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1. BACKGROUND

As the DRR and CCA practitioners adopt global frameworks while moving towards building resilience, it is imperative to understand different types of vulnerabilities in the emerging complex scenarios. The year one of the frontline project takes cognizance of the emerging threats, the risks and vulnerabilities of the communities residing in the different geographical area. This, it does, by extracting opinions and ideas from within the communities about the difficulties faced in coping with disasters and the climate change issues in specific and about risks faced at an everyday-level in general. Also, while practitioners define the risks and vulnerabilities, it is also important to know these communities’ definitions and perceptions of risks and the priority actions that they would like to take up for building their resilience. The country report presents the findings of the study across six states where SEEDS have been working. These six states falls under a mix of risks within urban and rural settlements, different climatic zones, varied multiple hazardous zones and different terrains including coastal, river basins, flood plains and formal and informal settlements. The six states included Assam, Bihar, East Delhi, Odisha, Tamil Nadu and Uttarakhand.

The year 1 ended up with the national workshop. The national workshop gave SEEDS the opportunity to bring in eminent stakeholders such as Alliance for Adaptation and Disaster Risk Reduction, Christian Aid, Asian Disaster Reduction and Response Network and CANSA. The purpose of the national workshop was to take into account the emerging threats and barriers to resilience and perpetrate the actions that would help to synchronize with the global frameworks such as Sendai Framework, WHS, Habitat III, Sustainable Development goals and Paris agreement.

1.1. HAZARD PROFILE

India is among the world’s most vulnerable areas to natural hazards, particularly earthquakes, floods, droughts, cyclones, and landslides. The Global Climate Change and Vulnerability Index 2011 ranked India as the second “extreme risk” country in the world after Bangladesh, vulnerable to natural and climate change hazards (Verisk Maplecroft 2011). As per the latest seismic zoning map brought out by the Bureau of Indian Standards (BIS), about 60% of the country is prone to earthquakes of intensity VII or more on the Medvedev-Sponheuer-Karnik (MSK) scale. Over 8% of India’s landmass is susceptible to cyclone hazards and almost 76% of the 7,516 kilometre-long coastline is prone to cyclones and tsunamis. Approximately 68% of the country is drought prone; 12% of the area is susceptible to floods, and approximately 15% of the total area of the country is susceptible to landslides.¹

Disaster risks in India are further compounded by increasing vulnerabilities related to changing demographics and socio-economic conditions, unplanned urbanization, and development within high-risk zones, environmental degradation, climate change, geological hazards, epidemics and pandemics. Clearly, all these contribute to a situation where disasters seriously threaten India’s economy, its population and sustainable development.² The vulnerability maps of India³ are as follows:

¹ Nambiar, M.; EPW, Volume L No 5, 2015
Figure I: Flood hazard map of India
Figure II: Earthquake hazard map of India
Nearly 78% of Indians live in villages, that constitutes the rural population. 22% of the people live in cities and towns, that are pockets of high density. India has a highly diverse topography. Its vastness and its diverse topography makes it highly prone to different disasters in different areas. 199 districts\(^4\) out of a total of 602 districts have been identified as High Risk Disaster Areas. In the North

\(^4\) The smallest administrative unit in the country
there are the Himalayas that are in a zone of high seismic activity. Moreover, these regions are also prone to avalanches, landslides and mudslides. The forests in the Himalayas and the forests in Central India are vulnerable to forest fires that occur in the hot dry Summer months. The western states of Gujarat and Maharashtra, the Northern states of Delhi, Uttaranchal, Himachal Pradesh and the Andaman isles are particularly vulnerable to Earthquakes. (54% of land area) 15% of the land is prone to flooding. In 1998, 38% of the land was flooded. The Northern Plains are washed by gigantic rivers, Ganges and Brahamaputra and their tributaries, that witness annual flooding. Similarly, the rivers of Central India are prone to flooding. Apart from flooding of rivers in monsoons, some areas are prone to flash floods. 91 districts are under Drought prone areas. The eastern coastal belt is vulnerable to periodic cyclones followed by costal flooding. Storms and cloudbursts also occur with regularity in the states of Andhra Pradesh, Orissa, West Bengal and Tamil Nadu. (8% of the total area)

1.2. OVERVIEW OF DRR IN INDIA (STRUCTURE AND MECHANISMS)

Disaster management came to be a matter of policy priority in India in the wake of Latur earthquake in September 1993. The Disaster Management Act came to be in effect from December 2005. The act spells out the devolution of the duties and responsibilities from national to provincial and sub provincial level up to Village cluster levels. It is envisaged that framework suggested would be flexible enough to the paradigm shift in disaster management from post event management to proactive, preventive measures leading to more effective response. Though emphasis of the Act is still primarily on the response to disasters, importance of disaster risk reduction initiatives has been underlined. Under the institutional framework of the DM Act the National Disaster Management Authority (NDMA) at the national level, State Disaster Management Authorities (SDMAs) at state levels and District Disaster Management Authorities (DDMAs) at district levels have been established. The National Platform for DRR has been established through Ministry of Home Affairs to provide impetus to the Disaster Risk Reduction through policy framework. Though the pre-dominant agenda of these institutions is still primarily response driven, there has been a growing concern and recognition of the need to work on reducing disaster risk, particularly at the national level. However, this concern seems to fade out increasingly at the state and district levels.

The 12th five year plan of Government of India (GOI) stresses the need for mainstreaming DRR in the policies and programmes of various schemes. Point 10.70 of the plan document plan states, mainstreaming disaster risk reduction in all major schemes would need to be an important area of focus. The development programmes and policies would need specifically to keep the disaster risk reduction in mind. These would, therefore, have to while, preparing programmes, focus on its impact on increasing disaster risks and how its mitigation is proposed in the concerned schemes. Disaster risk reduction will need to be thus incorporated in all major schemes, specifically the flagship schemes, for reducing the vulnerability in the hazards prone areas of the country. For example, safety of the school buildings, especially in earthquake prone areas has to be ensured.”

While the state mechanisms are largely response oriented, the civil societies have taken up the agenda of Disaster risk Reduction through various initiatives at the national, state and district level. The flagship programs such as National School Safety Programme (NSSP), is one such example, which has been initiated through proactive engagement of the national bodies as well as the national NGOs.

It is now recognized nationally that in order to build resilience of the communities towards disasters, proactive measures such as building institutional capacities, allocation of budgets and training and capacity building of the frontline workers is essential in order to reduce the impact of disasters through risk mitigation, risk reduction and climate change adaptation.
1.3. CONNECTION TO REGIONAL DRR ACTORS

SEEDS is one of the five organizations recognized as a part of National Platform for Disaster Risk Reduction, established by Government of India. SEEDS is also actively involved for policy dialogue and advocacy with the apex bodies such as National Disaster Management Authority and National Institute of Disaster Management in India.  

