

Life after Floods: Coping with Livelihood Uncertainties in post-flood Kerala

Abstract

The study attempts to assess the extent to which livelihoods of disaster affected populations were affected and restored following the floods and landslides that hit the state of Kerala during the monsoon of 2018 and 2019. Viewing both livelihoods and disaster recovery as socially embedded processes that are affected by social vulnerabilities, the study attempts to assess the extent to which pre disaster vulnerabilities informed disaster recovery process and livelihood security.

Introduction

The past few decades have witnessed an increasing incidence of disasters triggered by a range of natural hazards, taking a heavy toll on ecosystems and human communities. In addition to suffering physical losses (losses to housing and related infrastructure, access roads, water supply and sanitation systems), livelihoods of the affected are also severely impaired. The language of disaster policy and recovery that is often focused on analysis of 'losses and damages' sidelines the more intangible issue of livelihood security.

Existing literature on disaster recovery has examined restoration of housing conditions, household income, psychological health of the affected and so on (Yang et al2018). Systematic evaluation of long term changes in livelihood (particularly livelihoods of the marginalised populations) and their linkages with recovery of human well being after disasters has received relatively lesser attention (ibid). One possible reason for the same is that livelihood security of the marginalised sections of society is embedded in the immediate socio economic context that is defined by social hierarchies and power relations (de Haan 2012) . In addition when livelihoods are natural resource dependent, they are affected by changes in the immediate resource based manifest in non availability/degradation of agricultural land, common lands, forests, water and so on. Addressing livelihood security in the post disaster situation would therefore require an understanding of the immediate social and ecological vulnerabilities that shape every day survival.

By the same logic, the issue of post disaster vulnerabilities and livelihood recovery cannot be viewed as a 'post disaster' phenomenon alone. Rather it is linked to existent pre disaster vulnerabilities and risks which are rooted in social inequalities that affect potential disaster victims'

ability to 'escape, survive and/or bounce back from disasters' (Wisner et al 2004, Islam and Lim 2015). Housing damage after hurricane Katrina in the United States for example was found to be greater amongst racial minorities, low income and female headed households and less educated individuals, because they were more likely to live in low quality housing and neighbourhoods that were prone to flooding (Fussell 2013). Understanding of vulnerability in the context of disasters has revealed that pre disaster vulnerabilities get aggravated by disaster impacts and can result in the failure to recover from the shock and damage (Jerolleman 2019).

Methodology

This research was initially proposed as a field study. Covid related travel restrictions have made this difficult. The findings of this paper are therefore based on a review of secondary literature (largely consisting of government reports, press reports and academic publications) supplemented by telephonic conversations with disaster affected people, elected representatives and civil society representatives from the affected areas. The inability to conduct field visits and direct interactions with affected people was a significant drawback. Prior understanding and familiarity with certain disaster affected pockets coupled with discussions with civil society representatives helped to fill in many of the gaps. Gaps however remain as it was difficult to interact with a sizeable number of people from each area.

While the initial attempt was to study post-disaster livelihood vulnerabilities in three affected pockets of the state, viz the wetlands, midlands and highlands, the inability to conduct field visits and the difficulties encountered in conducting telephonic interviews, has led to a greater focus on highland districts which suffered from both flooding and landslides.

Disasters and Vulnerability

The concept of vulnerability has been explored in detail by scholars of political ecology, critical sociology and livelihood studies. The emergence of political ecology was triggered by research on land degradation (Blaikie 1994) that made contributions to research on vulnerability by focussing on power relations that led to uneven exposure to hazards that precede disasters and persist long after they have occurred (Douglas and Miller 2018). The concept has been examined in the context of disasters as well since the 1970s. It has been argued that causality is situated in systemic features (Oliver Smith 2013), with certain sections of society being disproportionately affected by disasters, with class, gender, age and ethnicity (O'Keefe 1976 in Bankoff 2007) influencing vulnerability to

hazards, as a result of which hazards translated into disasters only for certain sections of society (Slettebak 2013). Locational disadvantages also compounded vulnerability with disaster-exposed settlements being located in low lying, flood prone areas or steep deforested hillsides, which were largely inhabited by poorer sections of society. Settlements in such places were often manifestations of poverty as people inhabiting such areas could not afford to move to safer locations (ibid). Vulnerability was therefore argued to be socially differentiated and manifest in variable patterns of exposure, susceptibility and capacity to recover (Clark et al 2013).

