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## **Report on Pilot Study on Community Approach to Flood Management Phase IV**

### **Introduction**

After successful completion of the phase III of the pilot study on Community Approach to Flood Management in India with respect to the implementation of the Manual under actual flood conditions during 2004 flood season in Tira Jatmalpur panchayat of Kalyanpur block in Samastipur district, Bihar, a report on the experience and findings (along with socio-economic profile of the area) was sent to WMO. The villagers, during the testing of the Manual, had indicated their desire to get another opportunity for repetition of the activities in view of the fact that this was altogether a new approach to which they were not used to and acquainted with. They had apprehensions that by the time the next flood season came after a span of at least one year, they might forget a number of useful instructions given to them during training and also provided in the Manual. It was also felt that an incremental dose of training coupled with some financial support and guidance, would result in boosting the morale of the community which would go a long way in mitigating the drudgery of flood victims. This feeling of villagers was conveyed to the WMO which in turn appreciated the idea and sanctioned the next round of extension activities to the Institute with a view to multiply capacity building effects in the selected panchayat and its neighbourhood. Thereafter, the Institute reinitiated the process during 2005 flood season in the selected panchayat (Tira Jatmalpur) under phase IV of the pilot study on Community Approach to Flood Management in India.

### **Interaction with the Villagers**

A team consisting of a senior officer of the Institute from Delhi along with the Extension Officer, visited the selected panchayat (Tira Jatmalpur) on 10th & 11th of June, 2005 to take stock of last year's experience and make a realistic assessment in terms of preparedness against impending flood among villagers in the light of what was told to them during the training sessions of the 2004 flood season. The president of the Flood Management Committee (FMC) who also was the Mukhiya (Head) of the panchayat was contacted. Other knowledgeable persons of the panchayat were also informed about the team's visit to the panchayat. As a result, a number of people gathered at the primary school complex located on the cross road of the panchayat. They were eager to know as to why the Institute for Resource Management and Economic Development (IRMED) team had again made their visit to the panchayat. The villagers were apprised of the purpose behind their re-visit after a gap of one year. The villagers appreciated the idea very much and volunteered to provide all the necessary help and cooperation in respect of organizing reorientation programme for capacity building training among villagers to deal with flood more successfully and effectively during the flood season of 2005.

The team also wanted to know as to how the villagers were prepared to manage the impending floods during 2005. The villagers on being questioned on various aspects of flood preparedness, informed the team that, to the extent possible, they had followed the instructions given to them during the skill up-gradation training particularly in respect of storing of foodgrains for emergency use during flood for about a week or fortnight as was feasible in view of their abject poverty, stock piling of dry fodder, keeping water purifier packets ready etc. But as regards collection of kind contribution in the coming rabi season from among well to farmers in the village as also in the nearby areas, they showed some slackness in the approach as no one of the FMC members including president of the FMC came forward to take the lead. What was needed was that, to start with, the FMC members could have made voluntary kind contribution themselves as per their capacity where after other farmers in the village could have been persuaded. In this respect, they admitted that there was a lapse on their part and were determined to follow the guidelines here after. In fact this could have helped in building a corpus for the FMC to meet exigencies. They also



admitted that they had not approached any outside agencies for voluntary donations. The other area where a casual approach was found was in respect of preventive vaccination to their domestic animals before the commencement of flood. However, the instruction to store seeds for post flood sowing, was found being carried out properly. Since the primary education was a subject matter under the jurisdiction of block/panchayat, taking up extra classes to cover the study losses due to flood was not a problem at all. It was reported that the post flood reconstruction of damaged public utilities such as roads, culverts, school premises etc. were well attended by the villagers jointly along with the government. While the well to do people in the village made cash contribution for repair of common properties, the economically weaker households contributed their labour free of charge for 4-5 days. In brief, there was a mixed response to the capacity building training given during the 2004 flood season. Hence, the need arose for repetition of the activities in the next flood season. There was a general feeling that the community was more competent than the government machinery with regard to distribution of relief. Community had better knowledge of situation in respective villages. But government support was needed for aspects like flood forecasting and warning.

### **FMC Meeting**

The president of the FMC was urged to call a general body meeting of the villagers and in particular FMC members on a pre-decided date convenient to all of them. As scheduled, the team again arrived at the panchayat office and held an awareness generation meeting for interaction with the villagers. With the consent of those present, a fresh list of volunteers including people trained in the flood season of 2004, for undergoing training on rescue & relief administration, post flood agricultural practices, health care and sanitation, cattle care etc. was prepared. The venue and the dates for conducting the training were also decided on the spot. In almost all the programme areas, a number of freshers showed eagerness to get training in the areas of their interest. The trainers in the areas of their expertise were also identified with the help of the FMC members, particularly the president. For selecting trainers, preference was given to local experts who at the time of dire needs could easily be contacted for immediate help. On the designated dates, the extension officer of IRMED along with the trainers arrived at the village for imparting training on various activities to be performed under flood management drill. The arrangement for undertaking training was quite good. A portion of the primary school premises was provided with folding chairs numbering 20-25 and the rear area was carpeted to accommodate extra trainees. However, there was no change in the list of FMC members. All the 17 FMC members selected in the previous year, continued as members during the flood season of 2005 as shown below.