Nationally SEEDS is part of Alliance for Adaptation and Disaster Risk Reduction (AADRR); which is a network of civil societies working towards disaster risk reduction and climate change adaptation. The network offers a learning platform and builds knowledge and draws out strength from each other for their work related to DRR.

At the regional level, SEEDS chairs Asian Disaster Reduction and Response Network (ADRRN). The network aims to promote coordination, information sharing and collaboration among civil society organizations and other stakeholders for effective and efficient disaster reduction and response in the Asia-Pacific region. Under the ambit of ADRRN, SEEDS has been a part of wide range of projects through Asia, on strengthening and enhancing disaster management capacities of partner and/or associate partners and in turn to their local level partners and communities.

These activities were made possible through the exchange of expertise as well as experience and knowledge sharing among its members. Currently several collaborative projects have been conducted in India, Indonesia, Malaysia, Pakistan, Sri Lanka and so on. One of the major activities of the network is providing learning opportunities through meetings, workshops and training on emerging development issues, disaster reduction and response along with organizational development and management.

Frontline 2015 is based on local risk profiling of individuals and communities, the key pillars of the study being threats, consequences of the threats, actions the communities need to or have taken to mitigate the threat and its consequences and the barriers they face in dealing with the respective actions. The key goals of Frontline are to strengthen community resilience, to develop risk reduction polices and strategies appropriate to the needs of the community and to influence local, national and international development actors in support of the above.

As aforementioned, the Frontline is involved in investigating the threats (hazards), the consequences or impacts (losses and harm) produced by these threats, the possible actions a community or an individual can take to address the consequence or threat, and the barriers or underlying causes perceived locally as beyond their control that limit their ability to take action.

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2. INTRODUCTION

2.1. FRONTLINE IN INDIA

The programme of Actions at the Frontline 2015 has been set with the background of experiences from Views from the Frontlines of 2009, 2011 and 2013. These studies have been fruitful in drawing focus globally to the vast gap currently existing between DRR policies and their implementation across all levels. Risks as perceived by communities are beyond those recognized by HFA 1; those are primarily the risks faced at an everyday-level by individuals and communities and the causes of these risks often act as catalyst for enhancing the risks in turn. The coping of the communities is directly proportional to the resources at their disposal: social, economic, political and cultural. Conclusively, people in the periphery of socio-economic structure are the ones citing greater the risks and their impacts in their lives.

Frontline 2015 project outline provided a guideline at its initiation. The thrust was to identify various climatic, geographical and hazard zones – in order to develop actions that would help build community resilience designed in context specific way. The community consultations in year 1 led to assessments of these communities in the given risk zones and what did they perceive as their risks, threats and barriers. SEEDS chose both urban and rural areas under various zones prone due to natural hazards or it being affected due to its geographical locations such as being on river basins, landslide zones or flood plains.

Frontline India fundamentally would recognize the risks as perceived and how the local actions and policy decisions can be taken to cost effective sustainable solutions. Frontline India is a three year research based advocacy programme which is implemented by SEEDS.

2.2. ORGANIZATION PROFILE (NGO)

SEEDS is a not-for-profit humanitarian organization with 22 years of experience across the country and the continent of Asia. SEEDS work towards making communities resilient through comprehensive interventions. SEEDS, through its humanitarian mandate, helps the communities especially women and children bounce back better from the impact of disaster.

With focus on reducing disaster risks and adapt to climate change, SEEDS streams out to key thematic areas of Education, Eco based Livelihoods, Emergency Response, Safe Construction, Community based disaster preparedness, Awareness, Training & Capacity Building. The various states of ongoing work are Delhi, Bihar, Tamil Nadu, Uttarakhand, Jammu & Kashmir among others.

SEEDS, is a team of committed individuals, has reached out to families affected by earthquakes, floods and cyclones; restored schools and homes; and has invariably put it’s faith in education to build long-term resilience. SEEDS continue to advocate for and involve with communities across Asia to ensure a safer and sustainable world. Thus, having responded to every major disaster since 2000 in India, SEEDS is recognized as one of the imperative humanitarian actors in India and Asia. It is a member of and signatory to the following:

- The Code of Conduct for the International Red Cross and Red Crescent
- SHEPERE Standards in Humanitarian Aid
- Asian Disaster Reduction and Response Network (ADRRN)
- Humanitarian Accountability Partnerships (HAP)
- Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP)
- Alliance for Adaptation and Disaster Risk Reduction, India (AADRR)
2.3. TRANSITION FROM VFL TO FRONTLINE

- Views from the Frontline, India 2011

India had participated in VFL 2011 and 2013 as the NCO with key local partner organization. The first round of studying views from the frontline (VFL) was in the year 2011, when SEEDS was the primary NCO in the country. The thematic focus of this first VFL was on the role of local governance in disaster risk reduction (DRR), the third priority area of action of the Hyogo Framework for Action (HFA). The nature of the study was quantitative field-based research conducted in 17 Indian states/Union Territories with a total number of 791 participants. It suggested that those within the local governments tend to see a greater role of local government in reducing these risks, while those outside perceive a little less of the functions of such roles. This is basically indicative of the divergence in perception across these two ends of primary stakeholders in the process of local risk governance. The Indian experience (state) suggested that significant progress is made at the national level in terms of creation of institutional infrastructure to initiate and undertake DRR activities. However, VFL results from the ground suggest that there is a lack of corresponding recognition of the importance of disaster risk reduction (DRR) at the implementation level. There is very little evidence on successful collaboration between government and other stakeholders on issues related to DRR. The progress across the states was in a non-aligned fashion as per the study.

- Views from the Frontline, India 2013

In continuation to studying various aspects of the HFA, the VFL study was again conducted two years later in 2013. This time it was to study the level of effectiveness of the state governments through a self-assessment of their progress in the implementation of disaster risk reduction at the national level in accordance with the HFA. 16 states were a part of this study with 540 participants that included a balanced mix of local government representatives, community members including women and civil society members. It was coordinated through the Alliance for Adaptation and Disaster Risk Reduction (AADRR); the secretariat of AADRR being SEEDS. The study and the consultation with communities across India highlighted several issues on disaster risk reduction, the most significant of them being the need to recognize and address everyday disasters like drowning, fire, building collapse, road accidents etc. There are many small and medium disaster events where people’s homes and livelihoods are irreversibly damaged. Perhaps the number of people killed, injured and impoverished by these small and medium disasters is larger than that from large disasters. Risk reduction approaches and actions have tended to be dominated by an interest in coastal and hills areas and in engineering and structural solutions. This generally ignores the underlying risk factors, complexity of everyday life and their capacity to increase or decrease risks from disasters. Everyday disasters encountered by communities/citizens are a failure to perceive risk until a disaster event occurs, constraint on being able to act effectively and inability to negotiate government action. The other key views that emerged were issues of development increasing the risk of disasters like frequent landslides observed by local with the increase in tourism, schools being built in flood prone areas, the ad-hoc nature of DRR and DRM programs both by local governments and NGOs and a more sensitive approach to development in ecologically fragile regions of the world like Sundarbans in India, that contribute to global ecological balance.