This also led to distinction being drawn between natural hazards and disasters. Hazards may be natural in origin, but it is the way in which societies have developed that causes them to become disasters (Brien et al 2006, Curato and Ong, 2015). While natural hazards are events with meteorological, geological or biological triggers (Clark et al 2013), disasters are a result of exposure to hazards and vulnerability. Disasters were therefore seen to be caused by ‘hazardous events interacting with conditions of exposure, vulnerability and capacity’ (UNRISD 2018). It is therefore a well established fact in disaster research that social factors play a critical role in turning natural hazards into disasters (Wisner et al 2004)¹.

The phrase ‘natural disasters’ however tends to mask the role played by these systemic features, often making it seem as though disasters are beyond human control, thereby absolving agencies from responsibility and accountability. Moreover it reduces the likelihood of any meaningful discourse around power, class, inequality and marginalization that should be a part of a serious understanding of disasters (Chmutina et al 2019). This is evident in the flood discourse in Kerala, where it continues to be viewed as a one in a century event, an episode.

In addition to locating causality of disasters in the systemic features of society (Oliver Smith 2013), disaster risks and vulnerability have also been viewed as an outcome of conventional models of development that have been focused on economic growth, intensified production and consumption controlled by market economies. These development patterns aggravate risks and vulnerability at the local level, in addition to aggravating climate change. Critical views on disasters and vulnerability have therefore viewed disasters as a result of the combination of natural hazards, social and human vulnerability including development activities that are ignorant of local hazardous conditions (Chmutina 2019).

Disaster Justice

Efforts to apply the justice paradigm to the study of disasters and disaster risks has overlaps with the field of environmental justice (Jerolleman 2019, Clark et al 2013). Studies that explore the justice dimension in disaster risks and recovery echo the arguments of environmental research justice that unpack the social differentiation of vulnerability (Clark et al 2013). Similar to environment justice scholars, they unpack the uneven distribution of risks and benefits. When applied in a disaster context, the justice framework also highlights how individuals or groups have to bear disproportionate risks without having proportionate access to the benefits of a development pathway that creates disaster risks and vulnerabilities in the long run (ibid).

Governance and Post disaster recovery

Participation in decision making is key to inclusion in disaster recovery processes. Post Katrina recovery for instance demonstrated how under privileged groups had to put up with a slower recovery process as they were not adequately informed, received lesser government relief and had to endure discrimination in their search for housing (Bullard and Wright 2009 in Clark et al 2013). Issues of information, participation and accountability surface in a significant manner.

Viewing post disaster justice within a governance framework acknowledges that disaster recovery takes place in political spaces. It is only more inclusive and participatory modes of disaster response and redress that can redress some of the underlying inequalities that contribute to heightened disaster risks (Douglas and Miller 2018). In most cases however post disaster recovery is directed by technocrats and experts who have little understanding of site specific social realities.

Disaster management interventions are mostly limited to the supply of emergency aid, financial and housing support to affected families (Tas et al 2013). This is evident in the Kerala scenario as well. The initial months witnessed a flooding (and often duplication) of emergency aid, followed by disbursement of financial aid to affected families, housing support to those who had suffered losses and announcements of interest free loans for livelihood recovery. Minimizing existing disaster risks before the onset of disasters was not given priority. This was evident when the state witnessed another spate of landslides a year after the 2018 episode.