Sl. No.	Name	Village	Position
1	Ranjan Chaudhury	Tira	President
2	Baidyanath Thakur	Tira	Secretary
3	Rohit Ram	Tira	Treasurer
4	Shambhu Chaudhury	Jatmalpur	Executive Member
5	Ramashis Paswan	Tira	Executive Member
6	Sadan Kumar Thakur	Tira	Executive Member
7	Jimmad Rai	Tira	Executive Member
8	Kishore Rai	Tira	Executive Member
9	Smt. Budhan Devi	Malkauli	Executive Member
10	Smt. Kalyani Devi	Rajpa	Executive Member
11	Bilat Rai	Malkauli	Executive Member
12	Sanjit Kumar Thakur	Rajpa	Executive Member
13	Shiv Sankar Chaudhury	Jatmalpur	Executive Member
14	Sanjay Paswan	Tira	Executive Member
15	Chhedi Paswan	Tira	Executive Member
16	Jairam Chaudhury	Jatmalpur	Executive Member
17	Birju Rai	Malkauli	Executive Member

The above list was considered adequate and representative for the purpose by the villagers. It contained 2 women and 5 scheduled caste members.

### **Empowerment through Capacity Building Training**

To enhance the capabilities of the villagers, a number of capacity building training programmes on aspects such as rescue & relief management, health care, sanitation, cattle care, post flood agricultural practices etc. were arranged at the village level in consultation with the FMC members and those trained earlier. However, some new names were also suggested by the FMC for inclusion in various capacity building trainings. Representation of women was quite adequate for training on agriculture and allied activities followed by health care and nutrition. Besides, a large number of scheduled castes and weaker section households also participated in the designated training programmes. The capacity development trainings were imparted by the subject experts in the areas of agriculture, health, veterinary care, rescue & relief etc. The entire training programme was completed in 2 days.

### **Training on Agriculture and Allied Activities**

The training programme on post flood agricultural operations was arranged on 10th of July 2005. This was attended by all the 15 volunteers selected and trained for the last flood season. Besides, four more participants as per list also joined this one day programme. The training on post flood agricultural practices was imparted by Dr. H.M. Sharma, a retired professor of Agronomy, Rajendra Agricultural University, Pusa, Samastipur, Bihar. The trainees showed keen interest in knowing about an area specific crop calendar exclusively developed for their areas. Dr. Sharma also answered several queries raised by the participants during the training. The names of 4 freshers given training on post flood agricultural activities were as under.



Sl. No.	Names
1	Shri Baid Nath Thakur
2	Shri Sambhu Nath Chaudhury
3	Shri Ram Kishore Rai,
4	Shri Sanjeet Paswan

### Training on Veterinary Care

The same day (10th July, 2005) the training on veterinary care was also completed. It was attended by 10 freshers, in addition to 17 volunteers of last year. The training was imparted by Dr. P.K. Jha, a local veterinary doctor of Darbhanga, Bihar. Dr. Jha explained the participants about possible outbreak of cattle diseases during and post flood season along with measures to deal with such cases. He also made suggestions for a number of preventive measures including vaccinations to the animals before commencement of flood in every season. The technique of storing dry fodder in stacks and also green fodder were also discussed in detail. This was expected to help farmers to escape fodder shortage and malnutrition of their cattle. The names of additional volunteers who attended the training on animal health including five ladies were as follows.

Sl. No.	Names
1	Shri Rama Chaudhury
2	Shri Ganbati Chaudhury
3	Shri Badri Prasad
4	Shri Laxman Rai
5	Shri Jogi Ram
6	Smt. Jagmaya Devi
7	Smt. Aruna Devi
8	Smt. Parwati Devi
9	Smt. Kalyani Devi
10	Smt. Urmila Devi

### Training on Health Care and Sanitation

Following the schedule, on 24th July, 2005 the training on health care and sanitation for village youth was arranged. The training was imparted to a gathering of 15 persons including 3 new faces. The instructor for health care training was Dr. S. Kumar, a sitting medical officer, Darbhanga, Bihar. The advantage with Dr. Kumar was that he was a locally posted medical officer and was fully aware of occurrences of post flood water borne diseases among villagers of the panchayat. He asked the villagers to avoid taking flood water because of contamination which may cause illness if taken without boiling. He also suggested purification of un-cleaned water through water purifier packets and also by using phitkari (Alum). He told the villagers to keep ORS in advance to deal with the cases of de-hydration. The trainees appreciated the idea very much. The names of 3 volunteers given fresh orientation training on health care and sanitation were as under.

