



Cultural Academy for Peace
2019

Disaster management: the power of community participation

Recovery and Resilience of the Flood
Survivors of Ernakulam District Project

Established in 1984, Cultural Academy for Peace is a human NGO committed to nurturing a society based on peace, justice, reconciliation, and respect for life. Over the past 35 years, Cultural Academy has made a name for itself as a champion for health, safety, peace, and justice across the state of Kerala. We aim to create a culture of peace and gender justice in India and abroad through legal advocacy, community development, and direct service programs. Our mission is to create a society based on peace, justice, reconciliation and respect for life, where models of domination and destruction are replaced by those of nurture and cooperation.

This document presents disaster recovery projects implemented by Cultural Academy in response to the 2018 Kerala floods. The document aims to present the project strategies, implementation process, activities, challenges, and lessons learned and to serve as a model for other actors engaged in disaster response and recovery.

This document was prepared by Beena Sebastian, Princy Jacob, Julia Roche, and Deepu K. Uthaman.

Cultural Academy for Peace
Door No.41/1964, First Floor,
Piyolli Road, Ernakulam North,
Cochin – 682018

Email: <http://www.culturalacademy.org/>
Website: culturalacademy@gmail.com

Table of Contents

Executive summary.....	4
Messages and acknowledgements.....	6
Executive summary.....	4
Messages and acknowledgements.....	6
1. Project background.....	11
2. Part A: Recovery and Resilience of The Flood Survivors of Ernakulam District Project.....	14
2.1 Context and Problems to be Addressed.....	14
2.2 Project Location.....	14
2.3 Project Period.....	14
2.4 Objectives.....	14
3. Project Design.....	14
3.1 Steps.....	14
3.2 Strategies Adopted for Project Design.....	15
3.3 Cost and Financing.....	17
4. Project Implementation.....	18
4.1 Target Community Selection.....	18
4.2 Animator Selection and Training.....	19
4.3 Needs Assessment Process for Beneficiary Selection.....	20
4.4 Needs Assessment Results and Target Community Profile.....	21
5. Project Activities.....	29
5.1 Repairing partially damaged houses selected through community participation.....	29
5.2 Supporting affected families for livelihood restoration and entrepreneurship.....	33
5.2a. <i>Livelihood Restoration</i>	33
5.2b. <i>Business Skills and Entrepreneurship Training Program</i>	35
5.3. Promoting WASH providing support for safe drinking water.....	50
5.3a. <i>Testing of drinking water and water filter installation</i>	50
5.3b. <i>Handwash kit provision and WASH awareness programs</i>	51
5.4. Hosting children’s camps to engage children and adolescents in recreational and sociocultural activities in order to reduce the disaster’s impact on them.....	53
5.5. Conducting a disaster risk-reduction awareness program.....	53
6. Monitoring and Review.....	54
7. Challenges and Lessons Learned.....	55

7.1 Challenges.....	55
7.2 Lessons Learned and Recommendations.....	56
8. Part B: Improving school infrastructure in the flood affected area of Ernakulam District....	58
9. Appendix: Photo Gallery.....	60

Executive Summary

During the monsoon of summer 2018, Kerala, India experienced an unusually high amount of rainfall. The heavy rains caused flooding and landslides in the region, with 11 of the state's 13 districts critically affected. The flooding impacted millions of people, resulting in approximately 400 deaths and causing the destruction of homes, livelihoods, and infrastructure.

Ernakulam district was one of the areas most severely affected by the flooding. In response to the destruction caused by the flooding in Ernakulam, Aide à l'Enfance de l'Inde et du Népal, Luxembourg (AEIN), and Terre des Hommes Germany (TdH) initiated the *Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala* project. The project was implemented by Cultural Academy for Peace (CAP), a human rights NGO based in Ernakulam.

The objectives of the project were to

1. Repair partially destroyed homes
2. Promote economic rehabilitation through support for livelihood/income generation
3. Address the issues of WASH and public health

The project was designed using a participatory framework, with target community members being involved in project implementation, monitoring, and review. This was done with the aim of supporting the project's efficacy, efficiency, and sustainability. The project was also designed with consideration of the convergence of resources and humanitarian actors on the area. Because Cultural Academy was not the only actor working in the target area, the project aimed to avoid duplication of the response and recovery activities of other actors working in the target communities.

The Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala project exceeded its target outcomes. Through the project, 29 families were supported for home repair, 95 families were supported for livelihood restoration, 66 community members were trained in business and entrepreneurship skills, 2,328 students received access to safe drinking water, 148 families received handwash kits, 614 children and 148 mothers were educated on health and hygiene activities, 363 children participated in post-traumatic stress management camps, and 77 high school students were trained on disaster preparedness.

TdH also initiated a second project during the project period, titled "Improving School Infrastructure in the Flood-affected Area of Ernakulam District." Through this project, the school received furniture and learning materials, and its 30 students now have a safe environment for their studies.

Challenges that arose during project implementation included managing target community expectations, implementing a transparent and non-biased beneficiary selection process, coordinating with the local self-government (LSG), and addressing the high number of people in need in the target areas.

Key lessons learned included that (i) it is important to educate the community about the project strategy and beneficiary selection prior to implementation or early in the implementation phase; a plan for community education should be incorporated into project design and be implemented as an initial project activity, (ii) it is important to educate community members on the beneficiary selection process, (iii) coordinating with the local government is necessary for ensuring a smooth implementation process and project sustainability, (iv) consulting government data and key community informants can be an effective strategy for avoiding duplication of support and identifying the most vulnerable individuals for receiving assistance.

Messages and Acknowledgements

Message from Ms. Beena Sebastien, Chairperson of Cultural Academy for Peace

Message from AEIN Luxembourg: Rehabilitation efforts in flood-hit Kerala – a model for NGOs

In August 2018, the south-Indian state of Kerala was hit by an unusually high level of rainfall, causing the worst floods in the region in nearly a century. Almost 500 people lost their lives, and an estimated million had to be evacuated. Heavy rains in hilly districts caused landslides, causing severe damage to people's homes, farms, livestock - leaving hundreds and thousands of people with nothing.

Aide à l'Enfance de l'Inde et du Népal (AEIN)'s project towards rehabilitating Kerala began on 1st October 2018. Along with its partners, Cultural Academy for Peace (CAP), Center for Youth Development and Activities (CYDA), and terre des hommes Germany — India Programme (TdH), an intensive needs assessment was conducted to identify the families that would benefit the most from rehabilitation efforts. Working closely with local representatives and the communities, the most marginalised families were selected with priority given to single women, widows, women-headed families, tribal and scheduled caste families, families with differently abled or mentally challenged members, and elderly couples without children.

In March 2019, a team of AEIN Luxembourg visited the affected project area and could witness with their own eyes the rehabilitation efforts done by Cultural Academy and how the various affected families benefitted from the implemented activities.

On behalf of AEIN Luxembourg, I would like to heartfully congratulate and thank Cultural Academy and all the involved stakeholders for their valuable and highly professional work to help the most vulnerable families in Ernakulam district. I hope that the rehabilitation efforts detailed in this document will serve as a reference for NGOs how to efficiently work in post-emergency situations.

Françoise Binsfeld - Executive Director

Message from PE Reji, Dy. Regional Coordinator, Terre des Hommes Germany — India Programme

In July-August 2018, Kerala suffered its worst flood in a century. Ernakulam District, particularly the Paravur Taluk, was severely battered by the fury of the water. Many people lost their livelihoods, homes, belongings, and livestock. Cultural Academy for Peace, Terre des Hommes Germany, and Aide l'Enfance de l'Inde et du Nepal, Luxembourg took up a project called "Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala" with an aim to support the survivors. The project team gathered the affected community, discussed and engaged with them, and initiated various schemes to aid in their recovery.

This publication documents the initiatives and the process of implementing this project. The project was a collective effort of the community, the local governments, Cultural Academy, TdH, and AEIN. This report aims to document the project process, share the stories of those affected by the flood, and inform future disaster recovery initiatives.

We take this opportunity to express our sincere appreciation and gratitude to all at Cultural Academy, the community, and the local governments and leaders for their cooperation and collaboration.

In solidarity,

PE Reji

Dy. Regional Coordinator, Terre des Hommes Germany — India Programme

Messages from community leaders from North Paravur Municipality and Chennemangalam Grama Panchayat

North Paravur Municipality was one of the most flood affected areas in Ernakulam district. The low-lying areas of North Paravur were totally submerged and the people were evacuated from their homes. Many organizations joined hands with Paravur Municipality in the relief and restoration activities. Our Municipality was supported by Cultural Academy for Peace, Ernakulam through its project funded by TdH. The strategies adopted for project implementation by this organization were unique. They involved Municipal Council members and local volunteers in the project planning, beneficiary selection and monitoring stage. The transparent beneficiary selection and follow up activities is a good model for project implementation that can be replicated.

On behalf of Paravur Municipality, I give our sincere thanks to this organization and its team.

Ramesh D. Kurup
Municipal Chairman
North Paravur Municipality

Our village was badly affected in the August 2018 flood. Many good-hearted people who were previously unknown to us supported us in the village's recovery. Cultural Academy for Peace was one of the organizations that lead the restoration activities without expecting any benefits. They mainly served in restoring livelihoods and repairing damaged houses.

Many thanks,

Adv. Anoop T.G
President
Chennamangalam Grama Panchayat

Message of Thanks from K.P. Indu, Headmistress of Dharmaposhini Sabha Lower Primary School

Dharmaposhini Sabha Lower Primary School is the only educational institution on Valia Pazhampillythuruth, a small island on Chennamangalam Grama Panchayat that belongs to Paravur Taluk in Ernakulam district. 200 families live on this island, and 30 children from these families attend this school. The students of this school are from economically poor families. The school employs four permanent teachers for classes 1st through 4th standard, as well as two preschool teachers, and is under the management of Dharmaposhini Sabha, a local private management group.

Valiyapazhampillythuruth was one of the islands which was the worst affected by the 2018 Kerala Flood, and Dharmaposhini Sabha Lower Primary School was severely damaged. After the flood, the Assistant Executive Engineer of the Public Works Department of Paravur deemed the building unfit for use. The team from Cultural Academy for Peace approached the school during this crisis. They identified the needs of the school while interacting with teachers and management.

Cultural Academy for Peace provided the school with benches and desks for the 1st - 4th standard students, attractive chairs for the preschool children, chairs and tables for teachers, teaching aid materials, library books, and shelves. The support provided by Cultural Academy for Peace was a great help to the school during this catastrophe. Now we would like to express our gratitude to this organization and its team members. We wish Cultural Academy success in all its future endeavors.

K.P. Indu

Headmistress

DPSLPS, Pazhampillythuruth

1. Project Background

Geography

Kerala is a small coastal state in Southwestern India. Kerala has a total land area of 38863 square km, its topography ranging from a coastal plain in the west to the Western Ghat mountains in the east.¹ The state is bordered by the Arabian sea and backwaters to the west, the state of Karnataka to the north, and the state of Tamil Nadu to the east.¹ Kerala is known for its lush palm beaches, its tranquil backwaters, and its tea plantations and hill stations. 44 rivers flow through the state, which, coupled with the backwaters and the region's many lakes, make the state a water-rich region.²

Climate

Kerala has a tropical climate. It experiences two monsoon seasons: the June-September Southwest monsoon (also known as "Edavappathy") and the October-December Northeast monsoon (also known as "Thula Varsham").²

Population

According to the 2011 Census, Kerala's population is 33,406,061.³ The most populous districts are Malappuram district (12.3% of the state's total population), Thiruvananthapuram district (9.9%) and Ernakulam district (9.8%).³ Kerala's population density is 860 persons per sq. km — more than double the national population density of 382 per sq. km. The state's population density is highest in the coastal lowlands.²

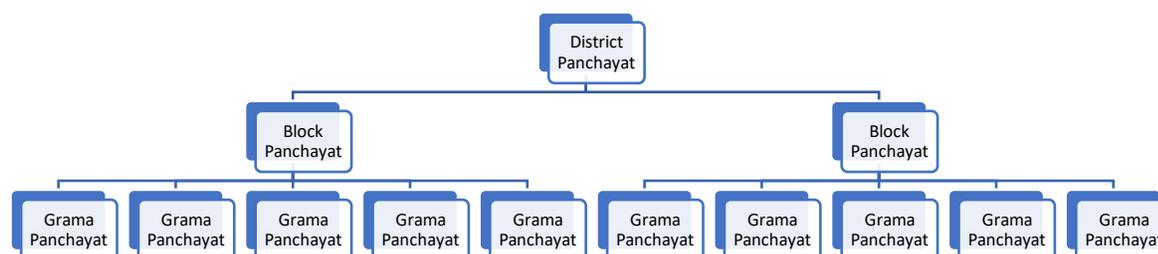
Districts

For administrative purposes, Kerala is divided into 14 districts: Kasaragod, Kannur, Wayanad, Kozhikode, and Malappuram in North Kerala, Palakkad, Thrissur, Ernakulam, and Idukki in Central Kerala, and Thiruvananthapuram, Kollam, Alappuzha, Pathanamthitta, and Kottayam in South Kerala.⁴ The 14 districts are further divided into 75 *taluks* (administrative districts).



