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LINKING RELIEF & REHABILITATION WITH DEVELOPMENT AFTER FLASH FLOOD, 2013 IN JOSHIMATH BLOCK, CHAMOLI DISTRICT, UTTARAKHAND

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ABSTRACT

This paper reviews the flash flood disaster of June, 2013 in Joshimath block, Chamoli district (Uarakhand), after disaster processes i.e. relief & rehabilitation and their linkage to development patterns for future. For data collection author did observational study (visual screening) in study area and used secondary data. This paper captures relief provided during & after disaster and ongoing reconstruction/ rehabilitation work in Joshimath block.

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INTRODUCTION

During June 15 to 17, 2013 heavy (64.5-124.4 mm) to very heavy rainfall (124.5-244.4 mm), monsoon almost two weeks early, &hit higher reaches within the Uttrarakhand State. The unprecedented rainfall resulted aincrease in rate of melting of glaciers and caused GLOF situation (Glacier Lake Outburst Flood) in chorabari lake (Rudraprayag) and increase in water levels giving rise to flash flood in the Alaknanda, Mandakini, Bhagirathi and other river basins and also caused extensive river bed and toe erosion, and landslides at various locations.

This disaster of June, 2013 grabbed attention at national as well as international level. The State received assistance from other States of India (Uttar Pradesh, Haryana, Maharashtra Delhi Tamil Nadu, Odisha, Gujarat, Madhya Pradesh and Chhattisgarh) as well as other countries for relief & rehabilitation phase of disaster management. Relief is after process of disaster management just after situation strikes i.e. proving healthcare, food, clothing & shelter.

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The standard time frame for relief is defined as three months when an event stroke at a particular place while reconstruction/rehabilitation phase typically starts at the end of the relief phase and may last for several years. The short-term plans for the process are clearance of debris, building housing units, and restoration of lifelines and infrastructure, while the long-term objective is to build a safer and sustainable livelihood. The standard time frame for rehabilitation is defined as five years. The time of reconstruction/rehabilitation after disaster is also a time of ensuring appropriate development patterns for future, and of using the process to generate resources that will help the local populace in getting access to economic rehabilitation alongside physical reconstruction. Reconstruction/rehabilitation operations provide the link for effective coordination between relief (for example humanitarian aid) and development.

Objective

- To study the region in reference to flash flood,2013.
- To find the effectiveness of relief & ongoing rehabilitation work.

- To investigate the level of linkage in relief & rehabilitation with development process.
- Finally suggestion for effective relief & rehabilitation process for region.

MATERIALS AND METHODS

- Collection of primary data through observation & conducting interviews for ground reality.
- Collection of secondary data for analyzing, explaining, and combining the information from the primary source with additional information.

Joshimath Block, Chamoli District (Uttarakhand)

The study area is an administrative unit of Chamoli District in Uttarakhand State covering 2458.77 square km geographical area. Famous pilgrims like Jyotirmath, Badrinath temple, Hemkund Saheb and Valley of flower (national park for excursion) are here in Joshimath block. Joshimath block of Chamoli district has dendritic pattern of several important rivers and their tributaries. Alaknanda (originates fromthe two glaciers of Bhagirath Kharak and Satopanth) is the majorriver of block. Other tributaries of the Alaknanda River which drains it are Sarswati(near Mana village),Khilrawan Ganga (below the Badrinath shrine), Kheerganga (from khuro, confluences at Beinakuli), Kanchan Ganga (originated from Pugerbag, Dhauli Ganga (meets at Vishnuprayag), Pushpawati (Valley of Flower), Lakshman Ganga (HemkundSaheb) downstream small tributaries-Rihugad (ChakaUdiyar local name of cave confluences at Hirnawati) Hirnawati, Kalpganga (in Helang), Garudganga, Patalganga and Birahiganga join the Alaknanda in between Joshimath Block &Chamoil.All these tributaries of Alaknanda with Alaknanda flash flooded the block during month of June, 2013 and developed a scenario of chaos.