Sl. No.	Names
1	Smt. Kalyani Devi
2	Shri Vijay Mishra, and
3	Shri Bilati Rai



## Training on Rescue & Relief

The capacity building training on rescue, relief and post flood rehabilitation was arranged on 24th July, 2005. This was attended by 20 volunteers including 8 freshers. The training was given by Shri B.N. Yadav, a retired BDO, Darbhanga, Bihar. To his credit, Mr. Yadav had a vast experience of handling relief, rehabilitation and other flood related issues as a BDO in several blocks in the past. He had supervised a number of relief operations and relief camps during his tenure as BDO in several blocks. During the training, Mr. Yadav gave much emphasis on evacuation and rescue operations. He insisted that the priority in rescue should be given to old, children, ladies and sick in particular followed by other able bodied persons. A briefing was also given on identification of needy persons and procedure of operation of relief camps in the nearby uplands. Collection of relief items and their equitable distribution among deserving cases, distribution of first-aid medicines etc. were also discussed. Mr. Yadav stressed the need to prepare a detailed list of damages to properties including cattle, sheep, goat, and standing crops. The list contained the names of following 8 persons who were given fresh training on rescue and post-flood rehabilitation.

Sl. No.	Names
1	Shri Ranjan Rai
2	Shri Sadan Kumar Ram
3	Shri Chhedi Paswan
4	Shri Sambhu Chaudhury
5	Shri Shiv Sankar Rai
6	Shri Brijju Rai
7	Shri Rohit Ram
8	Shri Baidyanath Ram

## Late Arrival of Monsoon

Contrary to the expectations in June 2005, there was no monsoon in the area and in July, there were scanty rainfall which did not cause inundation in the panchayat. In fact, a drought like situation was emerging because of which villagers started becoming disinterested in issues related to flood management. The extension officer was keeping a close watch on the monsoon situation in the area. All predictions about arrival of monsoon and flood went wrong till first week of August, 2005. Hence, the re-testing of Manual on actual flood condition appeared to be a great problem in the selected panchayat (Tira Jatmalpur). The matter was brought to the notice of the Institute for Resource Management and Economic Development which, in turn, informed the WMO in early August, 2005 about the problem being faced in the selected areas in Bihar due to scanty rainfall. After waiting for a few more days during which there was no change in the situation, the Institute directed its extension officer to hunt for another nearby flood area either within the district (Samastipur) or in the nearby district of Darbhanga.

## Selection of a Different Area

Accordingly, the extension officer made a series of visits to different blocks and district head quarter of Darbhanga to collect information on flood events. Subsequently, he analysed the information gathered from various sources and selected a panchayat named "Sinuara" under Hanumannagar block in consultation with the block and district officials of Darbhanga district. The Mukhiya (Head) of the panchayat along with other selected members were appraised of the need to form a committee which can look after flood related issues exclusively at the community level instead of waiting for government intervention which takes considerable time as also fighting with it at individual level which in most cases delayed result.



The study team had several rounds of interaction with the villagers of Sinuara panchayat in early August, 2005. The villagers looked indifferent and showed little interest in the matter. In the beginning, they could not understand the spirit of community participation as a way out for reducing flood vulnerability in their area. Their past experience was that government help and assistance did not come in time. The quantum of help provided by the governmental agencies during flood was also quite insufficient. At the same time, assistance from external sources was also very limited. Since the panchayat remains flooded during major parts of the year due to a criss cross of rivers and their tributaries, the villagers were advocating for complete eradication of flood rather than surviving on charity in the form of relief every year by some agencies or the other. The study team had a tough time in explaining to them the benefit of mitigating the flood vulnerability by working together under an institutional set up headed by their own person, particularly the Mukhiya. Finally, they appreciated the idea very much and looked satisfied. They promised to extend all possible help in the direction of formation of a flood management committee which would oversee all flood related issues in future under the guidance of Mukhiya.

### **Profile of Sinuara Panchayat**

The Sinuara panchayat is located at a distance of 16 km from the block, i.e. Hanumannagar and as close as 7 km from the head quarter of the district (Darbhanga). It has 6 revenue villages namely Seemamusheri, Amadih, Sinuara, Bahapatti, Biharimukund and Hichhoul. Surrounded by water during flood season, most of these villages remain completely cut off from the reach of the area during this period.

