

By Team **RISK**

Design for Crisis

# SAMPARK

where helping meets receiving.



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# Design Process



## **STEP 01: Desktop Research**

Literature Review, News Reports, Research Papers, Articles, Documentary, Official Reports, Government Data, NGO Websites



## **STEP 02: Primary Research**

Interviews, Meet with NGO people, Focus Group Identification, Observations, Inside working of Current System



## **STEP 03: Thematic Analysis**

Various Problems Identification, Brainstorming, Focus Groups Definition, Customer journey map



## **STEP 04: Principle Definition**

Setting Goals, Defining selection criteria, Focus Group Needs, Ideation, Problem Definition, Design Brief, System Mapping



## **STEP 05: Solution Development**

System Explanation, Interface Details, Interactive Elements, Animation Explanation, Video Development,



## **STEP 06: Future Roadmap**

Sustainability, Business Viability, Impact on Society

# Crisis? Let's look at Natural Disasters.

## Why to look at Natural Disasters?

Between 1998 and 2017, India lost, on an average, **3,660 people** every year because of extreme weather events.

**108 crore** people were affected in 321 natural disasters in India.

## INDIA AMONG TOP 3 NATIONS WITH MOST NATURAL DISASTERS

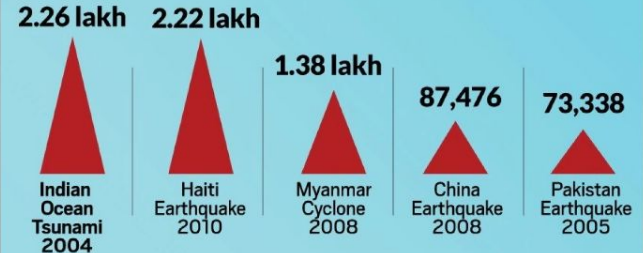


Nearly 80,000 lives lost & more than 100 crore affected in India due to natural disasters in 20 years

### NUMBER OF NATURAL DISASTERS (2000-2019)



### DEATHS IN 5 DEADLIEST NATURAL DISASTERS



Source: UN Office for Disaster Risk Reduction, CRED



# Problems affecting people during a natural disaster

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Absence of bare minimum necessities like food, water etc



Poor information management system



Lack of staff, helpers and rescuers



Poor communication channels and connectivity

# Problem Identification

India's geo-climatic conditions as well as its high degree of socio-economic vulnerability, makes it one of the most disaster prone country in the world. A disaster is an extreme disruption of the functioning of a society that causes widespread human, material, or environmental losses that exceed the ability of the affected society to cope with its own resources.

*"The mechanism for preparing a database for different kinds of disasters happening across the country is yet to be developed."*



## Individual Scenario

Disasters, a crisis is not only capable of robbing an individual of their financial wealth and being, but also their sanity. A lot many people even after recovering financially through financial aid require psychological counseling to overcome the trauma of losing themselves in the most unfortunate way. Starting their life from scratch and building back up is an overwhelming thought in itself.

## National Scenario

India is the 14th-most climate-vulnerable country in the world. Natural Disasters are capable of washing away half the population in one go. It hence can cause a major affect on the nation as a whole. 2.678 million, India recorded the maximum number of people displaced in 2018. Causing displacement, unemployment and overall bringing down the GDP of the entire country.

## Global Scenario

Disasters - natural or human-made are common throughout the world. During the second half of the 20th century, more than 200 worst natural disasters occurred in the different parts of the world and claimed lives of around 1.4 million people. Losses due to natural disasters are 20 times greater (as % of GDP) in the developing countries than in industrialized one.

India

## Assam Flood, 2022

To understand the current disaster management system of India, we looked into the recent Assam Floods as a part of our major case study.

