

Emergency Market Mapping and Analysis (EMMA) in Uttarakhand post floods of June 2013



July 18 to 25, 2013



List of Abbreviations

ASSOCHAM	:	The Associated Chambers of Commerce and Industry in India
ATI	:	Appropriate Technology India
CA	:	ChristianAid
CASA	:	Church Auxiliary for Social Action
EMMA	:	Emergency Market Map and Analysis
GP	:	Gram Panchayat
GSDP	:	Gross State Domestic Product
Ha	:	Hectare
HHs	:	Households
HPSS	:	Himalayan Paryawaran Shikshan Sansthan
IRC	:	International Rescue Committee
NGOs	:	Non Government Organizations
GP/NP	:	Gram Panchayat/ Nyaya Panchayat
NREGA	:	National Rural Employment Guarantee Act.
NTFP	:	Non Timber Forest Produce
PAC	:	Practical Action Consulting
PDS	:	Public Distribution System
SC	:	Scheduled Caste
ST	:	Scheduled Tribe

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1. Acknowledgements

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We would also like to extend our thanks to the district administration of both the districts. Our thanks are also due to Christian Aid team- Ram Kishan, Dipankar Patnaik and Anand Kumar who made it possible for us to undertake the study both by way of their initial briefing and subsequent inputs for sharpening the report to make it more relevant to the intended goal of carrying out EMMA to inform response mechanism from a recovery perspective.

We hope that the exercise offer some useful leads in the program design to expedite the process of recovery in the state.

Yeeshu Shukla, Apar Paudyal and Shakeb Nabi
EMMA Team

2. Executive Summary

This report captures the Emergency Market Mapping and Analysis (EMMA) exercise carried out by Christian Aid and partners- CASA, ATI, Practical Action Consulting and International Rescue Committee during 18 to 25 July 2013 across 2 districts- Uttarakashi and Rudraprayag in Uttarakhand. Christian Aid following its initial rapid assessment that shaped its immediate response soon after the floods in the state of Uttarakhand, realized the need for looking into the markets as a critical actor with a view to inform its recovery initiatives in the state.

EMMA is an exercise in strategic learning that helps understand the selected markets and maximizing the potential of markets for the poor and marginalized. The primary purpose of EMMA is to inform emergency responses and provide practical, operational recommendations for humanitarian decision-makers. Assessment entailed a detailed EMMA process (please refer methodology section) to carry out the exercise. Based on the consultations with the local partners and secondary information, the team selected two critical markets for the study. Rice was chosen based on its importance of being a staple diet in the hills and resultant impact of disaster on access, availability and affordability on the food item. It was also decided to look into small and marginal service providers/livelihood activities within the tourism sector, especially pilgrimage to the famous shrines in the state. These activities were chosen for assessment, as majority of the people in the affected areas are dependent on the annual tourism based on pilgrimage in the valleys.

The assessment revealed that the Rice market is severely affected due to several supply and demand side constraints. Markets have seen drastic change in terms of traders procuring in less quantity, absence of credit mechanism, damaged roads, increase in the transportation cost and lack of demand due to ongoing relief activities. In addition to this, distribution of relief and lack of purchasing power coupled with lack of connectivity seems to be three critical factors responsible for restricting the role of markets at the moment and in near future

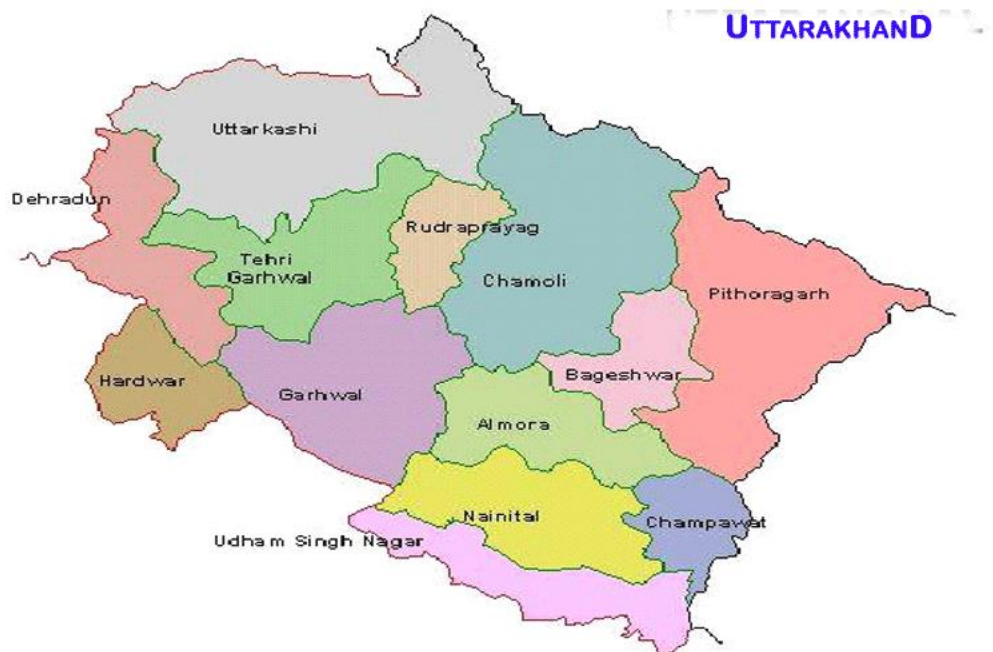
Team also selected the small and marginal livelihood actors dependent on the tourism sector, particularly pilgrimage (Char Dham Yatra) in the state. With the tourism sector badly affected after the disaster, these groups are facing acute crises in terms of income generation. Some of these families who were engaged in this seasonal activity have also lost their sole earning members. It is pertinent to mention that majority of the people engaged in these activities constituted young men from the villages across these districts who used to generate the income for the entire year within a span of 5-6 months. Paddy cultivation is primarily a subsistence activity catering to the consumption needs of the community till 3-4 months after the harvest in the hill districts. Vegetable, cattle for milk and other agriculture produce adds to the income of the community to some extent. This forces the community to look at other livelihood opportunities which is manifested in religious tourism and migration to the bigger cities in search of work. It is also important to mention that some of the items like production of spices, vegetables and beans carry huge potential to be developed as a major source of income for the households. Some of allied non-farm activities also carries a potential to help communities earn a livelihood in the absence of central tourism based opportunities.

The recommendations from the assessment provide options from an immediate to medium term perspective. There is a need to focus on the families who have lost the earning member or livelihoods or both in the affected areas. Wherever, the land is available, people need to be engaged in production activities that carry potential to generate a source of income for the affected families. The recommendation section provides a set of options for the affected families which includes enhancing purchasing capacity, strengthening livelihoods and providing income generation options. The recommendations do not suggest intervening in the rice market directly as food aid is largely provided by several agencies and market is expected to recover once the roads are reinstated post monsoons. However, it does try to address some of the livelihoods needs that seems to be greater requirement and critical for the survival of the affected communities.

3. Emergency Context:

The incessant rains in the upper Himalayas during 14 to 17th June resulted in series of cloudburst, landslides and floods in the Northern India. The state of Uttarakhand has been affected the most. Incident has triggered landslides and flash floods in many places leading to damaged roads, collapsed bridges, huge loss of lives and personal property and stranded pilgrims at the famous shrine areas in the state. The government has declared some 932 people as dead and nearly 7000 as missing till now.

Hundreds of villages are cut off and people are facing extreme difficulty in getting basic supplies, their livelihood mainly tourism and agriculture has completely been devastated. Most of the highways, branch roads and approach roads to villages are washed away forcing people to stay at home and wait for the relief to arrive through air drop or venture out in difficult situation to collect food and non-food items for their survival.



Christian Aid emergency response team initially carried out a quick assessment during 26 June to 2nd

July 2013 with a broader objective of reviewing the current humanitarian situation and arriving at emerging immediate needs of the affected people to shape its immediate response strategies. This particular assessment helped design Christian Aid its immediate response in the state which is currently going on.

In addition to the already identified immediate needs and response strategies, Christian Aid felt that there was a need to assess the recovery needs in the state by looking into critical market and the impact of the emergency. To address the related issues, Christian Aid carried out EMMA in Uttarakhand. This assessment would inform some of Christian Aid's response strategies during recovery phase which is scheduled to begin soon after the ongoing relief phase.

