

WISE Project Report

The environmental impact of the Kerala floods has been significant. Top soil in most affected areas has been completely washed off. The dwindling tree cover that barely held the top soil in place has been drastically reduced, triggering and triggered by landslides. Rivers and ground water sources have been polluted by debris, human and animal carcasses. The Western Ghats was already deemed a fragile ecosystem, and fauna like snakes that were washed out of their habitats and survived the deluge were slaughtered by the thousands in fear and desperation to reclaim property. This post-disaster scenario, if not addressed sustainably, can only lead to larger disasters in the future. Experts proclaim that Women's Empowerment is the key to true sustainability. Traditionally, rural women are the natural caretakers of the environment. They often tend to their families, livestock, fields, water sources and even the forests that surround the village thereby effectively protecting the entire ecosystem on which the community subsides. The monitoring and maintenance work women do in their villages is an integral part of sustainability of their natural resources.

Objectives

The purposes of the WISE project are Amrita University's Center for Women and Girls' Empowerment and AMMACHI Labs has been working to address the issues that surround disappearing traditional practices towards sustaining the environment by women with the following ideas: By recognizing and financially supporting the sustainability work rural women are already doing, we could help to ensure traditional sustainable practices do not die out. To quantify the quantity, quality and use of a resource with the help of technology, that would help provide a basis for measuring economic value. The project proposes to empower women as sustainability officers in their community. Selected women in identified communities will be taught to maintain, monitor and replenish any one natural resource, using latest technologies. If we used water as an example, the women would monitor water levels in their community, water use, and water quality.

In order to achieve these goals, we started by (1) selecting two sites to implement our project. We then (2) carried out various activities and (3) collected initial data regarding these activities. From our activities and initial data, (4) some inferences were made regarding one of the communities. The following text details these four aspects of our work.

1. Site Selection

As part of the site selection process we conducted pre-study at 9 different flood affected communities in Kerala. Our goal was to select 2 communities from among the 9 communities. In so doing, we took into consideration the factors such as community size, Amrita presence in the community, presence of active SHGs, availability of women, and availability of local administrative support.

In the end, we chose 2 communities: Moolakkayam and Thamarasseri. A list of variables that guided our choice of these two communities are found in Table 1.

Two selected Communities and their characteristics

	Community 1	Community 2
	Moolakkayam	Thamarasseri
Was the area affected by recent Kerala floods	Yes	Yes
Description	Along the banks of Pamba river. slopy hilly area. cultivational land. Silt deposit , Mainly agricultural loss	Near by pampayaar, soil erosion, mud deposit, animal husbandry.
Ward	ward 12, Angel Valley panchayath	ward 11, Arunoottimangalam panchayath
Panchayath	Erumeli	Thiruvaarppu
GPS Coordinates	9.42550N 76.97550E	9.57586N 76.48792E
Contact Person	Lilly kutti, Asha Worker	Sumesh and his Wife, Latha
FLOOD EFFECTS		
Opinion on how the community recovered from flood (to Soja Chechi and Sumesh)	Before - Cultivation, Animal husbandry, and fish farming. After - Fish farming, cocoa, Rubber relatively survived but very little milk, Rumboottan & jathikka trees dried	Before – Daily wages, SHGs After – Daily wages , Material, Sanitation issues
Was the community submerged in water during flood	partially	Y (filled up sock pits, wells, households. sanitation issues resolved to an extend)
Silt Deposit	Y (high)	N
Landslide or Land slips		
Land Subsidence (sinking or settling of land, disfiguring slopes)	Y	N
Loss of vegetation or cultivation	Y	Small vegetations at household backyard
Loss of farmland	Y	N
Loss of houses and housing land	Y (houses partly destroyed)	Y
Animal Husbandry effected	Y	
Reduced water table		
Quality of drinking water	Y (Wells are contaminated)	Y
Materials loss leading to financial crisis	Y	Y
Water Scarcity, contamination	Y (wells contaminated, but recovered to an extend)	Y (wells contaminated)
Health	skin diseases	
Other Info		
Community size (100-150 individuals)	20 - 25 houses (total 195 Households)	25-30 (total 54 Households)
Neighbourhood	Houses are scattered	Close nit houses, every house is built in a 4-cent of space
Amrita presence in the community	Yes, Soja chechi	Yes, Soja chechi
Is there an active SHG	Yes, Active	Yes, Active
Chances of having 7-10 supportive women	high	high
Availability of Panchayath Support	Can be done	Yes
Political affinity	UDF (A political party)	35 years of LDF (A political party), last 3 years UDF
Major group (tribe, caste, religion)	Christians, Hindu	Christians, Hindu