Governance

India uses a decentralized local self-governance (LSG) system of “panchayats,” or local governments. The system is comprised of “district panchayats” at the district level, “block panchayats” (typically a group of 5-6 village panchayats), and “grama panchayats” at the village level. Kerala is home to 14 district panchayats, 152 block panchayats, 941 grama panchayats, 87 municipalities, 6 corporations, and 1 township.⁴

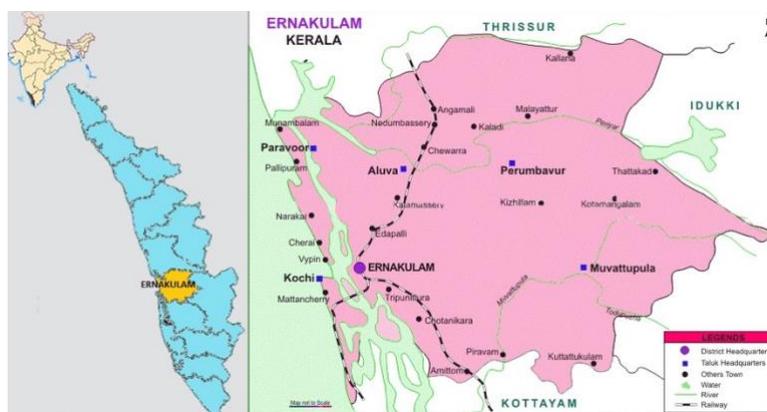


The 2018 Kerala Floods

In 2018, Kerala’s Southwest monsoon season brought abnormally heavy rains to the region. From June 1st to August 18th, the state experienced significantly heavier rainfall than average, receiving 2346.6 mm of rainfall (in contrast to an anticipated 1649.5 mm of rainfall).⁵ These heavy rains caused flooding in 13 of the state’s 14 districts, with 11 districts critically affected.⁵ Additionally, the heavy rains caused reservoirs to fill to capacity. The Indian government was initially hesitant to release water from the dams, but eventually opened approximately 40 major dams. This released a high volume of water into Kerala’s rivers, causing further flooding and destruction.⁶

The flooding affected millions of people, causing landslides, destroying homes and roads, decimating crops and livestock, and killing at least 400 persons.⁶ Many homes were submerged in water over 2 meters high.

The districts of Idukki, Alappuzha, Waynad, and Ernakulam were the most severely affected by the floods. The estimated loss of property, including houses, businesses, livelihood, crops, livestock, and fresh water sources was equivalent to approximately 4000 million Euro.



Ernakulam district spans coastal and central Kerala. Primarily flat, agricultural land, it lies in the delta region of rivers originating in the mountainous neighbouring district of Idukki. Idukki district is home to the largest arch dam in Asia, as well as the Cheruthony and Kulamavu reservoirs. As the heavy rains filled the reservoirs to capacity, the dams were opened for the first time in 25 years. The water released from these dams wreaked havoc in Ernakulam, particularly in North Paravur Municipality and Chennamangalam Panchayat.

The flooding in Ernakulam resulted in the destruction of 700 homes and damaged an additional 20,000. 107 relief camps housing a total of 75,000 people were erected in the district.⁷ While some individuals stayed in the camps for ten days to two weeks, many were unable to return home, as their properties had been severely damaged or destroyed.

Flood Impact on Target Areas	
North Paravur Municipality	29 total wards (28 were flood affected)
Total houses damaged	1,315
Houses partially damaged	1,257
Houses destroyed	58
Livelihoods affected	121
Chennamangalam Panchayat	18 total wards (all wards were flood affected)
Total houses damaged	8,870
Houses partially damaged	8,600
Houses destroyed	270
Livelihoods affected	Approx. 3,000

2. Part A: Recovery and Resilience of The Flood Survivors of Ernakulam District

2.1 Context and Problems to be Addressed

When the flood receded and relief materials from the government, NGOs, and other actors were distributed to those affected, many did not receive sufficient assistance to restart their livelihood activities or repair or rebuild their homes. Thus, there was immense need for housing repair and support for income generation. The flooding also destroyed and contaminated all open water sources upon which many people depended. These water sources needed to be repaired and decontaminated and water, sanitation, and hygiene (WASH) activities needed to be promoted.

To meet these needs, Aide à l'Enfance de l'Inde et du Népal, Luxembourg (AEIN) and Terre des Hommes Germany (TdH) initiated the "Recovery and Resilience of The Flood Survivors of Ernakulam District" project. The project was located in Chennamangalam Panchayat and Paravur Municipality in Ernakulam District, and implemented by Cultural Academy for Peace (CAP), an NGO located in Ernakulam. Cultural Academy had been working in Ernakulam prior to implementing the Recovery and Resilience of The Flood Survivors of Ernakulam District project. After the flood waters receded, Cultural Academy had been engaged in relief activities in the district and was therefore already familiar with the target communities.

2.2 Project Location: North Paravur Municipality of North Paravur Taluk and Chennamangalam Panchayat in Ernakulam District.

2.3 Project Period: 1 year. 1 October 2018 – 30 September 2019

2.4 Objectives

1. Repair partially destroyed homes
2. Promote economic rehabilitation through support for livelihood/income generation
3. Address the issues of WASH and public health

3. Project Design and Implementation

3.1 Steps

The following steps were followed when implementing the intervention:

1. Selecting animators (members of the target community who would assist in project implementation)
2. Conducting a needs assessment for beneficiary selection and preparing a list of beneficiaries in coordination with communities and LSG

4. Repairing partially damaged houses selected through community participation
5. Supporting affected families for livelihood restoration and entrepreneurship
6. Promoting WASH and providing support for safe drinking water
7. Hosting children's camps to engage children and adolescents in recreational and socio-cultural activities in order to reduce the disaster's impact on them
8. Conducting a disaster risk reduction awareness program

3.2 Strategies Adopted for Project Design

This project was designed and implemented using a community-based, participatory framework. Community participation is an evidence-based strategy that has been shown to offer multiple benefits to disaster recovery and development initiatives.

Firstly, communities are the experts in their own experiences. They know their own needs and challenges and are intimately familiar with their own culture and context. Because of this, they are likely to know what solutions may or may not work for them. Combining community knowledge with the expertise of development actors can be a powerful strategy for program design and implementation, ensuring that initiatives will work for the communities they are intended to benefit.

Community participation also increases the sustainability of projects. Previous development and disaster recovery initiatives have found that local ownership helps ensure that development efforts will be maintained long-term by the community.⁸ If a solution does not work for a community, they are unlikely to maintain it.⁸ Time and again, disaster recovery efforts that do not put the community at the forefront have proved less effective and sustainable than projects that use a participatory framework.⁹ Once community needs have been identified, organizations should do their best to design their programs so that communities have the tools to maintain and carry those efforts forward.

Community participation in disaster recovery and disaster risk reduction can also mitigate potential future risk.⁹ According to Dr. Rajeev M.M. of Amrita University Department of Social Work in Kollam, Kerala, "Major benefits of the community based risk assessment, mitigation planning and implementation processes include building confidence, pride in being able to make a difference, and enhanced capabilities to pursue disaster preparedness and mitigation."⁸ (Rajeev, 2014, p. 208).

Community participation was a core component of the Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala project. Community involvement was primarily ensured through coordinating with the local self-governments (LSGs) of Chennamangalam and Paravur Municipality throughout all stages of the project and through the use of community members (animators) for project implementation. Cultural Academy staff also held regular stakeholder meetings with the project's beneficiaries in order to ensure that the process was working for them.

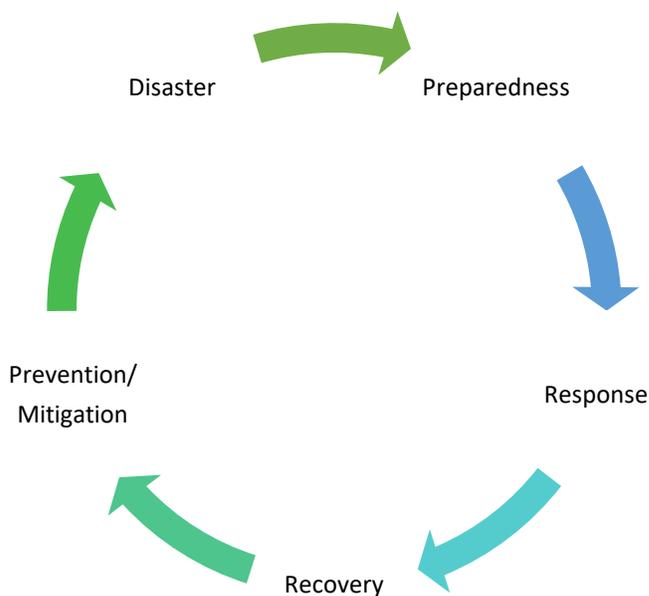
As an organization already engaged in work in the target communities, Cultural Academy carried credibility with the community and the government authorities. This positive relationship between organization and community helped project implementation run smoothly.

The project was designed to involve marginalised populations, including single women, women-headed families, differently abled persons, *Dalits* (lower caste individuals), and tribal populations. The project aimed to ensure the participation of vulnerable populations in the entire project process, and to contribute towards improving the living conditions of the aforementioned groups.

As was previously mentioned, the project design included coordination and consultation with the LSG at every stage of implementation. This method not only aimed to increase community involvement, but complied with state requirements, as the Kerala state government declared the local government — namely the panchayat — as the responsible party for all recovery and rehabilitation work in coordination with the district collector. According to the World Bank’s “Building Resilient Communities” toolkit (a guide to risk management and response to natural disasters through social funds and community-driven development operations), “in order to be effective and sustainable, recovery initiatives must be linked to the national and local development context and processes, as well as an understanding of the economic, social, and political conditions that existed prior to the disaster” (De Silva and Burton, 2008, p. 5). Coordinating with the LSG helped ensure this would be the case.

After the flood, the Kerala state government and other NGOs were working in the flood-affected areas. In order to provide needed support in an efficient manner, the project was designed with an eye to *convergence* (the movement of actors and resources to the disaster-affected area).¹⁰ Because of the resources flowing to the affected area, the project was designed to complement, rather than duplicate, the other initiatives taking place in the target areas.

Traditionally, the disaster management cycle is divided into phases, with different actors being responsible for each phase:



Other NGOs working in the target areas were primarily engaged in response efforts, providing immediate assistance such as distributing food kits and direct cash assistance. The project team’s strategy of engaging in recovery initiatives complemented the response efforts of other NGOs — while other NGOs met immediate community needs, Cultural Academy was able to engage in high impact, long-term recovery initiatives such as housing repair and livelihood assistance. Because there were multiple actors working in the area, response and recovery initiatives could be implemented concurrently, rather than being divided into the traditional “phases” of the disaster management cycle.¹¹ This strategy of not segregating activities into rigid phases has been shown to be high-impact and effective.¹¹

In order to make the most of available resources, the project aimed to avoid duplicating the assistance provided by other actors. Coordinating with the LSG and referencing government data helped to avoid the duplication of support. This streamlined response and recovery efforts, increasing their efficiency and impact.

3.3 Cost and Financing

The project was co-financed by AEIN, Luxembourg and TdH Germany – India Programme. The yearly sanctioned budget was as follows:

Year	Budget
2018	INR 1826800
2019	INR 1859400
Total	INR 3686200

4. Project Implementation

4.1 Target Community Selection

Cultural Academy project partners visited the flood affected area in Ernakulam district to conduct a needs assessment. Team members visited affected communities and conducted a rapid assessment via visual survey, key informant interviews with LSG members, and focus group discussions. Interviews and focus group discussions were designed to help project partners understand the non-structural and structural supports needed by the communities. Government reports and the media were also referred to while selecting the project communities.

After conducting the rapid assessment, Cultural Academy suggested Chennamangalam and North Paravur as target areas, which AEIN and TdH then approved.

The following is the rapid assessment of Chennamangalam and North Paravur:

Paravur Taluk:

Paravur Taluk is located in the north-western part of Ernakulam District, Kerala. The capital of the taluk is North Paravur. Paravur Taluk borders Thrissur district. The surrounding taluks are Kochi to the west (consisting of Vypin Island), Kodungallore and Chalakudy to the north (consisting of Mala), Aluva to the east (consisting of Angamaly, Nedumbassery and Aluva), and Kanayanur to the south (consisting of Cochin City). Paravur is a part of Kochi urban agglomeration area.

Paravur Taluk lies in the flat delta region of the Periyar River. Several canals run through the area, which has resulted in the formation of many islands. The Kodungallur “Kayal” (or “backwaters”) and Varappuzha Kayal are located in this taluk. The western parts of the taluk are coastal areas, where many inhabitants cultivate prawns and pokkali (saline tolerant) rice. The eastern parts of the taluk are fertile lands prime for crop cultivation.

North Paravur Municipality:

Paravur Municipal Area is an LSG located in Paravur Taluk. In North Paravur Municipality, 2,980 houses were submerged, 1,257 houses were partially damaged, and 58 houses were completely destroyed. As a result, 20 families became homeless. At the time of the assessment, these families were still staying either in relief camps or at their relative’s homes. This data was derived through a rapid assessment done as per the direction of the District Administration of Ernakulam District.

Chennamangalam:

Chennamangalam is a small town and panchayat consisting of 18 wards in Paravur Taluk. Located approximately 23km from Ernakulam, the town has three rivers, seven inlets, and large expanses of green plain. According to data from Chennamangalam Grama Panchayat, more than 250 houses were found unfit for habitation and were in need of repairs and retrofitting to be considered safe.