Post disaster livelihood vulnerabilities

Vulnerability to disasters, which is an outcome of a long process of marginalisation can be further aggravated by the collapse of livelihoods and the erosion of social support systems following disasters (Douglas and Miller 2018). A great body of work on livelihoods has countered the purely economic view of livelihoods and established that livelihood security and sustainability is situated in local social and economic structures, in social relations of power at the village/community level and in prevailing property rights regimes and institutional frameworks (see de Haan 2012). Hence efforts at ensuring livelihood security in the post disaster phase needs to take cognisance of the embeddedness of livelihoods. Such local power relations and inequalities however are rarely contested while planning for disaster recovery and livelihood security. Such complexities however find little mention in national policies on disaster management or in state level responses to disasters (Khattri 2017).

Bruun and Rubin argue that post disaster interventions that are often considered ‘socially neutral’, also play a role in altering power relations, strengthening formal authority and undermining traditional livelihoods and entitlements (Bruun and Rubin 2015). While restoring normalcy is the main aim after every disaster, whether restoring normalcy leads to a ‘re-institutionalization of marginality’, or a rethinking of oppressive social relationships is a critical question (Turler in Curato and Ong 2015). Others point out that post disaster policies often disadvantage the most vulnerable, through perpetuation of structural inequalities (Wisner et al 2005, Pelling 2003 in Jerolleman 2019).

In Kerala, post disaster recovery has been coordinated by different arms of the government, international and national aid agencies, and local governments. The issue of livelihood recovery was not on the priority, except for piecemeal assessments of damages to agricultural land and livestock being undertaken by the agricultural department and the animal husbandry dept respectively. A systematic assessment of livelihood losses and a strategy for recovery was amiss even three months after the disaster². The extent to which livelihood recovery emerged as a priority area remains to be assessed through field work.

2 Preliminary field visits conducted to disaster affected areas in 2018.

Disasters, Livelihoods and Migration

Livelihood insecurity in the aftermath of disasters is known to trigger migration. Cyclones, floods, earthquakes and other sudden-onset, short duration disasters are more likely to cause temporary migration until the immediate threat has passed. In contrast, drought, famines and other slow-onset and long duration disasters are more strongly associated with recurrent seasonal or permanent outmigration patterns (Fussell, 2013). Vulnerable livelihoods in the post disaster situation take on more serious proportions when it comes to the case of migrant labourers. Since the 1970s foreign migration has been a predominant feature with foreign remittances playing a major role in sustaining the Kerala economy (Zachariah et al. 2001). Over the past two decades however, the state has witnessed in-migration of a serious order. Given the high rates of education in the state and the unwillingness of educated youth to engage in manual, unskilled labour, such work is performed by the migrant labourers from other states of the country, notable from the eastern part of India. The population of migrant labourers has grown to 7% of the total population (Maheshwari, 2016) in the state, employed mostly in low-skilled jobs in diverse sectors- agriculture, construction, hotel/textile/plywood industries to name a few. Migrant labourers live in difficult living conditions, characterised by poor housing and sanitation facilities (Saikia, 2015). They are accommodated by the private contractors who hire them. While their poor living conditions has been acknowledged and the government has made efforts to create safe housing conditions, it is far from adequate. The absence of a foolproof database about the number of migrant workers, their employment and accommodation details surfaced during the recent Covid pandemic when local governments had to create a database of migrant workers in their jurisdiction (Nair, 2020). They are largely viewed as outsiders, and are also seen as potential threats to the law and order situation in the state, owing to a few incidents when they were implicated in criminal cases. While their living conditions are relatively better in Kerala, along with higher wages, they are by no account treated as equal citizens (Maheshwari, 2016). There is therefore little understanding of how this section of society coped with livelihood loss in the aftermath of the floods and landslides.

The flood narrative in Kerala: glossing over vulnerabilities

Between June and August 2018, Kerala witnessed torrential rainfall that manifest itself in widespread flooding (seven out of the fourteen districts were severely affected) and landslides in the hilly districts (341 landslides were recorded across the state) (UN, 2018). 5.4 million people were considered affected, 1.4 million were in relief camps and 433 lives were lost (ibid). Damage to housing, public infrastructure, communication networks, land and agriculture as well as water

courses was widespread. The landslide affected areas were concentrated in the hilly districts of the state, leaving glaring physical testimonies on the land. Entire slopes were washed down, bringing down houses and other structures. Flooding in the densely populated midlands affected a much larger population, but the floodwaters receded within a week. In the backwaters however, the flood waters did not recede for until a month, prolonging the damage and displacement. A year later in July 2019, some of the highland districts faced a second bout of severe landslides, that resulted in serious environmental degradation and loss of lives.

