BBSR, a torrential monsoon resulted in widespread floods, which persisted for a further two months in the coastal districts of Orissa. Consequently, commuting to the village became virtually impossible as a result of water logging and a poor road infrastructure that made the roads impassable. However, I did attempt to visit Ramtara once in September with the support of two enthusiastic BGVS staff, but the journey had to be aborted midway when our vehicle was trapped in a pothole.

[43] "Ongoing access" – access does not terminate with contact and entry to the group. The researcher still needs access to people. Securing access in many ways is an ongoing activity (Bryman, 2004).

[44] The International Ford Foundation sponsored my research. Due to my non-familiarity with the place, I attempted to contact one Ford Fellow from Orissa. At that time, this particular Fellow was pursuing her study in the USA. However, her mother, on her behalf, mailed me with the cordial invitation of hosting me for my initial days in BBSR.

Despite this, my two months forced sojourn in BBSR due to the floods was put to good use. I was able to attend "NGO-GO Co-ordination" forums organised and held at the premises of OSDMA, specifically for relief activities during the floods. NGO-GO co-ordination was first introduced after the super-cyclone, in an attempt to facilitate better relief co-ordination during disasters and avoid any duplication of relief work by the NGOs. Attending these meetings in BBSR was extremely useful for seeing government administration in action and for observing the delineation of responsibilities during the disaster. These meetings held at the OSDMA premises brought the government, grassroots organisations, NGOs, INGOs and multinational organisations under one roof, in order to strategically coordinate the relief response and prevent duplication. These meetings at the capital continued for a few weeks, with many activities and regular updates from the field supplied by OSDMA, the Revenue Department and NGOs. However, these became less frequent when the floodwater began to recede. The agenda for the last meeting that I attended at OSDMA was to account for the rehabilitation work initiated by the NGOs in the aftermath of the floods. However, the OSDMA officials showed no concern for influencing NGOs' rehabilitation works, nor could the NGOs influence the state's long-term rehabilitation programme for the afflicted. It was during one of these forums that I happened to meet Action Aid workers and their partner organisation, the BGVS. These two NGOs turned out to be my second breakthrough for accessing entry into the village. Simultaneously, these two months were also used to locate literature from the research institutes, the state library, government office libraries at OSDMA, state university (Utkal), and NGO libraries at CYSD and AA. I also read the policy documents and learnt more about the culture and language of the state, which activities continued throughout my fieldwork.

Fieldwork in Tarasahi

Tarasahi was chosen in place of Ramtara, with the support of AA and BGVS workers. Tarasahi was selected because it accorded with the objectives of this research, which was to document lived experiences of multiple disasters at a village level. In this respect, my first visit and discussion with the *Sarpanch* was useful. He informed me that the people of Tarasahi had experienced multiple disasters due to the place's unique geographical features.

During my six months fieldwork in the village, my accommodation, along with that of my research assistant, a 16 year old boy called Majnu[45] was arranged by the district co-ordinator of BGVS, in a house occupied by Chionika, a SHG co-ordinator. Initially I had no plans to bring Majnu to the village. When I first visited my hostess's house, a staff member from the BGVS accompanied me. At that time her concern to the BGVS staff that she might not be able to provide me with food, only free accommodation. Her reason was that the food they eat is coarse, irregular and a poor woman's diet, which might not meet the need of a rich, urban educated young woman (*mausi*, 2003). Due to her concerns, the BGVS staff who had met Majnu in BBSR told her without my knowledge that Majnu would accompany me in the

[45] Majnu was sent by my mother to be my companion during my fieldwork. My mother was extremely concerned that I might exhaust myself while trying to collect data from one place to another within eight months time and hence neglect my health and food. Besides she thought Majnu could be my companion in an unknown place. Being born in a farmer community, my father always had assistants to help out in farming. Majnu's father (Magru-*da*) has been one such farm assistants and also a sharecropper of our lands for a long time. Farming and farm labour being the major subsistence in my village, Majnu had always accompanied his father since his very young age. So I have seen Majnu almost growing up in our house. Prior to Orissa, Majnu had also spent few months with me during my previous job in Delhi. So when Majnu was given this job offer to join me in BBSR for a few months, he accepted it. Majnu acted as a competent assistant throughout my fieldwork in the city, village and town, cooking food for me, escorting me to respondents' houses when the SHG co-ordinators were unavailable, acted as a messenger boy for the respondents, cutting newspaper articles, helping me cope with the rural drudgery, and always being with me throughout my good and bad times in the fieldwork process.

village and cook food for me. As a result I was forced to bring Majnu with me to the village as well as cooking appliances. However, towards the end of my fieldwork, Majnu stopped accompanying me and my hostess's assumptions proved to be wrong, when she found that I relished her food.

Chionika's mother, my hostess, was a *de facto* woman-headed householder and belonged to a socio-economically upper caste and class of the *Mohanty* community. The house was in the highlands, which was a natural barrier against recurrent floods and consequent displacements. My hostess' household shared the same courtyard with her brother-in law's wife, also a *de facto* woman-headed household. Likewise, all the households in Tarasahi lived in close proximity to their nearest kin. My hostess's family were selfless and magnanimous people, whom it was a privilege to live with. At the same time, the familial nature of Tarasahi life accentuated the non-credibility and suspicion of my being, as an independent (student) researcher in the village - discussed later.

Sample selection strategies

Altogether, there were 80 widows in the village. I was provided with a list of 33 widows, believed to be impoverished and from a different social background, by the *Sarpanch* and SHG co-ordinators. In order to select only 12 respondents for in-depth interviews, I initiated a process of elimination by attempting to meet as many widows as possible from the given list, with the help of the two SHG co-ordinators - Chionika (21) and Ritika (23)[46]. The purpose of this initial survey was to ascertain

[46] Chionika and Ritika acted as my voluntary research assistants in the village. They were asked by the same BGVS staff (who spoke to *mausi* on behalf of me for Majnu) to help me out in the village. For their assistantship, I decided to offer some wages, but this particular BGVS staff once again spoke on

the most socio-economically vulnerable women-headed households, through home visits and based on their brief introduction and my observations. I met 26 widows, the rest being either unavailable or well settled within their kinship network. These 26 women were socio-economically vulnerable and had lots to share concerning the multiple disasters. From 26 respondents, I then used a lottery technique to select only 12 women from 12 wards of Tarasahi, representing different castes and classes. I particularly used this technique to obtain the selective sample, in order to counteract any possible external influence by the gatekeepers - the *Sarpanch* and the SHG workers. In the initial phase of my fieldwork, I encountered some suspicion regarding my presence in the village, whilst also experiencing subtle attempts to influence my sample selection by my gatekeepers, who assumed that my study would yield material benefits to those selected. To counterbalance this suspicion, I made recurrent attempts to honestly explain the academic motives of the study and to ensure transparency involved my gatekeeper in the selection of the lottery chits. However, a residual misunderstanding remained throughout my fieldwork, both for the respondents and others.

Methods of field research

Participant observation was the main tool of my research investigation during my eight months fieldwork in Orissa. Participant observation proved indispensable for the collection of rich and detailed data on multiple disasters and women-headed

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behalf of these two assistants and refused to accept. Hence, I could not expect their help as and when I required, but they did their best to offer me help in between their household chores, personal engagements and SHG work. In their absence, Majnu escorted me to the respondents' houses because the SHG co-ordinators repeatedly advised me not to home-visit on my own. This was not due to any threat or harm that anyone would cause on me on my way, but to maintain the gender norms of an unmarried young woman.

households' experiences based on their social caste, class and gender over a period of five years. I wanted to collect women's stories from their own perspectives according to their socio-cultural *milieu* and to document the gendered living experiences of multiple disasters in relation to the broader context in which they live their lives. Given these objectives, participant observation proved useful for designing my field research. My role as a participant observer varied, from "participant-as-observer" to "observer-as-participant," and to a "familiar observer" which likewise characterised my eight months fieldwork. As Burgess argues, it is difficult for a field researcher to take a specific role, because field research demands different roles in different phases of the research over a period of time (1991). This was pertinent to my research, given the fact that I had three sets of diverse informants – women-headed households, NGO staff and government officials – positioned in different socio-economic-political and physical backgrounds. Therefore, I used these roles interchangeably in the village, offices of the NGOs and the government in Jagatsinghpur and BBSR as and when required.

Burgess defines participant-as-observer as "where the researcher participates as well as observes by developing relationships with informants" and observer-as-participant as "where the contact with informants is brief, formal and openly classified as observation" (1991: 81, 82). To me this definition signifies rigidity and a limited scope in exerting change. This is because during my fieldwork opportunities for genuine participation in women's lives were limited - for instance, accompanying low caste women to the field or helping the upper and middle caste women with their cooking, cleaning of cowsheds, milking, etc. This would have appeared pretentious and been an impediment in the women's day-to-day lives, rather than facilitating the rapport building process. As a result I assumed the role of a "familiar observer" in

which through observation I became familiarised with the everyday activities of women and of the village for a period of six months. I was immersed in the research site and attempted to win the trust of women through building rapport. This was important for in-depth interviews, given that the objective of this research was to collect women's experiences and their coping stories in the multiple disasters.

As part of this role, I placed emphasis on my "personal front," otherwise known as "impression management" (Goffman, quoted in Henslin, 1990)[47] in order to facilitate participation in the rural setting, where certain norms are expected from individuals or groups of people living in a particular culture. I grew my hair long, oiled it, tied it up and put a *bindi* (artificial spot) on my forehead as expected of women, who thus ward off evil spirits and deflect the male gaze. I also wore *salwar* suits with *dupatta*, which reflected the cultural dress that might expedite my acceptance. Being a familiar observer enabled me to observe women in their own houses and neighbourhood, and offered ample scope for a wandering round the village that might advantage me in understanding the social situation and help me establish relationships with women. After a couple of visits to women's houses at prearranged times, I was able to develop relationships with each woman, observing them in their own socio-cultural *milieu*, and posing descriptive questions that sought comprehensive details of their lives and disasters. I was also able to share jokes and glimpses of my life and culture. To some, I also became their *didi* or *apa* (sister) and *jeo* (daughter). Rapport building with the women was then an ongoing process in

[47] Goffman (quoted in Henslin, 1990) focussed much of his analysis on what he termed personal "front." One's personal front, stressed Goffman, is made up of three essential components: conduct, appearance and manner. Conduct is what people do; appearance is how they look; while manner is how people do what they do, including the attitudes they express. To delineate people's everyday manipulation of front, that their attempts to control the impressions that others receive on them, Goffman coined the term "impression management."

which I was continuously learning about their culture, language, and the individuals, whilst also testing my research skills.

Likewise, my field research roles varied considerably whilst in the offices of the NGOs and the government. I interacted, interviewed and observed the government and NGO workers over a period of eight months. After spending a couple of weeks in the village I always spent about a week or at times less than that in Jagatsinghpur and thence to BBSR to interview these informants. Additionally, these outings from the village enabled our purchasing of provisions, whilst also providing breaks from the mundane drudgery of rural life, for Majnu and me.

The district office of the two NGOs, AA and BGVS in Jagatsinghpur shared an office-cum-residence. As a result, my role as a field researcher varied interchangeably between participant-as-observer and observer-as-participant and vice versa. Due to the organisations' spatial set up, I was able to live with the NGO workers in the same office, observing the functioning of the office around the clock, offering official and non-official assistance as and when required and accessing NGO documents. I was also able to develop close relationships with the NGO workers who spent many days and nights with me, discussing micro-credit programmes, government responses in the district and translating Oriya documents and interviews for my convenience.

Likewise, my role as a field researcher varied interchangeably at the OSDMA in BBSR. Inside the office, the official set up restricted my role as an observer and participant, a situation compounded by the limited time that the officials were able to grant to me. However, my time at the OSDMA offered alternative avenues of

learning. Accessibility to the NGO-GO co-ordination meetings during the floods in the first two months of my fieldwork offered scope for observing the functioning of the administration and for actively participating in the meetings. Towards the end of my fieldwork, I conducted a week's field research in Jajpur district at the behest of the OSDMA. Later, the same field report on women's coping stories in the floods of 2003 was published in Oriya, marking the fifth year of the Disaster Preparedness Day in the state[48]. Therefore, during my eight months interaction with the OSDMA officials, I was able to observe, access policy documents, pose descriptive and focussed questions etc., which together generated the desired data with regard to my research objectives.

Interviewing women, government and non-government officials

Interviews with my informants was another important method that was extensively used to complement participant observation, for gaining access to women's lives and for obtaining details on multiple disasters and their coping. Interviews conducted with informants were at times formal and structured, sometimes informal and un-structured, or semi-structured, as and when dictated by the necessity of the fieldwork. All of the formal interviews conducted with the women in the village were tape-recorded. The interviews with the NGOs and the government officials were unrecorded, due to their refusal. Hence, I maintained field notes and a field diary with regular updates. This discussion is resumed later.

[48] The research findings were published in an Oriyan version by Mohapatra, P. and Ray, N.S., 2004, *Nai Kulia Gaan Jhada Batasha Re Luchi Jae Jara Naam: A story book on flood coping experiences of women.* Orissa State Disaster Mitigation Authority publication.

12 women-headed households were selected as interviewees for this research. The venues and times chosen for these conversations were mostly according to the women's preference. The interviews ranged from 6 o'clock in the morning 6 to the late evening, at times sitting inside women's own houses or at neighbours' houses, or sitting in the courtyard or veranda on winter afternoons when women had finished cooking, had fed their children, washed the dishes, and finally had some leisure time to spare with me. Conversations during this time traversed their daily activities, social events like marriage, dowry, fairs, cultural programs, multiple disasters, and gender issues. These casual, descriptive conversations were always enriched by contribution from other *sahi* young girls and boys and women from kinship and the neighbourhood who surrounded me during these conversations with my respondents. I have called this information from the kin and the neighbourhood as voluntary informants and they were equally important for this research and more so with regard to two respondents (Lolita and Tanika) in particular, who were extremely reticent. Voluntary informants helped me to decipher the importance of kinship and neighbourhood networks in women's lives when governmental and non-governmental organisations fail them during multiple disasters. These informal, descriptive conversations therefore not only helped me gain insight into women's lives from the array of issues discussed, but also acted as a constructive preparation for the focussed questions that would be asked during the formal interviews.

An unstructured questionnaire based on my research interest was prepared for the women with the purpose of recording and generating data. The questionnaire I had prepared prior to my fieldwork was completely redrafted after I had met all of the women in the initial phase of this project. Initially, I resolved to collect women's stories, beginning with the super-cyclone of 1999 up until the last disaster, drought in

the year 2002, but my interactions with the women increasingly made the importance of including the most recent floods of 2003, clear. This was also particularly evident in the interview process as it moved from the past to the present. The questionnaire included both descriptive questions and structured questions in order to generate answers for a wide range of topics (Burgess, 2001). For instance, women were asked to describe their experiences in the multiple disasters starting from the super-cyclone 1999 till the most current disaster. Secondly, how have they suffered and survived during and after the disasters? How have their livelihoods transformed due to the multiple disasters? How have the multiple disasters affected their livelihood assets? How have they coped during and after the disasters? And how have they benefited from the governmental and non-governmental responses? These questions elicited some more structured and semi-structured questions specific to each topic, which were to be asked during the formal interviews. For instance women emphasised the importance of social organisation (kinship, neighbourhood, government, non-government) and secondary food system as coping strategies during the multiple disasters. In order to decipher the pattern, potential and efficacy of these, I formulated further questions, specific to the context of each respondent. Loosely structured and un-structured questions on each topic enabled women to talk voluminously about each disaster from their first hand experience. Nevertheless, I attempted to repeat similar topic based interviews with all the women in order to generate data that could later be compared and developed analytically and conceptually. The recorded interviews were between one and a half and two hours. The questions asked by me incorporated both Bengali and Oriya words and most of the women answered in Oriya, mixed with some generally common Bengali words.

Prior to the interview, each woman was informed of the topics of my questionnaire, in order to put them at ease. I sought and was granted, consent for interviews to be recorded. Although I asked women to describe their experiences of multiple disasters chronologically from 1999 up until 2003, women were prone to move from the past to the present, at times anticipating future events based on their distraught memories and experiences. In this process of moving backwards and forwards, women drew analogies and differences between descriptions of present flood experience and previous ones - not only in terms of the physical characteristics of each hazard and the disaster responses accompanying it, but also recounting the differences in difficulties and sufferings caused or aggravated by the same. This is elaborated further in the Chapter Five, while discussing the sequence and consequence of the multiple disasters in women's lives through their narratives. This enabled me to listen more carefully, to develop unconsidered issues, and enabled me to return to past issues and events when new areas were broached and check any apparent contradictions vis-à-vis my earlier home visits, conversations and field notes.

Correspondingly, the interview experience was variable, and I explain this by quoting Chandler who too observed that some women are "like coiled strings, already preoccupied with the issues to be covered and eager to tell stories," (1990) and others more reticent, making the process of extraction more difficult. Some, however, were more than happy to narrate their life story with some nostalgia. But in general, it was difficult for them to relive their sufferings and to probe deep into their self in describing their coping strategies during times of adversity. More than one or two shed a tear, or lapsed into silent memories. These particular moments were touching and emotional, with interviews being paused and only resuming once the interviewee was ready again. There were no instances in which respondents

terminated the interview process, despite their emotional moments. Rather, all the formal interviews occurred according to the women's own pace, their successful completion reflecting their emotional courage and tenacity.

Interviewing NGO staff

I interviewed at least 13 NGO staff, stationed both in BBSR and Jagatsinghpur district offices and in the village - several times, on various occasions, over a period of seven months. However, the key informants were the field officer of AA, two district co-ordinators of BGVS, and two SHG co-ordinators in the village. The former two respondents were interviewed while living in the office-cum-residence in Jagatsinghpur, and the latter group of respondents, in the village, while living in one of the SHG co-ordinators houses. For these groups of informants, I had not prepared a structured questionnaire, although certain topics were developed during the course of the fieldwork as specific to each person's social and organisational position. For instance, my conversations with the field officer and the district co-ordinators covered a wide range of issues. These included discussions on the framework and implementation of the livelihood project, the strengths and weaknesses of micro-credits, the *modus-operandi* of the two organisations, government disaster responses to multiple disasters and their networking with district government officials, the efficacy of NGO-GO co-ordination in the district, the [in] efficacy of the AA and BGVS partnerships, multiple disasters, etc. Conversations on these topics continued over a period of six months, both formally and informally with the field officer and the district co-ordinator. Living with the field officer and the district co-ordinators also enabled me to cross check my data collected from the village and to clarify any doubts that I had. Conversations with these informants were unrecorded according to

their wishes, due to their personal fears that their criticisms of their particular organisations, or government, may be reproduced and quoted, despite my explaining the academic nature of the study. The same probably applied to other government officials who requested the same. Accordingly, none of these respondents were tape-recorded, a fact that put them at ease and enabled their criticism and appreciation of the disaster responses from their own point of view.

My conversations with the two SHG co-ordinators in the village were recorded once. They had nothing to gain or loose, and were overjoyed by the fact that I was to record them. My interviews with these two young women were extremely descriptive and localised. My informal questions to them attempted to unearth the social situation in the village, their personal experiences of multiple disasters, the disaster responses, the political scenario of the village, caste practices, gender issues, the functioning of the Milk Store and so on. My formal interview with these two young women concentrated on the inception of the SHGs, their different phases, the process of credit distribution, the strengths and weaknesses of the livelihood project, and the internal dynamics of the SHGs in the village. Interviews with these respondents and my living closely with them enabled me to derive a clear picture of the village and to understand the impact of the livelihood project on women-headed households in a multi-hazard prone village, which forms the part of the last analytical chapter (Seven) of this thesis.

Interviewing government officials

The government officials that I interviewed occupied different administrative levels in the state. In the capital, I interviewed, over a period of eight months, the OSDMA

officials, which included three high ranking administrative officials. In the district headquarters at Jagatsinghpur, I interviewed the Emergency Officer (EO) on four occasions. At the block level, I interviewed the Balikuda Block Chairman once, and at the gram panchayat level, I interviewed the *Sarpanch* of Tarasahi several times. These selected members of government were chosen for their direct involvement with disaster works, their implementation of disaster policies in the state and the villages, and because of their willingness to participate in this study. All of the interviews took place according to the informants chosen time and venue.

The questions asked to the OSDMA officials were once again descriptive, concentrating on the disaster policies undertaken by the state, which included discussions on specific sections of the Orissa Relief Code, gender issues for disaster policies, disaster mitigation measures, future of disaster management policies, and various questions related to the relief operation, shelter and housing etc. These officials also proved invaluable for cross-checking certain policy specific data reported by the women in the village and by the NGOs. Likewise, my interviews with the Emergency Officer and with the Balikuda Block Chairman were more specifically centred on government responses undertaken at the district and block level with regard to relief, shelter and housing, during and after the multiple disasters. The questions posed were descriptive, eliciting a personal response based on their first hand experience. In responding thus, the Block Chairman in particular offered grassroots realities and proffered his opinion on the lacunae regarding the implementation of the shelter response and the Indira Awas Yojana (IAY) concrete houses in Tarasahi, discussed in Chapter Six. Lastly, my interviews with the *Sarpanch* in the village were very informal, descriptive and specific to the village. I met the *Sarpanch* several times and he proved to be extremely resourceful in

providing the list of widows, information regarding the implementation of the relief operation, the formalities of the house-building grant, and other information that I required for government programmes specific to the village. The *Sarpanch* was also invited to share his views of women's participation in relief operations and community kitchen, discussed in Chapter Six. These government officials therefore provided me with invaluable information that was only accessible through their official capacity and social position. The responses received from the government and non-government officials are integrated in the text, while analysing the narratives of the women.

Documentary evidence

Along with other methods, a participant observer also collects archival, historical and current written records such as official reports, newspapers and the visual media (Okley, 1994; Burgess, 1991). Likewise my research findings from the village were further substantiated through the collection of both primary and secondary sources of data. These included the Orissa Relief Code, the only disaster policy document of the state on relief, shelter and housing, used in tandem with the IAY guidelines of the central government. Knowledge of policy documents enabled me to understand what women were talking about in their personal accounts, where these policies were going wrong in addressing women's needs and the process of negotiation undertaken by administrators for their implementation. I also scrutinised several published government reports, including both special and annual reports on multiple disasters, district/block contingency plans, community contingency plans, white papers, newsletters, demographic details, statistical reports and mitigation measures etc. More secondary data on disasters were collected from the state research institute,

Nabo Krishna Centre for Development Studies and the Women's Studies Department at Utkal University in BBSR. In addition, I collected public documents (Burgess, 1991) like local English newspapers, which later became a crucial source of information on the floods of 2003, especially given the absence of government reports published immediately after the floods. The framework for the livelihood project, along with various self-produced reports of the NGOs was also relevant to this study. This data provided the basis for analysing the social, political and economical aspects of disasters not only in the district of Jagatsinghpur and Tarasahi in particular, but also Orissa as a whole. The usefulness of this data lay in the opportunities that it provided to validate and augment the richness of my collected data in the field.

Recording, data analysis and reliability and validity

Apart from using the tape recorder for carrying out the formal interviews, I maintained a field diary and a file on the key informants. The latter forms of documentation were extremely useful in my discussions with the NGO and the government officials who refused to be tape-recorded. I updated my diary and field notes on a daily basis, summarising meetings with governmental and non-governmental officials, sometimes quoting them. In the village, I used it for noting my daily observations, useful information received from the voluntary informants, my personal feelings of being there and initial conceptual notes. My diary also contained a methodological section for the present and future, to be conducted inside and outside the village. It also contained a section of problematic issues that should be interrogated and cross-checked with the government at the OSDMA, NGOs and

with the *Sarpanch* for the purpose of validity and reliability of the data. In so doing, my own approach in developing analytical categories was informed by the principles elaborated by Schatzman and Strauss': Observational Notes, Theoretical Notes, or Methodological Notes (quoted in Hughes, 1994).

I wrote up my diary on a daily basis because I wanted to document as much information as possible while it was still fresh in my memory. This is particularly important for the development of analytical ideas (Hughes, 1994). In the village, I mostly wrote in the evenings, when the environment in my hostess's house was relaxed and her 14 year old son was ready for his studies. This enabled me to share my lantern with the boy, which helped the family save on kerosene oil. It was one way of showing my gratitude for my hostess's selfless hospitality. She refused to accept any money for my lodging and insisted that their only cot be provided for their guest's comfort.

I also maintained an alphabetical file on each respondent. Under each respondent's name, I maintained basic information including their age, name, occupation, land holding, assets, monthly wage (if any) and number of dependants. I also added observational notes to this file, and updated it regularly after each home visit. In the process of developing relationships with the women, I wrote down what I observed and the substance of our discussions. This included their house location, domestic structures, the community set up, economic activities, individual concerns etc. Maintaining individual files regularly helped me to not only capture certain information which remained unanswered or unexplored during the recording process, but also to reflect on and understand the impact of the multiple disasters based on the social positioning of each individual. This process initiated the elementary stage of

the analytical process through drawing theoretical inferences from the data in an ongoing way (Hughes, 1994).

Even though the data analysis was an ongoing process, the research themes of this thesis were developed only at the end of the fieldwork period. I explain this in the words of Hughes (1994) who had a similar experience:

> […] central issues to be explored […] were raised only at the end of the fieldwork period when I began to grapple, in a formal way, with making sense of my data […] (1994: 35).

When I left for my fieldwork I had only three broad research questions based on my previous work: Firstly, how multiple disasters have affected women-headed households? Secondly, how have these households coped during and after these disasters? And thirdly, who seemed near to meeting women's need during the disasters, is it government, non-government or social organisation? Due to the inductive nature of this research, some more research questions were developed while interacting with the women in the village. Questions related to the micro-credit and the most current flood in 2003 were designed and included during the fieldwork process. During the fieldwork, whilst I always attempted a continual review of events through maintaining field notes, observational notes and sketching preliminary theoretical implications, the subjective experiences of the respondents in the multiple disasters was at times difficult to define meaningfully. As a result, like Hughes:

> In the third year of my Ph.D. work, and when the fieldwork period had formally ended, I began to grapple with the task of writing my thesis. It was a daunting prospect to complete the fieldwork and begin the final stage of producing a written thesis for the first time (1994: 40).

Nevertheless, the originality of this research and my knowledge about women's life gathered through intensive eight months fieldwork in Tarasahi, proved valuable for the data analysis and theorising process. During the writing up process, I read and re-read the transcripts of the respondents time and again. In doing so their subjective responses indicated a pattern based on their caste, class and gender. Initially the research was conceptualised within the purview of the gender and disaster studies and vulnerability analysis. The emergence of caste, class and gender issues during the data analysis indicated its relevance to feminist anthropological studies of India and development studies. Hence, the usefulness of these concepts and theories was tested against my collected data in a multiple disaster situation, and these new literatures added richness to my findings which enhanced the validity and reliability of this research.

Reliability and validity

In order to ensure the reliability of my research methods and the validity of the conclusion, I deployed multiple strategies and multiple methods of field research (Burgess, 1991). According to Jorgenson, "validity and reliability are closely interrelated issues that acquire a distinctive character for the methodology of participant observation" (1989: 37). For maximum reliability of the data, multiple sets of data were utilised for this study - collected from multiple informants (women, NGO and government officials), and through multiple methods of investigation (participant observation, transcripts of interviews, and documentary evidence). The data elicited by women with regard to the governmental and non-governmental responses were validated by interviewing the state, district, block, *panchayat* and the

NGO staff and was also supplemented by documentary evidence. The tape-recorded data provided transcriptions and notes on the transcriptions.

All the tape-recorded interviews with the 12 respondents were carefully translated from Oriya to English by me and by a translator. The translator's versions were then painstakingly checked by me against the recorded interviews of the women for maximum reliability of the data. Later the translated interviews were transcribed in a Microsoft Word. The transcripts included trivial but often crucial pauses, sounds, comments of all the respondents and voluntary respondents, which according to Silverman (2000) are highly significant for the reliability of data and data analysis. All the transcribed data were then read and re-read carefully during data analysis. The transcriptions were then highlighted using different coloured markers to delineate the themes, and the margins were used to write up comments related to each theme. Furthermore, regarding the issue of validity the question to answer is whether or not the research can stand a test of replication. Exact replication would be hard to achieve due to the uniqueness of this research and also the subjective social life. However, similar methods can be tested elsewhere, in documenting the real impacts of multiple disasters on women's lives.

Dilemmas of participant observation and ethical concerns

Like many sociological methods, participant observation faces the dilemma of the "insider" versus the "outsider" or "strangeness" versus "familiarity" in field research (Burgess, 1991). I experienced the same as a Bengali conducting field research in a different culture. Both my culture and my privileged class status made it obvious that

I was a non-Oriya who was different from my group of informants. In fact, this had more bearing on my respondents' imagination than the fact that I had travelled from England for the purposes of undertaking an academic research project in this rural culture. My status as a non-Oriya not only made me more Bengali and thus an outsider, but it also facilitated the process of breaking down the space/ice between them and me during my rapport building process. My non-Oriya status was more tangible in women's lives, than any other identity I carried. Women ceaselessly talked about the cultural differences and shared characteristics of Bengali and Oriya women, which not only facilitated conversation, but which also enabled them to bring me closer to their lives.

Additionally, people often regarded me as a representative[49] from the land of their dear ones. As explained in Chapter One that male out-migration from Tarasahi is typically towards Calcutta and West Bengal. Of the 12 respondents half of them spent some time with their late husbands in Calcutta and the remainder had some exposure through their kinship and neighbourhood. As a result women automatically drew connections with me either through their late husband's memory who once worked in Calcutta or kinship who still works. Sometimes women went on for hours citing their personal experiences in Calcutta. This connectivity drawn by women was an advantage to overcome the language barrier and also narrow down the gap of an "outsider" due to their active participation. Earlier, I mentioned my emphasis on "personal front" during my fieldwork in order to be accepted by women, but this process of being or becoming an "insider" was then a two way process in each others company – the researcher and the researched. However, the dilemma between an

[49] My home town (Uttar Dinajpur district) is about 12 hour distance from Calcutta by train. However, for the people of Tarasahi, Bengal was associated with Calcutta. I tried several times to clarify my displaced residence from Calcutta, but later learnt to accept their linkage when my knowledge of Calcutta acted as a bridge that facilitated communication between us.

insider and an outsider still persisted through out my fieldwork though it was levelled down to an extent.

Power dynamics and ethical concerns in the research process

From the beginning, the design of my research meant that participant observation was to be complemented by interview techniques and documentary evidence. These particular methods were effective enough to generate quality data in the course of my fieldwork. But they were limited in their ability to address the power relationships that emerged in the course of fieldwork while negotiating access to my researched groups through gatekeepers, and in the interview process (see Burgess, 2001; Bryman, 2004). In this regard, feminist research practices seemed a better bet for analysing this situation (Phoenix, 1994; Maynard, 1994; Maynard and Purvis, 1994) because they were able to address the dynamic of gender and power relationships that a participant observer experiences in the course of fieldwork. However, the utilisation of a feminist methodology was not an initial choice for my research, but emerged only when I began to explore feminist methodology during my data analysis and whilst writing-up my thesis. Then, I discovered that feminist research practices proved more beneficial because of their emphasis on the manner in which sociological research involves hierarchical power relationships, rather than merely offering a mundane descriptive account of the mechanics of research practice (Maynard, 1994; Maynard and Purvis, 1994; Phoenix, 1994).