2,930

villages  
impacted

29.7lakh

people affected  
in 30 districts

152

relief distribution  
centers

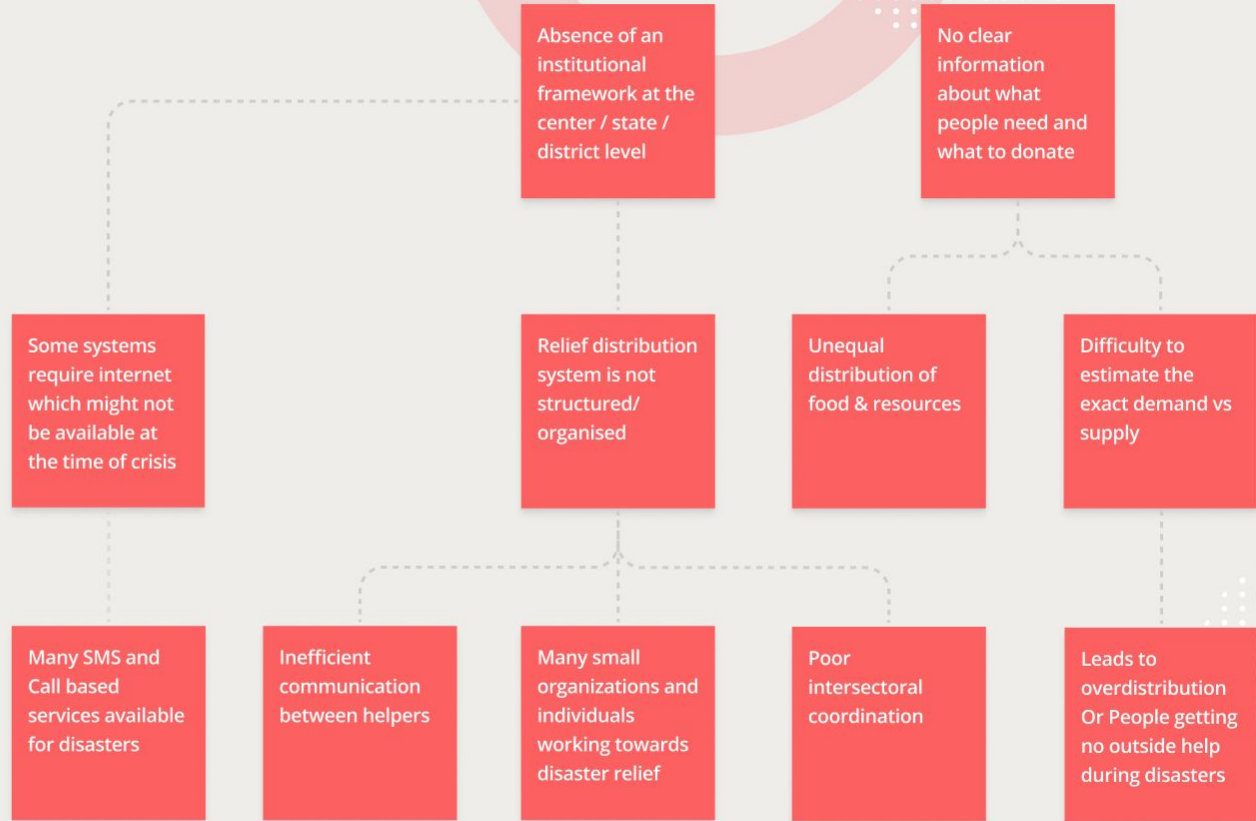


# Problems in the current system

*"We are not receiving donations, soaking wet for more than 20 hours"*

*"How do we respond?  
How do we know when to respond?"*

**"We need a way to facilitate improved, effective, and sustained communication"**  
-UN







**Our problem  
statement**

**Help providers need a way to strengthen the current information  
management system for effective crisis response.**

# Why is this an urgent problem to solve?

With increase in climatic imbalances, India witnessed large scale disasters in past 5 years with high count of casualties involved.

Design interventions can help government and non-government bodies to carry out rescue missions with utmost efficiency and save as many lives as possible.

NATURAL DISASTERS

## India lost more than 70,000 people because of climate change-related disasters



### Strengthening Crisis Information Management

Uttarakhand disaster, women, children and the elderly in 13 cut-off villages are terrified to return home

Many villages along Godavari continue to remain cut off

Topics  
Disaster Accident

2 killed, 3.5k+ rescued, 95 villages hit by floods across Vid

Balwant Dhage & Maithar Ali / TNM / Jul 20, 2022, 04:33 IST

19 villages cut off from mainland in West Godavari district due to rains

Samson Raj / TNM / Updated: Jul 30, 2019, 10:10 IST

There is no network connectivity and we cannot reach out to the helpline numbers provided to us. We are completely helpless. I don't know for how long we would have to endure this.



Rescue work in Silchar.

## Silchar Residents Forced to Drink Flood Water as Assam Deluge Cuts Off Access to Clean Supply

We talked to the experts to get a gist of the scenario. Let's look at what they have to say.