Account of relief provided after flash flood, 2013 in block

Relief by Governmental Institutions: In Joshimath block relief at immediate basis is given to 1870 persons of worth Rs. 9, 79, 03, 850 while relief assistance of Rs. 1, 11, 95, 500 to 225 persons and relief for houses is given to 3626 persons of Rs. 20,27,51,050. Total subsidies in agriculture are given of Rs. 1, 05, 61, 585 to 6063 persons in block after flash flood disaster(Source: DMC Gopeshwar, Chamoli district). The account of food distributed after flash flood till 06 Sept.2013is follows: 750.6 Kg Rice is distributed as immediate relief while flour, pulses, edible oil and sugar is distributed 432.5Kg, 70.52Kg, 85.25 Kg and 2359 Kg respectively. 2511 solar lanterns were distributed under Jawahar Lal Nehru Solar Mission Diet & 394 through UREDA Department. These solar lights were distributed in the areas where electricity supply was cut off due to intense rain and flash flood in the area.

Relief by NGOs and CBOs: There is almost 25 NGOs & CBOs who provided relief after flash flood stroke in the block. Account of relief in block is following; food, hygiene kits, utensils, blankets, solar lanterns, Tents and tarpaulins torches, to families, Medicines to Health department by Pragya, Janadesh, Save the Children, Karm Marg Kadam, Seeds India, Shri Bhuwneshwari Mahila Ashram and Veterinary relief is given by Raahat Shelter cum Veterinary Hospital, Pet Owners & Animal Lovers (PAL).

Account of reconstruction / rehabilitation after flash flood, 2013 in block

Reconstruction/ Rehabilitation by Government:

Shelter Reconstruction: Total 125 shelters are completely damaged due to flash flood 2013 in Joishimath block, Chamoli district and selected to be reconstruct/rehabilitate. Government of Uttarakhand Announced Rs.5 lakhs each beneficiary. This money will be given in three installments; first installment of Rs. 1.50 Lakh has been handed over, rest installments are yet to be given. Name of the villages selected for shelter reconstruction Pulana- Pandukeshwar, Arori (Patudi) & AuthUrgam valley (Devgram, Salna, TallaBarginda) Kalgot, Nauligwad & Dweeng. All these beneficiaries will get Rs. 3,000 per months till then their houses are reconstructed for paying rent for shelters where they are staying for time being. Villages' chosen for reconstruction /rehabilitation, there is no report of Geological Survey of India is submitted till now i.e. Urgam (Barginda, Devgram), Pulna-Bhyundar, Pandukeshwar, Arodi, Padgasi in joshimath block (Source:DDMA, Gopeshwar, Chamoli District). B. Reconstruction of Public Properties: The Department of Development is given amount in lakhs for reconstruction of RCC bridges is following: 5.504 lakhs ,10.136 Lakhs, 10.2 Lakhs, 6.624 lakhs, 7.288 lakhs, 9.344 lakhs, & 2.08 lakhs Ghat(Pandukeshwar),Khelitauk stream of Devgram (Urgam) ,Rata tauk stream of Devgram (Urgam), Kathona stream of Subai (Lata),ghat stream of Rengadi GP, on ghat stream of Dumak& Water supply from Ganesh tauk to Salna Primary School respectively.PWD is given Rs.3.096 Lakhs to reconstruction of road and debris clearness on road no 1 and 2 links Joshimath-Parsari. JalSanthanis given Rs. 7.984 Lakhs, 7.584 Lakhs, 5.536 Lakhs, and 3.68 Lakhs for drinking water supply in Joshimath, Tapovan river bank & other reconstruction and 11 KB electricity line in Tangani village respectively(Source: DMC, Gopeshwar, Chamoli District).