My entry to the village was facilitated by the two NGOs and the government, both of whom helped secure my legitimacy and safety in the village as a non-Oriya female researcher. However, this effectively established a hierarchy between the researcher

and the researched. Liaising with these gatekeepers not only facilitated my access and safety, but also endowed my personhood with some authority. I was frequently misunderstood as a representative of governmental and non-governmental organisations, by the women, SHG co-ordinators, and the *Sarpanch* in the village, which they also took as a connotation that I was in a position to bestow material benefits on those selected. Consequently, I was often subjected to a rude interrogation, mixed with scepticism, by various men and women in the village, which at times, was quite demotivating. However, my enthusiasm in pursuit of my objective remained unsullied.

Likewise, the interview process proved to be hierarchical, despite my developing good relationships with women and other respondents. Gender issues did bring me closer to women in the village, although the shared intimacies that would have signalled the removal of all barriers between us remained (Phoenix, 1994). To my mind, this signified the differential power positioning inherent in the interview situation based on an interviewer's "[…] [race], gender positions and hence power positions, which are all factors that enter into the interview situation and interview process" (ibid: 1994: 50). Apart from the inherent hierarchy of the interview process, where the interviewer asks the questions that probe for the desired responses, I found myself being asked questions by my respondents also. My repeated explanations of the academic project prior to any interviews yielded few results, as in the subsequent interviews, all of the respondents repeatedly asked me, during and after the interviews, "*kono melobo" "kono dobo?"* (What shall we get? What shall you give us?). Questions of this sort were not only difficult for me to answer but also re-emphasised my hierarchal position as a "giver." They also forced me to re-think the ethical issues that arose in the course of the fieldwork. I was delving into the

women's past, disrupting their daily life activities, and awakening their past memories, some of which were often quite touching, but which were often also emotional and painful for the interviewee to express. Likewise, it was difficult for me to respond, to cope and to recompense women for their valuable time and for the stories that they shared with me, the only justification that I could offer being my attempt to faithfully recall the women's collected and collective stories. I hope that the findings of this thesis will benefit and sensitise policy makers to the importance of including gender issues in disaster policies. I therefore aim to disseminate the findings of this research by conducting a seminar in Orissa for the GOs, NGOs and GROs with the hope of bringing some change in women's lives. Furthermore I hope to share my research findings with the larger community by making series of publications for both academic and non-academic journals.

On the other hand, my interviews with the governmental and non-governmental officials were also asymmetrical. As Phoenix (1994) emphasised, the power positions between researcher and the researched shifts over the course of time, and this applied to my field research. I had the power to decide who I wanted to interview, but once I had selected the government officials and the NGO staff, they had the power to dictate their availability, to facilitate my access to policy documents and reports, and to refuse to be tape-recorded. However, during the formal interviews, this relation was other way round. Likewise, Phoenix argues that a researcher regains her power over respondents during the analysis of the data and the writing up of the study. As a result, I have kept the names of my women respondents and government and non-government officials anonymous so as to maintain their confidentiality. I have given pseudo-names to each respondent and to the other voluntary informants of the village. However, the name of the researched village, of

the NGOs and the government organisations used in this research are real because these are the real life stories of the poor and vulnerable households in Tarasahi. Giving pseudo names to the place and the context would undermine the importance of this thesis and of the respondents whose lives have been recurrently torn apart by multiple disasters and who presently lack the help to recover.

Summary of the chapters

The following chapters of this thesis are analytical and are based on the data collected from the village. Chapter Five documents how caste and class position influence women's survival and displacement experiences in multiple disasters. I further investigate whether the caste, class, gender and honour attributes that appear fixed in women's lives are mutable or not in a multiple disasters situation. And if so how and under what conditions does it happen? This chapter therefore explores these questions through the narratives of the upper, middle and low caste women. Women explicate how the experiences of multiple disasters are subjectively based on social caste and class position, factors which influence the ways they cope during multiple disasters. For instance the concrete houses on highland protected the upper caste group in comparison to the middle and low caste group who were settled in the low-lying areas of the village and were severely affected. Additionally caste, class, honour and gender attributes (pre-existing vulnerabilities) that appear fixed in women's lives are mutable. This is possible only when women participate actively and consciously in negotiating and renegotiating their social and biological needs during multiple disasters, within the purview of their kinship and neighbourhood network.

Chapter Six looks at the diminishing effect of multiple disasters on women's livelihood assets. More specifically this chapter seeks to explore how the effects of the disasters on the livelihood assets are reinforced by caste, class and gender attributes. It looks at the coping strategies women adopt to recover from multiple disasters. Kitchen gardens, agriculture, farmland, houses and cattle are identified as women's livelihood assets. The recurrent loss of each asset is then analysed meticulously through the experiences of the upper, middle and low caste women. The narratives of women indicate that the social caste, class and developmental projects are as important as the multiple hazards themselves in entrenching the poverty of these already vulnerable households, by making them further vulnerable and further poorer. In the face of diminishing resources, the government responses (relief, relief work and grant for houses), the kinship and the secondary food system became the most important coping mechanisms for these families survive. Simultaneously the pattern and potential of these coping mechanisms have been further examined in the light of multiple disasters.

Chapter Seven explores the potential and efficacy of the "livelihood project" initiated by the two NGOs - AA and BGVS. The project formed women SHGs in the village and distributed credit to buy livelihood assets. This chapter in particular explores whether this project has the potential to help women regenerate their livelihoods devastated by multiple disasters and help reduce their pre-existing vulnerabilities. In the context of this thesis, the project took a minimalist approach and made little effort to go beyond credit, failing to offer other financial services like insurance, savings, credit and other developmental activities that are absolutely necessary for the successful empowerment (or reducing vulnerability) of women.

Chapter Eight is the concluding chapter of this thesis. It reviews what has been discussed and achieved in this research. This chapter also points to key areas of further research and makes some recommendations for improved policy in Orissa.

Chapter 5

Surviving the multiple disasters: Mutability of caste, class, gender and honour boundaries

In Chapter Two it was noted that caste system in India and Orissa in particular is dynamic and has changed over the time revealing relaxation on social mobility and on commensality practices (Karanth, 1996; Srinivas, 1996; Patnaik, 1969; GOO, 1990). Mobility in the case of caste and women has remained unattainable due to women's unequal position in a society, internalisation of caste and gender norms by women and harsh sexual code imposed by kinship on transgressors (Srinivas, 1996; Dube, 1997; Chakravarti, 2004). Leela Dube was the first to write on caste and gender (Srinivas, 1996) and argue women as the *de facto* custodians of caste through occupation continuity, food and rituals, marriage and sexuality. She also argued that women are not passive recipients of caste rather "[…] conscious acting subjects of social relationships and processes […] characterized by the institution of caste" (1996: 1), which signifies women as both perpetrators of caste and the agents of exerting challenges to the same. Consequently, there has been considerable relaxation of the rules and norms governing commensality and to some extent exogamous marriages, though the consequences of this had been often fatal to women (Dube, 1996, 1997). However, in her works, Dube explains little as to what form caste, class and gender can take during disasters or multiple disaster situations; and how women may cope and negotiate through all of these. This research responds to this gap through the survival and displacement experiences of women-headed households in multiple disasters in relation to their caste, class and gender imperatives operative in their lives. In other words, I explore how caste, class and

gender attribute influence women's survival and displacement in multiple disasters. In doing so, I particularly ask whether these boundaries caste, class, gender and honour which appeared set and internalised in women's life are mutable in a multiple disaster situation or do they further entrench women's social vulnerability? Secondly, this chapter also documents women-headed households coping mechanisms in the wake of recurrent displacement and survival in the multiple disasters. Self-help and support from government, kin and neighbourhood network were important resources for the coping strategies of women. Whilst documenting the coping mechanisms, the pattern, potential and sustainability of these coping resources have also been analysed, in depth and detail. Women's experiences of coping are not discussed separately rather integrated in their narratives.

However, before embarking on to explore women's survival stories in the multiple disasters, I have first attempted to contextualise the time and sequence of the multiple disasters (that is the super-cyclone in 1999, floods in 2001 and 2003 and drought in 2002) through women's narratives in the ensuing section. In the later three sections of this chapter, I have examined the survival and the coping experiences of the upper, middle and low castes women separately for the purpose of analytical clarity.

Batya, *bonya* and *morudee*: Time, sequence and generalised views on multiple disasters

> When I first arrived in the village in the month of October, Tarasahi was still wet from the most recent flood of August, 2003. The houses, streets, and the fields were still drying. The pungent smell of the rotten grass and the crops

> from the field was particularly strong with the evening and the night breeze. Everything seemed damp and humid, even my hostess's new Indira Awas Yojana (IAY) concrete house. To mar this dampness villagers used large amount of sand carried from the sand-mound located on the outskirt of the village. This was particularly obvious in the peripheral *sahi* (ward number 9-12) of Tarasahi due to their low-lying areas and proximity to the river Debi. When I first visited these wards, I was shocked by the amount of sand dumped in the streets and the courtyards of women. Later I was told by the two respondents from these *sahi* (Latika and Jhumpa[50], October, 2003, Tarasahi) that due to its low-lying geographic make up, these *sahi* are the first *to* get inundated and the last to dry up due to the stagnation of water for a long time. In order to mar the wet, clay and dampness inside and outside their houses, people from these *sahi* carry sand in their boats for days and nights. Due to this the sand-mound which provides shelter to the marooned and acts as a natural barricade from inundation is gradually in the state of extinguishing (field diary, 20 October, 2003).

My initial visits to the women's houses were spent mostly over casual chit-chat in order to develop rapport and some observation in their everyday life that were extremely busy in recovering their lives after the floods. It was only after a month or so I was able to have long casual and non casual conversations with them and decipher the time and sequence of the multiple disasters through their eyes. To begin a conversation with each woman, my initial question was to ask them to say something on the multiple disasters that they had experienced. All these conversations were informal and were not tape-recorded. However, some women did repeat the same facts and similar events during the formal interviews which were tape-recorded. Therefore, this section contains extract from both recorded interviews and my field diary.

[50] All the names used in this thesis are pseudo names except the name of the place, government organisations and the name of the NGOs.

As known officially Orissa was struck by the super-cyclone (*maha-batiya*) in 1999, flood (*bodhee*) in 2001, drought (*morudee*) in 2002 and again flood (*bodhee*) in 2003 (GOO, 2002c, e; 2003 a). In this respect my conversation with women generated their personal views on the sequence of these disasters. Here I quote Chumki Bhoi, a low caste respondent and a mother of four children – two daughters (one married and one 13) and two sons (20, 16). Chumki is a day wage earner. Her husband died after the super-cyclone due to prolonged illness. I met Chumki several times during my fieldwork and had several conversations prior to the formal interview. In one such conversation, Chumki told me:

> […] sometime ago we experienced a flood (year unknown) bigger than the present one (referring to 2003 floods) […]. At that time my husband was alive. We managed to stay on top of a platform that was constructed by my husband and my brother-in-law's. But after the *maha-baitya* (super-cyclone) the disasters seem to have increased. First came the super-cyclone, then the flood, then *morudee* and then flood! Anything I cultivate gets washed away. Consequently I do not get crops and any food to eat […] (quote from my field diary, December, 2004, Tarasahi).

This conversation broke in one afternoon when I asked Chumki whether she had lunch. This led her to say that she had some ground baked rice and a glass of water because the most recent flood destroyed her sharecrops. So she had no stock of rice at home. Later she added how the disasters have drastically increased after the super-cyclone, and this was obvious when she finished the following sentence "First came the super-cyclone, then the flood, then *morudee*, and then flood" in one breath without any pause, indicating as if these disasters had happened in consecutive days than in consecutive years. Any temporal gaps in between these disasters seemed insignificant to her life due to the recurrent impact on her sharecrops and the consequent food scarcity and hunger.

However, in retrospect this was in direct contrast to the views of the policy makers and the practitioners whom I met in the capital BBSR, before coming to live in the village. I quote one of the conversations that I had with one of the officials at OSDMA:

> The super-cyclone was eventful but it is a past now, though the government has learnt quite a lot. After 1999 lots have happened in the coastal Orissa. Cyclone shelters have been constructed and *pucca* (concrete) houses have been built. The government has taken various measures for the people. So people are relatively better-off now. During the floods people now take shelter in the shelter homes, and the drought in 2002 was not that bad! Besides the villagers always stock some rice to overcome the crisis period. And the district administration also provides relief and relief work during and after the disasters […] (field diary, August, 2003, BBSR).

The description of these discrete and distinct disasters according to the official and consequent event management after the disasters by the government seemed in direct contrast to the sequence, the regularity and the human aspect of the multiple disasters experienced by Chumki Bhoi.

The 1999 super-cyclone acquired a distinctive memory in women's lives due to its severe devastation, but in the course of their lives what seemed most important to remember and recount was the intensity and the devastation of one disaster from the other. Hence, Chumki referred and compared the most present flood of 2003 with another flood, of which she cannot keep track of the year - "sometime ago we experienced a flood (year unknown) which was bigger than the present one." Similarly the other women during the interviews moved constantly from the past to the present and anticipating future in order to explain the sequence and compare the intensity of each disaster from the other experienced in their lives. In this respect I refer to Biswamoy Pati (1997), who found similar facts while documenting the popular memory of the

disasters in Kalahandi, a western district in Orissa. Pati observed all the droughts that occurred in Kalahandi since 1965 were not the same rather each had specific characteristics based on the experiences of the people. The people of Kalahandi had specific ways of remembering these droughts. To them the drought of 1965 was "*Chek Makar*" and the later droughts were "*Makar.*" The importance attached to the specificities also showed some association with the names that they had given to their children born in 1965 namely – Makar, Makara and Makaru (1997: 1392). According to Pati what we see here "is an attempt to focus on the specificities of each crisis, the effort to distinguish between them, coupled with a search for explanations for the problem" (1997: 1393).

Latika Behera, another respondent from the middle caste, narrated vividly the destructive sequence of the multiple disasters in her life. Latika is a widow from a fishing community and a mother of four children - three daughters (two married elsewhere and one in the village) and a son (18). She earns her living rearing cattle and doing some farming. According to Latika:

> *Sabo bela* (literal translation - **all the time**) we are having *batiya, bonya* and *morudee*. There is no respite. Every *Shrabon* and *Bhadro*[51] months we are having floods. If we do not have that our houses will not be drowned and broken; I would not be shifting to the *bali* to take refuge or move from one place to another with my luggage; my *bhonda* trees and other fruit bearing trees will not die; and we would get our crops and earn some money. Now the lands are *balichod* and even *badam* cannot be cultivated. […] last year the water level was 15 feet (?), this year it was 18 (?) (Here she looks at her daughter for the confirmation of the depth of flood water that she just mentioned) and next year I guess it will be more. How long can I carry soil on my head and reconstruct my house? How many times and how long can we fill the ditches and holes? […] (January, 2004, Tarasahi).

[51] Shrabon and Bhadro are months in the Bengali monthly calendar and denote the seasons of July-August- September according to English calendar (Mukherjee, 2004).

In this narrative of Latika, I find her emphasis not only on the recurring annual visit of floods and other environmental hazards, but also how the destructive effect of these disasters became a regular feature of her everyday life - "*sabo bela.*" However this is in direct contrast to the accounts of the official quoted earlier. Latika's narration brought out the complete cumulative effect that the multiple disasters has had on her livelihood i.e. the recurrent destruction of her house, destruction of her kitchen gardens, crops, recurrent displacements and above all psychological desperation. All of which had only slackened her recovery process causing day-to-day distress and scarcity. The destructive effect of the multiple disasters on livelihood assets is discussed in more detail in next chapter (Six). Hence, the temporal gap that exists between these three geologically discrete disasters (floods, cyclone and drought) as known by the government and the larger community became largely insignificant in her life. The conversion of these three geologically discrete hazards into multiple disasters on women's households is explored further in the subsequent two chapters of this thesis (Six and Seven).

Safe house and high land: Upper caste women's experiences[52]

In this section I explore the main questions that were posed in the beginning of this chapter. More specifically this section explores the survival and displacement experiences of the upper caste women in relation to their caste, class and gender attributes during multiple disasters. In doing so, I also attempt to explore whether

[52] This chapter focussed less on the impact of drought (2002) as the (slow on-set) hazard had no direct impact on women's life and shelter; except that the following year saw a shortage of hay (to be discussed in Chapter Six). Besides while narrating their experiences of survival in the multiple disasters the respondents focussed mostly on the cyclone and the two floods owing to sheer impact and devastation these events has had on their life and livelihood, compared to the conditions of drought.

their survival and coping experiences indicate mutability of these socio-cultural norms prevalent in their everyday lives. I address these questions through the narratives of the upper caste women quoted below.

Brahmins, *Mohanty* and *Khandayat* are the upper castes of Tarasahi and they occupy the highland of the village (ward numbers 1, 2 and 3) which is also the mainland or the village centre. *Brahmins* and *Mohanty* are located in the highland of the village and *Khandayat* are located in the periphery of that highland. This highland is also occupied by the *Barik* (Mausi, Chionika, Sarpanch, 2003-04, Tarasahi). These wards are also part of the village centre not only due to the settlement of the upper castes, but also due to the crucial structures that grew surrounding the upper caste settlements. For instance the local shops, the large concrete Shiva temple, the secondary school, the Sishu-mandeer (private primary school), the anganwadi (Integrated Child Development Service) and the *palli sabha* (village level committee) – all of these typically define the characteristics of the village centre (Chionika, 2003-04, Tarasahi). Three of the 12 respondents were from the upper castes: Konika Mohanty (57+) was from *Mohanty* community, slightly higher in social status than the *Khandayat.* Other two respondents, Lolita Nayak (46+) and Tilotoma Biswal (35+) were from *Khandayat* community. By virtue of her caste and class, Konika's house was located on the highland, whereas houses belonging to Lolita and Tilotoma were located on the periphery of that highland. The middle and the low castes occupied the periphery of the village, which will be discussed later.

Before I embark on the survival experiences of Lolita, I lay out a brief biography of her life to contextualise her experience in the multiple disasters. Lolita is a mother of three daughters (two married elsewhere) and lives with her youngest daughter (15) in

the village. Her husband who worked in a cowshed in Calcutta died seven years prior to the super-cyclone due to alcoholism. Lolita shares her house arena with one of her sisters-in-law, with her 4 children - three daughters aged 18, 15, and 6 and a son aged 10. Her sister-in-law is a *de facto* head of the household because her husband works in Calcutta as a casual labourer. Both in crisis and in their everyday life, these two women-headed households are helpful to each other. Lolita earns her living selling milk from her cattle and through some extra cash that she earns by selling cashew nut from her three cashew trees. She inherited these trees from her in-laws after her husband's death. Lolita has also inherited two acres of land which is not cultivated due to lack of money and male family members. Her constricted economic and social mobility outside of her homestead also made it difficult for her to undertake any such farm activities. According to her:

> *Khandayat* women are not supposed to work outside their homes. In fact we are not even supposed to show ourselves outside our *khnoja*[53] (February, 2004, Tarasahi).

The farm lands that she had inherited are quite far off from her *sahi*, which means that she cannot visit the fields regularly even if she intends to cultivate paddy or green gram or groundnut. This is because farming acquired a gendered dimension in her life:

> […] we will end up spending more money than getting any profit. People steal groundnuts, pea-nuts and grams at nights. We do not have any male family members to guard at nights. The lands are quite far off. Besides the herdsmen are the worst, they pick them up in bunches. Can we guard them or say something to them? No! […].

Therefore, the family occupation which entails cattle rearing is the only choice vis-à-vis Lolita's caste, class and gender needs.

[53] Literal translation of *khonja* is nest. Houses which are surrounded by high boundary walls are typically called as *khonja* in Tarasahi (Lolita, 2004).

In the formal interview, when I asked Lolita to tell her survival experiences in the multiple disasters, this is what she started with:

> I very well remember the day of *maha-batiya*. It was on Thursday night that the rain and the wind started. It was not that bad. But the rainfall and the wind intensified on Friday morning around 7-8 am. We had some coconut trees around our house arena. First, these coconut trees fell on the roofs. Consequently, the house was shattered and the door fell apart. When we realised that the house was about to fall we all ran out for the sake of our lives. We (referring to her sisters-in-law family) all ran to one of the concrete houses of our *sahi* to take shelter. The house was packed with people. […] On Saturday when the wind and the rainfall reduced little bit around 10-11 am my daughter and my sister-in-law left the house to fetch some food from the debris of our collapsed kitchen (February, 2004, Tarasahi).

As mentioned earlier due to the devastating impact of the super-cyclone it occupied a distinct position in women's memory. It is observed in Lolita's narrative, the vivid description of the day before and the day after the super-cyclone. In fact some of the respondents from the low caste group could very well remember the activities that they were undertaking during the time of the super-cyclone. Prior to the super-cyclone, Lolita and her sister-in-law heard about the cyclone prediction from radio broadcast but they were unaware of the intensity. Also there were no cyclone or flood shelters[54] in the village that they could move into prior to the super-cyclone. It

[54] After the super-cyclone Tarasahi was sanctioned a cyclone shelter but the project did not start until April 2004. This was because the people in the village were divided in their opinions over the location of the shelter. There was a tug of war between the high caste, the dominant middle caste fishing community, and the government over the location. The government selected a site, which was in the low-lying peripheral *sahi* due to its convenience of carrying materials. Coincidentally, this location promised to benefit the dominant fishing community of the peripheral villages more than the high caste living in the highland. Therefore, the high caste people wanted the cyclone shelter adjacent to the village centre for their convenience. Failure to resolve this conflict by the government delayed the project launch. Finally, the construction began in the government selected site, showing the rigidity of the government than negotiating the community divisiveness (interview with OSDMA official, BBSR, 2003; *Sarpanch*, 2003-04; Mantu Sir, 2003, Tarasahi). Women expressed in the interviews that setting up two small cyclone shelters instead of one unit (one in the highland and one in the peripheral villages) could have catered to the needs of both the groups and of the women in the village. This location will victimise the upper and low caste women more than others (leaving the middle caste women) because women are the last one to evacuate their houses. Without any resources like boat (which women do not own) commuting from the mainland to the cyclone shelter will become a paramount problem due to the rivulet that gets flooded during the monsoon and in tidal surge.

was only on Friday morning when the impact of the super-cyclone was at its peak Lolita and her sister-in-law ran for their lives to take refuge in the concrete house of her neighbour. In this respect Lolita offered slightly nuanced and gendered view with reference to Thomalla and Schmuck's (2004) findings. Thomalla and Schmuck investigated the reasons for the largest number of human casualty (10,000) in the super-cyclone and found that the lack of preparedness amongst the common people and non-coordination between the government and its departments - as some of the major reasons. They also found that about forty-three interviewees reported warning of the cyclone was not clear, fifty-two doubted that their village would be affected, eight were convinced even if the cyclone affected their village, they personally would not be at risk because they considered their house was at a safe location i.e. highland, and only 12 took some precautionary measures (2004: 377). This research found that it was not only un-perceived intensity of the cyclone, but also lack of appropriate shelter or strong structures that accentuated the situation in Tarasahi - as it is explained by Lolita and other middle caste women, which will be discussed later. Lolita and other women from the middle caste told me that they literally knew no place that they could take refuge despite knowing the fact that a cyclone was about to strike the village. The GOO was severely criticised due to the neglect of disaster preparedness and inadequate evacuation response prior to the super-cyclone, despite the cyclone prediction was available more than 75 hours before the event, providing ample time for evacuation (Thomalla and Schmuck, 2004).

Prior to the super-cyclone Tarasahi had only three concrete houses; two in Nayaksahi and Mohantisahi owned by two upper caste wealthy male-headed households, in which Lolita and Konika took shelter. The third concrete house was at Beherasahi owned by a middle caste fishing community, which accommodated Shalini Behera,

another respondent from that *sahi*. None of the respondents owned any concrete houses prior to the super-cyclone. Lolita, Shalini and Konika who took shelter in these concrete houses explained that these houses were overcrowded and the people had literally no space to stretch their legs or limbs for two days. The village also had three one storied concrete school buildings before the cyclone, and couple of asbestos roofed houses in Balisahi and Purbodiha – the peripheral *sahi* of Tarasahi. In the absence of any cyclone shelter in the village, these concrete houses were instrumental in saving the lives of my five respondents and the others in the village, but they were excruciatingly hard pressed to meet the shelter need of all. Hence, the larger proportion of the people and women in particular were directly exposed to the super-cyclone. This will be discussed later through the stories of the middle and low castes women.

In contrast to the super-cyclone Lolita's experiences in the two floods was more organised and calculated. I quote Lolita's experiences in both the floods together than discussing separately because the respondents described these two disasters together. This was partly due to their convenience and also partly due to their attempt to focus on the specificities of each crisis and their effort to distinguish between them in order to search for explanations for the problem (Pati, 1997). According to Lolita:

> The *bodo-bodhee* (referring to 2001 flood) after *maha-batiya* was worst than the present *bodhee* (referring to 2003 flood). My house was affected once again and the walls were broken. There was knee deep water inside the house. It was like rain on your head and water on our feet. There was water everywhere and snakes. But we still did not go to the *bali,* rather stayed at home. We do not have any male members so how can we (sister-in-law) go to the *bali* taking young girls with us. However by that time fortunately my sisters-in-law IAY house ceiling was done. So we all shifted to that half constructed house and took shelter […].

> Thankfully due to my concrete house, the present *bodhee* (referring to 2003 flood) was not that bad though the flood water stayed inside the *sahi* for more than fifteen days. We were not harassed much like the *bodo-bodhee*. We were at home […] and could at least sit and sleep during the present flood. Only my kitchen is affected.

In this extract Lolita brings forth several issues – firstly, the subjective experience of the multiple disasters; secondly, her coping strategies during the floods; and thirdly, impact of those coping strategies on her caste, class, gender and honour attributes. I address these issues accordingly. Living in a coastal area cyclones or *batiya* are not uncommon (Thomalla and Schmuck, 2004). Gale, strong wind or mild cyclones from the Bay of Bengal are regular features in (Tarasahi) the coastal villages (ibid). But *batiya* turned into *maha-batiya* in Lolita's life due to its devastating impact on her life and livelihood. This will be discussed further in Chapter Six. Likewise the flood after the *maha-batiya* became *bodo-bodhee* in Lolita's life because the flood water entered inside her house and damaged the mud walls once again, causing her displacement inevitable. At the same time, the most recent flood of 2003 was only *bodhee* despite her *sahi* was flooded for more than fifteen days. This was because she received a grant from the government to construct a concrete house and the house was completed prior to the floods of 2003. Consequently, the flood water could not enter the house and cause her displacement. The IAY[55] concrete house promoted by the state and the central government as a household mitigation measure (OSDMA,

[55] The Indira Awas Yojona (IAY) is a centrally sponsored housing scheme. The genesis of IAY can be traced back to the programmes of rural employment which began in the early 1980s. Construction of houses was one of the major activities under the National Rural Employment Programme (NREP) which began in 1980 and the Rural Landless Employment Guarantee Programme (RLEGP) to generate income and provide concrete houses to the poor. During 1985-86 the IAY was launched as a sub-scheme of RLEGP because the GOI in June 1985 earmarked a part of RLEGP for the construction of houses for SC/STs and freed bonded labourers. The IAY thereafter continued as a sub-scheme of Jawahar Rojgar Yojana since its launching in April 1989. About 6 per cent of the total JRY funds were allocated for implementation of IAY and later to 10 per cent in the year 1993-94 and since then the scope for IAY was extended to cover below the poverty line of non SC/ST families in rural areas. However, with effect from 1st January, 1996, IAY was de-linked from JRY and declared as an independent scheme (IAY Guidelines, GOI).

2003; interview with the Block Administrator, February 2004, BBSR) was beneficial for Lolita because they directly arrested her physical vulnerability. This indicated that physical vulnerability can be non-static (Wisner et al., 2004) if effective responses are put into place (this was argued in Chapter Two). However, I do not claim that concrete house reduces social vulnerability, which will be discussed in Chapter Six. Similarly, the respondents from different caste and class backgrounds bring forth the subjective experiences of the multiple disasters by virtue of their social positioning and access to government responses over a period of five years.

Secondly, the impact of the flood was not life-threatening to Lolita as was during the super-cyclone. Lolita's move and her coping mechanisms were more calculated than random. Unlike the super-cyclone the block and the local administration undertook preparedness measures in both the floods. As Tarasahi lacked any formal high buildings, the government set up an "emergency shelter[56]" in the *bali*[57] with bamboos and tarpaulins. Special provision of relief was also arranged for the flood evacuees by the block and the local administration (interview with Balikuda Block Administrator). But Lolita did not access this emergency shelter in the 2001 floods because she had a 15-year-old daughter, who will be very soon eligible for marriage. Likewise, her sister-in-law who had also two adolescent girls and one ready for marriage decided not to go to the emergency shelter in order to avoid any

[56] According to the Orissa Relief Code (GOO, 1996) the district Collector is supposed to make arrangement for the Emergency Shelter prior to, and during floods and cyclone in the coastal zone, (Section 60, 90). The emergency shelter can be buildings belonging to government (*gram panchayat*, educational institutes etc.), or other institutions of public nature (community buildings, temples, and storm shelters), or places where there are no such appropriate buildings available, temporary structures with bamboos and tarpaulins should be raised on high mounds or embankments (GOO, 1996).

[57] The *bali* (sand mound) is a deposition of sand by the rivers and the sea over a period of time. The people of Tarasahi are gifted by such natural barricades, which protects the village from severe inundation (*mausi*, Chionika, Latika, Tarasahi).

unhonourable incident that might befall their daughters and their marriage prospects (Noyonika, December, 2003). In addition both the families lacked male family members to entourage them in their displacement in the intermediate sphere at the *bali*, which was coshared by both men and women from different castes and classes. In order to maintain honour and avoid any *lajo* or shame that might befall on their castes due to the exposure, both Lolita and her sister-in-law decided to stay back at home. In this respect multiple disasters only reinforced and reintensified their pre-existing vulnerability i.e., caste, class, gender and honour than transforming their way of lives. I refer back to Dube (1997) and Chakravarti (2003) who has elaborately talked about the values that are attached to virginity and adolescent girls who attain puberty. Attainment of puberty calls for restrained behaviour on adolescent girls and need for protection and vigilance because these are directly concerned with caste and class values and also prerequisite for socially sanctions motherhood (Dube, 1996). This was emphasised by Lolita and her sister-in-law by adopting coping strategies which are shaped and governed by these norms. Unsurprisingly, both Lolita and her sister-in-law stayed back at home during the floods of 2001 despite heightening risk of inundation, fear of collapsing mud walls on them and snake bites[58] in the floods of 2001.