Drinking water source	Household well	Household well
Does the community have Auxiliary Nurse Midwifery(ANM)	yes	Data not collected
Does the community have ASHA workers	yes, strong	Data not collected
Main crops/cultivation	Cocoa(survived flood), Kappa Rubber, Jaathikka (lost in flood. Trees gets dried due to silt)	Not an agricultural land

Moolakkayam community immediately after the flood & Now



[Figure 1: Two images from Moolakkayam community shows the same location near the river. Left side image is 3 days after the flood and right side is 7 months after the flood]

The image in the left shows the Pamba River that flooded due to the dam water. The river had never dried up before the flood. But in the image (in the right) taken in April 2019, we can see that the river has dried up.



[Figure 2: The image from Moolakkayam community given above shows the silt that got deposited on the land.]

2. Activities conducted so far

1. Pre-field visit for community mobilization
2. Identification of households and the population of the women who can participate in the work.

3. Decide on the research objectives
4. Planning the field activities
5. Completion of the Participatory Capacity and Vulnerability Analysis in both

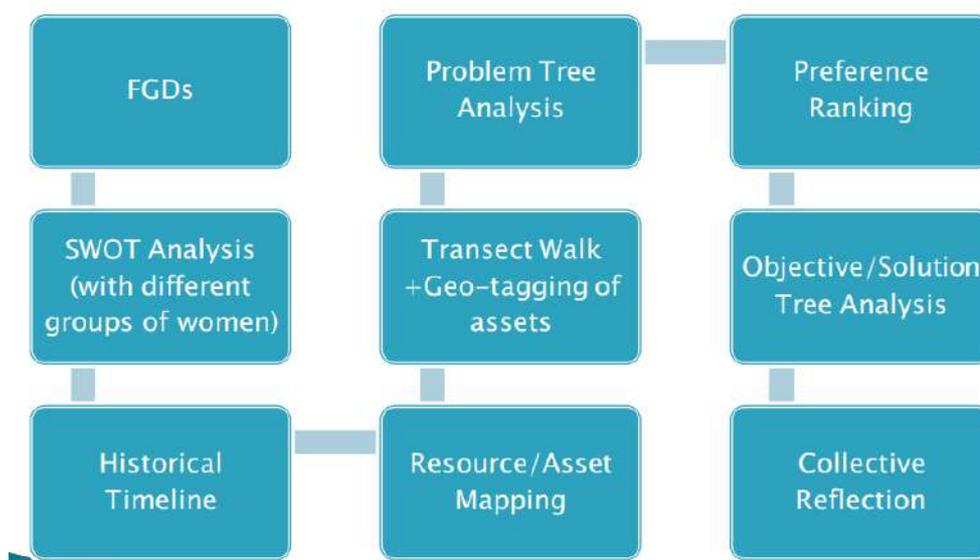
Table 2 presents the activities that were taken in the two communities and the objectives we attempted to reach.

