



Community Based Flood Resilience Initiatives in Bahraich, Uttar Pradesh, India

A Brief Document
on
Process, Learnings & Achievements



Sahbhagi Shikshan Kendra
Lucknow

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Flood Resilience Initiatives
in Bahraich, Uttar Pradesh, India**

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Abbreviations

SSK	Sahbhagi Shikshan Kendra
NGO	Non Government Organization
CSO	Civil Society Organization
ECHO	European Commission Humanitarian Aid
U.P.	Uttar Pradesh
PRI	Panchayat Raj Institution
MCR	Micro Concrete wall Roofing
NREGA	National Rural Employment Guarantee Act
DRR	Disaster Risk Reduction
CBDMC	Community Based Disaster Management Committees
HDC	Hamlet Development Committee
INGO	International Non Government Organization
DDMC	District Disaster Management Cell
SDM	Sub Divisional Magistrate
BDO	Block Development Officer
CMO	Chief Medical Officer
IEC	Information Education Communication

Preface

Problems always precede solutions. Similarly disasters have a very long history but its management is comparatively a new concept. Earlier the term was limited to relief and rehabilitation of the affected people. With the passage of time the term got wider connotation and one can say it is still evolving. In India, disaster management acquired a legal status and was institutionalized with the enactment of Disaster Management Act, 2005. The Act gives a glimpse of the shift of approach towards disaster management from relief and rehabilitation to preparedness and mitigation. Moreover the Act makes it obligatory for each ministry and department to incorporate the measures for prevention of disasters and mitigation of its effects in its main development plans and projects. Hence the fact has been recognized that disaster risk reduction is a developmental issue and it is essential to mainstream disaster risk reduction concerns into development processes to make development sustainable. The approach is also reflected in the Eleventh Five Year Plan 2007-2012 (Planning Commission) which states, "The development process needs to be sensitive towards disaster prevention, preparedness and mitigation. Disaster management has therefore emerged as a high priority for the country. Going beyond the historical focus on relief and rehabilitation after the event, there is a need to look ahead and plan for disaster preparedness and mitigation in order to ensure that periodic shocks to our development efforts are minimized."

However, such legal and institutional framework alone does not ensure disaster risk reduction or mitigation of its effects. There is an equal need to sensitize, to educate the community for the preparedness and to build their capacity for the same so that a culture of preparedness may evolve instead of relief oriented and depending attitude of the people.

Though it is appreciable that the government is taking lots of initiatives for preparing the people - its officers as well as the community, the community is sometimes left behind. The reason probably lies not in the intention or the sincerity on the part of the

government but in the approach of various programmes and projects. The processes followed while implementing these programmes or projects are neither community driven nor community owned. The community is the first responder in any disaster and without their inclusion, disasters can never be prevented nor their effects mitigated. With the above approach of community participation and ownership, Sahbhagi Shikshan Kendra (SSK) has been intervening in flood affected district of Bahraich, Uttar Pradesh since last three years and trying to minimize the hardships of the affected community. Though the efforts were started with providing relief to the affected community and their rehabilitation, the experience inspired to work for the preparedness and now the Kendra is moving ahead in the same direction. Simultaneously, in line with the Disaster Management Act, 2005, it is also trying to ensure mainstreaming of disaster risk reduction measures into local developmental processes through capacity building of the community and panchayats itself for the same. This document offers a description of this journey of Kendra from relief and rehabilitation to community preparedness and mainstreaming efforts, in which, processes followed as well as learnings gained, have been tried to be incorporated. On behalf of SSK, I would like to congratulate disaster management resource centre, a unit of SSK, and particularly to Mahima for preparing this document. I wish that sharing of this experience may prove fruitful to the readers, especially to the people from NGOs, CSOs and other stakeholders working in the field of disaster management. I hope that it will enrich them and their suggestions will help us to further improve our intervention.

Ashok Singh
Director
Sahbhagi Shikshan Kendra

Acknowledgement

First and foremost I would like to acknowledge the support of ECHO and Malteser International without which this intervention would not have been possible.

Next I would like to express my deep gratitude to our director Mr. Ashok Singh for providing me this opportunity to document the organization's efforts for disaster risk reduction in Bahraich district of Uttar Pradesh. I am thankful to him for posing that confidence and providing all the guidance.

I am thankful to our project manager Mr. Nagendra Singh for his inspiration and his guidance. The document would not have completed without the continuous inputs and support of all the team members - Mr. Santosh Kumar Singh, Mr. B.N. Dash, Mr. Rakesh Kumar Neeraj, Mr. Amit Singh, Mr. Venu T. N., Mr. Sanjeev Chakravarti, Mr. Dheerendra Kumar Rai, Mr. Saroj Singh, Mr. Kalim, Mr. Ramakant Dwivedi and Ms. Prabha. I sincerely thank all of them.

I deeply acknowledge the support of my friend and colleague Pragya for giving continuous feedback on the document and supporting me in the designing.

I express my sincere thanks to Mr. Madan Mohan Tewari and Ms. Anita Nigam for helping me in the formatting of the document and I can surely say that without their help, the document would not have taken its present shape.

Last but not the least I would like to thank all those people who contributed in the preparation of this document in any manner.

Mahima Tewari

Programme Associate

Sahbhagi Shikshan Kendra

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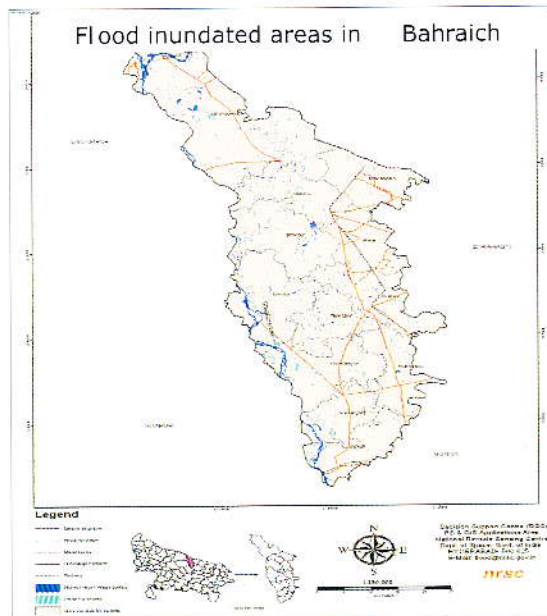
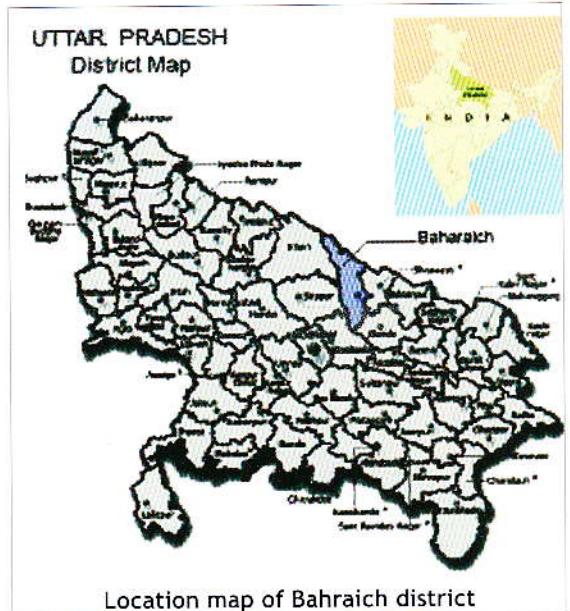
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1 Introduction

1.1 Bahraich and floods

India is considered to be the most flood-affected country after Bangladesh and U.P. tops the list of flood prone states of India. While the total flood prone area of the country is estimated at 346,000 km², 73,000 km² (21%) of this area lies in U.P. only. According to the Statistical Diary, U.P., 2007, Bahraich (situated 108 km north east to the state capital Lucknow) is the most flood affected district of U.P. As compared to other districts of the state, the largest area of Bahraich (84,980 hectare) has been affected by floods and rains.