The panchayat had 6650 households of which a majority, over 50 percent, were SCs namely fishermen and Mushars by caste. However, there was no scheduled tribe household in the panchayat. The population of the panchayat was nearly 40 thousand. The average family size of SC households was relatively higher, about 6.4. Of the total population, about 52 percent were males.

Agriculture was the main source of livelihood. About a third of the households of the panchayat were cultivators who owned cultivable land. Nearly 50 percent were agricultural labourers and depended upon others' land for their livelihood. The rest were engaged in non-agricultural and self employed activities. In this panchayat, about 70 percent households were landless of whom over 42 percent were scheduled castes. Among landholders, marginal farmers were about 64 percent. Livestock was a supplementary source of income to most agriculturists, but the quality of livestock was poor. One reason for this was difficulties in arranging fodder to water logged situation of the area. There were a number of Self Help Groups of women from economically weaker sections.

Educationally, the panchayat is most backward in the district. The overall literacy rate of the panchayat is reported to be about 25 percent varying between 40 percent among males and 15 among females. In spite of the fact that there is a primary school in every village, the villagers were found not taking advantage of this facility. As a result, most of them do not know how to read and write even in their vernacular.

The major crops grown in the area were wheat, pulses and oilseeds. Some households also grew vegetables in their kitchen gardens for home consumption. The productivity of winter paddy per hectare was about 2000 kgs. while that of aus paddy was 2250, for wheat it was 3750 kgs. against 255 kgs in pulses. The production of oilseed per hectare was about 700 kgs./hectare.

There were 6 primary schools in the panchayat, one in every village. There were 2 middle schools and 1 high school. The panchayat had 2 health sub-centres, 1 veterinary care unit and 6 Anganwadis. It had 24 self help groups. The nearest railway station was Laheriasarai at a distance of 7 km from the panchayat. There was a post office in the panchayat. There was a non-functional primary agricultural credit society in the panchayat but no branches of commercial banks.



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## **Perception of the Villagers**

The Pilot study on Community Approach to Flood Management was experimented in two consecutive flood seasons of 2004 and 2005 in Tira Jatmalpur (Samastipur) and during 2005 in a different panchayat namely Sinuara under Hanumannagar block of Darbhanga district. The awareness meeting in Tira Jatmalpur which was done for the 2nd time during middle of June, 2005 was primarily attended by a cross section of beneficiaries of the experimented panchayat during the flood season of 2004. These included farmers, agricultural labourers and people from other walk of life including women and young volunteers. But the awareness programme in Sinuara was for the first time.

In the meetings, the villagers of both the panchayats stressed upon the need for selective and early government intervention in respect of rebuilding of damaged houses, public utilities, providing seeds for regeneration of agricultural activities, arranging of temporary shelters and relief camps, making provision for mobile health and cattle care units, more particularly the generation of economic activities, in a bid to provide them with livelihood opportunities. No doubt that some of these activities were performed by the government in the past but these were never in time apart from being inadequate. The villagers agreed that since there were no permanent solution to the incidence of flood, they were of the view that essential supplies to reduce drudgeries due to flood, can be stored at panchayat level in advance of the arrival of flood so that these can be distributed among needy during flood. This also would go a long way in reducing the last minute hassle to deal with flood relief. Also it does not entail additional liability on the government, as it is already doing this activity some way or the other after recession of the flood. In this context, it may be re-called here that owing to poor financial background, a majority of flood victims, specially in Sinuara panchayat, were hand-to-mouth and as such were not in the habit of mustering food grains, cooking/lighting fuels and other necessities for meeting emergencies during flood, for more than a couple of days till assistance from outside sources were available. Hence, prior arrangement by the government was called for.

The farmers as well as elderly people in both the panchayats were interested in knowing about the recent agricultural technologies to be followed to increase the productivity including the productivity of milch animals and the expectant mothers for their babies. The ladies also were curious to know about ways and means to reduce infant mortalities, safe delivery and the procedure to deal with snake bites during flood. The garbage disposal after flood was another issue raised by a large number of members present in the awareness generation camp conducted in their panchayats. The villagers were of the opinion that, to start with, the government at the local level should demonstrate its commitment on the above issues for one or two flood seasons with the help and guidance of the FMC members and after realizing its positive impacts, the government may withdraw from the scene and the community can take the responsibility in the subsequent years.

## **Formation of FMC in New Panchayat**

It was decided to hold a meeting of the villagers in the 2nd week of August, 2005 to give a shape to the proposed flood management committee. In the meeting, most of the villagers of the panchayat were present to select the office bearers of the FMC. A total of the following 25 names were proposed unopposed covering all the 6 revenue villages and 12 wards under the Sinuara panchayat. The list consisted of one nominated and one elected member from all the 12 wards and Mukhiya was designated as the ex officio chairman of the FMC.