**Devanshi Bhatnagar**

NGO Lead Researcher

“We work with our team and volunteers for flood relief. We start with recce. But, what can really help will be to easily identify needs and distribute accordingly.”



**Vijay Sharma**

NGO Disaster Volunteer

“We try and urge people to donate more and more. Some are genuinely worried but hesitant to do so. If only we could get enough supply and figure out the actual demand the situation would be much better!”



# Disaster Victim



Disaster victims are the people stuck in a crisis (here, flood) hoping every hour that they could be rescued next. Surviving with delayed to no access to clean drinking water is a real challenge. They are extremely prone to water borne diseases.

## Profile

### OCCUPATION

Farmer

### GENDER

Not specified

### SOCIAL SETTING

Sub-urban

### FAMILY MEMBERS

Joint Family

### INCOME (MONTHLY)

10,000

### EDUCATION

Upto 8th standard

## Goals & Values

### GOALS

To be able to take care of all the family member, seek food, help, water and shelter.

### VALUES

Helpful, faithful to their community, friends and families, Help each other in times of need.

### MOTIVATIONS

Ensuring wellbeing, Hope to live and rebuild.

## Pain Points

### FEARS

Not getting aid, government ignoring their needs, Unable to family and withstand crisis.

### FRUSTRATIONS

Not getting right aid at the right time. Feeling helpless.

### CHALLENGES

Lack of food, lack of water, lack of communication and transport, Trying to save his belongings, Communicating his needs to the volunteers.

## Feelings

### WORRIES

Lack of availability of supplies and rescue, Feeling of not being able to recover from the crisis, Losing his savings.

### INFLUENCES

If receiving help, Getting essential supplies, Safety of family, Recovery.

**“we are not receiving donations, soaking wet for more than 20 hours”**



## NGO volunteer



NGO volunteers are on a noble quest of charity, to go on-field, survey and find people to relieve them from crisis, but sometimes due to lack of knowledge, they are unable to act when it's actually needed the most.

### Profile

#### OCCUPATION

Volunteer

#### GENDER

Not specified

#### SOCIAL SETTING

Urban

#### FAMILY MEMBERS

Nuclear Family

#### INCOME (MONTHLY)

20,000

#### EDUCATION

upto 12th standard

### Goals & Values

#### GOALS

To provide relief to people stuck in crisis and fight for a cause

#### VALUES

teamwork, ownership, charity

#### MOTIVATIONS

An act of goodwill

### Pain Points

#### FEARS

To be able to collect sufficient resources to provide relief when it's needed the most

#### FRUSTRATIONS

Not getting right aid at the right time. Feeling helpless

#### CHALLENGES

Lack of communication & transport, lack of information, collaboration between NGOs, to know who is not getting help.

### Feelings

#### WORRIES

Worries if they will be unable to help people due to lack of information

#### INFLUENCES

Amount of supplies he has, Workload, If the supply system is efficient, Identifying people who need resources are getting them.

**"People find it risky to donate money directly to us"**



## Donator



Donators are the from a humble background, sensitive and empathetic towards those who urgently need help.

Unable to know how to help they try their best to educate themselves to make an impact as a donator.

### Profile

#### OCCUPATION

Engineer

#### GENDER

Not specified

#### SOCIAL SETTING

Urban

#### FAMILY MEMBERS

Nuclear Family

#### INCOME (MONTHLY)

1,00,000

#### EDUCATION

Graduated

### Goals & Values

#### GOALS

To be able to take care of all the family member, seek food, help, water and shelter.

#### VALUES

Humble and honest, Always finding a way to help people in need.

#### MOTIVATIONS

Wants to make an impact, Likes to get recognition for his actions.

### Pain Points

#### FEARS

Worried for the families stuck in crisis, wants to help but cannot overcome distrust from NGOs