A discussion with flood affected families at Pazhampillythuruth — one of the worst affected areas of Chennamangalam Panchayat — was facilitated by the Cultural Academy team. The interview revealed that non-availability of drinking water, contamination of well water, loss of household items, discontinuation of children's education, loss of livelihood and loss of housing were the major issues faced by the population.

Weaving is a major industry in Chennamangalam. The Cultural Academy team held a discussion on September 3rd, 2018 in order to identify the gravity of the issues facing handloom weavers in Chennamangalam. Through the discussion it was found that women weavers were the most highly affected group in that industry, and that their livelihoods were adversely affected by the flood. The assessment found that 400 handloom workers and 200 associated workers were flood affected. 80% of these workers were women, among whom nearly 200 were home-based loom workers who lost their livelihoods in the flood. The home-based weavers who lost their looms and accessories due to the flood had no other means of livelihood. These artisans were engaged in this occupation for the past 30 to 50 years and were not in a condition to find a new livelihood source or to become skilled in another occupation.

4.2 Animator Selection and Training

In order to promote community participation, the project was designed to include “animators:” community members who would be involved in project implementation. The Cultural Academy team approached the LSGs to identify potential animators. LSG members suggested volunteers from the Kudumbasree group (a type of women's self-help group promoted by the Indian government). The Kudumbasree group was already working in relief activities in conjunction with other organizations, and many members had prior experience conducting surveys and in relief and recovery activities.

In collaboration with the LSG members, the Cultural Academy team identified five criteria for potential animators:

- 1) Previous experience with conducting surveys
- 2) Previous experience with disaster relief and recovery
- 3) Educated until at least the 10th standard
- 4) Having enough time to devote to working as an animator
- 5) Representing a different ward in the target area from the other applicants (this would ensure access to and familiarity with people across the target area)

The LSGs identified individuals who they believed met the above criteria. 2 Cultural Academy team members and the Kudumbasree chairperson then interviewed approximately 20 candidates. 10 were selected, five from each project area (Chennamangalam and North Paravur).

The Cultural Academy team hosted a one-day induction program for the selected animators. The animators attended a training at the Cultural Academy office, where they were familiarized with the project objectives, activities, and implementation plan. The training included a mock session of how to conduct the survey for beneficiary selection, during which the Cultural Academy team made corrections and suggestions when needed to ensure that the animators were prepared to conduct the surveys.

4.3 Needs Assessment Process for Beneficiary Selection

After the target communities were selected, the Project Coordinator from Cultural Academy and 10 animators conducted a needs assessment study in the project areas. The objective of the assessment was to analyze the impact of the disaster on the areas of housing and livelihood and to identify the beneficiaries of support for house repair and livelihood restoration.

The process began with a meeting with the LSG leaders of Paravur Municipality and Chennamangalam Grama Panchayat, where the Cultural Academy team conducted a briefing on the project. It was crucial that the LSG leaders of the target communities not only understand the project, but be part of the implementation process, as well.

The Cultural Academy team consulted the LSG leaders to identify community needs and potential beneficiaries. The LSG leaders identified 8-10 families from each ward of both project areas who had not received government assistance after the flood (Chennamangalam has 18 wards and North Paravur has 29).

In November 2018, animators conducted a needs assessment of the families referred by the LSG leaders. Animators conducting household surveys of 321 households (151 in North Paravoor and 170 from Chennamangalam), then shortlisted the most needy, vulnerable families.

The shortlisted families were then visited by the Project Coordinator from Cultural Academy, who assessed their needs. The Cultural Academy team then cross-referenced data from the panchayats and the government's Rebuild Kerala Initiative in order to identify community members who would be receiving government support post-disaster. The team aimed to avoid duplication of support and to give priority to single women, elderly couples without children, physically disabled persons, widows, and families undergoing property disputes (as those families were unable to access government support).

The final beneficiaries were selected in consultation with LSG representatives. 29 families were selected for house repair (14 in North Paravur and 15 in Chennamangalam) and 94 families were selected for livelihood restoration (40 in North Paravur and 54 in Chennamangalam).

4.4 Needs Assessment Results and Target Community Profile

The demographic profile of those surveyed in the target areas and the key findings of the needs assessment are presented below.

Demographic Profile of the Flood Affected Population in the Target Area

Sex

Sex	Number	Percentage
Male	543	47.6
Female	596	52.3
Total	1139	100

Table 1: The surveyed population was comprised of 1139 individuals. The population was 47.6% male and 52.3% female

Age

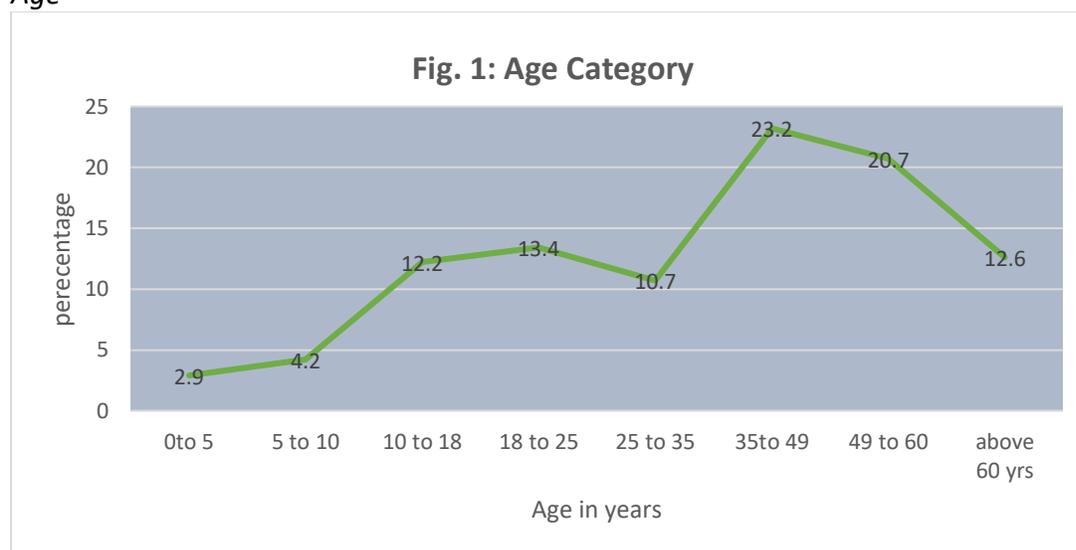


Fig. 1: The majority of the population fell between the ages 35-49 years (23.2%), followed by the ages 49-60 (20.7%). 13.4% of the population fell between the ages 18-25, 12.2% between 10-18, and 4.2% between 5-10. Children below 5 years constituted 2.9% of the population.

Family Size

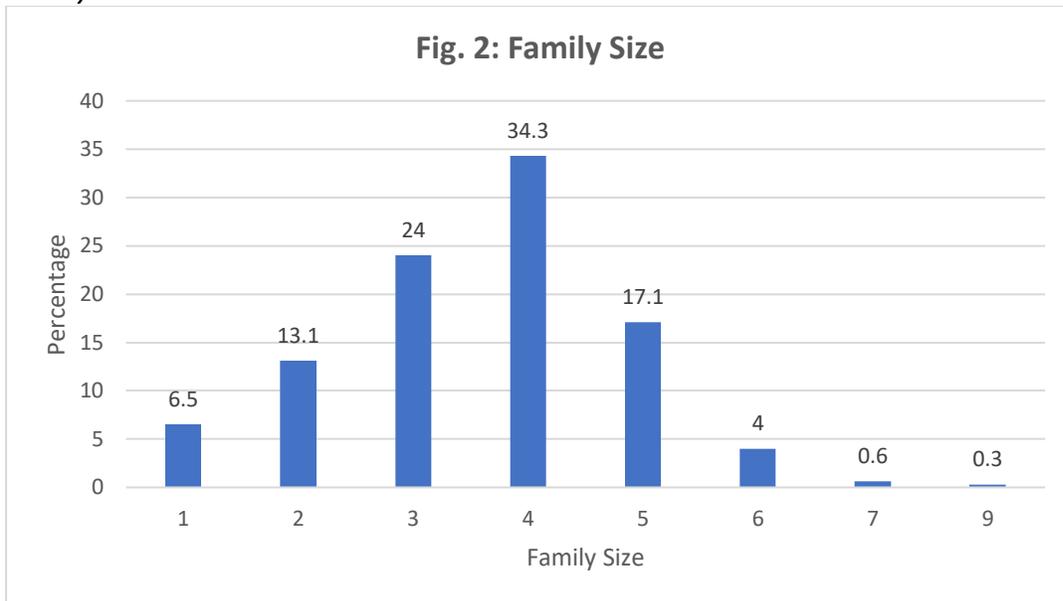


Fig. 2: Family size varied from 1 to 9 members, with the majority of families (34.3%) consisting of 4 members. The majority of the families were found to be nuclear families.

Religion

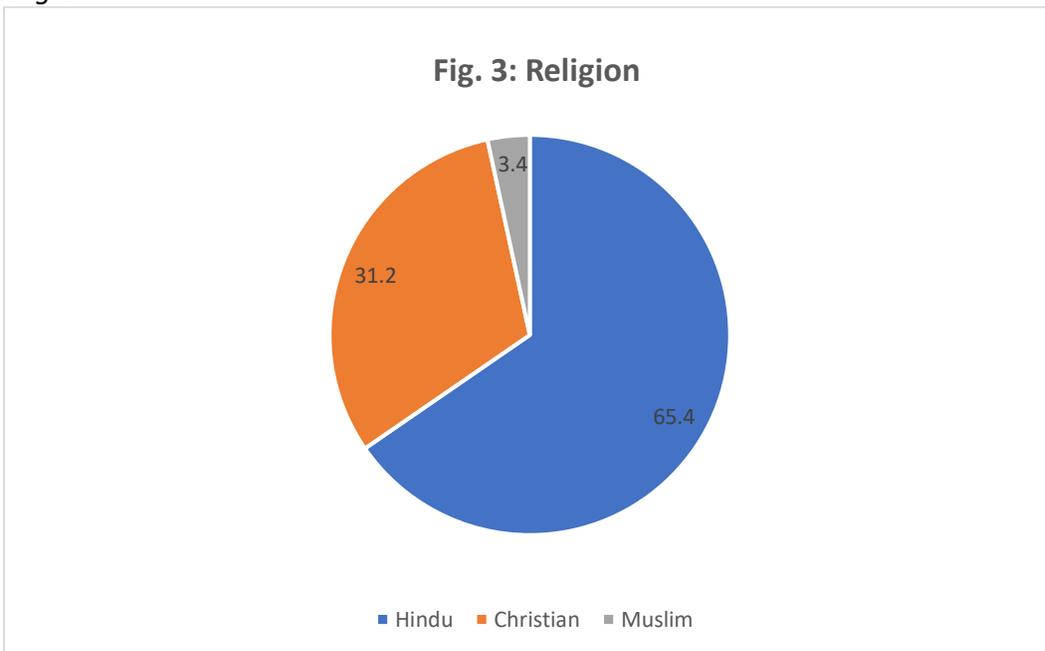


Fig. 3: The project area was found to be predominantly Hindu (65.4%), followed by 31.2% Christian and 3.4% Muslim.

Caste

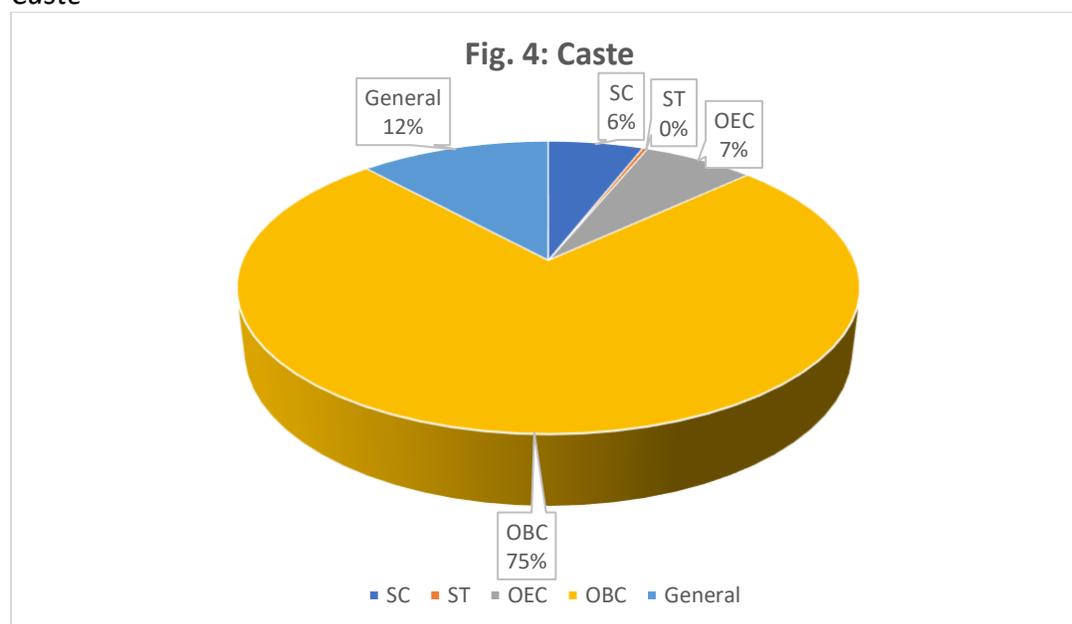


Fig. 4: The needs assessment study found that 75% of the population belonged to “Other Backward Classes” (OBC), 12% to “General Category,” 7% to “Other Eligible Community” (OEC) and 6% to the “Scheduled Caste” (SC) Category.

