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KERALA FLOOD RESPONSE

In August 2018, Kerala witnessed one of the worst floods of the century. More than 400 people lost their lives and around 1 million people were evacuated. Heavy rains caused several landslides isolating the hill districts and caused unprecedented flooding in the plains. RedR India responded by working to improve access to safe drinking water to flood affected communities across 4 districts.

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Madhavan, Community Leader of Peringalkuthu Kadar Colony mobilized community members to build a plinth for the water filter.

Peringalkuthu is part of Thrissur district of Kerala. Madhavan, 70, heads a community of 32 tribal families that reside along the down stream area of Chalakudy river within 500 mtrs of Peringalkuthu dam. He is the chief or Moopathi of one of the Kadar colonies. The colony consists of 120 people

The Kadar community depends on forest resources, especially Non Timber Forest Produce (NTFP) such as honey, wax, and tubers and they fish from the numerous streams, rivers and reservoirs of the area. They have never practiced agriculture. Developmental pressures in the form of dam construction, tourism and exploitation by outsiders has become a serious threat to their livelihoods. To this day, the Kadars depend on forest resources for their sustenance. Chalakudy river has been the lifeline for these 32 households in the forest region.

“The river water was very clean and good for us to drink, cook, bath and for everything else. Over the past decade the water quality has become poor and we no longer feel it is fit for drinking. The floods have further worsened the situation. With the filter at least we are at peace with drinking water.”

**Madhavan, Community Leader,
Peringalkuthu Kadar Colony**

The floods in August, 2018 severely impacted the families. Some of the houses were badly damaged, filled with debris due to landslides and persistent rain. Approach roads to the settlement had caved in and the river water level on the other side was dangerously high. The families trapped in between were evacuated by the forest department and relocated to a relief centre for a week. Madhavan, inspite of witnessing such a situation for the first time took the lead in coordinating with forest department and was the last one to leave the colony.

A week into the relief camps and receding floods water, Madhavan ensured that the debris was removed from the colony. The water and the pipe lines in the colony sustained heavy damages and the situation was compounded with the river water being highly contaminated.



RedR while doing its assessments with the Forest Department identified the Peringalkuthu Kadar colony as one of the worst affected both due to landslides and floods.

The team explained the benefit of the filter to the community and they were keen to get it installed at the earliest. A small plinth that was required near the river for the installation was readily constructed by the community members inspite of difficult circumstances. Madhavan himself mobilized community members once it was decided to install the filter at the colony.

RedR installed the filter where the households could easily access the filter water. The river was the only source of water presently available and also frequented by most of the households for washing clothes, bathing and collecting water for other household needs.

The filter was installed within weeks of the water receded and a group of young members have been trained on the maintenance and operation of the filter.

The filter can produce 700 ltrs of water /hr and is adequate to cater to the 32 households as the recover from the disaster and await the restoration of water facilities and services.



AT THE FRONTLINES

- Tribal communities affected by landslides and floods.
- Community filter installed at river water source.
- 32 families are able to access safe drinking water.





Priya Biju's house remain covered with a blue tarpaulin to avoid any further damage due to the rain. The house is in fragile condition after it was submerged for a week.

Priya Biju 35, belongs to Pulinkunnu Gram Panchyat, Aleppy. Her husband is an ad-hoc worker with Kerala Water Transport Department. They stay next to a canal and the backwaters have been part of their everyday life for more than 25 years. Early August when the rains began, Priya collected the rain water for drinking. Heavy rains continued for the next few days, and she hoped that it would ease out each passing day.

Soon the canals started overflowing and water entered the houses. She and her family remained stranded at their house for almost 2 days surviving on small food reserves they had, all the while hoping that it would subside.

Eventually they had to move and were evacuated by National Disaster Response Force (NDRF). They spent the next 10 days in a high school in Aleppy living on food and clothes provided by local Government.

Priya says *"It was the first time we had stayed in a relief camp. I have seen rain for years but never thought it would be so hostile. I was continuously worried about my home and kept asking others."* Once she was back, her house was not fit to stay. Mud, slush and debris covered her bed, fridge, gas, cooking stove, utensils, clothes and water tanks. Toilets and rooms were completely dampened with many of the walls cracked.

The panchayat authorities helped to completely clean her house and remove debris from the colony. In spite of all the efforts, Priya's house remains in a fragile condition. Most of the families are still coping with the loss of assets and livelihoods.

Traditionally, all the 26 households in this village would harvest rain water for drinking and at times supported by panchayat particularly during summers.

AT THE FRONTLINES

- Marginal farmers and fishermen severely affected by floods.
- Community filter installed at supply water source accessed by all families.
- 32 families are able to access clean drinking water.