[Table 2: Activities Taken and Their Objectives]

Action Items	Objectives
1. Pre-field visit for community mobilization – phase 1	To interact with the influential people and some of the active women in the community. To help us understand the general life style of the people and their approaches towards the implementation of our projects.
2. Pre-field visit for community mobilization – phase 2	To gather the women in the entire community as a whole and conduct a meeting to help them understand the WISE project. This helped us to better understand the availability of the women in the community.
3. Decision on the research objectives	<p>Dr. Sophia, Mrs Wafa Singh and three of the MSW (Masters in Social Work) students are part of the team. Given the projects and its requirements the research team designed the research objectives for the effective implementation of the project. Below are the project’s research objectives.</p> <ol style="list-style-type: none"> 1. Village women's implicit mental models of sustainability and environmental protection and their implicit mental models about their role as agents for change (Some implicit traditional knowledge is already geared towards sustainability and therefore useful, but some mental models might be counterproductive) 2. Mapping the assets of the village women and linking these assets to the respective SDG indicators; showing how these assets can aid in their work to promote sustainability 3. Combining the village women's own knowledge about their assets, knowledge about what they are already doing for environmental protection, and knowledge about what they could be doing with experts' knowledge; thus educating them and enabling them to design a five-year plan.
4. Planning the field activities	Given the conditions of the communities, availability of the women, and the research objectives we planned to conduct Participatory Capacity and Vulnerability Analysis (PCVA) in order to understand the needs of the community. The list of field activities to be implemented on both communities were thus designed. The list includes 9 Participatory Rural Appraisal (PRA) activities to be conducted within the duration of 9-10 days.
5. Conducting PCVA for the 2 communities	The implementation design, mentoring and monitoring of the field work was done by Mrs. Wafa Singh who has 6+ years of experience in the domain of PRA activities and academia. Including her, a team of 7 visited the community and stayed there for 10 days. The first community visited was Thamarasseri, in the 3 rd week of June. Later in the 1 st week of July the team visited the Moolakkayam community.

Nine tests were administered so as to obtain data that would help us understand the situations in the two communities. Table 3 shows what the 9 tests were.

Table 3: Participatory Capacity and Vulnerability Analysis (PCVA) PCVA Cconducted



General impressions by the field teams regarding our work in the communities.

1. Wonderful participation from the community
2. Enthusiastic participation
3. Mrs Soja and Mr. Sumesh helped us in the field. We saw how critical it is to have an influential person to bridge between the community and the field team.
4. From an overall perspective, it emerged that the community is facing a set of vulnerabilities. However, interestingly, it has an equal set of strengths
5. Our action plan in the project will be devised in a way to address their vulnerabilities while building on their strengths.

3. Data Collected

Data were collected using the 9 tests presented in Table 3. We now present qualitative data for each of the 9 tests.

1. Focus Group Discussions



- The women in the community actively participated in the discussions. A general mental model that we observed at a glance is that all the women uniformly say that they do not face any problem in their life. . But, in contrast to that, they do face a serious problem which is the lack of drinking water and it has become the fundamental problem within the community.
- During every rain the surrounding land of their households gets immersed in water due to the fact that it is a low land. To address this some of the households invested in raising their land using mud. But in so doing, they failed to understand that this they put other houses at even more risk.
- The women in the community are generally aware of the ill effects of plastics. They conveyed that other communities do not consider them as equals. Due to this social stigma they often felt that others exploit them by dumping the waste in their community. Unclear what this has to do with the point being made.
- During the discussions about the timeline and the changes that it brought within the community the groups mainly discussed how the drainages were transformed to roads which had the effect of increased chances of flooding.