Economic Profile

In order to assess the economic profile of families in the target area, the needs assessment surveyed participants on the color of their ration cards. A ration card is a document issued by the State Government that serves as proof of identity and nationality, as well as indicates an individual’s economic status. The main benefit of a ration card is that it enables the holder to procure all subsidies provided by the Kerala Government. The color of a ration card denotes an individual’s economic status. White ration cards are distributed to families in the highest income bracket, blue ration cards are distributed to families in the second highest income bracket. Pink and yellow cards are distributed to families living below the poverty line, with yellow cards being issued to people with the lowest incomes.

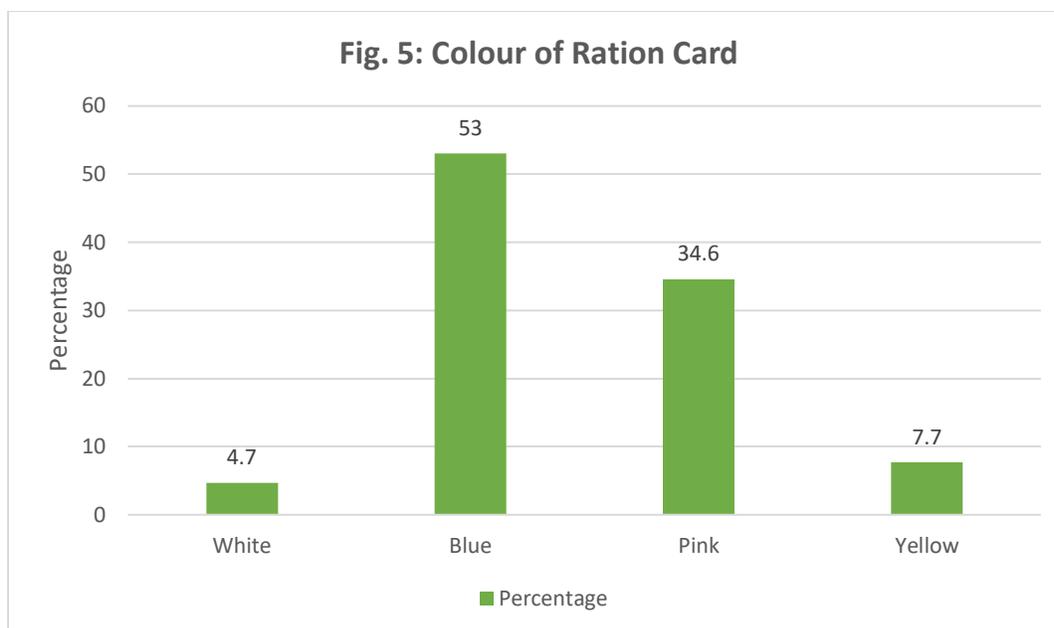


Fig. 5: The needs assessment study showed that 53% of families in the target area have blue ration cards, 34.6% have pink ration cards, 7.7% of households had yellow ration cards, and 4.7%. 42.3% of families in the target area live below the poverty line.

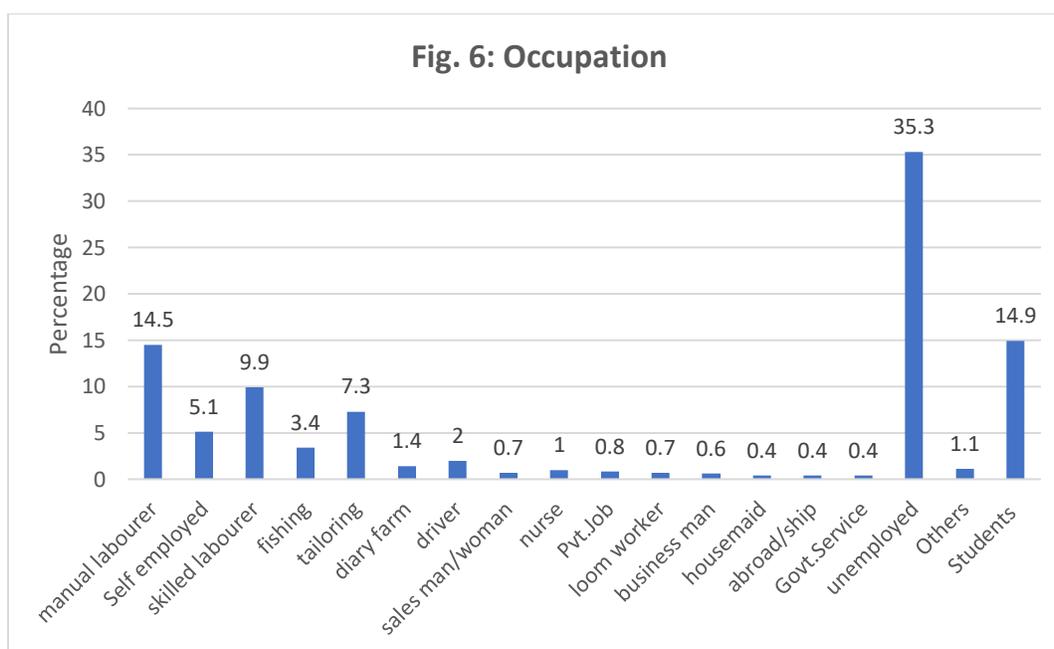


Fig 6: As per the Indian Census, the working age of the population is 15-64 years. The above table shows that among this age group, approximately 50% of the target population were in the workforce. 14.5% were working as daily laborers or MNREGS scheme laborers, 9.9% worked in skilled labor. Approximately 5% of the population were self-employed, engaged in ventures such as small scale-businesses, snack shops, wood carving, rosary-making, catering, bakery units, poultry farming, and diary units. The population engaged in government service or the private sector was very small. 35.3% of the working-age population was unemployed.

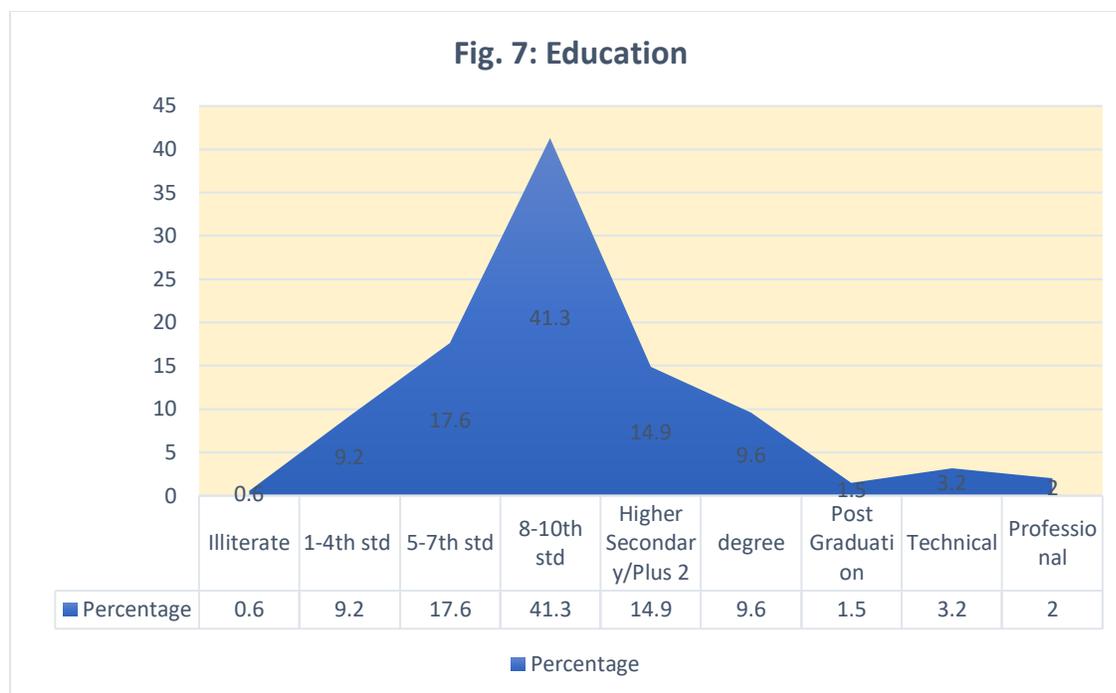


Fig. 7: According to survey respondents, the most common level of education achieved was high school (41.3%). 14.9% of the population studied up to Plus Two, 9.6% had a bachelor's degree, 1.5% had a Post-Graduate degree, 3.2% have a Technical Education, and 2% had a professional degree (e.g. Master of Business Administration or Master of Engineering).

Housing

Home ownership in the target area included privately owned properties, rented properties, and ancestral properties (i.e. the ownership of these homes was either shared by other family members or the occupants had no legal ownership of the property). Families staying in ancestral homes had difficulty accessing government housing assistance due to ownership issues, as only legal homeowners are eligible for government assistance for house repairs. Families who were ineligible for government assistance were given priority in beneficiary selection for house repair through the Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala project.

The majority of the houses surveyed were damaged. The team observed that most of the fully damaged houses were old tiled houses. Partially damaged houses had cracked walls, damaged roofs, and/or damaged floors. Some families' toilets had collapsed.

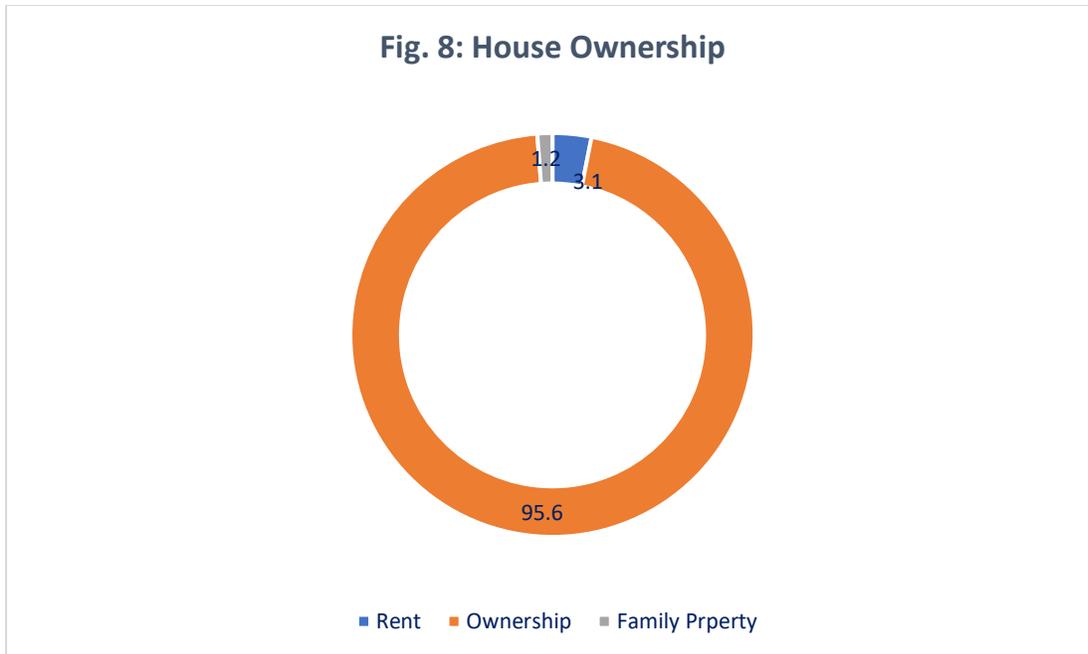


Fig. 8: As per the survey findings, approximately 96% of the houses in the target areas were privately owned. 3% of families were staying in rented homes, and the remaining 1% were staying in ancestral houses.

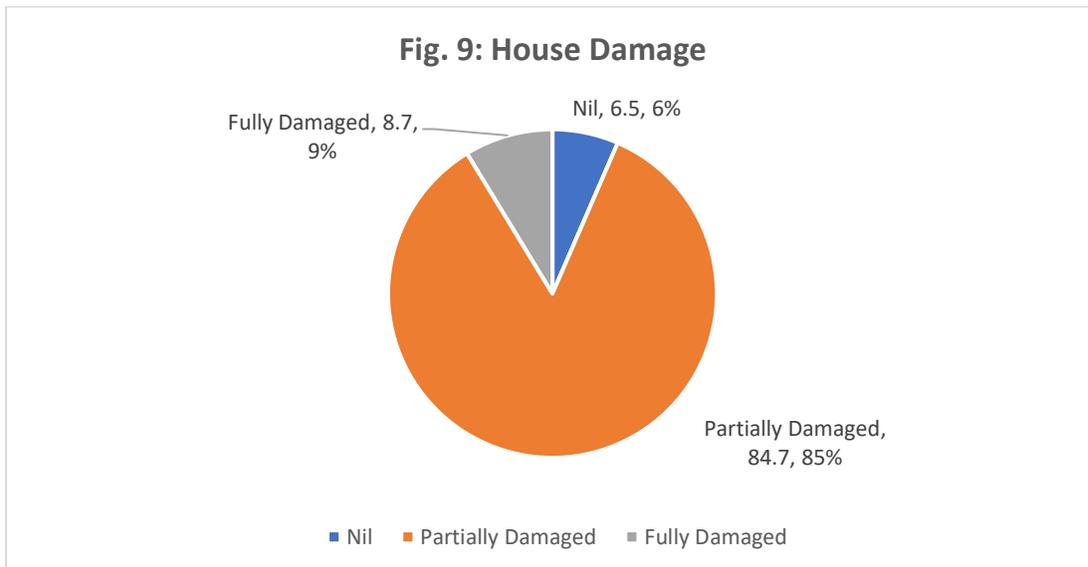


Fig. 9: Approximately 85% of houses surveyed were partially damaged and approximated 9% were destroyed. 6% of the houses sustained no damage.