4. Methodology and approach adopted:

The assessment was based on the process laid out in the EMMA methodology. EMMA aims at identifying the gaps in terms of identified critical market systems to arrive at an understanding on the causal connections between market systems and access, affordability and suitability during normal and crises times. The broad methodology to carry out EMMA in 2 worst affected districts of Uttarakhand included:

- Identifying the critical market systems and related key analytical questions based on the secondary information received from the ground and discussion with partner agencies

- Identification of key stakeholders and development of questionnaire formats for collecting responses. The developed questionnaire's then translated in local language (hindi) depending on the comfort level of field enumerators.



- Identification and training of field enumerators. The enumerators were provided an orientation on EMMA process and data collection tools.

- Selection of villages and finalizing field roll out plan

for EMMA followed by field visits

Figure 1: Interactions with the affected community was the prime focus of the methodology adopted

- One day consolidation and experience sharing post field visits
- Analysis and draft report

In addition to the above, exercise also include carrying out group discussions with communities, village observation and consultations with NGOs, local government and traders.

The broad approach for carrying out the assessment was based on dividing the 11 member team in 3 teams- one for Uttarkashi and two for Rudraprayag. The decision on division on teams was based on the geographical coverage and time required to visit the selected locations in the district. Rudraprayag being the bigger and most affected district, it was decided to send two teams to the selected areas.

The teams consist of a team leader and 2 or 3 field enumerators. The entire exercise of field visit including the one day orientation at the state level in Dehradun was carried out during 19th to 25th July 2013. These teams were internally divided to collect data on questionnaires at the household level, traders as also conducting focus group discussions at the community

level and consultations with government and other non-government organisations. The field visit and logistic support was provided by CASA, HPSS and Appropriate Technology India across two districts.

The assessment team could not visit some of the affected villages which were completely cut off due to time and resource constraints. Bad weather also acted as impediment to visit some of the far flung villages. However, assessment did try to assimilate views on the existing situation and related impact in these villages.

Challenges and Limitations of the Study

Uttarakhand has been suffering from incessant rainfall making the situation from bad to worse day by day. The fragile nature of the mountainous ecosystems coupled with the rains is triggering more landslides thus further severing the connectivity to various communities. Hence, only those villages were selected which were possible to access with low level of difficulty. Due to the situation in the field where some of the most affected villages are still cut-off, convenient sampling process was followed to ensure that the villages which were accessible with some level of difficulty were visited for the study. The situation of the extent of damage caused to the villages which are still cut off would be ascertained once these villages become accessible.

Excessive loss to the infrastructure and unmet needs have led to the entire focus of efforts being on relief. This makes it challenging for the assessment team and people to articulate medium and long term rehabilitation issues at the moment. The community is still under psycho-social stress and unable to comprehend their needs and aspirations.

There might be a slight deviation in the recommendations and the one expected to be proposed by the government. This is due to the fact that the government is yet to concretize its plan on livelihoods restoration.

It may be noted that this is a live document and will be modified further based on more updated information and inputs from the field, various studies carried out by different agencies and rehabilitation policy of the government of Uttarakhand.

5. Target population and overview:

Uttarakhand is primarily a mountainous state, as the plains constitute only about 10% of its total geographical area. Out of thirteen districts, only Haridwar, Udham Singh Nagar and some parts of Dehradun and Nainital districts are in the plains. The state is part of the central Himalayas and most of the northern area comprises high ranges and glaciers and the lower reaches are covered by dense forests. The state has about 14 % of the total area available for cultivation, as large part of the land falls under forest and waste land.

The economy of Uttarakhand is predominantly agrarian with 33.5%¹ people employed in agriculture and forestry with substantial engagement of female workforce who remain the back bone of agriculture in the state. Land holdings are small and fragmented and irrigation facilities limited, especially in hilly areas, hence, contribution of agriculture is marginal in creating livelihoods for the people. The services sector contributes around 53% in Gross State Domestic Product followed by the industry and agriculture sectors at around 36% and 11% respectively in 2012-13.

Share in real GSDP (in %)					
Sector	2008-09	2009-10	2010-11	2011-12	2012-13
Agriculture and Allied	12.84	11.92	11.44	11.22	10.91
Industry	34.61	35.06	35.13	35.18	35.68
Services	52.55	53.02	53.43	53.60	53.41
Sectoral growth (in %)					
Sector	2008-09	2009-10	2010-11	2011-12	2012-13
Agriculture and Allied	(-) 3.66	9.63	5.52	3.31	3.90
Industry	12.39	19.67	10.16	5.41	8.39
Services	17.70	19.19	10.78	5.61	6.50
Real GSDP	12.65	18.13	9.94	5.28	6.87

Source: PHD Research Bureau

The two districts- Uttarkashi and Rudraparayang were chosen for the exercise for the following reasons:

- I. Selected districts are one of most affected districts with high number of people dependent on various livelihoods activities related to tourism.
- II. Christian Aid is already providing support in the two districts and local partners' presence with local knowhow and logistics support.
- III. The villages within the districts were chosen keeping the geographical coverage, vulnerable groups and impact of the disaster in mind.

¹ Labour Bureau, Government of India 2010-11

Assessment focused on families who have either lost their loved ones, property, belongings or small and marginalized livelihoods groups. It also covered the impact of floods on local traders and public distribution system.

The state of Uttarakhand can be divided into four agro-ecological zones which are as follows²:

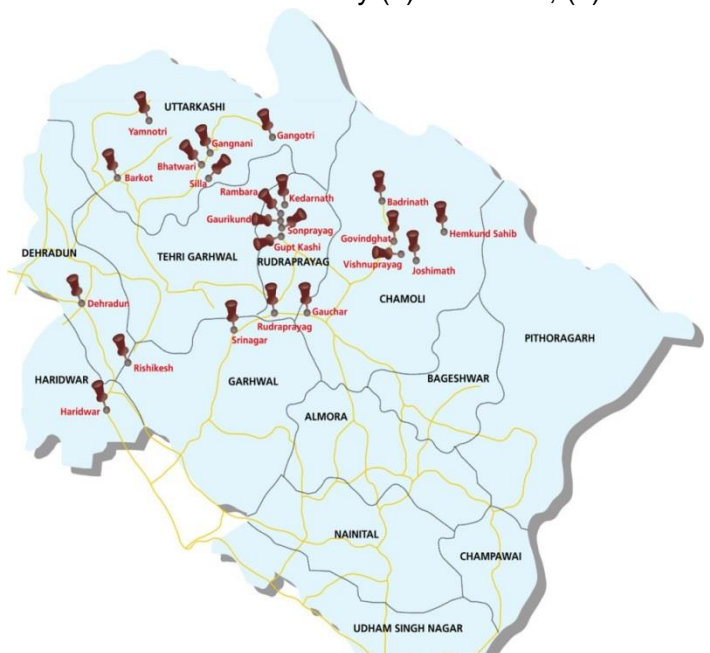
1. Valleys (upto 100 M above MSL)
2. Low Hills (1000-1500 M above MSL)
3. High Hills (1500-2500 M above MSL)
4. Alpine Zone (More than 2500 M above MSL)

It may be noted that most of the areas which has been impacted by the current disaster lies in the high hills and alpine zones. The high hills are marked by cool temperate climate while the Alpine zone has sparse vegetations comprising of mainly herbs and small mountainous plants.

Study districts

Rudraprayag:

The district is presently divided into 3 administrative Blocks/Tahsils namely (1) Ukhimath, (2) in Agastmuni and (3) Jakholi and forms part of middle and higher Himalayan ranges. There are 658 inhabited villages organized into 323 Grams Panchayats (GPs) and 27 Nyayapanchayats (NPs). The district largely covers the area drained by river Mandakini that originates from Kedarnath peak and merges with Alaknanda river at Rudraprayag, the headquarters town of district administration. Rudraprayag is better known for its pilgrimage route to the famous shrine of Kedarnath. Out of 658 villages as many as 280 or 43 percent villages had a population of less than 200 persons and 518 or 79 percent habitations had less than 500 persons each.