2. SWOT analysis (Strengths, Weaknesses, Opportunities, Threats)

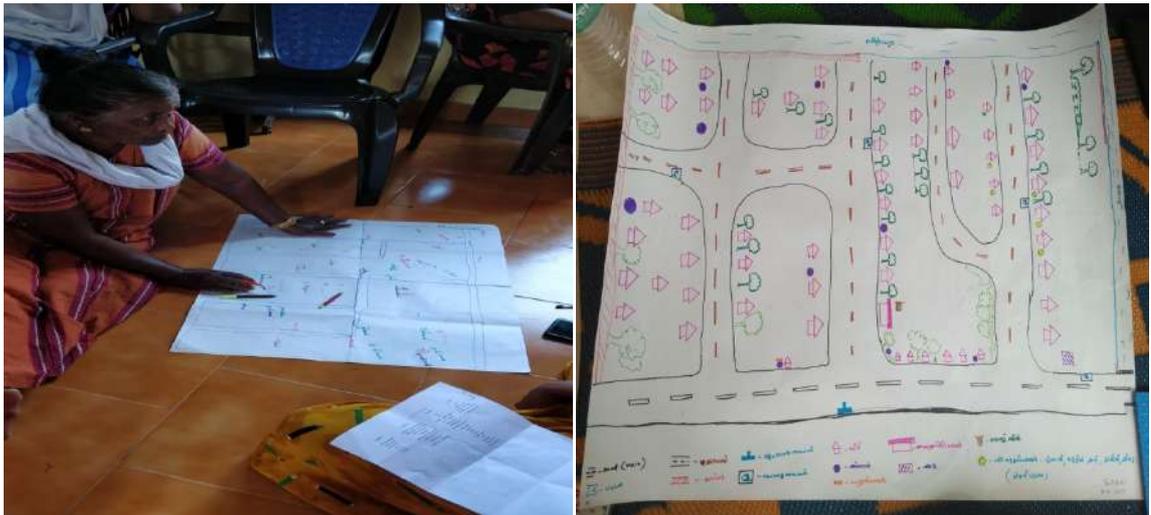


Sample groups of youth (girls), middle aged women, and elderly women participated in for SWOT analysis. Participants themselves wrote their own strengths, weakness, opportunities and threats in the chart papers. They especially noted village resources, in particular, water resources. From

this the researchers observed the women's perceptions about how they identify the assets and resources in their village, and how they are managing them.

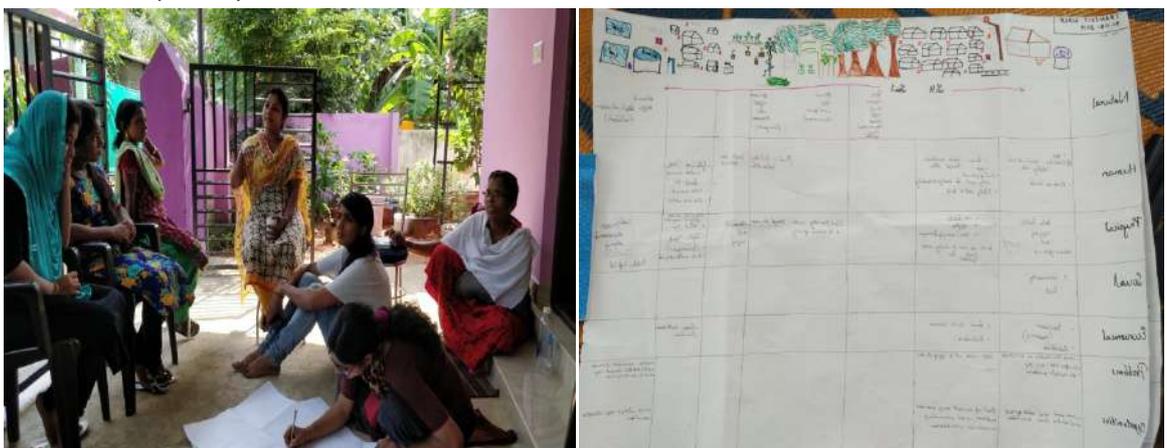
3. Resource mapping

The women in the community were encouraged to plot down the assets that they are aware within the community. Women in three age groups were asked to draw their village, village assets and resources including five capital assets - natural, human, physical, social and financial assets. The participants themselves drew their village and village resources in a chart given by the field team. This is a PRA technique used to integrate researcher knowledge and community knowledge.