Sl. No.	Names	Address	Designation
1	Shri Amarendra Prasad Singh (Mukhiya)	Sinuara	Chairman
2	Shri Suresh Prasad Singh	Sinuara	Secretary
3	Shri Ramesh Chaudhury	Sinuara	Treasurer
4	Smt. Janki Devi	Sinuara	Member
5	Smt. Chanda Devi	Sinuara	Member
6	Smt. Marani Devi	Sinuara	Member
7	Smt. Rambha Devi	Sinuara	Member
8	Smt. Sukumari Devi	Sinuara	Member
9	Smt. Sheela Devi	Bihari Mukund	Member
10	Smt. Daya Devi	Amadih	Member
11	Smt. Shevaratri Devi	Seema Mushari	Member
12	Shri Ram Prakash (Dy Mukhiya)	Sinuara	Member
13	Shri Akhilesh Kumar Singh	Sinuara	Member
14	Shri Ramsagar Paswan	Hichhoul	Member
15	Shri Ashok Paswan	Hichhoul	Member
16	Shri Dilip Mishra	Hichhoul	Member
17	Shri Pawan Bharti	Hichhoul	Member
18	Shri Ram Kumar Sada	Seema Mushari	Member
19	Shri Rudal Sahni	Amadih	Member
20	Shri Singeswar Sahni	Amadih	Member
21	Smt. Indu Devi	Sinuara	Member
22	Shri Ibachu Mahto	Sinuara	Member
23	Shri Sunil Paswan	Bahapatti	Member
24	Shri Harichandra Paswan	Bahapatti	Member
25	Shri Siyaram Sahani	Bahapatti	Member

The panchayat has about 2 dozens of women self help groups engaged in various gainful activities. The above list included 9 members of fair sex which formed 36 percent representation by females in the FMC. The striking feature was that most of these females contested for the post of executive members of FMC. A majority of these women were members of some SHGs or the other. The committee was also represented by equal number of scheduled caste members.

### Capacity Building Exercise in New Panchayat Area

Following the formation of the new FMC, dates for capacity building training programmes on rescue/relief administration, post-flood cropping practices, health care and sanitation and care for cattle etc. were finalized along with the names of participants to be included in each programme. The training was conducted on two consecutive days commencing from 2nd week of August 2005. Local trainers of specific backgrounds were involved in training to volunteers in the respective areas of their choice. On day one, the capacity building training on agriculture & allied activities and veterinary care were completed. On the following day, trainings relating to health care and sanitation, rescue and relief management were completed.

### Training on Agriculture

In agriculture and allied activities, Dr. Eshanallah, a retired University Professor, Rajendra Agricultural University (RAU), Pusa, Samastipur conducted the capacity building training on post flood cropping



management. The programme was attended by 15 farmers engaged in crop cultivation. This was a full day course being attended by some FMC members also. The names of those who attended the training programme were as under.

Sl. No.	Names
1	Shri Satyanarayan Singh
2	Shri Ramsagar Singh
3	Shri Ranjeet Singh
4	Shri Hira Singh
5	Shri Mohan Chaudhury
6	Shri Navesh Sahni
7	Smt. Sheela Devi
8	Shri Birendra Mishra
9	Shri Mukesh Kumar Singh
10	Shri Dharmendra Singh
11	Shri Vikram Singh
12	Shri Makeswar Paswan
13	Smt. Indu Devi
14	Smt. Sukumari Devi, and
15	Smt. Daya Devi

### Training on Cattle Care

The services of Dr. Binod Kumar Singh, a veterinary doctor of Hanumannagar block were availed of to train 10 volunteers. The participants raised several queries pertaining to the feeding of animals particularly during the duration of flood in view of the fact that dry fodder gets damaged due to flood and also non-availability of green fodder in the marooned villages. Dr. Singh advised the youth to ensure that dry fodder was stacked in advance on uplands free from flood zones which can be used during and after flood. After flood recedes, the villagers can also collect green fodder from nearby unflooded areas for feeding their animals. The names of those who participated in the training which aimed at maintaining cattle health during flood were as under.

