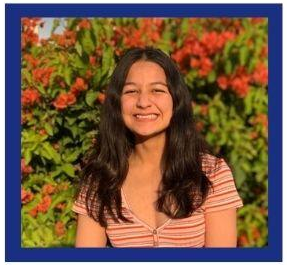
PROJECT MINAVAR

Theme: Design for Crisis
Rebuild and heal the world with design

20 July '22 | India

Team

Ananyaa Sharma



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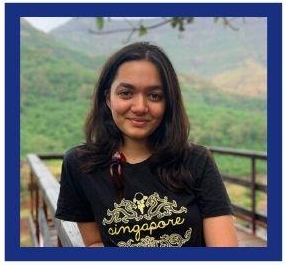

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Problem Identified

The current economic crisis in Sri Lanka has led to wide spread shortage in terms of food, electricity and fuel. The once self sufficient country is now struggling to provide even basic necessities like food for its people.

Problem Statement: The fishermen of Sri Lanka are struggling to make a livelihood due to their economic situation.

Importance

In wake of the major hit to the agricultural yield, Sri Lanka's most imminent threat is food shortage. Fish makes up approximately 60% of the Sri Lankan diet, however, at present access to fish has become a luxury due to various reasons.

The fishing sector employs 1/10th of the population. Due to the current economic crisis they are unable to access fuel that allows them to take their boats out to fish. This means that such a large food source remains untapped.

They are facing issues regarding the spoilage of produce on the way back to the shore. There is also a shortage of ice which leads to wasted produce that cannot be transported.

Solving any of these issues would improve the economic situations of a large section of the population. It would help prepare for the looming food crisis and could help uplift the status of living of fishermen in the long term.

Target User Persona

PROFILE AND DEMOGRAPHICS

Job Title: Fishermen, self employed
Gender: Male and Female
Family and Social Setting: Middle-aged (36-45years), 95% nuclear families
Income: Poor, Below Average (average income- 20000Rs-40000Rs)
Education: Finished primary education

FEELINGS - WORRIES AND INFLUENCES

Education for children
Increase of cost of daily products and groceries
Lack of technical knowledge and resources
Difficulty to take out loans

GOALS AND VALUES

Goals:
To earn a livelihood by fishing
To provide for their family
Values:
Ancestral value attached with fishing
Motivation:
Lack of other skills
Improve lifestyle
Abundance of fish available

PAIN POINTS

Fears:
Fear of unemployment
Death by starvation
Future of their children
Scarcity of resources necessary
Seasonal nature of prime source of income
Challenges:
Sale of goods- fish, crabs, shrimps, lobsters etc. due to inflating prices
Transportation of goods due to lack of fuel
Reduction of catch

Explorations

Before settling on our final solution, we explored various ideas to combat our problem.

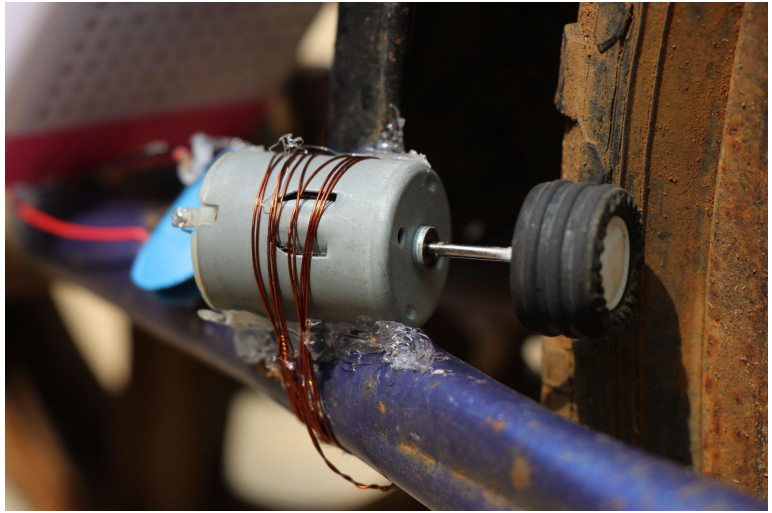
- Alternate ways to generate electricity

To combat the frequent power cuts that enveloped people's daily lives, we tried to involve sustainable methods like wind/turbine energy similar to a dynamo.