Konika Mohanty, a socially higher caste than the *Khandayat* community offered a different experience of the multiple disasters. Konika is a mother of four children - two daughters (both married elsewhere) and two sons (both independent). Konika lost her husband in the year 1991 when he came back home to see the family from Calcutta. He was drowned in the river Debi. Currently she lives with her two

[58] Fear of snakes and snake-bite is severe in the village. There were no incidences of human casualty during the disasters except one death occasioned by snake bite in the floods of 2001.

independent sons. Her eldest son works in a biscuit factory in Puri and her youngest son is a school teacher at the Sishu-Mandir in the village. Konika had five acres of land but "they are all swallowed by the river," to be discussed in more detail in Chapter Six. Konika has two cows which help her to earn some money by selling milk. According to Konika:

> During the super-cyclone we took shelter in the concrete house of Mantu Sir. All the people from this *sahi* were inside the house. For two days and nights we were inside the house standing and not going to the toilet […].
>
> But during both the floods I was at home. I did not go to the *bali.* The flood water only touched the front and rear arena of our house. You see my house is in a piece of highland that usually saves us from flooding (October, 2003, Tarasahi).

Unlike Lolita (mentioned earlier), Konika did not experience the impact of the big-floods severely. It was the location of her house that saved her from severe flooding. Konika was my hostess's (*mausi*) sister-in-law. Both the families lived in the same arena and maintained a good relationship with each other. I was privileged to be part of this family and live on the high part of the village. *Mausi* and Konika's houses were at the edge of the highland and beyond their houses were the fields in the northern side and on the western side after an acre of land or so, were the hamlets of the *Goal* and *Beheras.* About 50 yards away from Konika's house, was Mantu Sir's concrete house mentioned by Konika above (paragraph one). During the super-cyclone *mausi* and Konika did not have much trouble in finding some space in the concrete house of their neighbour. After the super-cyclone both the families received the IAY grant from the government. *Mausi* had recently finished the construction of the concrete house in which I lived, but the construction of Konika's house remained unfinished due to lack of fund. However, during the floods the highland on which Konika's house was located on itself acted as a natural barricade from inundation.

Consequently, her house was unaffected in both the floods and did not cause displacement and distress as experienced by Lolita and the middle caste women.

I concur with Winchester who argued that the occupants of the highland will be less affected by certain hazards (like flood) than those who live in the periphery or lowland of a particular location (1992). Such patterns of settlements also reflect social and economic structure and an individuals bargaining position to access and occupy such constructed space (Maskrey, 1989; Winchester, 1992). This is highly significant in explaining the settlement pattern of Tarasahi where the upper castes occupy the highland of the village, which acts as a natural barricade from inundation, and the middle and low caste occupy the low-lying lands. Winchester (1992) observed similar settlement pattern in Devi Seema, Andhra Pradesh where the upper and the dominant castes occupied the mainland, also the highland that protected them from annual flooding. As a result the piece of highland in which Konika's house was located, by virtue of her high caste and class privileges helped her to reduce the physical risk posed in the post super-cyclone disasters.

Shame, shameless and exposure: Accounts of middle caste women

When the middle caste women were asked to narrate their survival experiences in the multiple disasters and the strategies they had adopted, the narratives emphasised the importance of collective survival. They also emphasised the mutability of caste, class and gender norms within the purview of the social organisation, which was not observed amongst the upper caste women. This is explained through the narratives of the respondents quoted below. In contrast to the upper castes settlement, middle

castes were located in the periphery of the village. Unlike the upper castes, the households of the middle castes were dispersed but they were also clustered and shared the same arena with their kinship. For instance, Balisahi consisted of only 7-8 households. *Behera* the fishing community and *Goal* the milkman (literal translation in English) community are the middle castes of the village. The middle castes are also the "dominant community[59]" (Srinivas, 1962; Karanth, 1996) in the village by virtue of their numbers and the consequent position in the local *panchayat.* For instance the *Sarpanch* of Tarasahi belonged to the fishing community. Of the 12 respondents five respondents were from the fishing community. They were Ullash Behera (29 +), Latika Behera (46), Manimala Behera (28), Jhumpa Behera (40+) and Shalini Behera (29). All of these respondents were located in the western side of my hostess's house except Shalini Behera (mentioned earlier) whose *sahi* was located on the southern side. Of all the 12 wards in the village, the three wards (9-12, Balisahi, Dihasahi and Purbodiha) in which four of the respondents were located were the most low-lying areas of the village and were closest to the river Debi. Additionally these wards were further secluded from the village centre by a rivulet that passed through the heart of the village. Consequently, the low-lying areas and the overflowing of this rivulet during the floods play havoc in the lives of these women.

The survival stories of these four middle caste women in the multiple disasters are scintillating. When I asked Latika Behera to narrate her experiences in the multiple disasters, she told me the following story. Brief note on Latika's life was introduced earlier (refer to p127). Latika is the only respondent who was married inside the

[59] One can see Karanth for the definition of "dominant caste." According to Chakravarti the concept of dominance and dominant caste have unfortunately been treated as gender-neutral categories but they are in actuality deeply gendered and deeply permeated by patriarchal codes" (Chakravarti, 2004: 150). And this will be observed in this chapter and the next, that the middle caste respondents, though belonged to the dominant caste of the village, were poor, resource less and the severely affected by the multiple disasters.

village. Prior to the super-cyclone Latika reared cattle, maintained a large kitchen garden, and cultivated paddies in her two *guntha* (less than an acre) land with the help of her young son and the allowance that she had received from her husband from Calcutta. In the year 2001 her husband died of illness. After her husbands demise her son had to go to Calcutta to earn money. Currently, Latika earns her living rearing cattle because women of her community are not allowed to:

> […] do physical labour outside home. [...] we have various rituals and practices in this country. If we do not follow them, other women would say "what kind of women is she? She has no values, no respect and shame. She has nothing!" So we maintain this […] and rear cows at home (December, 2003, Tarasahi).

Like the upper castes, family occupation is also the only option that suits Latika's caste, class and gender needs. While narrating her experience in the multiple disasters, this is what she said:

> On the day of the *maha-batiya* I along with my children ran to Jumpa's house (a neighbour, also a respondent). We all sat together in the courtyard of her house covered our heads with *heshua* (mat) and held to each others hand. Oh god! It was raining like hell and the wind was severe. We sat in the courtyard amidst rain and wind for the whole day and night without any food and water. Next day when the wind reduced slightly we moved to an asbestos house in our neighbourhood. They (referring to the house-owner and the people who took shelter in that house) hung bricks and stones to the roof so that the roof is not blown away. After two days when we returned home we put up a tent, spread sand, and lived inside it for two months.

Prior to the super-cyclone there were no concrete houses in the *sahi* where Latika lived. This also revealed the socio-economic vulnerability of this community in this particular *sahi*. However, there was one concrete house in Beherasahi where Shalini took shelter to be discussed later, but Latika and Jhumpa thought that they could have never made it to the house against the strong wind (estimated at 270-300 km/hr

(GOO, 2002c)). When the coconut trees surrounding her house fell on the roof she realised that this roof could kill them. At that time Latika with her son and the married daughter who came to stay with her, ran for their lives towards Jhumpa's house. In the courtyard of Jhumpa, Latika sat with her kin and neighbours for twenty-four hours before she could move to an asbestos house.

In Chapter Two where it was argued that each caste and class group in rural villages in Orissa live in an independent *sahi* and each *sahi* more or less functions as socially and morally autonomous homogenous segments (GOO, 1990: 286). These segments or *sahi* also share strong bond amongst themselves both with/out crises (ibid). This particular trend was visible not only in the settlement pattern of Tarasahi, but also in the coping strategies of Latika and other middle caste women in their *sahi*, and too some extent amongst the *Bhoi* in Bhoisahi. This is explained further through the instances of the low caste women later. In order to elaborate this point further I quote Manimala Behera, another middle caste respondent from a different *sahi*. Manimala is a mother with her five year old son. Two years prior to the super-cyclone her husband died due to some illness. Since then she has been living with her elderly mother-in-law. According to her:

> In the morning the wind was really strong […]. At that time I started thinking where could I go? When the trees started breaking I left the house with my two year old son in my arm. My sister-in-law also joined me. I ran out of the house holding my son in my lap and carrying a pair of *saree* and an umbrella […] but everything was blown away. Whenever we attempted to stand up and run we fell flat on the ground due to the high intensity of the wind. However, I still held on to my son strongly in my arm. There was no *kotha badi* (concrete house) in our *sahi*. There was some space outside my brother-in-laws house and we found all the *sahi*-people accumulated there and sat together covering their heads with a polythene sheet. We somehow managed to join them and sat with them for three days and nights (February, 2004, Tarasahi).

In the absence of any evacuation response by the government and lack of concrete houses in these three wards (9-12), surviving the impact of the super-cyclone was a collective effort for the women with their kin and the neighbourhood. This collective effort of surviving the later disasters was also emphasised repeatedly by these respondents. In light of this it is apparent that during crisis, it was the kinship and the neighbourhood network that acted as a fallback position for these respondents, than any outsiders or the government. Furthermore, Manimala Behera and her sister-in-law also explicated the difficulties that women with young children face during disasters.

In the two floods Latika, Manimala and the other two respondents were once again affected due to the low-lying areas of their *sahi*. Their *sahi* were the first to get inundated. Unlike the upper caste respondents, these respondents were forced to leave their houses and take shelter in the "emergency shelter" with their neighbours and kin except Shalini Behera – discussed later. According to Latika:

> In both these big-floods we had to flee to the *bali*. In the former big-flood my daughter was with me and in the later big-flood I flee with my sisters-in-law, Jhumpa and others. I sat on top of the cot but later this also became very difficult to do. The whole *sahi* was full of water and then there were snakes in the *sahi*. The flood water entered their holes and they all came out. I could not shut the door due to flood water inside my house. So I had to leave it open when I left for the emergency shelter. Consequently, the house became the abode of snakes everywhere in the roof and the door.

Of all the hazards such as earthquakes, landslides, volcanic eruptions, the likelihood of flooding is more predictable due to its "lag time"[60] (Bell, 1999). In Tarasahi the lag time was determined based on women's own past experiences, observation in the

[60] Lag time "is an average time between a rainstorm event and the consequent river flow is referred to as the lag time. This can be measured from the commencement of rainfall to the peak discharge or from the time when actual flood conditions have been attained to the peak discharge" (Bell, 1999: 263).

rising level of the river Debi and the prolonged heavy rainfall. Unlike the super-cyclone, the local administration put an emergency shelter during the floods and all the four middle caste respondents accessed it. However, Latika did not shift to the *bali* during the lag time rather she shifted at what Thompson and Tod (1998) called "trigger point," when she could no longer sit on her cot and the house turned into an abode for snakes due to inundation. Similar accounts were given by the other middle caste respondents. While investigating the flood proofing and flood protection strategies in Kurigram, Bangladesh, Thomson and Tod (1998) also observed that evacuation during floods was correlated with depth of flooding in the home. It was under severe life threatening situation that Latika and the other three respondents were triggered and forced to access the emergency shelter in the public space. This in turn helped them overcome their strict caste, class and gender norms and spheres prevalent in their everyday lives. In this context, we see that the multiple disasters brought forth the mutability of caste, class, honour and gender boundaries in these women's lives, which were not observed in the experiences of the upper caste women.

In contrary to Latika and the other two women mentioned earlier, Shalini Behera, 29), a middle caste woman is an exception. Shalini is a mother of four children - three daughters (13, 8, and 7) and a son (5). Shalini lost her husband just eight days before the 2001 floods. Currently she lives with her elderly mother and father-in-law. She earns her living rearing cattle and some extra cash that her old father-in-law contributes from his day-wages. Due to her three young daughters and having no strong male family members to support during the displacement, Shalini decided to stay back at home in both the floods. Consequently, Shalini and her children had to suffer severely:

> In these *bodo-bodhee* (big floods, referring to both 2001 and 2003 floods) I had lots of difficulties just to sit, sleep and shit. First when the water came we sat on our cot. Again when the water level increased we put the *trunk* (steel boxes to keep valuables) on top of the cot and made the children sit on it. It was a very difficult time for me and for the children. I had to walk in chest deep of flood water to go for sanitation (November 2003, Tarasahi).

The coping experiences of Shalini in this instance show that despite recurrent floods and disasters in the village she was unable to overcome her pre-existing values and norms. She coped rather in a rigid normative fashion like Lolita, an upper caste woman mentioned earlier. However, Lolita was later able to reduce her physical risk in the most recent floods of 2003 due to the construction of her concrete house. But Shalini still continued to suffer bowing to the social code of honour, *lajja* and perceived fear of unknown violence to herself and to her young girls in the absence of a male member of the family to provide necessary protection during the exposure.

Studies have already documented severe consequences of women's exposure in intermediate spaces like war camps and shelter camps of natural disasters revealing horrendous instances of rape, abuse and social stigma (Bushra and Lopez, 1994; Wijkman and Timberlake, 1984; BBC, 2005). A study conducted by Rashid and Michaud (2000) to investigate the social aspects of a group of adolescent girls in the floods of 1998 in Bangladesh is telling. Like Shalini, a widow of an adolescent girl in Rashid and Michaud's study chose to stay in her home though she had to live on her roof. She preferred to remain close to her neighbours for assistance in case her daughters faced harassment from *mastans*, strangers, and unfamiliar male faces that tend to increase during floods (2000: 62-63). It is indicated that instances like these put extreme pressure on women in maintaining their caste, class and honour attributes during the time of disasters. In the absence of any appropriate government

measures, pre-existing vulnerabilities of women only get further entrenched by (multiple) disasters.

I now turn back to Latika who moved to the emergency shelter and once again explicated the gendered experiences of living inside such a shelter:

> In the *bali* (sand-mound) a tent was put up by the block authority. I spent the days in the *bali* but at nights I went to another daughter's house who is married in Khandayatsahi […]. We stayed inside the tent for fifteen days. Inside the tent there were so many men and boys, so I did not feel comfortable to keep my daughter in the nights. She was with me at that time because her husband went to Calcutta to work […]. I did the same in this present flood (2003) though my daughter was not there with me. *Lajo lagebey nee*! (Don't you think I will be ashamed!)? So I spent the nights once again at my daughter's house and then came back to the *bali* in the mornings. We returned to our *sahi* almost after 10 days […].

In the earlier section I argued that accessing this intermediate sphere indicated the fluidity of caste, class and gender spheres, but at the same time it was not the case inside the shelter. The emergency shelter put up by the government lacked separate space for women or a toilet facility. Consequently, Latika experienced the intense burden of maintaining her internalised values of honour, shame and sexuality inside the shelter for herself and for her daughter. This was obvious when she said "Inside the tent there were so many men and boys, so I did not feel comfortable to keep my daughter in the nights. […].*lajo lagebey nee*!" Concomitantly in order to maintain her caste and class honour, she spent the nights at her daughter's house who was married and living in the highlands of the village. This indicated how Latika negotiated and renegotiated with her caste, gender and honour values during the crisis and in her exposure.

Unlike Latika, Jhumpa Behera a mother of two children - one son (15) and a daughter (married elsewhere) did not have any relatives where she could move during the nights. She spent the days and nights at the *bali*. According to her:

> I moved to the *bali* with my son, my cows, my sisters-in-law and other neighbours. We slept inside the tent. Oh! It was a time of suffering and unhappiness. Do you think we can sleep at that time? There were so many people inside the tent. We almost spent the days and nights sleepless even up till seven days. People sang songs at nights and played cards to kill the time. Besides can I sleep in peace when my house is in water? No I cannot (December, 2003, Tarasahi).

Before I analyse the above extract I feel it is worthwhile to quote the Block administrator whom I had interviewed to comment on the needs of women inside the shelter. I received the following answer from him:

> […] in the recent flood the block administration is satisfied by its work. The block has accumulated certain experience from the previous disasters […] the relief operation ran well, vulnerable pockets were identified, free kitchen was provided, drinking water was supplied, tube wells were implanted […]. Boats were deployed and a special boat was allocated for women in Tarasahi for their sanitation purpose. […] (field diary, February, 2004, BBSR)

Likewise the village *Sarpanch* gave me similar types of answer:

> Oh yes! We deployed special boat for women […] (field diary, November, 2003 Tarasahi).

In both the extracts of the two government officials it is highlighted that they found it difficult to imagine a separate space for women inside the shelter. Rather the yardstick of their achievements was perceived in meeting gender-neutral needs than gender specific needs of women. Dividing the tent into two halves for men and women or providing a toilet facility for women received lesser attention from the

local administration. Hence, the emergency shelter that Latika and Jhumpa accessed in order to overcome the impact of the floods rather accentuated their physical and psychological strain caused by such gender insensitive responses, exposure and the disasters. The middle caste group who took major step in their life in accessing the intermediate sphere highlighted themselves as active subjects in negotiating and renegotiating their social needs during the crisis. On the contrary, they stepped back when exposed to share the same space with men and women from different caste and class. They did not feel comfortable and their discomfort manifested through sleeplessness, embarrassment and obsessive compulsive behaviour of the young girls to cover up their body while sleeping so that none of their body parts are exposed to attract male attention or gaze (Parboti 19, December 2003, Tarasahi. Women also attempted to keep themselves awake and on guard through singing songs, or else moving to kin's house at nights and returning to the *bali* in the mornings (Latika, Jhumpa, Manimala, Tarasahi 2003-04). The government officials responded quickly by putting up the emergency shelter in the floods, whereas there were no such responses before the super-cyclone. But unfortunately, the government officials failed to incorporate the gender specific needs of women in and around the emergency shelter. The narratives also bring to light the differing perceptions between government officials and women experiencing the effects of the disasters even when they managed to access the emergency shelter provided.

Nevertheless, as mentioned by the *Sarpanch* and the block administrator a special *donga* (boat) was indeed deployed for women's need during the floods. According to the respondents this particular targeted boat service collected women and girls from their homes and from the emergency shelter for their sanitation needs and bathing. The boatman (*dongawala*) came twice a day - once in the morning before the sun-

rise and once in the evening before the sun-set. The boatman collected women and girls and dropped them in a distant sand-mound. After an hour or so he brought back all the women to their respective shelter destinations. The women found living in the shelter extremely difficult without any facilities to cater to their sanitary needs during nights. I refer back to Rashid and Michaud (2000) once again who also found that the girls especially living in the flood shelters experience tremendous stress and shame in order to go to the toilet and bathe in front of male strangers. But my further investigation in this respect revealed added dimensions to this. This is what Latika, Jhumpa, and her brother-in-law's 19-year old daughter, Parboti said in one of my conversations:

> It was a very difficult time for everyone. There was water everywhere. When you get the natures call can you stop it. *Shybela lajjo lagella choleebay kee*? (At that time can you feel shy about it?) We just did it. At times only a yard distance from another man (December, 2003, Tarasahi).

These instances show how women negotiated and renegotiated with the boundaries of shame, honour and caste norms that seem fixed in their lives, when exposed. In situations of crisis these three women adopted certain norms which are normally unacceptable in their everyday lives, for instance urinating or defecating in public or in front of men. These instances once again re-emphasised that multiple disasters situation completely crumble down the concept of women's honour and shame and this was evident when they said "*Shybela lajjo lagella choleebay kee*? (At that time can you feel shy about it?)" At the same time this was possible when the multiple disasters posed problems to the collective, which resonated in their comment: "It was a very difficult time for everyone."

Earlier it was noted that the middle caste women survived the multiple disasters collectively with their kin and neighbours in the absence of any concrete house in their *sahi*. In this instance they once again emphasised that it was the collective difficulties of their *sahi-bhai* and *bahuni* (village brothers and sisters) caused by the multiple disasters that helped them preserve their honour and even go un-noticed despite adopting certain unacceptable behaviour while living in the intermediate sphere. It can be contended that it was rather these collective difficulties caused by the multiple disasters that enabled these women-headed households without any male members to tread into this intermediate sphere despite knowing the facts that the emergency shelter lacked separate space for women and a toilet facility. It was once again the collective difficulty of all caused by the multiple disasters that attached no social stigma to the evacuees. This later finding is again in direct contrast to Rashid and Michaud where they found that girls who moved to flood shelters in Bangladesh are often labelled as "bad or *nosto* (spoilt) girls" by the society or *samaj* (2000).

In the instances of surviving the multiple disasters and accessing or not accessing the emergency shelter, the upper and the middle caste women highlighted the complex interplay of caste and class, public and private, honour and shame boundaries that appeared fixed in women's lives are both mutable and non-mutable. The instance in which mutability was observed was possible due to women's own active participation and support of the kin and neighbour who were also in crisis. I again refer back to Dube who emphasised that women are not only the *de facto* custodians of caste, but also they do not "[…] operate so much through individual as through units based on kinship" (1996: 1) or the larger kinship that is the village as a unit (1997). This is particularly apt to say in the case of the middle caste respondents who constantly negotiated and renegotiated their caste, class and gender norms and

boundaries in multiple disasters as conscious actors to suit their biological and social needs, but within the framework of their social organisation.

Purity, impurity and concrete houses: Accounts of low caste women

The earlier two sections focussed on the experience of upper and middle caste respondents and this section focuses on the experiences of the respondents from low caste group. When asked how and what were their survival and the coping experiences in the multiple disasters, this group of women highlighted the socio-economic vulnerability of their caste and class and the co-existence of both caste rigidity and flexibility in the context of a multiple disaster situation. This is explained through the narratives of the four respondents below.

Bhoi (Harijan) and *Shetty* (washerman) are the low castes (former untouchables) of Tarasahi. The low caste groups are settled in between the peripheral *sahi* and the highland. Of the 12 respondents four respondents were from the low caste group: Tanika Shetty (24) was from *Shetty* community and slightly higher in social status than the *Bhoi*. Proshilla Bhoi (41+), Chumki Bhoi (42+) and Him-Sheetol Bhoi (35+) were from the *Bhoi* community. Like the upper and the middle castes, the *Shetty* and *Bhoi* also live in individual clusters and shared their arena with their nearest kin. According to Tanika Shetty:

> […] because our houses are located in the middle of the village amidst the field, we experience the worst impact of the flood. See there is no obstruction, only fields. Consequently, large amount of flood water flows through these *sahi* with very strong currant. This whole place looks like a big river (December, 2003).

Given this geographical context of the low castes *sahi* (ward number 5 and 6) Proshilla Bhoi shared her experiences of her life in the multiple disasters. Proshilla Bhoi (41+) is a widow from *Bhoi* community. She has two daughters (one married elsewhere and one in the village) and three sons (14, 13, and 12). Proshilla came to Tarasahi after her marriage. Proshilla is landless and some of the sources of her earning are selling cowdung cakes, wages from daily labour at farms and houses of other people and rearing a cow which she had bought with the help of the loan given by Action Aid. Prior to the super-cyclone Proshilla worked at home, looked after her children and reared pigs, ducks and hens. Meanwhile her husband, who was alive till 2001, worked as a daily labourer on people's lands and did sharecropping with the upper caste landlords of the village. When the super-cyclone struck the village, this is what Proshilla experienced:

> On the day of the super-cyclone my husband was with us. The wind was so strong that we could not go anywhere. My coconut trees broke and fell on the roof. *Kono koribo?* (We did not know what to do?) We ran to Beherasahi in order to take shelter in the concrete house. But the *Behera-gharo* (house-owner) told us *"tumee Bhoi chuee nee, chuee ne, tumee jao"* (you are a *Bhoi*, do not touch us, and go away from here). We then survived by embracing a tree all together. When the rainfall and the wind reduced little bit we went to the primary school. I almost had no clothes on my body. All the windows and the doors of the school were broken. There were other people inside the school too. We all five of us cuddled together in the corner of the class room and survived (September, 2003, Tarasahi).

This terrible instance illustrates how everyday socio-cultural practices enact in the most inhuman fashion at times of disaster. In the absence of any concrete house in Bhoisahi, Proshilla and her family decided to take shelter in the concrete house of their nearest *sahi*. This concrete house was owned by a middle caste wealthy man, socially higher caste than the *Bhoi*. When the family sought shelter during the super-cyclone the house-owner denied them access to his house on the grounds of

maintaining purity and cleanliness of his caste. Following which the family survived holding on to a tree. In this instance the purity and the impurity attributes of the caste further entrenched the social vulnerability of this low caste family than transforming it. Therefore, the mutability of the caste and purity seemed almost impossible in the context of this low caste woman.

However, there were also two other low caste respondents Chumki and Tanika who revealed the fluidity of the caste system during the same crisis. Chumki Bhoi was introduced in the beginning of this chapter (refer to p125). On the third day of the super-cyclone, Chumki and her children went to take shelter in the same concrete house in Beherasahi and unlike Proshilla, the family was not turned out, rather managed to seek some space in the veranda of that house.

> During the super-cyclone we all forty family members, (I mean my five brother-in-laws and their family) sat together in the courtyard of our house covered our heads with a polythene sheet. On the third day of the super-cyclone the *dokhina pobon* (south wind) again started intensifying. I thought we cannot stay in this place anymore […] we shifted to Baswa's house. There was no space inside that house because there were people from all over the village. So we spent the night in the veranda of that house. Next morning when the wind reduced we came out (December, 2003, Tarasahi).

Before moving to the concrete house, Chumki also survived the super-cyclone with her family members like the middle caste women.

The third respondent was Tanika who was given access to the same concrete house though they were also the first to be evacuated by the house-owner. Tanika hailed from *Shetty* community, socially slightly higher than the *Harijan* caste. According to Tanika:

> […] we took shelter in the concrete house […]. We sat amidst many people. My baby was on my lap sucking my milk. I sat like this for two days and nights without moving. On the third day the house-owner fought with us and asked us to leave his house. […] I could barely walk because of my legs and limbs were stiff and painful for sitting in one posture. We somehow managed to walk to the primary school and take shelter in the veranda. The school was full of people […] (December, 2003, Tarasahi)

Therefore, all these three respondents Proshilla, Chumki and Tanika explicated the complex interplay of caste and class, and purity and impurity boundaries during the same crisis. Proshilla was the one who experienced the backlash of caste intensely when she was denied access to the house by an upper caste house-owner on the ground of maintaining purity of his caste. However, this explanation remains inconclusive in the case of the latter two respondents who were given access to the same house. This "dual culture[61]" (Karanth, 1996) of this house-owner requires further analysis. Karanth (1996) argued that caste based hereditary occupation and social mobility in the rural areas has happened for two major reasons: a) the decline of caste *panchayat* after the Constitution of India in 1950, which made it legally redundant (in the past this institution regulated both internal and external relations of a caste); b) the decline of the jajmani system. The later point is most relevant to this study:

> Under this [jajmani system] arrangement members of certain castes rendered their services or supplied goods to the village community, particularly the landowning dominant castes, in return for an annual wage paid in kind. The relationship between the specialist and the landowner was enduring over generations, and was a wider patron-client relationship. Each had a set of obligations and rights […]. The specialist castes also had duties in the patron's households on ritual occasions such as weddings and funerals […]. The growing body of literature suggests its decline […]. The decline of

[61] Karanth defined "dual culture" as "[…] patterns of behaviour may be described as a manifestation […] that is adherence to traditional values in one context and modern and egalitarian ones in another. A dual culture with respect to caste norms on purity and pollution has come about as a result of urban exposure, education and the loss of caste's traditional authority over its members […]. But dual culture may also be seen as reflecting a transitional stage in a dynamic process in rural society wherein notions of purity and pollution are gradually being eroded" (1996: 98).

> jajmani relationships has accelerated the process of dissociation of castes and traditional occupations, forcing the specialist castes to look to new avenues […] such dissociation was further accelerated by other factors such as industrialization, the spread of education, urbanization, and the emergence of new occupations […] (Karanth, 1996: 90).

In Chapter One it was briefly introduced that typical village in Orissa outside the tribal zone practiced the jajmani system or large multi-caste village relatively newly settled attempted to replicate jajmani relationships having *Khandayats* (landed-militia caste) on the top and then complemented by functional castes: barbers, washermen, potters, milkmen and so on (GOO, 1990). Tarasahi reflected this latter model. After the decline of jajamani practices, Karanth opined that it has accelerated the process of dissociation of castes and traditional occupations added with the other factors of modernity (education, urbanisation, and industrialisation). This has also led to the emergence of "dual culture" in peoples lives (ibid, 1996). In the context of Tarasahi and disasters, this explanation by Karanth still remains inadequate and needs further explanation. I quote an extract from the Orissa State Gazetteer (GOO, 1990), which seems handier to explain this:

> The caste system in Orissa region does not have the reputation of being the most rigorous and most discriminatory as in south India, where even the shadow of certain castes polluted the Brahmin […]. The rigour of the caste system seems to have undergone some major changes because of the involvement of the highest class […] in the nationalist movement […] and the **famine of 1866** (my highlight) [though] not clear to assess the impact on the lessening of the caste-rigour in inter-dining and inter-drinking. But if the evidence from the Bengal famine of early 1940s is any safe index, the stronghold of caste considerations must have been weakened due to the 1866 famine. […] (GOO, 1990: 287-88).

Although the GOO, 1990 offers a sketchy and brief description about the (possible) impact of 1866 famine in reducing caste and class rigidity through inter-dining and inter-drinking of different castes and classes in Orissa. Nonetheless, this is highly significant in this context. In the same line I suggest that multiple disasters also

played an important role in reducing the caste and class rigidity considerably in Tarasahi, though mostly between the middle and low caste groups. I substantiate this using my hostess's comment, whose accounts can be validated once again in Dube's words that women are the *de facto* custodians of tradition and rules of purity-impurity are strongly observed by women than men.

My hostess (58+) hailed from an upper caste *Mohanty* community. She was married at the age of 16 and since then she has been living in the village. According to her, *Bauri* or *Bhoi* and the *Dhoba* or *Shetty* who were once untouchables are now accepted socially in the village. These castes are now permitted to enter the upper caste houses. But the social seclusion is still maintained by not serving or exchanging cooked food, denying access to the Lord Shiva temple and not permitting exogamous marriages. This is practiced to maintain the purity of each caste and stop from further contamination (*mausi,* 2004, Tarasahi). Karanth (1996) mentioned that notions of purity and impurity which has weakened considerably can still manifest in different forms (1996) and this is observed in the practice of social seclusion in Tarasahi explained by my hostess. In further interrogation on the subject of physical and social mobility of the low caste, *mausi* added:

> These days we cannot maintain caste and class austerely. All caste and class are thrown out of the window when people are facing recurrent disasters without food, shelter and house […] (field diary, 2004).

This particular quote of my hostess addresses the whole argument of this section. In the absence of appropriate shelter and government response, the recurrent impact of the multiple disasters acquired communal solidarity and collective difficulty of all. It was due to this (let alone Proshilla's incident) Chumki and Tanika; the two low caste

respondents were allowed access to the concrete house revealing the dual culture of the house-owner. These same respondents (Tanika, Proshilla and Lolita) also reported incidents like sitting next to each other in the classroom during the disasters, dining in the "community kitchen" (discussed in Chapter Six) with different castes and classes and sharing the intermediate sphere together inside the "emergency shelter" in the *bali*. Therefore, it can be suggested (in addition to Karanth) that through the sharing of the finite space during the multiple disasters, the caste practices underwent a considerable amount of change in the village though observed mostly between the middle and low caste groups. This is because the upper caste groups are more able to preserve their customs and mores due to their physical space, which is often secure (for instance the highland and the concrete houses) than the other two caste groups. However, the collective difficulty produced by the multiple disasters made the people of Tarasahi more humane and compassionate. This in turn enhanced the physical and social mobility of the low caste group and the social quality of people's life in general in this small island village. Through these instances multiple disasters then highlighted not only the elastic nature of the caste system, which can be both rigid and relaxed (Srinivas, 1966), but also in long run helped to reduce the overall rigidity of the caste practices in the village.

