Real-time Equity Monitoring in Disaster Response:
Lessons Learned from Indian Experiences

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List of Acronyms

ANM	Auxiliary Nurse Midwife
CMDRR	Community Managed Disaster Risk Reduction
CRF	Calamity Relief Fund
DAAC	Dalit Adhikar Abhiyan Committees, Unnati
DRC	Dalit Resource Center, Unnati
GoI	Government of India
HAP	Humanitarian Accountability Partnership
IEC	Information Exchange and Communication Unit
INGO	International Non-Governmental Organisation
ISRO	Indian Space Research Organisation
MKSS	Mazdoor Kissan Shakti Sangathan
NCCF	National Calamity Contingency Fund
NCRC	National Coordination and Resource Centre
NDMA	National Disaster Management Authority of India
NGO	Non-Governmental Organisation
NREGS	National Rural Employment Guarantee Scheme
PDS	Public Distribution System
PHED	Public Health and Engineering Department
SEA	Social Equity Audit
SC	Scheduled Caste
SHG	Self-Help Groups
SNEHA	Social Need Education and Human Awareness
SSU	Sector Support Unit, NCRC
ST	Scheduled Tribe
SDRF	State Disaster Relief Fund
UNICEF	United Nations Children's Fund
TRINet	The Resource and Information Network, NCRC
UT	Union Territories
VIC	Village Information Center, NCRC
VRC	Village Resource Centre, ISRO

Foreword

The Knowledge Community on Children in India (KCCI)is a partnership between the Government of India and UNICEF, the aim of which is to fill knowledge gaps and promote informationsharing on policies and programmes related to children in India. In 2011, under the aegis of this initiative, 40 graduate students from India and across the world undertook fieldwork and documented initiatives focused on child rights and development. Their vibrant perspectives, commitment and hard work are reflected in these studies, published by UNICEF.

The nine initiatives were documented in 2011 The teams looked at a range of initiatives at different levels of intervention – from community radio in tribal areas of Shivpuri in Madhya Pradesh to a complaints handling mechanism of the National Commission for the Protection of Child Rights at the national level. The lens applied to these studies is to identify the essential elements that go into making a model intervention successful and sustainable.

UNICEF recognises the potential and power of young people as drivers of change and future leaders across the globe. The KCCI Summer Internship Programme aims to support the development of a cadre of young research and development professionals with an interest, commitment and skills in promoting and protecting children's rights. UNICEF will continue this collaboration with young researchers, the Government of India and academia, so as to bring fresh perspectives and energy to development research and showcase examples of how it *is* possible to ensure that the rights of *every* child in India are fulfilled.

Karin Hulshof
Representative
UNICEF India

Executive Summary

Disasters do not occur in isolation. They are instead inextricably linked with the social, cultural, economic and political contexts that shape the development of society. India's social fabric is a weave of many identities such as caste, ethnicity, and religion. Such stratification over time has created social, economic, political and geographic inequities faced by groups such as Scheduled Castes and Tribes, women, children, the disabled, and the elderly. During disasters, such development inequities get exacerbated, and the access of these vulnerable groups to time-critical, life-saving rescue, relief and rehabilitation entitlements is restricted. Thus the need arises for real-time equity monitoring to ensure that vulnerable groups have equal access to relief and rehabilitation entitlements as per their specific needs, and when those needs come to light.

This study sought to explore and analyse the elements, desirable qualities and structure of a real-time equity monitoring system that can be used by the disaster management community in India and beyond. This was done by examining real-time equity monitoring experiences that emerged in response to three major natural disasters in India: the 2009 drought in Rajasthan, the 2008 Kosi floods in Bihar and the 2004 tsunami in Tamil Nadu.

Disasters are of various kinds, and their impacts differ based on varied contexts. Through the analysis of these three distinct experiences, however, the report provides a comprehensive understanding of the diverse learnings that emerge in different contexts. The analysis of these cases reveals the key challenges, potential, and enabling factors of an equity monitoring mechanism. It also reveals desirable qualities that a monitoring mechanism should possess for a timely, inclusive, and needs-sensitive disaster response.

The present analysis shows that several challenges hinder the implementation of real-time equity monitoring in a disaster response. These include: differences in stakeholder mandates; common perceptions of threat that monitoring creates; the perceived reluctance of Government and civil society to collaborate; general perceptions of relief as charity; people's perceptions of vulnerability; a limited understanding of specific needs of different vulnerable groups; and lack of proper methods to facilitate monitoring in a non-threatening and non-offensive manner.

The study suggests that the potential of equity monitoring in disaster response can be viewed in two ways: first, in terms of its ability to enhance the quality of humanitarian response and second, in terms of both its short-term outcome of providing timely grievance resolution and its longer-term impact of restoring the assets of vulnerable populations and empowering them.

Further, the study reveals that the quality of real-time equity monitoring is influenced by external and internal factors such as: transparency and awareness based on information exchange and capacity building, active leadership, multi-stakeholder collaboration and coordination, governance structures, and availability of resources.

Recommendations

A careful analysis of disaster management policies at the national and state levels in India and its commitment to international mandates indicates that while there is an intention to adopt an equity lens in disaster response, there are gaps in the implementation of equity monitoring. The report proposes macro-level policy recommendations such as, the need for national policies to recognise the important role of local level authorities in all phases of disaster management.

Based on the lessons learnt from an analysis of the three cases, the report synthesises the desirable qualities that a real-time equity monitoring mechanism should possess, including: neutrality, multi-stakeholder participation, community initiative, multi-directionality, and continuality in the disaster response and management cycle.

Using these lessons to inform the implementation of equity monitoring, this report proposes that equity monitoring should be a collaborative function of local level authorities such as Panchayats, and the Village Resource Centres (VRCs) currently operated by the Indian Space Research Organisation (ISRO). Through this collaboration, VRCs can provide local level authorities with continuous capacity enhancements and access to software, thereby better equipping them to fulfill their monitoring roles as envisioned by the disaster management machinery in the country.

Introduction

1.1. Background

Natural disasters such as floods, droughts, and tsunamis have affected nearly 2.5 billion people globally since 2000[1]. Of these, 603 million people were affected in India alone. Disasters are an outcome of natural hazards affecting vulnerable populations, and in the process, overwhelming their coping mechanisms[2]. Disaster risk and poverty are thus closely related: the world's poorest are the most vulnerable, and suffer the greatest in a disaster.

a. Vulnerability and its dimensions

Vulnerability does not only mean economic destitution, but also social deprivation due to isolation, physical weakness, and powerlessness in society[3]. Collectively, these form a 'deprivation trap', pushing people into vulnerable positions.

> *"Vulnerability is not the same as poverty. It means not lack or want, but defenselessness, insecurity, and exposure to risk, shocks and stress."*
>
> Robert Chambers,
> Vulnerability, Coping and Policy

In many parts of India, society continues to be stratified along dimensions of caste, ethnicity, and religion among others. Over generations, such stratification has resulted in the deep entrenchment of social, economic, political and geographical inequities. Social groups that have tended to suffer the most are Scheduled Castes and Tribes (SC/ST), Dalits, religious minorities, women, elderly, disabled and children as highlighted in Box 1. Stratification exists even within these groups, creating multiple layers at which inequities operate. For instance, in a patriarchal society, a disabled woman faces double discrimination, on account of being a woman and being disabled.

During a disaster, these pre-existing inequities faced in peacetime are further exacerbated. Often by default, and sometimes by design, marginalised groups are limited in accessing life-saving relief, recovery and rehabilitation services. For instance, aid workers reported that Muslims and Dalits did not receive equitable shares of relief material after the Bhuj earthquake

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[1]CRED. *The International Disaster Database*. CRED. http://www.emdat.net. (Accessed 29 June 2011)

[2]IFRC, *World Disasters Report 2009,* IFRC, Geneva, 2009, p. 7.

[3]Chambers, R. *Editorial Introduction: Vulnerability, Coping and Policy,* Institute of Development Studies Bulletin, 1989, Vol 20, No. 2, pp. 1-7.

in Gujarat[4]. Moreover, disasters also change the existing hierarchies in communities, creating new aspects of inequity faced by traditionally marginalised groups, as highlighted in Box 2.

Box 1: Vulnerable Groups and the Peacetime Inequities they Suffer

- *SC/STs:* Comprising over 24% of the population as per the 2001 Census, SC/STs face untouchability; denial of access to water points and schools; restriction to menial, low-paying jobs; and under-representation in decision-making posts (Bhatia, 2006).

- *Religious Minorities:* Roughly 19.5% of the population belongs to religious minorities as per the 2001 Census. Muslims, accounting for 14%, face discrimination in housing, violence and persecution (Wax, 2009; Minority Groups International, 2008).

- *Women:* Women face inequities of domestic violence, sexual harassment, limited access to education and nutrition, lower wages, poor workforce participation, discrimination in property ownership, and under-representation in governance (Menon-Sen, 2001).

- *Elderly*: Comprising nearly 7.5% of the population as per the 2001 Census, the elderly (over 60 years) face inequities in the labour market, and limited access to food, housing, and healthcare, resulting in economic dependence on family members. (Rajan, 2006).

- *Disabled:* People with disabilities face inequities of differential access to education, employment, health services and other socio-economic opportunities (Chatterjee, 2007).

- *Children:* Children face inequities in access to nutrition and healthcare, resulting in mortality from malnutrition, diarrhoea and other preventable and treatable ills. The girl child faces inequity and differential access to nutrition and education (Chatterjee, 2007).

b. Improving the Quality of Humanitarian Response: Real-time equity monitoring

Over the years, the global disaster management community has focused on improving the quality of response through strategies of mitigation, preparedness and coordination. An emerging dimension, however, is the need for real-time equity monitoring to ensure that needs of the marginalised are met.

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[4] Wisner, B. et al. *At Risk: Natural Hazards, People's Vulnerability, and Disasters.* London: Routledge, 2003, p. 15.

Box 2: New Inequities Post-Disaster: Evidence from Tamil Nadu

Experience in Tamil Nadu depicts how the traditionally powerful social group of men was made vulnerable in the aftermath of the tsunami.

Strictly defined gender roles pre-tsunami meant that men were traditionally spared from doing household work and childcare. After the tsunami hit, however, the death of many mothers and wives left men largely helpless, vulnerable, and unable to run their households.

As a result, a spate of marriages ensued: in Nagapattinam, 32 villages saw 210 marriages of girls under 18 years of age within months of the tsunami. These hasty marriages had further gendered impacts that perpetuated inequities for some groups, and created new ones for others (Pincha 2007).

Equity monitoring is vital to ensure that vulnerable groups exposed to a disaster can access relief and rehabilitation entitlements as per their specific needs. Conducting such monitoring in real-time, however, is of critical importance. More often than not, disaster relief and response are life saving and thus, highly time-sensitive. Ensuring equity monitoring in such a time-critical venture therefore, is more impactful when done immediately in real-time, and loses its relevance if addressed in retrospect. Effective real-time equity monitoring should, therefore, seek to:

◆ Ensure immediate, inclusive and appropriate response for the marginalised,

◆ Close gaps in disaster management frameworks, and

◆ Sensitise policies and stakeholders towards equity.

In the long-term, equity monitoring should address pre-disaster development imbalances by aiding the vulnerable in securing resources, restoring livelihoods, and '*building back better*'.

c. Moving ahead

Over the last decade, India's disaster management framework has evolved with every disaster from the 1993 Latur earthquake to the 2009 drought in Rajasthan. Such experiences have allowed the disaster management community to experiment with real-time equity monitoring frameworks, and glean best practices common to all contexts. These lessons form a crucial first step towards building a robust and comprehensive equity monitoring framework.

Ultimately, based on the insights gained from the lessons, the institutionalisation of a real-time equity monitoring framework in the prevailing disaster management architecture will be essential

to mainstreaming equity in disaster responses, and rectifying the peacetime inequities that remain unaddressed by development.

1.2. Scope of the study

a. Objective: This study explores and analyses the elements, desirable qualities and structure of a real-time equity monitoring system that can be used by the disaster management community in India and beyond.

b. Methodology

Findings of this report were drawn from an investigation of real-time equity monitoring in the 2009 drought in Rajasthan, the 2008 Kosi floods in Bihar, and the 2004 tsunami in Tamil Nadu. The research methodology included literature reviews, and interviews with key stakeholders involved in the monitoring processes. The field research consisted of visits to affected areas and discussions with officials and individuals from disaster-affected communities.

c. Scope and limitations

Firstly, due to time constraints, field visits and in-person interviews with key stakeholders could only be arranged in Bihar and Rajasthan. Therefore, the case study on Tamil Nadu was articulated mainly from published literature. Secondly, as equity monitoring in disaster response is an evolving concept, in-depth analytical literature on this subject was limited. Lastly, much of the desk research relied on existing literature such as reports published by NGOs and the local media, creating the potential for biases. Moreover, interview biases and poor event recall of key informants was observed.

d. Structure

The present report analyses three cases which are independent experiences in themselves within the context of disaster response, and gleans lessons that are both unique to each context and common to all. The intention is to provide as comprehensive an understanding as is possible of the diverse set of learnings that emerge in different contexts.

The report begins with a theoretical overview of key concepts including equity, monitoring, and vulnerability in development and disaster contexts. Next, it analyses the disaster management policy landscape in India and internationally to cull out lessons and identify gaps. This is followed by case analyses of real-time monitoring performed by three separate non-governmental entities - Unnati during Rajasthan's drought, Dalit Watch during Bihar's floods, and National Coordination and Resource Centre (NCRC) during Tamil Nadu's tsunami. The lessons learnt highlight challenges and potential of equity monitoring, and factors that influence its quality. Lastly, macro-level policy recommendations; desirable qualities of real-time equity monitoring; its structural application; and potential applications in non-disaster contexts are proposed as a way forward.

Equity Monitoring: An Overview

This chapter lays the conceptual groundwork for equity monitoring in disaster response. It defines key concepts used in the study, contextualises these concepts in the world of disasters, and introduces equity monitoring as a humanitarian concept.

2.1. Theoretical underpinnings

In the course of human development, people are often excluded for many social, economic and political reasons, and along various dimensions of identity. To address such exclusion, different approaches, ranging from non-discrimination to equality and equity, have been observed reflecting the evolution of disaster response from *'do no harm'* to *'build back better'*. Each approach offers unique advantages affecting the outcome of response. In the interest of conceptual clarity the following definitions are noteworthy:

a. Social exclusion

Exclusion is "the process through which individuals or groups are wholly or partially excluded from full participation in the society within which they live"[5]. Box 3 lists examples of goods and services from which people can be excluded[6].

Box 3: Social Exclusion from What?

- A livelihood
- Secure, permanent employment
- Earnings
- Property, credit, or land
- Housing
- Education, skills, or cultural capital
- Citizenship and legal equality
- Democratic participation
- Public goods
- Humanity, respect, fulfillment and understanding

Source: (Silver, 2005)

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[5] European Foundation for the Improvement of Living and Working Conditions, *Public Welfare Services and Social Exclusion: The Development of Consumer Oriented Initiatives in the European Union,* Dublin: The Foundation, 1995, p. 4.