- FRONTLINE, India 2015-2017

Two years ahead, in 2015 the views from the frontline necessarily were believed to have set the context for actions there were ongoing at the frontline areas of the countries including here in India wherein SEEDS singularly conducted the study in 6 states under different risk zones. From the approach of understanding the issues of frontline actors and stakeholders exposed to large-
disasters’ to developing an understanding that everyday risks are equally impactful and contributing to the vulnerability during the time of any kind of disaster, the previous VFLs broadened the horizon of understanding and viewing disasters by those who are at their receiving end.

- **Frontline attempts to reduce external role in reducing risks of the communities:** The approach adopted in the Frontline, therefore, endeavors to shift the attention from projects implemented by organizations external to the community to one of more transformative actions undertaken by local leadership and capacity-building.

- **Risks in the Frontline programme are defined by communities themselves, & not by experts:** The earlier VFL studies have incorporated external, often technical, and expert-defined view of risks. However, Frontline attempts to define risks as viewed by the people living in the peripheries of various risk zones which need not essentially be directly related to a larger disaster like floods, earthquakes or cyclones.

- **Frontline moved from merely covering risks to covering causes and effect and actions associated with those risks as explained by the participants:** In the previous VFLs, it was essential to understand risks and issues of people living in the frontlines. However, a significant addition with the Frontline was that it also endeavored in understanding if any actions had been taken by citizens and their counterparts in the local government to deal with the issues that they highlighted, emphasizing on the hurdles or the barriers that reduced their capacity for being proactive in initiating these actions. That is, Frontline moved from merely covering risks to covering causes and effect and actions associated with those risks as explained by the participants.

- **Frontline is an action-research study culminating field-research into actions of and by the communities:** Another very crucial development in the series of this study was the implementation of feasible actions as suggested by the frontline participants that is an integral part to this new form of VFL, i.e. the Frontline. The following period (a year) of the programme shall be dedicated to this action part of the research that is currently ongoing. These actions that the community, as a single unit thinks, are important to cross-over the barriers to reduce the every-day risks.

- **Frontline methodology is a qualitative one:** With this paradigm shift in the understanding, the frontline programme was conceptualized and initiated in 193 countries including India. This field-research based programme, called the Frontline, has been designed to be more qualitative than quantitative in nature. Given this, the methodology it used was primarily based on a conversation, between the interviewer and the interviewee (participant), which began on a more informal than formal note.
3. FRONTLINE INDIA: RESULTS AND DISCUSSION

3.1. OBJECTIVES
The three primary objectives of the Frontline programme are as follows:

1. Enable Civil Society Organisations (CSOs) and local communities to work together on strengthening local capacity and leadership to build resilience.
2. Enable CSO and local communities to learn and share with each other on actions, strategies and innovations to strengthen local capacity to address threats and to build resilience.
3. Enable CSOs and local communities to create political space to inform and influence local, national, and global institutions on policies and practices that affect stakeholders’ resilience, security, wellbeing, and dignity

3.2. METHODOLOGY AND PROCESS

Tools for Data Collection
The key goals and objectives of the Frontline have been achieved by using various tools for data collection which are as follows:

Phase I: Focus Group Discussion

Focus Group Discussions (FGD): In an FGD, a group of people from a community sit together and discuss various risks perceived as common threats of their community and their corresponding consequences, actions and barriers to carry ahead the identified actions.

Phase II: Individual Risk Profiling

Risk Profiling: Conducting one-to-one study helps those stakeholders who are less likely to state their perceptions in an open group meeting. By selecting representative stakeholders from different demographic groups a whole range of perceptions can be gathered. Frontline is based on local risk profiling which identifies the range, impact and frequency of risks faced by local groups. Profiling takes account of the perspectives of different stakeholders including old/young, female/male and particular indigenous groups. It also aims to strengthen local engagement by placing an emphasis on communicating with local groups to explain the relevance of the programme. The study process is designed to support local action and learning; adopting a very simple risk profiling approach which is primarily qualitative in nature, allowing people to describe their local realities in their own terms. The analysis of the collected data is conducted using mixed methods.

Details of Risk Zones: The risk zones were selected based on the organisation’s perception of different types of risks based on existing sources of knowledge such as risk maps and exposure indexes. Key factors while considering risk zones were geographic impacts, political impacts, social-economic impacts, urban vs. rural realities, or any other category that the NCO feels relevant. Reference was also made to existing risk profiles of the country, existing at the national level.

The 6 risk zones are as follows: Coastal (Tamil Nadu-Nemmeli), Flooding (Assam-Dibrugarh), Livelihood (Bihar-Saharsa), Rural (Odisha-Ganjam), Rural/Mountain(Uttarakhand-Rudraprayag) and Urban Slum/Informal settlements (Delhi-East Delhi). Detail of the Risk Zones and their profiles are provided below:
1. ASSAM - Dibrugarh

The north eastern state of Assam is bounded by seven states i.e. Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, West Bengal and two countries in India, Bangladesh and Bhutan. This is one of the worst hit regions by floods, earthquakes and hailstorms besides landslides, drought etc. within the country. Dibrugarh lies in the eastern stretch of Assam. The population of the district is 1,327,748 with a density of 390/square kilometer. Out of the total Dibrugarh population for 2011 census, 81.62 percent lives in rural regions of the district. Agriculture is the primary source of the livelihood of the rural population. But in the urban areas industrial development has been taking place and people are absorbing in different occupations.

Dibrugarh is one of the perennially eroded and flooded districts in the state. Dibrugarh is formed from the combination of two words ‘Dibru’ and ‘Gargh’, which together means the fort (gargh) on the bank of river Dibru (tributary of Brahmaputra). The district occupies an area of 3381 sq km and extends from 27° 5′38″ N to 27° 42′30″ N latitude and 94° 33′46″ E to 95° 29′8″ E longitude. Post-earthquake of 1950, the district and especially the region of Rohmoria where this study has been conducted has become victim to continued& massive erosion and multiple floods a year. From 2001 to 2005, there have been floods every year. The floods in the year 2004 had the maximum impact, affecting 22,400 families. The period between 2006 and 2010 witnessed the yearly occurrence of floods large numbers of families were affected in 2007 totaling 23,162 people. In the year 2012 floods, major floods occurred during this period affecting 96,682 people in the district. This district is covered under the risk zone of flooding for this study.
2. **BIHAR - Saharsa**

Saharsa district in Bihar, lying between latitude 25°05′3″N and 86°03′6″E and longitude 25.88°N and 86.6°E, is situated at an elevation of 41 metres (134 ft). The district forms part of the alluvial plain which constitutes the Kosi river basin, making the land extremely fertile, though frequent changes in the course of the river leads to soil erosion, leading to poor connectivity in the area mainly due to bridges that get washed away. The population of Saharsa as per the 2011 Census is 18,97,102.