The flood of 2018 was portrayed as a once in a hundred year phenomenon. While the quantum of precipitation was unprecedented and concentrated in a few days, the significant change in land use in the highlands (marked by increased quarrying, road construction and increase in built environment) and a sharp increase in urbanisation in the midlands and low lands (UN 2018), and its role in exacerbating the impact of the disaster received little attention. Similarly, there was little mention of social vulnerabilities (particularly caste and gender) that heightened the impact of the disaster on the marginalised communities in the severely affected districts. Hence there is little understanding on the differential impact of the disaster in affected pockets. Initial reports by civil society have pointed to the lack of inclusion of *dalit* and *adivasi* communities in the post-disaster response of the state (NCDHR 2018).

The UN led PDNA³ exercise, undertaken within a month of the disaster, estimated that the worst affected livelihoods were of those in the informal sector, who constitute 90% of Kerala's work force. Serious crop loss, land degradation, soil erosion, destruction of irrigation systems and other agriculture assets affected the livelihoods of small and marginal farmers, livestock farmers (majority of whom are women), agricultural labourers and plantation workers. While the PDNA report emphasised on short and long term recovery processes by taking into account existing vulnerabilities, and drafted a plan for the creation of '*Nava Keralam*' (a New Kerala) that focussed on eco-sensitive risk informed processes that were inclusive and people centered, actual implementation is coordinated by the Rebuild Kerala Initiative which is largely infrastructure driven (Govt of Kerala, 2018). While efforts to rebuild damaged houses is underway, reports of displaced populations not getting houses even after two years indicates that the process is slow and lacks comprehensiveness.

In the absence of independent assessments of the rehabilitation and recovery process, it is difficult to assess the extent to which social vulnerabilities have been taken into consideration in the severely

3 The UN led Post Disaster Needs Assessment (PDNA).

affected pockets. The extent to which the process has been people-centered remains to be ascertained. An infrastructure dominance implies the presence of technocrats and bureaucrats, and finding space for the voices of the affected will be a challenge.

Land and Livelihoods

The following sections discuss various aspects of land based livelihoods that are ignored in post disaster recovery processes. Dependence on a mosaic of resources that includes agricultural land, forests and rivers constitute the livelihoods of people. The most marginalised amongst them depend heavily on the forests and rivers, as well as on common lands.

River and forests

The Chaligadha tribal hamlet consisting of Adiya and Paniya households has faced the brunt of flooding in 2018 and 2019. Even in normal years, their houses are located in flood prone areas, but as with the case of other such settlements, the flooding got severe after 2018. The government initiated talks with the residents of Chaligadha, asking them to relocate to higher lands that does away with the threat of flooding. The government announced a package of Rs ten lakhs for purchase of land and building a house. While the residents of Chaligadha are open to living elsewhere during the monsoons, they are reluctant to leave their base along the river. The proximity to the river and the forests is the biggest factor. They fear that if they move away to a different location, they will lose access to the river. They use the river not just for washing and other needs, but it is also a source of fish for them. Proximity to forests helps them with easy availability of fire wood and also seasonal produce, some of which (like honey and herbs) they can sell in the market. The forests and river together therefore provides them with a certain measure of livelihood and food security that they fear they will lose when they move out. Along with the monthly rations available through the PDS network, locally available food sources help them to hold on. The same opinion was voiced from other tribal settlements in Kunjome in – panchayat and Peroor in – panchayat.