The major rivers in the district causing



annual floods are Sarju and Ghaghara. Being situated on the lower ridges of Nepal in the tarai region, the district faces heavy rainfalls during the month of June till September. Upstream discharge from tributary streams through Girijapuri and Banbasa barrage into Sarju and Ghaghara rivers furthermore leads to flash floods. Thus every year the region is struck by heavy inundation followed by long periods of water logging

Recurrent floods adversely affect the socio-economic life and also the health of the people. Each time it causes people to flee the area and settle on

embankments for the flood duration. They lose income opportunities, their houses, livestock, and belongings. Majority of the population has agriculture as their main source of living; flood causes severe damage not only to crops but the high water current erodes the land also.

Some of the villages are no more existent due to land erosion and shifting nature of the river and the displaced villagers are forced to live on embankment where they are staying since years and somehow managing their life.

Thus the impact of floods in the region is vast where people are deprived of a dignified life due to floods.

Impact of Flood in Bahraich	
Houses partially or completely damaged	Of 79.8% people
People residing in temporarily shelters after flood	77.4%
People leaving their houses due to floods	56.8%
People staying on embankments	45.7%
Drop rate of the school going children	3.8%
Damage to land	Of 62.6% people
People falling sick after floods	57.7%
* Based on research study done in the Fakharpur block of Bahraich district by Anthropology department, Delhi University in 2009 under MICRODIS project	

2. SSK's Intervention in Flood Affected Bahraich

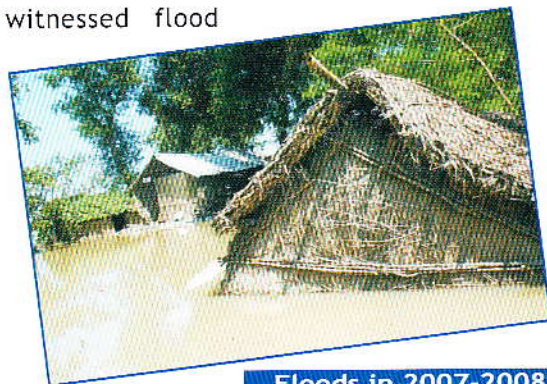
Strengthening of Panchayats and capacity building have been the major thrust areas for SSK's intervention since long. With a view to help people when they need most, SSK started its intervention in the field of disaster management in the year 2007.

Out of 22 flood affected districts of U.P., the most affected one Bahraich, which is one of the most backward districts of the state as well, was chosen as the experimentation site.

2.1 To begin with - relief and rehabilitation

Bahraich faced one of the most devastating floods in its history in the year 2007-2008. Huge parts of district were submerged from end of July to September, 2007 due to four consecutive floods of Ghaghara river. As per government reports, in 2007, about 1608 people were displaced in Bahraich district. The total affected agricultural area was 84,980 hectare and 407 hectare of agricultural land was covered with sand¹. The floods resulted in 36 deaths in the district.

The situation was all the more deplorable in 2008. Contrary to the prior experiences, that year flood came in September. Water level in Ghaghara river at Elgin Bridge reached to 107.476 meter in September, 2008 which was the highest recorded level till the year 2008². As the month never witnessed flood



Floods in 2007-2008



¹ District Disaster Management Plan, Bahraich, 2009-10

² Ibid

before in the last 25 years, people were not prepared for it at all and thus heavy loss of property resulted from these floods. People lost all the crops, houses, domestic belongings and were left with scarce or no livelihood options

In 2007, SSK targeted relief operations in six most flood affected blocks of the district. These operations were focused on the distribution of food, clothes and domestic items. For those, whose houses had been badly damaged, material support in the form of building material was also provided. The most badly affected people were identified on the basis of loss of physical and financial resources and were selected as beneficiaries. As such in each block, 100 families, who suffered most, that is those who had heavy losses of land, crops, animals, houses etc., were selected. The process of selection involved discussions with community and PRI members as well as the physical verification to judge the loss. To avoid duplication and to facilitate quick distribution of relief materials, tokens were issued to each beneficiary family and distributions were made accordingly. All the stakeholders, including government officials and elected representatives, were involved during the distribution process.

Food items distributed to each family		
Sr. No.	Items	Quantity
2007 Floods		
1.	Rice	10 kg.
2.	Flour	10 kg.
3.	Porridge	4 kg.
4.	Grams	2 Kg.
5.	Pulses	1 kg.
6.	Mustard oil	1 liter
7.	Towel	2 pieces
8.	Clothes	1 no
9.	Torch with two batteries	1 set
10.	Salt	1 kg.
2008 Floods		
1.	Rice	15 Kg.
2.	Pulses	2 Kg
3.	Mustard oil	1 Lit
4.	Salt	1 Kg



Food and rescue kit distribution

In the year 2008, wooden boats and rescue equipments were provided to people for safer rescue and transportation. Grave situations demanded the food support also and as such 800 families were provided with the food kit.

Relief programme of 2007 presented the picture of high vulnerability and low flood resilience of the community and SSK decided to address the issue in a more intense manner.

2.2 Steps towards building a safer and resilient community

An initial assessment of flooding pattern, existing coping mechanisms and rehabilitation needs of the region was made in 2007. Based on the findings of this assessment and a series of consultation with stakeholders, an integrated approach of intervention, intended to support recovery, preparedness and mitigation, was adopted.

In close collaboration with UNNATI, Gujarat, following 5 panchayats of Kaisarganj one of the most staidly affected blocks of the district were selected for intervention targeting a safer and resilient community.

Intervened Panchayats of Kaisarganj Block				
Baghaiya	Chulambha	Kandauli	Kohli	Matrepur



As shown in the image all these panchayats are situated on the west side of the embankment and east side of the river and thus highly vulnerable.

The following four activities were defined for the target area:

1. Development of homestead plots
2. Raising of water hand pumps for water source protection
3. Cash for work to support livelihood
4. Disaster preparedness

2.2.1. Level raising of homestead plots and material support for shelter construction

The activity aimed at providing shelter to the most vulnerable as well as material support and technical assistance to other people for constructing better shelters. The findings of assessment, made in 2007, showed that the mud and thatch houses of the villages were not able to withstand heavy rainfall and floods. The average durability of a house was observed to be one or two years.



On the basis of consultations with Panchayats, inputs from village shelter committee (a community structure formed during the programme duration for judicious identification of vulnerable families), community meetings and independent vulnerability analysis of the working team, 60 most vulnerable (socially and financially) families were identified for level raising of their homestead plots and shelter construction.

To improve the existing housing pattern, following steps were taken while constructing the new shelters:

- The plinth of the houses was raised to a minimum of 3 feet to a maximum of 6 feet, depending on the vulnerability of the location of house. Gunny bags filled with soil and cement were used for plinth raising.