Reconstruction/ Rehabilitation by NGOs & CBOs: There is a description of NGOs & CBOs engaged in reconstruction/rehabilitation work which are following: RISHI CHAITANYA ASHRAM, SONIPAT/AAGAAS FEDERATION**,** proposed reconstruction of 35 shelters in Joshimath & Karnprayag blocks as a whole but work has not started in Joshimath block till Feb 2014, PSI, Dehradun/ Jnadesh, proposed reconstruction of 25 shelters in Urgam valley which includes repairing of partially damaged houses. This work is completed till December2013,LUPIN FOUNDATION, proposed reconstruction of 8 houses in pakhi village after flash flood 2013, KHW (KINDERHILFSWERK INDIA), proposed reconstruction of 8 houses in Pandukeshwar village of Joshimath block and PRAGYA is engaged in providing help-line services to the people who did not received assistance from government, Green-houses set-up by Pragya and Community venture for people who lost their land in block, Pre-fabricated toilet for maintaining hygiene, Purified Water Tanks for Drinking installed in villages where water supply got damaged or water born diseases are found during and after flash flood in block, ODRC/NCPDP/TARN, proposed to construct one proto type during shelter trainigin Patal Ganga of Joshimath after flash flood 2013,CSR section of Airport Authority of India is in process of finalizing the area and no. of shelters in Joshimath block to reconstruct. They did survey in area but have not decided the location till Feb 2013, Mata Amritanandamayi Math (Kerala), R.G. charitable trust,

Pitampura (Delhi) and Samast Mahajan (Mumbai) are NGOs involve in assessment of finalizing the areas and number of shelter in the Joshimath block to reconstruct.

Economic Rehabilitation

Save the Children engaged people in reconstruction of retaining wall in Lanbagad Gram Panchayat for generating source of income in villager after flash flood and Help Uttarakhand-Lets Join Hand: It is an integration of three NGOs: Samoolam, Karmmarg and Kadam is helping people of Pandukeshwar in generating sources of livelihood after flash flood 2013 affected the area. Above given details of relief & rehabilitation work themselves depicts the scenario of work and level to which extent they are linked with development is given below through some examples from block.

purposes also people are forced to go in open. After flash flood there should be arrangement of portable drinking water as it can be used for long time. As Pragya NGO has installed a water tank with 1000 Ltrs capacity with purifier for 10-12 families in villages it is a step towards insuring long-term water supply even if water supply is disturbed for three days.

Road Link To Badrinath: Road links from Joshimath to Badrinath have been reconstructed after flash flood 2013 is one bad example of neglecting LRRD concept. Road is constructed in so hurry that proper management of drainage is fully neglected in area .When you go to Badrinath, on the way, there is a Gram Panchayt named Lambagad (Padagasi and Arodi villages).