State map showing affected areas in 2 assessment districts
Source: www.downtoearth.org.in

The district has a total population of 227439 with more than 98 percent of people residing in rural areas. The district has less than 20 percent of the population that belongs to Scheduled caste and Scheduled tribe category who are mainly engaged in labour based activities or work as marginal workers. These groups are traditionally on the periphery of the development process and most affected due to the calamity.

² Mani, undated

S. No.	Block	SC Population			ST Population		
		Male	Female	Total	Male	Female	Total
1	Ukhimath	3065	3117	6182 (13.7)	23	10	33
2	Agustmuni	10913	11124	22037 (20.07)	74	55	129
3	Jakholi	5989	6103	12092 (17.3)	9	15	24
Total		19967	20344	40311 (17.9)	106	80	186

Source: Census 2001

The district has high work participation rates with the participation of women much higher than men. This conforms to the popular notion that women in the hills are a dominant work force. The work participation stands at approximately 47 percent and 43 percent for women and men respectively. However, majority of women are engaged as marginal workers as compared to men who constitute majority of main workers. This means they work for less than 183 days in the entire year.

More than 55 percent agricultural landholdings are less than 0.5 ha. size and additional 25 percent land holdings are of the size of 0.5 to 1 ha each. Thus, above 80 percent land holdings fall in the category of marginal land holdings.

The assessment team visited the villages located in 2 different blocks- Ukhimath and Augustmuni. Reaching out to the villages in both the blocks was a significant challenge as road connectivity was extremely poor coupled with monsoons. It is expected that the situation of roads are going to be even more precarious in the next months as more rains are expected in the coming weeks.

A list of villages along with number of interviews with households, farmers and traders is presented in the below table:

SN	District-Rudraprayag	Block	Village	No. of Interviews		
				Household	Farmers	Traders
1	Augustmuni		Baniyari pargu	10	10	3
2	Augustmuni		Chandrapuri	6	4	4
3	Ukhimath		Bansu	6	4	1
4	Ukhimath		Teuri	7	3	1
5	Ukhimath		Sitapur	6	4	1

Uttarkashi:

Uttarkashi is one of the border districts located at an elevation of 1150 Mts. above mean sea level. The total area under the district is about 12.02 Sq. Km. with a total population of about 330,086 of which male and female were 168,597 and 161,489 respectively (2011 census). The district is located in the most sensitive zone (zone 5) of the Himalaya and has witnessed several disasters in the past including the earthquake disaster in 1991 (6.4 in Richter scale). The district also faced the heavy flood in 1978, 1997 and 1998, mass land slide in Varawat hill in 2003 (Nautiyal and Bhandari, 2012). District has several small and big rivers. Yamuna and Ganges(Bhagirathi) are biggest and holiest among them, originating

from Yamunotri and Gangotri (Gomukh) respectively. Asi ganga , jad ganga are some of the tributaries of Ganges.

Uttarkashi is also famous for its apple orchards and pulses it produces. The rain in the district instead of being seasonal is a regular feature. Average rain fall in the district in the past has been recorded as 121.02 mm. while the highest and lowest mean temperature observed are 32°C in the district and 3°C respectively.

The assessment focused on the cut off villages around Uttarkashi district and SC colony located in the district headquarters. The Team visited villages Maneri, Didsari, and Joshiyada along with Uttarkashi Local to interact with Households from community, Farmers, Local Shopkeepers, District Trader and people associated with tourism.

In Maneri, team visited Bhatousour (one of the plain habitat of Maneri), where 23 Households are living on the bank of Bhagirathi. Out of these, 19 belong to SC category (All Weavers) and 4 belong to General Category. Total 10 families from Weavers (SC) community have to shift in temporary shelters in Maneri Power Project's Dam colony due to collapse of houses and agricultural land adjoined to the river. All Households in this village including one shopkeeper are now dependent on Relief Aid for food, since all market chain and other sources of supply are totally collapsed due to lack of road connectivity. Especially, Supply of Rice from Uttarkashi and Local production has badly affected.

Similarly, Didsari Village, 23 Households from SC community and few others from General category are most affected. Household who are severely affected have lost their agricultural land as well houses situated on the bank of Bhagirathi River, rest of the of the houses and agriculture land on the bank of river also on the verge of destruction since any time river could be furious and it may submerge in into the water. The communities residing in Didsari is demanding for planned relocation in safe areas.

In Uttarkashi, the team visited the shelter place for different Valmiki (SC) communities, where Barahat Valmiki community is severely affected due to flash flood situation. Around 92 families are living in the temporary shelter arranged by administration in an Inter College. In Barahat, all house filled with silt of the flood including living place for their Pigs they are rearing for their livelihood. Two ration shops in this community were totally washed out. Total 67 Pigs died which cost around Rs.536000/-, @8000/- Per Pig. These families are also totally dependent on Relief Aid (Food).

A list of villages along with number of interviews with households, farmers and traders is presented in the below table:

SN	District-Uttarkashi		No. of Interviews		
	Block	Village	Household	Farmers	Traders
1	Bhatwari	Maneri	5	5	1
2	Bhatwari	Didsari	5	5	1
3	Bhatwari	Joshiyara	1	-	-
4	Bhatwari	Uttarkashi	4	-	4

6. Market systems analysis

EMMA involved selecting two critical market systems after assessing the ground situation based on secondary information and interaction with the people engaged in ongoing relief activities. Rice along with small and marginal service sector under tourism was picked for further analysis. Rice was selected for the following reasons:

- Staple diet in the region with production limited to subsistence in most of the upstream areas
- Only the small part of area is suitable for rice farming and with increase in population demand has recently gone up
- Supply side constraints like access to remote areas due to damaged roads
- Relief food aid by Non-governmental organizations and government including provision through air drop

In addition to the above, small and marginal livelihoods activities were also chosen under the assessment. People in the state are engaged in several livelihood activities related to annual pilgrimage to 4 shrine areas. The assessment focused on people engaged in livelihood activities in 2 shrine areas- Gangotri and Kedarnath which fall under the selected districts for the assessment. These were chosen due to the involvement of poor and marginalized families as a major income generating activity and the impact of floods on these service providers.

Rice market system:

EMMA was used as process to study the rice market system which involved arriving at key analytical questions to support analysis and facilitate further investigation:

Critical Market		Rice
Key Analytical Question		What has been an impact of flood on the supply and demand of rice?
Subsidiary Question	Analytical	Is the target population able to meet their needs for rice? What are significant post-crisis changes in the rice market?

Rice is one of the major Kharif crops of Uttarakhand grown on more than 54% of the total agriculture land. Apart from it being the staple food of the community rice is also intimately associated with social, cultural and religious wellbeing of the community. It also provides feed for cattle thereby reducing pressure on the forest and the grazing land. There is a clear demarcation in terms of productivity of the land between the hilly areas and the plain areas. The hill districts are classified as low productivity areas with just 30% of the total production from around 50% of the area under rice cultivation. The total production in plain being 27.55 q/ha and in the hills being 12.55 q/ha (Mani, undated).

Some of the reasons for low productivity in the hills are as follows:

- Harsh climate in terms of prevailing low temperature and moisture stress
- Due to low moisture content of the soil, there is less scope for using chemical fertilizer



Figure 2: Severe damage to the Roads has adversely affected the Market Systems

- Small or marginal or negligible land holding which is scattered in nature
- Non availability of inputs due to inaccessible area, poor extension network and poor socio-economic conditions of the farmers

It has been found that on

an average most of the people used to grow rice for 3-4 month of self-consumption due to limited production. For example: In Rudraprayag an average yield is around 16 quintals per ha. for paddy as compared to 20 quintals per ha. for the whole of Uttarakhand. However, Rudraprayag has slightly higher than average yield of all hills districts.

Communities are dependent on open market to meet the demand during rest of the months. Apart from rice, people also consume traditional millets and wheat. The procurement of rice is largely done from the plain districts where big markets are located. In Rudrapur, some of the local traders were engaged in procuring from traders based in Ramnagar in Nainital district before the disaster. They shared long term business relationship with these traders which meant procuring stocks on credit in large quantities. However, situation has changed post floods and these traders have resorted to change of market for procurement and most of the procurement is done from Rishikesh and Sharanpur. This has happened primarily for two reasons:

- a) Lack of road connectivity due to damaged roads. Transportation involves taking a longer route to reach the area.
- b) Lack of stocks availability on credit, as most of the traders have to clear their already pending commitment before they could ask for any more supplies from these traders based in Ramnagar.