Houses with bamboo and thatch structure submerge in floods

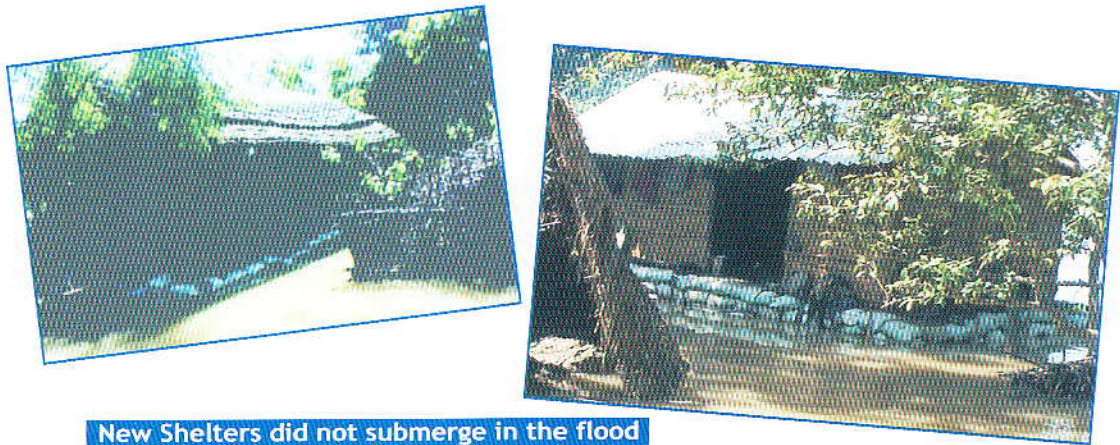
- More durable construction material and improved techniques were applied. Wooden pole was used as column and main structure of roof and bamboo was applied supplementarily to rest of the roof structure, MCR tiles were used instead of thatch for roofing and bamboo mats were used for screen walls.

- Skills of people were enhanced by providing them training on making more durable shelters with optimally utilizing the available local resources, keeping the cost of construction and subsequent repair within control.

New features of improved shelters



The experience of flood in 2008 showed that raising shelter levels helped owners to cope with disasters. The structure sustained the floods and the owners were saved from losing their houses.



New Shelters did not submerge in the flood

2.2.2 Ensuring safe drinking water by hand pumps level raising

Hand pumps are the main source of water in the region. However being almost at the ground level (water is available at 10 to 15 feet depth in the region due to proximity to the river Ghaghara and flat terrain ground), most of the hand pumps submerge during flood as water level rises up to 5 feet (1.5 meter) above ground level. Thus the villagers do not have an access

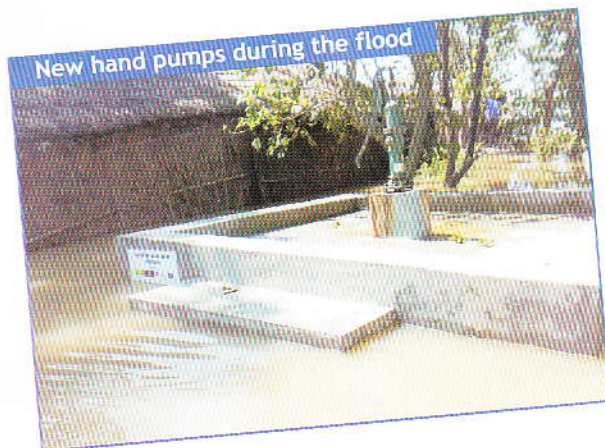
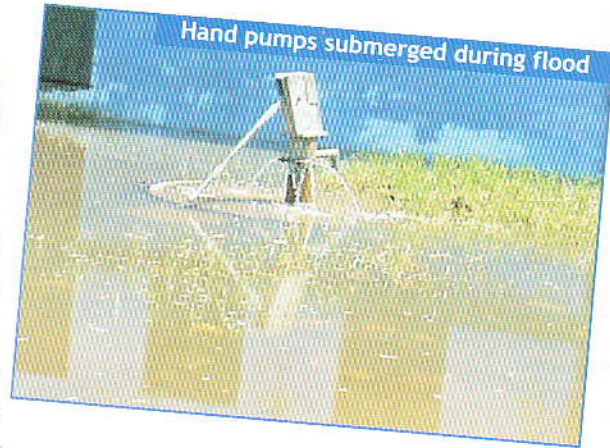
to potable water during or even after the flood as hand pumps are blocked by silt after flood and water gets contaminated increasing the risk of water borne diseases.

Hence as a part of the overall flood resilience strategy, 40 new hand pumps, with raised platform and proper drainage were installed.



The locations of the hand pumps were chosen for their accessibility by the poorest and socially most vulnerable groups.

To involve the local population in the process of decision making and to create ownership, a



'Hand Pump Nigrani Samiti' (Hand Pump caretaking committee) consisting of 5 to 6 members was formed in each hamlet with representatives specially women representatives. The committees are pivotal in making decisions on hand pumps in village and are in charge of maintenance and all other issues related to it.

2.2.3 Supporting emergency livelihood needs through cash-for-work

Agriculture is the main occupation of the people in the region. However many of the farmers own a small piece of land and supplement their income with working as wage labors. During and after flood lack of wage labour availability is a major problem. As crops are destroyed and no demand for wage labour prevalent, especially the most disadvantaged farmers face severe shortage of food and other resources needed for survival.

It was thus considered important to create alternative livelihood options which would generate income. Construction work for shelters and hand pumps was linked with it and a cash-for-work programme was announced. A total of 6010 labour days was generated and a total of Rs. 6, 34,915 was paid to the people under the programme



In line with the NREGA's basic concepts, the main features of 'cash-for-work' were:

- Employment was provided to one person per family. Women were given priority.
- Payments were made on a weekly basis, usually on Monday.
- All the persons employed under the scheme were insured.
- A first aid kit, drinking water and shed was available at the construction site.

For the selection of beneficiaries, a survey was carried out in villages to prepare list with those families that would need financial support. While selecting the families, priority was given to the poorest families and as such 300 families were selected.

With the livelihood improvement and strengthening community's skills in

masonry and bamboo craft, the 'cash-for-work' programme also demonstrated that NREGA can be used to provide resources for people to reduce disaster risk.

2.2.4 Disaster preparedness

The initial analysis suggested that neither the government nor the people were systematically prepared for annually recurring flood. Therefore a comprehensive disaster preparedness programme was devised consisting following three components:

- Development of effective early warning and response systems during flood
- Providing people and the government with necessary rescue equipments
- Training people to save their lives and assets during flood

Developing effective early warning and response system :

Though the village panchayats are normally the first to respond to a flood situation, an effective early warning system and proper co-ordination with the block administration was observed to be lacking. The issue was discussed with the village panchayats and block administration and a simple early warning communication line was established through telephone to inform the villages of the approaching flood in advance. However this was seen as a provisional activity which can not substitute a systematic set up of a holistic early warning system.

Providing equipments :

Village panchayats in the intervened area needed boats and life saving equipments but did not had enough resources for buying them. After analyzing the needs, wooden and motorized boats were distributed to the each intervened panchayat



Allotment of wooden and motorized boats			
Sr.No.	Allotted to	Motorized Boat (No.)	Wooden Boat (No.)
1	Baghaiya Panchayat	1	6
2	Chulambha Panchayat	1	6
3	Godhaiya No.4 Panchayat	1	-
4	Kandauli Panchayat	1	6
5	Kohli Panchayat	Shared with Kandauli	6
6	Matrepur Panchayat	Shared with Baghaiya	6
7	Kaiserganj Block Administration	1	-
	Total	5	30

*Due to the physical proximity and small size, Kandauli -Kohli and Baghaiya - Matrepur shared boats.
*Considering extensive damage in Godhaiya No.4 during last flood, one boat was allotted to the panchayat.