[6] Silver, H., Reconceptualizing Social Disadvantage: Three Paradigms of Social Exclusion. In Social Exclusion: Rhetoric, Reality, Responses, edited by Gerry Rodgers, Charles Gore, and Jose Figueiredo. Geneva: International Institute for Labour Studies, 1995.

b. Non-discrimination

Non-discrimination is the "provision of assistance without any adverse distinction (such as with regard to nationality, race, ethnicity, religious beliefs, class, gender and political opinions) to all persons in need"[7]. Central to this is the balance of power, as discrimination often involves the unfavorable treatment of members of less powerful groups by members of more powerful ones.[8,9] Non-discrimination, though it seeks to prevent exclusion, is limited in its ability to do so. For example, a global survey by the UN Special Rapporteur on Disability in 2006, found that there was non-discrimination in the employment of people with disabilities; however, the disabled were not always entitled to the same privileges as persons without disabilities[10].

c. Equality

The right to equality, as per Article 1 of the Universal Declaration of Human Rights, states that every human being is "born free and equal in dignity and rights"[11]. Equality, thus, implies the condition of being equal in quantity, number, or value, and requires everyone to have the *same* resources.[12,13] Equality addresses the shortcomings of non-discrimination by ensuring that people receive the same resources. For example, Government of India's NREGS enables all households irrespective of caste, religion, and income status to demand work at a given wage rate[14]. However, equality does not account for the *specific* needs of social groups. For instance, in the NREGS, work is given upon display of a job card, which identifies all adult members of the households willing to work. Social groups such as single women and widows, however, are often not issued separate job cards, and are thus unable to receive the same benefits as others availing of NREGS[15].

> Equity involves responding to the special, and at times, invisible, needs of specific vulnerable groups when such needs arise, and bridging the gap between vulnerable and privileged to correct generations of inequity perpetuated by entrenched power structures.

d. Equity

Equity refers to "a strategic approach to ensure redistribution of resources, in order to compensate for uneven investments in and distribution of opportunities and services amongst differently situated groups and individuals in a given context."[16] Equity entails the recognition of every

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[7]IFRC, *World Disasters Report 2009,* IFRC, Geneva, 2009, p. 21.

[8]Jones, H., *Equity in Development,* Overseas Development Institute, London, 2009, p. 12.

[9] Ibid. p. 126.

[10] Ibid. p. 89.

[11] UN. *The Universal Declaration of Human Rights*. United Nations. http://www.un.org/en/documents/udhr/index.shtml#a1 (Accessed 7 July 2011)

[12] Equity re-examined, p. 435.

[13] Questions and answers on equity (unicef, p. 4).

[14] http://nrega.nic.in/netnrega/home.aspx

[15] http://southasia.oneworld.net/todaysheadlines/uniting-against-gender-inequities-in-india

[16] Unicef, *Inclusion by design: Unicef India's Approach to Equity*. December 2010. p. 9.

individual, with "equal treatment, respect, and dignity irrespective of economic, social or political status."[17] Equity, thus, addresses the shortcomings of equality by meeting needs of vulnerable groups through a targeted response. For instance, in the 2004 tsunami, the Tamil Nadu Government certified the *Irula*[18] as tribes and targeted them in welfare schemes, which provided housing and literacy programmes to address their specific needs[19]. Box 4further highlights the distinction between social exclusion, non-discrimination, equality and equity through an example of a clothing distribution programme.

Box 4: A Government Clothing Distribution Programme in the Exclusion Matrix

A Government's clothing distribution programme follows principles of:

- *Social Exclusion:* If it distributes large-sized clothing to all adults of an upper caste.
- *Non-Discrimination:* If it distributes large-sized clothes without excluding any particular groups.
- *Equality*: If it distributes large-sized clothes in equal quantities to all households in an area, irrespective of castes.
- *Equity:* If it distributes appropriate clothes keeping in mind age (infants to elderly), gender (women's clothing according to culture), religion (veils for Muslim women), and special needs (pregnancy and menstruation). It also accounts for:
  - Inter-household differences in needs, which vary based on class and lifestyle. For example, the most vulnerable and poor may need more pairs of clothes, while the rich may not need as many or may not like to use these clothes.
  - Intra-household needs, which depend on the size and composition of the household. For example, a household with eight members requires more clothing than one with four; and a household with elderly members requires different kind of clothing (e.g., khadi), than a household with younger members.

e. From exclusion to inclusion
Moving from exclusion to non-discrimination, equality and equity entail shifts along two planes. The vertical plane represents a range of behaviours from non-inclusive to inclusive. The horizontal plane depicts a movement from low to high sensitivity towards vulnerability and the specific needs of vulnerable groups. These planes are distinct in that, an approach can be highly inclusive but low on sensitivity towards vulnerability. For instance, many relief camps in Bihar

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[17] Ibid.

[18]Irula Tribes – Indigenous tribe residing on the outskirts of villages in Northern Tamil Nadu and Southern Andhra Pradesh. (Pincha, 2007)

[19] Tsunami Global Lessons Learned Project, *The Tsunami Legacy,* The Tsunami Global Lessons Learned Project Stees Case Studies: AnalyzecentralizOXED?X? WHY NOT INCLUDE IT WITHIN THE STANDARD NARRATIVE?OR OPTIMUM IMPACT OF ITHERHE rring Committee, 2009, p. 41.

post-floods were inclusive because they catered to vulnerable groups such as women, but they were not always sensitive towards the specific needs of pregnant and lactating women[20]. Together, these planes create a matrix within which social exclusion, non-discrimination, equality and equity can be placed as shown in Figure 1. Social exclusion is both non-inclusive and low on sensitivity towards vulnerability, and is thus located in the far bottom-left quadrant of the matrix. Non-discrimination is inclusive and more sensitive towards vulnerability than social exclusion. Equality is inclusive, but even more sensitive to vulnerability than non-discrimination. Lastly, equity is not only inclusive but also highly sensitive to vulnerability, and is located in the far upper-right quadrant.

Figure 1: A Matrix of Inclusion
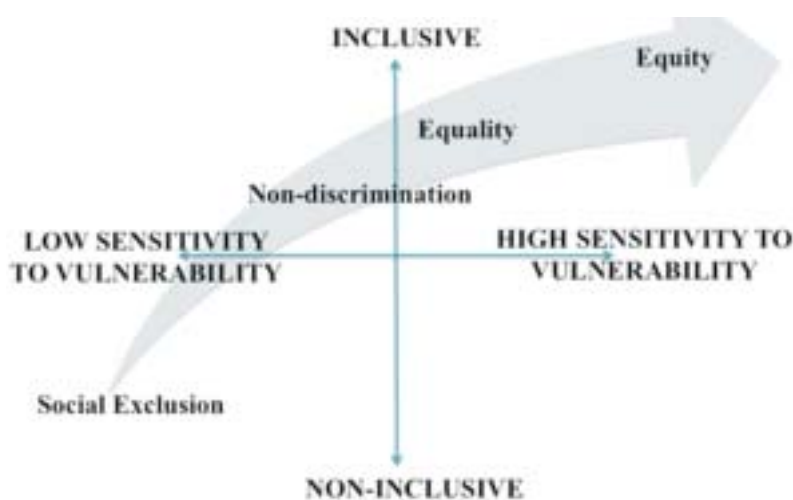
f. Monitoring

To understand equity monitoring, it is vital to unpack the term 'monitoring'. In the broader development context, monitoring refers to an ongoing collection and analysis of data on progress toward results, changes in the context, strategies, and implementation of a programme or policy[21]. Such continuous analysis can improve the relevance, effectiveness, sustainability, and impact of a process. Despite its advantages, monitoring is not without challenges as seen below:

Advantages:
- **Means to an End:** Monitoring is not simply an additional task conducted for its own sake, but is part of a greater goal to ensure improvements in quality and efficacy of the programme being monitored.

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[20] Dalit Watch 2008, p.16.

[21] Church, C., Rogers, M., *Designing for Results: Integrating Monitoring and Evaluation in Conflict Transformation Programs*. Search for Common Ground, Washington, DC, 2006, p. 83.

- **Beneficiaries as End-Users:** The end-users of the monitoring process and its lessons are ultimately the beneficiaries of the programme or process being monitored.

Challenges:
- **Power Dynamics:** Monitoring inherently triggers a hierarchy between the monitor and the monitored, and thus, power play is an unavoidable aspect of monitoring.

> *Vulnerability to a natural hazard refers to "characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard."*
>
> Wisner et al, At Risk.

2.2. Disasters and vulnerability

Disasters take place when natural hazards affect vulnerable populations, and therefore, are a product of the social, economic and political environments that shape the way people live[22]. It is thus vital to understand the links between disasters and vulnerability of social groups in their peacetime existence. Vulnerability commonly refers to 'being prone to damage'. In the context of natural hazards, however, it assumes a more refined definition[23].

Vulnerability is a multi-layered concept, based on a progression of conditions that limit the ability of a population to cope with hazards, shocks and stresses. These conditions are identified using the Pressure and Release (PAR) framework, depicted in Figure 2[24].

Vulnerability is rooted in underlying causes or basic ideologies on which society is built. Dynamic pressures by way of processes and institutions (or lack thereof) exacerbate the root causes of vulnerability. Unsafe conditions or physical, economic and social circumstances ultimately expose populations to natural hazards. Vulnerability is thus a progression of conditions, and is influenced by the contexts within which populations exist. These vulnerabilities are exacerbated during disasters, which damage the assets and capacities of the affected groups post-disaster, deterring their ability to recover[25].

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[22] Wisner, B. et al. *At Risk: Natural Hazards, People's Vulnerability, and Disasters.* London: Routledge, 2003, p. 4.

[23] Ibid., p. 11.

[24] Ibid., p. 61.

[25] Ibid., p. 12.

Figure 2: Pressure and Release Model

Source: Wisner et al. *At Risk*. London: Routledge, 2003

Disasters, therefore, differentially impact social groups based on their pre-existing inequities. This warrants the need for an equity focus and the need to monitor inequities real-time in a disaster response.

2.3. Real-time equity monitoring: A humanitarian concept

Real-time equity monitoring is the process of ensuring that vulnerable groups have equal access to entitlements as per their specific needs, as and when those need arise or are observed.

> Real-time equity monitoring ensures that disaster response for marginalized communities is timely, inclusive, appropriate, and is done with dignity. Inherent in the concept of equity monitoring is a degree of 'humanness.'

While programmatic monitoring studies how well an intervention is achieving its desired goals, equity monitoring is concerned with how groups of people are faring and how their wellbeing can be maximised.

This humanitarian aspect of equity monitoring is based on globally accepted minimum standards for disaster response set by organisations such as Sphere. It is also based on the fact that disaster response is about urgency, and often constitutes the need of the hour. Vulnerable groups such as women and children cannot wait for long to receive their basic life-saving relief entitlements. It is important to recognise this aspect of humanness in equity monitoring. It is equally vital to note that disaster response is not an act of charity, but a legal right to which every human is entitled. Equity monitoring, therefore, must ensure that those affected can access this right with dignity and respect in keeping with Article 1 of the Universal Declaration of Human Rights.[26, 27]

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[26] Ibid., 8.

[27] Article 1 of the Universal Declaration of Human Rights states: "All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood."

While the correction of such entrenched developmental inequities is a complex task, equity monitoring can certainly build the foundation to addressing it. Thus, equity monitoring should not simply restore populations to their pre-disaster states, but enable them to *build back better* in the wake of disasters.

In the long-term, equity monitoring should seek to strengthen and enhance the control of vulnerable groups over their varied assets to address the root causes of vulnerability and contribute to the complex process of rectifying developmental inequities.

Social Equity and Disaster Response: A Policy Overview

This section analyses existing disaster management policies and how they address needs of the vulnerable during disasters. Key policies include: National Disaster Management Act 2005, National Policy on Disaster Management 2009, Calamity Relief Fund (CRF) & National Calamity Contingency Fund (NCCF), Hyogo Framework for Action, Sphere and Humanitarian Accountability Partnership (HAP).

3.1. The National Disaster Management Act 2005

Enacted in 2005, the Act focuses on a proactive prevention, mitigation, and preparedness-driven approach in order to conserve developmental gains and minimise loss of life, livelihood and property[28]. The table below highlights clauses from the Act and analyses how issues of equity could be better addressed.

Table 1: NDM Act Analysis

NDM Act Intentions for Equity & Monitoring	Systematic Analysis
• s.(12) "The National Authority shall recommend guidelines for the minimum standards of relief to be provided to persons affected by disaster, which shall include, (ii) the special provisions to be made for widows and orphans. (iii) ex gratia assistance on account of loss of life and assistance on account of damage to houses and for restoration of means of livelihood".	• s. 12(ii) does not include any special provisions for other vulnerable groups like children, elderly, pregnant women, and people with mental and physical disabilities, who are often left out or the last to receive relief because they lack knowledge, mobility and resources. • s.12(iii)The criteria for housing assistance can be a combination of damage and need based assessments via a participatory process, rather than just being damage based. Damage based assessments inherently leave out the homeless, illegal tenants and people who do not have Identification documents to show proof of ownership of their homes. For example, during the 2001 Gujarat earthquake, inequities were observed in the compensation for damage to houses. The

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[28] Yojana Magazine 2008

NDM Act Intentions for Equity & Monitoring	Systematic Analysis
	populations that lived in small hutments were given Rs. 5,000 while, those staying in large pucca houses were given Rs. 90,000.
• s.(61)-"Prohibition against discrimination. -While providing compensation and relief to the victims of disaster, there shall be no discrimination on the ground of sex, caste, community, descent or religion."	• Prohibition against discrimination under s. 61 in the miscellaneous chapter can be made more enforceable and discrimination should be monitored by specific authorities preferably at the district level who is working more closely with the affected communities.
• The district Authority in response to any disaster may s.34(l) - "ensure that the non-governmental organisations carry out their activities in an equitable and non-discriminatory manner."	• s.34(l) can be broadened by rewording it as "ensure that the government officials and non-governmental organisations carry out their activities in an equitable and non-discriminatory manner." This is significant as many reports in the past disasters have captured the phenomenon of discrimination by government officials.
• s.(60) – "Cognizance of offences.-No court shall take cognizance of an offence under this Act except on a complaint made by- (a) National, State and district authorities or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; (b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other Authority or officer authorised as aforesaid."	• s. 60 of the act makes the provisions on liability and accountability challenging which act as more of a hindrance in fixing corruption that occurs in the system, rather than holding people accountable for any corruption and discrimination. • Limited Role of Local Bodies: The Disaster Management Act of India has provided limited functions to the Local Authority, which includes, Panchayati Raj Institutions, Urban Local Bodies, Zila Parishad, Town Planning Authority, District Board, and Cantonment Board. As per the Act, local Bodies will functions as per the directions of District Authority and will be responsible for carrying out relief, rehabilitation and

Annexure 1 presents a more detailed analysis of the stakeholders that have the potential to monitor issues of equity within the existing framework of disaster management in India.

3.2. National Policy on Disaster Management 2009

The National Policy on Disaster Management of 2009 appears to be more progressive compared to the National Disaster Management (NDM) Act 2005. The policy shows sensitivity towards various vulnerable groups. It hopes to utilise the capacities of various stakeholders efficiently during the different phases of the disaster.

a. Addressing equity issues

- The National Policy on Disaster Management passed in 2009, recognises that the economically and socially weaker segments of the population are worst affected by disasters. Vulnerable groups that are highlighted in the act are women, orphans, elderly and differently abled persons[29].

- It directs the State Disaster Relief Fund (SDRF) to include women in order to look into the special needs of women and children.

- It recognises efforts of States and Union Territories (UT) that elicit community participation and ensure local ownership, address local needs, and promote volunteerism. However, since participation of women and youth in the communities is still minimal, the policy encourages these groups to get involved in decision making committees and action groups that manage disasters.

- The policy focuses on psycho- social care as a vital aspect of disaster response, further demonstrating its sensitivity towards vulnerable groups.