#### FRUSTRATIONS

Unable to get to know if they were able to helped

#### CHALLENGES

Find a trustworthy donation channel and keep track of what is being donated

### Feelings

#### WORRIES

Worries if the families stuck in crisis actually receiving donations or not

#### INFLUENCES

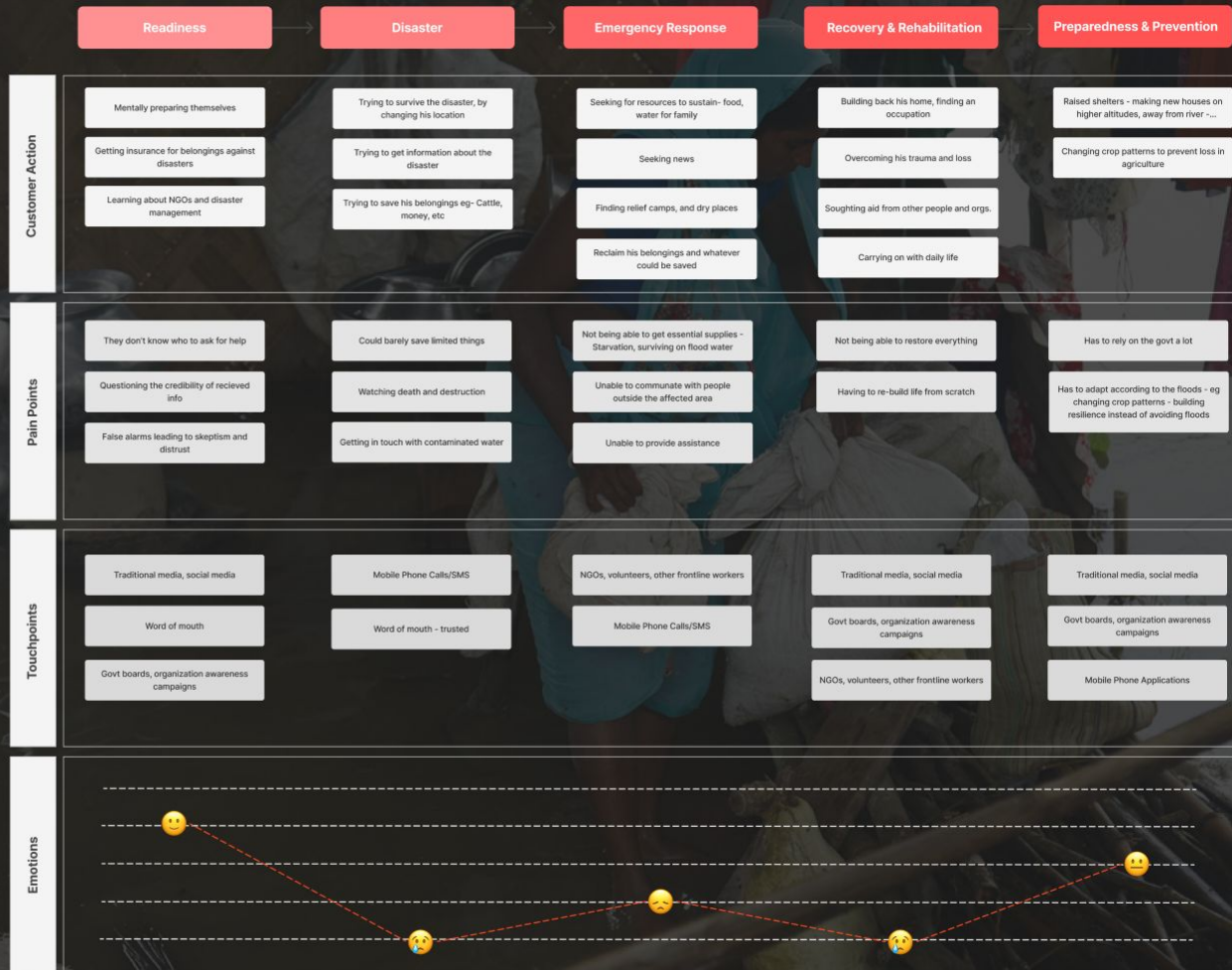
Knowing where his donations are going, Transparent system, Ease of giving donations, Recognition by giving donations.