Sl. No.	Names
1	Smt. Indu Devi
2	Smt. Sudama Devi
3	Smt. Sheela Devi
4	Smt. Sunita Devi
5	Smt. Daya Devi
6	Shri Virendra Chaudhury
7	Shri Sushil Kumar Chaudhury
8	Shri Ashok Kumar Singh
9	Shri Kanhaiya Yadav, and
10	Shri Ashok Yadav

### Training on Health Care and Nutrition

Apart from a few FMC members, 8 more persons attended the whole day training programme on maintaining health and sanitation during and more particularly after the flood period. It may be remembered here that in flood affected areas, waterborne diseases and epidemics spread rapidly during



and after the recession of flood owing to intake of contaminated water and stale food stored from the previous day. The distorted sanitary condition is another cause for frequent outbreak of diseases in the flood areas. The orientation on this aspect was given by Dr. B.N. P. Yadav, Professor, Darbhanga Medical College, Darbhanga. During the course of interaction with the trainees, Dr. Yadav impressed upon taking due precaution in respect of taking food and consuming water. He suggested that water, whether contaminated or not should be boiled before taking and water purifier packets or fitkiri, as the case may be, should be used to purify water before drinking. Similarly, garbages in and around the houses attract flies and mosquitoes, which cause a number of fast spreading diseases. These places are also considered as breeding grounds for flies and mosquitoes. Hence, immediate cleaning/spraying of dis-infectants is necessary. This would reduce the incidence of post-flood illnesses to a considerable extent. The villagers appreciated these suggestions very much. The list of the 8 persons other than a few FMC members, trained on maintaining health care was as under.

Sl. No.	Names
1	Shri Sanjai Ram
2	Shri Ram Vinay Singh
3	Shri Nagendra Mishra
4	Shri Shivaji Ram
5	Shri Ghuran Sahni
6	Shri Dinesh Paswan
7	Shri Ramprakash Sharma, and
8	Shri Jibalh Rai

### Orientation on Rescue and Relief Management

Dr. Samsul Ola, Retd. BDO & Chief Scientist, Agriculture Extension Division, RAU, Pusa, Samastipur, presided over the session as trainer for evacuation and relief management. About 10 participants were involved in the whole day programme. In the morning session, issues relating to evacuation, management of relief camps, arrangement of drinking water, tent etc. were discussed. A tip off as to how best the villagers, more particularly the trainees, can be useful for carrying out these activities with the help of each other assigning priority to women, children, sick and old while evacuating, was also given by the trainer. In the afternoon shift, ways and means for collection of relief items, their equitable distribution, rehabilitation to those who suffered most due to flood, were taken up for discussion. The names of those who attended this programme were as under

Sl. No.	Names
1	Shri Anjani Kumar Singh
2	Shri Ajay Sharma
3	Shri Suraj Sahni
4	Shri Ganour Sada
5	Smt. Sheela Devi
6	Shri Ramsikil Sahni
7	Shri Umadhar Sahni
8	Shri Vikram Singh
9	Shri Vinod Kumar Sipahi, and
10	Shri Satya Narayan Singh Sipahi



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## **Occurrence of Flood in New Panchayat (Sinuara)**

Within days of completion of capacity development training, reports of rise in the level of water in the surrounding rivers poured in, following which people were alerted to take advance measures to manage flood at the community level. The flooding in the low lying areas of Sinuara panchayat was caused due to rainfall in the second week of August, 2005 in Himalayan catchment area of rivers which resulted in flood of Exmi river and Adhwara group of rivers. Although the villagers could not take measures well in advance to stock sufficient eatables and other items of daily necessity as they were caught unaware of the sudden inflow of flood water in the villages, they were determined to fight against the fury of flood once the news about the impending flood spread in the area. Additional boats were taken on hire and were engaged in evacuation of marooned people to safer places on the nearby embankments. Following the guidelines given during the training, while evacuating people, priority was given to the old, the sick, children and women. This activity was facilitated and monitored by a few FMC members.

## **Occurrence of Flood in Tira Jatmalpur**

A few days later, flood also came in low lying areas of Tira Jatmalpur panchayat due to the rainfall in the upper catchment areas of river Bagmati and its tributaries but with a mild intensity. Boats were also engaged there for ferrying people to safer places with a fear of further increase in the level of water in Bagmati and other rivers. Although flooding was in low lying areas, there was no report of damage to household goods/properties. However, communication links were disturbed as a result of mild flood. But crop loss was reported in a few pockets and that too, only to the vegetables grown in the kitchen gardens. Farmers of the panchayat including the block officials conserved resources in view of likely occurrence of floods which could be devastating in nature. But flooding in the panchayat turned out to be moderate only.