- It includes safety and security measures for affected people and touches upon how the government has intentions of preparing guidelines to manage the donation received in cash and ensures transparency and accountability in their relief efforts.

- The policy takes into account the need for constructing eco-friendly, multi-use sanitary facilities essential to disaster relief.

- The chapter on Relief and Rehabilitation expands upon the perceived notions of relief as gratuitous assistance rather than being a right of affected individuals.

b. Addressing monitoring

- The section on compliance regime states the importance of monitoring, verification and compliance arrangements at both the state and national levels.

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[29] Government of India, Ministry of Home affairs, National Policy on Disaster Management 2009

3.3. Calamity Relief Fund (CRF) & National Calamity Contingency Fund (NCCF)

Depending on their needs, States submit memoranda to the Government of India (GoI) for additional central assistance under National Calamity Contingency Fund (NCCF) to manage disaster-triggered emergencies. While there is little scope for using a scientific damage assessment technique in preparing these memorandums to GoI, the States manage to get relief assistance from GoI usually for damages in housing, agriculture and infrastructure sectors, along with ex-gratia payments for lives lost.

a. Addressing equity issues:
- Both pre-existing and newly created inequities are addressed by providing assistance to the following groups of people in order to revive their economies and livelihoods[30]: families of deceased persons, those severely injured or handicapped, improverished children, small and marginal farmers, agricultural labourers, fisherman, and artisans.

- There is provision for availing fodder for large and small animals to revitalise animal husbandry.

- In the case of droughts, relief provision lasts from 60 to 90 days, compared to other disasters, in which relief only lasts for up to 30 days.

b. Addressing monitoring:
There is no mention of monitoring in these frameworks.

c. Scope for inclusion:

> - 10 (a) "Assistance for **Fully Damaged Houses**
>   Pucca House- Rs. 35,000/-per house
>   Katcha House- Rs.10,000/-per house".

Housing assistance is damage rather than needs based, dismissing the important fact that those with bigger houses have a greater chance of survival due to larger social and economic capital compared to those with minimal housing assets. As mentioned earlier, damage based assessment inherently excludes the homeless populations.

- It does not address the needs of women whose husbands migrate to other areas for employment.

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[30] CRF and NCCF Guidelines. Government of India. Ministry of Home Affairs. Disaster Management - I Division. 2007.

3.4. Hyogo framework

a. Addressing Equity Issues:
The Hyogo framework is a policy torchbearer for its emphasis on equity and equity monitoring in disaster responses. It is a practical guide to build disaster resilience for vulnerable communities. Moreover, it urges nations to formulate appropriate legislations to ensure equity.

Hyogo Framework Guidelines
- **Planning**: "Cultural diversity, age, and vulnerable groups should be taken into account when planning for disaster risk reduction".
- **Education and Training**: "Ensure equal access to appropriate training and educational opportunities for women and vulnerable constituencies; promote gender and cultural sensitivity training as integral components of education and training for disaster risk reduction".
- **Social and Economic Development Practices**: "Strengthen the implementation of social safety-net mechanisms to assist the poor, the elderly and the disabled, and other populations affected by disasters. Enhance recovery schemes including psycho-social training programmes in order to mitigate the psychological damage of vulnerable populations, particularly children, in the aftermath of disasters".

b. Addressing monitoring:
The framework recognises the need for a strong monitoring system in disaster response. It considers coordination and information dissemination of disaggregated data amongst all stakeholders as core tenets of such a monitoring system. It also emphasises the capacity building of communities, youth, and volunteers as central to the monitoring of vulnerabilities.

3.5. The Sphere Project

The Sphere document is an embodiment of principles of impartiality and non-discrimination. The Sphere guidelines articulate minimum standards of a humanitarian response with a rights based approach.

a. Addressing equity issues:
The core belief of the project is that those affected by the disaster have a right to life and assistance with dignity. Equity issues of children, women, people living with HIV and AIDS, the elderly, and people with mental and physical disabilities are the main focus of the Sphere project which advocates the following:

- **Promotes data collection -**"Detailed disaggregation is rarely possible initially but is of critical importance to identify the different needs and rights of children and adults of all ages."

- **Emphasis on information sharing and coordination -** "Information can reduce anxiety and is an essential foundation of community responsibility and ownership."

- **Ensuring safety and security: "Women and girls can be at particular risk -** Humanitarian agencies should particularly consider measures that reduce possible risks, including trafficking, prostitution, rape or domestic violence.

- **Activities for children:** Where appropriate, communities should be encour-aged to organize structured, supportive educational and protective activi-ties for children through non-formal means such as child-friendly spaces. Community protection mechanisms should include self-help activities that promote psychosocial well-being."

b. Addressing monitoring:

The guidelines state that "Monitoring information guides, project revisions, verifies targeting criteria and whether aid is reaching the people intended. It enables decision-makers to respond to community feedback and identify emerging problems and trends."Sphere takes the position that Humanitarian agencies should take on the responsibility to monitor and report when rights have been violated by modes of action including diplomacy, lobbying and public advocacy. This is vital to ensuring safety and protection of all affected populations.

3.6. HAP (Humanitarian Accountability Partnership)

The HAP Standard in Accountability and Quality Management is a practical and measurable tool that aims to strengthen accountability towards those affected by crisis situations and to facilitate improved performance within the humanitarian sector[31]. It states that accountability in humanitarian situations means that the power to help in situations of conflict and disaster is exercised responsibly. To ensure accountability, HAP binds its signatories to abide by its Standards, some of which are critical to equity monitoring in disasters. The HAP standards that pertain to monitoring of equity in disaster response are as follows:

- **Impartiality** refers to providing humanitarian assistance in proportion to need, and giving priority to the most urgent needs, without discrimination (including that based upon gender, age, race, disability, ethnic background, nationality or political, religious, cultural or organisational affiliation).

- **Participation and informed consent** entails listening and responding to feedback from crisis-affected people when planning, implementing, monitoring and evaluating programmes, and ensuring that affected communities understand and agree with the proposed humanitarian actions and are aware of their implications.

- **Offering resolution** enables affected communities to raise their complaints and grievances and respond appropriately.

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[31]http://www.globalhand.org/en/browse/partnering/3/all/organisation/23481

◆ **Transparency** encompasses honest and open communication when sharing information.

Thus, HAP enables organisations to develop quality programmes that meet people's needs, and reduces the possibility of mistakes, abuse and corruption[32].

3.7. Conclusion

National legislation on disaster management can be viewed as a vertical plane, which lays down the bureaucratic hierarchy and is responsible for dealing with disasters. The national policy instruments, as analysed above, are sensitive to the concerns of vulnerable groups. The cutting edge in the hierarchy lies at the district, block and village level to implement these intentions of equity. However, the present acts and policies do not mention the role played by these local bodies and the affected communities in preparedness and monitoring phases. Efficient implementation by these local bodies requires devolution of greater decision-making powers to local bodies in all phases of disaster cycle. The report on implementation of Hyogo Framework in India also recognises the same:

"Devolution of power and financial resources to the local authorities has been a major challenge to ensure decentralised planning and development in India. State Governments need to delegate more power and resources to the local authorities. In order to ensure greater involvement of local authorities in disaster risk reduction there is a need to build the capacity of the local authorities to integrate disaster risk reduction measures into the local area development plans."[33]

Ensuring greater involvement of local authorities especially in disaster risk reduction measures will build the capacities of these bodies to perform the role of monitoring in preparedness phase.

The above steps will also enhance the chances of local bodies assuming monitoring roles in other phases of disaster management including real-time monitoring.

On the horizontal plane, opportunities for implementing monitoring exist within the international frameworks such as Hyogo Framework for Action that set globally accepted directions for disaster risk reduction. India is a signatory to the framework, which reflects that GoI has the intention of integrating perspectives of gender, cultural diversity, age and vulnerability in disaster risk management processes. However, a lot still remains to be done. A recent report on Status of Implementation of the Hyogo Framework for Action shows that "there is a need to strengthen the implementation mechanism and enforcement of the legal provisions at all levels of government … to address issues of equity."[34]

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[32] The 2010 HAP Standard in Accountability and Quality Management, HAP International.

[33] National Progress Report on the implementation of Hyogo Framework for Action – (2009-2011), India.

[34] Ibid.

Case Studies: Analysing Real-time Equity Monitoring in India

This section focuses on real-time equity monitoring mechanisms that emerged in responses to natural disasters in Rajasthan, Bihar and Tamil Nadu in the last decade, to understand their structures, functions, challenges, successes and limitations.

Box 5: About Unnati

Unnati, a non-profit organisation, has been providing educational and capacity building support in Gujarat since 1990, and in Rajasthan since 1999[35]. Today, Unnati plays a proactive role in development education, and focuses on research, documentation and advocacy.

4.1. Experiences from Rajasthan: 2009 drought

Box 6: Background on the 2009 Drought

In the last 100 years, Rajasthan has faced over 84 droughts affecting all districts of the state, and causing sharp depletion of ground water, and damage to the livelihood and animal husbandry sectors. Appendix 2 presents a map of districts and the recurrence period of droughts.

In 2009, India faced its worst drought in the last two decades. The Government of Rajasthan declared drought in 26 of 33 districts. This drought affected 32,833 villages across the state. Compared to a 25 per cent deficit in rainfall across India, Rajasthan recorded a 36 per cent deficit. The severity of the drought was also exacerbated because neighbouring states of Gujarat, Haryana, and Punjab, were also drought-affected, and could not help Rajasthan with fodder or grains.
Sources: Reuters[36], the Hindu,[37]

Unnati, a reputed NGO (Box 5) set up an effective monitoring system for the Rajasthan drought (Box 6). The system focused on developing local capacities to engender a community-driven monitoring and grievance resolution mechanism. In addition to ensuring that vulnerable groups had access to relief, it stimulated a culture of community participation, and strengthened the

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[35] UNNATI. *Organisation for Development Education*. Unnati. http://www.unnati.org/ (Accessed 22 July 2011).

[36] http://in.reuters.com/article/2009/08/26/idINIndia-41993520090826

[37] http://www.thehindu.com/news/states/other-states/article14688.ece

community's relationship with the Government. It also increased their understanding of equity and sensitivity to vulnerability, enabling them to identify the most vulnerable from amongst themselves. The key enablers of the process were active leadership, stakeholder relationships, environment of accountability, multi-stakeholder collaboration, strong and functional Dalit Samitis[38], and awareness and transparency, which helped address the acute needs of marginalised populations.

> *"People had already made investments in agriculture before knowing about the onset of droughts in August. This further indebted the communities."*
>
> Kirit Parmar, Unnati

b. Vulnerable groups

Social groups that are most vulnerable to the perennial drought include the SC/ST population, women and girls. Given that 75% of Rajasthan's population is rural and lives in remote and scattered *dhanis* (hamlets), these groups are forced to travel long distances to fetch water.[39] Moreover, Dalits are often denied access to communal water points due to social norms of untouchability.[40] Table 2 below highlights the underlying causes, dynamic pressures and unsafe conditions that escalate their vulnerabilities.

Table 2: Progression of Vulnerability in Rajasthan's Drought

Hazard Type	Elements at risk (Disaster)	Unsafe conditions	Dynamic pressures	Underlying Root causes
Recurrent Drought (47% of the years between 1901-2002 were drought years)[a]	• Drying up of reservoirs, lakes underground water levels[a] • Asset loss - crop, livestock, productive capital damaged as a direct consequence of water shortage or related power cuts[a]	• Largest Indian state with only 1% of total water resources[b] • Low & erratic rainfall, frequent dry spells[a] • Food insecurity (availability, access and utilization)[a] • Trafficking of women for prostitution on	• A high rate of population growth- 28.33% in last decade[d] • Gender inequities in work burden -fetching drinking water from distant places, collecting firewood, etc. Out-migration of male labour force leaves women,	• Highest cost of development per capita due to aridity and very low density of population[j] • A poor resource base for economic development[k] • Lack of objective definition and assessment of drought & its impacts leading to

[38] Samitis are associations of Dalits set up to organise political activities and represent their concerns.

[39] http://mmbarajasthan.org/docs/annual-report-09-10.pdf

[40] IDSN, *Cast An Eye on the Dalits of India*. IDSN, Denmark, p. 4.

Hazard Type	Elements at risk (Disaster)	Unsafe conditions	Dynamic pressures	Underlying Root causes
	• Loss of human lives due to deteriorating health from food & water shortage[a] • Livelihoods especially agro-based[a]	rise, involving many denotified tribes[c]• 15% population below poverty line[b] • 25 per cent of the population is exposed to high levels of fluorides, nitrates and salinity in drinking water[b]• Second highest child labour in country in mining and carpet industry[b] • 50,000 female foeticide annually[b]	children & elderly in difficult situations[e] • 5 lakh bonded labourers. 95% of these are Dalits and tribals[f] • Mortality and distress sale of livestock, worsening the livelihoods[g] • Depletion of ground water as 90% of rural needs met from ground water[h] • 70% to 75% of Dalit families are female headed[i] • High crime rates against women and Dalits by upper caste[c]	inaction by policy makers[a] • Lack of sensitivity towards livestock issues; lack of a fodder bank[l] • Inefficient data generation agencies[l] • Varying agendas of political parties at State and Centre[l] • Insufficient attempts by state government to understand the issue of trafficking[b] • Child marriage: more than 30% girls get married by age 13 and 50% of those become mothers by age 15[b]

a. M.S Rathore, State Level Analysis of drought policies and impacts in Rajasthan, India
b. Rajasthan state environment policy 2010, Govt. of Bihar
c. PAIRVI & DCNC, Status of Human Rights in Rajasthan; "17% women in Delhi brothels belong to Rajasthan and 27 out of 32 districts in the State are identified as intensive brothel based and unorganized commercial sexual activity hubs".
d. Devendra Kothari, PHD., Population Projections for rajasthan and districts. 2002-11.
e. http://www.projectsahyog.org/d_natural.htm
f. Rajasthan Patrika, 4march 2005.
g. http://www.projectsahyog.org/d_natural.htm
h. V. Ratna Reddy, Water Sector Performance under scarcity conditions , A case study of Rajasthan India
i. SJ Aloysius Irudayam and M,Jayshree, Dalits in the World of Globalisation, NCDHR, 2004.
j. www.planning.rajasthan.gov.in/memorandum/Memorandum_0506.pdf
k. www.rajrelief.nic.in/dmdata/.../Manual%2030.6.06.doc
l. Rajendran.t, K. Palanisami "Drought in India- Causes, Effects and Measures

c. Monitoring efforts by Unnati in Rajasthan

Unnati[41] pursued an integrationist and collaborative approach to real-time equity monitoring. The model engendered community monitoring based on the '*conscientization*'[42] of various stakeholders towards equity issues in disaster response, and aimed at building the awareness of communities and linking them to Government relief provisions.