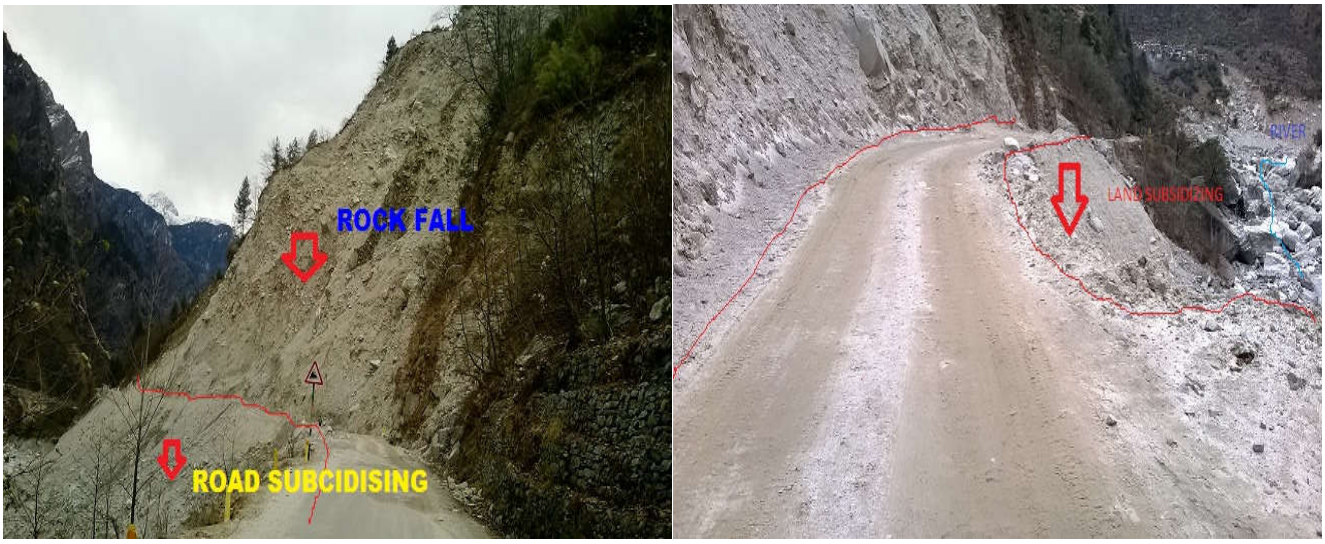

Plate 1. Unplanned road construction towards Badrinath

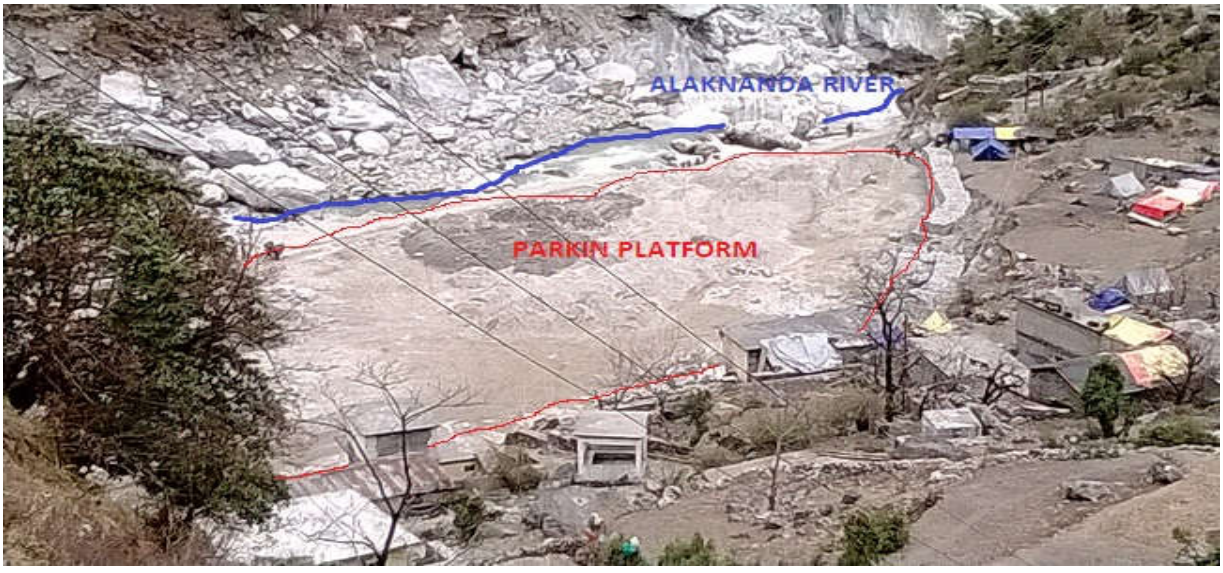

Plate 2. Inappropriate parking construction on the bottom of Arodi village

Examples from Joshimath Block: Negligent of LRRD

Drinking Water Supply in Pulana-Bhyundar Village: Distilled water bottles given in villages is not an ideal way of providing relief as villagers did not used them and stored them. Field visit during February, 2014 there was no drinking water supply have been insured, people are forced to drink water of Lakhmanganga (tributary of Alaknanda) and for sanitation

A seasonal stream is down streaming from Padgasi to Alaknanda River, all water of this stream is collecting on road and due to that, road is in initial stages of initiation of slide.

Rock fall after Snow Fall

Road is constructed after flash flood to Badrinath (from BinayakChatti to Beinakuli, visited by me) was subjected to