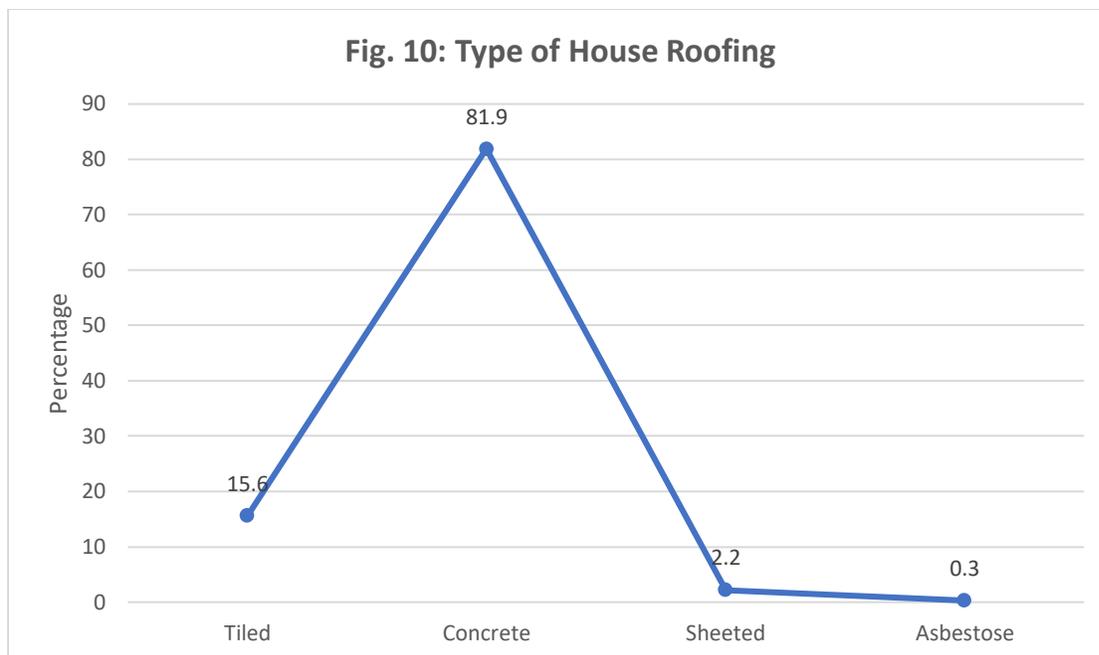


Fig. 10: Based on the survey, nearly 81.9% of houses had concrete roofing, 15.6% of the houses had tiled roofs, 2.2% were sheeted, and 0.3% were asbestos sheeted.

Home Evacuations and Relief Camp Stays

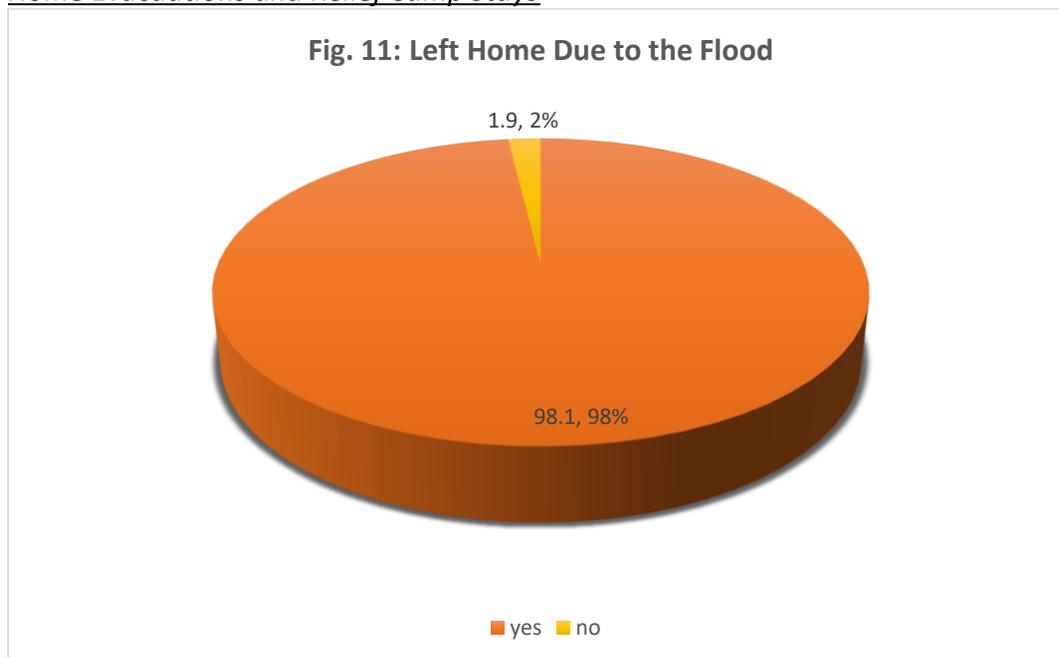


Fig. 11: 98% of study respondents had to leave their homes due to the flood. Only 2% of respondents stayed in their houses.

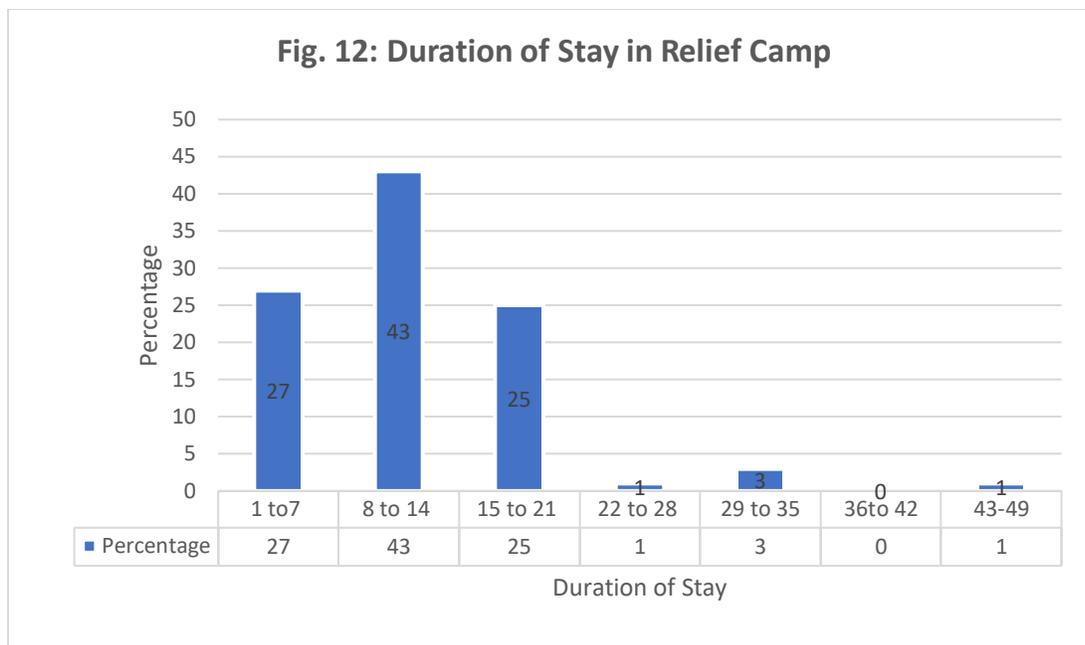


Fig. 12: 43% of survey respondents stayed in relief camps for 8-14 days. 27% stayed in camps for 1-7 days, while 25% stayed in camps for 15 to 21 days. 1% stayed in relief camps for 43 to 49 days.

Impacts of the Flood

Effects of the flood on the target population included damage to housing, livelihood loss, loss of livelihood equipment, death of livestock, loss of household utensils, and damage to students' books. The impacts on livelihood had the most severe effect on marginalized populations. As of November 2018 (when the needs assessment was conducted), the state government had not initiated any livelihood restoration support and was still in the beginning stage of disaster recovery.

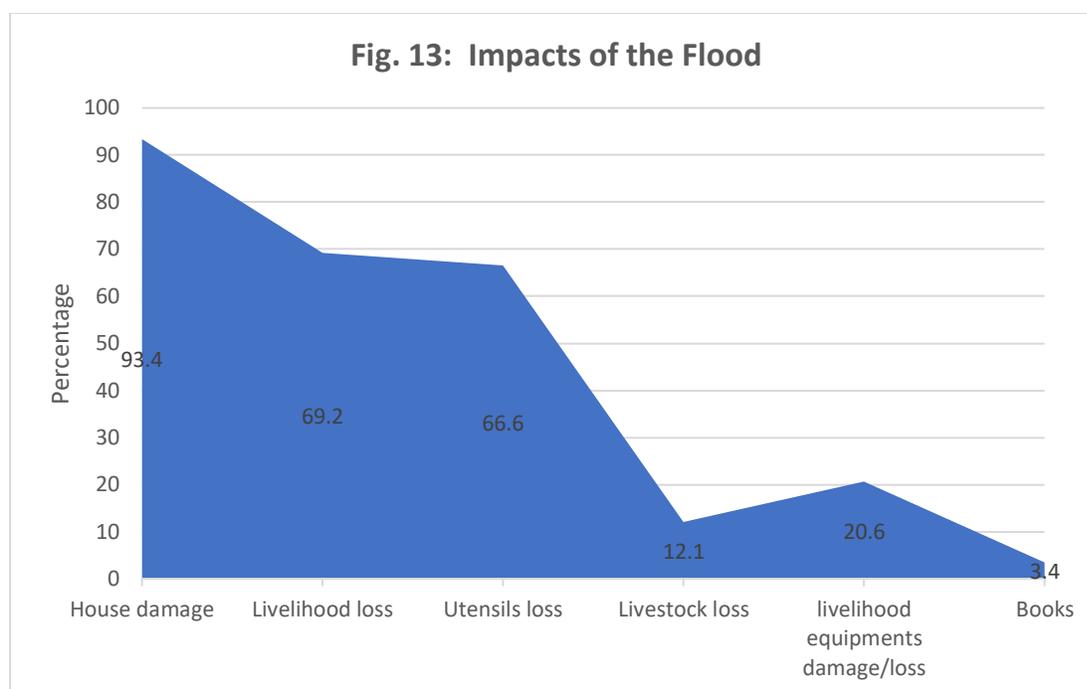


Fig. 13: Damage to housing was the most common impact of the flood experienced by the target population (93.4% of families), followed by livelihood loss (69.2% of families), utensil loss (66.6% of families), and loss of or damage to livelihood equipment (20.6% of families).

5. Project Activities

5.1 Repairing partially damaged houses selected through community participation

Many houses in the target areas were severely damaged by heavy flooding. In consultation with the LSGs and the animators, Cultural Academy selected houses to be repaired. Only houses that needed moderate repairs were selected, as the project budget did not allow for major repairs. Preference was given to single/widowed women, women-headed families, families with children, and elderly couples.

29 houses belonging to vulnerable families from North Paravur Municipality and Chennamangalam Panchayat were identified for repair. Losses were addressed through direct cash assistance and through referrals to individuals who could assist with manual labour. Assistance included the repair of the walls, roofing, flooring, doors and windows, and toilets.

Target

- To repair 25 houses (15 in 2018 and 10 in 2019)

Outputs

- The project covered 14 families in North Paravur and 15 families in Chennamangalam
- One additional family was supported with surplus funds that resulted from a strong exchange rate
- 29 families were supported for home repair
- 28 families completed their house repair activities

Outcome

- 28 families have safe housing

Beena's Story

Beena and her sister Usha are unmarried senior citizens living in Chennamangalam. Previously, Usha had worked as a helper in an Anganwadi (a childcare center), but now both she and Beena are retired and depend on an old age pension for their income. The sisters' home was flooded with up to 6ft of water in the flood. They lived in a relief camp for more than a week following the flood. When they returned home, they found that their house had been damaged in the flood, its walls and floors cracked. The sisters have no relatives to support them and needed assistance to repair their home. This family was identified through the needs assessment and were provided unconditional cash support for housing repair. **"Without the support of Cultural Academy, our house might not have been repaired,"** Beena said.



Beena and Usha outside their repaired home



The repaired and painted home

Bhavani's Story

Bhavani is a widow who belongs to a Scheduled Tribe community. She and four family members had been living in their own house in North Paravur, which was located in close proximity to a canal. The family's house was severely damaged when the floods hit. It was fully submerged for over two weeks, causing the walls to crack and the floors to be damaged. Because the family had no way to solve their housing issue, the Municipality arranged for temporary shelter in an old age home. The family stayed in the temporary housing for more than a month while the Municipality sought finances to repair the family's home.

Bhavani was identified for house repair support during the needs assessment conducted by Cultural Academy for Peace. Within two weeks' time, she was provided with financial support and the family was able to move back to their own home. **"We are very thankful to Cultural Academy and North Paravur Municipality for helping us in our crisis situation. To stay with children in the old age home was difficult for my family since it was difficult for the residents of the home,"** Bhavani said.