Figure 3: Community Self-Monitoring in Rajasthan
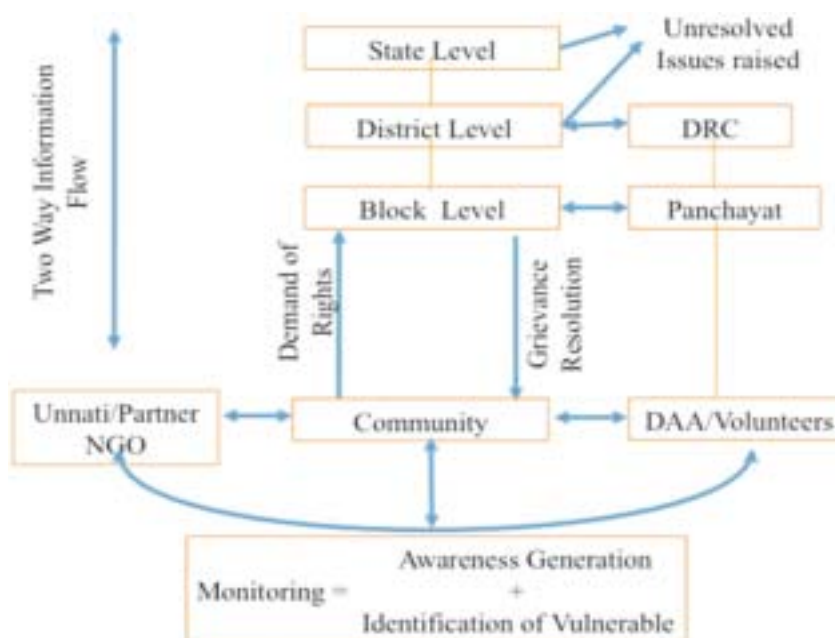
Unnati's monitoring strategy was piloted during January to June 2010 in nine blocks, with each block containing ten pre-identified villages. In total, 85 villages were covered with the help of partner NGOs.

Monitoring was conducted in two phases. The first phase entailed **awareness generation**. Carried out in December 2010, this phase consisted of community workshops wherein Government arrangements for drought support were shared. Villages were chosen for monitoring if they experienced or faced: water problems, discrimination, problems of fodder and employment, and issues in streamlining food protection schemes.

During the second phase, Unnati appointed two paid volunteers to cover ten villages and facilitate the community members to **collect data on issues and difficulties faced during the drought**. While the volunteers were paid, the community members did not receive any payment. Even so, about 45 persons including Dalits and non-Dalits from the village would respond and

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[41]UNNATI. *Organisation for Development Education*. Unnati. http://www.unnati.org/ (Accessed 22 July 2011).

[42]Paulo Freire in the '*Pedagogy of the oppressed*' (1968) explained conscientisation as a process of critical consciousness and socio-political educative tool that engages learners in questioning their historical and social situation and exercising personal responsibility for their actions.

participate in these community meetings facilitated by the volunteers. These individuals were also part of village-level committees called the Dalit Adhikar Abhiyan Committees (DAAC).Following data collection, the Dalit Resource Centre (DRC) would meet once a month to share the gathered data from all villages, and create a consolidated report. Based on the report findings, the DAAC then advocated the issues with each village panchayat. Only the unresolved issues were taken to district and state level for resolution.

Box 7:Monthly Monitoring Timeline Followed during January-June 2010.

1st-19th: Volunteers generated awareness and built rapport with stakeholders. They also grasped problems faced by the communities.

20th-25th: Volunteers collected data on Government services accessed by community.

26th- 28th: Volunteers compiled data.

29th: Meeting at Unnati (involving volunteers and DRC members) to share findings.

d. Wealth ranking

A vital component of the monitoring system was the **process of social mapping and wealth ranking,** whereby nearly 60 villagers identified the most vulnerable people in the village. For example, from among120 poor families in Ramdeonagar village, 13 households headed by widows, 10 households by those with long-term illnesses, and two other households were identified as vulnerable households.

Their vulnerability was determined on the basis of:

◆ **Income source:** Whether households had a source of income, such as land and crops,

◆ **Accessibility:** Whether households could access the service delivery points, and

◆ **Opportunity to earn income:** Whether households could earn money from external sources.

The table below highlights how monitoring provided access to various services to the vulnerable groups.

Table 3: Government Services Ensured through Monitoring

Government Relief Services	Monitoring Process	Outcomes/ Achievements
PDS Ration Shops	Unnati monitored the timeliness, quality and prices of the available ration. The issue of faulty ration shop dealers was taken to the block level.	• Awareness about the Rs. 2 per kg ration. • 395 families were linked with Annapurna schemes. • In Fatehsagar village, the government appointed an official to monitor and ensure PDS ration being given to those in need from the 15th to 21st of each month. • In case the ration shop dealer didn't sell goods to those in need, the official would ensure access.
Midday Meal	The village committees received complains about the forging of student attendance by school teachers for misappropriating the mid-day meals under their names.	Complaints of discrimination against students while serving meals were raised with higher school authorities.
Aanganwadi	Children and women who were not attending the Aanganwadi were identified.	• 309 children and 82 women were made to join the aanganwadis. • Advocacy for these aanganwadis to open on time was also carried out. • In Fatehsagar village, community monitored mid-day meals through an appointed 'helper' - lady in the village.
Fodder	The Government puts up Fodder depot and animal camps as per the relief code. But, many isolated hamlets do not have access to this. So, the need for fodder depots and animal camps near such villages was advocated.	1718 animals benefited from the animal health camps and 51 fodder depots were initiated.
Water Facility	Sources of water near these villages were identified from which tankers could load water and provide it to the villages.	• 169 water points were identified and 1480 tankers were made available to 8469 families. • Awareness generation on water cleanliness was undertaken.
Employment	Monitoring of NREGA job cards, minimum wage and number of work days was done. Awareness about government relief provision of 10 extra work days to members who have completed 100 days of work was given. Consequently, community members demanded extra work days or the right to unemployment compensation.	• Issues of 26,854 job card holders were represented in government meetings. • 4108 jobs were facilitated under NREGA. • 56 new jobs were initiated in villages with no prior jobs.
Cash dole (Assistance amount of Rs. 600 per month for the most vulnerable)	Wealth ranking was conducted with the community members by the facilitator. The most vulnerable from the community were identified with community participation and nominated for the cash dole benefits.	• 60 families left out during government surveys were identified during the various meeting in the village. • 626 families were linked to the scheme.

Source: Unnati Monitoring Report

e. Sustainability of Unnati's monitoring model

Young leadership: For the community monitoring model to be sustainable, it is vital that the youth of the community are involved in all aspects of monitoring, including vulnerability identification, awareness generation, information exchange, capacity building and communicating grievances to relief providers. In Fatehsagar village, for instance, where the leader (though effective) was a much older man, the continuity and sustainability of the monitoring process was challenged.

Cost Effectiveness: This community monitoring model has the potential of long-term financial sustainability. Run primarily by community members who do not receive payment for their work, the model is cost-effective and thus economically sustainable.

f. Key lessons learnt

Inadequate sensitivity of existing policies to equity issues: The Rajasthan Relief Code only includes drought-time fodder provisions for big animals such as cows, but not for smaller animals such as goats.[43] As a result, Dalits, a majority of whom own goats, are forced to sell them at distressed prices, feed them from their own money, or set them free. This has major implications for vulnerable groups during crises.

Active leadership: The presence of strong and active leadership amongst community members, civil society organisations and Government officials largely facilitated the monitoring process. In several villages, the monitoring system operated based on capacities of young community volunteers. They facilitated discussions, made home visits, and relayed grievances to Government administrators to ensure that vulnerable groups who could not attend the meetings were getting relief. In Fatehsagar village, an elderly man named Dhan ji was the pillar of the ongoing monitoring process. He was part of Unnati's Community Managed Disaster Risk Reduction (CMDRR) training programmes, which built his capacities to address the issues faced by the village. Although he was not the head of the hamlet's twelve-member monitoring committee, his initiatives helped the village receive regular visits by the Auxiliary Nurse Midwife (ANM), a fodder depot within one kilometre, and a water purification camp.

> *"Khud hoshiyar ho jao toh kaam hota hai, nahi to nahi hota hai."*
> *(Only if you are alert will your work get done).*

Awareness and transparency: The community's awareness on entitlements, along with a thrust for community self-monitoring and transparency in service delivery helped build capacities of the community and sensitized them to issues of equity and vulnerability It also minimised corruption and ensured that needs of the vulnerable groups were being met. For example, a

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[43]http://www.tribuneindia.com/2011/20110313/spectrum/main4.htm

water tanker reached the village every week on a fixed day. Upon its delivery, two women and one public representative signed coupons, which were deposited with the executive engineer to avoid any slacking or corruption in the distribution of water. This system resulted in good water management across the state. Box 8 narrates another example of how awareness and transparency checked corruption and ensured that vulnerable groups received their entitlements.

Box 8: Monitoring Addresses Corruption in Cash Doles

In the village of Pokhran, 130 vulnerable families were to be given a cash dole support of Rs. 600 by the Patwari. The Patwari strategically distributed Rs. 400 to each household separately, explaining that Rs. 200 was spent on his conveyance to reach their village. Each household was contented to receive at least Rs. 400 and did not question the Patwari.

When the drought monitoring committees convened, it was revealed that the Patwari had unjustly pocketed Rs. 26,000. In reality, his travel cost would have amounted to only Rs. 1,000. When the committees questioned the Patwari about this sum of money, he apologised and returned the money to each household.

Multi-stakeholder collaboration and relationships: This facilitated the exchange of information between all stakeholders, which ensured that the unmet needs of vulnerable groups were being communicated and met.

* **Teamwork with partner NGOs** enabled Unnati to gain knowledge of the villages and build relationships with communities.

* **Collaboration with DAAC and DRC** played a special role in informing all decisions from a villager's perspective. This was possible only because these Samitis were continuously working against Dalit atrocities, and had developed a strong presence in the communities.

* **Unnati's long-standing relationship with the community** helped create trust and comfort between Unnati and the communities, facilitating real-time equity monitoring. As noted earlier, Unnati has been mobilising marginalised groups and helping them assert their rights for the last fifteen years.

* **Strong rapport with government** enabled Unnati to address many issues without formal reporting to the Government. This enabled issues to be addressed in real-time. For example, if a tanker was missing, community members communicated this to the Sarpanch, who then called the engineer in charge at the Public Health and Engineering Department (PHED) to address the problem. Government also used Unnati's lists of missing provisions and of vulnerable people to quickly resolve unmet needs.

Box 9: Social Equity Audit

Social Equity Audits (SEAs) have been carried out since 2006 in India. SEA is a tool that helps organisations identify excluded groups, such as women, Dalits, and Irulas, and the barriers that keep them out. This information allows the organisations to take the necessary steps towards including these marginalised groups when designing and implementing programmes.

All stakeholders are actively involved throughout the audit from design to implementing solutions. The tool focuses on the content and systematic flaws of the programme that is being implemented rather than on the individuals or organisations implementing it.[44]

SEAs have been quite successful in the past in identifying and correcting gaps in coverage or resources. For instance, among some NGOs following the use of SEAs, the budget proportion allocated to supporting interventions for the excluded rose from 10 percent to 60 percent.[45]

⬥ **Environment of accountability:** The work of civil society organisations like Mazdoor Kissan Shakti Sangathan (MKSS)[46] who advocated for monitoring exercises such as social audits and the Right to Information (RTI) Act 2005, have fostered an environment of accountability in Rajasthan[47].

Social resilience: Community monitoring, especially if conducted consistently throughout the disaster cycle from preparedness to mitigation, builds social resilience and encourages communities to lead deterministic lives, reducing their reliance on the Government.

Homogeneous community: The vulnerability identification process was done smoothly, without conflicts within the community. As the monitoring process was undertaken in villages that consisted primarily of Dalit populations, there was a mutual understanding of exclusion and vulnerabilities. The same process may or may not be possible in more heterogeneous communities where conflicting sectional interests of the population may make the process more challenging.

Cohesive community: Community monitoring could be implemented more easily in a slow-onset disaster like drought which does not displace communities and allows them to remain

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[44] Social Equity Audit Secretariat. An Introduction to Social Equity Audit. Published by NCAS. January 2007.

[45] The Tsunami legacy. Innovations, breakthroughs, and change. Published by the Tsunami Global Lessons Learned Project Steering Committee © 2009 Tsunami Global Lessons Learned Project. P.11.

[46] MKSS,a name made up of Hindi words which mean "the Union Representing the Collective Power of Labourers and Farmers, was founded in 1990 by three social activists in Rajasthan. The organisation has been involved in initiatives to ensure transparency and accountability in the local administration.

[47] World Bank, *Empowerment Case Studies: Mazdoor Kissan Shakti Sangathan*

cohesive unlike rapid-onset disasters which tend to have the opposite effect (of rapid displacement). Community monitoring during floods or tsunamis, in the absence of cohesive pre-existing communities, may require a more robust process of conscientisation of communities and other stakeholders in the preparedness stages.

Priority to community's decisions: The process was free of any influence from the volunteers or Unnati, despite the fact that Unnati sometimes disagreed with decisions of the community. For instance, the community may have deemed a household with six daughters as vulnerable because of a heavy dowry burden, while Unnati would discourage dowry and regard another household more vulnerable for other reasons.

Box 10: Background on the 2008 Floods

On 18 August 2008, a breach in the Kosi embankment near the Indo-Nepal border led to one of the worst floods in the history of Bihar. Following the breach, the river changed course unexpectedly and flooded areas that were not historically flood-prone[48]

The flood affected 18 districts of Bihar, with Supaul, Saharsa, Madhepura, Purnea and Araria being the worst hit (refer to appendix 3 for map). Since most of the affected areas had not experienced floods for several decades, there was little preparedness to respond swiftly, which resulted in a greater loss of life and property.[49]

Government of Bihar reported that a total of 4.84 million people were affected, 387,189 houses were fully damaged, and 262 people had died The Government also reported that nearly one million animals were affected and 20,000 had died. [50]

4.2. Experiences from Bihar: 2008 Kosi floods

During the 2008 Kosi floods in Bihar, vulnerable groups had differential access to life-saving rescue and relief operations. Inspired to address these inequities, Dalit Watch, a network of civil society organisations working for the empowerment of Dalits, established a grassroots equity monitoring system through which it reached out to vulnerable groups, attempted to understand their needs, and conveyed their grievances to Government officials and the media. Key enablers that facilitated the quality, effectiveness and timeliness of Dalit Watch's equity monitoring system include multilateral coordination and collaboration, active leadership, strong communication links and information exchange, and availability of human and financial resources.

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[48] National Dalit Watch, *The Excluded in Relief and Rehabilitation*, National Dalit Watch, p. 2.

[49] Ibid. P.2.

[50] Government of Bihar

a. Vulnerable groups

Groups such as Dalits, STs, religious minorities, women, children, disabled and elderly, were the most affected by the floods[51]. For example, Dalit and Musahars[52] were excluded from the evacuation process of boarding the boats[53], and were even discriminated against in the distribution of relief material[54]. The following table highlights these vulnerabilities by outlining elements at risk, unsafe conditions, dynamic pressures, and the underlying causes.

Table 4: Progression of Vulnerability in Bihar's Kosi Floods

Hazard Type	Elements at risk (Disaster)	Unsafe conditions	Dynamic pressures	Underlying Root causes
Annual Floods	• Home to 56.5% of the flood affected people of India[a] • Damage to houses, roads, agriculture , livestock, irrigation infrastructure[b]	• 16.5% of the total flood affected area of the country is located in Bihar[c] • Kosi River- dangerous and diverging paths. Carries over 81 million tons of silt annually[d] • BPL population of nearly 40 %, highest in the country[e] • High rates of human trafficking due to poverty, floods and proximity to Bangladesh and Nepal[f]	• Only 34% women literate[j] • High population density: 880/ sq. mile[k] • Low literacy: 46.96%[g] • High fertility rate (4.2)[h] • Low coverage of full immunization (33%)[h] • Low level of institutional delivery (23.2%)[h] • Increased vulnerabilities	• Shortage of health services[m]. • Unnecessary building of embankment • Skewed sex ratio (919) and gender discrimination[h] • 58% of women over 19 years are already either mothers or pregnant due to child marriage[h] • Caste concentration and inequality: SC(19%), OBC(59%)[h] • Misuse of public funds, for example in public programmes ensuring food security[o] • Low utilization of GoI funds in both Integrated Child Development Scheme

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[51] Ibid.p.2-4.