Each boat was equipped with 3 life jackets and 2 lifebuoys. 10 sets of life jackets and lifebuoys were kept separately for emergency distribution.

Search and rescue - first aid training :

Though there are only a few casualties, the loss of assets especially domestic animals is a major concern of the area. After gathering information on the common practices for search and rescue and first aid through street plays and games with children, it was observed that the local knowledge and life saving techniques were prevalent and efficient; training was mainly required to improve swimming techniques, practice the use of life jackets and lifebuoys and get acquainted with first aid. Considering the motorized boats were new, training on their operation was also required.

'Nauka Talim Kendra', a training institution from Vadodara was contacted for providing training on search and rescue. A three days training programme was organized including different key components such as operating the boats efficiently, saving oneself and others using life-jackets and lifebuoys and swimming. 35 people were trained under this training.

Another training was organized with the help of 'Sensea Marine Services', a Kolkata based manufacturing company for driving and maintaining the motorized boats. The training included theoretical explanations on engine and other technical devices as well as practical training on driving and maintaining the boat.



Search and rescue training

The training was attended by the selected trainees from village panchayat and block administration. Gram Pradhans (head of panchayat) also participated in the training.

First aid training was provided by a Red Cross trained instructor. The training covered the main issues of the villagers during flood—first aid for snake and scorpion bite, life-saving of a flood victim, carrying disabled and injured person

in water, in a boat and on the road and simple techniques of stretcher making.

Training activities concluded in real life simulation exercise on a water stream in which the trainees demonstrated the acquired skills before all the villagers.



Trainees during drill sessions

The experience of working in the field of disaster management for two years gave an insight of the subject and it was realized that disasters can not be seen in isolation. With damaging life and property, disasters not only create havoc for the suffering population but also they significantly set back the development efforts of a region, state or a country. There is thus a need to look at disasters from a developmental perspective as well. The developmental plans need to be sensitive towards the issue of incorporating disaster risk reduction concerns within. With this approach the efforts were turned towards mainstreaming disaster risk management into development processes with a focus on building the capacity of local community for it.

2.3 On the path of mainstreaming disaster risk management into local development processes

Based on the findings of need assessment through information gathering, planning workshops and meetings with the State Disaster Management Authority and the review of the past programme, following three results were targeted for current intervention:

- **Result 1** : Local communities and PRIs developed capacities for risk assessment and integrate DRR concerns in their development plans
- **Result 2** : Existing early warning mechanisms are reviewed for all levels and their efficiency and effectiveness is increased for reliable early warning and improved emergency response
- **Result 3** : Training modules and materials for CBDMCs capacity building are developed, tested and disseminated

The target area included 20 panchayats of 7 flood affected blocks of the district. However 8 panchayats, 5 from Kaisarganj and 3 from Jarwal, were identified for direct intervention whereas intervention in the rest of the blocks was facilitated with the help of 6 local partner organizations.

Intervention Area		
District	Block	Panchayat
BAHRAICH	Kaisarganj	Baghaiya, Chulambha, Kandauli, Kohli, Matrepur
	Jarwal	Ahata, Bahrapur, Nasirganj
		Niyamatpur, Retihata
	Balha	Daulatpur Godiyana, Khairi Samaisa
	Mahsi	Sisaiya Churamani, Aurahi
	Shivpur	Pipariya, Baldupurwa
	Mihinpurwa	Rampurva Matehi, Fakirpuri
	Fakharpur	Sipahiya Hulas, Dhurehipur

To achieve the desired results, following activities were carried out:

2.3.1 Result 1

Local communities and PRIs developed capacities for risk assessment and integrate DRR concerns in their development plans.

The need assessment findings showed that existing local development processes do not include

measures for disaster risk reduction. The reason was found in lack of awareness among community and local authorities on how to address and analyze their DRR concerns and integrate them into their development plans.

Referring to the identified need for a systematic risk assessment and integration into existing government structures, a mixed strategy, including bottom-up as well as top-down approach of work, was adopted.

Working with the bottom-up approach, Hamlets (smallest unit of panchayat having a homogenous population generally caste wise), instead of panchayats, were chosen for carrying out all the assessments. A risk assessment framework including hazards, vulnerability and possible solutions was developed after reviewing the existing DRR

frameworks of government. With this framework DRR plans were developed for 50 hamlets.

Keeping the capacity development of local community for risk assessment in view, the whole process of plan preparation ensured community participation and involvement at each step.

Participatory methods like transact walks, time line exercises, focused group discussions and



hazard, vulnerability, capacity and social mapping were used as tools to secure participation. To ensure the sustainability of the developed capacities of the local community for risk assessment and to create an ownership of the DRR plans, HDCs were formed parallel to the assessment process. The HDC includes selected members of the community, selected by community members themselves

and is supposed to take the DRR plans and issues to the panchayat. The field team of SSK stayed continuously up to one week with the community to understand their situation better and integrate all different viewpoints. After developing the provided information in the form of DRR plan, it was presented before the communities once again for their confirmation.

The 50 DRR plans were merged into 8 panchayat level DRR plans.

DRR plans cover preparedness, mitigation, response and contingency measures. The planning approach has been appreciated by the district administration and is seen as a model for the improved disaster risk reduction plans at the district level.

Simultaneously working with the top-down approach, relevant stakeholders and authorities at the panchayat, block and district level were identified and liasoned with. The regular meetings with Pradhans and officials at all levels were held for making them aware of the ongoing activities and involving them as active stakeholders in the integration process.

Finally, the integration of the DRR plans into the local development plans was done in the open meetings of the Gram Sabha. HDC members along with the community presented their respective plans in the meeting and got many of their DRR concerns integrated in the panchayat's development plans.



HDCs presenting DRR plans and raising their concerns in gram sabha meetings

During the DRR assessment and preparation of DRR plans, the local community also identified activities which may reduce the risk and improve their coping capacity. To demonstrate the positive impact of the identified activities, 150 disaster mitigation and preparedness activities were also implemented in 8 panchayats.

Major mitigation and preparedness activities	
Mitigation Activities	Preparedness Activities
Construction of 27 flood safe raised hand pumps	Formation of 45 Hamlet Development Committees in 50 hamlets (some of the hamlets have common HDC due to small population of the hamlets, thus the total 45 HDCs have been formed for 50 hamlets)
Distribution of 30 wooden boats	Distribution of 30 search and rescue kits for 30 wooden boats
Distribution of Plastic folders for 1789 families in 50 hamlets for keeping important documents safe	Distribution of 50 first aid kits in 50 hamlets
1 mechanized boat to Ahata panchayat	Wall writing of important phone numbers in 50 hamlets
2 mechanized boat to District Administration	Distribution of 124 solar lantern in 50 hamlets
	2 solar lamp street lights in 2 hamlets.

Except one mechanized boat allotted to Ahata panchayat, all the assets have been handed over to HDCs. HDC, through community consultations, further decides to whom it should be given. The close cooperation between SSK and district administration has helped to set in a multiplier effect of these activities. District administration is replicating and further expanding the implemented activities to the whole district. 800 hand pumps are being raised replicating SSK's idea. 183 raised earthen platforms of different sizes depending on population size and available space are in progress.

2.3.2 Result 2

Existing early warning mechanisms are reviewed for all levels and their efficiency and effectiveness is increased for reliable early warning and improved emergency response.