I now turn back to Proshilla's experience in the two floods and quote her experience:

> After the super-cyclone, the *Sarpanch* gave me Rs.22000/- to construct a concrete house. My husband was alive at that time. […] The house was completed before the floods of 2001. […] In both the floods there was water everywhere […] almost touched our veranda. We brought sacks of sand and placed all around the veranda to stop the flood water entering. […] Thankfully I was not displaced in both the floods.

As mentioned earlier, the IAY is a centrally sponsored housing scheme funded on cost-sharing basis between the government of India and the government of Orissa in the cost ratio of 75:25 (Section 23). The primary objective of the scheme is to provide grant for construction (or facilitate finance) of concrete houses for the families below the poverty line. From the year 1995-1996, the IAY benefits have been extended to the widows who are houseless or in need of shelter or shelter up gradation but have not been covered under any other scheme of shelter rehabilitation in rural areas (Section 3, IAY Guideline). As a result three of the low caste respondents (except one) were the primary beneficiaries of this project and were able to construct their houses before 2003 floods. Unlike the super-cyclone they were less vulnerable physically because the concrete houses protected them from displacement and distress. The benefits of these houses then revealed once again the non-static nature of the physical vulnerability which can be reduced through effective responses as it was argued earlier in the case of Lolita, an upper caste respondent.

Conclusion

While documenting women-headed household's experiences in the multiple disasters this chapter has explored: firstly, how caste, class, gender and honour attributes influence women's survival and displacement in multiple disasters; secondly, whether women's pre-existing vulnerabilities in the terms of caste, class, gender and honour are mutable in a multiple disaster situation; Thirdly, how did women-headed households cope during multiple disasters? The narratives of the upper, middle and low castes women suggested that the experiences of the multiple disasters are diverse and subjectively based on women's caste, class and gender position. For example, it

was *maha-batiya* for all the women due to the devastating impact on their lives. But the survival mechanisms during the super-cyclone exhibited the upper caste women's caste and class privileges in seeking shelter in the concrete houses of the neighbours. On contrary in the absence of any such safe and concrete houses in the neighbourhood, the middle caste and the low caste women were directly exposed to the super-cyclone with their kin and friends. There were two exceptions from the low caste group - one experienced the backlash of caste intensely when she was denied access to the concrete house by the owner in order to preserve the purity of his caste, and another survived on her own holding on to a tree with her two young daughters.

Once again the two floods after the super-cyclone revealed the subjective experiences of the 12 respondents. For the upper caste women the floods were not *bodo-bodhee* (except one in the floods of 2001) due to the ability of these women to construct the concrete houses and occupy the highland of the village. However, for the middle castes women, both the floods were *bodo-bodhee* due to the low-lying areas of their residence and consequent inundation, displacement and distress. The low caste women who were the most physically vulnerable during the super-cyclone were able to diffuse the risk in the later two floods because their socio-economic vulnerabilities made them eligible for the IAY houses. The construction of the concrete houses helped them to reduce the physical vulnerability in the floods.

The survival stories of the women-headed households revealed that caste, class, gender and honour boundaries prevalent in their everyday lives are both mutable and non-mutable in a multiple disaster situation. Mutability was observed particularly when women actively participated in negotiating and renegotiating the cultural

boundaries to suit their social and biological needs within the purview of their kinship and neighbourhood network.

Having discussed the survival experiences of the respondents, the following chapter builds on the diminishing effect that multiple disasters had on these respondents' livelihoods. This is once again examined in relation to women's social caste, class and gender attributes.

Chapter 6

Multiple disasters and diminishing livelihood resources

In the previous chapter, the survival stories of women-headed households in multiple disasters were documented in relation to their caste, class and gender attributes. In this chapter, I will examine the reductive effect of multiple disasters on these same women-headed households over a period of five years. In Chapter Two I defined multiple disasters as a series of multiple hazards affecting the same vulnerable population in a specific place. I argued that multiple disasters, through their curtailment of production, reproduction, and development, fundamentally affected the survival of human beings. This chapter attempts to bring some of these characteristics of multiple disasters to the fore through the examination of livelihood resources.

The paucity of literature with regard to the emerging concept of "multiple disasters" meant that I was forced to rely on two recent publications, Moseley's "convergent catastrophe" (1999, 2002) and the World Bank's "natural hazard hotspots" to conceptualise multiple disasters (Dilley et al., 2005). Although highly significant, both these works have their limitations in the context of this thesis. Moseley emphasised that convergent catastrophe has the potential to render people's recovery tenuous, with an increased probability of collapse. However, the geoarchaelogical perspective he provides lacks pertinacity in its ability to account for the recurrent effects of disaster at the household level. On the other hand, the World Bank highlighted those parts of the world exposed to multiple hazards, demonstrating how disaster-prone areas were likely to affect the most vulnerable populations in

developing nations. However, this failed to provide an adequate tool for understanding the effect of multiple disasters at the localised level. It is in this context that this chapter attempts to highlight the compound effect of multiple disasters at a village level, on some of the most vulnerable women-headed households. Thereby, multiple disasters are revealed as eminently social and personal, based on women's pre-existing vulnerabilities. More specifically, this chapter then explores the cumulative degenerative effects that multiple disasters have on women's lives and how these tend to be reinforced by women's caste, class and gender attributes. This chapter also documents the coping stories of women, vis-à-vis the diminishing resources with which they attempt to reconstruct their livelihoods after multiple disasters. Social organisation, secondary food system and external help from both governmental and non-governmental sources were important resources for the coping strategies of women. Whilst documenting the coping mechanisms, the pattern, potential and sustainability of these coping resources have also been analysed, in depth and detail. As with the previous chapter Five, the external help of governmental and non-government resources have received special emphasis, in order to demonstrate that despite their effectiveness in helping respondents through the immediate affects of a crisis, they are highly inappropriate for addressing women's needs and vulnerability in the context of multiple disasters.

The concept of "livelihood" is widely used in contemporary writings on poverty and rural development (Ellis, 2000). Its dictionary definition is a "means of living" and straightaway directs attention to the "*way* in which a living is obtained, not just the net results in terms of income received or consumption attained" (ibid, 2000: 7). According to Chambers and Conway (1992; quoted in Ellis, 2000; Davies, 1996), the *way* in which living can be obtained will depend on the requisite assets, capabilities

and activities that supply its means. But the "important feature of this livelihood definition is to direct attention to the links between "assets" and the options people possess in practice to pursue alternative activities that can generate the income level required for living" (Ellis, 2000:7). In the context of this thesis I take assets as an essential component of livelihoods, and the assets in the livelihood definition include five major resources or capital (ibid). These are, natural resources (land, water, trees), physical resources (tools, machines etc), human resources (education, health), financial capital (stocks of cash), and social resources (social network and associations). All of these are contributory factors for livelihood (Ellis, 2000: 7). In the context of this thesis and women's livelihood, I have emphasised natural capital in terms of land and the kitchen garden, physical capital as house and livestock, and social capital as kinship and neighbourhood networks and external responses (government and non-government). I specify these here because, as Ellis warns, "there remains scope for disagreement as to what types of capital or stock can legitimately be included under the overarching description of assets [or resources]" (ibid: 8). Concomitantly, in light of the research objectives, I will focus on these resources for women's livelihoods, but examine the depletion of these assets in multiple disasters, in relation to their social caste, class and gender.

Kitchen garden, farmland, livestock and house are typically rural women's livelihood assets that play an important role in their entitlement and exchange entitlement (say vis-à-vis food) (Zabwala, 1998; Jiggins, 1986; Agarwal, 1990; Kabeer, 1991; Kurup, 2003). Such resources are distributed in a complex fashion, with inequity exacerbated by caste, class, gender and so on (Kabeer, 1991; Hilhorst and Bankoff, 2004). Therefore, when impoverishment occurs through a depletion of assets, caused by contingencies (like disaster); it reduces people's entitlement and exchange

entitlement and further increases their vulnerability and poverty, according to the livelihood assets detailed above (Chambers, 1988; Kabeer, 1991; Winchester, 1992; Agarwal, 1990; Wisner et al., 2004).

Chambers argued that a household can become perpetually enmeshed in the "deprivation trap" or "poverty ratchets" due to the loss of livelihood assets. The contingencies that force a loss of assets are of five main types: social conventions, *disasters* (emphasis added), physical incapacity, unproductive expenditure and exploitation (Chambers, 1988: 115). In the context of this thesis, I have focused on the impact of (multiple) disasters on livelihood assets over the other four[62]. Taking disasters as a departure point, this chapter examines in more depth the potential of multiple disasters to entrench women's vulnerability and poverty, "making […] [them] further poorer and permanently poorer, and more vulnerable and permanently vulnerable to becoming poorer and yet poorer still" (Chambers, 1983: 103 -104). Several studies have looked at the depletion affect of drought on rural livelihoods (Davies, 1996; Cladwell quoted in Agarwal, 1990; Cole, 1989), but far less attention has been paid to gender-based forms of resource depletion in other disasters, like floods and cyclones, (or on seasonal changes in a household's asset position in the Indian context (Agarwal, 1990)). The main point of departure for this thesis then is its contention that the social relations of caste, class and gender are factors that are just as significant for accentuating the impact of multiple disasters, as is the physical impact per se. And this is examined through their diminishing effects on women's livelihood assets.

[62] The reasons for excluding the other four have already been detailed in Chapter Two.

This chapter has five sections, each addressing a major livelihood resource of women, recurrently adversely affected by disaster. The first section focuses on the women's kitchen garden, the second section focuses on farmland, the third section on the plight of the low castes who are largely landless and asset less, the fourth section focuses on houses and their re-construction when repeatedly destroyed by multiple disasters, and the fifth section focuses on cattle death.

Destruction of kitchen gardens– a tragic saga: Upper caste women's account

As mentioned in the previous chapter (Five), the respondents from different castes and classes depended heavily on the family occupation and day wages. Consequently, discussions of multiple disasters and their impact on their livelihoods concentrated much on their house, homestead, cattle, kitchen garden, and their despair at losing land – all of which indicate not only personal but also policy implications. Recurrent destruction of kitchen gardens through multiple disasters was the experience mostly of upper and middle caste women, rather than the low caste group. There were limited economic avenues for upper and middle caste women outside their homestead and some space in their backyards, which was the main reason why the kitchen garden played such an important role in their life. In this context I quote Lolita Nayak and Konika Mohanty who were both introduced in the previous chapter five. In the previous chapter we saw that both these women were able to reduce their physical vulnerability from multiple disasters by virtue of their caste and class privileges; for instance, occupying the highland of the village and being given concrete houses. But whether those privileges once again influenced

these two women in protecting and promoting their livelihoods is worth looking at. According to Lolita:

> I had *sajono* (drum-stick) trees, b*honda* (papaya) trees, and seven coconut trees. All these were broken in the super-cyclone. Nothing was left. After that I have not planted any trees because we failed to collect saplings. The *panchayat* gave us saplings to promote kitchen gardens. They were selling at a subsidised rate but we did not have anyone to get those saplings for us. However, my neighbour did bring one for me but they did not survive. They died in the floods. […].
>
> The flood water (referring to 2003) again killed my *sajono* tree, *bhonda* tree, *kaku*ri (cucumber) and *chochindra* plants which I managed to plant them. The plants bore young vegetables, unfortunately they all died. Once the flood water touches their roots they are bound to die. They are basically very soft trees. Along with the flood water recession they also dry up from inside and then fall apart. I feel sad about it. […] After that I have not planted any. Every year there is flood and they break and die. Besides they have their own timings to grow. So I do not feel planting again and again only to be killed. If there is continuous rainfall nothing would happen but stagnant water spoils *bhonda* and *chochindra,* cucumber and pumpkin roots […] (February, 2004, Tarasahi).

Konika Mohanty, a respondent slightly socially higher than Lolita gave the following account:

> In the super-cyclone I lost four coconut trees and a few papaya trees. Mother, this is a sad story of living in this country. It is like a *maha dukhar kotha* (a tragic saga). After the super-cyclone I had not managed to plant any coconut trees. They did give (*panchayat)* coconut plants but they could not survive. I have planted one papaya tree which is now full of papayas and few vegetables like *poi* (climbing spinach), chilly, *koshila* (green leaves) etc. But they were not affected by the floods due to this piece of highland (October, 2003, Tarasahi).

The super-cyclone destroyed a significant numbers of trees in the village. All the kitchen gardens of the respondents were destroyed. In the floods, six of the respondents from the upper and middle caste group once again lost their kitchen

gardens, excepting Konika Mohanty as recounted in her narrative. It was by virtue of her high caste and her ownership of the highland that her kitchen garden remained unaffected. In contrast, Lolita's kitchen garden was affected repeatedly because she occupied the peripheral land of the highland by virtue of her caste, which was slightly socially lower than the *Mohanty* community. Once again, caste and class privileges played an important role in these two upper caste women's lives in the destruction and protection of their kitchen gardens.

Elsewhere, Jiggins (1986) emphasised the importance of kitchen gardens or household gardening under women's care as crucial coping mechanisms, especially for the livelihoods of those with access to land. Jiggins found that several studies confirmed that kitchen gardens act as early maturing varieties of staples, able to sustain families over the hungry season until the main crops mature. Additionally, they act as reserve sources of plant materials should main crops fail, as conservation sites for special or preferred varieties, and as testing grounds for new varieties and practices (1986: 12). In the context of this thesis, kitchen gardens acted as upper and middle caste women's livelihood assets. Therefore, the destruction of the kitchen gardens was most stressful. Kitchen gardens and fruit bearing trees for each woman was an endowment that could ensure food supply throughout the year. Certain plants and trees like *poi*, pumpkin, *bhonda*, drumstick etc. not only bear fruit and vegetables, but their leaves also provide additional value for women's diets (*mausi*, 2003). Women also occasionally earn some cash by selling the surplus locally from their kitchen garden. Kitchen gardens, for the respondents in Tarasahi, counteracted the effects of limited mobility outside of the homestead and the geographic isolation of the place that made commuting further strenuous. As a result, when the kitchen gardens were repeatedly destroyed by the disasters, it severed many upper and

middle caste women's lifeline and caused severe mental stress. This repeated destruction was expressed as "*maha dukhar kotha*" by Konika quoted above. Upper caste women, who were traditionally reliant on a kitchen garden for food most of the time, were no longer supported by this livelihood source. Multiple disasters destroyed these and there was no effective replacement from government sources. When the government did distribute seeds and saplings to promote kitchen gardens and afforestation, many women were excluded because distribution took place in a non-accessible area. Lolita, for example, failed to collect any saplings because their distribution point was at the bank of river Debi, a public space, to which Lolita does not have access in her everyday life. As a result, despite the destruction of her kitchen garden and the availability of the saplings, restrictive caste and gender norms obstructed Lolita's access. Here once again her caste, class and gender norms played an important role in both the destruction and the continuation of the same. However, she managed to get one sapling with the help of her neighbour, but it later died in the floods. This indicates that both the depletion of the kitchen gardens in multiple disasters and their replenishment is a highly personal and social experience, as the narratives of Lolita and Konika revealed.

Loss of land and farm land: Middle caste women's account

The losses of kitchen gardens were a shared experience of both the upper and middle caste women in multiple disasters. Further investigation revealed that the effects were more pronounced for middle caste women, who suffered also from the loss of farmland. Of the 12 respondents, only three women from the middle caste reported farming their own lands, something that was unreported in the case of upper caste

women, who, despite owning land were subject to stricter gender norms (discussed in the previous chapter). These three women were marginal farmers and had less than half an acre of land[63]. They cultivated paddy, green gram and ground nuts with the help of their kin. Here I quote Latika and Manimala who were both introduced in the previous chapter (Five). According to Latika, a middle caste respondent:

> I could have managed to earn some money from my paddies. But my crops have been repeatedly destroyed by the disasters. Now the lands are *balichod* (silted) and eroding. Even *badam* (ground nut) cannot be cultivated due to too much of siltation by the flood water. […]. During the floods I survived on relief. […].
>
> After the super-cyclone I lost everything, my house, household assets, trees, plants and cattle. I went to collect relief but I had to stand in long queues. They gave relief first to men and then to women. I could not push and be demanding like men. So I received relief late; sometimes they did declare special queue for women. In such cases, husbands accompany their wives and make their women stand in the front, disregarding the queue [...].
>
> The company (NGO) also provided us with relief work after the super-cyclone. […] but I did not go to work outside for road construction. We cannot do such work. Later the company organised all the women from our *sahi* (hamlet) […]. They organised us into groups […] then we went to mop and clean each others house and vice versa. In return they gave us rice, *dal*, oil […].
>
> In both the floods […] I went to the *bali* with my *ja* (sister-in-law). The company (NGO) gave us relief like rice, bread, *chuda*, *gud* and biscuits in the *bali.* We survived eating those. […] Everything was wet and spoilt because there was chest deep water inside the *sahi.* […]. They also provided cooked food. I did not go but my *ja's* son brought food for me. […]. Besides, I and my *ja* cooked food together to overcome this distress time at the *bali*. We only cooked convenient food like *kichudi* once in two days.
>
> During the drought my daughter went to her in-laws house. I was all alone at home. My son was in Calcutta. If I have brought 500 gram of rice I ate that for three times […].I have three daughters and all three of them help me some way or the other. I am the only member so they bring the entire ration. When I need to buy something I send my brother's son or my brother-

[63] Manimala had 4 *guntha* of lands; Jhumpa had 2 *guntha* of lands (now *balichod*); and Latika had 2 *guntha* of lands (now *balichod*). In the previous chapter, Konika Mohanty mentioned owning 5 acres of lands, which were now also *balichod* and eroded.

> in-laws son to Machogaon. They buy the ration for me. I cannot go because I will be ashamed if I happen to bump into my son-in-laws in the market place. Three of my son-in-laws houses are in Machogaon. We do not do in our country. Besides I will have to cross the river and walk for an hour or so (December 2003, Tarasahi).

According to Manimala, another middle caste respondent also introduced in the previous chapter:

> After the super-cyclone all our crops, kitchen garden and trees were destroyed. So we went to collect wild *shago* in the paddy fields. We collected *modironga shago* because there was no way out. *Kono koribo*? (What shall we do?) From where will it come? We needed to survive, is not it? So we ate all these wild plants. **R[64]: was not the soil salinated?** No, not this side. But our paddy fields were. I cultivated paddy with my sister-in-law. But they were spoilt due to the water. Then we could not have the *rabi* cultivation, which includes *badam* (ground nut), *bidi daal* (green gram) and *moong daal* (yellow lentil). We could not cultivate that year due to salination of the soil and no rainfall. It was almost for two years that we could not have proper cultivation. Later the rainfall washed the saline soil and brought back the sweet soil. […].
>
> This year I had no money to cultivate on my own. Then my father spent twelve to fourteen hundred rupees from his own pocket to till the land by a tractor, bought the *beehon* (seeds), employed labourers, but everything was washed away in this present flood. I then managed somehow with the government rice and *chuda* (flattened rice) and selling the cows milk. Again my father helped me out (February, 2004, Tarasahi).

These two extracts of Latika and Manimala bring forth the following issues. Firstly, the recurring impact of the multiple disasters on their crops, land and the farm land in the village; and secondly, the importance of relief, kin and secondary food systems for overcoming the distress and food scarcity during the crises. Earlier, the loss of kitchen gardens were seen as extremely distressful events for the upper caste women whereas here, the narratives of these two middle caste respondents reveal the recurring degenerative effects of multiple disasters on their crops and on the farm land, from which they derived their staple food i.e., rice. Furthermore, Manimala

[64] R= Researcher

explained how the super-cyclone not only destroyed the crops, but also salinated the soil, which in turn affected the *rabi* cultivation in the following winter. The later floods and the rainfall did help to reduce the salinity of the soil, but once again, these destroyed the crops due to floodwater stagnation, eroded the fields, and increased siltation (*balichod*) in the fields.

According to the local newspaper reports, the most recent floods of 2003 inundated coastal and western Orissa, particularly on three separate occasions over a period of two months, occasioned by the depression in the Bay of Bengal that led to heavy rainfall (NIE, 31 August 2003; 2 September 2003; 11 October 2003; 13 October 2003). Consequently, according to the upper caste women (Lolita and Konika), the flood water from the river Debi receded after a month or so, and according to the low caste women, took two to three months to dissipate from their fields and their *sahi*, due to their low-lying situation (Chumki and Proshilla). This was similar to the accounts of the 2001 floods, for which, however, they could not specify or remember exact dates and duration, despite their losses and the trauma associated with the flood displacement being dearly felt and remembered. According to Bell (1999), some of the most troublesome floods are associated with a series of flood peaks that closely follow each other. Such multiple event floods are caused by complex weather conditions. Multiple event floods are the most destructive in nature, with a greater erosive power and a much higher sediment load carried by rivers (ibid). The effects of multiple event floods could be seen in Tarasahi. The cultivated crops (paddy, green gram, black gram) were destroyed, instantaneously causing a widespread and increasing scarcity of food due to the erosion of farmlands and increased levels of siltation in the fields caused by the tidal surges in the super-cyclone and the subsequent floods.

Secondly, in the face of these multiple disasters and consequent scarcity of food, respondents emphasised the importance of relief, kin and secondary food systems as major resources to fall back on. “Emergency relief” and “relief work” were the major responses that the government undertook in the village. Access to, the pattern of and the potential of emergency relief[65] are discussed in this section, whereas relief work and food from the secondary food system will be examined in the ensuing section through consideration of the narratives of the low caste women. During the multiple disasters, the government of Orissa distributed emergency relief in the form of solid food and cooked food, popularly known as “community kitchen.” Although these relief operations were useful for tiding respondents over during the crisis, they were but ad hoc and reactive in nature, with a limited scope for addressing either the increasing vulnerability or poverty of the women at a time of multiple disasters. Hence, the government responses have been included in the list of women’s coping mechanisms.

According to Keen (1994), relief responses are deficient on three major grounds. Firstly, they neglect the underlying causes of disaster, that is, vulnerability and thus concentrated on a reactive response through nutritional intervention (for instance community kitchen). Secondly, the issue of accessibility is a major concern in disaster torn areas because relief organisations often neglect inaccessible areas. And thirdly, relief responses fail to ensure and monitor the receipt of relief for the disaster victims. This can occur through the misuse of targeted relief by the government or

[65] According to the Orissa Relief Code, ER is to be distributed whenever people are severely affected by flood, drought and cyclone, irrespective of their caste, class and creed (Section 102,108). ER can take the form of normal food, un-cooked rice, wheat, maize or ragi, which allocation is 250 gram for an adult and 170 grams per child per day. ER is distributed locally through the public distribution system (PDS) for convenience, or through labour intensive works in order to enhance the purchasing power of the able bodied, or through a nutritional supplementary programme, popularly known as a community kitchen (GOO, 1996).

other stakeholders, a lack of interest on the part of the relief agency in ensuring that allocated food actually reaches disaster victims, or because of limited staff and insufficient operational resources, which ultimately benefits the powerful over the powerless (Keen, 1994). I concur with Keen's analysis, which is reflected in the context of Tarasahi. However, his analysis fails to consider the issue of gender and the inequality of women's access to relief, as consequence of women's unequal position in a society prior to any disasters (Bushra and Lopez, 1994; Agarwal, 1990; Khandker, 1996; Mukherjee, 2004). This is explained through the experiences of the respondents in Tarasahi.

During the multiple disasters, the emergency relief and the cooked food were sited at three selected locations in the village. These were, Torimara primary school, catering for the middle and low castes in the peripheral *sahi*; the secondary school in the village centre, catering for the upper castes; and at the *bali* (a sand-mound) catering for the flood evacuees of the emergency shelter. The community kitchen, which operated during the 2003 floods, was located at, and distributed food from, a sand-mound close to the emergency shelter (discussed in Chapter Five).

Of the 12 respondents, only two accessed relief after the super-cyclone: one was Latika (refer to p167, second paragraph) and the other her neighbour Ullash (another respondent). Latika's story revealed that relief distribution was largely male-centric, controlled by men and distributed in the places where mostly men could access and exercise power. This was brought to the fore when she said "I went to collect relief but I had to stand in long queues. They gave relief first to men and then to women. I could not push and be demanding like men. […] sometimes they did declare special queue for women. In such cases, husbands accompany their wives and make their women stand in the front, disregarding the queue

[...]". However, in the later disasters Latika and the other 11 respondents did not access emergency relief and the community kitchen directly, due to the severity of the hazards and the honour and shame associated with dining in a public space. Consequently, only one respondent reported accessing the community kitchen. The latter case is discussed following this section.

The community kitchen was initiated in Tarasahi after the floods of 2003 by the block administration in co-operation with the local *panchayat.* After the super-cyclone, the community kitchens were sporadic and initiated by various NGOs, of which neither the government nor the women could keep track. For the floods of 2001, women reported that a community kitchen had operated for a few days, although they tended to emphasise the kitchen initiated in 2003, due to its relatively fresh place in their memories. The community kitchen during the floods in 2003 offered cooked food to the villagers for almost three weeks on alternative days (Proshilla, *Sarpanch*, Lolita, 2003-04). A handful of village boys and men were selected by the local *panchayat* to cook the relief food. Food was cooked once during the day-time at the *bali* and served on that spot during lunch time (*Sarpanch*, 2004). As a result none of the respondents (except one) accessed this cooked food because of its distribution in a public space and the shame attached to dining in a public space with men. This was explained by Lolita Nayak when she mentioned:

> […] women and young girls of our community will not go to eat in the community kitchen. We ate whatever we had at home. Usually men and boys from different *sahi* go to eat food because they do not have much shame (Lolita).

For the low caste respondents, though, the caste-based social institutions were less rigid in terms of their mobility outside the home, although none of the four

respondents in this thesis reported accessing the community kitchen. Some of the reasons offered by them were inadequate boat service, fears of the boat capsizing, and the strong currents of flood water that deterred their movement (Chumki, Proshilla Bhoi – refer to p177 paragraph two). Added to these genuine practical difficulties, low caste women also largely hid behind the code of social sanctions and the fear of shame or *lajja* of dining with men in a public space. Therefore, in the context of multiple disasters and low caste women, their caste, class and gender present an inconclusive picture for denying them the right to access the community kitchen, unless these are understood alongside the array of interconnected practical issues, concerning the government's inefficacy, women's pre-existing vulnerabilities and the severity of the multiple disasters. Despite the sporadic operation of the community kitchen in the multiple disasters, none of the respondents from the upper, middle and low caste groups reported overcoming the norms specific to their respective caste and class by taking the first step outside, all excepting one. Rather, women abided by conventions even whilst coping with the limited food and resources available, which in turn enabled certain sections of the male community to dominate the vulnerable and further entrench both gender spheres and the impact of the multiple disasters on women's lives.

The only exception was a widow from a middle caste fishing community (Shalini Behera was introduced in the previous chapter, as someone who did not access the emergency shelter, who attended the community kitchen in 2003. This non-conventional step out was facilitated by one of the SHG co-ordinators of Action-Aid, who mobilised and accompanied the young girls and women from her kinship and neighbourhood network to the relief centre, where they accessed the community kitchen together. Instances like this cannot simply be understood within the

constraints of the strict gender social conventions as explained above. Rather, flexibility was enabled, thanks to the commendable leadership of the SHG co-ordinator, once again within the purview of kinship. The SHG co-ordinator was able to negotiate gender norms constructively. This is a hopeful sign compared to the other 11 participants who did not access the relief in person and had to cope on their own with limited food.

In this instance, it is illuminating to quote the block and local administration when asked to comment on the low participation of women in the community kitchen. They told me:

> Women are part of the family and kinship. So their kin and neighbours help in carrying food for them (field diary, Mr. Y and *Sarpanch*, Tarasahi, 2004).

In the previous chapter it was observed, through the instance of the "emergency shelter," how women's needs were seen as secondary, and this is re-emphasised again in the above comments of the government officials. A relief response like this, which ignores women's needs during disasters and considers them only as part of the kinship; helps sustain patriarchal norms and values, rather than transforming women's ways of life. It is in this context, then, that the government overwhelmingly failed to ensure the receipt of relief by the most vulnerable households in the village. Nevertheless, in order to tide themselves over during the food crisis, women from all castes and classes did indeed depend largely on their kin and neighbours for access to relief. The accounts of inaccessibility to the relief centre highlights women's social vulnerability, although their actions in collecting food from the relief centre whilst also mobilising their social resources once again displays their resourcefulness as conscious actors.

All the 12 women (except one) used their own young sons or kin, or boys from the neighbourhood (in the age range of ten to fifteen) to collect relief on their behalf from the relief centres. In normative households, men carried cooked food or relief on behalf of their family, but in the case of non-normative households, young boys and children became the active agents for accessing the same (Latika, Lolita). Due to women's restricted movement, these young boys collected relief, stood in long queues, carried relief fodder on their heads, bought rations from the local market, and took huge risks walking through floodwater to reach the relief centres (Lolita, Latika, Ullash, Chumki, Proshilla). Such patterns of kinship and neighbourhood help from children, continued, for some women, beyond the disasters, although for other women, it emerged more specifically during the disasters and dried-up afterwards[66]. Here, it is worth mentioning that, as the relief operation in Tarasahi proved to be male-centric, gendered and corrupt, the amount of relief received by the young boys requires serious scrutiny[67] (Lolita).

Additionally, kinship relations also played an important role in bringing the entire rations for the upper and middle caste women during and after the disasters. However, this was not observed so much amongst the low caste groups due to the equally dire economic necessities of their kin. This is consonant with the findings of Mencher and Agarwal. Mencher (1993) observed that in the states of Tamil Nadu and Kerala, support for women after their husbands death increased in the landed households. And Agarwal (1990), in particular, noted that in Bangladesh, women

[66] For instance Lolita and Latika were helped by their brother-in-laws' sons. These boys helped them both during and after the disasters. In contrast, Ullas Behera was helped by her neighbour's son, who collected relief on her behalf when he went to collect relief for his own family. If the families are on good terms in the next disaster, this boy would do the same, although not necessarily helping her in her everyday life by buying rations and so on (Lolita, Latika and Ullash).

[67] It was beyond the scope of this study to explore this particular issue.

increase their visits to their parental homes during seasonal crises and calamity. However, such accounts are of limited use in understanding these women's ability to access such resources and networks in the face of multiple disasters (discussed later). Therefore, despite the severity of the multiple disasters on their farmland and crops in the absence of adequate and appropriate government responses, women from different castes and classes coped and maintained their livelihoods through *batya* (cyclone), *bonya* (flood) and *morudee* (drought) based on these "other" entitlements. However, the reliability of these "other" entitlements (mostly social resources) is explored further in the later sections.