[52] Musahars are among the poorest and most marginalized SCs in Bihar. Evidence suggests that Musahars are perhaps the most educationally backward social groups in India (Learning from Practice, Unicef 2010).

[53] Jha, M.K., Raghavan, V. *Disaster in Bihar: A Report from the TISS Assessment Team,* TISS, Mumbai, 2008, p. 11.

[54] Ibid. p 12.

Hazard Type	Elements at risk (Disaster)	Unsafe conditions	Dynamic pressures	Underlying Root causes
		• High unemployment rate of 7.32%[g] • Highest rates of infant mortality: 61/1000 live births[h] • 35% of rural households are in the lowest wealth quintile[h] • Volatile livelihoods - 80 % of the population dependent on monsoon fed agriculture often destroyed by frequent flooding[i] • Children malnourished (58%) and high maternal mortality ratio (371 per 100,000 live births)[h]	of casual laborers generate large outmigration to other states[l]	and National Health Rural Mission[h] • 75 % of the rural poor were landless in 1999 - 2000[i] • Land ceiling act, though enacted to make up for the slack in progress of land reform, led to redistribution of only 1.5 % of cultivable land[h] • Non-diversified livelihoods, dependence on agriculture[l]

Sources:

a.http://www.bgvass.org/flood.hl

b. http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/documents/India_PDNA_GLANCE.pdf. PDNA at a glance, India, Kosi Floods Bihar , Aug 2008

c. Report of the national commission of floods

d. http://timesofindia.indiatimes.com/home/specials/Bihar-devastated-by-Kosi/articleshow/3405938.cms

e.http://planning.bih.nic.in/Ppts/Microsoft%20PowerPoint%20-%20Planning%20Departmet.pdf

f. ARTWAC 2005: 38)- 73 per cent cases of importation of girls are from Bihar

g.http://planning.bih.nic.in/Ppts/Microsoft%20PowerPoint%20-%20Planning%20Departmet.pdf

h. India Fact Sheet and Statistics, World Vision India

i . Status on Livelihood and Employment in Bihar, Population Foundation of India, An IIDS Study.

j. Women, Employment and poverty in Bihar

k. Census of India 2001

l. Development Challenges and Poverty in Bihar, WorldBank Report Bihar- Towards a development strategy.

m. India Fact Sheet and Statistics, Worlds Vision India , - "There is a shortage of 3376 Medical officers and 19945 Auxiliary Nurse Midwife (ANM). The number of PHCs adequately equipped with equipments stands at only 6.2% compared to the national figure of 41.3%. There is also inadequate and erratic availability of essential Drug supplies, ORS packets, weighing scales"

n.http://ssvk.org/koshi/analytical_articles/the_kosi_untamed.pdf.

o. Sheet and Statistics, World Vision India.

Box 11: Introduction to Dalit Watch Network

The Dalit Watch Network was established in the aftermath of the 2007 floods to monitor instances of exclusion of Dalit communities and help them secure their entitlements.

The Network consists of *Bachpan Bachao Andolan, Baarh Sukhad Mukti Abhiyan, Dalit Samanway, Lokshakti Sangathan, Nari Gunjan* and National Campaign for *Dalit* Human Rights, all of which are supported by Praxis – Institute for Participatory Practices.[55]

b. Monitoring by Dalit watch in Bihar

Box 12: Examples of Discrimination faced by Dalits during the Floods

Denial of Access to Rescue Services: Bhandu Rishidev, Radha Devi and Neeraj Sada, belonging to the Musahar community in Saharsa district, were not allowed to access a rescue boat by the *Mukhiya* of the village, and were forced to take refuge on the terrace of the village school for three days. On the fourth day, they left the village and walked for three days to reach safety.

Denial of Entry into Relief Camps: 30-year-old Gita Devi from a Musahar community in Saharsa district waded through floodwaters for two days with her husband and three children to reach a safe site in Sonbarsa village. However, the Sarpanch of the village did not allow them to enter a relief camp run by an NGO. The family had to beg for food in the village to survive.

Differential Access to Food: In a camp in Shankarpur block of Madhepura district, Dalit communities were served only rice and salt, while people from dominant castes were also served vegetables and pulses with rice.

Differential Access to Medical Services: In a camp in Araria district, Gauri Sada, belonging to the Musahar community was denied treatment at the medical camp, and died subsequently.

Denial of Dignity:
- In a camp in Saharsa district, Dalit communities were served food in an open field of a school, while people from dominant castes were served food in the school's corridor.
- A dominant caste person raped a 14-year old Dalit girl in a camp in Narpatganj.

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[55] Dalit Watch *For a Morsel of Life!* P. 7.

The Dalit Watch network began to monitor relief camps that were set up in the wake of the floods, after appraisal teams visiting several camps noticed "glaring inadequacies and shortcomings in the arrangements and processes of dispensing relief."[56] The appraisal visits revealed shortages in food, water and medical services; differentials in access to food and medical services for Dalits, Musahars and others; shortages, and in some cases, denial of rescue services in villages with large Dalit populations; denial of Dalit entry into relief camps; and lack of appropriate measures to address the specific needs, dignity and rights of women, children, and the disabled[57].

Box 12 provides instances of discrimination faced by Dalits during the floods and in the relief camps.

Based on such findings, Dalit Watch embarked on a real-time equity monitoring programme in 204 relief camps in Supaul, Saharsa, Madhepura, Purnea and Araria, with the support of 104 Dalit Watch volunteers. Box 13outlines the monitoring timeline adopted by Dalit Watch.

Box 13: Monitoring Timeline in September 2008

5th-7th: Appraisal team visited several relief camps.

8th: Meeting of network leaders and volunteers in Patna; mobilization of volunteers.

9th: Orientation for 104 volunteers

10th-17th: Monitoring in relief camps; Daily updates released from Dalit Watch Secretariat in Patna.

18th: Debriefing meeting of volunteers; Press conference held in Patna.[58]

c. Monitoring efforts by government of Bihar
While Dalit Watch carried out an independent monitoring programme within the relief camps, the Government of Bihar had established monitoring systems throughout the administrative machinery, particularly at the Panchayat, block, district, and sub-division level. Figure 4 depicts the linkages and information flows in the monitoring systems of Dalit Watch and the Government of Bihar.

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[56] Ibid.

[57] Ibid.

[58]Ibid.

Figure 4: Flow of Information for Equity Monitoring in Bihar
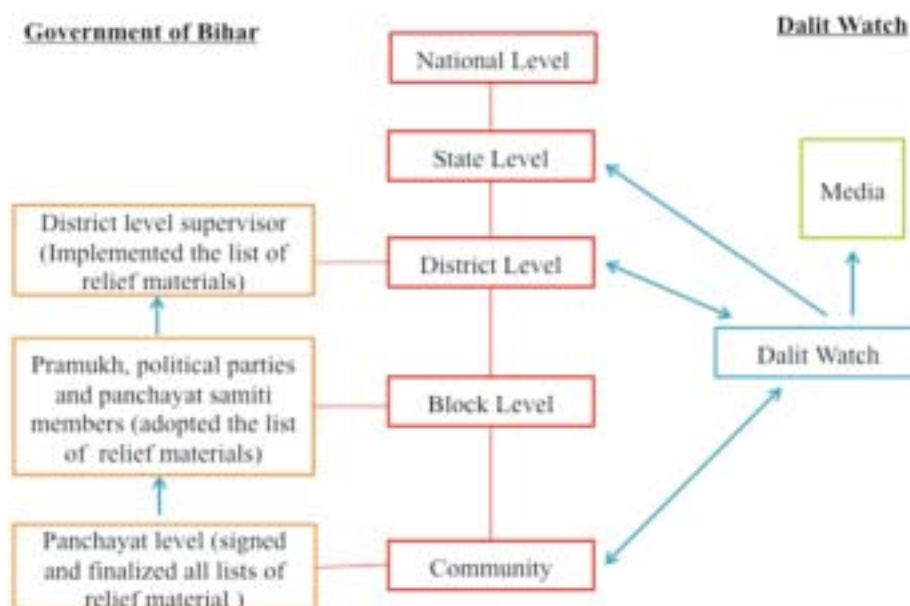
d. Sustainability of Dalit watch's monitoring model

Role of Media: Dalit Watch's monitoring model used media as a tool to voice the concerns of the marginalised. However, after the press conference on September 18th, 2008 where the findings of the monitoring process were shared, the model did not further engage with media to create a long-term rapport and collaboration. The model's sustainability could have been enhanced if Dalit Watch had pursued a longer-term relationship with media.

Volunteer: Central to the monitoring process of Dalit Watch was the volunteer base it attracted from outside the community. The volunteers were unpaid, which helped keep costs to a minimum. Once the initial rescue and relief efforts were over, however, they returned to their original domiciles. Thus, although they generated awareness of the communities during monitoring, they did not contribute to the establishment of a long-term, sustainable monitoring model or structure within the community.

e. Key lessons learnt

Multilateral Collaboration and Coordination: Strong collaboration between and within various stakeholders enabled an uninterrupted flow of information and ensured that resources reached the most vulnerable groups. This collaboration was seen at many levels:

* **District and state level officials of government of Bihar** held weekly meetings to share information with each other on which groups were left out and needed to be reached.[59]

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59 Sanjay Pandey. Interview

- **District and block level officials of government of Bihar** also collaborated, for example, the District Magistrate of Madhepura at the time, sent district level officers to work with officials at the block level, to ensure that needs of the vulnerable were being met.[60]

- **Inter-agency collaboration** via the Inter-Agency Group (IAG) in Bihar ensured collaboration and coordination between all the civil society organisations working in Bihar, and the various levels of the Government.

- **Government of Bihar and the Indian National Army** collaborated to systematically distribute relief materials to remote villages with the use of force, and maintain order and security in the aftermath of the flood.[61]

> *"People become irrational in a crisis situation. A lot of protection is required on the field."*
>
> Atish Chandra, IAS, Former District Magistrate, Madhepura

Awareness and sensitivity: It is important for stakeholders to be sensitive towards vulnerability and issues of inequity to meet the needs of marginalised populations. Central to this is the notion of dignity in that relief is a legal right and not a favour. Relief must be provided with respect for the individual's dignity, and must be done with the understanding that vulnerable populations are equally entitled to relief as are privileged groups.

> *"In a camp, everyone has needs. Who attends to them and resolves their issues? There are very few such sensitive officers."*
>
> Sister Sudha Varghese

Active leadership: The presence and role of active leaders such as Atish Chandra, IAS, Former District Magistrate of Madhepura, and Sister Sudha Varghese of Nari Gunjan, enhanced the quality and effectiveness of the monitoring system. Through their leadership, instances of inequities were identified and addressed real-time. For example, Atish Chandra, IAS, effectively distributed human and physical resources, such as, disaster relief armed forces, food, medical supplies, etcetera to meet the needs of marginalised groups. He was also accessible at all hours of the day to receive and address complaints of affected communities.[62] Sister Sudha Varghese made daily visits to the relief camps, and talked directly with the affected populations. She not only listened to their grievances but also relayed this information to state level Government officials.

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[60] Atish Chandra. Interview

[61] Ibid.

[62] Ibid.

Time criticality: In a rapid onset disaster such as floods, it is vital to act swiftly to respond to grievances. Rescue, relief and rehabilitation are often life-saving, and thus complaints pertaining to these must be addressed without delay, as and when they are observed.

> *"If something has to be done, it has to be done immediately. It cannot wait, because the situation will worsen."*
>
> Atish Chandra

Feedback system: To ensure the efficiency of a real-time equity monitoring system, it is essential that information, ideas, views, comments and concerns are constantly shared between all stakeholders, including affected communities and the Government. This ongoing feedback loop will ensure that specific needs of vulnerable groups are identified and addressed in real-time. It will inject transparency into the system and reduce the scope for corruption.

Strong communication links and information exchange: Meetings were held daily at the district level wherein field and army officers reviewed actions that were taken during the day. They also discussed actions that were not addressed, and how they could be tackled along with tasks to be executed the following day. Computerized lists of relief items distributed by the army were shared at these meetings, and injected transparency into the system. Information was also relayed to the affected communities in the relief camps about the CRF guidelines. This was done effectively by Dalit Watch, who not only distributed pamphlets and posters on the details of the entitlements, but also verbally communicated this information to the flood survivors. This information enabled affected communities to demand their rights. It also brought to light instances of corruption at various levels such as corruption in listing beneficiaries.

> *"Talk to everybody. Do not be an officer. Become one of them and interact with them in a fashion where they will respond and open up to you."*
>
> Atish Chandra

Availability of resources: A plethora of human and financial resources was available in the wake of flood. Large amounts of funds from the state, national and international arena helped jumpstart the reconstruction process. For instance, World Bank loaned $220 million to Bihar for flood recovery projects.[63] The heavy concentration of civil society organisations in Bihar enabled the inflow of human resources in the form of volunteers, who largely facilitated the monitoring process.

Role of Panchayats: Panchayats offer the opportunity to implement monitoring at the grassroots level given their proximity to the community. When educated and made aware about issues of

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[63]http://ibnlive.in.com/news/kosi-floods-wb-grants—220-mn-loan-to-bihar/140244-3.html

vulnerability and inequity, Panchayats can identify vulnerable groups and monitor whether their needs are being met in disaster response.

> *"Panchayats are the nib of the pen with which one can write the story of monitoring."*
>
> Rupesh Kumar, Prabhat Khabar

Media: The extensive media attention to and coverage of the floods highlights the important role that media can play as a monitor by attracting attention to socially and geographically isolated groups. If made aware of its social responsibility, media can facilitate real-time equity monitoring and bolster the efforts of the Government, civil society and communities to ensure that inequities are resolved swiftly.

4.3. Experiences from Tamil Nadu: 2004 Tsunami

The 2004 tsunami in Tamil Nadu shows how inequities were tracked early on in disaster response and efficiently addressed by the monitoring mechanism facilitated by National Coordination and Resource Center (NCRC). Within a week following the tsunami, the NCRC, an institutional mechanism initially started as a collaborative effort of the South Indian Federation of Fishermen Societies (SIFFS) and the Social Need Education and Human Awareness (SNEHA) was activated to lead the relief and recovery efforts. Supported by the district administration and the United Nations Development Programme (UNDP), this institution coordinated and ensured collaboration between the administrators, over 500 NGOs, and local communities.[64]

Box 14: Background on the Tsunami

> On the morning of December 26th 2004, one of the most severe earthquakes experienced in the past five decades hit Sumatra, Indonesia, and resulted in a tsunami that struck 14 countries bordering the Indian Ocean. It affected over 2.79 million people with a death toll of over 230,000. Appendix 4 shows a map highlighting the tsunami-hit areas.
>
> Tamil Nadu, which was the worst hit state in India, witnessed over 8,000 deaths with 984,564 people left in a state of total devastation.[65]

In all phases of the disaster, many groups initially were denied access to relief and recovery along lines of gender, ethnicity, age, class, religion or occupation. NCRC tracked these underlying inequities and helped restore the lives of such vulnerable groups. Through their monitoring

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[64] Vivekanandan, V., Unpublished paper on NCRC. P. 1.