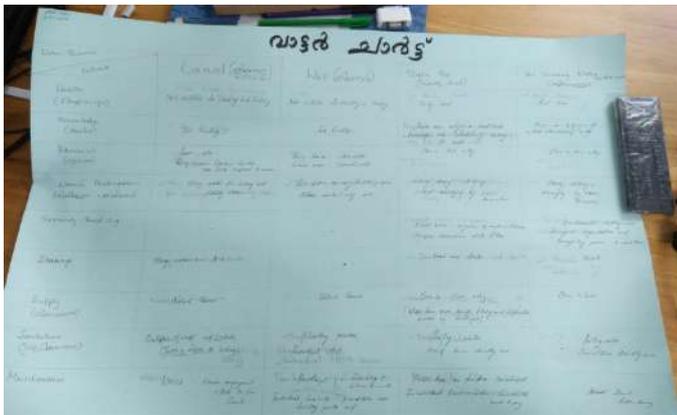
4. Transect walk

Five 'real' capital assets natural, human, physical, social, financial are analyzed through a long walk throughout the village within women's participation and involvement. In this women had walked with the project team they themselves explained and pointed out their assets and resources, especially water sustainable resources.





5. Water chart

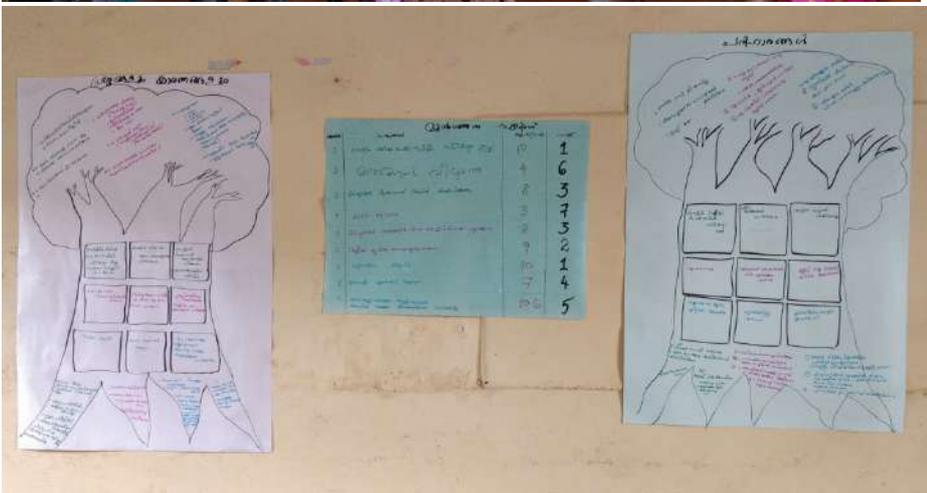


6. Historical Timeline



7. Problem tree analysis, Priority ranking & Objective tree analysis

The group of women discusses together to come up with 9 problems of their village. The group then discussed the causes and effects of these problems which helped us to understand their understanding too.



Inferences from Thamarasseri (Community 1)

After the field work for 9 days and the interaction with the women in the community, Mrs Wafa Singh and the other members of the team collectively came up with a set of inferences. It included the list of vulnerabilities, list of strengths and the possible set of actions for the community benefit.

List of Vulnerabilities	List of Strengths
Social	Social Capital
Resource/Asset	Basic Resilience
Environmental	Individual Potential
Economic	Environmentally Aware
Demographic	Middle aged women

Potential Action Agenda – Suggested by Mrs Wafa Singh

- a. Organizing the community eg: SHGs.
- b. Awareness Building.
- c. Selecting SDOs & Building their capacities.
- d. Technical expert plan for targeted interventions.
- e. Formal sustainable development plan.
- f. Monitoring, follow-up & support to SDOs.

Closing Reflections

- a. Community is unique with respect to its energy, enthusiasm, interest & passion
- b. Quite concerned about their collective problems & associated environmental issues
- c. Increases our responsibility and accountability as researchers
- d. A periodic follow-up can be done to keep them in loop throughout the project cycle

Plan Ahead

1. By July 15 – Complete the data collection and transcription
2. By 31 July – Rough mental models need to be ready
3. August - Expert visits (Ram and Students)
4. Start some engagement activities with the ladies
5. Every week, one activity in the field so that we consistently keep engaged with the community.