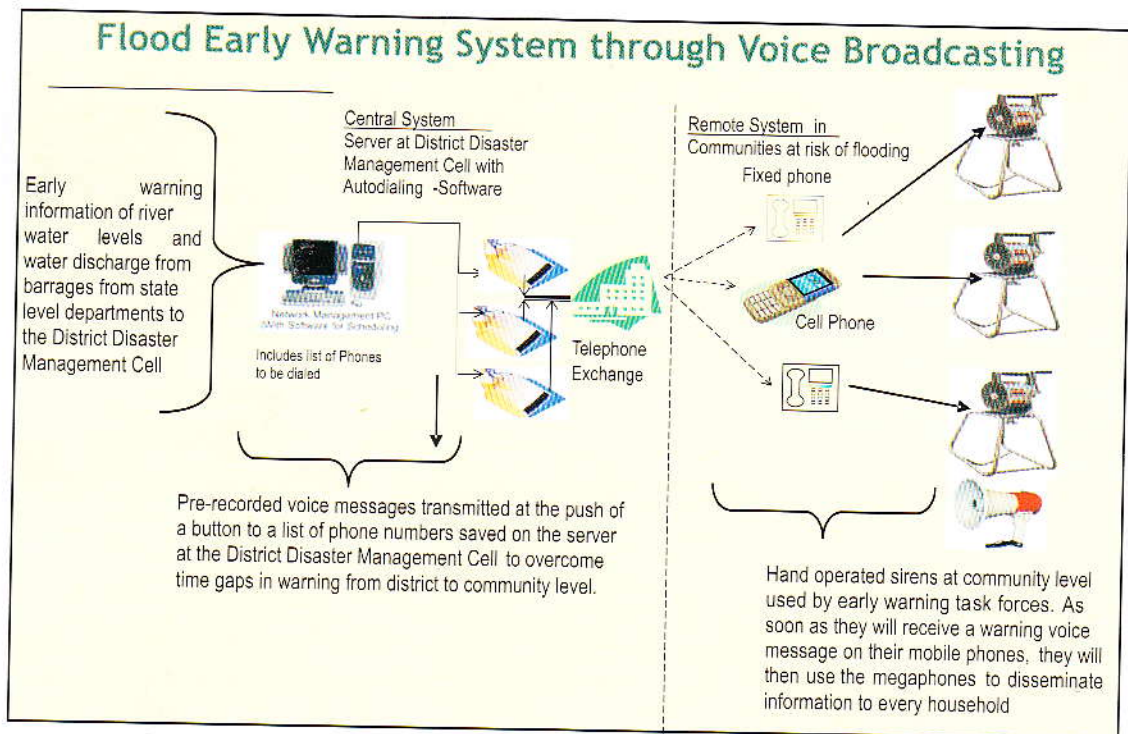
Though flood is a regular phenomenon in the region, the past experiences and assessment findings revealed that an effective, efficient and reliable early warning system was lacking in the area.

SSK carried out a study on existing early warning structures and processes through VCON

Services Private Limited, Delhi on a consultancy basis. It was complemented by an internal study by SSK's early warning team on existing early warning system and traditional early warning practices of community in Bahraich. The study identified the major gaps in the existing system in the form of time delays occurring from district level to the hamlet level, lack of accountability on the lower levels to disseminate the information in time and above all the district administration itself is informed only if the water released from barrage is above one lac cusec at one go.

On the basis of recommendations of the study, several options, ranging from satellite based systems to village knowledge centers, were considered to effectively link the government levels with the community.

Finally a new system was developed by SSK. This system relies on the existing information chain of warning messages from the barrages to the state and district level. It uses the cost effective technical component based on a simple 'auto-dialing programme' with pre-recorded voice messages being transmitted at the push of a button to a list of phone numbers saved on the server. The system is supposed to overcome the time gaps in warning from district to community level.



After several rounds of one-to-one meetings and discussions with relevant stakeholders on the study findings and the newly developed system, a joint stakeholder workshop with the district administration was organized in Bahraich in May 2010. The workshop brought together 67

participants from district administration, panchayats, community and NGOS/INGOs on a common platform. The features of new system were presented in the workshop and an action plan, incorporating both hardware and software aspects, was formulated for the implementation of an effective and efficient early warning system.

The improved early warning system got sanctioned from the district administration and server has been installed at DDMC Bahraich. The district administration has been directly linked to the community through early warning task forces under the system. The new system recognizes the community based early warning task forces as a part of the whole system. They will be informed directly by the DDMC along with other officials and panchayat representatives. Hand operated sirens have been installed in the hamlets. The task force members will blow the sirens after receiving the warning and will inform the communities through megaphones. The roles and responsibility of task force members in this reference have been drafted by the task force members themselves during trainings.



Early Warning Process in the community

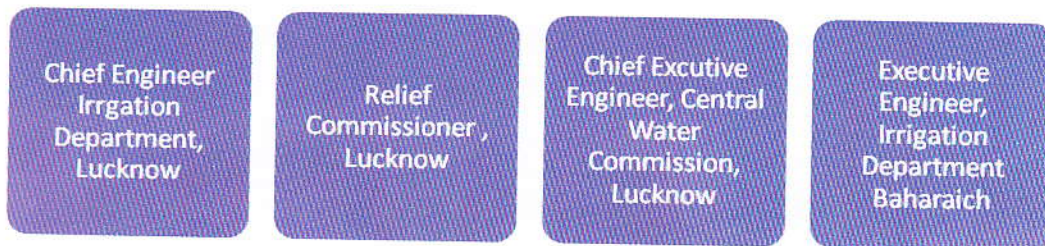
Two simulation exercises were also conducted in July and August, 2010 respectively to review the improved early warning system.

District administration has appreciated the system a lot and thinking of utilizing it for informing the communities of relevant development schemes and other information meant for them through voice messages.

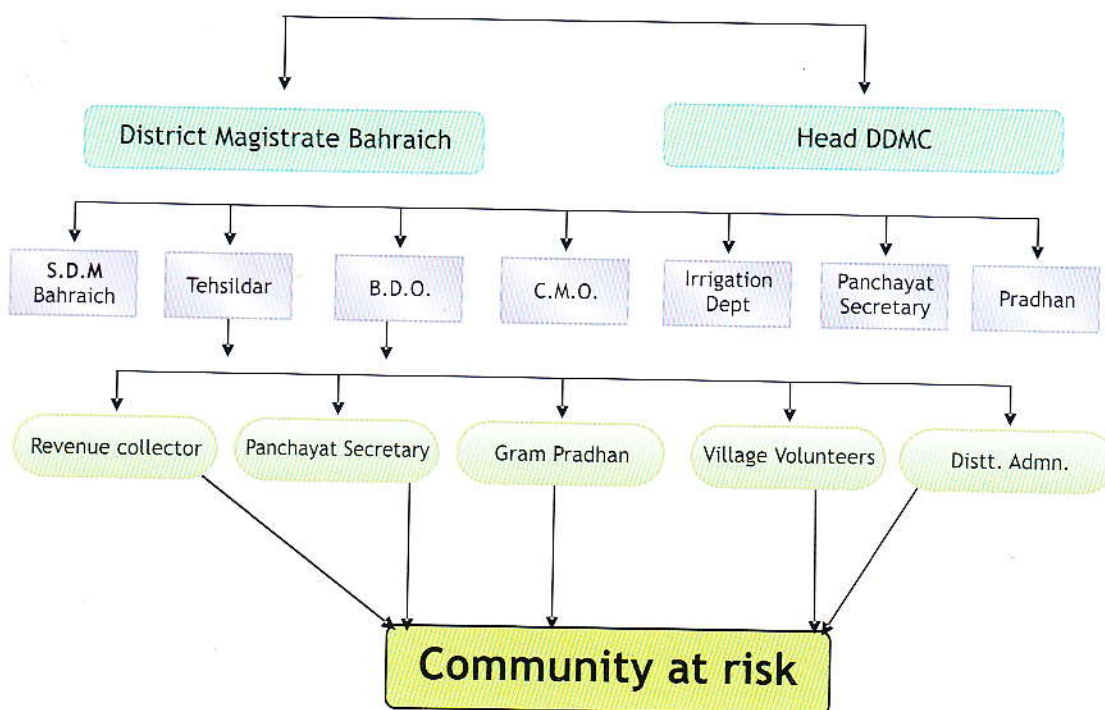
The improved early warning system of Bahraich after SSK's intervention