[65] Government of Tamil Nadu, Tiding over Tsunami, Government of Tamil Nadu.2005. www.tn.gov.in/tsunami/damages.htm, accessed on 16/12/05 at 0945 hours IST.

strategies, all stakeholders openly communicated with each other and focused on inequities.[66] Ultimately, key enablers such as a strong governance structure, effective leadership, stakeholder collaboration, steady partnerships among key players, active community participation, and the abundance of resources, ensured that the needs of the most vulnerable groups to a fair degree were met in a timely and equitable manner.

a. Vulnerable groups

As a result of the tsunami, thousands were left homeless and many lost their boats, household assets, crops, agricultural land, and livestock.[67] The fishing communities residing near the coastal lines endured the greatest damage in terms of loss of livelihood, and were deemed one the most vulnerable groups following the disaster[68]. Fortunately, with extensive media coverage of the catastrophe, these fishing communities were identified immediately and initial relief efforts were targeted towards them.[69] Relief efforts however, failed to reach many groups who were not living in coastal areas but had still endured a tremendous amount of damage. These groups included women, children, the elderly, disabled, Dalits, *Irula*[70] Tribes, and *Aravanis,*[71] who already faced inequities during peacetime and had tremendous difficulties in securing relief materials and restoring their livelihoods after the disaster. Women, especially widows, single, pregnant and elderly, faced the worst inequities, ranging from denied access to resources and entitlements to new forms of violence. Inequities were observed against women in the following domains: survival challenges, access to relief, receiving compensation and ex-gratia payments, health, security, and political participation.[72] *Irulas* and *Aravanis* likewise suffered inequities because they had no proof of owing their homes, and therefore were unable to receive compensation and entitlements for their houses, which had either been severely damaged or destroyed.[73] (See Appendix 5 and 6 for further information on the two groups.)

Table 5 highlights the underlying causes, dynamic pressures and unsafe conditions that enhanced the vulnerabilities of the above-mentioned groups.

[66] The Tsunami legacy. Innovations, breakthroughs, and change. Published by the Tsunami Global Lessons Learned Project Steering Committee © 2009 Tsunami Global Lessons Learned Project. P.10.

[67] The State and Civil Society in Disaster Response. An Analysis of the Tamil Nadu Tsunami experience. Tata Institute of Social Science. 2005. P.9.

[68] Ibid. p. 12.

[69] Ibid. p. 35.

[70] Indigenous tribe residing on the outskirts of villages in Northern Tamil Nadu and Southern Andhra Pradesh.

[71] One of the most stigmatised and marginalised groups who are born inter-sex and do not identify themselves as either male or female. The more common term for this group is trans genders.

[72] Pincha, Chaman et al. " Understanding Gender differential impacts of Tsunami & Gender Mainstreaming strategies in Tsunami response in Tamil Nadu, India." Oxfram and Anawim. 2007. P.8.

[73] Ibid. p. 77.

Table 5: Progression of Vulnerability in Tamil Nadu's Tsunami

Hazard Type	Elements at risk (Disaster)	Unsafe conditions	Dynamic pressures	Underlying Root causes
Tsunami	• Loss and damage of assets such as houses, boats, fishing equipment, crops, agricultural land, and livelihoods[a] • Largest number of human causality in tsunami was observed in Tamil Nadu wherein more than 8000 people died[b] • Low mobility in elderly affecting their livelihood[c] • Infrastructure was largely destroyed. For example, 80 hospitals and health centers in the worst hit district were destroyed[d]	• Fisherman residing near the coastal fringe[c] • Unstable livelihoods. For example, marginalised groups such as Irulas who are semi nomadic and often take up different labour jobs to earn a living[e] • No savings and low income levels among marginalised groups such as Irulas[f] • Marginalised groups like Dalits and Irula tribes live in distant areas • Housing materials are easily rotten or damaged/ weak houses • Unable to replace lost assets• Having to engage in dangerous livelihoods (such as ocean fishing in small boats[c]	• No secure land and housing rights for Irula tribes, Dalits and Arivanis[a] • Decline in jobs related to livestock, forestry[g]	• Laws not in favor of Aravanis, for example, Aravanis are not taken into consideration in government schemes that are distributed to either males or females only[h] • Strong bias in services and resource distribution against marginalised groups such as Irula tribes[a] • Hierarchal and patriarchal infrastructures in place causing caste based and gender based inequities for example, among women and Aravanis[f] • Lacking opportunity due to gender discrimination (Aravanis, women)[i] • The state has among the highest unemployment rates in the country. For example, according to a 2005 survey, the National growth rate was 2.39 percent compared to 0.17 percent for Tamil Nadu[i]

Hazard Type	Elements at risk (Disaster)	Unsafe conditions	Dynamic pressures	Underlying Root causes
				• The economy faces critical water scarcity and land degradation issues[j]

b. Monitoring efforts by NCRC in Tamil Nadu

NCRC's monitoring strategy hinged on strong linkages between the district administrator, various NGOs, international non-governmental organisations (INGOs) and the communities. Run primarily by volunteers, it was formed to ensure that marginalised groups were receiving relief to which they were entitled. NCRC provided a base for open dialogue, conversation, consultations, and negotiations between the various stakeholders. It also provided expertise, built a knowledge base for different sectors, and encouraged community participation so that the affected communities could communicate their needs and articulate their perspectives. With the help of Village Information Centers (VICs) established by NCRC, information flowed from the top-down and vice-versa. This enabled the timely flow of information on Government schemes to vulnerable populations, and the articulation of the needs of vulnerable groups to the district administrators.[74] Figure 5 depicts this information flow through various stakeholders.

❖ **The resource and information network (TRINet)** was a liaison formed to allow district administrators to communicate issues with the state level.

❖ **Information Exchange and Communication (IEC) Unit,** a core part of the institution, served as an information centre enabling coordination and transparent communication between the district administrators, NGOs, INGOs and other civil society actors.

a. The State and Civil Society in Disaster Response. An Analysis of the Tamil Nadu Tsunami experience. Tata Institute of Social Science. 2005. P.9,35,27

b. Statistic from the Ministry of Home Affairs status report uplifted from the Tsunami Disaster Psychosocial care for Individuals and Families Report. NIMHANS Banglore, and Care India, New Delhi. January 2005. P. iv.

c. The Tsunami legacy. Innovations, breakthroughs, and change. Published by the Tsunami Global Lessons Learned Project Steering Committee © 2009 Tsunami Global Lessons Learned Project. P.38

d. Save the Children. A Study on Discrimination in the Tsunami Rehabilitation Programme in India. 2006. P.x1

e. Dinesh G. Dutt. "Irula" Irula Project Proposal and site report. Website URL:

f. Pincha, Chaman et al. Understanding Gender differential impacts of Tsunami & Gender Mainstreaming strategies in Tsunami response in Tamil Nadu, India. Oxfram and Anawim. 2007. Pg. 5,7,8-12

g. The Irulas find a homeland. By Freny Manecksha.Infochange News and Features. 2005. Website link: www.infochangeindia.org

h. Pincha, Chaman and Krishna, Hari. Aravanis: Voiceless victims of the tsunami. Edited from Indian Ocean Tsunami Through the Gender Lens: Insights from Tamil Nadu, India, supported by Oxfam America.p. 1-5

i. Government of Tamil Nadu, Employement.2005.PDF p 138. Website http://www.tn.gov.in/dear/10.%20Employment.pdf

j. Problems of Water Scarcity in Tamil Nadu. September 2010. http://www.tamilspider.com/resources/3657-Problem-Water-scarcity-Tamilnadu.aspx

[74] NGO National Coordination and Resource Center. URL link: http://www.ncrc.in/. Website accessed in July 2011.

- **Village facilitation units** linked the IEC and the village information centre.

- **Village information centres** linked the Panchayat in the communities and the Village Facilitation Unit.

- **Sector Support Units (SSU)** worked on the following thematic sectors: health and sanitation, children, shelter, and trauma counselling.

Figure 5: Flow of Information for Equity Monitoring in Tamil Nadu
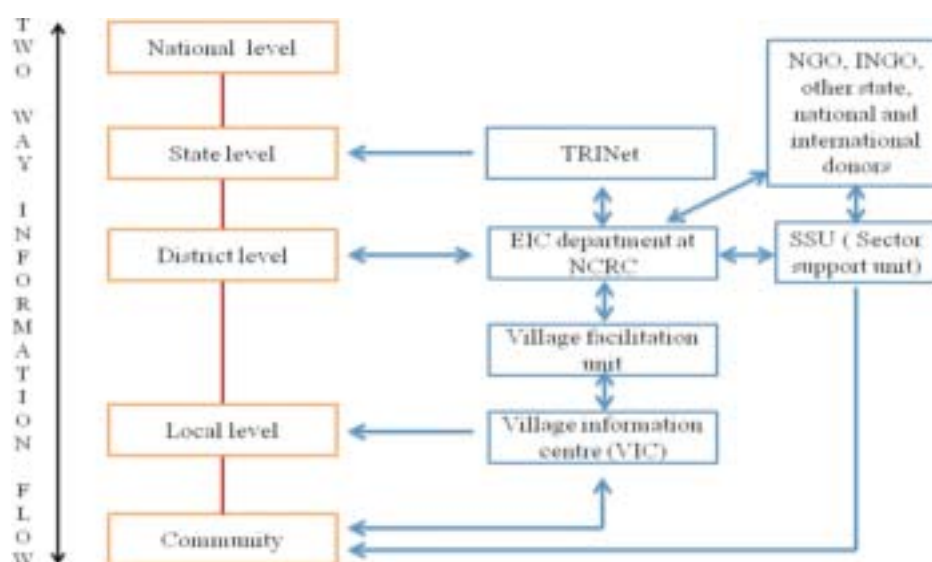
c. Sustainability of NCRC's monitoring model

The sustainability of this monitoring model rests on: strong governance structures, collaboration of stakeholders, including Government, civil society and community, and financial resources that can sustain village information centers (VICs). The VICs are useful institutions that connect communities and relief providers. However, they are costly and require large investments to function.[75] To ensure their success and sustainability, they must be located in centralised accessible locations, be run and owned by the right stakeholders and maintain an advisory group consisting of Panchayats and educated professionals.

d. Key lesson learned

Strong Governance Structure: The sturdy governance structure of Tamil Nadu was integral to the success of equity monitoring. Not only was the Government swift in responding to the tsunami, sending out rescue and relief operations within days of the catastrophe, but it had also allotted funds to appropriate stakeholders, established open relationships with them, and gave them authority to make decisions that would ensure timeliness and equitability of relief efforts.

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[75] Annie George. Interview

This extraordinarily swift and open approach shows how the presence of a strong governance structure can strengthen equity monitoring and ensure timeliness of relief distribution and grievance resolution.

Strong leadership: Leadership roles assumed by agents at various levels of the Government administration, NGOs, INGOs, and Panchayats, was another reason for the success of the monitoring system in Tamil Nadu.[76] The two organisations that formed NCRC (SNEHA and SIFFS), gained the trust and legitimacy of the fishing communities based on their knowledge of community issues. The Panchayats in the fishing communities assumed the responsibility of leading their communities and ensuring that their needs were being conveyed to the administrators. Other team leaders such as those of the VICs effectively used their capacities and experiences in addition to the available equipment and resources. Together, the strong will and dedication of all the leaders enhanced the quality of the monitoring system.

Strong collaboration and multi-layered coordination: Collaboration facilitated the flow of information between stakeholders which comprised of over 400 NGOs, multiple INGOs, media, and the state and national Governments. This strong coordination and collaborative mechanism enabled the systematic distribution and optimal use of resources. It also ensured stakeholder reach to vulnerable groups, and minimised duplicative efforts. The collaborative efforts also resulted in less corruption and more sensitivity towards all vulnerable groups.

"Everyone was working with the system and not against it which made it work."

- Annie George, NCRC

Steady partnerships and relationships: The steady partnership of SNEHA and SIFFS with each other, with other local NGOs, and with the fisherman communities, as well as the partnership between the Tamil Nadu Government and NCRC, was the foundation of a strong network that enabled the success of NCRC's monitoring mechanism. These stakeholder relationships strengthened the monitoring system by preventing competition and allowing them to keep the common goal in mind: to reach out to the most vulnerable groups and ensure their needs were being met. Moreover, since SNEHA and SNIFFS had existing relationships with fishing communities and NGOs that had worked with these communities, they were able to strengthen these relationships and address grievances.

"Monitoring plus solution seeking behavioural strategies led straight to action."

- Annie George, NCRC

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[76] Ibid.

Information exchange and strong communication links: The VICs provided a direct link between affected communities and relief distributors. Their main function was to manage information by conducting assessments, collecting data, and publishing reports and Government orders. Through these centres, information, for instance on Government schemes, was communicated to vulnerable populations to create awareness about their entitlements. The two-way flow of information also allowed community members to convey complaints through elected Panchayats to the district administrators. With VICs, grievances from communities were addressed in a timely fashion, especially when community members came with plausible solutions to their own problems. There was also a close communication link between NGOs and Government. Government policies, orders and requests were being communicated to the NGOs, and suggestions and problems encountered on the field by NGOs were passed on to the Government. This strong two-way feedback loop between all stakeholders ensured that needs of affected communities were taken care of. The information flow ensured transparency and accountability towards the most vulnerable groups.

Availability of resources: The adequacy of financial resources contributed greatly to the achievements and effectives of the monitoring system in Tamil Nadu. In response to the tsunami, large sums of financial support poured in from abroad and from within the country, which strengthened the quality and effectiveness of monitoring. Furthermore, the strong Government infrastructure in place kept corruption at bay, and ensured that the resources were directed towards the most affected groups.

Lessons Learnt

This chapter synthesises the theoretical underpinnings and learnings from the three disaster management cases presented above, to highlight the challenges, potential, and key enablers of a real time social equity monitoring mechanism.

5.1 Challenges of equity monitoring

The key challenges that hinder the implementation of equity monitoring include:

- **Differences in mandates of key stakeholders.** For instance, while the government is mandated to reach the maximum number of people, civil society actors often have donor-driven mandates that require them to work with specific social groups such as children or sectors such as education.

- **Common perceptions of threat associated with monitoring.** Due to the hierarchy established between the monitors and monitored, such threat perceptions create a non-cooperative environment.

- **Perceived reluctance of government and civil society to engage in constructive dialogue**, due to differences in mandates.

- **General perceptions of relief as charity** rather than a lawful right and a planned equitable activity.

- **People's own perceptions of vulnerability**, and limited empowerment to demand their rights.

- **Limited understanding of specific needs of different vulnerable groups** amongst Government officials and different stakeholders involved in the monitoring process.

- **Lack of proper facilitation methods** that are non-threatening and non-demeaning, and lack of sensitivity amongst stakeholders involved in the monitoring process to reach out to the vulnerable.

5.2 Potential of equity monitoring for *building back better*

a. Enhancing the quality of response

Equity monitoring adopts a multi-sectoral lens when identifying and addressing the varied needs of populations, given that people's lives are not divided into sectors but are integrated. Moreover, it ensures that vulnerable groups maintain and enhance their control over assets, and can transform these assets into disaster risk reduction measures and improved coping capacities, thus enhancing the quality of humanitarian response.

b. Outcomes and impact of equity monitoring

Short-term Outcome: Timely Grievance Resolution

The immediate goal of an equity monitoring mechanism is the real-time resolution of grievances and complaints. Central to this are the following aspects:

- **Peacetime inequity resolution:** An effective equity monitoring mechanism can resolve grievances both in times of disaster and development. For example, the mechanism can assist vulnerable groups in obtaining identification documentation where lacking in the preparedness stage.