- Fuel sharing system

A way to equally share the amount of fuel allotted to people in a way that they distribute the work they have, simultaneously completing both tasks while utilizing every worker.

Since the beginning, one was to come up with a viable solution that would outlive the crisis, and not just a temporary, unsustainable one.

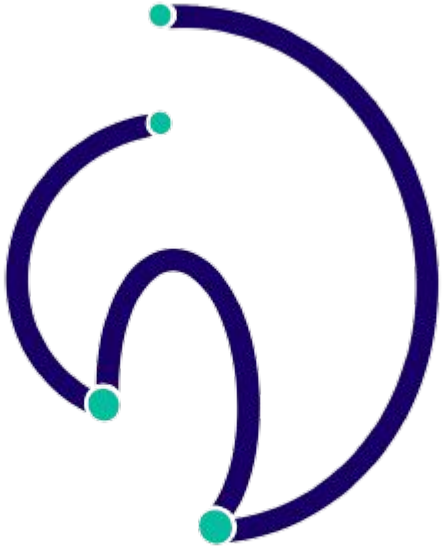


Final Solution and Innovation

To combat inflation and scarcity of resources, we came up with 2WAY - a mobile application that allows people to trade goods and services with each other. Anyone can create an account on the app, enter a list of goods or services they are looking for as well as what they can offer in return. The user will then be able to view everyone in their area who has the products they're looking for. One would be able to view if other users in the area's needs match with theirs. They can request a trade, message each other and strike a deal in just a few simple steps.

The app would calculate the costs of the goods and services being traded to provide a sort of standardisation. This would prevent disproportionate trades and allow all the users a fair exchange.

We are reimagining the barter system on a community level and reducing monetary transactions, while also aiming to reduce the setbacks of a traditional barter system. In a crisis affected country like Sri Lanka, where the currency is quickly losing its value, we believe that our app can provide some relief to the hardest hit parts of society.

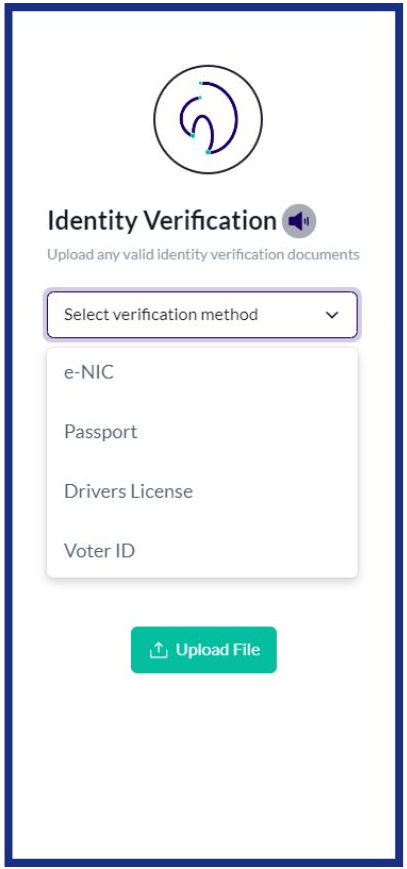


User Experience

2Way has been made keeping in mind the needs of fishermen in Sri Lanka.
It includes features like:

- Language selection - For non-English speakers
- Identity Verification - To prevent scams
- Audio guidance - For those who can't read
- Auto-generated chat - For ease of negotiation
- Voice messaging - For ease of use

Full length app demo can be found at:
https://youtu.be/l43zkPfMAkU



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Listings

My Offers | Wishlist

Products

Rice

Description

Add description...