**“What can we exactly do in order to help? How can I know if my donations are actually reaching where it should”**



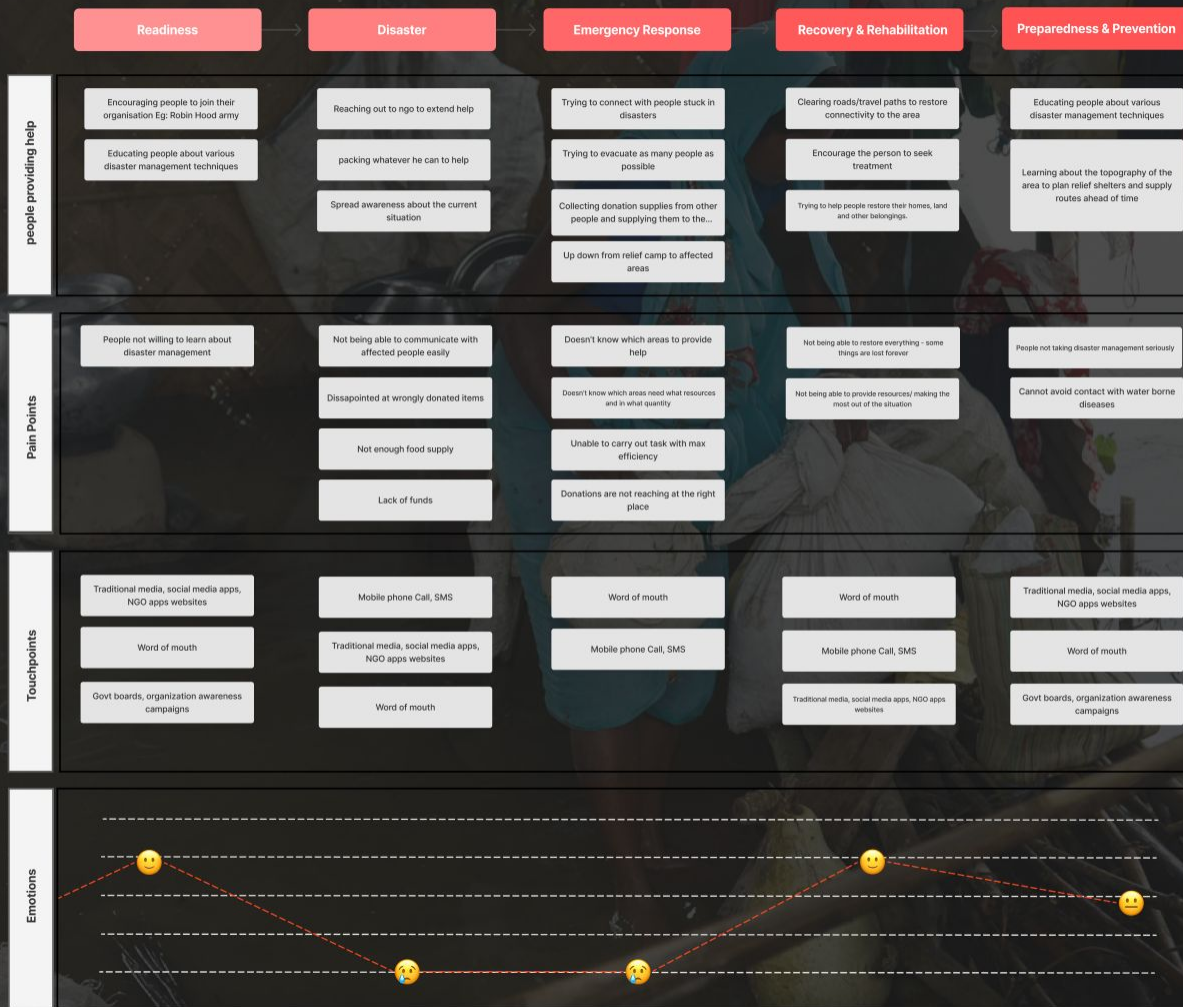
## Journey Mapping

# Disaster Victim



## Journey Mapping

# NGO Volunteer





# Insight Statements

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Disaster victims need a **way to be able to reach** out and ask for specific help when required.

NGOs and other organisations working for the disaster require a way to be **able to identify the areas** where the particular need is required.

Donators need a **way to be assured** that their donations are reaching the right place.

## Our goal

1. Educate disaster victims to contact emergency helplines as their first response
2. Providing donations to help seekers effectively by decluttering information for NGO bringing down the response time
3. To facilitate donators to track their donations and appreciation for their act of goodwill

# Explorations

Advertisements/ serials - about disaster management - through media - convey

Govt/ some organisation has installed bill boards- instructions/ info about disaster management

Navigation guideline plan or disaster evacuation plan - put up for people to know - important locations and safe areas

Spreading awareness through social media

Committee meetings- spreading readiness awareness through it. Maybe Panchayat? Through lores?

Easy simple guidelines for what to donate? how to donate? where to reach out?  
To get appropriate donations and reduce wastage!