The cloud burst and floods have destroyed the standing crop primarily along the river. There have been various instances where the agriculture land has completely disappeared into the river. Communities feel that they will have to buy the rice for the entire year now as a result of loss of land. As some of the farmers will not be able to grow rice which is expected to have implications on their food security.



Figure 3: Loss of agriculture particularly to the paddy fields has been a major concern

It is going to be a daunting task to provide an equal amount of land to

those who have lost their land primarily for two reasons: 1) Most of the villages do not have common land which can be allocated to the farmers. 2) The ratio between agriculture land and forest land is on the wrong side of the ecological balance, diverting forest land for agriculture purpose could be more detrimental as this could make the ecology of the area more fragile and thus more prone to disasters.

Local Traders

The average sale from the local traders was around Rs. 6,000 to 7,000 per day which has drastically gone down after the emergency to Rs. 300 to 400. This has also impacted the livelihood and the food security of the local traders. There are certain reasons associated with it:

- Loss of connectivity road between the market and the village (between the retailer and the buyer)

- Loss of connectivity between the smaller and the bigger market leading to increased cost of goods (between the wholesaler and the retailer)
- Loss of houses or shops
- The captive buyers have migrated from the market to different place. The Jawaharnagar market was to a great extent was dependent on two schools and one college. People from nearby villages who used to study in these schools and colleges were staying in Jawahar Nagar Market.
- The sale has also gone down as the local people has enough relief for the next few months

While talking to some of the shop owners it was observed that some of them have started selling daily items at a bit higher prices. One shop owner took the example of sugar which he used to sell around Rs 38/kilo and now after the disaster he has been selling it at around Rs 44-45/kilo. Similarly, when asked about the pre and post rates of Rice in one of the local shops located at Lwani village in Guptkashi, the price has gone up from Rs. 28/kg to Rs. 32 Kg. due to increase in transportation cost. On being asked the reason, the shop keeper says that the cost of transportation has increased drastically which has led to the increase in overall cost of the product. Earlier the vehicles carrying the goods used to come to his shop but now since the road has broken, he has to hire a porter to carry the goods for around a kilometer. The shopkeeper pays around Rs 200 for a 50 kilo load which comes up to Rs 4/kg which increases the overall cost of the item.

Other shopkeepers have taken a very different strategy to it. Some of them have stopped selling the goods with prices marked on it. They feel that it will deteriorate the credibility and reputation of their shop if they sell goods at prices higher than the marked prices and selling the goods at the marked price is not feasible for them. This has also led to non-availability of essential goods in the market. Both in Uttarkashi and Rudraprayag local traders are finding it extremely difficult to reach to the cut off villages. Some of the demand and supply side constraints are summarized below:

Demand side problem (affecting target populations)	Supply side problems (affecting suppliers)
<p>Target households have restricted market access to market actors or location where critical food or items are available</p> <p>Target households either traverse difficult route or depends on helicopter</p> <p>In some areas, availability of the food aid suppliers has reduced the dependency on the market</p>	<p>Availability of critical food, item or service is significantly reduced</p> <p>Key market actors are badly affected</p> <p>Disruptions have occurred to transport links or other key infrastructure along the supply chain</p>

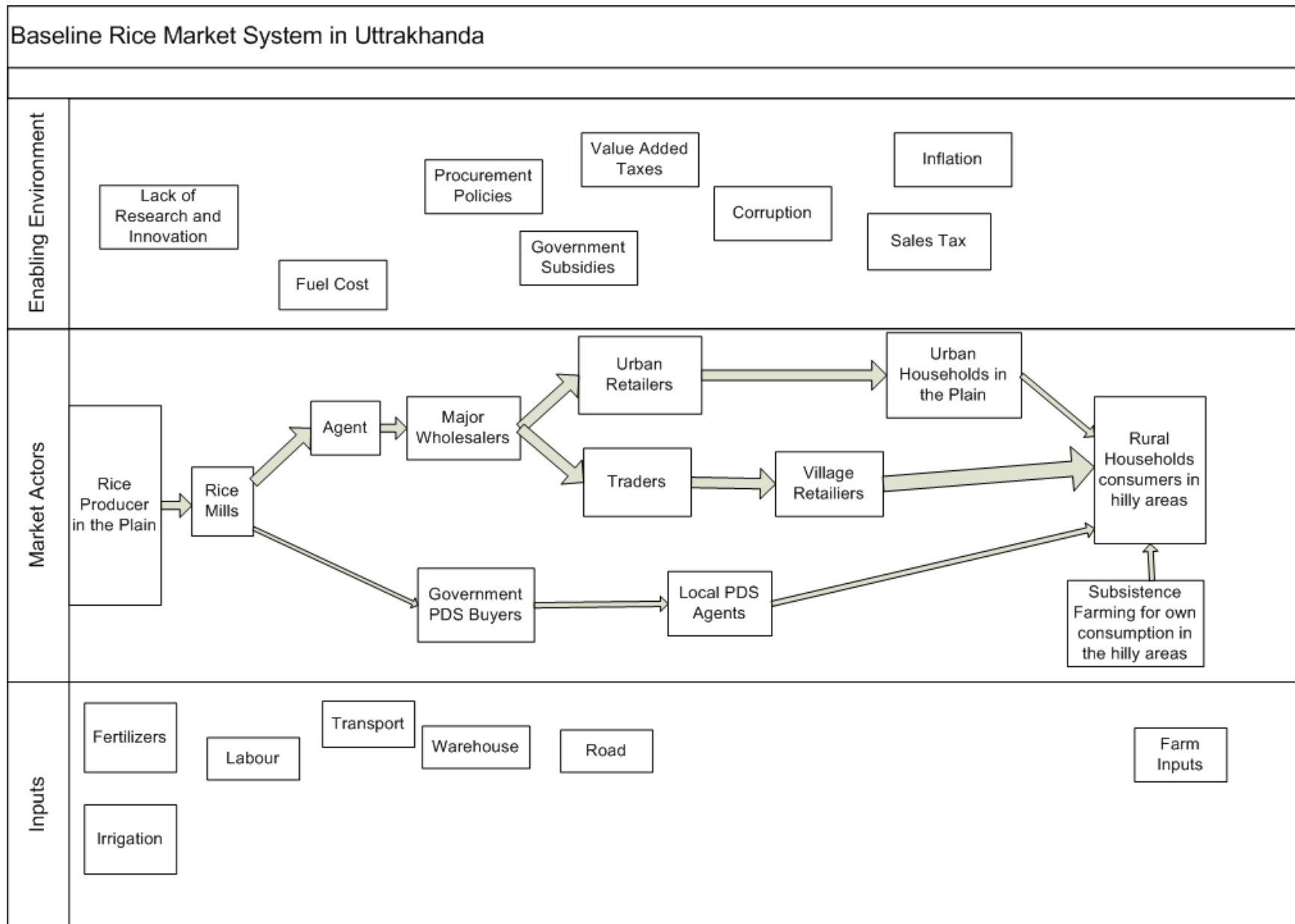
Public distribution system (PDS):