2 kg

Expiry Date:

Add More

Services

Cycle Repair
Can fix broken chain and brakes

Home | Listings | Inbox | Account

9:41

5th Grade Textbooks

3 kms away

L Lakshmi
New Trader
4.8

Matched Trades
Rice
Torch
Fixing Bicyles
3m Plastic Sheet

Suggested Trades
Rice
3m Plastic Sheet

Product Details

Used books, but in good condition. No torn pages. All subjects books available, except Geology book.

Trader Reviews (12)
See all

4.8/5
(12 reviews)

Offer Trade

L
Lakshmi

Trade Matched

Requesting trade for:
5th Grade Textbooks

Questions | Offer

Rice | Fix Bicycle | Plastic Sheet | Torch

Rice

L
Lakshmi

Trade Matched

5th Grade Textbooks

Offering:
Rice

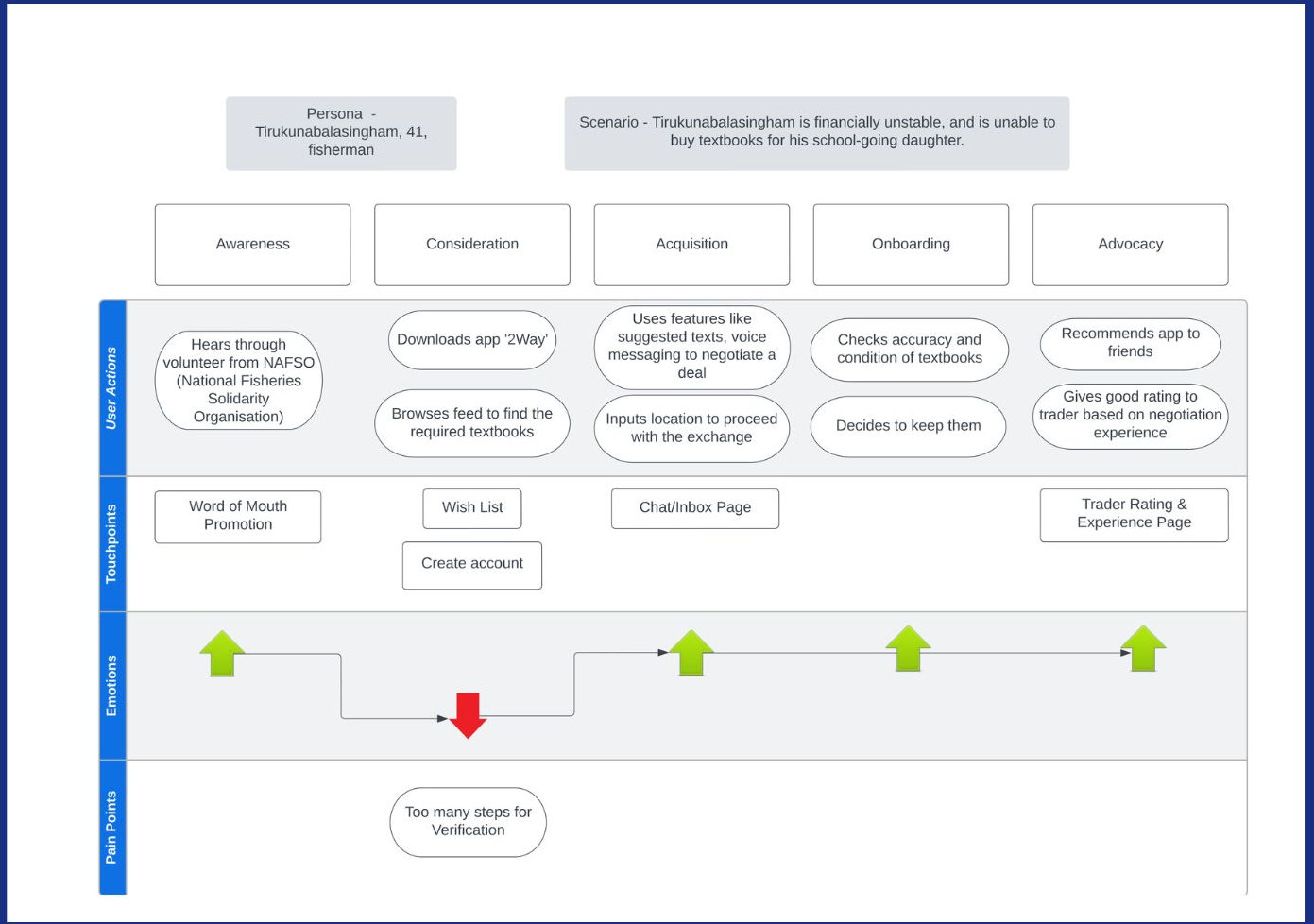
Questions | Offer

Is it still available?
Is the trade negotiable?
Is the trade negotiable

Type a messege

Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
123 space Go

User Journey

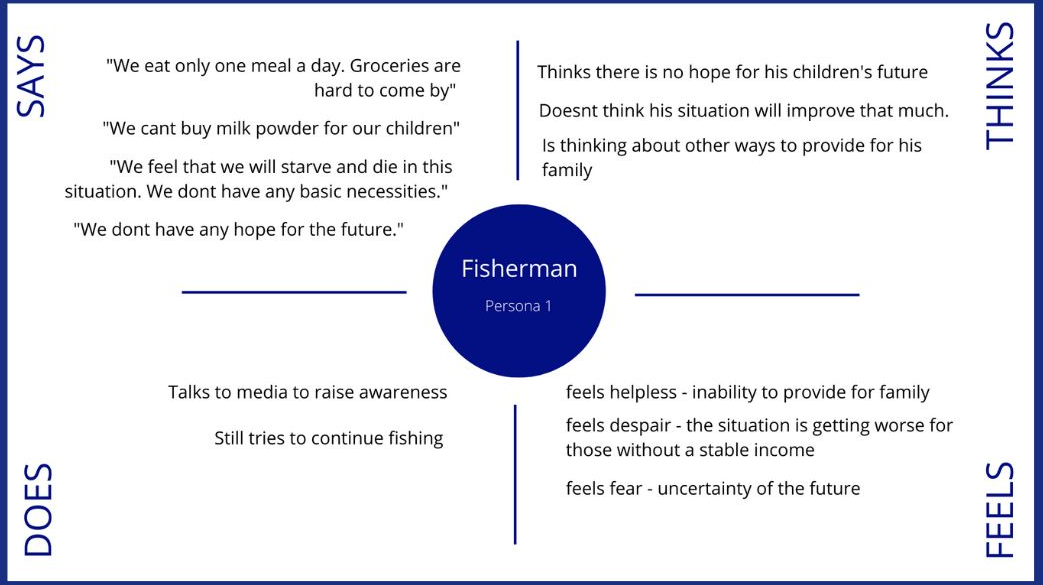


Design Process

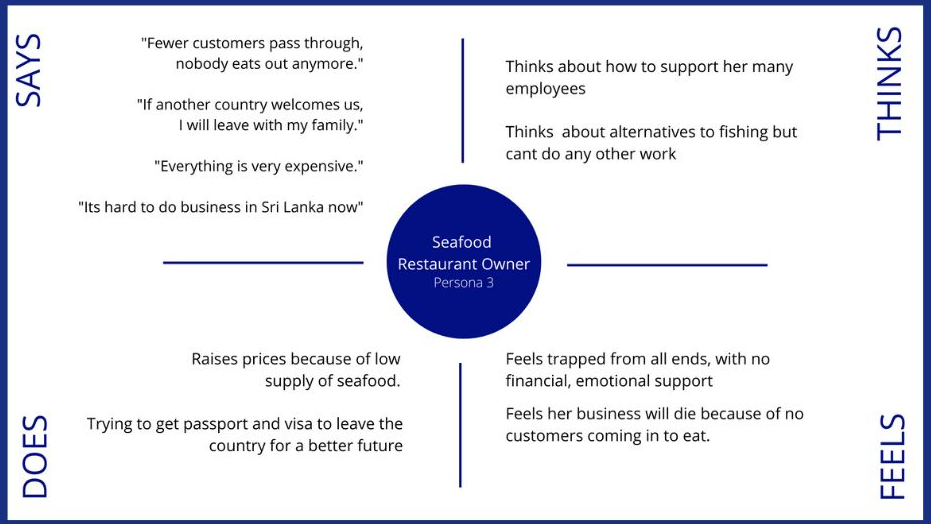
Empathy Mapping

After identifying our problem, we wanted to gain a deeper insight into the lives of the people affected.