- **Linkages**: The equity monitoring mechanism can connect the vulnerable with relief providers to ensure that grievances are resolved swiftly. This can be done by leveraging the natural leadership in the community and giving them the responsibility of communicating with relief providers directly as was done in Rajasthan. Alternatively, as seen in Bihar and Tamil Nadu, consortiums and inter-agency groups can coordinate the various stakeholders and connect the vulnerable to relief providers.

- **Advocacy**: Equity monitoring can also collaborate with advocacy groups to close existing policy gaps in the disaster management architecture based on lessons learnt from monitoring. For example, one quintile of grain distribution per household may meet the needs of a household of four persons but not one that consists of eight members. Dalit Watch in Bihar adopted such an advocacy-based approach.

Longer-term impact: restoration of assets

Equity monitoring in the long term, has the potential to ensure that vulnerable groups' access to, and control over, assets is secured and reinstated to enable them to achieve greater wellbeing and *build back better*. Key aspects of this impact include:

- **Protection and strengthening of assets**: The human, social, natural, physical, political and financial capital of vulnerable groups can be protected, secured and enhanced in all stages of the disaster cycle. In Rajasthan, for example, the physical capital of vulnerable

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groups by way of water supply systems was strengthened during the drought, and their access to water was ensured by delivery signature systems to prevent wastage or corruption. Their financial assets of livestock were also protected by way of the fodder depot provisions.

◆ **Effective use of productive resources**: Equity monitoring can highlight instances when the productive resources distributed and assets secured are not used appropriately. For example, it was observed in Tamil Nadu that cash payment made to those who had lost immediate family members was often spent on drinking and gambling instead of food security and income generation activities[77] Upon identification, such behaviours can be addressed and corrected.

◆ **Reinventing identities**: Using disasters as an opportunity to address socio-economic development imbalances and by contributing towards correcting them, equity monitoring can, in the long run, reinvent social identities of vulnerable groups such as women, those of lower (caste, tribal or other) status, disabled etcetera and in doing so, enable them to reconstruct their lives and enhance their wellbeing.

5.3. Key enablers of real-time equity monitoring

Analyses of equity monitoring systems in Rajasthan, Bihar and Tamil Nadu indicate that certain factors or enablers can influence the efficacy of real-time equity monitoring. These comprise of factors that are external to equity monitoring as well as those that are intrinsic to it as seen below:

a. Transparency and awareness:
Transparency and awareness serve to ensure that communities, particularly the most vulnerable within them, are informed and can demand their relief entitlements. Transparency is fostered by the unfettered exchange of information, while awareness and empowerment can be engendered with the help of capacity building.

Information exchange: Experiences reveal that top-down, bottom-up, and lateral information exchange between all stakeholders, including various levels of the Government, community and civil society, is necessary in all stages of the disaster continuum. This information flow leads to transparency as stakeholders gain each other's trust, creating a non-threatening environment, which leads to a better understanding and acceptance of each other's concerns. Transparency also creates accountability and minimises the scope for corruption in disaster response.[78]

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[77]Ibid. 5, p. 31.

[78]ADB, *India Post Tsunami Recovery Programme, Preliminary Damage and Needs Assessment,* Asian Development Bank, New Delhi, 2005, p. 99.

Top-down Information Flow must involve:

- Awareness generation: Vulnerable groups must be informed about disaster-related entitlements, and their eligibility criterion.

- Facilitation: Vulnerable groups must also be informed about the application process for acquiring these entitlements. Deadlocks such as, beneficiaries lacking identification documentation (birth certificate, ration card, proof of home ownership etcetera) and obstructions to access relief, must be addressed.

- Follow-up: The equity monitoring mechanism must maintain continued contact with vulnerable groups to ensure that their filed claims are addressed, and that beneficiaries actually receive their entitlements in the relief and recovery stages.

Bottom-up Information Flow must:

- Facilitate vulnerability information sharing: In the pre-disaster phase, vulnerable groups must share information about their pre-existing social, economic, political and geographic contexts using socio-economic relations mapping, and keeping in mind local contexts and ethos.

- Enable grievance sharing: During and after a disaster, vulnerable populations must be able to convey their grievances over unmet needs along with their feedback on the quantity, quality, appropriateness, and timeliness of relief received to equity monitors.

- Ensure Follow-up: Marginalised populations must continue to maintain contact with monitors and relief providers to ensure that they receive their legal entitlements.

Lateral Information Flow within groups is equally important, and must involve:

- Facilitation of vulnerability information sharing: Communities should openly share vulnerability assessments and mapping internally to ensure transparency and community consensus on identification criteria of the vulnerable populations.

- Sharing of Beneficiary Lists: An equity monitoring system must ensure that relief-related beneficiary lists created by Panchayat Samitis are openly shared with the entire community and especially with the vulnerable groups within the community, to promote transparency and reduce scope for corruption.

b. Capacity building: Building capacities of all stakeholders, particularly Government and the community, is vital to generating awareness on vulnerability and how it can be resolved. Capacity building involves not only technical knowledge of inequity and its manifestations,

but also the attitude to address them and the skills to resolve them in real-time,[79] and lead to improvements in overall wellbeing.

- *Government*: When capacities of officials at the state, district and block levels are built, governance structures are strengthened and officials are sensitised to vulnerability. This increases their accountability and curbs corruption, which in turn facilitate equity monitoring.

- *Community*: When the capacities of communities, particularly vulnerable groups, are built, they are made more aware of their entitlements and eligibility, and become better equipped to demand them. Through capacity building, the skills and potentials of natural community leaders are also developed, who can transform the 'din' of the marginalised into a unified, strong voice.

Responsive governance:

Strong governance, fortified with checks and balances at all levels, is vital for corruption-free, timely and inclusive response and grievance resolution. Such was the case in Tamil Nadu, where disaster relief was well-conducted owing in no small measure to good governance.

Active leadership:

The presence of an active leader with apt capacities, attitude and skills spearheading the process can significantly augment the effectiveness of equity monitoring by giving it direction and purpose. This leadership can either be in the form of an individual at the community level, as was exhibited by Dhan ji in Rajasthan's Fatehsagar village, or a consortium at the civil society level such as IAG in Bihar and NCRC in Tamil Nadu.

Multi-stakeholder collaboration and coordination:

Collaboration and coordination amongst all stakeholders fills stakeholder gaps of expertise and reach, and manages social and financial capital flows, improving the overall quality of response. Moreover, the strength and depth of stakeholder partnerships can affect the quality of equity monitoring. There are several components of these relationships:

- **Long standing relationship of monitors with the community** helps foster a comfort zone based on which equity monitoring and complaint resolution can happen smoothly.

- **Strong relationships between monitors and relief providers** facilitate communication and collaboration, and reduce the potential for conflicts.

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[79]World Bank, *Good Practice Notes: Disaster Risk Reduction,* World Bank, 2008, p. 1.

- **Direct access and links to community** of both the monitors and relief providers helps ensure accuracy of information, and lends credibility to the findings of the monitoring mechanism and the policy changes that it advocates.

Availability of resources:

The availability of resources can significantly influence the quality and effectiveness of an equity monitoring system. Financial resources are necessary to help establish formalised structures to facilitate coordination and monitoring, but they can be garnered only when the required political will and sensitivity exists or is generated. Human resources with appropriate capacities are also integral to a real-time equity monitoring mechanism.

The Way Forward

6.1. Key policy recommendations: Adopting an equity lens

Analysis of national disaster management policies in India such as the NDM Act of 2005 reveal that the Indian Government has the intention of providing an equitable disaster response. Below are certain macro-level recommendations that may enhance the implementation of this intention.

- NDM Act 2005 does recognise the important role that the community and local level authorities (district and block) play in all phases of disaster management. However, there is a clear need to sensitise local bodies to issues of equity, and strengthen their capacities to address these issues proactively, in a timely manner, and with respect for human dignity.

- The discourse of damage-based assessment in various national policy frameworks could be improved by adopting a needs-based assessment through participatory measures that include communities, particularly vulnerable groups.

- The CRF & NCCF guidelines are sensitive towards issues of equity and respond to the needs of various vulnerable groups such as children and disabled persons. However, to make these provisions more enforceable, the Government can adopt monitoring frameworks to be implemented at the district level.

- Micro-level risk and vulnerability analysis in the preparedness phase can help ensure greater efficiency in real-time equity monitoring during disaster response. Such exercises will help in adopting appropriate strategies to integrate disaster risk reduction into ongoing development programmes and plans.

- There should be a compliance system whereby various sectors, such as health, women and child, education, etcetera should conduct an analysis of the vulnerable groups in the communities through their lens and with their expertise, and be answerable to the NDMA and the Prime Minister on disaster risk reduction measures to be taken in those specific sectors.

- NDMA needs to build its capacity to analyse the various sectoral data that the sector agencies collect, in order to strengthen its disaster risk reduction processes.

6.2. Desirable qualities of a real-time equity monitoring mechanism

Based on the experiences of equity monitoring systems in Rajasthan, Bihar and Tamil Nadu, below are five qualities that a real-time equity monitoring system should strive to imbibe.

Neutrality: The perception of neutrality of the mechanism by all stakeholders is vital to its survival and widespread acceptance. This does not mean that the mechanism cannot take a stand on an issue. By definition, equity monitoring targets vulnerable groups and defies the principle of neutrality. Nevertheless, the framework must not be perceived as threatening or partial to any stakeholder and must retain its credibility and impartiality.

Multi-stakeholder participation: Equity monitoring is the duty of every stakeholder. Therefore, equity monitoring warrants the participation of all stakeholders to be facilitated by a coordination mechanism. This mechanism must engage all actors in a collaborative and open dialogue without pre-conceived ideologies, biases or agenda.

Community-driven: For effective real-time equity monitoring and swift resolution of grievances, communities must lead the monitoring mechanism. Making the system demand-driven, rather than supply-centric, will inject accuracy, validity and urgency into the monitoring process, and allow for swift resolution.

Multi-directional purview: Real-time equity monitoring must operate bottom-up, top-down and laterally. As a link between the communities at the grassroots and the Government machinery at the top, an equity monitoring mechanism must simultaneously facilitate the unfettered flow of information, resources and capacities from bottom up, top down and laterally, in order to ensure real-time response and grievance resolution.

Continuity in disaster cycle: Equity monitoring is effective if it is present in all phases of the disaster cycle. Pre-disaster, equity monitoring sensitises stakeholders and helps reduce vulnerabilities of the marginalised. During a disaster, it links communities with relief providers to ensure real-time grievance resolution. In recovery, it corrects development's inequities by securing assets and *'building back better.'*

6.3. Proposed model: Equity monitoring in practice

Analysis of equity monitoring experiences reveal that monitoring must be placed closest to the grassroots-level to enable direct community linkages and information flows to facilitate real-time monitoring of social equity, which can lead to timely grievance resolution and asset restoration.

While the mainstream responsibility of disaster management lies with the disaster management machinery created in the country, the system has a long way to go in terms of positioning equity functions within the machinery to ensure its effectiveness. Under the existing architecture, there appears to be a gap at the local level in the implementation of monitoring. The NDM Act makes provisions for bodies such as the Panchayats and village-level committees to monitor at the local level (see Appendix 1 for further details).[80] However, instances of these bodies being actively engaged in effective monitoring are few and far between. Thus, there is a need to strengthen their capacities and equip them to assume a monitoring role. A potential solution may lie in the partnership of these local bodies with the Village Resource Centres (VCR's) run by the Indian Space Research Organisation (ISRO).[81] ISRO currently partners with various Government agencies to deliver basic services via VRCs (Box 14), and thus, can establish links with local level bodies under the disaster management machinery to offer appropriate disaster-time services.

a. Equity monitoring through ISRO's VRCs

ISRO's VRCs are community-level centres that leverage space technology to provide a gamut of basic information and services to rural populations. Over 500 VRCs currently operate across the country.[82] The VRCs are reported to be heavily community-driven as each community is responsible for providing volunteers and premises in addition to paying for upkeep and electricity.[83] This creates appropriate incentives, fosters community ownership, enhances capacities and leads to the community's development and welfare. Box 15 briefly notes the services VRCs currently offer.

The VRCs can provide the following support to the Panchayats and village-level committees:

◆ **Continuous capacity enhancement**: A continued partnership with VRCs will enable the local bodies to develop their capacities and perform real-time equity monitoring more effectively.

[80.] NDM Act

[81] ISRO, *Space Technology Enabled Village Resource Centre,* ISRO, Bangalore, 2007, p. 2.

[82] ISRO. *Department of Space, Indian Space Research Organisation.* ISRO. http://www.isro.org/scripts/currentprogrammein.aspx. (Accessed 8 July 2011).

[83] MSSRF, *Reaching the Unreached: Community Based Village Knowledge Centres and Village Resource Centres,* MSSRF, Chennai, 2010, p. 12.

Box 15: VRCs – A Single-Window Access to Life Services

VRCs plan to offer the following services:

- **Tele-education** via vocational training to build capacities.
- **Tele-healthcare** focusing on preventive and curative healthcare, offering consultations and creating healthcare awareness.
- **Land and Water Resource** details provided to farmers for better resource use.
- **Interactive Advisory Services** to facilitate interactions between community and experts at knowledge centers on subjects like insecticides and crop insurance.
- **E-Governance** via information and guidance to community on Government schemes for agriculture, poverty elimination, employment, and other basic entitlements.
- **Weather Services** specifically near, medium and long-term forecasts and advisories.[84]
- **Access to Software:** VRCs, with their latest technologies, can provide the local bodies with access to IT and communication networks, thus facilitating direct linkages between entities such as NGOs, government agencies, media and the community.

The above support will enable the local bodies to execute their responsibilities in the manner that was envisioned by the disaster management architecture, and will help secure a well-functioning equity monitoring mechanism.

VRCs (as depicted in Figure 6) offer a promising avenue to apply equity monitoring based on the following **strengths and opportunities:**

- **Proximity to community**: VRCs operate at the village-level and can perform the functions of an equity monitoring mechanism, which require close contact with the community.

- **Use of existing infrastructure**: Infrastructure and technology supporting VRCs has already been established and can be leveraged, thus eliminating the need for new infrastructure.

- **Synergies with existing services**: Many services currently provided by VRCs dovetail with aspects of equity monitoring. For example, the VRCs provide information on Government schemes during normal times or peacetime. These can be expanded to include dissemination of information on Government's disaster-related schemes.

- **Community empowerment**: VRCs offer the opportunity to develop knowledge, leadership and entrepreneurship, and human capital of the community. Moreover, by engaging local volunteers, VRCs contribute to the holistic development of communities.

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[84] ISRO

Nevertheless, VRCs also have **limitations** (Figure 6) that could pose some risks or **threats** to the effective functioning of an equity monitoring mechanism. These include:

◆ **Financial sustainability**: The ability or inability of VRCs to finance their functioning will impact their sustainability. While VRCs can enter into contracts to perform Government work (e.g., census data collection), or provide fee-based services to the community (e.g., STD phone services), these tasks may divert their resources away from prime duties, disrupt the delivery and/or worsen the quality of services.

◆ **Overreliance on technology:** VRCs' service delivery is heavily contingent upon technology, the availability of which may often be disrupted due to power failures. Moreover, ease of use of such technology by rural populations, many of whom are illiterate, must also be considered.