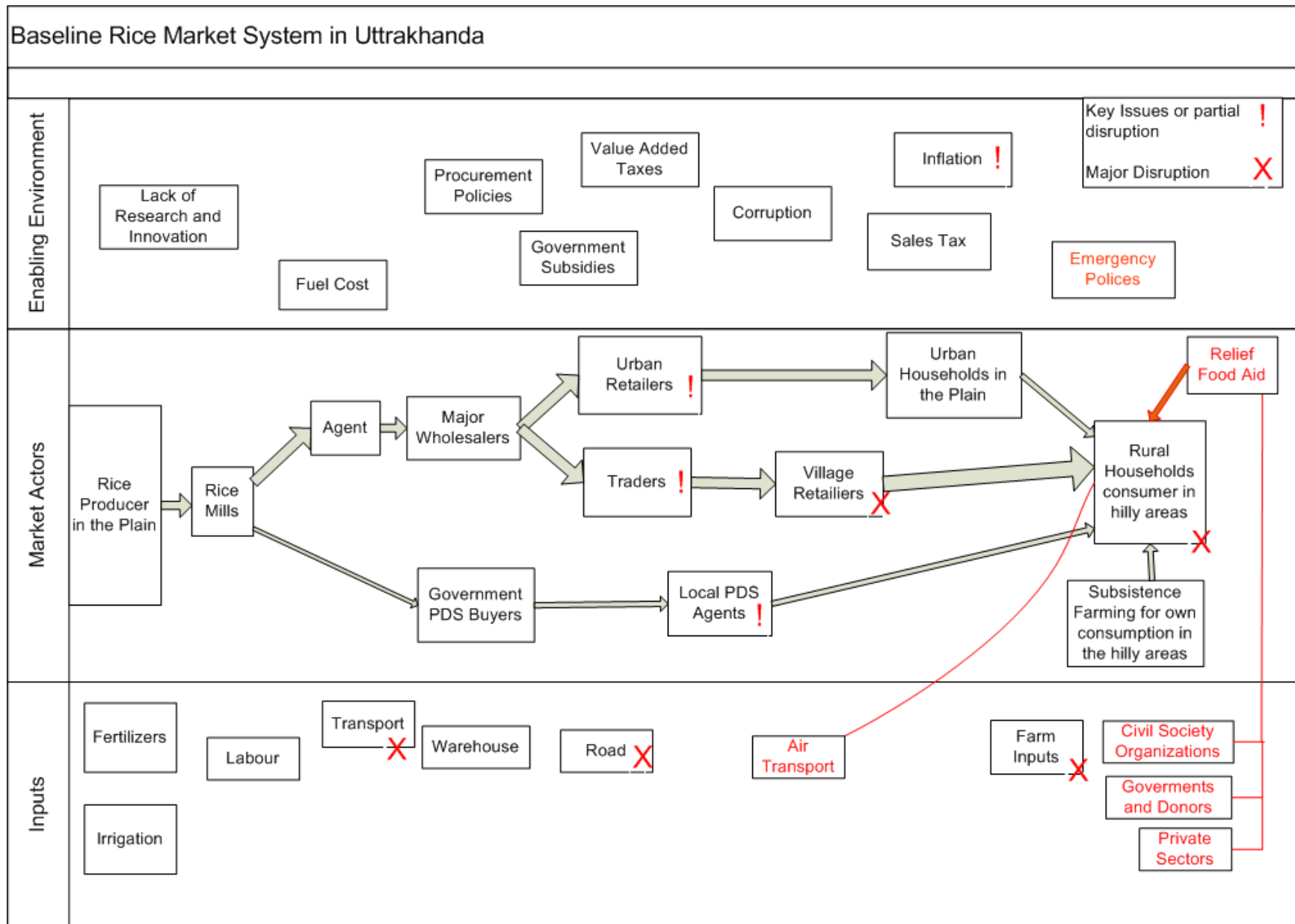
Government of Uttarakhand is also providing ration through PDS to the poor. Families under the Antyodaya scheme are provided 35 kg ration per month. State government has also decided to include 3.7 lakh BPL families as well in the scheme across the state. In addition to this, government has launched a food security scheme which is expected to provide Rice at Rs. 3/kg and wheat at Rs. 2/kg. The scheme also plans to include above poverty line families having income of Rs.15000/month.

Seasonal Calendar	Months												
	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	
Flood Events													
Rice						Plant			Harvest				
Rice Consumption Patterns	Self	Self	Self	Dependent on Market									Self
Wheat				H						P			
Potato						P				H			
Transport/Taxi Services													
Pulses								P					
Oil Seeds								P					
Livestock- Buffalo/Cow													
Woolen Items (Weaving)							Peak Sale	Peak Sale	Peak Sale				
Tourism					Peak	Peak	Peak	Peak	Peak	Peak			
Hotel business				Peak	Peak	Peak	Peak			Peak	Peak		
Wage Labor						No Work	No Work	No Work					

The above presented seasonal calendar captures the significant activities people are engaged with over the year. Communities own produces for rice and wheat are sufficient on an average for 3-4 months only and rest demand met from market. The potato produces are sufficient for one month only. However, in some parts of the Rudraprayag district it is produced in huge quantities and sold in markets. The revenue generated is used for buying other essential food items including rice.

The normal mode of transportation is shared taxis and in some cases public transport like bus for commuting in and around pilgrimage sites. The pulse communities grow consume for about 6 months. The oil seed communities produce last for 1 month. The livestock herding is all round year activity. The weaving activity in Maneri villages is all round and peak season for sale is three month between July to September. Also in some villages in Ukhimath block weaving is a popular practice and meets the household demand for woolens. There is not much labor work during the peak monsoon period.





6.1 Tourism: small and marginal livelihood activities

The assessment also looked into the some of the livelihoods activities in general and specific activities related to the tourism in particular. The specific question that the exercise was trying to look into is related to the impact of the disaster on the small and marginal actors and the changes in the demand for the services. The team also looked into the other associated issue of possible strategies to support this vulnerable group.

Critical Market	Tourism Income Market
Key Analytical Question	What has been an impact of the flood on tourism sector?
Subsidiary Analytical Question	What are the significant post crisis changes of different small and marginalized livelihood groups how depends on tourism market?

The annual Char Dham yatra attracts people from many villages across the state especially boys and young men to earn their livelihoods through range of activities in the char dham valleys. Looking at the devastation caused by the floods, it is unlikely that this yatra would resume this year and even next year which could cause great livelihood crises leading to increased male outmigration.

As per an estimate every year some 23-24 lakh people come for this annual pilgrimage every year which constitutes 80% of the total tourist coming to the state. The temple town of Kedarnath alone was hosting thousands of pilgrims, when a torrent of mud, mountain debris and water hit the town. The yatra was interrupted in peak season with five more months to go before temple authorities closed