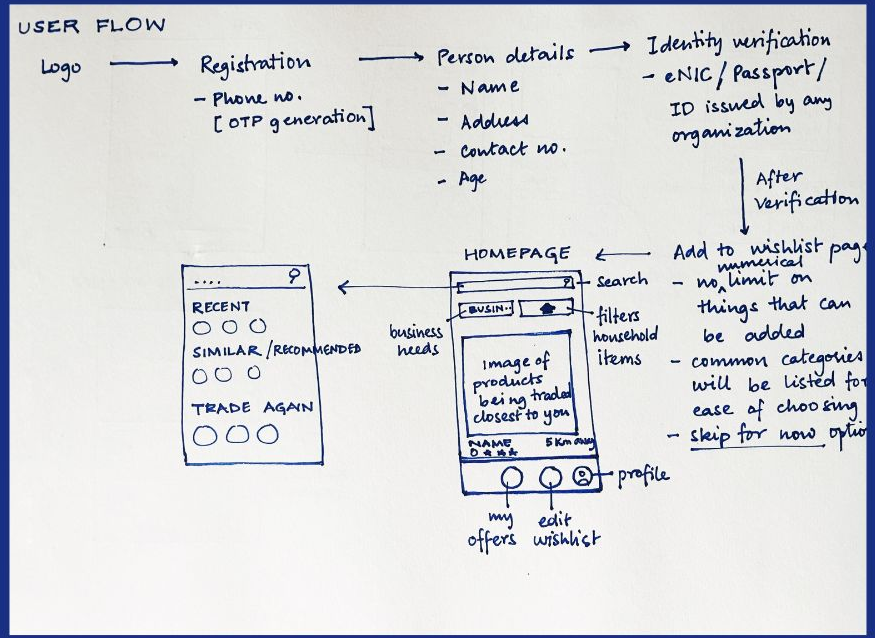
The map helped us in the visualization of the problems faced by our particular type of user, and eased our process of decision making.