Early warning system in Bahraich (till March, 2010)

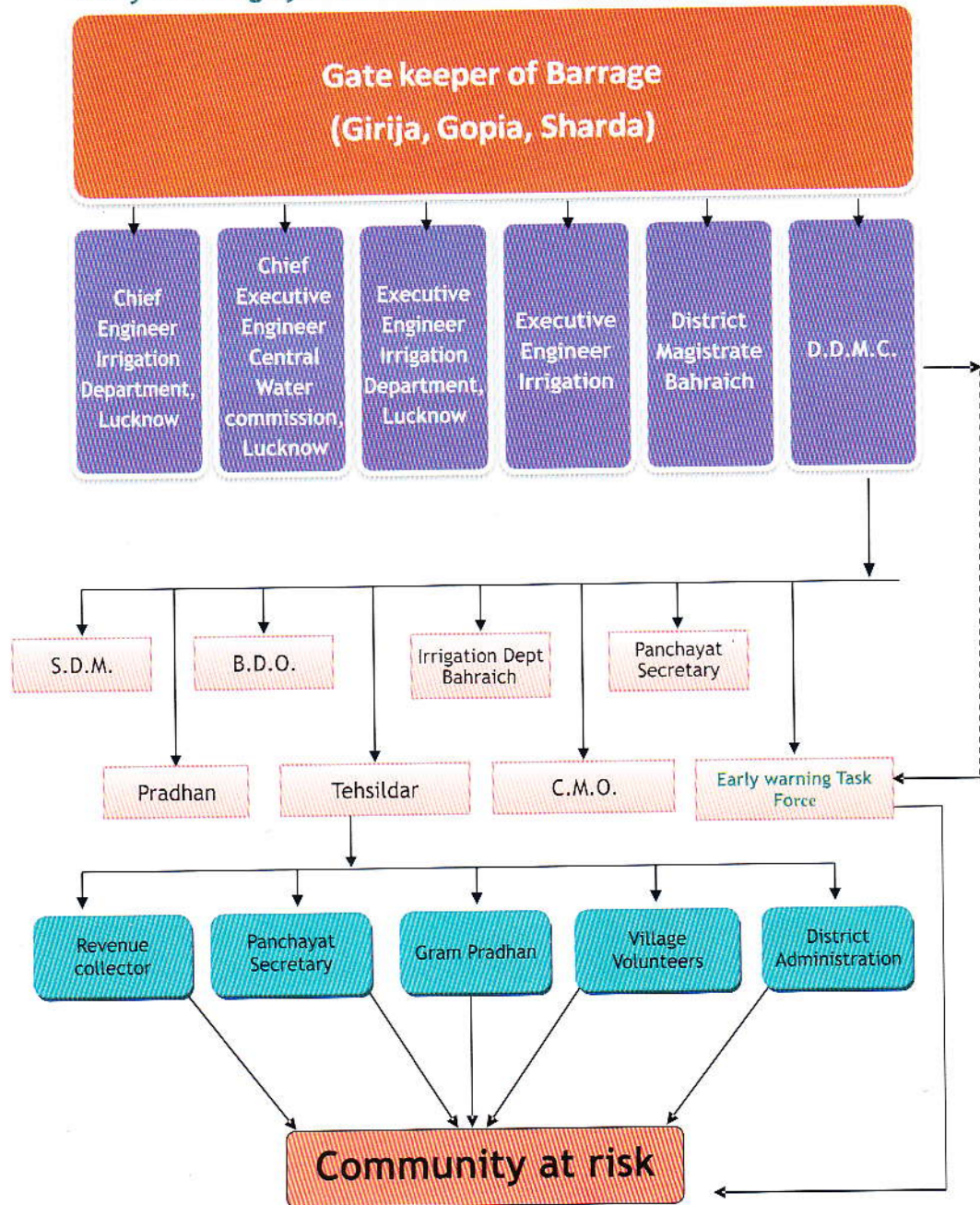
Gate keeper of Barrage (Girija, Gopia, Sharda)



If the water released is above 1 lac cuseac



Early warning system in Bahraich (Since April, 2010)



2.3.3 Result 3

Training modules and materials for CBDMCs - capacity building are developed, tested and disseminated

Based on the identified need for a standardized training framework and methodical training material for CBDMCs, study of existing training materials and their review was seen as first step. Existing training materials on the following topics were collected, studied and reviewed towards the suitability of using them for the trainings of CBDMCs:

- Early warning
- Search and rescue
- First aid
- Water, Sanitation and Hygiene (WASH)
- Social Inclusion

The review of collected materials revealed the absence of a flood specific comprehensive training approach for CBDMCs' training. All the publications contained general information on disaster management and that too in an academic language, not meant for common villagers.

A training need assessment was carried out to get an understanding of the knowledge level of the community and their training needs. Based on the findings of this assessment and the findings of DRR plans, training modules on the above 5 subjects were developed.

The development of modules was carried out in close collaboration with ADRA Bihar under the technical guidance of UNNATI, Gujrat. The modules included many illustrations and games as methods fitting for the target group's needs.

The finalization of the modules was done in a participatory manner. A district level stakeholder workshop was organized for the purpose. In the workshop, an open discussion on modules was facilitated among all the relevant stakeholders including district officials, pradhans of intervened area, and representatives of 6 partner organizations. The views of other state level and international organizations were collected by sharing the modules with them though e-mail.

Traning modules developed for CBDMC traning



Incorporating the suggestions, modules were finally published in Hindi with an English overview. In addition the modules were complemented with IEC materials like posters and picture-story booklets which the trained members of CBDMCs can hand out to the communities while training them.

Task forces of CBDMCs on the defined 5 issues were formed in each intervened panchayat, giving space to previously trained task force members. Selection criteria were defined and the selection was done by the HDC members from within, ensuring community's approval as well. It was tried to keep the task forces a representative body securing the representation of all groups and hamlets while maintaining gender balance. However it was observed that women confined to their traditional roles and their participation in search and rescue and early warning task force could hardly be secured.

Trainings for the task forces of CBDMCs were organized in Lucknow and at different places in Kaisarganj. Two days training on defined 5 themes was provided to each of the task forces. 308 task force members of 8 panchayats were trained in total.