Additionally, women also adopted certain self-devised coping mechanisms, both inside and outside the emergency shelter during the multiple disasters, dubbed "other" coping mechanisms by Chambers (1989:3). For instance, sharing a hearth with their kin, although on normal days these households are nuclear and have separate hearths (mentioned by Latika earlier), cooking convenient food like *kichudi* in order to save fuel and resources, reducing the frequency of food intake and the quantity, for example, instead of eating three times a day they ate only once, and taking dry food like *chuda* and *mudee* to stave off hunger and also save firewood. However, the sharing of hearths was virtually non-existent amongst the low caste women, due to their dire individual economic situation and dispersed shelter arrangement - discussed in the previous chapter Five.

Landless, assetless and assetlessness: Accounts of low caste women

In contrast to the upper and middle caste groups, the low caste women were landless and had no kitchen gardens due to the limited space around their houses. Therefore,

these resources were very specific to the upper caste women, and were not a subject of lament for their low caste counterparts. For the latter, repeated floods (*bonya*), cyclone (*batya*) and drought (*morudee*) meant loss of food due to the loss of agricultural work. In this context I quote the extract of Proshilla and Chumki who were introduced in the previous chapter. According to Proshilla:

> During the floods, cyclone and drought there was no work. I sat at home. We ate once and starved for days together. We received relief and it helped us to survive. They gave us relief for quite a long time because the water remained for three months. […].There was only water and water everywhere. In such a situation who will call me for work? When the water receded households headed by men went out working. Who is there in my family? When my husband was alive he never allowed me to earn wages on people's fields. He took care of us […].
>
> In the present flood (2003) the government provided cooked food and relief food. My kitchen was submerged […] but I did not go to eat. […]. I was scared to travel by *donga* (boat) because they were overcrowded and I feared they might capsize. Besides the current of flood water was very strong. For three weeks they provided cooked food and my children went and brought some rice and *dalma* (lentil with vegetables) for me. At that time I had no income so I was just sitting at home. I ate morsels of it with lots of water to pacify my hunger and saved it again for night. We managed again with lots of difficulties and suffering.
>
> In the most recent floods the government deployed a *donga* in the village. The *donga-wala* came in the morning and carried all women to the *bali* for *jhada* (defecation). […]. I boarded that government *donga* (boat) and collected wild leaves because some of the wild leaves like *kaloomo* do not sink in flood water. They float […].
>
> […] I go Machogaon now and then and earn my wages. Otherwise what else is here? […] There is no work for me in the village because the lands are *balichod* and people have switched over to *badam* cultivation. They search for male labourers with bullocks or cows to till the land. So I have no work inside the village unless I go outside searching for manual labour on people's lands (November, 2003).

Chumki, another respondent from the low caste group added further agony to the low caste accounts:

> After the super-cyclone I cried, wandered and lived. When I got some work I fed the family […] borrowed some money to run the family. And then came the flood […]. I cultivated some paddy by sharecropping but they were washed away in the super-cyclone. Then I did *rabi* cultivation, which was also lost. Everything went upside down […]. I did sharecropping in bits and parts with *Biswals*, *Mohanty* and *Behera* of this village, who owns the lands. I worked in their fields but year after year the floods came and destroyed my crops. So if I go on the other side of the village I earn some wages. I wake up at seven in the morning, wash dishes, clean the house and take a quick shower […] and then I work, work and work on people's fields in Machogaon. […].
>
> Again in the drought we did not receive a single grain. From where will it come because the land and the village soil cracked due to no water? If there is drought we do not get anything! If there is flood, crops are washed away! Rabi cultivation was done, it was also lost. And now people are cultivating *badam* (pea-nuts). But I do not have anything (referring bullock and plough). Nobody will share *badam* cultivation with me.
>
> This year I was again tempted to cultivate paddy. So with the help of a tractor and plough I cultivated paddy. Then the rainy season arrived. There was again rainfall. **R: From where did you get money to cultivate paddy?** I received the money for a tractor and seeds from the Block. But this flood again swept away everything. So there is nothing left here except Machogaon. […]. Now for a week or so it is raining and I have not been able to go outside the village or pick fish from the nets of the fishermen. Like today I have no food at home. So my daughter has been asking, "*bou* (mother) from where shall I borrow rice." There is no rice today. So everybody would remain hungry and fast (December, 2003).

The predicament of the low caste women in multiple disasters was the worst, in comparison to their middle and upper-caste counterparts. Chambers (1983) states that the households that lack assets and rely on small-scale sharecropping are likely to be most affected by contingencies, due to their lack of reserves. This is exemplified by these two respondents in their experience of the fast changing landscape of Tarasahi: increasing land erosion, siltation, and an increasing level of impoverishment for both the least and the most vulnerable people. When multiple disasters repeatedly destroyed crops, it not only meant the loss of agricultural work inside the village for the low caste groups, but also signified a diminishing capacity of the land-owners and marginal farmers. Consequently, the village land-owners and the marginal

farmers (observed amongst those three respondents who cultivated on a small-scale) diversified their economy, adopting *badam* cultivation on lease, reducing their dependency on paddy crops, increasing the level of cattle rearing, initiating petty business, and for some, migrating. This diversification in the village became necessary for overcoming the impact of multiple disasters because, as Johnson notes, in a rural economy "diversification is a necessity as well as a strategy for survival". Such strategic necessities reflect the "foxes," in Chambers words, the adaptation of poor livelihood strategies (1992: 280) and even of the less poor households as observed in the village.

Diversification of the economy in order to reduce the risk and mitigate the impact of multiple disasters led to adverse effects, particularly for the low caste respondents, who were burdened with a double bind of responsibility and assetlessness. For instance, the reduction in paddy cultivation delimited the scope of agricultural work inside the village, which increased the low caste women's psychological and physical strain in finding jobs outside the village, as observed in the case of these two respondents (Proshilla and Chumki quoted above). The shift to *badam*[68] cultivation also reduced the value of female labour, due to their lack of endowments, such as ploughs and cows that might enable them to cultivate on lease. This revealed that the vulnerability produced by multiple disasters is both internal and external (Chambers, 1983, as argued in Chapter Two). By external, I mean the loss of sharecrops and labour opportunities inside the village, whereas internally refers particularly to low caste women's helplessness and their inability to recover and fight

[68] After the super-cyclone *badam* cultivation has increased in the village due to siltation and expansion of the river bank. Apparently, according to women respondents, sandy soil is good for the production of *badam.* As a result the river bank and small plots of fields are used in the village to cultivate *badam.* Traditionally man till the lands with a plough and woman and children plant the seedlings behind the ploughman. This traditional practice typically affects women-headed households (especially low caste women) who lack male kin or assets like ploughs and cows.

back before another hazard strikes, given their limited kinship support and the inappropriateness of government responses.

With limited kinship support, relief, relief work, secondary food and self-devised coping strategies became the major mechanisms to sustain the livelihoods of the low caste women during the disasters. From time to time, the government relaxed the terms of its loans to farmers, distributed subsidised seeds and fertilisers so as to mitigate the possible affects of further drought and floods in already disaster affected villages (GOO, 1996; interview with the Block Administrator, 2004). However, these responses were of no significance to Proshilla and other women's livelihoods (excepting Chumki), because they were targeted at farmers who already had land. In this regard, the increasing impoverishment of the low caste landless families poses serious challenges to the government in terms of initiating policies and strategies that could enhance the capability of the poor to recover and ensure their livelihood in the context of the fast-changing landscape of Tarasahi.

Apart from the emergency relief (discussed earlier), the government also initiated relief work[69] after the super-cyclone, which was most beneficial to the low caste women's recovery, over and above their middle and upper caste counterparts. However, there was no such relief work after the floods. Government relief work was then instigated initially in the low-lying *sahi*, where the middle and low caste women

[69] Relief work is another important component of the Code. Labour-intensive relief work is usually undertaken through the Calamity Relief Fund, in order to enhance people's purchasing power and mitigate the unemployment caused by natural calamity. Relief works (GOO, Section 149) envisage durable, remunerative and asset-creating work in the affected or distressed areas. They are mostly in the form of food for work (FFW) or grain for work (GFW), organised by the state government and assisted through the donation of food by international organisations and the government of India (GOO, 1996: Section 158, 159).

were located. Later, the project was extended by the two NGOs, AA[70] and its partner organisation BGVS to the mainland of the village, which was pre-dominantly occupied by the upper caste women. The relief work continued intermittently for nine months, typically including road construction, carrying soil, cleaning ponds, embankment construction and brick kiln. In Tarasahi these works remained largely gender-neutral and consequently facilitated the upper and middle caste women's exclusion from the labour participation in the initial phase (quoted earlier by Latika). These works typically operated in the public space, away from women's homesteads and demanded their working with men and women from different castes and classes. However, the restricted economic activities and distinctive private spheres of upper and middle castes women once again prevented them from participating, despite their severe economic deprivation consequent to the super-cyclone. By contrast, all the low caste respondents (Proshilla and Chumki quoted above) reported participating in the relief work on a par with men. This was partly due to their dire economic necessity, fewer social restrictions, and their double burden of responsibility and limited kinship, all of which helped them to overcome barriers that remained for their upper and middle caste counterparts. In this regard, I refer to Agarwal who noted that caste rigidity and its flexibility are crucial for determining the survival and recovery during disasters[71]. This is instantiated in the low caste respondents' narratives, and their managing to cope in the multiple disasters despite their lack of kinship support.

[70] FFW was initiated by AA as part of the livelihood restoration project funded by DFID. About £818,100 was sanctioned by DFID for FFW for ten months (March – December, 2000). However, the project begun in May 2000 was completed by February 2001 (AAI).

[71] Agarwal quoted an incidence from the drought of 1971 in Nepal. The Bhujels, who were willing to take up whatever work was going, survived the drought better than the Brahmins who held on to rigidly-defined caste norms (1990: 378).

However, the catalyst organisations involved in the relief work were able to rectify the *non-involvement* of the middle caste women once the reasons for women's exclusion were understood. The catalyst NGOs redesigned relief work around the gender needs specific to each caste and class. The NGOs thereby grouped women together according to their specific caste and *sahi* (these groups were eventually turned into SHGs, as will be seen in Chapter Seven of this thesis). Women in their specific *sahi* then carried soil, helped in rebuilding each other's broken houses and helped in constructing streets. Women's work typically entailed mopping, cleaning and carrying soil, due to the gender-based division of labour associated with the construction of traditional houses and streets in Tarasahi. In return for their labour, women were provided with rice, oil, lentils, (and occasionally some money, although this was only reported in the case of low caste respondents). Thanks to this adjustment, the programme in its later stages succeeded in increasing the respondents' labour participation, from all castes and classes. As a result, when the project moved to the mainland occupied by the upper caste after six months, Lolita had little hesitation in participating in the relief work inside her *sahi* (Lolita). This suggests that relief work that is largely gender-neutral, at times fails to address local and discrete conditions. It is only when the concrete specific local conditions are understood that meaningful policies can be put into place by the catalyst organisations who are able thus to assess women's productive capacities and skills constructively. However, the long term effect of such a project on women's livelihoods has been seriously questioned (Khogali and Takhar, 2002).

Apart from the emergency relief and relief work, the secondary food system also played an important role in seeing the families through multiple disasters. The gathering of secondary food by women during drought, famine and the hungry

season has been well documented by a plethora of studies (see Agarwal 1990, Mukherjee 2003, Jiggins 1986, Chambers, 1989, Beck, 1989, Sogge 1994), but there are less evidence of the same during floods and cyclones (Twigg, 2004). In this regard, the instance of Proshilla is telling when she emphasised that:

> After the cyclone, I collected *shago* (leaves) from the *beelo* (field). I collected *madiranga shago*, *kaloomo shago* and *chunchunia shago*. I caught fish and crabs too. We ate all these and survived. […]. During the flood I boarded that government *donga* (boat) and collected wild leaves because some of the wild leaves like *kaloomo* do not sink in flood water. They float […].

She emphasised the importance of the secondary food system during the widespread inundation and after the cyclone. During the floods, this particular respondent used the boat service of the government[72] to collect wild green leaves like *kaloomo shago* (a type of aquatic plant) and *chunchunia shago* (wild green leaves) that do not sink in floodwater. This displays women's wit and their relentless ingenuity in finding alternative food sources during floods in order to feed the family and also alleviate the deficit in food relief. Likewise, collecting wild green leaves after the floods and the cyclone from the wet paddy fields became another major source of food for Proshilla and others (mentioned earlier by Manimala). According to the respondents, the destroyed paddy fields became an ideal ground for the proliferation of weeds or wild green leaves. This finding is consonant with Agarwal's, which noted that during the rainy season (conventionally seen as the hungry period) wild leafy vegetables are most readily available (1990). Fish and crabs from the river Debi and from the pond inside the village also acted as a staple food with rice for the respondents, but this

[72] A targeted boat service was initiated by the block administration to attend to women's sanitation needs in the mornings and evenings during the floods (discussed in previous chapter).

was observed more amongst the low caste group, rather than the upper caste group due to caste-based occupations and the restrictive norms attached to fishing.

Housing, houseless and gendered housing

House/ing was another most important asset that adversely affected women's plight in multiple disasters[73]. The destruction caused in the housing sector in Orissa was beyond comprehension and the state government addressed this through the house building grant (HBG)[74] and the IAY concrete houses, as household mitigation measures. But these responses received much criticism due to untimely and delayed responses, gender insensitivity, corruption and inadequate grants which was fixed two decades ago (Das, 2002; Samal, 2003; Swain, 2002). Although these reports were highly significant in revealing the chaos in the rural housing sector subsequent to disasters and government inefficacy, what they lack is an explanation of how women-headed households construct their houses when repeatedly affected by multiple disasters. What are the resources that women deploy in order to cope with

[73] According to UNDP-Orissa, it was estimated the super-cyclone in 1999 destroyed about 2 million houses and the floods of 2001 damaged another 2,75,000 houses (UNDP-Orissa, 2002). The floods of 2003 further damaged another 100,000 houses in the erstwhile flooded areas (GOO, 2002b, 2003). Balikuda (the selected block) incurred an estimated house damage of 6,884 in the floods of 2003. About 902 houses were declared as swept away, 60611 houses as fully collapsed and another 7371 houses as partially collapsed (GOO, 2003a). As a matter of fact, 3, 96,000 victims of the erstwhile super-cyclone were still awaiting their housing grant in 2000 (Das, 2002), with some not receiving their entitlement until 2003 (NIE, 19 March 2003).

[74] According to the ORC the 'house building grant' should be distributed in the aftermath of [multiple] disasters based on house damage assessment for repair or reconstruction (GOO, 1996: Section 81). The grant is sanctioned according to three categories of damage assessment: Rs. 3500/- for completely washed away houses; Rs. 2000/- for completely collapsed houses and Rs. 1000/- for partially collapsed houses. According to the ORC, houses which have completely washed away from their original sites leaving behind no building materials shall be treated as 'completely washed away'. A house may be treated as 'fully collapsed' if all the four walls and the roof have collapsed; a 'partially collapsed' house is one in which one or more walls have collapsed but the roof may still be standing on pillars or some of the walls with or without damage to the roof. During a cyclone, it is possible that only the roof is completely blown off, leaving all or some of the pillars intact, in such a case the house will be treated as partially collapsed (GOO, Section, 81).

the government deficiencies? And how do women-headed households' caste, class and gender fair during the construction process? These are some of the questions that this section attempts to address.

Prior to the super-cyclone, all of the respondents owned traditional houses. Consequently, the houses either collapsed or were washed away. During the floods, women's physiographic location and social position played an important role. For instance, the low caste respondents received IAY houses (discussed in Chapter Five), which remained unaffected (though requiring urgent repairing), whilst the upper caste women also remained unaffected due to the higher location and the concrete construction of their houses. It was only the middle caste women who suffered the most because they possessed neither of these resources. In light of this I quote here the narratives of three respondents from the upper caste (Lolita), middle caste (Latika), and low caste (Him-Sheetol) (discussed in no particular order) to explicate the subjective experiences of their house destructions and re-constructions after the multiple disasters.

According to Him-Sheetol Bhoi, a low caste respondent:

> The super-cyclone blew my mud house […] I received Rs. 2000/- from the government to construct the house. Do you think Rs. 2000/- is enough for a *mai-po gharo* (woman-headed household). It is nothing - *rati poyalay* (after sun-set) everything is gone; I mean *majuria* (labourers) will take away. Do I have anyone to supervise the work? No. They (labourers) will take away the money as soon as the sun sets. I am a single woman and had no one to supervise the work. I had to do everything on my own. It was not possible to manage everything within Rs. 2000/- like buying bamboos, ropes, canes, labourer's tea, food etc. and every damn thing. So I had to go out to earn my daily wages and save some money for the house and also sustain my livelihood.

> Then after sometime the government gave me Rs. 22000/- for an IAY concrete house but there was no man to supervise the house-work. It was solely done by hiring labourers. It would have been nice if I had my man to supervise the work. I know nothing about concrete houses. Consequently I had to borrow money. […]. Every month I now pay the credit. […] Now the house requires urgent repairing […] (March, 2004, Bhoisahi).

The experience of this particular respondent reveals that house construction is a highly gendered process, where women's double responsibility particularly struggles to keep both the construction process and economic activities concurrent. The house building grant provided by the government had a limited scope for addressing the pre-existing vulnerability of women and for perceiving the extension of the extension of this vulnerability to the construction process. In this light I refer to Moser, who argued that special "needs" for women-headed households arise in the construction process for two main reasons. Firstly, government housing projects are largely based on a self-help housing model,[75] which overlooks the gender needs of the non-normative households. Secondly, self-help housing models overlook the pre-existing vulnerabilities of women-headed households, based on their "double or triple burden" responsibility in which women singly perform productive, reproductive, and community roles (Moser, 1987). In overlooking women's pre-existing vulnerability, the self-help housing projects then largely become counter-productive. This is demonstrated through this particular respondent's narrative.

The maintenance of a productive role for Him-Sheetol meant that she had to hire and depend largely on male labourers with no extra person to monitor the work in her absence. Besides, the continuance of her productive role was essential to her

[75] The Self help model is owner driven; enabling communities to undertake building work themselves with finance facilitation from external agencies. But housing under this model is possible when labour is available, housing design is relatively simple, communities have a tradition of self-help building and there are no strict time-pressures (Barakat, 2003).

supplementing the deficiency of the grant, whilst also sustaining her livelihood. This very basic facet of her life in fact made her more vulnerable to and exploitable by male labourers, who had all the advantages of a lack of monitoring. Likewise, Nimpuno-Parente (1987) observed that women-headed households in the urban housing projects in Kenya, hired more craftsmen and labourers at higher costs due to their lack of knowledge of the requisite skill, whilst they also experienced the power relationships that reflected the prevalent gender hierarchy of that society[76]. Likewise with our study, where the house building grant of the government only served to consolidate the pre-existing power structures, rather than helping Him-Sheetol to overcome them. Similar instances occurred when Him-Sheetol had to construct her IAY house, which in turn had severe socio-economic consequences for her livelihood. This was partly due to her ignorance of concrete house construction and partly because she was forced to borrow money at a usurious rate in orders to meet the excruciating construction cost. At the same time, she was unable to question instances of shoddy work.

Contrariwise, Latika, a respondent from the middle caste group, who reconstructed her traditional house with/out this grant depending largely on her kinship and self help work simultaneously. According to her:

> The super-cyclone completely broke my house. […]. After the cyclone my husband came back from Calcutta along with Rs.2500/- We hired labourers […] we both carried soil on our heads and constructed the house […].
>
> After the flood of 2001, my husband died. Again there was chest deep water inside the house in that flood. It was the same in the present flood (referring to 2003). […]The house was

[76] Women in Nimpuno-Parente's study complained of shoddy work, being cheated by their craftsmen and of workmen stealing building materials when the women had to leave home to earn wages etc.

> completely broken again. They gave us Rs.1000/- for the house renovation. It was not enough. I bought the essential things with that money […] carried soils on my head, put up the walls, plastered the walls with mud, mopped the house to level the surface of the floor. We did not have money to hire labourers. After that my husband fell ill and died. Later my daughter helped me finishing the house.
>
> After this most recent flood my daughter came again to help me who is married inside the village. She helped me mopping and cleaning the house. We carried soil on our heads, filled up the ditches and hole inside the walls and levelled the surface of the floor. We mixed the soil with water and then plastered the walls. I brought sand from the riverside on my own without hiring any labourer because I cannot afford them. My son earns very little. Sometimes he sends me Rs. 100/- and last month he sent me Rs. 200/- only from Calcutta. He is a young boy. It is difficult to fend for him; so how can I afford to hire a labour? […].

Self-help, self-help with the labourers and a kin formed basis for reconstructing Latika's house, repeatedly affected by the multiple disasters in the absence of adequate grant, were the basis for her house reconstructions. Unlike Him-Sheetol, Latika had a limited scope for productive work outside of her homestead, which meant that she had time to invest largely in the construction process. This was not possible for Him-Sheetol because she had to continue her double burdened responsibility of making up the deficit without kinship support.

By participating in the construction process, Latika also highlighted the gender specific roles and gender segmented work in the construction process. House construction in Tarasahi is predominantly male. Men typically make and put up the roofs and walls. This is normally undertaken by male labourers or by male kin or relatives in women-headed households' lacking any husband's or adult son's help (Latika, Lolita). Correspondingly, the house is turned into a dwelling place through women's meticulous job for months together in the completion phase, as explained by Latika and by Lolita quoted below. Such activities include carrying soil on their heads, spreading sand to mar the dampness, making the plaster, filling up the holes

and ditches, plastering the walls, levelling the surface of the floor with special kind of mud, borrowing straw, collecting housing materials from debris etc. These activities undoubtedly enhanced women's ingenuity and tenacity in constructing their houses, but it also reinforced and re-intensified women's painstakingly traditional roles and gender spheres, repeated after every disaster without much sign of change.

Likewise Lolita, an upper caste respondent revealed a similar experience in constructing both her traditional and her concrete house:

> After the super-cyclone my son-in-law came to put up my house. I lived in that house till my IAY house was constructed prior to the recent floods (referring to 2003 floods). He used the left-over of the old house and spent money from his own pocket to construct the house. He even brought food for the labourers. I and my girls later mopped the floor and plastered the walls […].
>
> I could construct the IAY house only because my son and brother-in-laws helped. They brought everything from the other side of the river and supervised over the hired labourers and masons during the construction. Along with them, we all worked hard. When the bricks and sand were dropped outside the house we all, including the children carried the stuff on our heads. My sister-in-law and her children too helped. We carried baskets of sand, gave water to the *mistri* (masons), and worked as an assistant side by side during the construction. […].
>
> The IAY grant was for Rs. 22000/- it was not enough. I utilised the society's (referring to SHG loan) money for the construction instead of buying the cow for which I took Rs. 11,000/-credit. Now I am left with the burden of paying the loan to the SHG without any source of income […]. However, I have been helped by this IAY house. We can at least sit rest or sleep during the floods […].
>
> After this present flood the government officials came, and noted down but so far we have not received anything yet. I have somehow managed to make the kitchen functional […]. I feel embarrassed to ask help repeatedly from my brothers and others because they have their personal constraint too. Besides how long can I keep asking for things? It is very embarrassing.

In Lolita's case, self-help, together with that of her children, labourers and kin, played an important role for the repeated construction of her house. Although both Lolita and Latika (quoted earlier) were less hard-pressed in comparison to the low caste Him-Sheetol, who was burdened by her double role and lacked kinship support, nevertheless their vulnerability was equally revealed in the construction process. This was explicated as due to the gender based division of labour in the construction process, by Latika and Lolita both. Furthermore, the constricted scope for economic activities outside of their homestead meant that upper and middle caste women had to confront their financial and non-financial deficiencies according to their kinship and neighbourhood ties. In this regard, kinship proved to be the greatest resource in the reconstruction of women's houses repeatedly destroyed by disasters. Concomitantly, Lolita (and others) expressed her increasing concern and embarrassment for repeatedly seeking help from her social organisation, which she viewed in terms of diminishing levels of self-respect and self-value. My subsequent conversations with women from upper and middle caste backgrounds revealed that their relationships with their natal family often weakened, with repeated disasters representing a contributory cause of this (Jhumpa, Lolita, Latika, Konika). Their economic vulnerability, compounded by recurrent destruction of their houses, crops, food and cattle (discussed later) have completely exposed their dependence on their kin and neighbourhood. In order to recompense their repeated loss, women sought support from their family networks for both financial and non-financial help. Repeated help from these sources, combined with an inability to reciprocate has increased their burden of guilt and shame. Once again this reveals the vulnerability produced by the multiple disasters as both external and internal (shame, lack of honour, reduction in their self-respect and helplessness) for the upper and middle

caste respondents, whose only recourse for recovery was dependent on their social resources.

Recurrent help from this social network only perpetuated women's status of helplessness and destitution in front of others, rather than lessening it. It is in this light that Moser's double or triple role concept[77] for upper and middle caste women-headed households in a rural set up proved to be inadequate for explaining the nature of housing "need" that may emerge for this group of women, who are equally vulnerable, perform only reproductive and family occupations and participate fully in the construction process. Moser's concept was apt for explaining the inadequacy of the government grant vis-à-vis the predicament of the low caste women (Him-Sheetol discussed earlier), who were burdened by their double role responsibility, but not for the latter group. However, my empirical findings here suggest that although this group of women fully participated in the construction process, the inadequacy of the grant was still deeply felt by them for several reasons. Firstly, the grant fell way short of the highly competitive prices of housing materials, especially after disasters. Secondly, it overlooked the gender based division of labour involved in the construction process. Thirdly, it overlooked the involvement of different agencies in the construction process. Fourthly, it overlooked women's restrictive gender norms and values; and lastly, it overlooked the difficulties associated in transporting raw materials to a non-accessible village like Tarasahi, given that the raw materials for non-traditional houses were not locally produced. Therefore, this group of women, according to their caste and class specificity, not only highlight the inadequacy of the grant, in spite of their self-help contribution, but also serve to demand a robust

[77] Moser conceptualised her work in the context of urban housing, which we here tested in the rural context.

housing policy in multi-hazard places, incorporating the subjective need of rural non-normative households who perform both productive and reproductive work, singly and simultaneously.

Lolita and Him-Sheetol also highlighted the fact that the financial burden during construction affects all households, although it is particularly severe for women-headed households because they are the sole income earner (Moser, 1986). Consequently, inadequate funding was the constant problem of all the IAY beneficiaries. In fact studies have revealed the cost of building materials for concrete structures constituted 66 per cent of the grant alone in the year 1975 excluding land (Hardoy and Salterthwaite, 1981). In 2002, construction costs were estimated to be increasing at 13 per cent each year against a general price escalation of about 8 per cent (UNDP-Orissa, 2002). This is likely to increase further following disasters, due to the shortage of labourers, raw materials, masons and the non-production of these materials locally (Khogali and Takhar, 2002; UNDP-Orissa, 2002). Unsurprisingly, Lolita and Him-Sheetol's houses could only be completed by borrowing money at extortionate rates of interest. Lolita was also forced to utilise the loan offered by Action Aid (AA) to buy her livelihood asset- which itself represented a severe blow to her economic sustainability. This is discussed in more detail in Chapter Seven. Due to the nature of the concrete houses, the IAY beneficiaries also had to depend heavily on their male kinship because of the non-availability of these non-traditional raw materials locally. Consequently, women often had to depend on their male kin to go outside of the village and transport the raw materials via boat, which increased the cost further. Simultaneously, frequent help of this kind also heightened upper caste women's burden of guilt and shame (mentioned earlier by Lolita). In this respect, the IAY project proved to be fundamentally inadequate, because, despite its recognition

of widows as a special category of beneficiary, it failed to envisage women's practical need during their involvement with various agencies in the construction process, particularly in a non-accessible multi-hazard prone place like Tarasahi.

Nonetheless, all the house-owners of the concrete houses reported that the concrete houses yielded tangible results in arresting their displacement during the floods - discussed in previous chapter. Beneficiaries were no longer prone to recurrent house damage and the mundane drudgery of roof-making for traditional houses, especially difficult when straw in the village is sparse due to the recurrent crop loss. The IAY houses were able to tackle the non-static nature of physical vulnerability, despite their placing the reduction of social vulnerability seriously under scrutiny. Lolita and Him-Sheetol's narratives revealed the developmental initiatives to have entrenched women's poverty, as a consequence of them being forced to borrow credit in order to meet the construction costs. It also heightened women's dependency on their kin, due to their lack of knowledge about these non-traditional houses. It further entrenched gender spheres and norms attending the highly gendered process of house construction, and finally exposed the dependency of these households on their kin and neighbours, which had deep emotional consequences for respondents (shame and helplessness).

Gendering cattle death

After agriculture, animal husbandry is the next major source of supplementary income for rural households in Orissa (Kurup, 2003). Some 80 per cent of all rural households own livestock, with cattle being the most popular and the preponderant

species (ibid). Unlike land, livestock holding in Orissa is more equitable, as over 80 per cent of all livestock is owned by marginal/small farmers and the landless (Kurup, 2003: 25). This was reflected in Tarasahi and amongst the 12 respondents. Prior to the super-cyclone all 12 respondents had cows and some had pigs, hens, ducks and goats. For the upper and middle caste women, cattle formed the major source of subsistence and for the low caste respondents; their wages were supplemented by livestock. As livestock formed the major (supplementary) sources of livelihood for all the respondents, it is worth looking at the impact that followed from the multiple disasters. In this context, I quote here the narratives of three respondents who explicate the problems that livestock face in hazard prone areas in relation to their caste, class and gender relations.

According to Lolita, an upper caste respondent gave the following account:

> The super-cyclone killed my two cows. They died due to the collapse of the cowshed. Later my brother gave me one cow thinking of my well being. […] Then the *samity* (micro-credit) in our village gave me eleven thousand rupees. I spent around six to seven thousand to buy another cow from my natal home and the rest of it I spent on the construction of the concrete house […]. Last week the cow-owner came and took away the *samity* cow. He told me "you have not given the total money fixed for the cow, so give me back my cow." […] Recently my brother has assured me saying "ok I will buy you another cow at reasonable rate so that you can look after yourself." But when will he give, nobody knows. I think if my brother is willing my sister-in-law objects. How long will he give? Even they are agitated for helping me recurrently […].
>
> In the present flood, one of the cows fell ill and its calf died. […] The NGO gave some fodder on relief but it was not enough. […] despite the poor health of the cow it gave a litre of milk daily, which I sold it and earned some money […] again during the drought, my cattle suffered. There were no grasses, […] no hays and straws […] because there were no paddies. […] the cow became very thin and reduced its milk. I went to the sand-mound to collect grasses and leaves. If the fodder intake is reduced the cow will reduce its milk […]. Now I am left with the two calves, it will take couple of years before they start giving milk […].

Cattle rearing being her primary source of income, Lolita explained the difficulties that cattle face from multiple disasters, and once again confirmed the important role that kinship plays in restocking cattle. Here, I invoke Crehan, who noted that when people are hit by natural disasters or sickness etc. rural households look to their kin for support acting as "[…] active subjects trying as best they can to shape their own lives, albeit with very limited access to resources and often confronting with impossible choices over satisfying immediate and longer needs" (1992: 128). This is re-emphasised in the narrative of Lolita and other middle caste women (to be discussed later) who repeatedly turned to their kin for support and for buying them a cow. Cole (1989: 12) called this strategy "mutual aid," where the kin offers outright gifts of an animal or animals to an impoverished relative. This assistance does not have to be repaid and is practised mostly amongst kin members rather than non-kin (ibid).