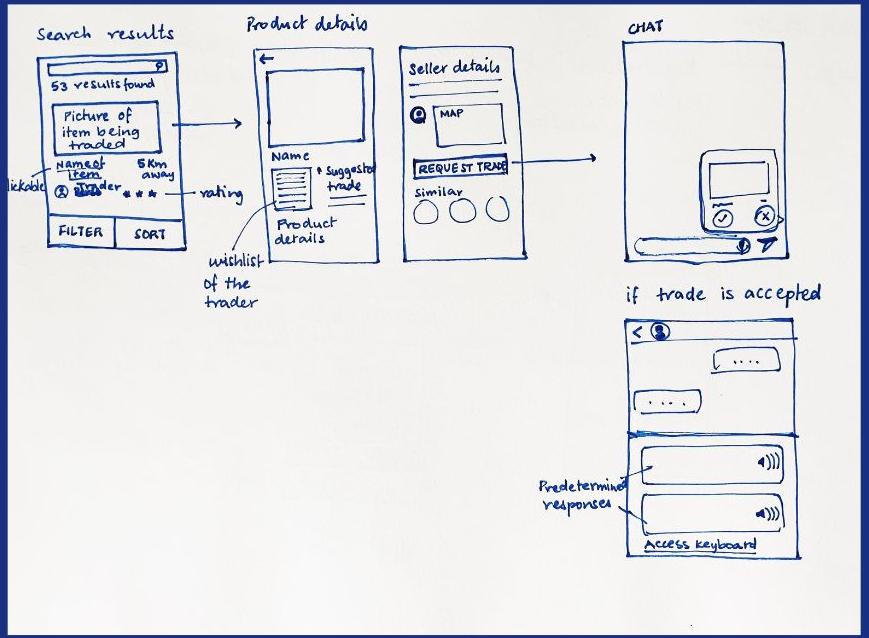


SAYS
"I feel I am drowning in debt."
"This is the work I have always known and if there's no work in this village I go to another.
"It severely affects our finances. There are fewer fish so our income goes down."
" I get only 100 Sri Lanka rupees for that (45p; 75c). It's very little so my livelihood is fragile.
THINKS
Thinks about her life with her parents
Thinks about more ways of earning money
Thinks about alternatives to fishing but cant do any other work
Fisherwoman
Persona 2
DOES
Various collection activities at the shore
Weaves coconut leaves
Helps the men out with selling and auctioning
Has taken out several loans to pay for daily necessitie
FEELS
feels helpless - inability to provide for family
feels worry about her children's education and future


SAYS
"Fewer customers pass through, nobody eats out anymore."
"If another country welcomes us, I will leave with my family."
"Everything is very expensive."
"Its hard to do business in Sri Lanka now"
THINKS
Thinks about how to support her many employees
Thinks about alternatives to fishing but cant do any other work
Seafood Restaurant Owner
Persona 3
DOES
Raises prices because of low supply of seafood.
Trying to get passport and visa to leave the country for a better future
FEELS
Feels trapped from all ends, with no financial, emotional support
Feels her business will die because of no customers coming in to eat.

User Flow - Initial Mapping of the App





Impact on Society

The app would act as a sort of platform for community building, allowing people belonging in a community to help each other. We aim to create self sufficient communities, and encourage them to practice sustainable living.

Given the current economic crisis, money is hard to come by and ends up being utilized to pay off debts. One finds it hard to buy things like textbooks, sanitary products, groceries etc. Things that may not be essential to survival but are an important aspect of day to day life.

We have all experienced what it's like to be in a state of crisis, and how much fear and uncertainty it brings along. Our solution will bring about better communication among communities, build trust and fulfill people's needs at the same time.

Sustainability

With a shortage of vital resources such as fuel, mindful use of these resources is essential. The crisis brought a stop to import and production of many goods that the general population require for a living.

Through this app, the concept of exchanging second hand, or 'pre loved' items is encouraged. This reduces the need for consumption of new items, and provides people a platform to give their unwanted items a new purpose. This trend normalises the ownership and use of secondhand items, and is widely accepted by today's generation.

The app strictly works on a 'need' basis, therefore reducing the number of unnecessary items in ones home, and replacing it with something they urgently need. This system reduces the need for production of new items, as existing items are being circulated to new homes.

Practicality and Business Viability

2Way will be introduced to the population of Sri Lanka through **Newspaper and Television Ads**, and **Word of Mouth**. It will grow as more people start to use the app for trade. It will be an efficient platform to trade, attracting both, businesses and households to use. It will involve people of both backgrounds, economic and social - naturally increasing the target audience -making the app more known.

We aim to let this app become a part of their daily practices, promoting sustainable trade of products and services. In the ongoing economic crisis and scarcity of resources, this app will assist people to get the resources they need, available to them near their preferred locality. This will help reduce an unnecessary chain of distribution, reducing multiple additional costs like delivery, middlemen commission, etc.

The app will earn income through ads from other companies. It will be a success as document verification of each user account is mandatory, ensuring a sense of security and trust in trade. This will also lead to the business being effective and efficient. The app caters to the needs of people in crisis at the moment, but can also be expanded to after crisis or non-crisis areas, promoting a way of living based on recycling and giving value to resources already available.

Word of Thanks

A big thank you to UMO Design for this opportunity. It opened our eyes to the problems of such a large population that we were not aware of.

Although it was a short period of time, we were able to come up with a solution thanks to our mentor, Tamanna Desai. We appreciate her guidance deeply.