Figure 6: SWOT Analysis of VSCs as Equity Monitoring Structures

◆ **Ensuring service quality**: Quality erosion may occur, especially while providing such a wide range of services in addition to equity monitoring during disasters with limited human, financial and technological resources.

b. Examples of processes for real-time equity monitoring in the disaster cycle

Based on the lessons learnt, Table 6 provides an illustration of specific monitoring tasks that can be performed by government, civil society, the media and the community in a typical disaster cycle in India. It also details who should perform these, and how, in terms of specific methodologies.

Table 6: Examples of Processes for Real-time Equity Monitoring in the Disaster Cycle

What Needs to be Monitored	Who Should Monitor	How Should they Monitor	When Should they Monitor		
			Pre-Disaster	Relief Phase	Rehabilita-tion Phase
Mapping of socio-economic relations, vulnerabilities and resources in communities	State, District and Block Level Government, Civil Society and Community	Participatory methods such as transect walks, social equity audit, FGDs, surveys Interviews, questionnaires, surveys, focus group discussions to check			
Disaster preparedness of vulnerable groups	District and Block Level Government, Civil Society, VRCs and Community	availability of necessary documentation to avail of government schemes, disaster kits etc			
Vulnerable groups' access to, and control over livelihood assets	National, State, and Local Government, Civil Society and Community	Capacity building and awareness generation through education to protect and strengthen vulnerable groups			
Extent of, and access to, relief materials (e.g., grains) and rehabilitation entitlements (e.g., housing compensation)	VRC Monitors	Visit camp sites and affected areas, speak with affected vulnerable communities, surveys, interviews, focus group discussions			
		Engage with relief providers directly and use information on entitlements as support for claims to help communities develop unified voice and demand-driven process			
		Connect communities to appropriate local government officials to ensure timely distribution for excluded groups			
Grievances of unmet relief and rehabilitation needs	Community, VRCs	Verbal exchange of information with monitors and relief providers at VRCs **How Should they Monitor**			

What Needs to be Monitored	Who Should Monitor	How Should they Monitor	When Should they Monitor		
			Pre-Disaster	Relief Phase	Rehabilita-tion Phase
Beneficiary lists	VRCs, Panchayats Samitis, Community	Display lists at communal building such as schools; Oral dissemination at Panchayat meetings to promote transparency and reduce scope for corruption			
		Compare newly created beneficiary lists with pre-disaster vulnerability mapping to avoid exclusion			
		Prepare rehabilitation beneficiary lists early on after disaster by performing damage-based assessments rapidly and maintaining records of these assessments for later use			
Development inequities	National, State, and Local Government, Civil Society, Community	Through targeted schemes that redistribute resources in favor of the marginalized groups; Community awareness generation to reinvent identities and help 'build back better'			
Identify and monitor policy gaps	National, State, and Local Government, Civil Society, Community and Media	Involve media and advocacy groups to draw attention to existing gaps in policies			

6.4. Potential applications of equity monitoring in non-disaster contexts

While the real-time equity monitoring mechanism discussed in this report pertains purely to the context of natural hazards, there is scope for its application in other domains. These include:

- Conflicts, where warring differentially impacts ethnic and religious minorities,
- Urbanisation, where overcrowding differentially affects vulnerable populations,
- Climate change, which affects lower-income countries and communities maximally, and
- Broader development, wherein the bottom of the pyramid often gets excluded.

The above scenarios offer opportunities for further research regarding the positioning, application, and functions of equity monitoring in varied contexts.

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List of Informants

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13. M. Kumaran	Praxis
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24. Sowmyaa Bharadwaj	Praxis
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27. Swapni Shah	Unnati
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30. Vishal Vaswani	Bihar SDMA
31. Yudhisthira Panigrahi	Save the Children India

Annexure I

Scope for equity in existing institutions

S. No.	Key Institutions	Key Responsibilities	Suggestions
1	National Disaster Management Authority	s.2(e)"lay down guidelines to be followed by the different Ministries or Departments of the Government of India for the purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects" s.2(i) "take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with the threatening disaster situation or disaster as it may consider necessary"	These guidelines can prioritize areas that are geographically most isolated, mitigating the disaster effects on most vulnerable population with priority.
		s.2 (g) "lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management"	Guidelines to include trainings on addressing issues of exclusion and equity.
2	NEC (National Executive Committee)	• Coordinating & Monitoring.• Prepare a National Plan • Monitor implementation of National Plan.& plans of the departments.• Monitor implementation of guidelines issued by NDMA.• Monitor implementation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments of the Government at the district level and the local authorities in the district;"	In order to handle equity issues with a priority, representatives from Ministry of Women and Child Development and Ministry of Social Justice and empowerment might be made a part of NEC.
3	National Institute of Disaster Management (NIDM). Controlled by NDMA	• Capacity Development• Training, research, documentation• Development of National Level information base.	• Need for including training on exclusion issues.

S. No.	Key Institutions	Key Responsibilities	Suggestions
4	High Level Committee. Inter-Ministerial Central Teams	• Damage based assessment for providing states assistance from NCCF.	• Need to incorporate methodology which is a combination of needs based and damaged based. As damaged based inherently excludes the ones who do not have tangible assets, but their lives have been damaged in various other ways.
5	Panchayats	It will ensure capacity building of their officers and employees for managing disasters, carry out relief, rehabilitation and reconstruction activities in the affected areas and will prepare DM Plans in consonance with the guidelines of the NDMA, SDMAs and DDMAs.	• Capacity building of Panchayats on equity issues. • Checks and balances to be inculcated as part of the relief distribution and making of beneficiary lists to be
6	Village level Committees for D M	Play a role in monitoring of relief works.	• Representation of Excluded groups on these committees. • Strengthening and capacity building encouraged.• Trained on monitoring and addressing of equity issues to the authorities required.
7	NDRF/SDRF /CPMF's	• Comprising of eight Battalions. • Reserves would be at the disposal of NDRF for enhancing their emergency response capabilities for assisting the State Governments during disaster. • One battalion equivalent Force. • They will also include women members to look after the needs of women and children.	Training to reach the most geographically isolated areas during a disaster. Sensitizing towards needs of various vulnerable groups.
8	NCC/NSS/NYKS	• Youth based organizations to support community based initiatives. • Empower community and generate awareness.	• These youth groups should be trained in monitoring, needs assessment and data compilation.

Annexure II

Map of Rajasthan with recurrence period of drought
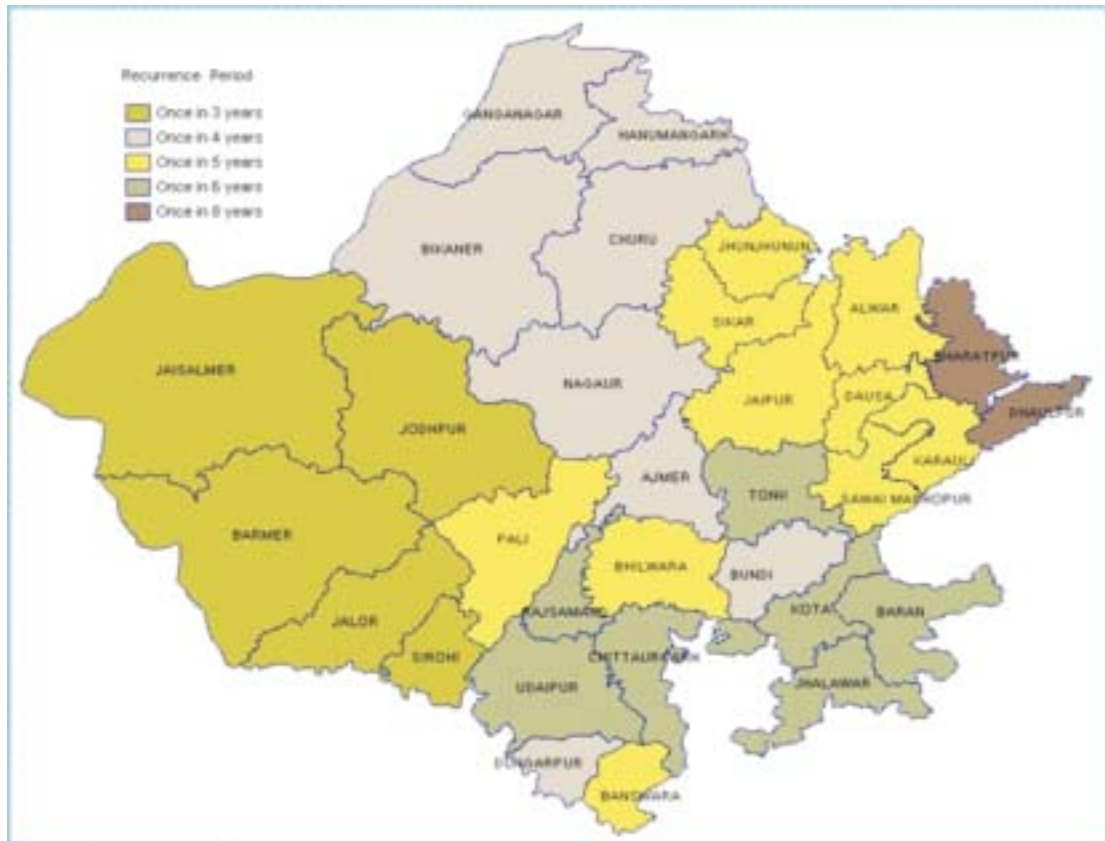
Source: Rajasthan State Disaster Management Authority

Annexure III

Map of Bihar highlighting flood affected areas

Map of Bihar highlighting flood affected areas

Annexure IV

Map of Tamil Nadu highlighting Tsunami-hit Areas

Annexure V

The condition of Irulas pre and during the Tsunami

The Irulas, a semi-nomadic tribe, are the largest STs in Northern Tamil Nadu and Southern Andhra Pradesh.[85] and their current population is 63,800.[86] Irulas were once dependent on forests where they hunted, and sold wood, beeswax and honey. However, the 1976 Forest Protection Bill forced them out of the forests,[87] which led them to take up jobs as labourers in fishing and other sectors to earn an income.[88]

Irula face many inequities, which were exacerbated by the tsunami. For instance, instead of money, Irulas often get rice as payment for their labour, leaving them with no real income or savings. Furthermore, many Irulas lack certificates of ownership of homes and other assets and are unable to benefit from Government schemes that require proof of ownership.[89] Many employers for whom Irulas work are also a major obstacle in their growth, as they do not want to lose the extremely cheaplabour that Irulas provide for them.[90]

The 2004 tsunami affected over 57 Irula villages and displaced over 1800 Irula families. Many Irulas did not receive relief packages because fishing communities would chase them out of the camps using violence.[91] In addition, Panchayats often refused to add Irulas to the lists of affected people, thus depriving them of relief and rehabilitation.[92] The losses of Irulas were "invisible" in the tsunami as they were mainly losses of employment opportunities rather than assets. However, even those who had assets that were destroyed had difficulties in getting them replaced as they lacked ID cards and certificates and could not show any proof of ownership or identity. This was also a challenge in terms of utilising Government schemes such as the public distribution system.[93] Many of the inequities that Irulas faced in the tsunami came into light through the

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[85] The State and Civil Society in Disaster Response. An Analysis of the Tamil Nadu Tsunami experience. Tata Institute of Social Science. 2005. P.27.

[86] The Irula of India. Latest estimate from the World Evangelization Research Center. Copyright 1997. Website link: http://www.prayway.com/unreached/peoplegroups3/1610.html

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[88]Dinesh G. Dutt. "Irula" Irula Project Proposal and site report. Website URL: http://www.ashanet.org/projects/tamilnadu/irulas/Irulas.html

[89]Ibid. p. 3.

[90]Ibid. p. 3.

[91]Ibid. 4.

[92] Ibid. 1.

[93] Ibid. 4.

efforts of civil society organisations and the media. In order to address some of them, the district administrator at the time along with other NGOs worked out a scheme and programmes to provide housing to and restore the lives of Irulas. Education programmes were also introduced to increase their literacy rates.[94] Institutions and organisations such as NCRC, Action Aid, and Save the Children, have set up Balwadis, schools and plantations etcetera to help Irulas restore and enhance their lives.[95]

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[94] The Tsunami legacy. Innovations, breakthroughs, and change. Published by the Tsunami Global Lessons Learned Project Steering Committee © 2009 Tsunami Global Lessons Learned Project. P.41.

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Annexure VI

The condition of Aravanis pre- and post- Tsunami

Aravanis (or transgenders) are one of the most stigmatised and marginalised groups in India.[96] Residing mainly in Tamil Nadu, they are born inter-sex and generally see themselves as neither male nor female.[97] Unofficial census estimates the population of Aravanis in Tamil Nadu currently at 200,000. Policies and laws have continued to exclude Aravanis on the basis of gender and sexual identity. The rejection, discrimination and inequities faced by this group often force them into poverty, and to taking up occupations such as dancing and prostitution.[98] Post tsunami research shows that many Aravanis were not taken into account in preparing the list of affected people eligible for relief packages from the Government. Accordingly, they failed to receive food, clothes, and shelter or public housing entitlements. Furthermore, many faced injuries to their legs from the tsunami and could not go back to dancing which was their primary source of income.[99]

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[96] Pincha, Chaman et al. *Understanding Gender differential impacts of Tsunami & Gender Mainstreaming strategies in Tsunami response in Tamil Nadu, India*. Oxfram and Anawim. 2007. Pg. 5.

[97] Ibid., p. 2.

[98] Pincha, Chaman and Krishna, Hari. Aravanis: Voiceless victims of the tsunami. Edited from *Indian Ocean Tsunami Through the Gender Lens: Insights from Tamil Nadu, India*, supported by Oxfam America. p. 1-5.

[99] Pincha, Chaman et al. *Understanding Gender differential impacts of Tsunami & Gender Mainstreaming strategies in Tsunami response in Tamil Nadu, India*. Oxfram and Anawim. 2007. Pg. 38.

Background Note on Internship Programme

Knowledge Community on Children in India (KCCI) initiative aims to enhance knowledge management and sharing on policies and programmes related to children in India. Conceived as part of KCCI, the objectives of the 2011 Summer Internship Programme were to give young graduate students from across the world the opportunity to gain field-level experience of and exposure to the challenges and issues facing development work in India today.

UNICEF India hosted 40 young interns from Australia, Canada, Colombia, Germany, Greece, India, Korea, United Kingdom, and United States of America to participate in the 2011 Summer Internship Programme. Interns were grouped into teams of four or five and placed in 10 different research institutions across 8 states (Andhra Pradesh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, New Delhi, and Orissa) studying field-level interventions for children from 25 May to 3 August 2011.

Under the supervision of partner research institutions, the interns conducted a combination of desk research and fieldwork, the end result of which were 11 documentations around best practices and lessons learnt aimed at promoting the rights of children and their development. The case studies cover key sectors linked to children and development in India, and address important policy issues for children in the country few being primary education, reproductive child health, empowerment of adolescent girls and water and sanitation.

Another unique feature of this programme was the composition of the research teams comprising interns with mutlidisciplinary academic skills and multicultural backgrounds. Teams were encouraged to pool their skills and knowledge prior to the fieldwork period and devise a work-plan that allowed each team member an equal role in developing the case study. Group work and cooperation were key elements in the production of outputs, and all of this is evident in the interesting and mutlifaceted narratives presented by these case studies on development in India.

The 2011 KCCI Summer Internship Programme culminated in a final workshop, at which all teams of interns presented their case studies for a discussion on broader issues relating to improvements in service delivery for every child in the country. This series of documentations aims to disseminate this research to a wider audience and to provide valuable contributions to KCCI's overall knowledge base.