Prior to the super-cyclone, Kurup (2003) noted that Orissa had a livestock population of 24.27 million, but by 2001 this was down to 23.33 million, due to the losses suffered during the super-cyclone. The impact of the super-cyclone was particularly severe on cattle, buffalo, sheep and ducks, bringing about a major decline in their numbers. In contrast, goats, pig and poultry displayed a remarkable resilience in making up for any loss and recovering. But Kurup has no explanation as to why the former category should have been the major victim over the latter. In this context, Lolita, Manimala and Him-Sheetol offer some possible explanations. Lolita emphasised the lack of preparedness of any cyclone shelter prior to the super-cyclone as the major reasons of her cattle's deaths. In the previous chapter we saw how during the super-cyclone, the family ran to the concrete house of her neighbour for shelter. At that time, survival was the most important consideration so that they

forgot to let loose the cattle tied inside the cattle-shed. Consequently, their cows died due to the collapse of the shed. In the drought and the later floods, she emphasised lack of fodder, the drying up of grasses, and illness as the major cause of her cattle's demise.

Manimala and Him-Sheetol offer further insight into the recurrent death of their cattle. According to Manimala, a middle caste respondent:

> In the super-cyclone my cows died due to collapse of the cowshed. […] after the super-cyclone some NGO named Aparajita gave me two goats […] for free. It was worth fourteen-hundred rupees but they died in the following flood (referring to 2001). Everything was under water. Trees were under water. They could not go anywhere for grazing. I do not have a *donga* (boat) like others that I can go out to save their lives. They caught *cholesterol* (cold) and died.
>
> After the super-cyclone my father also gave me another cow but unfortunately it was drowned in 2001 floods. Gradually it became thin and ill and then I had to sell it off during the time of drought […]. There were no grasses or leaves anywhere […] Some Muslim man bought it […] for twenty-three rupees only […].
>
> Last year in the month of *Paush* (mid December – mid January, 2002) I bought a cow […] with the SHG money. [...] the cow was for Rs. 9500/- and it used to give 7-8 kg of milk per day. Unfortunately the cow and the calf died after the flood (2003). They could not go anywhere. I went and stayed in Panda's house. Do you think that the cows could stay there? When I went to *kudu* (higher place – the *bali*), it was at night because the flood water came at night. They were in the water and could not go anywhere. They caught cold and died […]. Now my father has given me another one […] **R: Was it insured?** No, no. It would have happened if I were to understand the process (in agitating tone). The cow was not insured and I did not know anything about the insurance. Nobody told me about that […]. Now my father has given me another cow but it has stopped milking […].
>
> There is no vet in this flood country. The whole village gets submerged but there is no doctor. The families who have male members take their domestic animals to Machogaon across the two rivers. But who will take mine? When everything is submerged and the trees too, can they graze? […] I do not have a *donga* (boat) like others do to fetch some leaves from the trees.

Him-Sheetol, a low caste respondent, offered the following account:

> Prior to the super-cyclone we had a cow but it died during the super-cyclone. I am a woman so I could not go inside the cattle-shed fearing that the walls might collapse on me. […]. So I requested my brother-in-law to cut the rope of the cows. But he did not go to untie the ropes. Therefore the cows and the calves died. […].
>
> I bought four goats with the SHG money. But the goats died in the most recent flood. Each goat had two kids and in total I had eight kids. They all died due to dysentery […] and lack of fodder. […] It is now more than seven months I have not received any compensation from the insurance company. Now I am left with only one goat. Before the super-cyclone I had chickens but now I cannot maintain them. It is not possible to maintain them in a woman-headed household. They will be stolen […].

The long extract of Manimala also suggests the fragility of livestock in multi-hazard prone places and the importance of "mutual aid" for replacing cattle repeatedly killed by the multiple disasters. The cattle being her major source of livelihood, repeated cattle death was a severe blow to her economic well-being. In order to sustain her livelihood, she also turned to her kin like the upper caste Lolita. However, this proved unfruitful for Him-Sheetol. Furthermore, Manimala also revealed how the severity of multiple disasters on livestock is augmented when it intersects with women-headed households pre-existing vulnerability in the absence of any developmental initiative in the village.

The village, being the largest supplier of milk (interview with Balikuda Block administrator, February, 2004, BBSR), lacks a much needed primary health centre and a veterinary service (however, there is one quack doctor in the village who takes the role of both human and animal doctor during peoples need). When one needs to take their domestic animal to the vet in Machogaon, it is a highly risky journey for the ailing animal. Because the animal has to swim across two rivers; its health is

often put at an even greater risk[78]. Under such circumstances, it becomes difficult for the upper and middle caste women to escape from their limited social mobility (this is consonant with the previous themes discussed in the previous Chapter Five). Besides, taking livestock to the vet, rescuing the stranded animals from flood water and collecting leaves from the trees during flood is typically seen as the male's job in Tarasahi (Manimala, Latika). In this respect, I refer once again to Kurup who noted that cattle care and its management in Orissa are subject to a distinctive division of labour in a household, which is shared between a man and a woman. For instance, the milking of milch animals, grazing in commons or forests, the movement of animals to markets and the handling of animals for health care are men's chores; while women attend to stall feeding and cleaning (2003: 34). This division of labour for cattle rearing particularly affects women-headed households (as observed in the case of Manimala) who have no male members or adult son to perform these activities, particularly during floods. Therefore, a gender based division of labour, gender norms, and a lack of resources like disaster resistant houses for protecting cattle and a boat for women-headed households transportation of livestock at very high risk during the disasters, all compound these women's difficulties. This was explained by Manimala, who felt extremely helpless (revealing her internal vulnerability) in protecting her livestock when they were stranded in water, helpless when she could not fetch leaves for her cattle due to her lack of a boat, and extremely helpless for not been able to take the ailing animals to a vet in Machogaon because of her limited mobility. Unsurprisingly she recurrently experienced the loss of her cattle.

[78] Shalini Behera, another respondent, reported that her cow was pregnant during the floods and was suffering from cold and fever. But the family decided not to take the cow to a vet lest it worsened the cow's condition in having to swim across two rivers. Eventually the cow was able to give birth to its first calf, but the calf was ultimately offered to the gods of the local temple, because according to the family, it was the 'offerings' from the temple that saved the life of the cow and the calf.

The last respondent, Him-Sheetol, from a low caste group, also revealed the gendered dimension of her cattle deaths in the super-cyclone and in the latter disasters. She also revealed the inefficacy of the NGO in this regard, who distributed credit for livelihood assets but failed to recompense her even after seven months for her cattle deaths. The role of the NGO here was minimal and almost overlooked the infrastructure limitations of the village. The limitation of the NGO and its micro-credit project is looked at in more depth in the next chapter.

Conclusion

This chapter has explored the compound effects of multiple disasters on women's livelihood resources. More specifically, I identified women's major livelihood resources as kitchen gardens, land, houses, cattle and wages, and thereby focused on the diminution effect on these resources after multiple disasters. Whilst the narratives of women suggested that the compounded effects of multiple disasters were immense, they varied according to social class, caste and gender attributes. The upper and middle caste groups deeply felt the loss of their kitchen gardens, farmland, and crops, whereas this was largely not the case of the low caste group, who had an inadequate entitlement to these resources. However, the loss of farmland and crops due to erosion and siltation meant a reduction of work and food for the low caste group. Likewise, repeated house destruction was a source of recurrent lament for the middle caste women, due to the location of their houses (low-lying areas), whereas the upper and low caste women, whose houses suffered in the super-cyclone, were able to reduce the risk of floods, due to the concrete houses they were able to build. However, cattle death affected all respondents and revealed that the impact of the

multiple disasters was particularly severe on women-headed households. Factors here included the gender-based division of labour in cattle care, women's lack of resources, such as boats, a lack of veterinary care inside the village, a lack of disaster resistant cattle accommodation, and above all, the limited mobility of women due to caste and class norms. Consequently, although the combined effects of multiple disasters revealed subjective experiences, these still produced immense distress (internal vulnerability), widespread food scarcity, reduced exchange entitlements, and increased the vulnerability and poverty of the already vulnerable and of poverty stricken households.

In the face of diminishing resources, the government responses (relief, relief work and grant for houses), together with the kinship and the secondary food system became the most important coping mechanisms for these families during and after the multiple disasters. However, government responses were useful during the crisis, despite the suggestion from the narratives of their ad hoc nature that largely overlooked women's needs and their pre-existing vulnerabilities. As a result, the responses were more counterproductive than productive in women's lives in the long term. Concomitantly, in accessing their social and natural resources, women also proved themselves as conscious actors in reconstructing their own livelihoods, despite being tied to their caste, class and gender norms. Whilst my research supports the findings of other studies on women, coping and disasters, it also adds complexity to the question of how social class, caste and developmental projects (particularly the IAY housing project) all intersect in entrenching the compound impact of multiple disasters, especially on those already vulnerable households by making them further vulnerable and poorer equipped to deal with the next hazard.

In the following chapter I will build on this discussion and that contained in the previous chapter (Five) and explore whether the vulnerability produced by multiple disasters (both internal and external) can be reduced through the intervention of micro-credit.

Chapter 7

Multiple disasters and micro-credit: Can it reduce women's vulnerability?

This chapter explores the potential and effectiveness of micro-credit in helping women-headed households cope with the multiple disasters. A "Livelihood Project" was initiated by the two NGOs, Action Aid (AA) and its partner organisation Bharat Gyan Vigyan Samity (BGVS) in Tarasahi in the post super-cyclone phase. This project formed micro-credit groups of women (also known as SHGs in India) and offered credit to buy livelihood assets in the year 2001. I decided to study the effectiveness of this particular project because its presence was dominant in the village and in the respondents' lives. To overlook the presence of this project would have undermined the documentation of both the additional risks that socio-economically vulnerable groups encounter in restoring their livelihoods despite external help, and the impact of external help on women's livelihoods when coping in the context of multiple disasters.

According to the Orissa Relief Code, there are certain provisions for livelihood upliftment after disasters, but they are mostly accorded to the farmers. They include immediate irrigation facilities, supply of pumps from the block headquarters at a reduced rate, distribution of seeds at a subsidised rate, and suspension of collection of loans from the villages having crop loss of 50-70 per cent (GOO, 1996). But these measures undermine not only the concept of vulnerability and the importance of disaster mitigation in the development agenda, but also fail to provide assets to the have-nots. They are designed to recover assets of large or marginal farmers, but not

of the poor and the landless (Mohan et al., 2005). Nor do they facilitate egalitarian social change, addressing the unequal access to power and resources based on caste, class and gender. Consequently, the measures were of little significance to the livelihoods of the respondents (except one) who were either involved in a family occupation, or who had land but lacked adult sons or money to hire labourers. It is due to the government's minimalist developmental role after the multiple disasters in Tarasahi that the project initiated by AA and BGVS became crucial in this context.

The previous two chapters (Five and Six) revealed that the vulnerability produced by the multiple disasters is internal, external, and subjectively based on social caste, class and gender. As vulnerability to disasters is central to this thesis, it was argued in Chapter Two that vulnerability is not the same as poverty, though both are inextricably inter-linked (Chambers, 1983, 1989; Cannon, 1994). This is because vulnerability is "[…] not lack or want, but defencelessness, insecurity, and exposure to risk, shocks and stress […]" (Chambers, 1989:1). All these misfortunes noted in the previous two chapters were found in the survival stories, loss of livelihood resources, and the coping mechanisms of my respondents. Chapter Six in particular highlighted the external impact of the multiple disasters on women's livelihood assets, and the consequent internal impacts of powerlessness, helplessness, and insecurity generated, with no proper means to cope with the recurrent loss of their assets. In light of this, it is of paramount importance to explore whether the "livelihood project" of the NGOs has the potential to address women's pre-existing vulnerabilities and the added vulnerabilities (internal and external) produced by the multiple disasters. This is because micro-credit is increasingly used as a developmental tool in the developing nations. In other words, can the micro-credit initiative help my respondents recover the livelihood assets that they have lost

recurrently in the multiple disasters? Can micro-credit help the respondents bounce back before another hazard strikes in a multi-hazard prone place like Tarasahi? And can micro-credit address women's pre-existing vulnerabilities like unequal access to power and resources based on caste, class and gender as observed in Chapters Five and Six? These are some of the major questions that this chapter attempts to address.

In Chapter Three it was noted that micro-credit is increasingly used as a poverty and vulnerability reduction tool in the post-liberalisation phase (Fisher and Sriram, 2003). As the vulnerability reduction of my respondents is central to this thesis, the role of micro-credit is worth looking at. While analysts of micro-finance are sceptical about the contribution of micro-credit in reducing poverty[79] (see Fisher and Sriram, 2002; Khandker, 1998; Carr et al., 1996; Harper, 2002; Titus, 2002), there is some evidence of vulnerability reduction of the poor by enhancing their security (Fisher and Sriram, 2002; Carr et al., 1996). In Chapter Three I argued that if micro-credit is to be used as both a means and an end for vulnerability reduction, there is a necessity to go "beyond micro-credit" and include "basket of financial services" like savings, consumption, loans and insurance, and work in liaison with the government and market (Fisher and Sriram, 2002; Woods, 1997). The micro finance organisations (MFO) particularly in South Asia (like SEWA in Gujarat, BRAC and Proshika in Bangladesh, CDF in Sri Lanka) have been successful in addressing the poor and individual women's vulnerability (Fisher and Sriram, 2002; Carr et al., 1996).

[79] Khandker (1998) in Bangladesh observed micro-credit participants increased their consumption expenditure from Tk 18 for every week Tk 100 of additional borrowing by women, and Tk11 for every TK100 of additional borrowing by men (148). Based on changes in consumption pattern Khandker contended that only one per cent of rural households can free themselves from poverty each year rather than changes from income and productivity. If this persists the poverty reduction impacts are difficult to sustain unless they are supported by high growth potential projects. But another study conducted by Chen and Snodgreass (1999; quoted in Fisher and Sriram, 2002) in India suggested that SEWA Bank clients are likely to cluster around the poverty line, with most of them just below or just above it.

Carr, Chen and Jhabvala (1996) are particularly noteworthy in this context. They documented the ways community groups, women's organisations, or primary groups within the purview of the MFOs like SEWA, Proshika and BRAC, have attempted to overcome their own poverty, using finance as a route to empowerment. The authors identified that the underlying causes of women's and men's poverty in South Asia are the traditional structures: caste and class hierarchies. These long term structural causes are being compounded by recent trends in the world economy. In some cases natural disasters further contribute to the deepening of poverty; aided with gender specific disempowerment, which stem from patriarchal kinship, economic dependence, and women's limited geographic mobility (ibid). All these (pre-existing vulnerabilities) were observed in the lives of the respondents in Tarasahi. According to the authors, these are some of the characteristics that typically dis-empower women and therefore women's "empowerment[80]" (mostly economic empowerment) is a key theme in development circles which seek to reduce women's vulnerability.

To promote women's empowerment or reduce pre-existing vulnerabilities, three different approaches have been mostly used by these MFOs: firstly, the integrated development approach; secondly, an economic approach; and thirdly, a consciousness raising cum organising approach (Carr et al., 1996: 4). Three approaches may be distinguished conceptually, but not in reality. For instance Proshika and BRAC, the two largest MFOs in Bangladesh organise primary groups (PG) or village level organisations (VO) in order to address women's socio-

[80] According to Carr et al., empowerment seeks to question what the causes are of the subordination or oppression of a specific powerless group of women. A first approach to women's empowerment focuses on patriarchy (kinship) which determines women's roles and relationships. A second approach focuses on one single domain – the household or the workplace, giving rise to a focus on women's reproductive or productive roles respectively. A third approach assumes women experience subordination or powerlessness in multiple domains. In real life, these approaches are not distinct and the practitioners often use them simultaneously (1996: 3).

economic empowerment by offering multiple services (Selim, 1996; Rashid and Shahbuddin, 1996), which include – delivery, credit, enterprise, health, education, legal literacy, market linkages, practical skills, training courses, and other services in liaison with the government of Bangladesh (Selim, 1996; Carr et al., 1996; Rashid and Shahbuddin, 1996). At the core of BRAC's and Proshika's work is an integrated rural development approach, rather than a savings and credit service.

On the other hand, SEWA, the oldest MFO in India undertakes a wide range of activities for its members, which can be classified broadly into organising (unions, cooperatives, savings and credit groups), capacity building (including leadership, building training and skill development), a range of economic activities (including not only financial services, but also business, housing, child and health care), and policy interventions (campaign, communication, legal aid and research) (Fisher and Sriram, 2002: 52). The SEWA Bank is not just provider of micro-credit, but assists poor women in their overall struggle to live a life of dignity, while providing a minimum level of social and economic security[81] (ibid). Therefore, Proshika, BRAC and SEWA whose clients are mostly poor and women, address women's poverty and vulnerability incorporating all the three approaches (integrated, economic, and consciousness) simultaneously and consecutively. They work in liaison with the government and the market (Carr et al., 1996; Bhowmick and Jhabvala, 1996; Bhowmick and Patel, 1996).

The SHG model also seeks women's "empowerment" and "ownership" as the two major tenets of women's vulnerability reduction (Fisher and Sriram, 2002). This

[81] For the case studies one can see Banaskantha Women's Association and SEWA Kheda in northern and western Gujarat respectively (Bhowmick and Jhabvala, 1996; Bhowmick and Patel, 1996).

model believes that SHG is a "powerful process that enables growth and progress in a community. Members learn from each other in a group and SHGs learn from other SHGs which then lead to collective progress" (ibid: 110). In the SHG model it is not the credit that is empowering but the management of credit (ibid). Members seek empowerment through shouldering responsibilities, allocation of loans, decision making, income generation projects, and management of their own accounts. The model takes financial service as a means, but also goes beyond it to address the issue of women's empowerment, livelihoods and management of this institution on their own (Fisher and Sriram, 2003). However, the SHGs in Tarasahi offered a nuanced view of this empowerment model. This is explored in depth and detail later in this chapter through the narratives of the respondents.

Most of the case studies (Bhowmick and Jhabvala, 1996; Bhowmick and Patel, 1996; Selim, 1996; Rashid and Shahabuddin, 1996; Bhatt, 1997a, b) celebrate the success of women's socio-economic empowerment under the ambit of large MFOs. However, there are fewer accounts (except few instances in Fisher and Sriram, 2002; Titus, 2002; Kanitkar, 2002) that focus on the unsuccessful efforts of the NGOs, which have attempted to address women's vulnerability reduction (economic empowerment) using finance as a means, but which went terribly wrong, resulting in severe socio-economic consequences for the already poor and vulnerable women. In the contrast to the successful case studies, this chapter is an antithesis.

In the post super-cyclone phase Orissa has seen burgeoning numbers of SHGs and credit delivery by a plethora of NGOs, INGOs, government organisations, commercial banks and private organisations (NIE, 5 February 2004). It was estimated that there were about 50,000 SHGs working in Orissa, and another 20,000

were expected to have formed by March 2005 (NIE, 18 February 2004). Jagatsinghpur district on its own had more than 7,000 SHGs and about 5,223 SHGs were formed by the District Rural Development Authority (DRDA) under the Mission Shakti Scheme (NIE, 23 March 2004). The micro-credit initiatives of the NGOs cannot be under-emphasised. Currently there is a dearth of resources in the state of Orissa to examine the efficacy of these projects that impact on the lives of thousands of poor women. Hence, this chapter anticipates making a contribution to this paradigm. Nevertheless, I do not claim the initiatives in Tarasahi can be seen as a representative of Orissa as a whole.

Punor-nirman Abhijan: The rehabilitation project

After the rescue and relief activities subsided following the super-cyclone, Orissa State Disaster Mitigation Authority (OSDMA) allocated AA and BGVS twenty GPs in Jagatishingpur district for rehabilitation work- ten GPs in Ersamma block and ten in Balikuda block. Afterwards when the AA was able to raise international funds from DFID, AUS-AID, and CAID for rehabilitation the cyclone affected area, AA and BGVS initiated *Punor-nirman Abhijan*[82] (PAB) in their twenty GPs. In Tarasahi PAB was implemented in four inter-linked phases. The first three phases focussed on the reconstruction of physical and natural assets through relief work[83]. The fourth phase focussed on the restoration of coastal ecology and productive assets, followed by social security and legal support for the *Sneh Abhijan*[84] beneficiaries. A

[82] The literal English translation of *Punor-nirman Abhijan* is the Rehabilitation Project.

[83] This included restoration of roads, cleaning of ponds, saline embankment, brick bank, re-construction of individual and community shelter home etc. – discussed in Chapter Six.

[84] *Sneh Abhijan* (SA) is the project that took over the *mamata gruha*s, which the TISS students initiated with the help of the Relief Commissioner.

community based mental health programme and a community based disaster programme (CBDP) were also promoted through various health camps, as well as an early warning system and mock drills in the twenty GPs. The rehabilitation project was useful and instrumental in restoring women's livelihoods after the super-cyclone, but they also seemed diverse, unfocussed, short term, and poor in coverage making an unsustainable impact on women's livelihoods. In the final phase of PAB, women's groups formed in each *sahi* to conduct "relief work," discussed in Chapter Six were officially turned into self-help groups (SHGs) for the "livelihood project."

Under this livelihood project, the SHGs were formed based on women's caste groups and geographic location, rather than on the homogeneity of women's economic position (like the Grameen Bank groups (Harper, 2002; Khandker, 1998)) and marital status. So the groups comprised of members who were both married and widowed, from same caste group, same *sahi*, but from different economic strata. Irrespective of joint or nuclear households, one woman from each household was chosen for this project[85]. Each SHG comprised 10-12 women members; so bigger hamlets had more than one SHG. Hence, Tarasahi had 33 SHGs in the 12 wards, registered to a nearest bank in Balikuda (approximately 10 km from Tarasahi). Each SHG had a "savings account" and a "revolving fund." For the savings account each member had her personal Pass Book to keep a record of her savings. The revolving

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[85] According to the NGO staff and few respondents, this selection procedure contributed to the disintegration of some joint households in Tarasahi. Two respondents were casualties of this project. According to the gram *panchayat* report, Tarashai had 428 households before the super-cyclone and by 2003 households increased to 618 households. The reason given by the *Sarpanch* and the NGO workers were: a) recurrent disasters caused severe stress on joint household's resources leading to the splitting up of families; b) nuclear households were formed at times after marriage when the mother-in-law and daughter-in-law have not been compatible; and c) opportunity to grab as many resources as possible from the external organisations because there was an overwhelming relief response after the super-cyclone. In this process, however, widows were the primary beneficiary and also the victims. Although it was beyond the scope of this study to look at the deep rooted repercussions of various relief responses at household level, this particular project of AA and BGVS certainly broke up two joint households according to the accounts of two respondents.

fund consisted of the credit repayment fund. The purpose of this savings account and the revolving fund was to help SHG members in need or else use the money saved as collateral for further loan from the bank. The individual SHG had their own Office Bearers, namely a president, a secretary and two treasurers. The Office Bearers kept the registers, attended meetings when organised by the NGOs, deposited money in the banks and attended policy matter issues; but did not necessarily influenced the credit allocation and decision making of the groups. There were also two local SHG co-ordinators from the village employed by AA to monitor the SHGs and resolve conflicts if they emerged. The two co-ordinators were responsible for arranging the village meetings, maintaining bank deposit registers and submitting monthly reports to the District Office in Jagatsinghpur.

Sustainability of the livelihood assets

In the beginning of this chapter, I posed three specific questions in order to study the impact of this project. This particular section attempts to address the first question i.e. - can micro-credit initiative help my respondents to recover their livelihood assets lost in the multiple disasters? The livelihood project funded by the international donors offered 59 livelihood options[86] to the SHG members, and assured credit for one of the livelihood options (Mrs. Behera, Jagatsinghpur, 2003). The respondents mostly utilised the credit to buy cows. There were two exceptions - one respondent from the upper caste (Konika) bought a sewing machine, and another from a low caste group bought goats (Him-Sheetol). Cattle rearing were a top priority because it

[86] The 59 livelihood options included: betel vine, cattle, poultry, handicraft, dry-fish business, chilly cultivation, prawn cultivation, net and boat, saloon, grocery shop, ready-made garment shop, coconut business, etc. (the list is not exhaustive here).

qualified women's engagement in this vocation. Furthermore, the existence of the local milk store[87] in the village influenced women's decision to buy cows so that in the absence of men, they could sell the milk produced locally with minimum trading skills. Hence, the livelihood project was instrumental in offering the respondents the chance to replace the cows or goats that they had lost in the super-cyclone.

As the SHGs were formed based on each caste group in each hamlet, they consisted of both married and widowed women from different economic strata. In order to distribute the limited fund equitably amongst the neediest members, the catalyst NGOs used "vulnerability analysis" (interview with Mr. T, AA, BBSR, 2004; Mrs. M. Behera, BGVS, 2003, Jagatsinghpur). In this methodology, each SHG was asked to identify the most and the least vulnerable women in the group based on their marital status and economic activities, and then decide the amount of credit required by the most vulnerable woman and the least. I quote Noyonika (Lolita's sister-in-law) who explained this simplistically:

> In our group two members did not receive the SHG money. Their names were excluded because the loan money was decided: firstly, on one's sources of livelihood, secondly how much one earns and their living standard and thirdly, based on who earns more and less from each member. In our group, Lolita-*didi* (sister) is the poorest of the poor; and after her is me because I have many children and no sources of income. And I am totally dependant on my

[87] The local milk store called *Dughdo Samabay Samiti* (Milk Collective Samity – literal translation in English) was formed in 1982 composed of 15 male members in Tarashai. Later the group grew into 140 members and now it includes more than 1400 (all male) members. The milk store is part of Orissa Milk Federation (OMFED - GOO) but the decisions are mostly influenced by the village members. In the beginning the store collected only 15 litres of milk, which later went up to 900 litres of milk (Panchayat Development Report, 2001). According to one official from the Balikuda block office, Tarasahi is the largest milk supplier in Balikuda Block (February 2004, BBSR). However, milk production was reduced after the super-cyclone to 200 litres due to the large number of cattle death (Pancahyat Development Report, 2001). Milk is collected locally in the store and then transported to Balikuda chilling Plant (via boat and then using road transport), about 10 kms from Tarasahi. The milk rate varies according to different breeds of cattle. Due to its single buyer status in the village, respondents often complained about non-competitive milk rate fixed by the Store; delays in payment; reductions of the milk rate during disasters, which directly affects women's exchange entitlements.

> husband's irregular remittances. […] then there is another lady named Reena in our hamlet who also does not have regular source of income. That's how the list was decided; it was according to women's economic vulnerability. Consequently, two women were left out in our group because they were relatively well off. One's husband is a driver […] and the other one has a son who became a school teacher. […] Likewise in the other groups' two to three members did not receive the livelihood money.

Noyonika is Lolita's sister-in-law and a voluntary respondent. In Chapter Five it was noted that both these households helped each other in their everyday lives. When I asked Lolita to explain the process of her SHG formation and the credit that she had received, she seemed disinterested and could not even remember the name of her SHG. Like Lolita, there were another two respondents in this study who could not remember the names of their SHGs. Participation of these women in the SHG activities (like attending regular meetings) were also reported to be minimal due to their household chores and arduous tasks to make their ends meet (Lolita, Jhumpa and Tanika). Instances like these are not unusual in SHGs where the participation of some members is minimal; whereas some members participate actively due to their social entrepreneurship (Kanitkar, 2002). While Lolita seemed disinterested in my questions regarding her SHGs, Noyonika, who was sitting with us throughout the formal interview, added comments on her behalf. From Noyonika's account, it is clear that the methodology used by the catalyst organisation for credit distribution was a poverty driven approach, where the poorest are given preference over the non-poor as observed in the micro-credit groups in Bangladesh (Khandker, 1998; Fisher and Sriram, 2002) (the repercussions of such a methodology are discussed later). As a result all the 12 respondents were the primary beneficiaries of this project. However, it is worth looking at what happened to this credit and the livelihood assets that women bought using this credit.

The credit was finally disbursed in the year 2002 by the catalyst NGOs to buy the livelihood assets. The credit given included some advance cash in order to put up a shed for the livestock and an insurance package (Proshilla, 2003; Mrs. Behera, BGVS, Jagatsinghpur, 2003). Incidentally in 2003 the village was flooded and the respondents reported losing their cattle. The first group of respondents reported losing either a cow or a calf in the floods, due to lack of fodder and illness. This group of women explained the difficulties that are associated with rearing cattle in multi-hazard prone places. Hence, they emphasised the importance of mitigation measures and an integrated developmental approach. This is discussed in the ensuing section. The second group included two women, Lolita (upper caste) and Chumki (low caste), who lost their cows, not due to the floods but to the cow-owners. Both the respondents utilised the credit for constructing their IAY houses (discussed in Chapter Six), rather than paying the capital amount fixed for the cows. This group of women indicated that poor households require not only micro-credit, but also access to a large amount of financial resources to meet their contingencies and life cycle needs (Fisher and Sriram, 2002). Besides, they also pointed out that their [in] capability of sustaining such a project could be severely hampered by their severe socio-economic vulnerabilities (Khandker, 1998; Kraus-Harper, 1998). There was also a third group of women who lost neither their cows nor the calves and were in possession of their assets, but found the credit repayment on a monthly basis extremely difficult due to inadequate and uncertain income earned from livestock (the third group also includes the former two groups). Unsurprisingly, women who were already poverty stricken and vulnerable were now additionally burdened with debts. The experiences of each group are discussed in more depth and detail in the ensuing sections.

Multiple disasters and the mitigation measures

This section addresses the second question posed at the beginning of this chapter i.e., - can micro-credit help the respondents bounce back before another hazard strikes in a multi-hazard prone place like Tarasahi? In the beginning of this chapter it was argued that it is possible only when the micro-credit projects go beyond credit and promote insurance, credit, consumption and savings in order to reduce shocks and risks that the poor face (Fisher and Sriram, 2002). Micro-credit groups tied to the MFOs, have proven effective by offering insurance for contingencies, training courses and practical skills, problem solving strategies for more efficient use of the resources that women already possessed (for instance livestock), savings-related services (which included information on ways of repaying debts, and how to buy new assets), life and health insurance etc. (Selim, 1996; Bhowmick and Patel, 1996; Bhowmick and Jhabvala, 1996; Rashid and Shahbuddin, 1996). However, there are hardly any instances where the SHG members benefit from such services, partly due to the nature of this model. The instances where they have received support from the NGO staff have proved the effective functioning of the SHGs (Kanitkar, 2002; Titus, 2002). The SHGs in Tarasahi were no exception. The activities of the SHGs were rather minimalist[88] because they failed to go beyond the credit repayment.

The credit offered for the livelihood assets did include an insurance package, but the respondents remained either uninformed about claiming or failed to receive the payment despite losing their cattle in the floods of 2003. This is explained by the experiences of the three respondents quoted below. According to Him-Sheetol, a low caste respondent also quoted in Chapter Six said the following:

[88] Credit with no other or very few other services is minimalist (Dichter, 1997).