Creating donation kits and guidelines for people to follow so that people know what to donate

A good communication system with the people stuck in crisis . Calls / SMS/ two way radio/ walky talkies

Disaster KIT

For food

For water borne diseases

Using social media as a platform to effectively reach out to the youth, for more participation and resource management

NGOs being able to connect and network better for gaining funding and resources.

An efficient supply network to provide people with essential resources

Tracking what all you are sending for donations

An information network to know what people actually need and how much.

People not stuck- having families that are affected reaching out and updating the areas

Ngos/ org can have rehabilitation centres for people who are affected by the crisis to reach out.

Connected internal system with govt dept keeping proper monitoring and check over the affected areas for accurate information

Games and Curriculam design for students - teaching about disaster management - in schools and educational institutes.

Creating a mobile network system using balloons - cell towers in the sky

Helping the people overcome the trauma . Metal health related - Psychological first aid

People volunteering in areas they can provide help - eg cook, medical aid, provide manpower etc

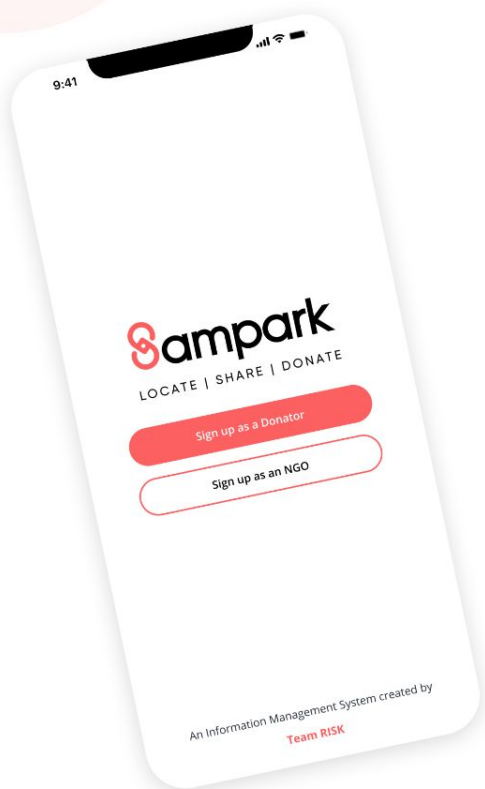
A topographical guide for people prone in flood areas with time and intensity of floods shown - can plan housing and crops

Having increase the workforce to specialised roles for managing resources efficiently. And proper monitoring

Certificate generation and rewards system for volunteers

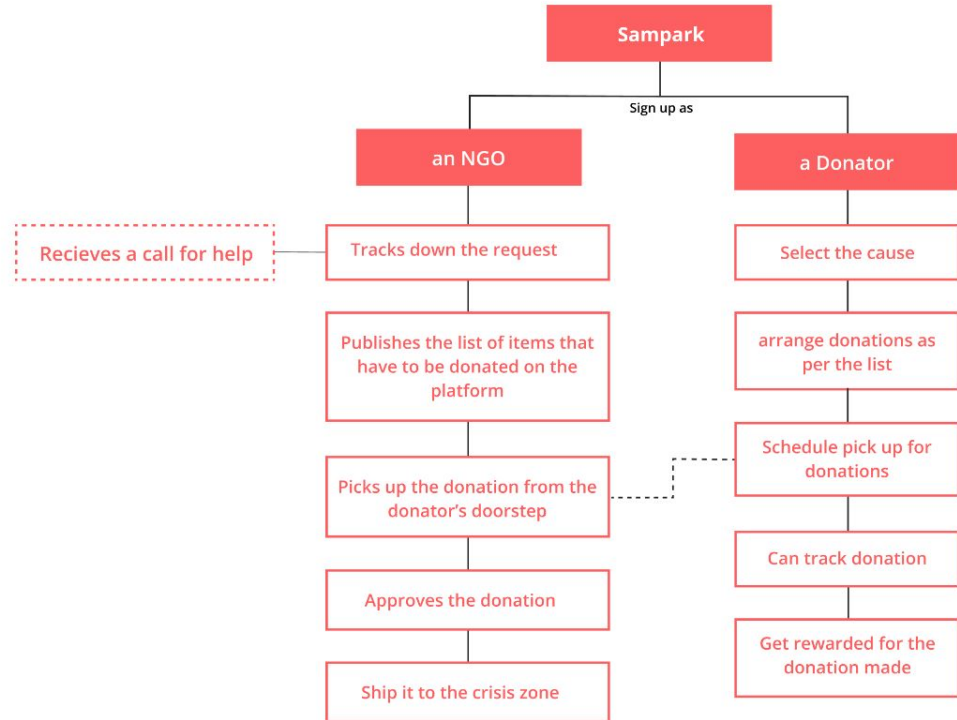
Holding workshops/ training programmes for people to participate in and also attract investors for funds.