Bhavanhi's damaged home



Bhavani's grandchildren and daughter-in-law in front of their repaired home

Raju's Story

Raju is a fisherman from Chennamangalam. He has two children — a daughter studying for a master's in science and a son studying industrial training courses. His wife works in manual labor under the National Rural Employment Guarantee Scheme (NREGS). Raju's house was under construction at the time of the flood and his family was staying in a temporary shed.

The flood impacted Raju's housing and his livelihood. His temporary shed was destroyed and his fishing net and country boat were lost. One of the family's additional sources of income was duck rearing, but their 50 ducks were washed away in flood.

The family stayed in relief camps for two weeks following the flood. They then had to find alternative housing. They began by living in their unfinished house, which had no doors, windows, or toilet. As that house was unsafe, his daughter would stay the night at a neighbor's home. The neighbor also allowed Raju's family to use their toilet. However, this arrangement was unsustainable.

Following the flood, the family received INR 10,000 in immediate financial assistance from the government. Their incomplete house was deemed to be 30% damaged by the Rebuild Kerala Assessment, making it eligible for assistance under a government scheme. However, the government assistance did not meet the family's immediate need for home repairs that would allow them to move into permanent housing. Considering the unsafe condition of their house, Cultural Academy selected Raju's family for house repair support. With the assistance he received from Cultural Academy he installed a toilet and doors in the home and contributed his own masonry skills to the repairs. **"My family can sleep safely now with Cultural Academy's support,"** Raju said.



Raju in front of his family's repaired home

Girija's Story

Girija is a 64-year-old single woman living in Chennamangalam. She lives with her younger sister and nephew in an old tiled house. Prior to the flood, she had been running a tea shop for in a temporary shed near her home. The flood washed away her snack shelf, chairs, and even the shed.

Girija and her family stayed in a relief camp for 8 days. When they returned home, they found that over five feet of water had stagnated in the house, causing the walls to crack and damaging the roof, windows, and doors. Because the family members were sharing the home, the property was considered disputed. This prevented Girija from applying for government assistance. Girija approached project partners and expressed the family's immediate need for housing. Cultural Academy supported her for house repair and completed the restoration within two weeks.



Girija in front of her repaired home

5.2 Supporting affected families for livelihood restoration and entrepreneurship

5.2a Livelihood restoration:

Much of the traditional livelihood resources of the target communities were either damaged or washed away in the floods. As a result, many families were left with no resources to support themselves financially. Support for livelihood was crucial for restoring normalcy to target community members' lives.

The Cultural Academy team coordinated with the animators and LSG representatives to identify self-employed individuals and entrepreneurs who lost their livelihoods in the flood. Single women, women-headed families, differently abled individuals, Scheduled Caste/Scheduled Tribe members, and other vulnerable populations were prioritized as program beneficiaries.

Beneficiaries were supported in the repair or purchase of new equipment (such as handlooms, sewing machines, and mobile snack shops).

Target
<ul style="list-style-type: none"> To support 56 families for livelihood restoration (30 families in 2018 and 26 families in 2019)
Outputs
<ul style="list-style-type: none"> 95 families were supported for livelihood restoration 4 beneficiaries started a join candle-making unit (unfortunately, the unit was flooded again in August, 2019)
Outcome
<ul style="list-style-type: none"> 90 families restored their livelihood activities and are able to support themselves with steady income

At the end of the project period one family had not restarted their livelihood activities, as the beneficiary needed to utilize the funds to pay for her husband's medical treatment.

Livelihoods Supported		
SI No	Livelihood Support	No. of Beneficiaries
1	Sewing machines/units	42
2	Carpentry/masonry /woodcarving equipment	8
3	Catering/hotel/tea shops	7
4	Cow/goat-rearing	6
5	Candle-making	4
6	Snack units	3
7	Grocery shop/ vegetable shop	2
8	Hatchery/ornamental pets unit	2
9	Loom repair	2
10	Lottery sale	2
11	Auto rickshaw	2

12	Blacksmith unit	2
13	Wood cutters	2
14	Electrical/plumbing	2
15	Photography studio	1
16	Dry cleaning	1
17	Fishnet and boat repair	1
18	Cycle repairing	1
19	Bakery	1
20	Engineering workshop	1
21	Petty shop	1
22	Rosary	1
23	Drums/chenda	1
	Total	95

5.2b Business Skills and Entrepreneurship Training Program

The Cultural Academy team conducted two workshops (one in May 2019 and another in September 2019) on business and entrepreneurship skills for selected community members. Workshop topics included surveying for business, identifying suitable business ideas, preparation of business plans, and accessing various government, non-governmental, and bank schemes for financial support.

The first workshop was open to all project beneficiaries who were already engaged in entrepreneurship activities or who were planning to start an enterprise. The second was also open to those same beneficiaries, plus additional community members identified by the LSG and Kudumbasree groups as being engaged in or planning to engage in entrepreneurial ventures. Participants were engaged in activities including handweaving, agriculture, food processing, and small business management.

Target
<ul style="list-style-type: none"> • To host 2 workshops on business and entrepreneurship skill development • To support 10 persons in the development of business and entrepreneurship skills
Outputs
<ul style="list-style-type: none"> • 66 potential entrepreneurs were trained in business and entrepreneurship skills
Outcome
<ul style="list-style-type: none"> • Participants gained skills including team-building, leadership, decision making, identification of potential entrepreneurship activities, time management, and marketing skills and strategies

Sindhu's Story

Sindhu is a tailor who is a member of the Chennamangalam Grama Panchayat. She is the sole earning member of her family of four, including her two children and her husband, who is a xerosis patient. She earns her livelihood through stitching, running a tailoring business out of her home. Her house was submerged in the flood, with water stagnating inside for more than a week. She lost everything — her utensils, household furniture, clothes, and more. Her sewing machine was damaged, and the dress materials brought by her customers were lost. The flood occurred during the Onam holiday season, meaning that she lost a great deal of materials and business.

Sindhu and her family had to stay in a relief camp for more than a week. **“Our house was empty when we returned after a week at the relief camp. Except the cot and almirah, which were mired in sludge, there was nothing. Everything had washed away. I was in a confusing situation about how to bring back everything — even my livelihood,”** Sindhu said.

Sindhu attempted to repair her sewing machine, but the flood had damaged the electronic components beyond repair. Her family received INR 10,000 in immediate assistance from the Government, but it was not nearly enough for her family to compensate for their loss. **“While I was muddled about how to restart my livelihood activity, I received a double stitching power machine from Cultural Academy for Peace. It was a great relief for me to restart my livelihood activity. Now I can stitch two or three churidhars daily and earn an average income of INR 700 per day,”** Sindhu said. Sindhu now meets all of her family's expenses, including the education of her two girls and her husband's medical treatment.



Sindhu working at her new sewing machine

Ramani's Story

Ramani is a resident of North Paravur Municipality. She and her husband live very close to the bank of a canal in a house built through government support. The house was flooded with nearly 6 feet of water for more than a week, and the couple stayed in a relief camp for over 10 days. When they returned home, they found that everything except two cots, two chairs, and a steel shelf had been washed away in the flood.

The couple are entrepreneurs, making their livelihood by making snacks and supplying them to nearby bakeries. A helper also supports the couple by cutting vegetables for the snacks. Their fried chips stocked for the Onam holiday sale were damaged in the flood. Their loss was valued at more than INR 50,000, which was a huge amount for the couple. Cultural Academy identified the couple as beneficiaries for livelihood restoration. Ramani said, **“The help received from Cultural Academy is a great blessing for my family. Our unit is functioning again and we get enough orders to meet our expenses.”**



Ramani and her husband preparing vegetables

Joby's Story

Joby is a photographer from North Paravoor. His father founded Rose Studio, the first photography studio in North Paravur. Now Joby and his brother jointly run this small studio, specializing in photography for marriages and other functions.

The brothers did not expect the flood to submerge their studio, so they did not move the printers and gadgets from the studio to their house. As a result of the flood they lost completed works, including albums and photos. Joby's family was stuck due to the damage in the studio. Joby received immediate government assistance of only INR 10,000 — the

standard amount provided to all flood-affected families. Cultural Academy supported Joby in purchasing a photo printer. **“For a small entrepreneur like me, the support received from Cultural Academy was a great help in restoring my livelihood. Our family is grateful to Cultural Academy for this monetary support,”** Joby said.



Joby in front of his studio

Lissy's Story

Lissy Benny is a widow residing with her only son in North Paravur Municipality. The family's primary source of income is rosary making, an entrepreneurial activity that Lissy has been engaged in for many years. Lissy works from home, employing her neighbors for assistance when she receives large orders.

Lissy's old tiled house collapsed in the flood. All of her household items and rosary-making materials were washed away. She and her son stayed in a relief camp for more than two weeks before moving to stay with relatives for several weeks. Due to a property ownership dispute with her brother-in-law, Lissy was unable to utilize government housing schemes for assistance.

North Paravur's Municipal Counsellor referred Lissy to another agency for housing assistance, so Cultural Academy supported her in restoring her livelihood. She restarted her business and supports her family with her income from rosary-making, generating an average income of INR 1,200 per week.



Lissy in front of her home, where she runs her business

Usha's Story

Usha Sathyan is a widow living in North Paravoor. She is a tailor and runs a small shop called "Kala Dress Makers." Her tailoring shop was flooded, and all of her dressmaking materials were damaged, including 7 stitching machines (two of which were motorized double stitching machines). Usha tried to repair two of the sewing machines in her shop, but they remained useless even after the repairs. Usha made a bold decision and took out a bank loan to purchase two sewing machines even though she had no money to repay the loan. When she met the Cultural Academy team, Usha requested immediate support to repay the loan she had taken out. Cultural Academy provided her with INR 20,000 to repay a portion of her loan. Now Usha manages her shop with two machines, stitching lady's dress items such as saree blouses, churidars, and nighties. She earns an average of INR 500-600 per day.



Above: Usha working in her shop. Right: Usha in front of her shop.

Betty's Story

Betty is a widow and a senior citizen from Kurumpanthuruth, an island in Chennamangalam Grama Panchayat. She is engaged in a small entrepreneurial venture, keeping a hatchery unit in her compound. The business was started as a multi-member, Kudumbasree-supported entrepreneurship venture. Although all of the other members left the group venture, Betty continued to run it with the support of her two sons.

Poultry farmers give Betty young chicks and their feed so that she can raise them. After the chicks are grown, the farmers take the chickens to be sold. Betty usually receives 500 to 1,000 chicks in a batch, earning a profit based on the weight of the chicks.

Betty's tiled house was flooded nearly up to the roof and was damaged in the flood. The hatchery unit was also damaged, and 500 chicks and feed were lost. Betty also had 40 ducks, but they, too, were lost in the flood.

Betty and her family stayed in a relief camp for more than two weeks. When her family came back from camp, they discovered their huge loss. They family received INR 10,000 in immediate relief from the government, but it was not sufficient to cover their losses. Cultural Academy provided financial support to Betty, after which she immediately restarted her business. During their follow-up visit, the Cultural Academy team found that Betty was running her business very well.



Betty with her poultry farm

Omana's Story

Omana is a widow who lives with her sister in a tiled house in Chennamangalam. She has one daughter, who lives with her husband and his family. Omana earns her livelihood by running a temporary petty shop.

Omana's shop was adjacent to a canal, which washed it away in the flood, shattering her means of supporting herself. Omana stayed in a relief camp for two weeks following the flood. When she returned home, she found that her house had been damaged and all of her household utensils were lost. Omana received a food kit and utensils distributed by other agencies working in flood relief. Thus, her immediate need was to address her livelihood. Because she is a widow, Omana had no one to support her in overcoming the trauma caused by the flood.

Cultural Academy selected Omana as a beneficiary for livelihood support. With the funds from the Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala project, Omana was able to purchase a sheeted petty shop to restart her business. Once she purchased her shop, Omana was provided with additional financial assistance to purchase the items needed for running her business. Now the shop has been reopened and Omana is able to earn an income. **"I am very happy that I could restart by small business. The small income of nearly INR 100 from this shop helps me to meet my daily expenses. I am very grateful to Cultural Academy in helping me to restart my shop,"** Omana shared.



Omana with her shop

K.V. Krishnan's Story

K.V. Krishnan is an entrepreneur who runs an engineering shop in North Paravur with the assistance of his son. The flood damaged his house and his workshop, damaging the workshop equipment, materials, motors, and the door of the shop. K.V. Krishnan's immediate need was to restart his workshop. Cultural Academy selected him for livelihood support and he was able to reopen his workshop immediately after receiving financial assistance. The Cultural Academy team conducted a follow-up visit to assess the progress of beneficiaries' livelihood restoration activities and found that K.V. Krishnan's workshop is functioning very well.



K.V. Krishnan and his workshop



Heby's Story

Heby is a 36-year-old physically challenged person who is an entrepreneur engaged in the hatchery of ornamental pets, specializing in chicks of rare species. He is very good at using social media for marketing his pets. He is the breadwinner of his four-member family, which consists of his wife and two children. Heby's wife is a commerce graduate who is a homemaker and helps her husband in his entrepreneurial activities. Heby and his family do not own land and live in a rented house. His hatchery, which is adjacent to the house, is also in a rented building.

Heby's rented house and hatchery were situated on the riverside. During the flood, 200 hens of rare species and ducks were killed, and his inverter and 2 incubators for poultry hatchery were damaged. Heby lost nearly INR 150,000 in damages from the flood. One of his hands is handicapped, and he was unable to find a new occupation following the flood. He received INR 10,000 in compensation from the government, which was not nearly enough to overcome his losses. Cultural Academy supported Heby in restoring his livelihood. Heby took a bank loan in addition to the support he received from Cultural Academy and was able to restore his business.