> I bought four goats with the SHG money. But the goats died in the most recent flood. Each goat had two kids and in total I had eight kids. They all died due to dysentery […] and lack of fodder. […] It is now more than seven months I have not received any insurance money from the NGO. Now I am left with only one goat.

Latika, a middle caste respondent presented the following account:

> […] in the present flood […] the calf died. There was no fodder […]. I did not claim any insurance because the mother cow is only insured but not the calf […].

Manimala, a middle caste respondent gave me her version of the story (also quoted in the previous chapter):

> In the flood (2003) cows were in water […]. They caught cold and died […]. **R: Was it insured?** No, no. It would have happened if I were to understand the process (in agitating tone). The cow was not insured and I did not know anything about the insurance. Nobody told me about that […].

According to SEWA Bank's view, savings alone cannot be sufficient to address the complex needs of poor women to meet contingencies, unless complemented by insurance. Their experiences suggest insurance services not only help women to sustain financial shocks, but also help to reduce their losses and continue the process of building their capital and assets and inculcate habits of planning (Fisher and Sriram, 2002). The credit offered within the auspices of the livelihood project in Tarasahi included insurance package with the Oriental Insurance Company based in BBSR. The three narratives reveal that they did not receive their insurance payout for multiple reasons. Firstly, ignorance about the insurance package, which indicated lack of information provided by the catalyst NGOs to the members. Secondly, information regarding the insurance package was of little benefit to Him-Sheetol who remained uncompensated till the last month of my fieldwork. Thirdly, unaware of the

insurance company based in BBSR (about 55 kms. from Tarasahi) Him-Sheetol could only inform the village SHG co-ordinators who in turn informed the NGO workers in Jagatsinghpur and they did little to facilitate the insurance claim process. When I interviewed the NGO staff at Jagatsinghpur in this regard, they told me that they had reported the matter to the state office in BBSR, who would then assess the situation in due time (interview with two staff from BGVS and AA, Jagatsinghpur, 2003). I refer to Titus who has argued that though SHGs are people's organisation, the success of the SHGs relies on a close relationship between NGO staff and the community. It requires constant monitoring and services (skills, training, and knowledge) on the part of the NGOs because the members mostly suffer from illiteracy, lack of information and exclusion (ibid). In this regard the SHG members in Tarasahi remained deprived of close relationships with the NGO.

Apart from the insurance, lending credit (as argued earlier) to the poor at a low rate of interest for their everyday consumption or for contingencies is another major tenet of vulnerability reduction or helping the poor to cope with contingencies (Carr et al., 1996; Zaman, 1999; Khandker, 1998; Fisher and Sriram, 2002). The SHGs in Tarasahi offered a nuanced view. I quote the narratives of three respondents (Lolita, Chumki, and Him-Sheetol) who were repeatedly denied access to the revolving fund by the SHG members. Chumki, a low caste respondent, gave me the following account:

> […] whenever I have asked for some help (means extra credit), they have refused repeatedly. They say "why shall we give you five rupees?" This is because they do not get the *sahas-bol* (confidence) to give me money. So they have not lent me.

Likewise, Him-Sheetol Bhoi, another respondent from the low caste group had received a similar explanation:

> "You are harassed for your day-to-day things; does it mean that we (SHG members) withdraw money for your daily difficulties?" […].

Lolita Nayak, a respondent from the upper caste group, also received a similar comment:

> Women in my group are not good and it is virtually impossible to get credit because they will always ask "can she really return the money because she has not returned the loan yet. So there is no guarantee that she could return this one" […].

Although, these three respondents belonged to three different SHGs and different caste groups, they shared a common experience. The SHGs in Tarasahi repaid their credit offered by the NGOs on a monthly basis for the effective functioning of the revolving fund. The interest rate for the credit was fixed by the NGOs at 1 per cent for 36 instalments over a period of 3 years for the livelihood beneficiaries. The objective of the revolving fund was to offer credit opportunities to the excluded members (or the non-beneficiaries of the livelihood project) and to other members during contingencies, but which require consent from the group members. The SHG members also deposited their savings along with their repayment on a monthly basis to their savings account. The credit repayment rate for the livelihood project was fixed by the NGO staff; but the savings amount was decided by the SHG members. Initially, the savings amount was fixed at Rs.100/- which was reduced to Rs. 50/- and further reduced to Rs. 30/-. Withdrawal of money from the savings account also required the consent of the group members. Despite contingencies and irregular

income, most of the respondents emphasised the importance and the culture of saving money to their SHG account for future purposes.

In reality, when these three respondents (Lolita, Chumki and Him-Sheetol - quoted above), attempted to withdraw some cash from the revolving fund to meet their contingencies, the group members denied them access to it. The reasons given by these respondents (Chumki line 1 and Lolita line 1-2) suggest that their severe socio-economic vulnerabilities and their inability to repay the instalments regularly acted as an impediment in accessing extra credit from the revolving fund. This will become clearer in the last section of this chapter. Titus (2002) observed that SHG members can be very strict in the case of ensuring repayment, punishing the defaulters, and extending further credit in order to ensure that "rules must not be broken." But his study does not reveal what the impacts of such decisions on the members might be, who the defaulters are or are the reasons for their default. This research observed that in the process of denying extra credit the arena of the SHG re-created power dynamics based on economic class and gender between the normative and the non-normative households. This discussion will be resumed in the last section of this chapter.

Harper (quoted in Singh, 2004) emphasised that there is a paramount need on the part of the SHGs to provide credit to the poor members, even for their "daily consumption" in order to avoid poor households being victims of the local money lenders who often take advantage of their economic desperation. It was observed when the three respondents were denied access to the savings account; they borrowed money from the local money lenders at a high rate of interest. This will be discussed later. According to Fisher and Sriram, savings is the first step to break out

of the vicious cycle of poverty and enables women to better manage their money and start investing in assets (2002). In Tarasahi, this remained more rhetoric than reality. The genesis of the SHGs in Tarasahi was a direct consequence of the super-cyclone, but because it overlooked the importance of insurance, access to savings and credit in a multiple disaster affected place, the stark inefficacy of this project in the village was revealed.

Empowerment or disempowerment

This section addresses the last question posed in the introduction to this chapter, and some of the issues that arose in the previous two sections: can micro-credit address women's pre-existing vulnerabilities like unequal access to power and resources based on caste, class and gender? As argued earlier, MFOs like SEWA, BRAC and Proshika adopted an integrated approach, economic approach and consciousness raising approach, to address women's pre-existing vulnerabilities (patriarchy, patrilineal inheritance, household, workplace, caste etc.) and promote their "empowerment" (mostly economic) (Carr et.al., 1996; Fisher and Sriram, 2002). The SHG model also seeks women's "empowerment" as the major tenet of women's vulnerability reduction, and suggest it can be achieved through collective power and collective learning, providing mutual help and internal financial mediation, facilitating external financial mediation, and empowering women to make demands on the external world (Fisher and Sriram, 2002; Kanitkar, 2002). The SHGs in Tarasahi once again offered a nuanced view of this empowerment model. I will explain this through: a) the power relationships observed between the SHG members (a glimpse of this was offered in the previous section); b) the increased workload of

women with limited outcome; and c) burden of debts. It is contended here that all these factors only sustain and entrench the vulnerability and poverty of already vulnerable and the poor households by making them further susceptible to the next hazard and by reducing their coping capability.

As the SHGs were formed based on caste group, the methodology of the catalyst NGOs re-emphasised the caste norms practised in the village, rather than initiating mobility. So each SHG had members from different economic classes and women-headed households (respondents) were in general poorer than the women from normative households, due to their single handed productive and reproductive responsibilities. However, in order to address the needs of the economically disadvantaged women, the NGOs introduced the vulnerability analysis technique to distribute credit, savings and the revolving fund[89] so that the members could access money at times of need. Hence, all the 12 respondents were the primary beneficiaries of this project and received a significant amount of credit to buy the livelihood assets. The purpose was to distribute the limited funds most equitably to the most socio-economically marginalised members in each group. Theoretically, the project appeared optimistic and supportive of the most economically vulnerable member. In reality, this poverty driven ideology victimised the most vulnerable by the least vulnerable members because this methodology also excluded the least vulnerable members (mentioned earlier by Noyonika). My interaction with the 12 respondents offered insight into eight different SHGs operating in the 12 wards of Tarasahi. The experience of these eight SHGs can be taken as a symptomatic of the other 26 SHGs due to the implementation of the same methodology by the catalyst NGOs.

[89] The revolving fund is supposed to generate funds from the credit repayment of the SHG members with the purpsose that this fund can be accessed by the excluded members of the livelihood project or SHG members in general for their need. Besides, the revolving fund can also act as collateral to attract further loans from the bank for income generation projects (Mrs. M Behera, Jagatsinghpur, 2004).

It is said that the beauty and strength of the SHG model lies in its power of democracy, decision making, credit allocation and repayment of credit locally and collectively - all by the members themselves with minimal external intervention (Fisher and Sriram, 2002; Kanitkar, 2002). Some of the characteristics were observed when some of the SHGs in the village disregarded the prescribed methodology of the NGOs and distributed the debited fund to the SHG account, equally amongst the members. This is explained by Latika:

> We distributed the fund that we had received from the company equally. […] so we have fewer fights in our group […].

Adoption of this methodology based on their common sense helped Latika and her group to diffuse the pressure of the least vulnerable group members on the activities of the SHG. On the contrary, the other groups (Lolita and Proshilla for instance) who followed the prescribed methodology of the NGOs encountered extreme hostility from the least vulnerable members due to their exclusion from the livelihood fund. In this context I quote Noyonika:

> We have lots of fights in our group. Our SHG group is not good. […] recently, things are getting better though and fights are reducing. We received Rs. 1, 05000/- on loan. We are 11 group members. If we have distributed the money equally among all of us like the other groups did, we would have less problems. But they (referring to the NGO people) did not allow us to do so. They told us "those of you have asked credit for a shop would receive more in comparison to the other livelihood options and so on and so forth." The money was calculated by those people and it came accordingly to our SHG account and to each of the individuals […]. But the other groups […] called for a group meeting on their own and decided to distribute the money equally among the members. But we did not do that […]. This is the reason for all the problems. […] so the other groups have fewer fights and arguments […] these two women[90] in our group who did not receive the money created major problems in the activities of the SHG.

[90] Quoted earlier, the husband of one is a driver and the other one has a son in full time employment.

> At the same time we also had problems with regard to the credit repayment and the savings. For instance, some took loan worth of Rs. 12000/- […] and some took Rs 10,000/- But in reality all the women pay the same instalment monthly. So women started complaining about it. Some complained "why will I pay Rs. 100 even taking loan for less than Rs 5,000/-." […].
>
> Recently we withdrew Rs. 12000/- from our mutual savings account and a loan from the bank for these two excluded group members. Things are looking better now. We decided that we will rather borrow and give them some money in order to avoid their regular arguments.

This long extract of Noyonika reveals the problems that Lolita's group suffered due to the poverty driven methodology, which entrenched the class hierarchy rather than lessening it. In order to run the savings account and the revolving fund effectively, the SHG co-ordinators and the least vulnerable group members (by virtue of their social and economic position) exerted extreme pressure on the most vulnerable members to deposit their savings and the repayments regularly, irrespective of their personal difficulties and disasters (Proshilla, Lolita). Additionally, the confusion regarding the credit repayment begs the immediate intervention of the NGO staff. Unsurprisingly, when the poorest members failed to pay their monthly instalments they had to encounter verbal abuse and fiery argument, which only reduced their commitment and membership (Lolita and Proshilla). This in turn helped to sustain the class and gender hierarchies. As a result, none of the respondents was able to receive any further credit from the savings fund either to mitigate the effects of the floods in 2003 or for their daily consumption. The reasons given were explained by Lolita, Prsohilla and Chumki quoted earlier. Rather the saved amount of the SHG along with a loan from the bank was distributed amongst the less vulnerable members, which in turn helped to subside the regular disturbances and the pressure that they exerted on the activities of the SHGs, as reported by Noyonika. In this regard, it is apt to say that the methodology of the catalyst organisation re-created

and re-intensified the power relations, gender and class hierarchies between the least vulnerable (powerful) and the most vulnerable (powerless) members.

The power relationship of the least vulnerable group members over the most vulnerable was also observed in the credit distribution process of the project. The former groups, who devised their own methodology to distribute the allocated fund equally disregarding the NGOs rules, were perceptive enough to avoid the backlash of such a decision from the least vulnerable members (Latika quoted earlier). They acted consciously by distributing the money equally amongst themselves. The latter groups who did not distribute the money equally explicitly revealed the extreme domination of the (two) less vulnerable group members over the other (nine) women, (as observed in the narrative of Noyonika and Lolita quoted earlier). This indicates the influence and authority a minority group can exert over the majority of the members by virtue of their privileged position (married and not double burdened by responsibility like the non-normative households in this study). Most important of all is the fact that the weaker and vulnerable respondents were once again exploited and disempowered when they were forced to repay the credits irrespective of their personal problems. Consequently one may ask who received extra credit and who did not? And for what? These questions were articulated by Chumki, Proshilla, Lolita and Him-Sheetol, when they referred to the other members as "they," "other group members," "those women," "in other *sahi*" – all indicate that it is not "she," "her," "them" and "I" who have accessed the credit from the revolving fund due to their power, influence and authority, whereas they have failed. Likewise the other nine respondents from different castes, classes and SHG groups, reported receiving no extra credit from their savings fund for their daily consumption or for contingencies like disasters. The action of the catalyst organisation in this respect remained

insensitive, non-responsive and unaware, which only helped to consolidate the hierarchy of social class. They also failed to provide bank facilities for the poorest of the poor who are normally denied access to credits and other financial services (Fisher and Sriram, 2002). By exacerbating the respondent's vulnerability and exclusion, the SHGs became another agent of oppression. Lacking any positive change in their way of lives, the respondents reported borrowing credit from the local money lenders at an exorbitant credit rate. Chumki said the following:

> When the *samity* did not help me I went elsewhere. There are some well off people in the village […] they give me five hundred or one thousand rupees sometimes. But they ask for something in return and I do not have anything to pawn. So depending on their mood and mercy, I get some money or otherwise I come back home empty handed. **R: Do you have to pay interest?** Yes. For one hundred rupees you pay four rupees as an interest every month. I have a debt of five thousand rupees and I have not been able to repay them.

Similarly all the 11 respondents reported having some debts either to their kin, or a neighbour, or a local money-lender. The respondents chose this option willingly, when they had failed to access money from the SHG. At that point, the local money lenders seemed a more flexible, trustworthy saviour to these women, than the SHGs. In addition, the women had little to fear of this age-old traditional organisation despite the high rate of interest, since they could avoid the chiding tongue of the SHG members and the regular verbal and psychological abuse they might have experienced if they had failed to repay SHG credit (Lolita, Proshilla and Him-Sheetol).

The narratives of the respondents further reveal that apart from consolidating the social caste, class and gender hierarchies, the respondents who were already poor were now overburdened with debt but had no regular source of income because there

was almost no profit derived from the cattle rearing. In this respect, I quote Latika who explicitly revealed the intermediate cost and the amount of unpaid physical labour involved in cattle rearing:

> I leave home in the morning at 8 am and then return by 12 am with grass. It is quite far off where I go. I cross the river by a *donga* with other women. This side is sandy so we do not get much grass. The cow needs 3 kg of *chokodo* (processed food) everyday. For 3 kg *chokodo* it provides 3 litres of milk. For one kg of milk I get Rs. 7/- from the Milk Store, and one kg of *chokodo* cost me Rs. 7.50. So I am not making any profit. I have credit of Rs. 12000/- which I have to repay. I deposit Rs. 30/- as *chanda* (savings) monthly and Rs. 100/- for the loan. If I happen to get Rs. 700/- by selling milk I repay the loan, deposit the *chanda* and also buy *gunda* and *chokodo* for the cow. Ultimately after all these expenses I end up with nothing to fend myself. So often I fail to pay anything to the group. It is a big job to maintain a cow; my whole life revolves around this cow and grass.

Latika's experience shows the intermediate costs and the difficulties that are associated in cattle rearing, particularly in a hazard prone place. Availability of grass is a major concern in the village not only due to the increase in cattle rearing after the super-cyclone, but also because of siltation that has decreased the growth of grass. In Chapter Six we saw the reduction of crops due to siltation in the fields. This shows the total impact that multiple disasters had on people's economic well being and on the ecology of the village. With no measures for fodder management, Latika lacked coping mechanisms. In order to sustain their livelihood the women have an increased workload both physically and psychologically as mentioned by Latika. Similarly Manimala said:

> After winding my morning work, I quickly take some food and then rush to get grass. My whole life revolves around getting grass […] from morning till evening.

Women from the middle caste group reported that they now walk miles away from the village to get grass, but the outcome of their arduous labour yields no benefit when they are burdened by the credit repayment and the savings on a monthly basis. Additionally, the cost involved for purchasing processed food for the highbred jersey cows is well recounted by Latika above. Unless supplemented by grass no profits are achieved but availability of grass is a major concern in the village due to recurrent floods, droughts and the increase in livestock. Furthermore, the reduction of the rate paid out by the Milk Centre (the single buyer in the village) during the floods makes things all the worse.

I refer back to Kurup, who noted that the relative price of milk was lower during 1981-96 vis-à-vis prices of food articles but marginally higher than the prices of all commodities in Orissa. Nevertheless, milk prices increased at a simple annual average of 8.4 per cent during this period but still remained low compared to 9.0 per cent for food articles and 8.3 per cent for all commodities (2003:33). This indicates the sustained level of poverty amongst the marginal and landless cattle owners, who rear 80 per cent of the livestock in the state of Orissa. Since all the respondents were dependent on livestock (and day wages), this statistical data is crucial to explicate how the benefits earned from livestock are insignificant against the higher rate of food price and the other intermediate costs involved in cattle rearing. Unsurprisingly, the women-headed households in this study were the poorest of the poor and failed to pay their instalments regularly due to the sporadic irregular and insufficient income they derived from cattle rearing.

In this prevailing situation I quote the narratives of Proshilla, Jhumpa, and Latika who were forced to pay the credit instalments despite their dire economic circumstances. Proshilla, a low caste respondent told me the following story:

> What to do? I have brought the loan but now I cannot repay it. For other households, women have their men. They can earn money for the family. But what can I do? If I had known about it earlier I would have not taken the loan. My husband was alive at that time […] if he were dead before this I would have never been a part of the group. I cannot give money now. They argue with me. Can I give? They have their husbands, who work outside and earn money and save some for future. If two people work one's labour money can be spent on food item and the other's earning can be saved. I am alone - I have also to repay the credits of my neighbours and friends. And do I get work all the time? No I do not. I fall ill, sometime. If I fall ill can I do anything? […].

This powerful narrative of Proshilla vividly highlights the difficulties that poor and low caste women-headed households suffer due to the burden of dual responsibilities, lack of work due to the disasters and personal well-being that affects labour and their exchange entitlements.

Jhumpa Behera, a middle caste respondent revealed some other additional problems that she had experienced in generating regular income from her buffalo:

> I bought a buffalo with the *samity* money, but it is very expensive to maintain. I buy sack full of *chokodo* which cost me Rs. 340/- monthly (somebody prompts from the back Rs. 350/-). **R: does the Buffalo help you in your living?** Yes […] otherwise what else is there? How will I survive? Whatever I earn, I manage. But it is not the same all the time because every six months the buffalo reduces its milk-giving. […] The milk giving is not at all certain and regular […].Then the buffalo can be pregnant for nine to ten months like a human being […] and can take almost ten months before she can start milking again. And here we do not have any other alternative means to earn money. (Here Jhumpa's daughter adds on her behalf). What profit or good this project could be? If she had some additional income along with the cow it would have helped or benefited her. She has no additional source of income. If she receives five rupees after selling her milk, she buys a kilo of *dal* or potato with that money

> and then she has to deposit something to the group monthly. She cannot save a penny for her future use. She has no savings. So how can it benefit her?
>
> […] the buffalo does not give milk regularly (conversation resumed by Jhumpa)**.** […] The milk production depends largely on its fodder consumption. During the rainy season we cannot go out to get grass. It is a flood prone area. All the crops get washed away. So from where shall we get straws and grasses? At that time it is difficult to get anything to feed the cattle except that I have to depend heavily on *chokodo* (processed food). After the flood there was no grass in the field because everything remained submerged in the flood water. So I gave *chokodo* and water and nothing else. […] However, after the recession of the flood water, new grass is coming-up.

Lolita, an upper caste respondent added further to it:

> During the floods, we had tremendous problems. Again, the rates of all the food commodities were increased by the local shops. […] the price of *atta* (flour) was increased to Rs. 10 from 12/-, a kilo of *chuda* (flattened rice) was increased to Rs.12/- , a kilo of potato was increased to Rs. 9 from Rs. 8, and so on. […]. But the price of the milk was reduced by the Milk Centre because the Store wanted to compensate the hike of the boat fare from us […].

The narratives of these three respondents from three different caste groups reveal the difficulties that poor women-headed households experience when depending solely on livestock in a multi-hazard prone place like Tarasahi. Proshilla, the low caste respondent revealed her abject poverty entrenched by the disasters and lack of alternative avenues. Unlike Lolita and Jhumpa, she bought an indigenous cow whose maintenance is simpler but milk production is significantly less in comparison to a buffalo or a highbred jersey cow[91]. Besides, the milk production of any breed is never regular and certain (as explained by Jhumpa) because it depends on fodder consumption and on the well-being of the cow. Hence, Proshilla could barely benefit from her indigenous cow whose milk production is lower and irregular. Concomitantly, during the floods and afterwards, her lack of labour contributes

[91] On an average an indigenous cow provides one to two litres of milk daily; whereas hybrid cows provide four to five litres of milk, but this depends largely on its fodder consumption (Lolita, Proshilla and Manimala).

further to this agony, because it is her earnings from her labour that supplements the monthly instalments rather than the cow's milk. This is explained in this quote: "The milk fetches me Rs. 200/- per month and the amount fixed for my credit repayment is almost Rs. 500/- […]. So I add Rs. 300/- from my wages. But for 3-4 months I have not deposited any instalments […] because there is hardly any work […]."

On the other hand, Lolita and Jhumpa, who were tied by their family occupation also found the monthly repayments of the loan and the savings extremely difficult, due to their dependence on cattle rearing with no other alternative activities. They also revealed the costs involved in rearing highbred cows and the difficulties of obtaining fodder for livestock they experience during and after the floods and drought. Furthermore, Lolita emphasised the hike in food prices during the floods, whereas the milk price is reduced because the Milk Centre offsets the increased boat fare by reducing the milk rate. In these ups and downs of the market during the disasters, the poor and the most vulnerable respondents suffered the most. Unsurprisingly, these three respondents failed to pay their instalments regularly, resulting in criticism, condemnation and disrespect from the least vulnerable members. Therefore, the empowerment of these respondents remained a far fetched concept.

Lastly, the role of the NGO was highly concentrated around credit distribution and repayment, rather than facilitating the involvement of the SHGs in non-credit activities or development activities inside the village. When I asked the respondents to report any activities that they have undertaken other than the credit; these are some of the responses that I had received:

> No nothing has been done so far (Latika, middle caste respondent).

> We have not done anything much. […] they call everybody for meetings; women who are interested go […]. We went once or twice but could not go for the meetings due to my work […]. (Lolita, upper caste respondent).

> Apart from the loan we have not done anything else, […] (Chumki, low caste respondent).

This indicates that the SHGs were concentrated around credit activities. Nevertheless, despite the loan which was mostly counterproductive in the respondent's life, the SHGs showed a considerable amount of independence in their decision making when going against the prescribed methodology of the NGOs. The respondents also showed their keenness to keep the SHG intact, because the SHGs gave them opportunity to get together and share their everyday experiences during the meetings, something different from their humdrum life. Mobilising this collective spirit and the strengths of the SHGs could prove useful if the catalyst NGO were to facilitate the involvement of the SHGs in relief work, a community kitchen, negotiating of the milk rate with the Milk Store, or organising emergency veterinary camps. Elsewhere in the blocks of Tirtol and Kujang during the floods of 2003, the potential of the SHGs were tested when the SHG members took the leading role in the relief and rescue operations, participated fully in the community kitchen and distributed medicine and drinking water (NIE, 13 September 2003). Activities like these in Tarasahi could have helped to relax the prevalent strict social norms and gender spheres and could have facilitated women's development. Unfortunately however, the catalyst NGOs perpetuated the existing status quo when they supported the relief operation during the floods which was found to be highly gendered and adult-centric in Chapter Six. This is explained by the narrative of Him-Sheetol and Lolita which sums up the whole argument:

> As the SHG have taken cows on loan, the company sent 240 sacks of fodder during this flood (2003), in two instalments. However, they did not give directly to the groups; rather it was distributed through the *panchayat*. And then the *panchayat* distributed it with the [emergency] relief. […] My sister-in-law's son collected it on my behalf […] (Lolita, upper caste respondent).

According to Him-Sheetol, a low caste respondent gave the following account:

> Fodder was distributed during this present flood. The company (NGO) sent fodder for the SHG cattle. I went to the school premise to collect […] I asked for some fodder for my goats but they refused. There was shortage of straws, grass etc during the flood. They (referring to the *panchayat*) said "why will you take fodder for your goats?" I replied "because it has come for the goats and the cows." Finally, they did not give me any fodder because I could not argue with them. Who cares for me? They gave me rice, but no fodder for my goats.

Both the respondents indicate that a special fodder was allocated for the SHG members by the catalyst NGOs. But Him-Sheetol did not receive any because she failed to argue, or a low caste woman's argument/voice remained unnoticed and silenced in a male domain. Hence, Him-Sheetol could not access her fodder relief, even though it was allocated for her goats. The catalyst organisation did little to reduce her vulnerability; it perpetuated the relief practice in Tarasahi, demonstrating that it is (caste) biased, corrupt and insensitive to women's needs.

Thus, the narratives of the women in this section suggest that the approach of the catalyst organisations was highly limited in addressing women's pre-existing vulnerabilities. Their faulty methodology and the lack of constant support and monitoring helped to sustain and exacerbate the hardships they faced. There was no transformation of the women's way of life.

Conclusion

This chapter has explored the potential and effectiveness of the livelihood project in helping the respondents cope with the multiple disasters and in reducing their pre-existing vulnerabilities. More specifically, I looked at - whether the micro-credit initiated by AA and BGVS as a part of the livelihood project had the potential to help my respondents recover the livelihood assets that they had lost, help them to bounce back before another hazard strikes, and help the respondents to reduce their pre-existing vulnerabilities. The findings of this project were disappointing. In response to the first question, I conclude that the credit (raised from international donors) offered by the catalyst NGOs was instrumental in allowing most of the respondents to recover the livestock that they had lost in the super-cyclone. But being a resident of a multi-hazard prone village, some of the respondents lost the cattle in the floods of 2003 that they had bought using the credit. The credit offered seemed unilateral and minimalist with ineffective financial services like insurance and savings. Some of the respondents whose livestock were insured remained uncompensated, and the NGOs also did little to facilitate the process of obtaining insurance payments. Instead, the poverty driven methodology of the credit delivery reinforced the caste, class and gender hierarchies within the domain of the SHG, and further heightened women's workload and the burden of debts for the already impoverished. As a result the tragic saga or "*maha dukhar kotha*" commented by one of the respondents in Chapter Six, caused by the multiple disasters has remained and is sustained despite the multitude of governmental and non-governmental responses in Tarasahi.

The following chapter is the concluding chapter of this thesis. It will review what has been achieved in this research and offer some overarching conclusions from the experiences of women in the multiple disasters.

Chapter 8

Conclusion

At the beginning of this thesis I began by posing three broad questions: how have multiple disasters affected women-headed households, and their livelihood assets in relation to their caste, class and gender? Secondly, how have these households coped during and after the multiple disasters? And thirdly, can micro-credit initiatives help women cope with the disasters and reduce their vulnerability? In the course of the last seven chapters I have explored these questions through the fieldwork data collected for a period of eight months in Tarasahi, from 12 women-headed households and a few governmental and non-governmental staff. To conclude, I shall draw my arguments together and detail the wider themes that have been discussed in the course of this thesis. I also sketch their relevance to particular fields of knowledge, outline the potentials for future research, and offer some recommendations for a better policy, specific to each analytical chapter (Five to Seven).

Some overarching conclusions can be drawn in relation to the research objectives. Firstly, I have defined multiple disasters from a localised perspective in comparison to Moseley's "convergent catastrophe" and the World Bank's "natural hazard hotspots." I argue that both Moseley and the World Bank's concepts have limitations in this context (Chapter Two). Moseley placed little emphasis on the concept of "vulnerability" to explain "convergent catastrophes" and their impact at a household level. The World Bank for the first time statistically revealed that the multi-hazard prone nations are mostly defined by geographical factors. It emphasised the importance of physical and social vulnerability, however the former received more

importance in its Country Assistance Strategy than the latter. In contrast, my thesis investigated multiple disasters as a totality rather than discrete disaster events, as experienced by 12 women at household level. Thereby, multiple disasters were revealed as eminently social and personal experiences, and this was observed in the Chapters Five and Six through the instance of the survival and displacement and the depletion of the livelihood resources.

The narratives of the 12 respondents suggested that the experiences of the multiple disasters from 1999 till 2004 were subjectively influenced by social class, caste and gender as well as in-effective governmental and non-governmental responses. Due to the geographic peculiarity of the researched village, Tarasahi, recurrently experienced floods from the river Debi, cyclonic depression from the Bay of Bengal and drought due to erratic rainfall and lack of irrigation facilities. We saw Tarasahi as the first casualty in the super-cyclone of 1999, the two floods in 2001 and 2003, and the drought in 2002. Women's experiences in the village emphasised these geophysical discrete characteristics of *batiya* (cyclone), *bonya/bodhee* (flood) and *morudee* (drought). But they turned into *maha-batiya* (super-cyclone), *bodo bodhee* (big flood) and *morudee* (drought) sociologically at a household level due to the severity of each hazard and their cumulative effect that they had on each woman. Consequently, the temporal gap that existed between the disasters was drastically reduced to an everyday feature in women's lives (Chapter Five).

Batiya turned into *maha-batiya* and *bodhee* into *bodo bodhee*, when they recurrently destroyed women's much loved kitchen gardens and fruit bearing trees, caused recurrent house damage and displacement and the death of cattle. Drought occurred (*morudee hala*!) when the fields and the ponds inside the village dried up and the

cattle suffered due to lack of fodder. This is because women's livelihoods were based on family occupations and day-wages, multiple disasters severely debilitated their exchange entitlement and endowment, diminished their capability to recover, heightened their dependency on social organisation and caused frequent psychological desperation. This was discussed in the analytical chapters of this thesis Five and Six.