Saharsa is vulnerable to floods as the area is in the flood plain of the Kosi river, due gradual changing of the course of the river. The river which would flow through Purnea, in the late eighteenth century, now flows east of Saharsa. The heavy silt it carries makes it highly unstable. The westward movement of the river has been controlled by embankments, despite which the Kosi continues to flood and the flood prone status of Bihar remains intact (BDRRS 2010). Some portions of Saharsa district fall under seismic zone V indicating very high damage risk zone and remaining portions of the district fall under zone IV constituting a high damage risk zone. Saharsa is also falls under High Damage risk zone for damages due to cyclonic Strom vulnerability and may be subjected to wind with speed of 47m/s (BDRRS 2010). On 18th August 2008, the district witnessed the worst-ever floods that was a result of bursting of embankments which led to areas that were never previously affected to be deluged due to the raging waters. This district is covered under the risk zone of livelihood for this study.

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7 District Health Action Plan 2010-11
3. DELHI – East Delhi

East Delhi is one of the eleven districts of the state of Delhi. It is bound by the Yamuna river on the west and the district of Ghaziabad in Uttar Pradesh on the east. The population density of East Delhi district is 27,132 in 2011 which has gone up from 22,868 in 2001. This is way high compared to the national average of 269 persons per sq. km. The district has the third highest population density amongst all districts in the country.

The entire state of Delhi falls under the earthquake zone IV hence is highly vulnerable to earthquakes. The Delhi Hardwar ridge is primarily responsible for the seismicity though Delhi is susceptible to the seismicity from the Himalayan sources too. It is also vulnerable to domestic and public fires due to the highly congested nature of housing that are densely populated; the occurrence is high during the summer months. The proximity to the Yamuna makes it susceptible to floods which have been known to occur in the past. However, flash floods are regular during rainy and non-rainy season as well; it is primarily due to the improper waste management of the district. The other hazards that the area is prone to are road accidents, LPG cylinder blast, electrocution, stray cattle incidents and building collapses, chemical accidents etc. The unauthorized constructions and the ineffective imposition of building codes make the area particularly vulnerable to building collapses especially during the monsoons (NDMA 2014). This district is covered under the risk zone of urban slums/informal settlements for this study.
Odisha is a south-eastern state of India. The coastal district of Ganjam of Odisha shares its border with the state of Andhra Pradesh, and dates back to the year 1936 when it came into existence. The population of Ganjam as per the 2011 Census is 3,529,031. Majority of the people in Ganjam live in rural areas as evident by the data showing 2,761,031 as the rural population as compared to just 768,001 as the urban population, though there is now a migration towards urban areas as evident from the fact that the urban population has grown by 38.04% in the decade 2001-11 as against the district decadal growth of 11.66%. Ganjam is primarily an agricultural district and has two agro climatic zones. The primary livelihood of the people of Ganjam is farming. Majority of the people are farmers, fisherfolk, agricultural labours or casual workers in other services, including household industry.

Ganjam’s proximity to the sea makes it vulnerable to cyclones, tsunamis and flood, though drought and heat waves are also known to occur. The traditional housing structure of Ganjam district with its single train compartment like interiors and congested buildings sharing a common wall make the whole community particularly vulnerable to fire accidents even in the rainy season. Sea coast erosion is also a major concern since the last 3 years, which is visible along the north coast line of Gopalpur port in the town. There is a seasonality associated with the hazards, some months more vulnerable than others. Floods are more common during June to October period, while cyclone is common during April, May and then again in September and October. Drought occurs form June to August, Sunstroke happens between April and June, Village fires are common from January to June and then again in November and December. Earthquakes, industrial disasters, tsunami, sea coast erosion could potentially occur all through the year. The Ganjam district witnessed drought in 2002, heavy rainfall and presence of four rivers led to floods in 2006& 2007, and the destructive cyclone of 2013, the phailin. This district is covered under the risk zone of rural for this study.
5. TAMIL NADU – Kancheepuram (Nemmeli block)

Kancheepuram district of the southern state of Tamil Nadu lies between 11°00' and 12°00' North latitudes and 77°28' to 78°50' East longitudes, with a geographical area spanning 4,43,210 hectares and a 57 Km coastline. The district itself has been divided into 3 revenue divisions constituting 8 taluks and 1214 revenue villages. Further, there are 13 developmental blocks with 648 villages panchayats (Tamil Nadu Tsunami Resource Centre 2007). Kancheepuram has a population of 3,998,252. The rural areas constitute 36.51% of the population.

Kancheepuram district is prone to occasional cyclones, flooding and droughts. The area had experienced cyclones in the years 1985-86 and 1992-93, accompanied by floods. The north east monsoon is more responsible for cyclonic storms. Uppar Cheyyar and Kiliyar of Palar basin are the zones where floods are most common. The region is also vulnerable to tsunamis, having witnessed the deadly tsunami of 2004 wherein the district was severely impacted. There are 14 cyclone shelters in the district. This district is covered under the risk zone of coastal for this study.
6. UTTARAKHAND – Rudraprayag

Rudraprayag is a district of Uttarakhand state of northern India. Located at 30°17’N latitude and 78°059’E longitude. The district occupies an area of 2439 sq km. Rudraprayag town is the administrative headquarters of the district. Rudraprayag is a pilgrim town on the confluence of river Alaknanda and Mandakini. According to 2011 census, Rudraprayag has a total population of 242,285. 95.90% of the population of Rudraprayag district lives in rural areas which is 232,360. Pilgrim tourism is the main livelihood option during the yatra season which continues from May to July. Agriculture is the major source of income which covers 15-18% of the annual income. Livestock is also reared though milk production happens mostly at household level.

Rudraprayag district, being a part of the Himalayan ecosystem, falls under high to very high seismic activity. Heavy rainfall during the rainy season in the region makes it prone to floods. During the monsoon months this district receives heavy to very heavy rainfall. Increase in human activities has reduced the forest cover in the area. Steep slopes of mountain edges cause the rain water to flow over these surfaces at a steep pace. Many hydro electric power projects are also planned and already constructed in this district. Construction activities for meeting the increased number of local population and also to meet the development requirement cause damages to the terrain. Above natural and manmade causative factors singly and combined together cause landslides, floods, erosion of river basin. It was the worst hit district of Uttarakhand floods of 2013. This district is covered under the risk zone of rural/mountain for this study.
**Sampling and Sample Size:** The type of sampling method used was purposive sampling\(^8\). The sample size was 528 risk profiles including women, youth government representatives and men. Each district under a risk zone was divided into 4 communities. Out of each four, 22 individual risk profiles were mapped making up a total of 88 risk profiles per risk zone.