Heby with his incubator and chicken coop

The Story of Unnikrishnan and Ayisha

Unnikrishnan and Ayisha are a couple from Chennamangalam Grama Panchayat. Unnikrishnan suffers from depression, but manages it with psychiatric medication. Unnikrishnan is a skilled mechanic and the couple supports themselves by repairing bicycles. They receive an average of 8 to 10 bicycles for repairs daily. Their 17-year-old only son also has a passion for technical work and is pursuing an Industrial Training Course in Automobile Engineering.

More than half the height of their house was submerged in the flood and the family had to stay in a relief camp and with relatives for two weeks. The walls of their house collapsed, and the family repaired the damage using a loan from the bank. The family's workshop, cycle repair equipment, and the cycles they had been planning to repair were washed away, completely disrupting their source of income. Unnikrishnan and Ayisha purchased basic equipment for cycle repairing with livelihood assistance from Cultural Academy. They were also able to install permanent roofing in the front of their house and have completely restored their shop.



Unnikrishnan and Ayisha's bicycle repair shop

Shalini's Story

Shalini lives in Chennamangalam Grama Panchayat with her 4-member family. Shalini's children are students, one pursuing an undergraduate program and one in high school.

The family's primary source of income is a home-based bakery. Both Shalini and her husband bake early in the morning and supply their baked goods, including breads, puffs, and cakes, to nearby bakeries. The family's bakery unit was destroyed in the flood; the oven, trays, and utensils were lost, along with ingredients and cakes that had already been baked. The family reported that they had a nearly INR 350,000 lakhs (INR 35,000 million) loss for their bakery.

The family received INR 10,000 in government assistance but did not receive any support for restoring their livelihood. Because their livelihood source was completely lost, they took out loans and restarted their bakery unit with minimal basic equipment. With support from Cultural Academy they were able to purchase baking trays worth INR 20,000. **"The support from Cultural Academy was a great relief for our family since we didn't get any support from Government for livelihood restoration,"** said Shalini.



Left: Shalini's damaged oven. Above: Shalini working at her repaired oven

Sumayanthi's Story

Sumayanthi, a resident of Chennamangalam, is the breadwinner of her 3-member family. She takes the lead role in her family, supporting her daughter and her husband, who has an intellectual disability. Sumayanthi's daughter is in the 9th standard and is very studious. She is very ambitious and aspires to be doctor.

The family's primary source of income was a tea shop, which was submerged in the flood. All of the shop's utensils were washed away, and the loss was estimated to be nearly INR 20,000. Prior to the flood, Sumayanthi also earned some income from her livestock, which included 1 cow and 7 goats. All her livestock were lost in the flood.

Sumayanthi restored her business with the support provided through the Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala project. Now she owns a new mobile snack and tea shop in Chennamangalam. Her husband also provides support within his capacity.

“Without Cultural Academy’s support, this shop might not have been realized and we could not restart our business. I don’t how to express my gratitude to you,”

Sumayanthi said. She also took part in the Business Skills and Entrepreneurship Training

Programme organized by Cultural Academy, where she learned new tips for marketing her products.



Sumayanthi’s husband working at the snack stall

Beena’s Story

Beena Unnikrishnan lives with her husband and two daughters in an unfinished house in North Paravur. Beena sells lottery tickets to earn an income, while her husband is a manual laborer (although he does not work regularly). Both of Beena’s daughters are undergraduate students. Her eldest daughter works as a tailor in her free time and earns a small amount to contribute to covering her education expenses. However, the family still struggles financially.

Beena had no shop for selling her tickets. Rather, she sold them from a small table by the side of the road. The flood washed away her table, her tickets and the other items she used to run her business. The flood caused the family a great deal of misery. Cultural Academy supported Beena in building a sheeted shop, out of which she now runs her business. Beena said, **“I am very happy that I could find a permanent shop and rest inside the shop when I am tired. Earlier I had to sell the tickets standing on the roadside, even in the hot summer season.”**



Ashokan's Story

Ashokan and his wife, Thankammani, are senior citizens who run a vegetable shop in Chendamangalam. Thankammani minds the shop while Ashokan takes vegetables to various locations in Chennamangalam to sell them. The vegetable shop was the family's primary source of income. The flood washed away their scale, vegetables, and even the roof of their shop. The family was in distress, unable to meet their daily needs. Ashokan borrowed some money from the bank and restarted their business. However, they were not able to replace the roof and their stock of vegetables was very minimal. The couple did not receive support from any other actors before Cultural Academy identified them for livelihood restoration. Ashokan used the financial assistance from Cultural Academy to increase his stock, purchase a new scale, and repair the roof of the shop.



Ashokan at his vegetable shop

Rosy's Story

Rosy Babychan is a tailor and the breadwinner of her family, running a tailoring business attached to her house. Her husband has hearing impairments and works occasionally as a manual laborer. Her eldest daughter is a nursing student and her son is a commerce student.

Rosy is known as a good tailor, usually stitching saree blouses, nighties, and churidhars. Because she lives in a remote area of Chennamangalam, managing all her household expenses and her children's education with her meager income.

The 2018 flood occurred during the Onam festival season, a time when Rosy usually has many dress orders. Her industrial power-saving sewing machine was damaged in the flood and her dress materials were lost. Her house was also flooded and many of her household items were lost.

The damage done to the sewing machine was the most immediate issue that the family needed to address. Rosy tried to repair the machine, but it still did not function properly. Cultural Academy provided her with a sewing machine of the same capacity as the one she had previously used. During the follow-up visit, the Cultural Academy team observed that Rosy was able to restore her livelihood.



Rosy at work

Jose's Story

Jose is an auto driver living and working in North Paravur. On his way back home after a trip his auto rickshaw engine was damaged in the flood. Jose's auto rickshaw was the only source of income for Jose, his wife, and his three daughters, and they had no alternative source of income to meet their daily needs. Jose's youngest daughter is a student, and he was unable to meet her education expenses while his auto rickshaw was damaged. Additionally, the family was in debt following the marriage of one of his daughters.

Jose tried to repair his auto rickshaw, but it still did not function properly. Cultural Academy supported Jose in restoring his livelihood. He repaired his auto rickshaw and he is able to work as a driver again. Jose said, **"The money I received from Cultural Academy was a great relief for me so I could restore my livelihood at the earliest time possible."**



Jose and his auto rickshaw

Gracy's Story

Gracy lives with her husband and two children in Chennamangalam. Her family lost their house and their livelihood, and everything in her house was washed away. The family's source of livelihood was cow rearing and milk distribution. They had 5 cows, 4 of which died in the flood.

After the flood, the family stayed in a relief camp for more than two weeks and spent several days at their relative's house. Because the family had to find a house to stay in, the

Panchayat make an effort to resolve their housing issue and included the family in a government housing scheme.

The next priority of the family was to restore their livelihood. The maximum amount for livelihood support under Cultural Academy was insufficient to purchase a cow. The Chennamangalam Grama Panchayat found one more agency to split the amount with Cultural Academy, and the two agencies were able to purchase a cow for the family. The family then received three more cows from other sponsors, and their livelihood was completely restored.



Gracy receiving funds to purchase a cow

5.3 Promoting WASH and providing support for safe drinking water

5.3a Testing of drinking water and water filter installation:

Communities are the most vulnerable to water-borne diseases after floods. There are high chances of epidemics due to unhealthy environment. To safeguard against this, the Cultural Academy team tested the water quality of 12 common water sources and installed water filters at these sources.

Target
<ul style="list-style-type: none"> • To test the water quality of 12 common water sources • To install water filters at these sources
Outputs
<ul style="list-style-type: none"> • Water quality was tested in 10 schools (9 in N. Paravur and 1 in Chennamangalam) • 12 water filters were installed (2 in 2 schools and 1 in 8 schools)
Outcome
<ul style="list-style-type: none"> • 2,328 students received access to safe drinking water

School Water Filter Installation	
Name of School	No. of water filters installed
Govt. Higher Secondary School for girls, Paravur	1
Govt. HSS, N. Paravur	2
Govt. Girls HSS, N. Paravur	2
Govt. Girls High School, N. Paravur	1
Samooham H S, N. Paravur	1
S N H S, N. Paravur	1
Govt. UP School Kizhakkepram, N. Paravur	1
Cottolengo Vocational Training Centre for Differently Abled, N. Paravur	1
St. Sebastian L P S Gothuruth, Chennamangalam	1
GKVLPS Mannam, N. Paravur	1

5.3b Handwash kit provision and WASH awareness programs:

Cultural Academy conducted 6 WASH awareness programs in the project area to promote awareness about safe health, hygiene, and sanitation practices. These programs were conducted in schools, 5 targeting students and 1 targeting the parent teacher association. These programs aimed to increased awareness among the community members about WASH practices and to help in prevent the spread of any disease.

The Cultural Academy team also distributed hand washing kits in the target communities. Kits consisted of liquid hand wash, sanitizers, soaps, and towels. Kits were distributed at *Anganwadies* (government preschools), where pregnant women and lactating mothers receive

services. The provision of handwashing kits supported the WASH training conducted with the communities and aimed to promote the continuation of hygienic behaviour.

Target
<ul style="list-style-type: none"> • To host 5 WASH awareness programs (3 in 2018 and 2 in 2019) • To distribute 100 handwash kits
Outputs
<ul style="list-style-type: none"> • 6 WASH awareness programs were hosted (1 in N. Paravur and 5 in Chennamangalam) • 148 handwash kits were distributed
Outcomes
<ul style="list-style-type: none"> • 614 children were educated on WASH activities • 148 mothers were educated on health and hygiene activities • 148 families received kits for washing their hands

WASH Awareness Events			
Date	Location	Audience	No. of Participants
10 April, 2019	DD Sabha Higher Secondary School Karimpadam, Chennamangalam Summer Vacation Camp	High school students	116
07 May, 2019	Govt. High School for Boys, N. Paravur	High school students	111
19 June, 2019	St. Sebastian Higher Secondary School, Gothuruth, Chennamangalam	High school students	91
25 June, 2019	DD Sabha Higher Secondary School, Karimpadam, Chennamangalam	9 th Standard Students	213
25 June, 2019	DPSLPS, Valiya Pazhambillithuruth, Chennamangalam Grama Panchayat	Parents	10
26 June, 2019	Govt. High School Paliyam, Pazhambillithuruth, Chennamangalam Grama Panchayat	High school students	73
Total Number of Participants			614

5.4 Hosting children’s camps to engage children and adolescents in recreational and socio-cultural activities in order to reduce the disaster’s impact on them

The Cultural Academy team organized four camps in Chennamangalam Panchayat for children and adolescents. The camps’ theme was “Post-Traumatic Stress Management” (PTSM), and their objective was to reduce participants’ stress and help them cope with the trauma they experienced due to the flood. The camps’ programming included recreational activities (such as sports and games), as well as psycho-social care.

Target
<ul style="list-style-type: none"> • To host 4 camps (1 camp in 2018 and 3 in 2019) for children and adolescents • To have 200 participants in each camp
Outputs
<ul style="list-style-type: none"> • Ran 4 camps (1 two-day, non-residential camp and 3 one-day camps) • Camps ranged in number of participants from 60-116 (funds were not sufficient to host 200 children in each camp)
Outcomes
<ul style="list-style-type: none"> • A total of 363 children participated in the camps, gaining life skills and post-traumatic stress management skills • Participants' stress was reduced and their coping skills were increased

Children’s Camps		
Date	Venue	No. of Participants
27, 28 December, 2018	St. Sebastian Higher Secondary School, Gothuruth	76
10 April, 2019	DD Sabha Higher Secondary School, Karimpadam	116
11 April, 2019	DD Sabha Higher Secondary School, Karimpadam	60
7 May, 2019	Govt. High School for boys, N. Paravoor	111
Total Participants		363

5.5 Conducting a disaster risk-reduction awareness program

Cultural Academy hosted a disaster risk-reduction awareness program for students in the target area. The one-day program was divided into four sessions, each led by an expert in the topic area. Dr. Uma Vasudevan, District Project Manager of UNDP Enakulam, led a session on disaster management. The health inspector of Paravur Taluk Hospital led a session on how to provide first aid in disaster situations. The Fire and Rescue Operations Deputy Station Officer led a

session on fire safety and demonstrated how to escape from a fire. Anjeli, Cultural Academy's counsellor at the organization's Service Providing Center, led a session on child abuse prevention.

Students were selected as the target audience based on a recommendation from the Medical Officer of Paravur Taluk Medical Hospital. Participants included high school students who were active in student groups, including Scout and Guides, Junior Red Cross, and the Students Police Group. These students were chosen as participants because of their active engagement in community programs. As active community members, they are likely to disseminate the information that they learned, sharing it with their families and peers.

Target
<ul style="list-style-type: none"> • To educate student groups on methods for disaster risk-reduction
Outputs
<ul style="list-style-type: none"> • 4 sessions on disaster risk reduction were hosted over the course of a one-day program
Outcomes
<ul style="list-style-type: none"> • 77 high school students were trained on disaster preparedness • Community awareness of disaster preparedness was increased

6. Monitoring and Review

The senior project team members monitored the project on a regular basis through regular review meetings with animators. The project coordinator and manager were jointly responsible for monitoring and ensuring quality of implementation at the local level, assessing the progress of livelihood and housing restoration, as well as whether the beneficiaries were utilizing the funds provided by Cultural Academy. Staff held bi-weekly review meetings to brief management on project progress. No external monitoring was conducted.