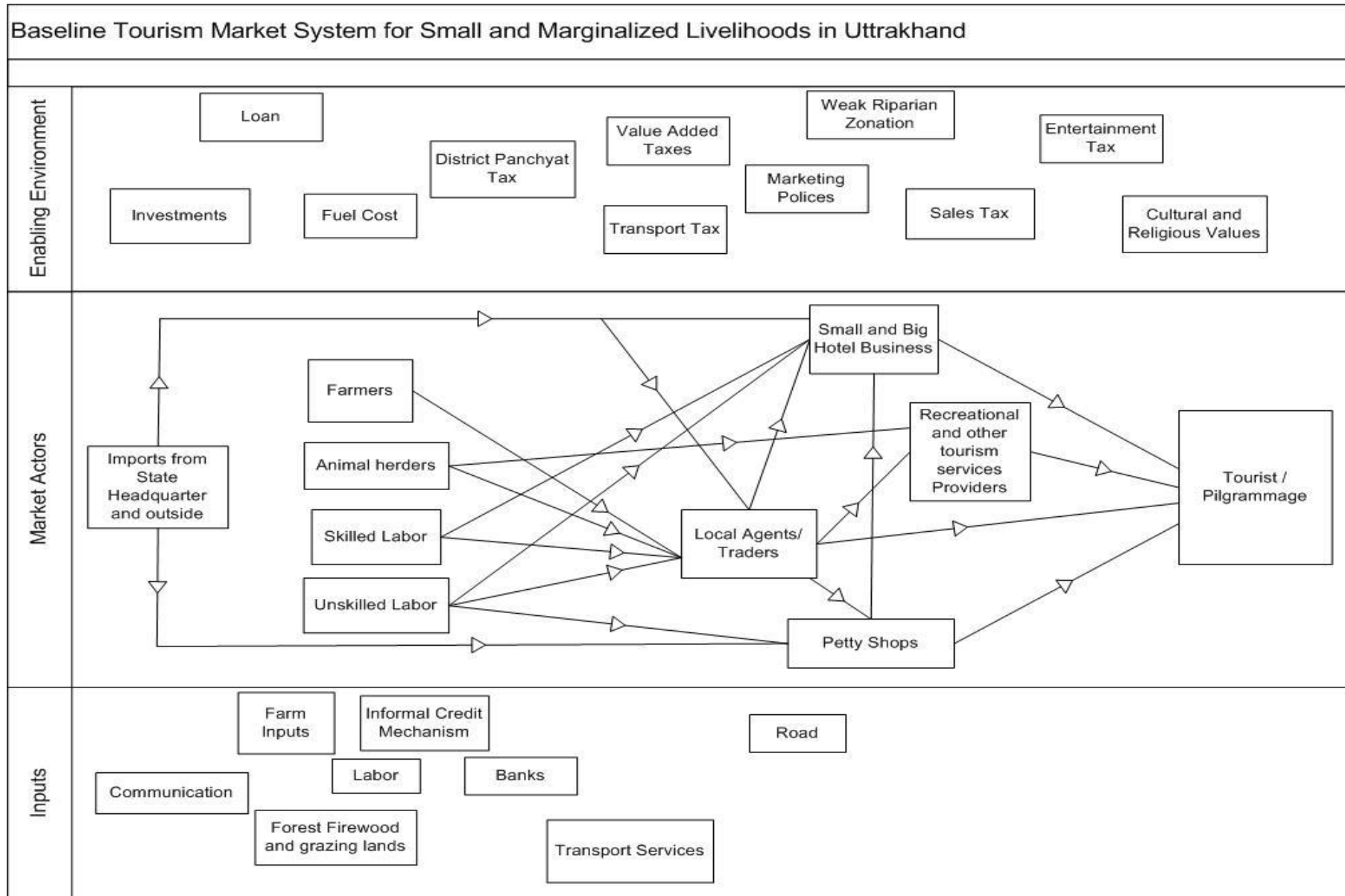


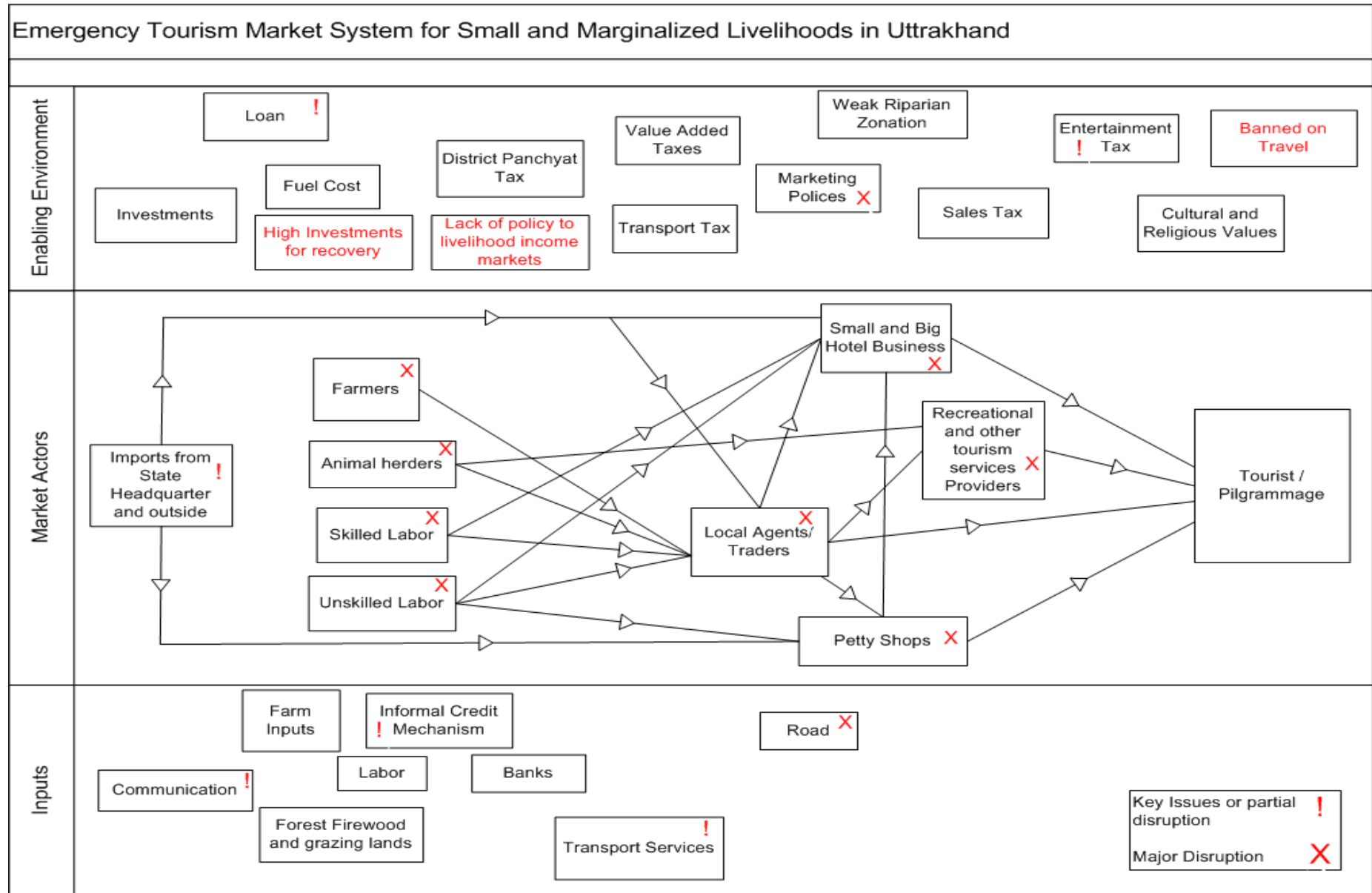
Figure 4 Tourism plays a major role in the local economy contributing more than 40% of the GSDP

the four shrines in November before the harsh winter months. This also point towards the way livelihood exists in the impacted villages goes much beyond village boundaries. As per the study conducted by ASSOCHAM, tourism sector would also witness a direct employment loss of about 1,80,000 people becoming unemployed for 6 months in the current year. The sector would lose Rupees 4,170 crore per year with the reduction in tourism by 85%. A number of people from at least 113 villages in Kedarnath valley alone were engaged in small livelihood activities like tea shops, hawkers, and mule and pony owners

Market Actors:

Market Actors	Definition
Farmers	Producing food items: milk, vegetables, cattle rearing, grazing
Animal herders	For commuting services to tourist: are taking care of horse, ponies and donkey
Skilled Labor	Souvenir crafter, weavers, painters, plumber, carpenter, electrician, Laundry, cable TV operator, IT services, Hotel staffs (chef, waiter and helpers)
Local Agents	Middle man or person who support other market actors to operate and links services to tourist for pilgrimage related activities
Recreational and other tourism services Providers	Agents mainly operating rafting, kayaking, trekking, canoeing, rock climbing, riverside camping etc. These actors also linked with transport services, local guide, porter arrangement etc
Unskilled Labors	Wage labors, porter, palanquin bearers,
Petty Shops	Tea shops, readymade items, pilgrimage related holy items for tourist, and some are engaged in micro-entrepreneurs.
Imports from Headquarter and Outside	These are food and nonfood items delivered to different key market actors for service provisioning for tourist
Small and Big Hotel	Includes eatery as well as lodge
Tourist/Pilgrimage	These are temporary visitor arriving at Uttarakhand for religious purpose to pay visit to four important shrines and for recreational activities.





The import market from plain and areas outside the state has faced a significant setback due to the lack of demand for goods and services. There are hundreds of hotels in both Rudraprayag and Uttarkashi catering to the needs of the tourists. This particular activity was responsible for taking various small and big services particularly from the state. Reportedly, an average hotel with 20-25 rooms would employ 7-8 people as their full time employees in various capacity including cooking, maintenance, front desk, service etc. In addition to this, a large number of people were supplying various goods to help run these businesses. There were both skilled (plumbers, carpenters) and unskilled labour (daily wage workers) that was engaged in providing services. The whole market chain has collapsed due to negligible movement of people on the pilgrimage routes. This has resulted not only in huge loses to these hotels but have significantly affected these service providers who are essentially without any work and income.