**Population:** In this study, the term population has been used to refer to the total number of participants who have taken part in this study, under both phases of data collection. Therefore, the population here is 528.

**Coordination for Data Collection:**
- Coordination with SEEDS’ field staff
- Identification of communities
- Data collection by 3-4 volunteers per risk zone, supervised by SEEDS

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\(^8\) As per GNDR’s suggested methodology
3.3. KEY FINDINGS

3.3.1. Top 5 Answers to Threats, Consequences, Actions and Barriers

Figure IV: TOP 5 PRIORITY THREATS

As can be viewed from figure above, the top five primary threats across the risk zones are: Poverty tops the list with 28% of the population reporting it as a primary threat. As a key threat, it is all encompassing, of regions, economic status, gender and geographical vulnerability. 20% reported flooding as the second highest threat, 19% reported waste pollution as the third topmost threat, 18% reported unemployment and 15% reported as the fourth and the fifth topmost threats they face.

Figure V: TOP 5 PERCEPTIONS OF CONSEQUENCES OF THREATS

The figure above shows that the first consequence of Psychological effects has been stated by an estimated one-third of the population under study. It can also be pointed here that this effect or consequence is a cross-cutting one and besides being a primary effect, can also be a secondary or a tertiary effect of the other five consequences. It ranges from fear of living next to a river to fear of reprisals against anti-social elements reducing actions taken by the participants.
As per the given above, nearly half of the participants stated that they have no taken or do not think any action can be taken to reduce most of the factors they perceive as threats. Among the rest four of the top five actions, it could be observed that the population participating in this study does not view education as a top action to deal with their problems and reduce their threats effectively, although it has been mildly mentioned by few participants as one of the numerous actions in order to reduce few threats that are enumerated in the following section.

As can be seen from the figure above, poverty is a threat as well as the topmost barrier to reduce the threat. Among other barriers, lack of government action and corruption to the list, especially in the rural risk zones like Bihar, Assam and Uttarakhand.
3.3.2. Overall Perception of Loss: Rural and Urban Risk Zones

The perceived priority threats from the study were telling of both the gaps between perception and policy; and the differences in the urban and rural contexts. Yet despite the differences in threats, impacts on poverty and psycho-social health remained consistent; and poverty remained a barrier to action.

As can be viewed from the figure below, 39% of the total population under study has stated that they think that there has been some increase in losses due to disasters over the last decade. Although there is no statistical equivalent defining this parameter, however the understanding on it is based as to an amount of loss, in any capacity, which the community members stated, that has impacted them in a way that is detrimental to enhancing their quality of life; an impact which is not as stark as loss of life or property overnight, but loosing property and capacity to cope, which is slow but gradual and significant loss of economic, social, and emotional capital, over a period of time.

Figure VIII: Perception on losses over the last 10 years

<table>
<thead>
<tr>
<th>Perception of Loss</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substantial Increase in Losses</td>
<td>25%</td>
</tr>
<tr>
<td>Some Increase in Losses</td>
<td>39%</td>
</tr>
<tr>
<td>No change</td>
<td>23%</td>
</tr>
<tr>
<td>Small Reduction in Losses</td>
<td>13%</td>
</tr>
<tr>
<td>Significant Reduction in Losses</td>
<td>.21%</td>
</tr>
</tbody>
</table>

Figure IX: Top 5 Threats in Rural Risk Zones

In rural risk zones, unemployment was the highest threat, followed by flooding, heavy rainfall, insecurity (mainly women respondents) and erosion. These threats have had vast psycho-social impact (worries, tensions, sleeplessness, fear due to socio-economic condition, earthly daily activities; damaged roads and infrastructure; and poverty. Insecurity, the fourth priority threat has
been primarily stated by women respondents. All of the women respondents here come from low socio-economic background. The biggest barriers for achieving any action to reduce these threats were multiple. The primary lack of resources (financial, human, socio-economic and environmental). This was followed by poverty, lack of alternative livelihoods, lack of access to technology and high debt (from money lenders and financial institutions).

**Figure X: Top 5 Threats in Urban Risk Zones**

<table>
<thead>
<tr>
<th>Top 5 Threats: URBAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Damage</td>
</tr>
<tr>
<td>Crime</td>
</tr>
<tr>
<td>Alcoholism</td>
</tr>
<tr>
<td>Water Pollution</td>
</tr>
<tr>
<td>Waste Pollution</td>
</tr>
</tbody>
</table>

In the urban risk zone of Delhi, waste and water pollution, alcoholism, crime (again mainly women respondents) and infrastructural damage were identified as the greatest threats. Violence (physical, domestic, sexual, child abuse); blocked roads from garbage and rain; psychosocial impacts; and lack of clean drinking water were some of the direct consequences adding to the threats. The primary barriers perceived were lack of community’s commitment; followed by the fear of reprisals (both within the community and with concerned authorities), unplanned urbanization: clustered shacks next to highways or on the streets without clear drainage system and highly limited spatial scope, poor sanitation and hygiene and poverty.
3.4. DATA ANALYSIS AND DETAILED FINDINGS

DETAILS OF COMMUNITIES

ASSAM

The villages of Bogoritoliya, Kosuoni, Borotisuk and Rohmoria are under Lahowal block of Dibrugarh district of Assam. It is on the bank of a tributary of the Brahmaputra, hence making it highly vulnerable to floods and erosion for over six months a year. With a mixed population ranging from 1000-2000 per village, the area is inhabited by people from varied backgrounds of caste and language including other backward classes, scheduled castes and scheduled tribes. Agriculture being the primary source of livelihood, village members is also into fishing, contractual government jobs and self-employment of petty businesses.

BIHAR

Aarapatty, Saharsa district town, Mahisaro and Badhona are the four areas covered in the district of Saharsa in Bihar. Three out of the four communities are rural background and one of them an urban one which is the Saharsa district town. All the four communities are constituted of a mixed population of scheduled castes and other backward classes, different religious and class backgrounds etc. A majority of the families have migrated outside to the states of Punjab, Rajasthan and Delhi, to be engaged in daily-wage or semi-skilled labour. The ones in the village are engaged in similar work with the entire population holding the BPL card scheme of the government.