Monitoring was done via on-site follow-up visits to beneficiaries' homes. Beneficiaries were also asked to share their progress by sending photos to Cultural Academy staff. The staff and animators jointly conducted 13 review meetings with beneficiaries (7 in Chennamangalam and 6 in North Paravur), where beneficiaries were able to share their progress concerns. Cultural Academy staff also conducted follow-up visits to schools where water filters had been installed to ensure that the filters were functioning properly.

All of the recovery and rehabilitation work was supervised by the local self-government (the panchayat). Cultural Academy worked in coordination with the LSGs, reporting to LSG members on project activities and progress. The panchayat leaders were responsible for liaising with Cultural Academy. As LSG leaders are elected community representatives, they were invested and interested in the project's progress.

The donor teams from TdH and AEIN conducted 1 joint site visit, and the team from TdH conducted 2 additional visits. The joint team visited 6 beneficiary houses, where beneficiaries were able to share how the project had impacted them. The TdH team interacted directly with beneficiaries and reviewed the project activities.

7. Challenges and Lessons Learned

7.1 Challenges

Cultural Academy faced several challenges while working on the Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala project. Primary challenges included managing target community expectations, executing a transparent and non-biased beneficiary selection process, navigating coordination with the LSGs, and dealing with the high number of people in need in the target areas.

Managing target community expectations was a primary challenge for project staff. Other agencies were working in the target areas and were primarily engaged in distributing immediate aid (such as food kits and direct cash assistance). However, Cultural Academy's strategy was to focus on longer-term solutions, engaging in housing repair and livelihood restoration, WASH awareness, and education for disaster risk-reduction. Because target communities were receiving immediate aid from other agencies, many beneficiaries expected that Cultural Academy's activities would be completed more quickly than they were.

Implementing a transparent and non-biased beneficiary selection process was also challenging. While conducting the needs assessment, many survey respondents misunderstood the purpose of the study and believed that they were being selected as beneficiaries. Cultural Academy was the first agency to conduct this kind of needs assessment survey in the target area. The majority of survey respondents were in need of assistance and were hopeful that their participation in the survey meant that they would be selected as beneficiaries.

Coordinating with the LSG was a vital component of the project. LSG leaders served as key informants for project design and implementation, and their involvement helped implementation run smoothly. However, coordinating with them also posed some challenges. Firstly, the expectations of many LSG leaders had been shaped by their experiences with other NGOs and their methods. For example, other organizations working in the target area had also approached LSG leaders and asked them to identify beneficiaries. Those other NGOs then selected those suggested individuals as beneficiaries. This differed from Cultural Academy's process. While Cultural Academy staff also approached LSG leaders for their suggestions for potential beneficiaries, Cultural Academy staff then conducted a needs assessment and consulted government data to vet those suggested individuals. This meant that some of those individuals suggested by the LSG leaders were not selected as beneficiaries.

Cultural Academy's needs assessment process also meant that the selection process took significantly longer than the LSG members anticipated. Many LSG leaders expected that support

would be provided immediately after they identified potential beneficiaries. However, the needs assessment and beneficiary selection process took 3 months — much longer than LSG leaders anticipated.

The number of people in need in the target areas presented a major challenge for the project team, as the number of people in need exceeded the project's capacity. The state government had given INR 10,000 to most flood-affected families, but this was not sufficient for most people. Almost everyone residing in the project's target areas expected assistance from Cultural Academy. However, this was not possible given the project budget and the organization's capacity.

7.2 Lessons Learned and Recommendations

Lessons learned from the processes and performance of the Recovery and Resilience of the Flood Survivors of Ernakulam District, Kerala project have implications for future disaster recovery projects.

Firstly, it is important to educate the community about the project strategy and beneficiary selection prior to implementation or early in the implementation phase. This will help manage community expectations about the project's activities and timeline. It can also provide an opportunity for community members to give input and share their suggestions and concerns. A plan for community education should be incorporated into project design and be implemented as an initial project activity.

Conducting a thorough needs assessment study was vital for ensuring a non-biased beneficiary selection process. Although many survey respondents were confused about the process and believed that they were being selected as beneficiaries, surveyors were able to clarify the purpose of the study through conversations with the respondents. Including a clear and transparent disclaimer and explanation at the beginning of a survey is critical both for ethical practice and for participant understanding.

Third, coordinating with the local government is necessary for ensuring a smooth implementation process and project sustainability. Cultural Academy received feedback from LSG leaders about the organization's strategies for including them in the project. Based on their feedback, LSG leaders appreciate that

- a) The beneficiary selection process was done in an impartial manner and that the most vulnerable families were selected as beneficiaries
- b) The follow-up process included periodic meetings with the LSGs
- c) Cultural Academy reported beneficiaries' feedback to LSG leaders

LSG members reported that they were satisfied with Cultural Academy's methods and that the above measures made them feel included in the project at all stages. Networking with

community leaders supported effective project implementation, particularly beneficiary selection and coordination with other humanitarian actors.

Including the LSG members in project monitoring and evaluation also increased project sustainability. As LSG members were involved in the follow-up process, they can continue to follow up with beneficiaries after the project period has ended.

Finally, consulting government data and key community informants can be an effective strategy for avoiding duplication of support and identifying the most vulnerable individuals for receiving assistance. The project team used these strategies to select beneficiaries from the high number of people in need in the target areas. Priority was given to vulnerable populations (e.g. the elderly, disabled, widows, single women) and to those who had not received support from other entities. This strategy could be useful when selecting beneficiaries for disaster recovery projects in other high-need areas.

The Recovery and Resilience of The Flood Survivors of Ernakulam District Project is now owned by the local community. We hope that the project's participatory framework will lead to sustainable development in the target communities.

Through the process of implementing this project, we established a network of stakeholders, including LSG leaders, Kudumbasree groups, community members, and government departments of health, education, disaster management, and fire and rescue. The target communities and Cultural Academy are now more equipped to address future disasters. We hope that the recovery efforts detailed in this document will serve as a reference for other actors — both governmental and non-governmental — for how to efficiently work in post-disaster situations.

8. Part B: Improving school infrastructure in the flood affected area of Ernakulam District

Introduction

During the project period, TdH initiated a second project in Ernakulam District. As one of the agency's core areas is education, they had allocated additional funds for an education support program. These funds were intended to support infrastructure repair in a needy school in the target area. After a discussion with the Chennamangalam Grama Panchayat president, TdH identified Dharmaposhini Sabha Lower Primary School in Chennamangalam as the target for this project. TdH partnered with Cultural Academy for this project.

Location: Valiapazhampillythuruthu, Chennamangalam Panchayat, Ernakulam District.

Project Period: November, 2018 – January, 2019

Funding Agency: Funded by Terre des Hommes France A168 through Terre des Hommes Germany — India Programme

Objective: To support the flood-affected school for restoration and to create a child-friendly atmosphere for the students.

Project Rationale

Chennamangalam is one of the worst affected panchayats due to the flood. All of Chennamangalam's wards were affected and all of its families had to relocate from their homes. School buildings and the panchayat office were flooded. Dharmaposhini Sabha Lower Primary School is one of worst affected schools in the panchayat. The Engineering Department of the government of Kerala certified that the school building is unfit for use due to the damage caused by the flood.

There are 30 students in the school — 2 preprimary classes and 1st to 4th classes. A total of 6 classrooms are needed. At present, all students are accommodated in a two-room building (the library and the computer room) and one class is functioning in this stage.

All of the school's furniture, computers, library books, shelves, and bathrooms were destroyed in the flood. Even a new school building must be constructed. The school is managed by a single management team of local residents of the village. They are not financially capable of supporting the school to repair its infrastructure. Since the school is privately managed, it has no scope to receive the support from the government for school infrastructure. Thus, the panchayat and school authorities are looking for support from external agencies to improve the conditions of the school.

Needs Assessment

The following methods were used while conducting the needs assessment for the project:

a. Discussion with the Chennamangalam Grama Panchayat president:

The team from Cultural Academy for Peace conducted a discussion with the Panchayat President in order to identify the immediate needs of the school children in Chennamangalam. He suggested Dharmaposhini Sabha Lower Primary School as the location the intervention.

b. Visit to the proposed school and discussion with the school's headmistress and teachers:

The team from Cultural Academy visited Dharmaposhini Sabha Lower primary School on October 30th, 2018 and met the school's headmistress and teachers. Through these meetings, it was determined that the school's most pressing need was a new building. However, the estimated cost of this construction was INR 25 lakhs (INR 2.5 million), which exceeded the program's budget. The team then identified needs of the school that could be met through the project's resources, including providing new furniture (students' tables, chairs, teachers' tables and chairs, a classroom partition screen, and computer tables), library books and shelves, teaching materials, sports equipment, a rolling blackboard, and installing new toilet doors.

Strategy: The project was implemented with the maximum participation of the school's teachers and the panchayat authorities.

Project Outcomes: 30 students now have a comfortable environment for their education. The teachers have ample resources for providing students with a quality education.

9. Appendix: Photo Gallery

Cultural Academy Team and Animators



Cultural Academy Project Team



An animator conducting a needs assessment



Animators from N. Paravur with AEIN and Cultural Academy team members

Aid Distribution



Fund distribution at N. Paravur Municipality



Fund distribution at Chennamangalam Grama Panchayat



Sewing machine participants

Handwash Kit Distribution and School Water Filter Installation



Handwash kit distribution



Students using their schools' new water filters

WASH Events



Left: The Health Inspector demonstrates proper handwashing techniques at Taluk Hospital, Paravur



Health Inspectors teach proper handwashing techniques at Gothuruth Primary Health Center, Chennamangalam



Entrepreneurship and Business Skills Training



Johny, Director of Skillmap Institute for Training, presenting on skills for entrepreneurship activities



An activity session at the Entrepreneurship and Business Skills Training Program

Children's Camps



Above: Life skills session. Below: PTSM program.



Group activities and sports



Disaster Risk Awareness Program



Dr. Uma, project manager of UNDP Ernakulam, leading a session of different kinds of disasters



Students watch a fire safety demonstration

School Infrastructure Repair



Above: Students and teachers at Dharmaposhini Sabha Lower Primary School in Chennamangalam

Above: Preschool students with their new desks at Dharmaposhini Sabha Lower Primary School in Chennamangalam. Right: Second standard students at the school with their new desks



Trainings and Review Meetings



Animator induction program.



Above: Review meeting with beneficiaries

Right: Review meeting with animators



CAP Team Training

AIEN and TdH Team Visits



Above: AEIN and TdH team members with beneficiaries and CAP founder and president, Ms. Beena Sebastien. Right: Site visit with AEIN and TdH team members



LSG Members



Municipal Council members, CAP team, and beneficiaries at North Paravur Municipality



AEIN and TdH team members with CAP staff, representatives of N. Paravur Municipality, animators, and beneficiaries



AEIN and TdH team members with CAP staff and the Chennamangalam Grama Panchayat

References

1. Government of India National Informatics Centre. (2012). Kerala. Retrieved from https://archive.india.gov.in/knowindia/state_uts.php?id=39
2. Government of Kerala. (2019). About Kerala. Retrieved from <https://kerala.gov.in/about-kerala>
3. Government of Kerala State Planning Board. (2017). Macro-Economic Profile. Retrieved from http://spb.kerala.gov.in/EconomicReview2016/web/chapter01_01.php
4. Government of Kerala. (2019). Districts. Retrieved from <https://kerala.gov.in/districts>
5. Government of India Central Water Commission Hydrological Studies Organisation. (2018). STUDY REPORTKERALA FLOODSOF AUGUST 2018. Retrieved from <https://reliefweb.int/sites/reliefweb.int/files/resources/Rev-0.pdf>
6. Mishra, V., Aadhar, S., Shah, H., Kumar, R., Pattanaik, D. and Tiwari, A. (2018). The Kerala flood of 2018: combined impact of extreme rainfall and reservoir storage. *Hydrology and Earth System Sciences Discussions*, 1(13). 10.5194/hess-2018-480.
7. "75,000 people in relief camps in Kerala's Ernakulam." (2018, Aug 28). *Press Trust of India*. Retrieved from <https://www.firstpost.com/india/75000-people-in-relief-camps-in-keralas-ernakulam-district-collector-says-rehabilitation-process-will-be-long-drawn-5062971.html>
8. Rajeev, M.M. (2016). Sustainability and community empowerment in disaster management. *International Journal of Social Work and Human Services Practice* 2.6 (2014) 207 - 212. doi: 10.13189/ijrh.2014.020601.
9. De Silva, S., Burton, C. (2008). Building resilient communities: risk management and response to natural disasters through social funds and community-driven development operations. Washington, DC: World Bank. Retrieved from <http://documents.worldbank.org/curated/en/844751468148503609/Building-resilient-communities-risk-management-and-response-to-natural-disasters-through-social-funds-and-community-driven-development-operations>
10. Mcentire, D. (2005). The Status of Emergency Management Theory: Issues, Barriers, and Recommendations for Improved Scholarship. *Journal of Emergency Management*. 3. 10.5055/jem.2005.0031.
11. Gomez, A. and Kawaguchi, C. (2016). The continuum of humanitarian crisis management: Multiple approaches and the challenge of convergence. *JICA Research Institute*. Retrieved from https://www.jica.go.jp/jica-ri/publication/other/jrft3q000002b37-att/The_continuum_of_humanitarian_crisis_management.pdf