Their only other source of piped water supply was not fit for drinking and the water supply was also irregular. The families would depend on canal water for bathing and washing while the supply water was boiled and stored for cooking and drinking. After the floods most pipe lines were damaged and storage tanks remain contaminated.

RedR during its assessment identified the 26 households in consultation with the panchayat head, Babu, who felt that this cluster of families in the village were not only economically weaker but also severely impacted.

RedR's team identified a house that had the supply water lines intact and could be easily accessed by all the 26 households any time of the day. The supply water source was from a storage tank that was contaminated. The filter was connected to the supply water source, so that it could clean the water till the last mile.

Babu says *"we need more water filters for the panchayat. I am constantly being asked by others. Others from the village also come and collect water from here. It is getting popular"*



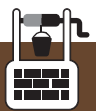
Water Filter installed in a well at Mullumalla Girijan Colony, Mannarappara Forest Range, Pathanamthita.

A community of 30 tribal families who are primarily honey collectors depended on well water for all their water needs. The families stay at Mullumala Girijan colony, a colony deep inside the Mannarappara forest range in the Pathanamthita district of Kerala. The nearest urban settlement is 3 hours away and two roads that lead to the city are the lifelines for these communities. They depend entirely on forest department for food, medical and essential supplies.

Due to incessant rains, the region was marked with a large number of landslides. The roads were blocked and most families had to be moved to a safe place by the forest department. Raj Kumar, 43, who works as a *watcher* with the forest department and is familiar with every inch of the dense forest, says *"I have never seen such rains, we lost all connectivity to city and were struggling to think of safe space to move to"*.

Most wells in the colony were contaminated and supply water was highly turbid soon after the floods. The forest department took the lead in cleaning the wells but the water quality continued to remain poor. The families filtered it several times and further boiled the water for drinking purpose.

RedR in its consultation with community identified the colony as one of the worst affected due to the floods. There are 3 wells for 80 families in the region but this was the only well frequented by most families and held water even during summers. Yesudas, who has his house next to the well says, *"I know how to control the chlorine levels and it is for the first time in life, we are not boiling water for drinking. Almost 30 families are using it regularly."*



AT THE FRONTLINES

- Tribal communities affected by landslides and heavy rain.
- Community filter installed at well water source.
- 30 families are able to access clean drinking water.





Frontline workers being trained on water quality treatment and testing on emergencies.

RedR as part of its response is also involved in providing training and technical assistance to local governments. Frontline workers from Kerala Water Authority, Kudumbashree (*Kudumbashree is the women empowerment and poverty eradication flagship program of Government of Kerala*) and Health Department were trained on water quality testing and treatment during emergencies.

Technical assistance like water quality assessments in schools and training on disaster risk reduction are being extended to the district authorities. In schools, students and teachers actively participate in water quality testing and also trained on safe hygiene practices and messages.

In Idukki, the epicenter of floods – landslides have caused large scale damage and have emerged as a greater risk. Idukki witnessed 278 landslides and 1,800 mud slips this monsoon alone. Panniyarkutty, a village near Adimali, was completely wiped out by the landslides. RedR India oriented ward members in the panchyat on landslide management along with information on water contamination and sanitation solutions. The training and field visits were attended by ward members, local community members, workers from health department, Kudumbashree and school teachers.

“The initial assessments made us understand that landslide management is critical issue here. My training focuses on water and sanitation, landslide management and sustainable farming. It gets very good response and I often get invited for public talks.”

Ashok Kumar, RedR Geologist





Families regularly use the clean water from the filter at Sholyar Kadar Colony, Sholyar Forest Range, Thrissur

Humanitarian Response

20
community

filters have been installed in 4 worst affected districts of Kerala.

More than
700
families

are using the water filters to access clean drinking water.

More than
500
community

members have been trained in post flood hygiene and sanitation care.

More than
300
government

frontline workers have been trained in water quality testing and treatment during emergencies.

Panchayat ward members are being oriented on landslide risk reduction for the **first time** in Idukki - the epicenter of the floods.

School students are actively engaged in water quality testing processes and oriented on good hygiene practices.

“ We are connected to most panchayat president through our para-legal volunteers. RedR was the only one to install community filters and address drinking water issue post flood. ”

R. Jayakrishnan, Sub-Judge / Secretary, District Legal Services Authority



“

During floods, diarrhea cases were reported. RedR's initiative of water filter was really useful for the community and also made us think about preparedness for eg. identifying evacuation routes and emergency supplies (boats, water filters, medicines) for the panchyat.

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Lata Madan, Panchyat President, Nirnam Panchyat, Pathanamthita

RedR improves the effectiveness of disaster relief, helping save and rebuild the lives of people affected by disaster worldwide. RedR provides essential training and technical support through skilled professionals to humanitarian actors. Our work helps to ensure that the right people with the right skills are responding to emergencies and helping reduce disaster risks.

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