DELHI

The four communities under this study are Rani Garden, Mandawali, Ravi Das Camp and Budh Bazar. All the four communities are regulated or under process of regulation urban slums which are located across two sub-divisions of the district of East Delhi. Heterogeneous migrated population from the states of U.P., Bihar, Haryana and West Bengal inhabit the areas. Primary livelihood includes bakery factories – ownership and laborers, domestic help, daily-wage labor, petty work in cloth factories etc. There are government schools in the area and sub-centre nearby are located at around 2-3kms distance, besides private clinics and hospitals in the district. It is a highly disaster-prone and affected area including fires, earthquakes and flash floods.
ODISHA

The villages of the Ganjam district under the study are Baxhipalli, Haripur (Bandera), Narayanpur and the town of Gopalpur. The four communities are a mixed of semi-urban and rural with 1:3 ratio. The communities in the villages are constituted of scheduled caste population mostly who are primarily into small-time jobs like daily wage labourers, gardening, cooking, domestic help etc. it is a mix of locals of Odisha and migrated population of Andhra Pradesh, thus speaking both the languages, especially in Gopalpur town.

TAMIL NADU

The four villages are Nemmeli, New Kalpakkam, Sulerikadu Kuppam and Nemmeli Kuppam. These are four coastal villages of the Arabian Sea in the state of Tamil Nadu. With an average of 200-400 families of mixed caste background, these are mostly fishing communities; and most families are BPL card holders. It’s a highly cyclone and tsunami prone area being hit severely by the tsunami of 2004.

UTTARAKHAND

The mountain villages included in the study are Sumari Bhardar, Dangiguna, Huddu and Amrapuri. These are few of the numerous villages which suffered heavily during the floods of 2013 in river Mandakini flowing through the town. It is one of the most highly disaster-prone areas of the state being vulnerable to earthquakes, floods and landslides. Families of various castes constitute a mixed population living together in these villages. However, caste still plays its traditional role of being a discriminating factor even in these villages. The primary livelihood of the communities is farming and agriculture, government jobs, and petty business engagements.
DEMOGRAPHIC DETAILS OF PARTICIPANTS IN THE STUDY
Stakeholders were selected to include categories based on various demographic groups like youth, adults, senior citizens, person with disability (PwD), government and non-governmental representatives at local level. This was on a balanced distribution of gender among female, male and others and representation from indigenous groups of the specific locality. The same method is used for both the phases.

NARRATIVES OF TOP 5 THREATS

1. Poverty has been cited as the highest threat across all the risk zones reported by 28% of the population. Multiple factors act as the cause and effect in creating and increasing the plight of poverty manifested in various ways. The five key ways in which it impacts lives of the communities are as follows: the greatest impact of poverty is on educational activity, either complete halt on it or compromising in the quality of the education received. Most of the rural zones have very limited institutional set up for higher education after school. Travelling to faraway places to pursue better/higher education makes it difficult in both in terms of financial resources and time; given the state of transport and communication of the area. Conclusively, a good number of children drop out after high school as their parents cannot afford it. 24% of the population stated food insecurity as a direct impact of poverty. The figure below provides the top five consequences.

![Figure XI: Top 5 Consequences of Poverty](image)

The third major impact stated by 19% of the population was psychological effects. Erosion of land due to rains and floods bringing people on the roads, migrating from permanent residential spaces in search of livelihoods, lack of livelihood alternatives in their own places, constant flooding and fear of earthquakes and living near the sea/river to name a few are factors that act in unison to bring about this impact. In the words of a fisherman and his fear of the sea:

"The fear of cyclone haunts me; I have nightmares of submerging in the sea."

A majority of the residents of these communities belong to unskilled or semi-skilled unorganized labor sector. Thereby, poverty is a prevalent aspect of their lives. Insecurity of livelihood, meeting day-to-day needs of family members oblige few to take up loans. However, inability to pay back the loans within the stipulated time adds to the worry and tension of the community members. Thus, unemployment and poverty are the fourth & fifth threats with 15% and 14% respectively.

In order to reduce and deal with the cited threats effectively, different kinds of actions have been suggested and few taken by the community. The top among the key five actions suggested by 27% of the population was changing or adding livelihood options that they are conventionally skilled with. With 25% of the population reporting that employment generation could be an action for poverty reduction, it was the second highest. This was true for both urban and rural
risk zones. For example, in Bihar, the left over sand brought by the flood waters get accumulated in the fields over the years; reducing the productivity of the agricultural lands. It makes the villagers unable to continue farming for which they have been forced to switch from their traditional livelihoods to alternate unskilled labor or semi-skilled jobs; also given that avenues for government jobs are very restricted given the high level of corruption in the state. A majority number of families migrate to nearby towns and cities in other states in search of better-yielding jobs.

Notably, 23% of the population stated that there was nothing they have or could have done to reduce their poverty levels (no actions), in both urban and rural risk zones. Accessing capital loans, especially in the rural risk zones was a practiced action to meet needs of daily living. These included building/renting a house, children’s education and migration for better livelihood options. Many a times with this action, however, the participants have found themselves entangled in a vicious cycle, which in turn have stagnated or increased the level of their poverty instead of making it better. Only 7% of the population stated that education could be a way out to reduce their poverty. It also comes with the perspective ‘more hands, more food’. With an increasing number of children per family, if the children somehow are forced to drop out of school, they are engaged in the field or any other unskilled labour by and alongside their parents.

The most common hurdles or barriers in taking these actions were: 26% of the population stated to having no alternative livelihood, 25% stated lack of resources, 23% stated poverty, 15% reporting high debt and 11% reporting lack of education.

2. **Flooding** is the second top priority threat, reported by 17% of the population. The key five consequences of flooding crop damage, building destruction including houses, schools and health centres being flooded resulting in part or complete destruction, roads and market places effecting transport system get impacted as a third most affected area, continuous flooding also brings adverse impact on health as accessing services during flood season becomes very difficult for most regions, especially the rural places. Internal displacement has been reported as the fifth highest impact of flooding. Especially in Assam, over the last one decade, many families have been forced to flee the region and find refuge in the neighbouring towns. It has resulted in disintegration of families, of practicing traditional livelihoods and insecurity of new livelihood insecurities and so on.

![Figure XII: Top 5 Consequences of Flooding](image-url)
32% of the participants stated disaster preparedness as the key action required to reduce this threat and its consequences. Agricultural rehabilitation is essential for dealing effectively with loss of livelihoods in zones where flooding is of perennial nature, as reported by 21% of the population. 19% of the population, especially participants from Tamil Nadu, Uttarakhand and Assam reported that many of them have left their original places of residence or views that as a plausible option to reduce dangers associated with flooding, cyclones, earthquakes and landslides. Measures to protect vulnerable groups and reconstruction of homes, institutional buildings and infrastructure – as a mitigating action for reducing this threat of flood, was reported by 15% and 13% of the population, as the fourth and the fifth topmost action respectively.