Apart from this, there is another set of people engaged in the range of services to the people visiting the state for tourism especially for annual pilgrimage to 4 shrine areas. Almost all the actors are without any work for the last more than a month. For example: mule owners who were ferrying people to the holy shrines have not only lost their livelihoods due to the culmination of the yatra but have also lost their horses and mules in many cases. As per the community, it involves INR 160,000 to but one pair of horse and mule and most of them have taken it on loan depending on their relationship with the owners.

In previous years, they were not only able to repay the loan as also save for the survival of their household for the entire year. In cases where people have not lost their animals are facing difficulty in providing fodder to their animals due to the lack of income generation opportunities. In many cases, these people have also lost their license issued by local panchayat to identify them as horse and mule owners. This reduces the probability of these people getting compensation from the government. Similarly, palanquin bearers who were responsible to carry people on their back to the shrines have also been affected. They were able to make at least 2 trips per day and were earning INR 1500-2000 per day. Following tables provide the income and consumption pattern for range of livelihood activities that people were engaged in the state, particularly people engaged in activities related to tourism:

Sources of Income for the family

S N	Major sources of Income	Who gets the money	Situation before the disaster	Situation after the disaster
1	Milk Production	Head of the household	3-4 litres of milk sold amounting to around Rs 150 per day	Almost negligible due to non- availability of the market. People are using the milk for self-consumption or making ghee (clarified butter) or yogurt for self-consumption. In some cases, access to the market is one of the impendent to meet

				the demand due to lack of connectivity.
2	Vegetables	Head of the household	Rs 50-60 day	Standing crop has been destroyed and even market has been destroyed. The farmers are able to cultivate to some extent for self consumption. As vegetables do not have a long shelf life, it is becoming increasingly difficult for the farmers to reach the local markets post disaster. Damaged roads have made this almost impossible for many of them.
3	Other agriculture produce- Kidney Beans and Spices	Head of the household/women involved in the production through Self help Groups	Rs. 70-80/day for spices Rs. 60/day from Kidney beans	The production was fairly low due to the excessive rainfall. Produce is not able to reach the markets in big towns. There is a threat of these spices getting destroyed due to fungus and ongoing monsoon. People would be soon compelled to sell some of the items at a very low rate at the local level.
4	Horse and Mules	Head of the household	Rs 1000 per day during the tourist season after paying the tax to the panchayat samiti.	Due to complete shut down of tourism business, the demand for horses and mules have gone down drastically. The disaster struck in the month of June which

				<p>is supposed to be the peak of the tourism season with maximum number of people visiting the various shrines in the state. Since most of the markets have become inaccessible by road there has been increase in demand for horses and mules for local transportation. However, as most of the mule owners have either lost their horses and mules or have gone back to their native villages (those who came from outside the state), the availability of mules is posing a significant challenge even transporting relief supplies to the cut off villages.</p>
5	<p>Petty Shops (readymade garments, tailors, small hotels, grocery stores, stationary shops, medical stores & clinic, betel & cigarette shops, mobile recharge shops, photo copying shops, photo studios, sweet shops, jewellery shops, vegetable vending, electronic shops, small printing</p>	Head of the household	Rs 600 to 700 per day	<p>Rs 40- 50 per day. Those whose shops were located in the shrine areas have totally lost their source of income. The people who still own small grocery shops in the villages are finding it extremely difficult to procure (non-availability of credit) and sell (people dependent of relief supplies) food items at the moment.</p>

	press, bakery etc)			
6	<p>Iron Smith, Basket Weaving, stove which uses wood as fuel, boxes & drums for storage and other artisanal work.</p> <p>The Iron Smiths are mostly from the Dalit (lowest strata of the caste system) community.</p>	Head of the household	Rs 150 – 200 per day	Rs 70-80 due to shrinking market
7	Daily wage earner	Head of the household	This is the major source of income for an average family. The total monthly income varies between 5000 to 6000 per month	There is not much demand for wage laborer at the moment as most of the economic activities are dysfunctional at the moment. However the demand for wage labor is expected to increase once the reconstruction work starts. This is also expected to trigger the acceleration of migration in the region if timely interventions are not made.
8	Grazing community or the cattle herders dependent on sheep and goats. Their livelihood is dependent on sale of sheep and goats products like wool and small cattle trade.	Head of the household	On an average the size of the herd is around 25-30. Goats and sheep are mostly reared for meat, wool and leather. The average earning per month is around Rs 3,200	The earning has reduced drastically to around Rs 2,000 per month due to the hindrance in the supply chain and less money for consumption with the community. In some cases, grazing community also involved in supplying the wool in the local villages where people

				utilize them for making traditional woolen clothes. However, post disaster the demand for wool at the local level has gone down substantially.
9	<p>Certain section of the community are dependent on forest and forest produce like fuel wood, NTFP (fruits, grass etc).</p> <p>These are mostly the poor people.</p>			
10	<p>Remittance</p> <p>Based on several reports, it can be concluded that one in two or three households in Uttarakhand has atleast one member of the family working outside. Out of these 48% of the migrating community send remittance.</p>	<p>The parents or wife of the person who sends the money</p>	<p>The remittance per month varies between INR 1,000 to 5,000 in most of the cases. In most of the cases, money is sent collectively, once in three months. The community use the informal network to send the money.</p>	<p>Due to breakage in communication systems due to loss of infrastructure, this has reduced drastically</p>

Please note:

Some of the livelihood opportunities which are practiced by the community are tourist guide, palanquin bearer. These could not be studied in details as they did not belong to the village where the study is being carried out. The community has a much diversified source of livelihoods with each livelihood contributing a fraction of the income. Each of these livelihood activities would require detailed studies as a follow up to the current exercise.

Sources of Expenditure for Family

S No	Major Sources of Expenditure	Situation before the disaster	Situation after the disaster
1	School fees and other expense related to children education	<p>There are both government and private schools in the area. The average cost per child in a private school is around Rs 800/month while in the government school it is around Rs 200/month.</p> <p>On an average there would be two school going children in the family. The total expense per family per month is around Rs 500.</p>	<p>The education services has been completely disrupted. Most of the schools has been partially or fully destroyed. Some of the private schools have opened and running in a constrained manner. In some villages, people suggested that they would be compelled to reduce the expenditure on education, if they are unable to find a suitable income generating opportunity.</p>
2	Household items (food, clothing, communication, local travel, electricity & water etc)	<p>Based on the calculation done by the community, on an average, the community spends Rs 4,500 on household items.</p>	<p>The household expenditure has been reduced by half with the major reason being supply of relief materials to the community. The major reduction has been in purchase of food items and hygiene kits.</p>
3	Festivals	<p>There are around 8 major festivals celebrated by the community. On an average the community spends around Rs 2,000 in one festival. Based on the calculation, the community spends around Rs 1,500/month on the festival</p>	<p>Between the disaster and now, there has not been any major festival but according to the community, the expense on the festival might go down drastically as due to reduction in income.</p> <p>Some of the families who have been badly affected by the disaster, according to the religious customs will be mourning the death of their relatives. The expense related with festival will</p>

			almost be negligible.
4	Marriage	The expense incurred in the marriage of a girl is around Rs 3,00,000 in a middle class family while in a poor family it costs around Rs, 1,50,000. While the marriage of a boy costs around Rs 1,00,000. On an average a family has three children.	There has been no reported marriage after the disaster. People are not even thinking of having marriages for some time, as they think it is not they appropriate time and involves huge amount of money and preparations.
5	Health related expenses	The average expense per month on medical expense is around Rs 1200 which varies according to season. The medical expense is proportionally high in July and August.	Most of the day to day health related expenses is being done by relief agencies. For major health related expenses, they still go to private health services. The cost of private health services has gone up drastically. Apart from this carrying the patients to private health services has also gone up drastically. Government through its Public Health Centres has announced free treatment post disaster.
6	Other expenses like tobacco, alcohol	Most of the family consumes alcohol worth Rs 100 per day and traditional cigarettes worth Rs 20. Which means an average of Rs 3500 per month	The people still consume traditional cigarettes worth Rs 20 but there has been reduction in alcohol consumption due to its non-availability as most of the shops has been washed away. Now the average consumption has come down to around Rs 2,500.