# Final Solution



## Introducing, **Sampark!**

A platform that helps organisations locate disaster victims and share their needs, making donations easy and trusted than ever.



# How does Sampark work?

## Disaster Victim

Prior the disaster, people at disaster prone areas are made aware of the helpline number and easy to reach out SMS codes, to be used in times of difficulty by NGOs.

At the time of a disaster, the person can then reach out to the helpline number via call or SMS service to convey the required specific need.

## NGOs registered with us

An NGO executive receives the call or the SMS. Marks the area in his database that requires the help. It further notifies all the registered NGOs in the system.

Any NGO with the closest proximity to the area in need, picks up the request. Hence, the system is able to collectively organise help for the area which wasn't receiving help before.

## Donator or any helper

Able to choose the cause they want to donate for. Further receives a guideline which solves the otherwise confusing question of "what to donate?"

Can easily book a pick up or drop off service off the app. Once donated, is able to easily track the donation with complete transparency making sure it reaches the right place. Can also boost his profile by donating often.

# Our USP? Why are we special?

**We focus on reducing wastage,  
by providing to specific needs.**

By catering to specific needs at specific areas and effectively monitoring it through out database, we plan on reducing wastage.

**We believe in collaboration.**

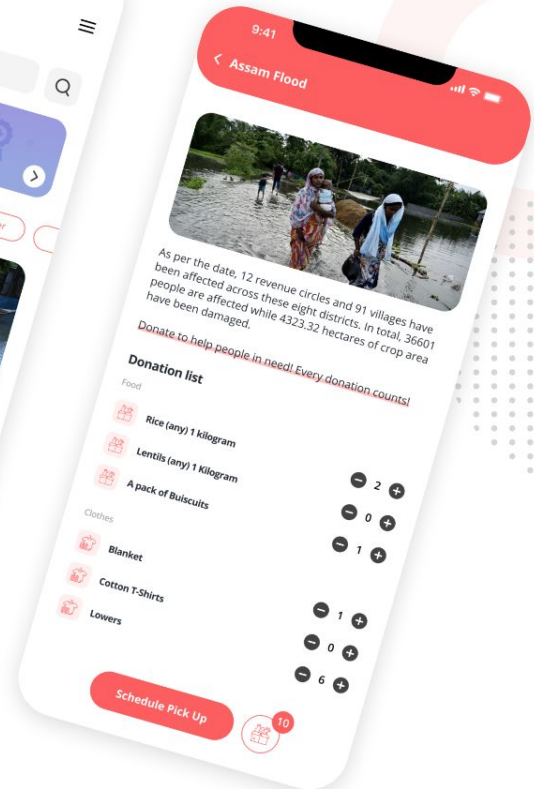
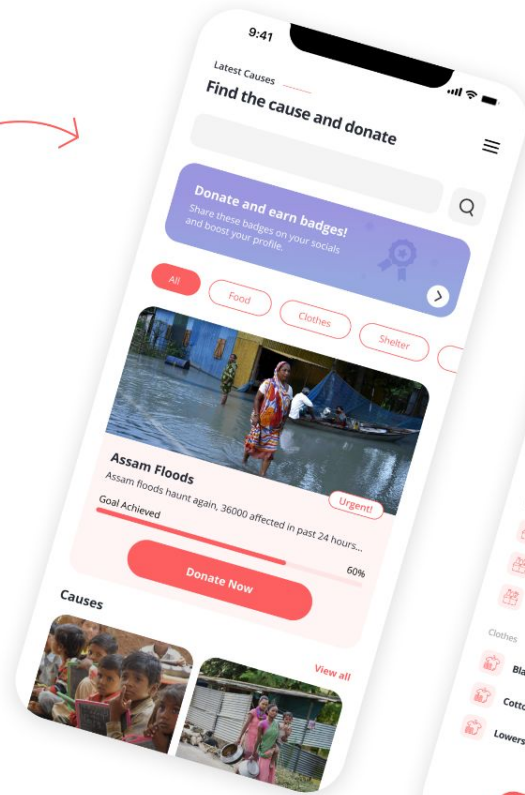
All the organisations registered with us are working in collaboration by easily monitoring and communicating the needs. In case of any shortage, there is a scope for multiple organisations to come together for helping out any particular area.