Demonstration of hand operated sirens during training



Drills for Bandaging in First Aid training



Task force members in field after trainings

Trained task force members					
Subject	Early Warning	Search and Rescue	First Aid	WASH	Social Inclusion
Male	57	62	44	30	41
Female	5	0	20	31	18
Total	62	62	64	61	59
* 308 people were trained in total					

In-house trainers, involved in the module development, provided training on early warning, WASH and social inclusion whereas the resource persons were engaged for first aid and search and rescue, considering the technical expertise required for the subjects. Training on first aid was provided by resource person from Red Cross and a local trainer of the region provided training on search and rescue. However the whole training process in all the trainings was facilitated by the in-house training team. The training gave an exposure to the task force members besides sharpening their skills. It was the first time for many of the female members to go out of their houses and participate with male members as equals. An action plan was also drafted by the task force members of each panchayat in the trainings

In addition to the task force members 12 representatives from 6 local partner organizations were also trained on the same issues with training-of-trainers approach. These trained members further provided training to the task force members of the 12 indirectly intervened panchayats of 6 blocks.

For ensuring the sustainability and reliability, the efforts were made to get these task forces recognized by the administration as well. After rounds of meetings with officials, identity cards, signed by the SDM and BDO are being issued to the trained task force members. With these i-cards the task force members are supposed to establish their identity before administration as well as other people working in the area during floods and work as a channel between the administration and the community.

To support the spread of the outcome and experiences to other relevant stakeholders and regions, an internet platform is also established.

2.4 Learnings and insights

The work for flood resilience in past three years has enriched the Kendra with lots of new learnings and has also helped to develop a deep insight. The key learnings of the overall intervention period include:

- **In the beginning phase** relief was distributed to the affected community in the form of food, clothes, domestic items, wooden boats, rescue equipments and construction material. It was experienced that though the relief is not the permanent solution of the problem, if judiciously given, it may lay the foundation for faster recovery; rehabilitation and can help community to be better prepared. Construction material provided to the community helped them to rebuild their houses. Similarly the wooden boats and rescue kits could be used in the flood of next year also besides being used in the rescue operation of that year flood only.
- Identification and reaching the most vulnerable is possible only when the entire process is done with community participation. The process followed for the relief distribution ensuring community participation and physical verification helped in relief distribution to the most deserving ones.
- **The second phase of building community resilience** demonstrated how people can construct shelter with locally available resources and develop a sense of security during flood. By raising the plinth of the houses and using a detachable walling system of bamboo mat screen, the people can overcome the problem of building a new house every year after the floods are over.
- Raising the level of hand pumps has been replicated by the government also. However it was experienced that the raised hand pumps should have a ramp or railing also so that safe drinking water may be easily availed by the disabled during flood.
- The construction process demonstrated that the use of traditional knowledge in the construction process helps in minimizing the cost and besides ensuring community participation it also develops a sense of community ownership.
- Incorporating cash-for-work activities helped to demonstrate how the panchayats can make use of government schemes like NREGA to improve people's disaster resilience next to providing income opportunities.
- As for disaster preparedness it was realized that all materials and facilities provided should have a use in daily life as well. Boats are a good example. While motorized boats were expensive and required costly maintenance, local wooden boats were cheap and easy to use. In terms of utility wooden boats fared better and could also be used for daily transportation of the people and goods.

- Formation of village level committees for implementation, monitoring and maintenance of assets created therein ensured sustainability to a greater extent.
- **The efforts for mainstreaming** followed the norms laid down under the disaster management policies of the state government. Because of this it was far easier to create linkages with different government departments.
- Involvement of the community in stakeholder analysis made it comprehensive. The people knew where the barriers in claiming their rights were. Rapport with the identified stakeholders was established and their engagement in implementation and planning process was ensured. This helped in terms of effective implementation of activities and ensuring long term sustenance through linkages.
- The DRR activities were linked with government schemes like NREGA. This helped in implementing the activities more efficiently with less resources as well as creating a model for the government to replicate.
- Simple technology and association of community members as the integral part of the whole system strengthened the early warning system and helped the community to be prepared in a better and more systematic manner.
- Adherence to the state norms with regard to the task force formation facilitated in the recognition of the task forces by the district authorities. The community based task forces recognized by the government performed efficiently with a sense of pride in recent floods of 2010. The linkage also helped to keep replenishing the utilized items of task forces like first aid task force will get the supply from the primary health centre and WASH task force will get the chlorine and other necessary items.
- Inclusion of women and disabled in the community structures like hamlet development committees and task forces could not be ensured on equal basis. Social and cultural barriers played a significant role in it. The issue needs to be addressed more strategically in future.
- The training approach i.e. development of specific training modules and in house trainers helped the task force members to be connected with the whole programme and handholding support to them could be provided easily.
- Formation of community based organizations like hamlet development committees helped in effective implementation of the activities and also ensured sustainability.

The overall intervention in the last 3 years can be seen as a continuum of relief, rehabilitation and development through mainstreaming disaster preparedness into local development process. Hardware as well as the software aspects of the problem were touched during the period. However the work does not end here...

3. A Few More Destinations to Reach

The community structures like HDCs and task forces formed during the intervention period are in nascent stage and demand handholding support for a longer period. Though they have been trained and equipped, it was first time for them. Given the illiteracy and attitude of the people, a few more rounds of trainings and refreshers will be required to bring them in their actual working shape and make them self-sustainable. In addition, the idea is to provide these structures with a center from where they can carry out their activities. These centers will work as a hub of the different DRR activities. The information, like claims under Calamity Relief Fund provisions and other related information will be made available on these centers. They will be the meeting place for HDCs and task forces. Equipments provided to HDCs and task forces like first aid and search and rescue kits will be kept in the centers. Above all, at the time of flood, the center may be developed as a reference point for the government and the community.

Similarly the panchayat representatives need a clear understanding on the issues like how to link the developmental plans to DRR concerns. During the period they were also liasoned with and involved in each activity, but it was realized that they themselves need to be capacitated as well. Recent panchayat elections in U.P. have brought new representatives. The integration of DRR concerns into development plans as a normal process will take some years. Till the time the new representatives will be required to be trained and sensitized to take up the DRR plans sincerely and integrate them in the main development plans of the panchayat.

The ongoing advocacy for relief and government accountability needs to be continued for influencing the overall policy of the government and to effect required positive changes in this policy towards flood management and community resilience.

The continuous presence in the area for 3 years revealed some other very serious issues as well. Displaced community of Ahata and Nasirganj panchayat in Jarwal block is a major concern. River Ghaghara changes its course and thereby several villages have been submerged and the displaced people have no permanent shelters. They are living on the embankment since last 15 years. Lack of a permanent place to live in is not a single issue, but many other problems ensue from it. The people do not have an identity; they do not enjoy the basic rights meant for a dignified existence; services like health, education are not available to them at their place and the list is endless. This is a serious advocacy issue need to be dealt with. However the displaced people have no idea how to bring forth their issues in an organized manner. Administration as

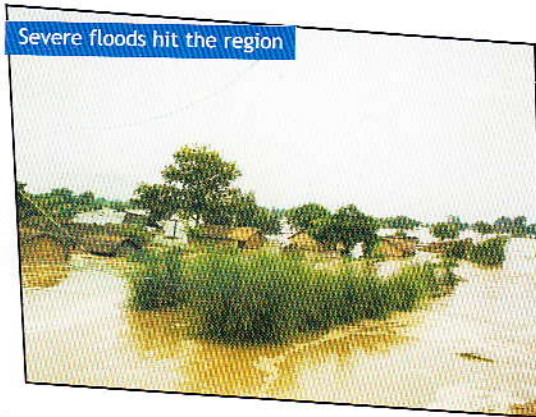
well as people is aware of their deplorable state without any clue to solve their problem. SSK dreams of ensuring a dignified life to these people. Though the advocacy for permanent shelters and land demands a longer period and rigorous intervention, the idea is to start with forming citizen's collectives and capacitate them to bring forward their issues themselves in an organized manner.