Corruption and aid relief problem together form the topmost barriers in taking any actions by the people and the state authorities, as cited by 32% and 21% of the population respectively. Corruption, as the topmost barrier, has been spoken about in equal measures across all the six risk zones, by a large number of people. Lack of resources at community level and also access to resources available at state level is the third highest barrier as reported by 19% of the population. Lack of coordination among concerned authorities and lack of government’s commitment are the fourth and fifth top barriers respectively.

3. Waste Pollution is the third highest threat. This threat is majorly reported in the urban and semi-urban regions of Delhi and Odisha. One of the primary threats faced as individuals and as a collective is that of improper waste management by both the communities themselves and the concerned authorities. This result in foul smell and stress of epidemic breakout; and flies, mosquitoes and all other insects that breathe in these drains making the area unhygienic for living conditions. Many community members blame that their neighbours with a low civic sense. The evidence being, throwing their household waste on the roads blocking the pathways, using children’s park as a dumping ground. Additionally, in few areas the drains are blocked and have not been cleaned by authorities for over three decades now. Hence, for example in East Delhi, each time it rains, the drains in the slums there get filled with dirty water and litter. It inundates the roads making commutation inconvenient. The district is located on the banks of the Yamuna River hence being a low-lying area. The drains that run through the main lanes and all the by-lanes get overflowed during the monsoons. The houses in the by-lanes are constructed at the same level of the drains and hence flood water enters inside the houses as well. Therefore, the consequences of the same are as follows:

The highest percentage of the population, i.e. 36% reported infrastructural damage as a direct or indirect effect of waste pollution. Especially during the monsoons, unattended garbage on the streets lead to unhealthy drainage water that in turn acts as the breathing space of mosquitoes that spread various water-borne diseases. The other consequences reported are 24% reported that their daily activities, primarily to do with mobility get effected, 17% said psychologically they are effected, 13% reported educational activities getting adversely effected and 10% reported that long-standing garbage in public places, especially during rainy seasons gradually make their buildings, residential and commercial, weaker.
Although 42% of the population reported that waste management is a potential action to reduce this threat, none was specific about the ways it could be done. The responsibility for the same was viewed primarily of the respective government departments concerned for the work. Interestingly, 27% of the population believed and reported that there has no action that has been taken by the concerned government department or the community as a single unit to reduce this threat’s consequences, improving waste management and cleaning of drainage channels at regular intervals were reported as actions that could reduce the threats by 17% of the study population, advocacy from community to state levels and cleaning the environment were reported as potential actions by 8% and 6% of the population respectively.

Lack of community’s commitment to actions to reduce the threat has been reported as the biggest barrier by 27% of the population. Poor sanitation & hygiene, Corruption, poor waste management and lack of coordination between actors have been viewed as the four consecutive barriers respectively reported by 23%, 20%, 16% and 14% of the population.

4. **Unemployment**, reported by 18% of the population, forms the fourth highest threat. Majority of the participants belong to unskilled or semi-skilled unorganized labor sector. Thereby, poverty is a prevalent aspect of their lives. Insecurity of livelihood (not having a permanent job, primarily government), meeting day-to-day needs of family members have varied consequences on participants of the study.
Manifestations of unemployment or absence of a permanent source of livelihood are multiple and wide-ranging. It surfaces through implications on psychological well-being of people, with constant insecurity of survival, of being able to provide for their children, tension of losing out on wages of a day when one is unwell and so on, as have been reported by many participants in all the six risk zones. Thus, the highest percentage of the population, 32%, reported that psychologically they get impacted with this threat, 31% reported that they face issues of food insecurity and 18% reported of consequential experiences of poverty because of the threat of unemployment. This comes from people across low-socio economic background of people in different north-east and southern belts of the country, when it has been continuously reported of farmers committing suicide due to non-conducive weather, poor yields and high debts on them, at an alarming rate. It can hence be conclusively noted here that the threats of poverty and unemployment are intrinsically tied with each other, especially in a geographically vulnerable region to disasters, wherein, meeting basic needs of food, shelter and clothing, are the everyday risks that the population lives with.

Thus, with no permanent source of livelihood and shifting in between menial jobs, a majority of these communities live under stark conditions of poverty. For many, belonging to a caste considered lowly by many others does not help the situation. In many families wherein men are the sole bread winners of the families, feel stressed in being unable to sufficiently meeting the basic needs of their families including food and education of their children. Not having an income source has thus lead to migration of locals outside their district of permanent domicile. This is significantly high in the states of Bihar and Odisha. Women are thus left behind to look after their children, families, on their own completely. Pressure of looking after the family’s day to day needs and expenses, health of all, and education of children, the women members are the ones facing the maximum worry and stress. Health problems and accessing healthcare services regularly entail a free flow of financial and human resources at one’s disposal. If otherwise, worries become inevitable. Thus 13% of the population reported about migration and social disintegration as a primary impact of unemployment. 6% reported to having adverse effect on educational activities due to this threat.

Many consequences of the threat of unemployment could also be viewed as actions to reduce the threat, like migration. Among the many actions taken and suggested, diversifying livelihood avenues have been reported by the highest percentage of the population with 30%. This is followed by actions for reducing poverty & employment generation reported by 25% of the population. Even for this threat, 21% view themselves and the government machineries being unable to work towards a permanent solution, hence no action had been or could be taken by them. Although, by rehabilitating agricultural activities and restoring respective livelihoods are reported by 13% and 11% of the population respectively as potential actions to reduce the threat of unemployment.

As aforementioned, the threats of poverty and unemployment are intertwined. Hence, majority, 40% of the population believes that poverty is the biggest barrier in reducing this threat and it’s consequences. Additionally, 21% reported lack of resources as a primary barrier, 17% reported lack of education, 13% reported that age is a big factor acting as a hurdle to reduce the threat of unemployment. Among the top five barriers, although with 9% of the population reporting that being landless is the fifth biggest barrier in reducing the threat of unemployment, especially when the land is eroded at regular intervals or whenever a big disaster like tsunami strikes, be it on the coastal erosion of Tamil Nadu or riverbank erosion of Assam or landslides of Uttarakhand.

5. **Water Pollution** reported by 15% of the population stands as the top fifth threat across the six risk zones. The top five consequences of this threat are 32% of the population reported of having psychological effects. This stems from the fact that among the participants, most women face...
the consequences of having to fetch drinking water from far off sources in both urban and the rural contexts. 31% reported of having food insecurity, 18% reported on poverty, 13% reported on indirect effects of migration and social disintegration and 6% reported on education activity being interrupted/ stopped.

Figure XV: Top 5 Consequences of Water Pollution

![Pie chart showing the top 5 consequences of water pollution: 32% Food insecurity, 18% Poverty, 13% Migration and Social Disintegration, 6% Education activity interrupted/stopped, 31% Psychological effects.]