Migration:

Migration has always been on the higher side in the hills, as there is apparent lack of sufficient income generation opportunities in the region. However, due to the existing crises people have started thinking about migrating to plain areas for work especially those who were completely dependent on the small and marginal livelihood activities related to the

pilgrimage. The problem of migration is expected to get worse as many young men who were dependent on tourism as source of their income would be forced to move out of the hill districts leaving women and children behind in most cases. Lack of opportunities in the hill districts have led to huge gap in terms of income levels. In hill districts the per capita income is nearly two-third that of plain districts.

The efforts made by government to provide income generating opportunities to the people in the past have been highly insignificant and ecologically questioned like construction of dams on major rivers.

Agriculture and Allied value chain:

There are certain government and non-government agency and project working on enhancing the income of the community through better livelihood practices. The government is implementing a huge livelihood program called “Ajeevika” supported by National Rural Livelihoods Mission. The major focus of these initiatives has been enhanced productivity, value addition and strong linkage to the market. Some of the sectors that has been taken up by government and other NGOs are bee keeping, tassar cultivation & weaving, spices, vegetables, dairy etc.

Due to the recent disaster some of the value chains has been disturbed leading to the loss of production or access of the product to the market.

7. Key findings

The exercise points towards the following key findings which are expected to inform the response strategies:

- The disaster has led to several supply and demand side constraints having implications on the access, availability and affordability of both food and non-food items.
- Due to supply of relief, the community has the rations and other utilities which they normally used to procure from the market. The market has been severely impacted and the sale has gone down drastically to as less as 10-15 % of the sales in a non-emergency situation in the same period.
- All major market actors are experiencing the difficult time due to the lack of connectivity, availability of suitable transport and demand for goods in some cases.
- People are not facing any severe food security concerns at the moment. However, once the immediate relief phase is over, people would be required to buy rice from the market and those families who have lost their earning members or livelihoods are expected to be in a precarious situation. On an average, where people grow rice as a subsistence crop, they are required to buy Rice for 6-8 months from the open market.
- The prices of food items like rice have already increased around 20% due to the increase in transportation cost. Traders who have lost their shops in the Shrine areas are under debt with the suppliers based in the plain districts and it is difficult for them to get the supplies with the same suppliers on credit anymore. Some of these traders have identified new suppliers who are supplying on cash forcing them to buy in small quantities as compared to pre-disaster times.
- Prices of some of the essential food items like salt, sugar, tea which is fully procured from outside and whose supply is totally dependent on infrastructure network has increased drastically.
- The public distribution system (PDS) is mostly able to reach to the people located at the road head or to the villages where approach roads are still functional from the road head. However, supply from the PDS is erratic and insufficient to meet the needs of the people on a sustained basis. There has been instances where the PDS has collapsed due to the loss of building and connectivity road.
- The marginal activities dependent on tourism is severely affected with farmers, skilled labour, animal herders, small business owners and daily wage workers facing acute crises in terms of lack of any livelihood options. Most of them have lost their assets like shops, horse and mules, agricultural land etc.
- The crises has hit the people engaged in the various small business activities the most, as many of them had taken loans to establish the business during the

pilgrimage season. The disaster has created a condition where they have not only lost their livelihoods but have forced them under heavy debt.

- Migration in the region is expected to accelerate as people would be moving out in search of livelihood opportunities once the relief phase is over in the region. There are many households who have lost their agricultural land which essentially means that they have nothing to support their living.
- Reconstruction of the agriculture and related value chain which has been disturbed due to the recent disaster. The focus could also be on enhancing the resilience of the value chain. A detailed study needs to be carried out for various prominent value chains.

8. Recommended options:

Responses/Activities	Advantages	Duration	Key Risk and Assumptions
<p>Cash transfer both direct and indirect.</p> <p>This could be both conditional and unconditional.</p>	<p>Enhance the purchasing power of the community</p> <p>Improving the food security at the household level</p>	<p>Immediate (1-2 months)</p>	<p>Constant supply constraints in the market</p> <p>Non-availability of food items at the local markets</p>
<p>Cash for work/Food for work</p> <p>Cash for work in those areas where the market is in the process of being revived and food for work in those areas where the community still does not have access to the market</p>	<p>Provides basic income to the communities</p> <p>Rehabilitation of community infrastructure like creating flat spaces for air evacuation in cases of emergency in the upper reaches. This could also be used for debris removal, construction of connecting roads, slope stability, watershed works etc. A detailed study needs to be done to explore the possibilities of taking up various kinds of work under this program.</p> <p>This program could also be clubbed with NREGA where the government is doing similar kind of work.</p>	<p>Short term, early recovery (2-4 months)</p>	<p>Non-availability of labour due to migration</p> <p>Lack of interest by the people</p>
<p>Revival of supply chain (transportation support to farmers for facilitating the</p>	<p>Farmer getting the appropriate price for the</p>	<p>Short term, early recovery</p>	<p>Lack of suitable transport options and human</p>

<p>supply of produce) by removing the barriers created due to the disaster.</p> <p>A study needs to be taken up to look at the livelihoods dependent on robust supply chain which has been impacted due to the disaster.</p>	<p>produce</p> <p>Support the household income of the community</p> <p>Enhances the purchasing power at the household level</p> <p>Revive community infrastructure.</p>		<p>resource</p> <p>Road conditions not feasible for any sort of movement</p>
<p>Revival of Agriculture as sustainable Livelihood Option:</p> <p>Engaging people through sustainable practices in the market oriented produce like spices, kidney beans, vegetables etc.</p> <p>Development of business development strategy and supporting the value chains related to Bee keeping, sericulture and dairy development</p> <p>Improved extension services</p>	<p>Reduction in the probability of crop failure</p> <p>Developing agriculture as an income generating activity</p> <p>Enhancing the resilience of few prominent value chains towards disasters or other external factors</p> <p>Greater participation of men in agriculture and reduction in the drudgery of the women.</p>	<p>Medium term (1 to 2 years)</p>	<p>Changes in the weather patterns not suitable for agriculture</p> <p>Lack of ownership at the community level</p> <p>The value chain makes business sense to the community.</p>
<p>Development of livestock based livelihoods</p> <p>Extension services for Livestock.</p> <p>Rehabilitation</p>	<p>Additional income at the household level</p> <p>Improved food security and increase in the overall well-being of the household</p> <p>Improved awareness on livestock management</p>	<p>Medium term (1 year)</p>	<p>Adverse weather conditions</p> <p>Lack of interest in the communities</p>
<p>Alternate Livelihood options for Urban/Rural Victims.</p>	<p>Diversification of livelihood options and</p>	<p>Medium term (6 months)</p>	<p>Lack of demand for such activities</p>

<ul style="list-style-type: none"> • Piggery and Poultry • Training and skill development /off farm income options such as weaving, electrician, mobile repairing, handicrafts etc 	<p>additional means of income</p> <p>Enhancing the skill set of the communities</p>		
<p>Enhance early information on risk of disasters</p> <ul style="list-style-type: none"> - Establishing Community based Early Warning System - Strengthen the weather forecast system for agriculture and pilgrimage - Develop capacity of State and district disaster management Authorities 	<p>Reduce the risk due to quick-onset disasters</p> <p>Enhance the disaster preparedness of the community</p>	<p>Medium to long term</p>	<p>Lack of enabling policy environment</p>

Conclusion:

The assessment findings point towards a clear need for supporting some of the livelihoods needs of the people in the affected areas. The recommendations suggest a set of options for the affected families both in the immediate and short term context (6 months to 1 year). As tourism in the Kedar valley is not going to be revived at least for next 1 year, it is critical to support some of the livelihoods needs of the people in the region. This becomes even more imperative in the light of the large number of people dependent on this particular activity coupled with agriculture being the subsistence activity in the region.

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This report has been produced with the financial and technical support from Christian Aid and its partners to look into the existing market systems and the impact of disaster on the identified systems. The report also attempts to suggest some of the ways in which revival of the livelihoods could be achieved through market based approaches for the communities impacted by the floods and landslides in Uttarakhand in June 2013. This report could be used partially or fully by agencies without any prior permission with proper credit to Christian Aid.

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