Agricultural crop loss and disasters

Crop loss was reported from all across the district of Wayanad. Following the disaster, crop loss assessments were undertaken by the agricultural department. Farmers report that greater compensation is given to cash crops like plantain, followed by pepper and areca nut and least to food crops. In addition to the fact that food crops like paddy receive minimal compensation, small

scale vegetable cultivation (especially endemic varieties of gourds, chillies, leafy varieties) that contributes towards daily nutrition receives no attention at all. Vegetables grown on homesteads or on small land holdings do not figure in the losses.

Discussions were held with a few farmers cultivating paddy in the Nadavayal area. Paddy fields are grouped together to form a padashekham (cluster of paddy fields). This cluster consists of 108 acres of paddy land, with the great majority of farmers owning just about an acre. For some of them, agriculture is the main source of livelihood. Women in the household supplement agricultural income by working on NREGA. It is this group of farmers who were severely affected by the floods in 2018. The fields that were most affected by the floods were the ones through which the water ran through with great force, carrying with it the top soil. Those farmers who received a compensation, they received an amount that was far lesser than the damage incurred. The crop loss of 2018 prevented farmers from raising a crop in 2019. So this implied that they lost a crop for two consecutive years. The assessment of loss and compensation was partial, but more importantly it was confined to the grain lost, and could not capture the labour and other costs involved. Equally important was that damage assessment could not capture the degradation of the land, in terms of the top soil that was lost and compensation did not touch upon restoration of degraded land. If this was done after the 2018 floods, farmers may have been motivated to raise a crop in 2019.

What happened to these farmers who lost their crop in 2018 and who did not raise a crop in 2019, without alternative sources of income? Women go for NREGA work when available. It may be noted that after the floods in August 2018, it took at least 3-4 months until NREGA stabilised and work was offered. In 2020 however, farmers in this cluster undertook paddy cultivation despite climate uncertainties. They say it is the uncertainty of the lockdown that prompted them to do so, as they feared grain shortages in the near future.

Livelihood crisis for the traders

In the course of speaking to an affected paddy farmer, the difficulties faced by small scale timber traders in the aftermath of the floods came to the fore. Navas grows paddy on about 75 cents of land in the Bavli area adjoining the Karnataka border. He spoke of how the river flowed through the paddy fields, taking away the top soil, and leaving gaping holes in the fields, making it impossible to cultivate it again. This loss however was minor compared to the loss he suffered with regard to timber sales he says. He used to have a small timber business and the common practice amongst timber traders was to stock the timber in mills by the river. They would store the timber in the mills

during the monsoon. In 2018, all the timber stored in such a manner flowed down the river and he lost about 3 to 4 lakhs. He was not able to recover from his losses. He lost all the paddy too that he had cultivated. While he got a small compensation of about Rs 2000 for the failed crop, his livelihood loss regarding timber sales went unaccounted. He says there are many like him in Wayanad, who are small businessmen, who resort to various means to earn their livelihood. At present, he along with his wife, are engaged in cattle raising.

It is not just small timber businessmen who suffered from such losses. Labourers working in timber mills were also badly affected. This year, with the covid related lockdown, there were workers who were willing to work for even Rs 100 a day, revealing the economic stress that they were undergoing.

The uncertainty of daily wage labourers

The livelihood crisis of the landless who rely on daily wage work poses a serious challenge to disaster recovery processes. If their houses have been damaged, they are liable to compensation for the same. The crisis they face on account of reduced wage labour opportunities is not addressed. After the floods of 2018, the government announced a loan for Kudumbashree members, to help them cope with a possible livelihood crisis. People however were reluctant to take the loan as it would imply an additional financial burden that had to be paid back at some point of time. This was particularly the case with daily wage labourers. While speaking to this group, they refer to the ongoing struggle as a result of the covid related lockdown and its aftermath. This has been a far more prolonged crisis than the one triggered by the floods. In Wayanad, construction work has slowly started to pick up, but agricultural activities have not gathered pace. Hence those who go for daily wage work in the construction sector are slightly better off than agricultural daily wage workers. Workers report that even prior to the lockdown, agricultural wage work is far more unreliable than construction work. Wages too are lower.