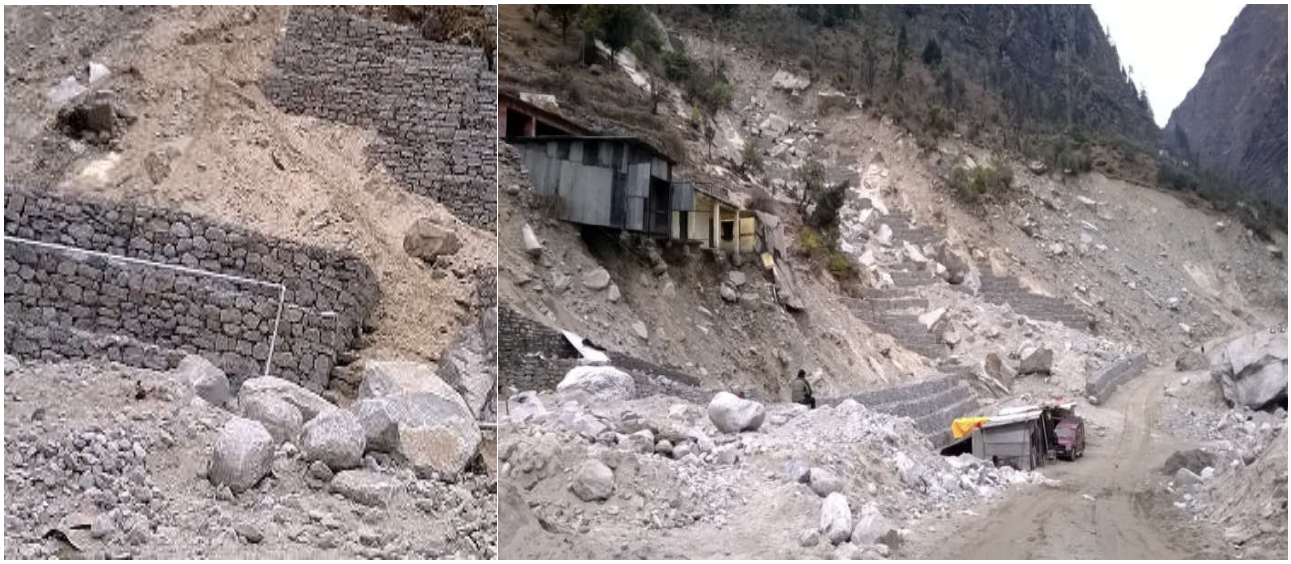

Plate 13. Inappropriate construction of retaining walls on Badrinath road near Lambagad GP

rock fall during months of January to February after every snow fall in area. The cause is absence of retaining walls on both the sides of road and blasting as disturbed the geology of the area. Because of this, road is accident prone for example, in month of February, 2014, an employee of JMR Group died as he got badly injured by rock fall.

Parking Place Constructed by JMR Group: A parking platform is constructed by JMR Groups on the bottom of Padgasi & Arodi villages they used silt of river which was accumulated there after flash flood while there is no report of Geological Survey of India is submitted till now, about the geology and its vulnerability. This human-made aggradation on the bottom of both villages increased the vulnerability of area in terms of Geo-physical hazards i.e. landslide (no retaining wall is constructed downward the parking place), Earthquake (It might disturb isostatic balance of land and a triggering factor for earthquake).

Inappropriate Construction of Retaining Walls: Retaining wall constructed at the bottom of Arodi village does not have proper passage for water flow outside. Water due to its lubricant behavior acts as catalyst for increasing soil creeping and slides in area. These retaining walls are not sustainable for future as they will sustain a little amount of water and will be able to prevent slide only to very small extent but can't bear too much pressure.

Conclusion and Recommendations

After visiting Joshimath in January to Feburary, going through newspapers and reports on flash flood tragedy 2013 which is given names of Tsunami, catastrophic event and other synonyms. I came to know about one important thing from report of Indian Meteorological Department that this disaster was not related to cloud brust but it was result of intense rain during on 16 -17 June, 2013.All these plates captured almost after 6 months when disaster knocked our door depicts the severity level of devastation at that time (June 2013). The situation of heavy rain became a purpose of chaos due lack of preparation and early warning system. Although National Centre for Medium Range Weather Forecasting gave data for upcoming seven days before.