## **Employment of Country Boats**

About a dozen boats were engaged for over a week each in Sinuara and Tira Jatmalpur panchayat for carrying people to safer places as also for ferrying of food and other essential supplies to restore normalcy in the affected areas. The expenses incurred on employment of boats in both the panchayats were shared by IRMED as well as through collection of contribution from the villagers. While boat hiring charges were paid by IRMED from the funds provided by WMO, the rowing charges were met from the contributions made by the villagers on a cooperative basis. The level of participation in terms of sharing payments between IRMED and the villagers was more or less equal. The boat rower charges were Rs. 60 a day against Rs. 70 for hiring a boat for a day. The Mithila Vikash Manch, a local NGO, also provided 3 boats to Sinuara panchayat for its regular use during flood. A majority of inhabitants of the panchayat were fishermen by occupation. Hence many of them possessed small country made boats partly for catching fish to earn their livelihood as also for crossing the river in the rainy season.

## **Help Provided by IRMED and Other Agencies**

### **Distribution of First Aid Medicines in Tira Jatmalpur Panchayat**

From the funds provided by WMO, IRMED purchased a limited quantity of essential medicines for treatment of illness against viral fever, cholera, cold and cough, insect bites etc. and distributed these in Tira Jatmalpur panchayat. However, sudden out break of epidemics after flood was not reported in any of the panchayats. This apart, one NGO also distributed ORS packets along with some first-aid medicines in this panchayat.



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### **Distribution of Seeds in Sinuara Panchayat**

For strengthening post-flood agricultural operations, IRMED distributed over a quintal of seeds of pulses and 25 kgs. each of lentil (Masoor) and oilseeds (Mustard) in Sinuara panchayat. The seeds were purchased from Samastipur in packets of 2 kgs. each and were distributed to 115 affected families in Sinuara panchayat. The beneficiaries were mostly downtrodden people of the panchayat.

### **Treatment of Cattle Diseases**

The medicines for immediate treatment of ailing cattle were not available readily in any of the panchayats. The government supply of veterinary medicines was also not there during flood. Also there was no supply of veterinary medicines from other sources. Deterioration of cattle health due to non-availability of feed stock was reported in a large number of cases among scheduled castes and other economically weaker section households in both the panchayats. But outbreak of cattle diseases as such, due to flood, was not reported in any of the two panchayats. However, there was stray cases of cattle ailments in one or two villages under Sinuara panchayat.

### **Damage to House Properties**

In the entire panchayat of Sinuara, 150 houses in the low lying areas, all belonging to scheduled castes and weaker sections households, were partially damaged due to flood of 2005. For rebuilding of damaged houses, IRMED provided funds for purchase of bamboo poles for erection of thatched huts to a limited number of severely affected families. The extent of damage to government properties (roads), houses and cattle wealth was more in Sinuara panchayat. Other than partial crop loss, that too in low lying belts, there was no loss of assets to individuals as also to the public properties in Tira Jatmalpur panchayat.

### **Relief Management**

Some households of Seema Mushera, Paswantola, Kahartola, Mahammed Pur under Sinuara panchayat suffered most. They were shifted to nearby embankments during flood. They carried with them rations for about a couple of days. However, there was no designated relief camp set up in the area for accommodating flood victims. In Seema Musher village, Mithila Vikas Manch, a NGO, distributed 1 quintal of rice, 25 kgs of pulse, 5 kgs of salt and a water container for storing safe drinking water. The government relief did not reach the panchayat till the IRMED team was there in the area upto first week of October, 2005.

### **Damage to Crop Land**

People normally do not grow crops in monsoon months due to a fear that these may get damaged. Hence, crop loss was not much in Sinuara panchayat. Only, the vegetables grown in the kitchen gardens by some households got affected due to flood. In contrast, crop loss was not reported in any of the villages under Tira Jatmalpur panchayat.

### **Damage to Public Properties**

About 2230 feet length of roads in stretches connecting different hamlets were damaged by flood in Sinuara panchayat. There was, however, no damage to school buildings, panchayats, offices, health care units etc. In this respect, the situation in Tira Jatmalpur was relatively better. No doubt some parts of roads in the panchayat were under water for about a week but no major damage was reported.



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## **Loss of Cattle**

Loss of cattle wealth was reported in some pockets of Sinuara panchayat. It included 1 cow and 2 calves, 8 buffaloes, 12 of their off springs and 12 tender goats. The victims did not get any compensation against the loss of their animals till the time the survey team was in the panchayat. But there was no loss as such to cattle wealth in Tira Jatmalpur panchayat.

## **Other Losses**

The flood of 2005 caused forced closure of schools for about a month resulting in loss of studies particularly in Sinuara panchayat. It was suggested that the losses can be made good to some extent by running extra classes and or taking up classes on holidays. The loss of mandays in the Sinuara panchayat was reported to be around 27-28 per person due to inundation of crop lands and village roads which caused restricted mobility of workers. The loss of school days in Tira Jatmalpur was about a week while workmen had to forgo 5-6 working days due to flood.