The case of Santha from Kunjome

49 year old Santha lives in Kunjome colony by the Kunjome puzha (river). Santha like most others in the colony belongs to the Paniya community, which is one of the most disempowered tribal groups in Wayanad. The Paniyas work as daily wage labourers, and are landless, except for the land on which their homes are built. The Kunjome colony is located by the river and was affected by severe flooding for three consecutive years since 2018.

While every day is a struggle, Santha's biggest worry is her dilapidated house, which is built with mud. Despite giving repeated applications for a new house, she is yet to get one. They have faced the brunt of a flooding river for the past three years consecutively, and with every flood a part of the house caves in. During the first flood of 2018, she and her husband did not move into the relief camp as she had goats to take care of. So she lived in a neighbour's home uphill, until the flood waters receded. They lost everything that they had in their house, including all household utensils, 35 kgs of rice, all their clothes and the only cot she had. Her grandchildren lost their books. In 2019, she lived in the camp for 10 days and in 2020 she stayed for about 3 months with her daughter. This year, two of her goats drowned in the floods.

Since Santha hopes that the panchayat or the government will build a house for her some day, it is the only demand that she puts forth. Her livelihood situation however poses an equally dismal picture. While revenue officials have come and taken photographs of her house numerous times, her livelihood situation has not been recognised. Santha on her part, has accepted her difficult life conditions and does not expect any support from any agency in this regard. It is for the more tangible housing problem that she expects support and thereby feels disappointed.

Santha worked for close to 25 years in a tea estate, which is run by the government (tribal society?), but she quit about four years ago owing to poor health. She is yet to get the PF benefits due to her. She joined as a tea estate worker when her younger child was one and a half years old. Her wages then were Rs 30. When she quit working more than twenty years later, she used to get Rs 340 a day. Owing to poor health, Santha is not able to go for any other daily wage work. While her husband continues to go for daily wage work, he gets very few days of work a month. Santha and her husband therefore bought a cow. It is not an outright purchase, but an arrangement that they have entered into, like many other impoverished families. As per this agreement, they got a cow for free from a cattle raising household, on the condition that they could keep the cow and the first calf that would be delivered in their care. They could take the proceeds from the sale of milk too. However upon the next delivery, they would have to return both the second calf and the mother. The first calf was theirs, whom they could keep. When they got the cow, the cow had already delivered thrice and hence its milking capacity was reducing. It is only such cows that were 'sold' as per such arrangements and it is only those in economic stress who enter into such agreements. So at present the cow is able to give only 6 litres a day, but it provides some support to Santha and her husband. Santha was saying that taking care of the cow is a full time job, esp for landless people like her, as

he has to go in search of grass and fodder for the cow. Santha had got a goat too through a similar arrangement, who had given birth to two goats, both of whom she lost in the floods this year.

The livelihood stress on Santha and her husband is clear. With the lockdown her husband has lost even the meagre daily wage opportunities he used to get. It is the PDS rations that help them out she says. Off late, they go to the shop only to buy tea leaves and some sugar. Buying vegetables is ruled out. They however collect the wild green varieties that grow along the river and smaller streams and sometimes get some fish if they are lucky. 'How do I tell people like you about what we have been going through?'

To sum it up, a 49 year old tribal woman who worked for more than two decades in a tea estate run by a tribal cooperative society, struggles to make two ends meet. This society was set up to free landless tribal households from all forms of bondage. While her livelihood continues to be insecure, the floods have made her situation more precarious as it has further damaged her dilapidated house and has endangered her only source of livelihood (raising cows and goats). While her housing problem remains unresolved, her precarious livelihood situation has not been recognised either. Post disaster livelihood recovery processes do not take cognisance of the complex livelihood pathways of the poor.