Notably, 35% of the population reported that they think no action could be taken by them or anyone else to reduce the threat or its consequences. 23%, all women participants reported that they end up walking far to access clean water, 18% of the population reported that the community has to engage in self-management of providing clean water to themselves, explicitly stating that despite of repeated complaints, no actions have been taken by respective (government) authorities. However, 15% reported that speaking with relevant authorities should be able to reduce the threat along with its impacts while 9% reported that improving waste management shall help reduce this threat and its consequences.

Lack of access to technology to make drinking water clean before consumption was reported as the biggest barrier by 32% of the total population. Slow response of concerned authorities to complaints and weak governance were the second and the third barriers reported by 25% and 18% of the population respectively. Unplanned urbanization as well as lack of clean water was reported as the fourth highest barrier by 14% of the population. 11% of the population, all women participants, reported that being a woman bars them from taking any action within or outside their communities to reduce this threat and its consequences.
3.5. **CONNECTING THE DOTS THROUGH A PAN-INDIA PERSPECTIVE**

Following the extensive 6-state study, a pattern emerged. The priority threats including waste pollution, unemployment and water pollution spoke of issues that go beyond just DRR, encompassing macro concepts of sustainable development and climate change. Clearly, communities perceive threats in a much wider net and this was telling of the gaps between perception and policy. Therefore, widening the horizon of risks as we understand it and local contextualisation of international frameworks in this regard appeared to be the need of the hour.

A pan-India workshop was organized in New Delhi on the 12th of January 2016 provided a platform to discuss and gain a national perspective on the study results and the opportunities to take them forward. It brought together an array of participants from different corners of India (varied risk zones) including Delhi, Gujarat, Jharkhand, Karnataka, Maharashtra, Odisha Rajasthan and Tamil Nadu. Linking with the ongoing Sendai Spring campaign, the workshop was also unique in bringing together experts and practitioners from different fields – including disaster risk reduction, climate change, developmental focus, the private sector and government representatives. Moreover, it threw open the floor to explore opportunities, big and small, within the new international frameworks of climate change (Paris Agreement), sustainable development (SDGs), Habitat III and disaster risk reduction (Sendai Framework).

On a similar line,

**FROM RISK TO RESILIENCE**

Through both the study and the workshop, it increasingly surfaced that there is an urgent need to contextualise and translate global frameworks into local, colloquial language and understand risks as perceived by people who are at the receiving end. Towards this, the workshop broke down each of the frameworks through panel discussions and awareness materials. Also, the discussions pushed for working towards an integrated approach on resilience rather than working in isolation. There was consensus among the larger group to bring a focus on ‘resilience’ to the national perspective and to move away from working in silos.

**Highlights:**

“Communities perceive threats in a much wider net. From this point onwards, we need to take these frameworks forward to action on the frontline.”

- Dr. Manu Gupta, Executive Director of SEEDS on Emerging Issues at the Frontline

“The climate change talks are about much more than the environment. They are really about the economy.”

- Mr. Harjeet Singh, Global Lead on Climate Change for ActionAid and Chair of AADRR on Paris Agreement
“With 17 goals and 169 targets, there is a lot of scope both for working in silos during implementation or for confusion.”

– Ms. Aditi Kapoor, Co-founder of Alternative Futures on SDGs

“Crisis is the new normal. Issues such as displacement need to stay on the agenda. Habitat III is an opportunity to take up and push issues that have been left out in other frameworks.”

- Dr. Shipra Narang Suri, Vice-president, International Society of City and Regional Planners (ISOCARP)
  Co-Chair, World Urban Campaign on Habitat III

“It is not possible to address all 7 targets everywhere. Need to look at the local nature of impact.”

– Mr. Mihir Bhatt, Founder and Director of All India Disaster Mitigation Institute (AIDMI) on Sendai Framework

LOCALISING RESILIENCE

“Sitting here in Delhi, the flavour of the month is always some or the other scheme being launched. But how does that fit into local resilience action?”

- Shri Kamal Kishore, Member, NDMA

Shri Kamal Kishore, Member of NDMA suggested that integrated approaches will be more useful targeted at the district and sub-district levels for translating the global frameworks and implementing actions at the ground level, local target settings need to be encouraged with specifics (reduce the deaths of number of women under BPL by XXX% for example), local progress ought to be captured innovatively and incorporated with nuanced understanding and analysis of risk and importantly, co-opt and connect to government schemes to help reduce risk.

THE BROADER ‘RESILIENCE’ ACTIONS FOR INDIA

Through all the discussion on the frameworks and the study’s findings, the common barriers to action that emerged centred around lack of information, capacity and finance and exclusion issues. Following an animated discussion on national resilience barriers, priorities and actions, the key action points that emerged included:

- **Engaging in rigorous research work**: Evidence-based pilots on vulnerabilities; research on resources and technologies; audits of government programme to look at impact and follow-through; local preparedness options/best practices
- **Enabling triangular partnerships**: of CSOs, local legislators, line departments
- **Focus on planning**: Integrated planning; done at PRI/ULB, district, state levels; dedicated resources for gender budgeting; tribal and dalit components for resilience and adaptation
- **Innovating technology**: Marrying local and State-of-the-art technology for building resilience, mitigation, adaptation
- **Working with the private sector**: engagement and collaboration on sustainability and resilience
- **Encouraging entrepreneurship**: Building social capital and tapping entrepreneurship/start-ups for resilience

**WAY FORWARD**

Phase I of the Frontline programme, that is the survey of six risk zones, helped us understand the communities’ perceived and actual risks. The results of this study led to the national recommendations made through workshop

Drawing from experiences and learning from both parts of the first year of the programme, including the study and the workshop, shows the need for greater multi-stakeholder engagement, local level advocacy and public awareness. This has fundamentally has carved the pathway for the second year of the programme.

Two out of the six surveyed districts in India have been identified, in the urban state of Delhi and the rural state of Bihar to carry on the second year of the Frontline programme. SEEDS has been engaged in both these areas with different communities and demographically varied population, from the last 8 years in Bihar and last 6 years in Delhi. Therefore the primary objectives of selecting these two particular districts were: 1) Enhancing community resilience through the new work of the second year on DRR and climate change adaptation, 2) Leveraging on the prior experiences/knowledge and strong relationship shared between the communities and the organization.

The second year shall focus on the key outputs of:

[1] Raising awareness amongst the communities
[2] Advocating at the District level which prompts actions by the local stakeholders and

[3] Strengthening Multi stakeholder forum on DRR ensures sustained action on DRR in the districts of East district of Delhi and Saharsa district of Bihar.
REFERENCES

ONLINE RESOURCES

- http://nidm.gov.in/npdrr/
- www.adrrn.net
- Web portals of respective state governments

REPORTS and JOURNAL ARTICLES

- District Health Action Plan 2010-11
- VFL Report 2013 compiled by SEEDS
- VFL India Country Report, 2011 compiled by SEEDS