## **Restoration of Normalcy**

Normalcy in the Sinuara panchayat was restored after about a month from the day of flooding. Children started going to schools only thereafter. Workmen resumed their usual work in a bid to earn their routine livelihood. Farmers also started practicing re-sowing of oilseeds, pulses etc. after the land was found suitable for raising such crops. But in Tira Jatmalpur, the routine activities were normal.

## **Impact of Flood**

A majority of households, over 60 percent were affected by floods of August, 2005 in Sinuara panchayat. The schedule caste households were the worst sufferers. They constituted over 58 percent of the total households in the panchayat. The OBC and other caste households affected by flood were about 3 percent. There was perpetual loss of grains due to non cultivation of fertile lands in the kharif season in Sinuara. However, the crop loss due to flood was not there in Tira Jatmalpur panchayat.

## **Interface with Government**

While advance interfacing of FMC with block and district level officials was not possible due to sudden outbreak of flood immediately following the formation of FMC and completion of capacity building training, the FMC members led by Mukhiya, made two rounds of interfacing with local level government officials after the recession of flood. Although till the last visit of IRMED team to the Sinuara panchayat in early October, no help was received, the delegation reported that the officials showed very cooperative attitude towards hearing their problems and assured the group to provide all necessary help to deal with post flood rehabilitation starting with providing free seeds for re-generation of cropping activities in the ensuing rabi season to the re-building of village roads to establish communication links on priority. The group felt that sharp reaction by government upon various issues raised by the members would not have been that effective had the Mukhiya alone approached the officials for such assistance. However, in Tira Jatmalpur such a need was not felt as reported by the villagers.

## **Concluding Remarks**

The formation of FMC and empowerment of villagers through awareness generation and capacity building training along with some financial assistance from WMO through Institute for Resource Management and Economic Development, raised a sense of self confidence among local people to take up flood related



issues in future. As felt, the interaction of the community with the donor agencies, NGOs as also government officials at the local level was likely to be of a great help in maintaining contacts, receiving aids and deciding future course of action when needed. The community thought that it became fully equipped to mobilize boats for evacuation, follow a more appropriate crop calendar, provide for appropriate health and sanitary conditions, maintain cattle health etc. during flood.

Inadequacy of local resources was found to be a major handicap in implementing the manual in its true sense. Hence, there was a need for raising some seed money through voluntary contribution by well to do farmers in the village, local businessmen, influential persons in the vicinity, donors etc. followed by higher contribution from the state government.

The villagers of Sinuara panchayat felt that certain activities connected to pre-flood preparedness such as advance arrangement for safe keeping of eatables for about a week, cooking and lighting fuels, keeping of seeds in containers in flood free zones etc. needed to be repeated before onset of the next monsoon in view of failing memories of the villagers after a gap of one year. The same should continue till people were habituated in 2-3 flood seasons. No doubt, this may have cost implications initially but in the long run, it would be very useful. The replication of the activities in other flood prone areas is likely to have similar effect and would go a long way in helping mitigation of severity of flood in those areas.

The socio-economic condition of people in Tira Jatmalpur panchayat was quite different compared to that of Sinuara. While Tira Jatmalpur was dominated by land holders belonging to the upper strata of the society representing diverse interest groups, the villagers in Sinuara panchayat were mostly backward in respect of education, livelihood opportunities, communication, health services and the like but having common interest. In Sinuara, the groups trained for overseeing flood related matters were homogeneous in terms of needs. Hence, their level of participation in the flood management activities was found to be spontaneous. In Tira Jatmalpur, however, the groups consisted of members of different interest groups, the self help spirit among whom was relatively low. As a result, the response to flood management practices was different in one panchayat compared to the other.

For accomplishing one part of the whole exercise on community approach to flood management, i.e., rescue and relief administration, the villagers in both the panchayat showed great interest in performing their duties as it was linked to the saving of lives of their near and dear including their own. However, the villagers in none of the panchayats got any opportunity to show their efficiency in dealing with the cases of health care, sanitation and cattle care due to non-reporting of cases of sporadic ailments of health hazards and cattle illness during and after the recession of 2005 flood. But, in Tira Jatmalpur, where the manual had been implemented during 2004 flood season, the farmers had reportedly adopted the crop calendar devised by agricultural experts with minor modifications to suit their local needs. The agro-climatic conditions remaining the same, they were reported to have reaped a bumper harvest in 2004 rabi season compared to earlier years. Similar information for Sinuara panchayat would be known only after the next rabi season which was yet to come.

The need for selection of right type of persons to various flood management sub-committees having genuine interests in specific aspect of flood management is too obvious to require much elaboration. It would be useful to include such persons in the list of volunteers for works related to flood management in the villages.