If action should have taken as per the information we could have saved lives and prepared our self to deal with situation but the intensity of rain is under estimated and after that we all are witness of disaster. After reading results of RTI filled by Gurvinder Singh Chaddha, who felt that the state government could have used the money far more constructively by investing it in rebuilding activities in the state. Details from a Right To Information application reveal that the state government spent crores on advertising in the last four months, to bolster the image of the hill state and announce the revival of yatras that had been suspended due to flood. In the immediate aftermath of the tragedy, a number of ads were put out for missing persons and information on helpline numbers. The state government spent Rs. 10 crore on grabbing television spots and another Rs. 1.27 crore on radio jingles. Also, Rs. 1.6 crore was spent just on an ad when the Kedarnath puja restarted last month. Similarly, Rs. 56 lakh were spent on an ad on Hemkund Sahib and Rs. 78 lakh on a Yamunotri advertisement, but forget to aware people about the scenario of placeslike Nainital, Mussourie, and Haridwar where disaster had not taken place were affected.

People were not coming which affected the income of inhabitant of these places who have tourism as source of livelihood. The government also says that this expenditure is well within their Rs. 37-crore budget and doesn't infringe on the relief funds. Relief and rehabilitation has a separate corpus of Rs. 13,000 crore, the government says but there are places which are did not get appropriate relief, rehabilitation work even almost one year is not up to the mark and people in Uttarakhand as well as in joshimath are still struggling for source of livelihood. Although tourism is blood line of state but it is also affected due to negligent behavior of Government of places which were not affected directly but suffered due inappropriate channel of information. In order to this R. M. Sundaram, Director General of Information for Uttarakhand Government said that "government has to invite tourism and tell them that there are safer places you can come and visit." If relief & rehabilitations assistances are used in proper way through this we can use it in constructive way not on ways which shows wastage of resources.

Recommendations

This dissertation focuses on relief and rehabilitation in joshimath block which is a post disaster phase activity and gives us future possibilities of capacity building if relief & rehabilitation activities are based on keeping future development and possibilities of upcoming hazards. Rehabilitation, reconstruction and recovery are major aspects of disaster management as it involves mammoth task of relocating people from vulnerable locations to safer places with restoring their livelihood opportunities. Reconstruction of damaged houses and various infrastructures, restoring connectivity through roads and bridges, strengthening disaster management capacity of Uttarakhand and improving Government's capacity to respond promptly and effectively during the crisis are the issues and challenges being faced by Uttarakhand at present. Taking lessons from this Uttarakhand disaster, more precise and effective flood sensitive village planning, construction of flood and landslides proof shelters, and insurance of disaster susceptible (both in terms of life and properties) needs to be implemented. Large scale ecosystem restoration across river catchments and basins including plantation of diversity of vegetation needs priority for stabilizing the fragile hills and slopes (southasiandisaster.net, 2013).

- With the early warning system, effective evacuation plans and responsive disaster management group should be prepared with the proper guidance and assistance with National Disaster Management Authority (NDMA). These groups can be deployed block wise with active Participation of local inhabitants. Paradigm of disaster management should shift towards Community Based Disaster Management; it will increase capacity of community and increase their resiliency & resistivity towards hazardous situations.
- Construction of Big dams on highly seismic areas like Joshimathblock ,Chamoli district of Uttarakhand block falls in seismic zone IV-V) is a vulnerable task.Before construct these big dams the proper investigation is very much needed through Environmental impact Assessment (EIA).For a proper EIA report, a multi disciplinary (with the collaboration of social scientist ,engineer, environmentalist and civil society) task force is needed to investigates the socio-environmental challenges associate with the proposed projects. But it is a matter of regret that there are great difference in between EIA report of Govt. agencies and independent expert committees. For example, in April 2010, an independent expert committee of non-official members and expert of National Ganga River Basin Authority or NGRBA made a socio-environmental study of the under construction Hydro projects such as Vishnugangad, Pipalkoti on Alaknanda. After the study they have suggested to stop these projects immediately because these projects are vulnerable for natural river courses.
- Construction of buildings and structures on unstable hill slopes and young flood pains must be restricted. Multi storied buildings on high terrain area should not be developed, this type of structures put excessive load on lithology that causes landslide.
- There should be strict restriction on mass tourism in Eco-sensitive zones especially in Char Dhams, Valley of Flowers and several glaciers and snouts areas. Environmental Tax must be collected from the tourists and vehicles to regulate the influx vehicular movement in high terrain areas.
- Through all these recommendations, we have possibilities to increase our resistivity towards disasters and we can achieve towards development which is sustainable.

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