Pre disaster locational vulnerabilities

Physical location is one of the factors that predisposes people to the impacts of climatic disasters. Both flooding and landslides reveal this vulnerability. In Wayanad, those who suffered housing damage due to floods were largely the tribal colonies located along the river banks. It needs to be noted that the houses are located on the 'pozhis' (the elevated mud bank along the course of the river). The paddy fields adjoining the river channel is mostly owned by the non-tribals and the tribals (mostly the Paniya and Adiya communities) are landless, working on the lands of the former. In some cases, tribal families came to reside along the river, as they were brought here to work on the paddy fields of the non tribal farmers, and in some cases, to protect their crop from wildlife raids. These colonies have become particularly vulnerable to recurrent flooding by the river since 2018.

As opposed to those living by the river, people residing on slopy terrain in Wayanad were affected by landslides. One such group was that of tribal households in the Sugandhagiri tribal farm. This farm was carved out of an evergreen rainforest area, with steep slopes and receiving heavy rainfall.

The farm was set up to rehabilitate landless tribal families from different parts of Wayanad. While the land is still vested with the forest department, title deeds have been issued to tribal households who have been rehabilitated here. The steep, forested slopes in the farm were however not suitable to intensive farming that destabilised the soil. In addition, construction of roads and houses that involved the use of earth moving machines further destabilised the slope. Rampant digging of rain water pits on steep slopes under MGNREGA also added. All of these conditions made the area particularly vulnerable to landslides during the 2018 monsoon when the area received intense rainfall. The Sugandhagiri farm therefore witnessed landslides and loss of human lives.

These locational vulnerabilities did manifest itself in problems in the past as well. Those living by the river for instance did face problems related to flooding in the past, the only difference being the severity of floods. Prior to 2018, people recall water rising up to the foundation or their front yards. This would recede in a few days. However, the 2018 monsoon was different, marked by unusually high precipitation and lack of coordination in opening of dam shutters. As Saji from Peroor says, waters that used to come up to the front yard, rose all the way up to the windows and stayed that way for a few days.

A resource person with the Mahila Samakhyas Society said that temporary flooding of lesser severity during the monsoon was something that tribal communities had lived with for many years. Neither the panchayat or the government took notice of it. The scenario changed in 2018 when the flooding was more widespread and affected a much larger population, that included a significant section from the non tribal community as well, who suffered crop losses. It was then that the issue of flooding began to be recognised with greater seriousness, she feels. Locational vulnerabilities began to be recognised as a serious problem only when it affected a larger cross section of society. This example also illustrates how locational vulnerabilities intersect with social hierarchies (the tribal status of the households whose houses got washed away) to produce an entrenched form of structural inequality that predisposes certain sections to recurrent floods and landslides.

Grievances regarding disaster recovery in Kerala's

Secondary data suggests a lack of inclusion of the affected in the recovery process. While the government's efforts at immediate relief and recovery was appreciated, a few instances of caste-based discrimination was reported in relief camps (NCDHR, 2018). There were also reports of relief operations reaching remotely located settlements much after it reached the more accessible ones (ibid).

The assessment of damages to houses and other infrastructure was undertaken, but relief was slow to reach. Two years after the 2018 floods, there continue to be reports of displaced people awaiting resettlement⁴. Villages affected by flooding in 2018, were affected in 2019 and 2020 as well. While the government promised them alternative land and a house, the process has not moved further. Neither has the complexity of land based livelihoods been recognised which makes it difficult for such people to resettle.

Residents of Chaligadha and Peroor colonies were not aware of the current status of the resettlement plan. The inability of the government machinery to be in contact with the affected people, has enhanced their anxiety. It is pertinent to examine the degree to which procedural justice has been ensured in the process of post disaster decision making. It is acknowledged that all sections of society have not benefited from Kerala's unique development trajectory that comprises of achievements in the field of social development. The outliers to the model largely consist of the poorest and most vulnerable, especially the tribal communities, fisher folk and the economically weaker Dalit communities (George and Krishnan, 2008). Given such a situation, it is important to assess the extent to which these groups and communities have participated and been heard in post disaster decision making processes.

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4 Reports of 300 tribal households in Calicut district awaiting resettlement in 2019 (Times of India, 2019). There were also reports of housing reconstruction being very slow and of criteria for eligibility being flouted (Manorama, 2019).

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