Secondly, the experiences of the respondents also suggested that caste, class, gender and developmental programmes are as important as the multiple disasters in eroding women's livelihood assets. It was contended in Chapter Two that multiple disasters have the potential to curtail production and development, but how it happens in the lives of women in relation to their social caste, class and gender was examined in Chapter Six. Chambers argued that a household can get entangled into a "deprivation trap" or "poverty ratchets" due to loss of livelihood assets and this loss can occur due to social conventions, *disasters*, physical incapacity, unproductive expenditure and exploitation. In the context of this thesis, I have focussed on the effects of disasters on women's livelihoods due to their potential of eroding livelihood assets repeatedly and relatively. Several studies have documented the erosion of livelihood assets in disasters like drought and famine, but there has been less focus on gender based depletion of livelihood assets in disasters like floods and cyclone (discussed in Chapter Six). This chapter responded to this gap by documenting the stories of upper, middle and low caste women in such multiple disasters. In doing so this chapter anticipates substantial contribution to development studies, gender and disaster studies, sociology of disasters and explicates policy implications for multiple disasters affected places.

Kitchen gardens, land and farmland, house and cattle were identified as women's livelihood assets. The loss of a kitchen garden and farm land due to the multiple disasters was the subject of lament for the upper and middle caste women, whereas this was not the case for the low caste women due to their inadequate entitlement to these resources. Concomitantly, loss of farmland and crops due to the erosion and siltation caused by the multiple disasters meant a reduction of work and food for the low caste group. The repeated house destruction due to the disasters was the repeated subject of lament for the middle caste women due to the location of their houses in the low-lying areas, in comparison to the low and upper caste respondents. The upper and low caste women whose houses were damaged in the super-cyclone were able to reduce the risk in the floods due to the concrete houses, which they received from the government based on their social caste and class position. At the same time, all the women from different castes and classes revealed that house construction is a highly gendered process and women-headed households particularly suffer due to gender segmented work and double burden responsibility (low caste). Unable to perceive women's pre-existing vulnerabilities during the construction process, it was observed that both the house building grant (HBG) and the IAY concrete house of the state and the central government were rather counterproductive.

Loss of cattle was a shared experience of all the respondents and they revealed that the impact of the multiple disasters was particularly severe on women-headed households due to gender based division of labour in cattle care, women's lack of resources like boats, lack of a vet inside the village, lack of disaster resistant houses to protect the cattle and above all limited mobility of women due to their caste and class norms. The multiple disasters produced immense distress for all, caused widespread food scarcity, reduced exchange entitlements and increased the

vulnerability and poverty of the already vulnerable and the poverty stricken households. Thus, it was observed that social caste, class, gender and developmental projects were as important as the multiple hazards in entrenching women's vulnerability and diminishing their livelihood assets.

Thirdly, the experiences of the respondents suggested multiple disasters are capable of both breaking down cultural barriers and solidifying them. This was observed in Chapter Five while documenting the survival and displacement experiences of the respondents. In surviving the multiple disasters (super-cyclone and the two floods), the upper caste group exploited their social caste and class privileges over the other two caste groups (middle and low). Their concrete houses in their hamlets helped the upper caste group to survive the super-cyclone. In the later disasters their concrete houses on highland protected them from severe inundation and displacement. During the 2001 floods, one of the upper caste *Khandayat* respondents showed little sign of overcoming her caste, class, gender and honour boundaries despite flooding inside her house, rather her coping mechanisms reinforced these boundaries.

On the other hand, the middle caste group demonstrated the fluidity of their pre-existing vulnerabilities by accessing the "emergency shelter" in the intermediate sphere, coshared by both men and women from different castes and classes. This group of women constantly negotiated and renegotiated their caste, class and gender norms in order to meet their social and biological needs. This was observed when the respondents were directly exposed to the super-cyclone. Because they did not have concrete houses in their *sahi* and severe inundation forced them to evacuate their homes during the floods. In the absence of appropriate governmental measures, this group of women revealed that mutability of strict gender norms and spheres is

possible when among their kin and neighbours who were also in crisis. This group of respondents also brought to the fore the inadequacy of the "emergency shelter," which failed to provide toilet facilities and a special space for women.

The low caste respondents also revealed the rigidity and fluidity of caste and purity in the multiple disasters. The instance of the concrete house-owner who during the super-cyclone allowed access to two low caste respondents but denied access to the third one, revealed the "dual culture" of the house-owner and of the village. However, in the later disasters the low caste respondents were able to diffuse their physical vulnerability because their caste and class position made them eligible for the IAY concrete houses, which are designed for the BPL families and widows. The concrete houses helped them to avoid their displacement in the subsequent floods. Furthermore, the narratives of the low caste women revealed that the caste rigidity underwent a considerable amount of change inside the village when people from different castes and classes of Tarasahi are recurrently forced to share the finite space and dine together in the "community kitchen" during the multiple disasters.

Fourthly, the experiences of the respondents in the multiple disasters suggested that apart from governmental and non-governmental help, the kinship, neighbourhood and secondary food system played important roles in helping to tide women over in the crisis. In the survival and displacement stories, women-headed households emphasised the important role of the kinship and neighbourhood network. For instance taking shelter together in the concrete houses during the super-cyclone, surviving the impact of the super-cyclone when exposed directly to risk, shifting to the emergency shelter together during the floods and cooking food at the same hearth and in the same pot. The kinship and neighbourhood network also collected relief on

behalf of the respondents and bought rations. Kinship also played an important role in retrieving women's livelihood assets repeatedly affected by the multiple disasters. For instance, regaining cattle through "mutual aid," receiving labour and money for farming, reconstructing houses and receiving gifts in cash or kind for restoring livelihoods. However, these forms of kinship help were prominent more amongst the upper and middle caste group than the low caste group due to the poverty of their siblings.

Food from the secondary food system also played a most important role in women's lives both during and after the multiple disasters. In Tarasahi, the secondary food system included food from the river Debi and the pond (fish, snails, crabs, aquatic plants etc.) and wild green leaves from the moor land, the paddy fields and the river bank. However, the usage of these natural resources was emphasised mostly by the low caste respondents both during and after the disasters, in comparison to the upper and middle caste women due to their limited geographical mobility and gender norms.

Fifthly, the experiences of the respondents suggested that micro-credit on its own cannot achieve vulnerability reduction or help women cope with the multiple disasters. Chapters Five and Six revealed that the vulnerability produced in the multiple disasters is both external and internal. Chapter Seven explored whether micro-credit in Tarasahi has the potential to help to women cope and reduce the pre-existing vulnerabilities along with the vulnerabilities produced by the multiple disasters. It was noted in Chapter Three that if micro-credit is to be used as both a means and an end for poverty and vulnerability reduction, there is a necessity to go "beyond micro-credit" and include a "basket of financial services" like savings,

consumption, loans and insurance. It is also important to work in liaison with the government and market. The MFOs like SEWA, BRAC and Proshika apply integrated development services, the economic approach, and a consciousness raising cum organising approach in order to address women's empowerment (or vulnerability reduction). The SHG model mostly promoted by the NGOs also seeks to address women's empowerment through collective learning and collective ownership. But the model has the disadvantage of excluding the most vulnerable (discussed in Chapter Three). In the light of these multiple approaches, the efficacy of the micro-credit programme initiated by the two NGOs – AA and BGVS, was assessed in Tarasahi.

After the super-cyclone AA raised international funds for rehabilitation work. In order to distribute the limited money most equitably AA and its partner organisation BGVS formed SHGs. The SHGs were formed based on same caste group, same *sahi*, but comprised of both married and widowed women from different economic strata. In order to address the diverse economic backgrounds of the members, the poverty driven methodology was adopted by the NGOs for credit delivery. Hence, all the 12 respondents were the primary beneficiaries and received significant amounts of credit. At the same time it excluded least vulnerable members from each SHG. The NGOs also introduced the concept of a revolving fund and savings in order to meet the future credit necessities of the members and the excluded members of the livelihood project. The respondents utilised the credit mostly to replace the livestock that they have lost in the disasters. The credit offered also included insurance for the livestock. Unfortunately, some of the respondents once again lost their cattle in the floods of 2003 and without the facilitation of the NGOs; they failed to recoup their costs from the insurance company, which was situated in BBSR about 55 kms away

from Tarasahi. The lack of information among the members and lack of support from the NGO staff deprived the respondents from claiming their insurance, despite loosing their cattle. Hence, despite being considered one of the major tenets to reduce vulnerability and help poor women to sustain shocks and inculcate habits of planning (Fisher and Sriram, 2002) insurance failed to live up to its promise.

Additionally, when the respondents attempted to access extra credit from the revolving fund of their respective SHGs to meet their contingencies, they were denied access by the least vulnerable members of the group. The respondents' severe socio-economic vulnerabilities and their record of irregular repayment acted as an impediment for accessing extra credit. By denying access to credit from the revolving fund, the SHGs exercised power based on gender and class hierarchy. The members from privileged social (married) and economic background dominated the decision making process and accessed the credit for their own interest. Hence, access to extra credit which is considered to be paramount in reducing insecurity and diverting poor women from the local moneylenders remained unavailable. Instead the respondents' reported borrowing credit from the moneylenders at a usurious rate of interest.

Furthermore, entrenchment of caste, class and gender hierarchies was observed when some of the SHGs disregarded the poverty driven methodology of the NGOs and distributed the received credit equally among all the members. This was done partly to avoid the backlash resulting from the least vulnerable members; whereas the groups that implemented the prescribed methodology experienced a considerable amount of hostility and pressure from them for regular credit repayment. This in turn increased the workload of women partly due to lack of grass inside the village, and

partly due to the tremendous pressure for credit repayment despite personal problems, disasters and uncertain or insufficient income derived from cattle. Unsurprisingly, the project increased the burden of debt on already impoverished households. The experiences of the respondents suggest that vulnerability is more adversely affected by external developmental programmes, than by the multiple disasters or the gender and class imperatives operative within the village. In these prevailing circumstances empowerment (vulnerability reduction) remained a distant goal for the respondents.

Policy recommendations for this study

This section offers some policy recommendations specific to this study. The narratives of women in Chapter Five suggested that the "emergency shelter" in Tarasahi requires incorporation of gender needs. In future hazards the pressure on the *bali* will be reduced by the construction of a cyclone shelter in the village[92], but the socially vulnerable researched group may still be excluded from it. This could happen because of the lack of official warning for evacuation, lack of boats, gender issues, fear of social stigma for women living in a public space, or overcrowding. To maximise the benefit of the cyclone shelter there is a requirement to incorporate the participation of the local community and women in particular (Thompson and Tod, 1998). Hence, it indicates that multi-hazard prone places require intensive disaster preparedness and mitigation measures. Year round preparedness is required of each household.

[92] I was informed by one staff of AA that the cyclone shelter in Tarasahi was completed in June, 2006.

The narratives of the respondents in Chapter Six suggested that the policy framework for multiple disaster response needs to be rethought. Typically the immediate reaction of the government was nutritional intervention (relief and community kitchen) and some grant to reconstruct the houses. Food relief certainly has a crucial role in the lives of the most vulnerable in order to meet their survival needs during a crisis. Nevertheless, the narratives here suggested the importance of moving beyond food relief to support the capacity of the disaster-affected to revive, which means promoting alternative productive avenues for women, offering emergency and long term veterinary assistance, and promoting community based training for women for cattle care and management (Aklilu and Wekesa, 2002).

There is also a requirement to strengthen the traditional houses in multi-hazard prone places, rather than offering a paltry grant after every disaster. This has been achieved in the flood prone villages of Bangladesh with the support of governmental and non-governmental organisations (see Thompson and Tod, 1998; Twigg, 2004). Some of the "flood proofing" practices from Bangladesh can be borrowed and tested in the flood prone areas of Orissa. Housing projects also need to take into account the social and economic life of the vulnerable households, rather than only distributing grants for physical structures (Twigg, 2004). It is essential to acknowledge women-headed households' double and triple role during the construction process. A housing project in Nicaragua after the Managua earthquake provides a good model, where women households were offered wages to masons for the construction of their own houses. This not only helped them to maintain their productive activities, but also helped them to participate and monitor the reconstruction of their homes (Vance, 1987). Facilitating women's participation and acknowledging their double/tripe role could enhance single woman's morale, their activities, help lessen their socio-

economic vulnerabilities, assist them to acquire knowledge about non-traditional houses, and reduce their guilt of shame and dependency on kinship.

The micro-credit project in Tarasahi indicated that strict monitoring and support on the part of the NGOs is necessary for the effective functioning of the SHGs (Titus, 2002; Kanitakar, 2002). There is also a need for the NGOs to promote a "disaster mitigation fund" to meet exclusively the contingencies of vulnerable households. This fund could then provide short term loans or immediate cash to the neediest as and when required. In Bangladesh, Grameen Bank offers credit at low rate of interest to the disaster affected to buy cattle or construct houses (Zaman, 1999). The SHGs should also incorporate credit for "daily consumption" because this could prevent the poor households from turning to the local money lenders, who often take advantage of their economic desperation (Harper, quoted in Singh, 2004).

Additionally, the stories of women-headed households suggested an increase in women's workload due to lack of grass because of the combination of increasing numbers of cattle in the village and the disasters. After the super-cyclone dependency on the cattle has increased and this has increased women's work load in finding grass. This indicates a requirement for not only promoting alternative economic activities for women, but also fodder management. The possibility of fodder cultivation in Tarasahi should be tested, and facilitating the involvement of the SHGs in fodder management can prove lucrative. This may reduce the suffering of the cattle apart from disasters and can also enhance the SHGs income (see Bhatt, 1997a; Bhowmick and Patel, 1996).

The role of the NGOs in Tarasahi indicated the necessity for support from the government, because the catalyst NGOs lacked staff, resources and a capability to offer development services. In the post super-cyclone phase OSDMA initiated NGO-GO coordination for effective relief and rehabilitation response. To end OSDMA allocated 20 GPs to AA and BGVS for rehabilitation work. But the instance of Tarasahi indicated that much more robust coordination and collaboration between the government and the NGO is required in delivering development and mitigation measures, than simply allocating responsibilities to the NGOs. Currently, the Orissa Relief Code does not have provisions for reviving livelihoods in multiple disaster affected places, except sporadic relief, relief work and remissions of loans. As argued in Chapter Seven these measures do not address the needs of the destitute and does little to alleviate unequal access to power and resources based on caste, class and gender. Given the fact of repeated destruction caused by the multiple disasters, the intervention of the government is absolutely crucial. Ultimately, it is the government that bears the responsibility for citizen welfare because "Aid is far from sufficient to play more than a complementary role in addressing the challenges […]" (Christoplos et al., 2001).

Scopes for future research

This section offers some suggestions for future research which I could not explore in more depth and detail in this thesis. Chapter Seven revealed that the kinship boys and the respondents' own children played an important role in accessing both cooked and non-cooked relief material, when the relief operation failed to perceive women's needs. Apparently the relief literature in India and elsewhere is primarily adult

centric and fails to address the experience of children as active agents in accessing resources from the relief operation during disasters. As the objective of this research was to document women's experiences, I focussed little on the experience of the children. It is a subject that requires further research to find out: how does such relief practice affect children when they have to stand in long queue? How does such relief system behave towards children and adults when allocating relief? What are these children's experiences? We need better understanding of the impact of such relief operations on children and how better relief operations can be put into practice that meet the needs of both women and children.

This thesis defined multiple disasters in the context of Tarasahi and attempted to understand their impact on 12 women-headed households from different caste and class backgrounds (Chapters Five and Six). As mentioned earlier that there is a dearth of research on this subject and mine has attempted to respond to this gap. However, multiple disasters deserve further research to be explored both empirically and conceptually elsewhere, before their full calamitous effects on a vulnerable population can be understood. Only then can a cogent policy for multi-hazard places be proposed. The scope of this topic is particularly immense in the Asia-Pacific region due to large concentrations of vulnerable populations and its geographical peculiarities, which makes it the most highly multiple disasters prone region of the world.

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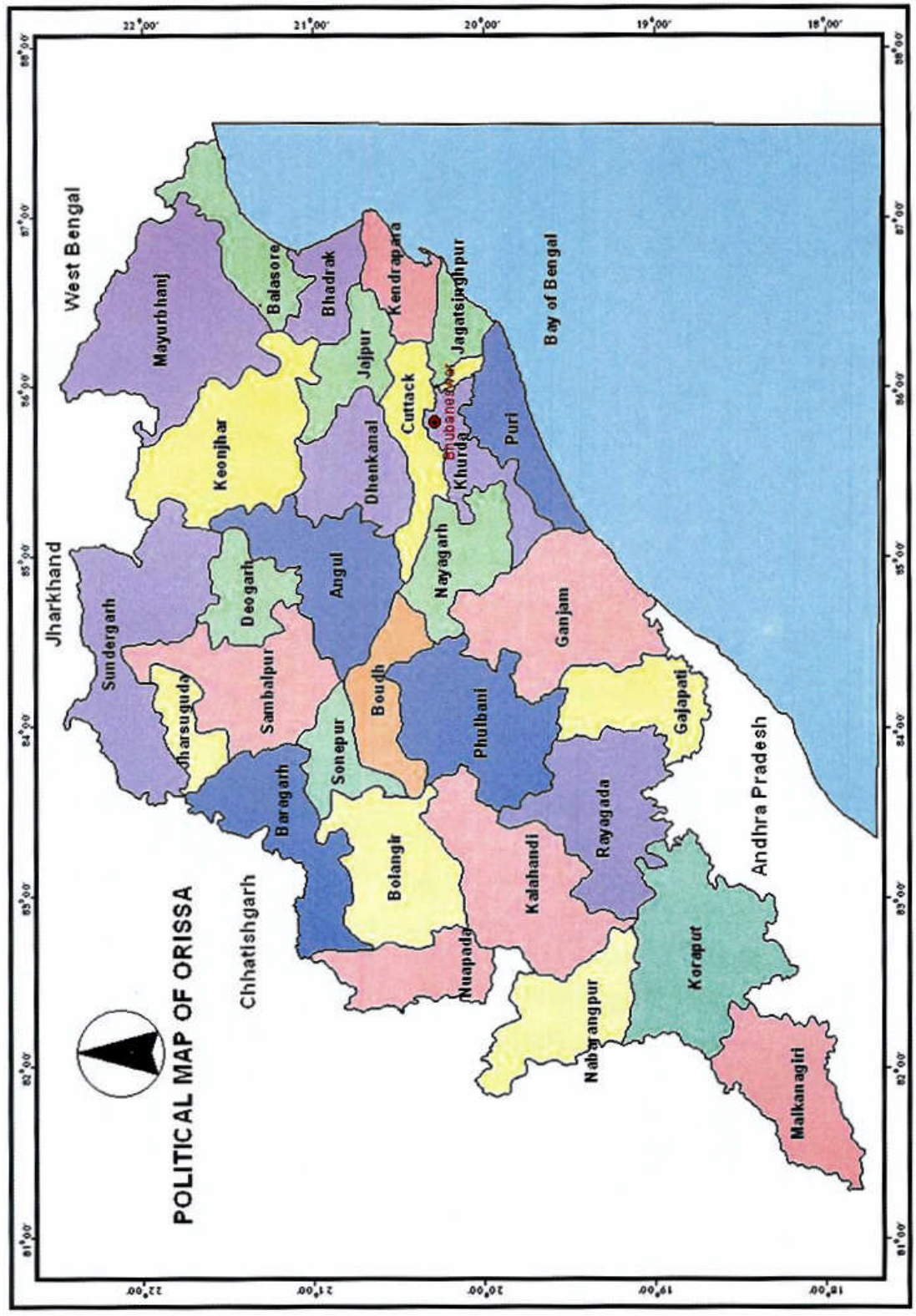
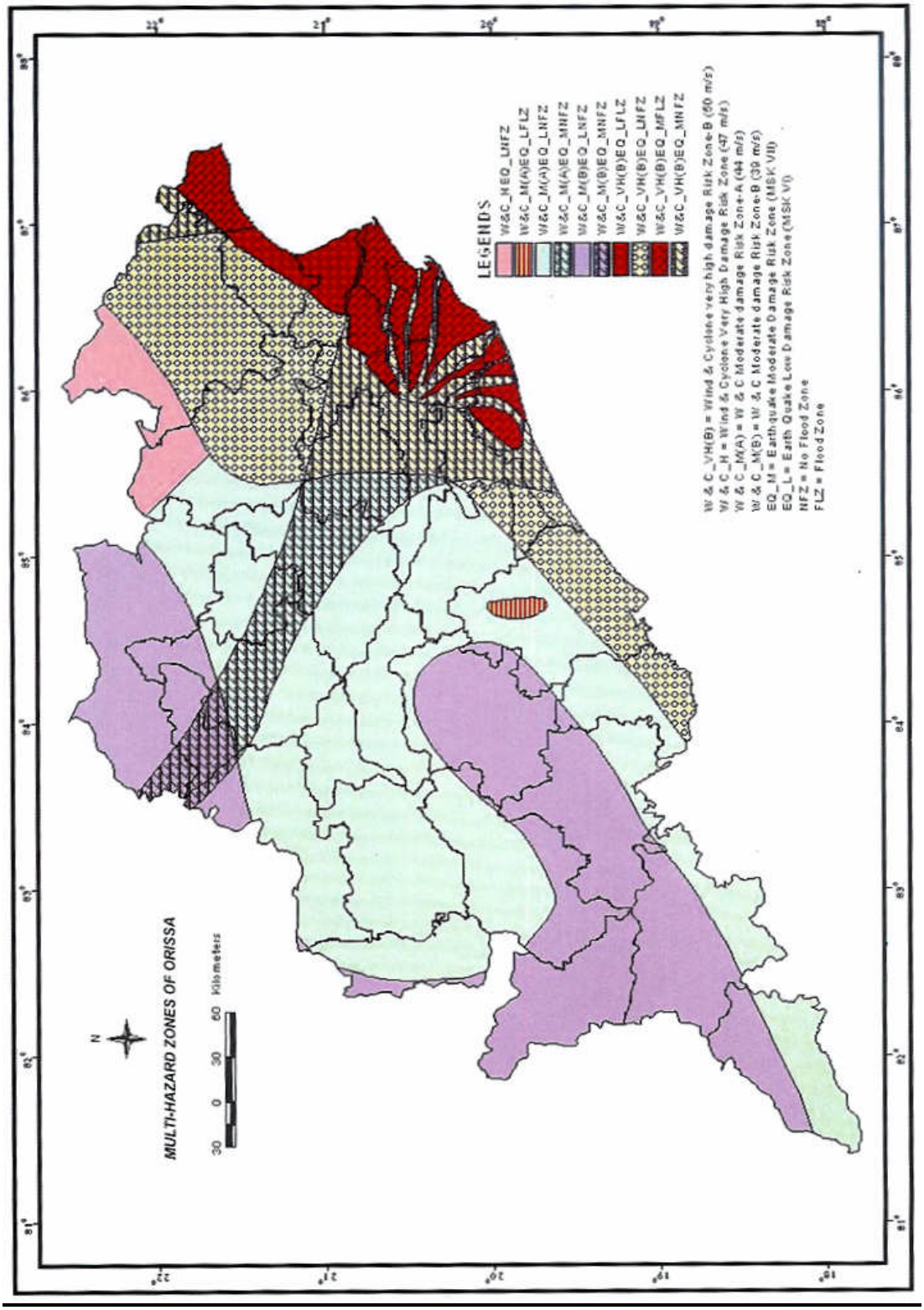
Appendix-I

Political map of Orissa



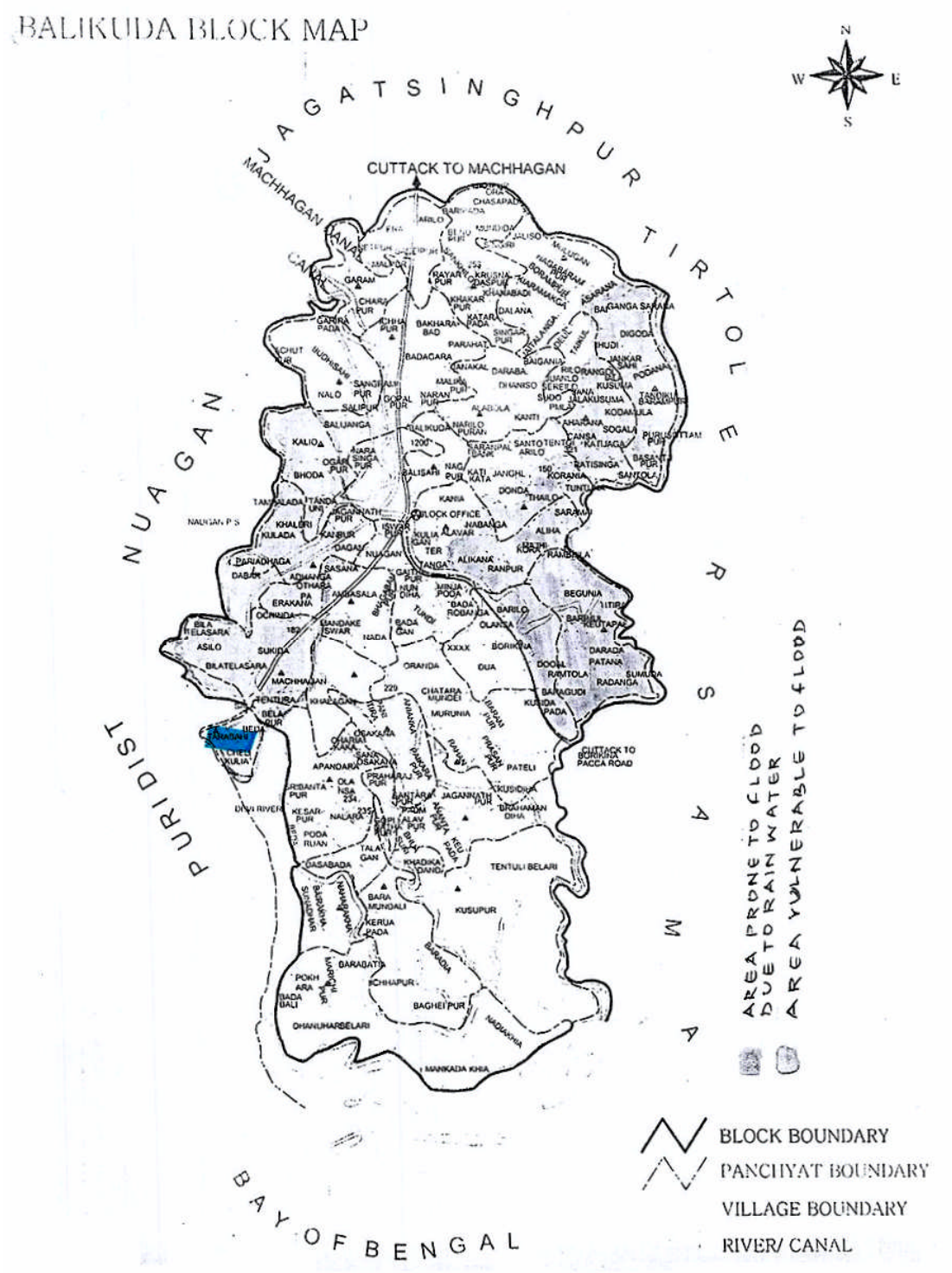
Appendix II

Multi-hazard zones of Orissa



Appendix III

Map of Balikuda block



Appendix-IV

Year-wise relief for natural calamities and grants received by government of Orissa from the government of India

Year	Relief on natural calamities (Rs. In lakh)	Grants (Rs. In Lakh)
1974-75	385	0
1975-76	388	0
1976-77	369	0
1977-78	409	2
1978-79	403	0
1979-80	871	0
1980-81	1688	2820
1981-82	1480	156
1982-83	17108	12158
1983-84	1798	1526
1984-85	3024	0
1985-86	3066	0
1986-87	2775	503
1987-88	1450	500
1988-89	1806	1313
1989-90	4598	0
1990-91	4714	5713
1991-92	4919	0
1992-93	4691	2978
1993-94	7742	2978
1994-95	3906	2233
1995-96	7946	7708
1996-97	7528	1433
1997-98	8991	4329
1998-99	4558	4028
1999-00	82764	0
2000-01	14365	0

Source: Board of Revenue, Cuttack (SRC) Quoted in Samal (2003: 44)

Appendix - V

List of Interviews

A) Women-headed households in Tarasahi

Chumki Bhoi, February – March, 2004, Tarasahi

Him-Sheetol Bhoi, December, 2004 and March, 2004, Tarasahi

Jhumpa Behera, December, 2003, Tarasahi

Konika Mohanty, October – October, December, 2003, Tarasahi

Latika Behera, December – January 2004, Tarasahi

Lolita Nayak, December – January, 2004, Tarasahi

Manimala Behera, December, 2003, Tarasahi

Proshilla Bhoi, September, November, 2003, Tarasahi

Sulochona Behera, November – December, 2004, Tarasahi

Tanika Shetty, March, 2004, Tarasahi

Tilotoma Biswal, February, 2004, Tarasahi

Ullash Behera, January – February, 2004, Tarasahi

B) Government officials in BBSR and Jagatsinghpur, Tarasahi

Anonymous, Officer from Orissa State Disaster Mitigation Authority, August 2003 – March 2004 BBSR

Anonymous, Officer from Orissa State Disaster Mitigation Authority, August 2003 – March 2004 BBSR

Anonymous, Officer from Orissa State Disaster Mitigation Authority, August 2003 – March 2004 BBSR

Emergency Officer, October – January 2004 District Administration Office, Jagatisinghpur

Balikuda Block Chairman, February 2004, BBSR

Sarpanch of Tarasahi, October 2003 – March 2004, Tarasahi

C) NGO workers in BBSR, Jagatsinghpur, Tarasahi

Junior Programme Officer, Action-Aid, Jagatsinghpur Regional Office, October 2003 – March 2004, Jagatsinghpur, also interviewed at BBSR

Administrative Officer, Action-Aid, September, 2003, BBSR

Project Co-ordinator, Action-Aid, March, 2004, BBSR

Two SHG Co-ordinators, Action-Aid, October 2003 – March 2004, Tarasahi

District Co-ordinators, Bharat Gyan Vigyan Samity, October 2003 – March 2004, BBSR, also interviewed at Jagatsinghpur and Tarasahi

Field workers, Bharat Gyan Vigyan Samity, December, 2003, February 2004, Jagatsinghpur and also interviewed at Seali and Tarasahi.

D) Other interviews

United Nations Volunteer (UNV), Jagatsinghpur district, November, 2003 Jagatsinghpur

State Project Co-ordinator, UNDP, August, 2003, BBSR

United Nations Volunteer on Housing, February, 2004, Jagatsinghpur

Project Co-ordinator, CYSD, October 2003 – March 2004, BBSR

Project Co-ordinator, Lutherans World Service (LWS), March, 2004, BBSR

Programme Executive, Catholic Relief Service (CRS), August 2003, BBSR

Co-ordinator, The Humanity, November, 2003, BBSR

Project Co-ordinator, September 2003 – January, 2004, CARE-Orissa

Staff (position unknown), November 2003, Red Cross, BBSR

Staff (position unknown) OXFAM, September, 2003, BBSR

District Co-ordinator, Orissa Disaster Mitigation Mission (ODMM), February, 2004, BBSR

Mantu Sir, Secondary School Teacher, November 2003, Tarasahi

Senior Researcher, NCDS, December, 2003 and March 2004, BBSR

South Asian Network, CYSD, December 2003, BBSR