Thus all the work done till date is just starting of the journey and many more miles are yet to be traveled to touch the milestone of a well-prepared and flood resilient community. Moving ahead in the same direction with a few more 'Dream Destination's as above the journey is continued...

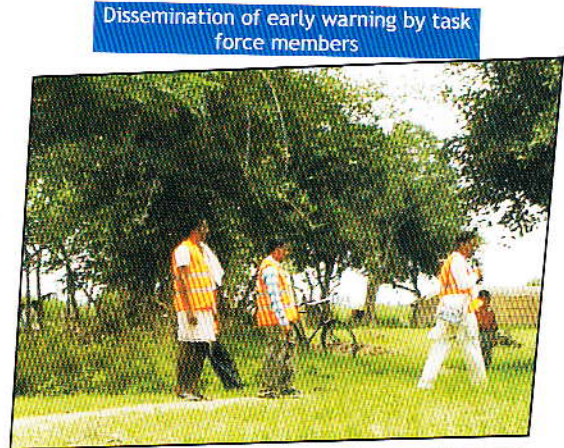
4. Annexure

RESPONSE

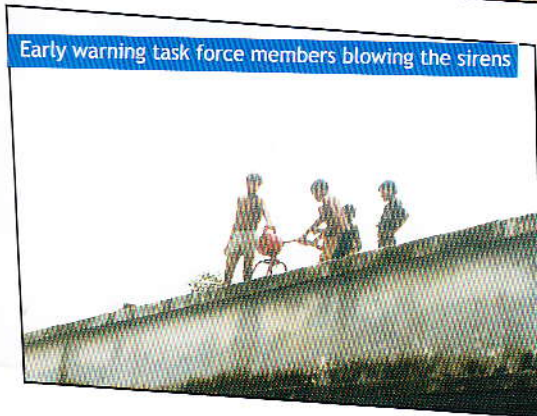
4.1 SSK's intervention and response of community to floods, 2010



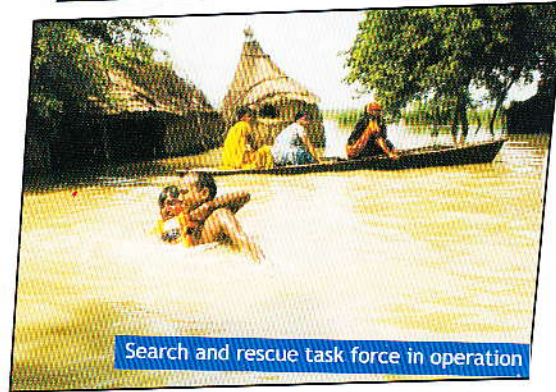
Severe floods hit the region



Dissemination of early warning by task force members



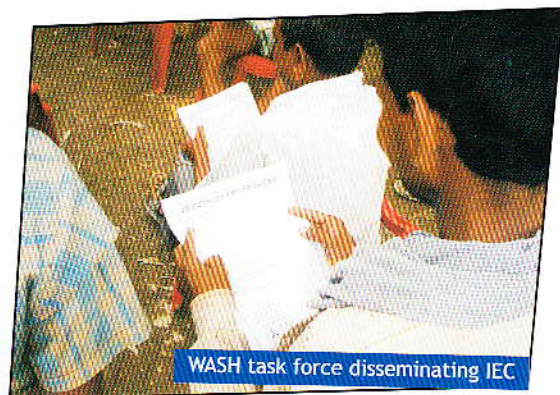
Early warning task force members blowing the sirens



Search and rescue task force in operation



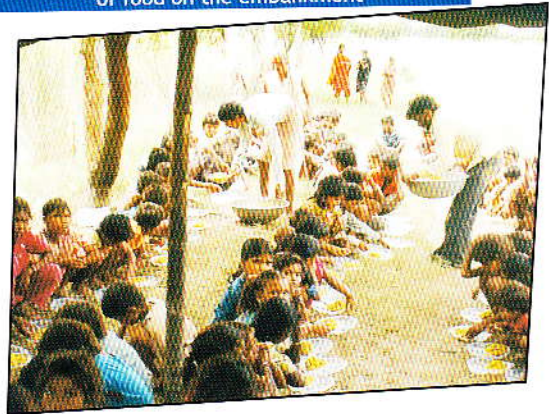
First aid task force on embankment



WASH task force disseminating IEC



Task force members participated and coordinated with the administration for arrangement of food on the embankment



Tarpaulin sheets were arranged for shelter



Clean embankments



About SSK

Sahbhagi Shikshan Kendra (SSK), a support organization and a centre for participatory learning, founded in 1990 at Lucknow with the singular purpose of promoting social change by strengthening the civil society organizations that are engaged in empowering the economically and socially marginalized and setting up democratic governance with proper perspective on gender justice in the state of Uttar Pradesh.

The mission of SSK is to build and strengthen capacities of civil society organizations in order to promote the participation of marginalized communities and women in the process of social change.

SSK's main thrust area of intervention is local self-governance both rural and urban with a perspective on gender justice and increased space for marginalized communities in the democratic functioning of institutions of local self-governance. It works directly as well as through its partner organizations in a joint collaborative manner where we learn intensively from each other.

SSK is well known for its over 55 publications on Training, Organization Development, Panchayati Raj System, Self Help Groups, T.O.T., Micro Planning, NGO Management and various other issues and aspects related to rural development and urban local self-governance. Short-duration training courses are organized on these themes for the functionaries of development organizations.

Over a period of 19 years of its existence SSK has come to be recognized as a centre of excellence in capacity building of CSOs working at the grassroots. Its spectrum of initiatives and participatory interventions reaches out to 19 Panchayat Resource Centers and 9 Urban Resource Centers spread out in 10 districts of Uttar Pradesh. SSK is forever active for the cause of networking and advocacy of concerns related to local self-governance and promotion of social entrepreneurship. SSK has established community level experimentation centers in four regions of U.P. Experimentations on interfacing local government institutions with various themes such as social audit, migration, disaster, girl child education, forest right etc are being undertaken in those experimentation locations. The leanings from such sites are used for training and policy advocacy the state level.



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The Collaborating Organizations

The journey was accompanied and supported by ECHO, Malteser International and UNNATI. ECHO and Malteser International have funded the programme. Malteser International was in the role of coordinating agency and facilitated the coordination with ECHO, supported the planning process and monitored the programme activities. Unnati with its prior experience in post-disaster reconstruction and disaster preparedness provided technical support for the implementation of the programme. Sahbhagi Shikshan Kendra implemented the programme activities.



SSK is a Non-Governmental Organization (NGO) based in Lucknow, India. It is one of the leading institutions specialized in capacity building of NGOs, Community Based Organizations (CBOs) and Panchayati Raj Institutions (PRIs) in Uttar Pradesh, Bihar and Jharkhand.



UNNATI is an NGO based in Ahmadabad, India. Among other things it focuses on development education, development of concepts in local self governance and disaster preparedness.



Malteser International is the worldwide relief organization of the Sovereign Order of Malta for humanitarian aid. The organization has more than 50 years of experience in humanitarian relief and covers around 200 projects in 20 countries in Africa, Asia and the Americas.



ECHO is the largest single humanitarian donor in the world. It funds relief operations for victims of natural disasters and conflicts outside the European Union. In 1996, ECHO launched DIPECHO, a program dedicated to disaster preparedness. The DIPECHO program funds pilot projects intended to demonstrate that simple, inexpensive preparatory measures can limit damage, increase resilience and save lives.



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