**We help boost your profile!**

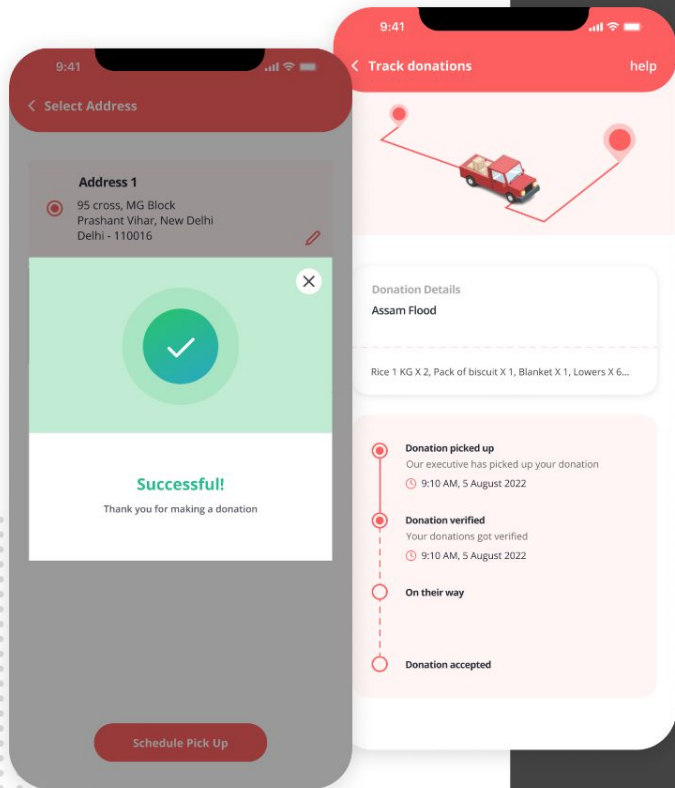
By donating often, any person can boost his profile with added rewards and badges. Further helping the person grow professionally. Adding in more of a reason for them to donate more!



With 'Sampark', anyone who wishes to help, can quickly navigate to the cause they wish to support. Check out the list of donations that can be useful and the respective guidelines.

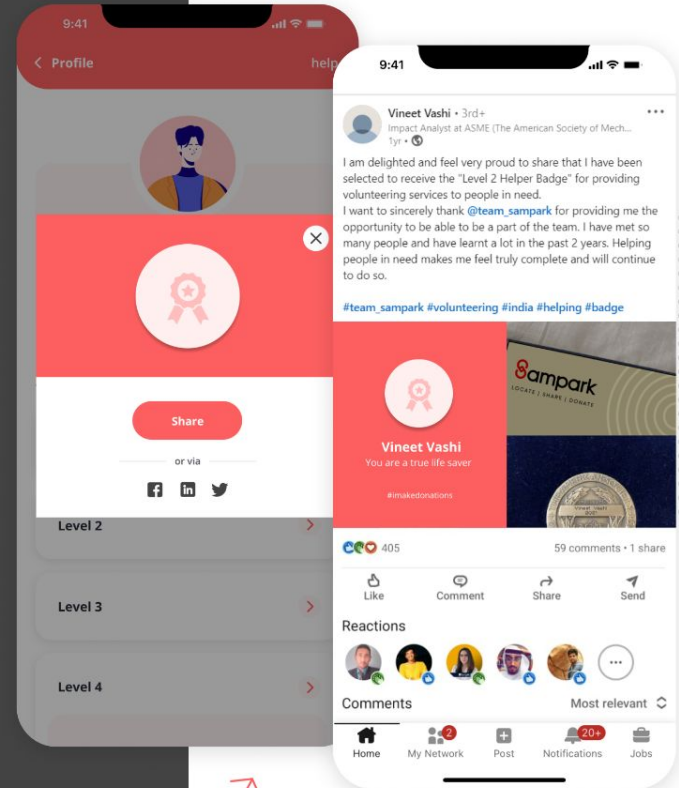






Donator can schedule a pickup for the NGO executive to collect and NGOs can further verify the items at their end. The user will be able to track and make sure if the donation is reaching the right place.

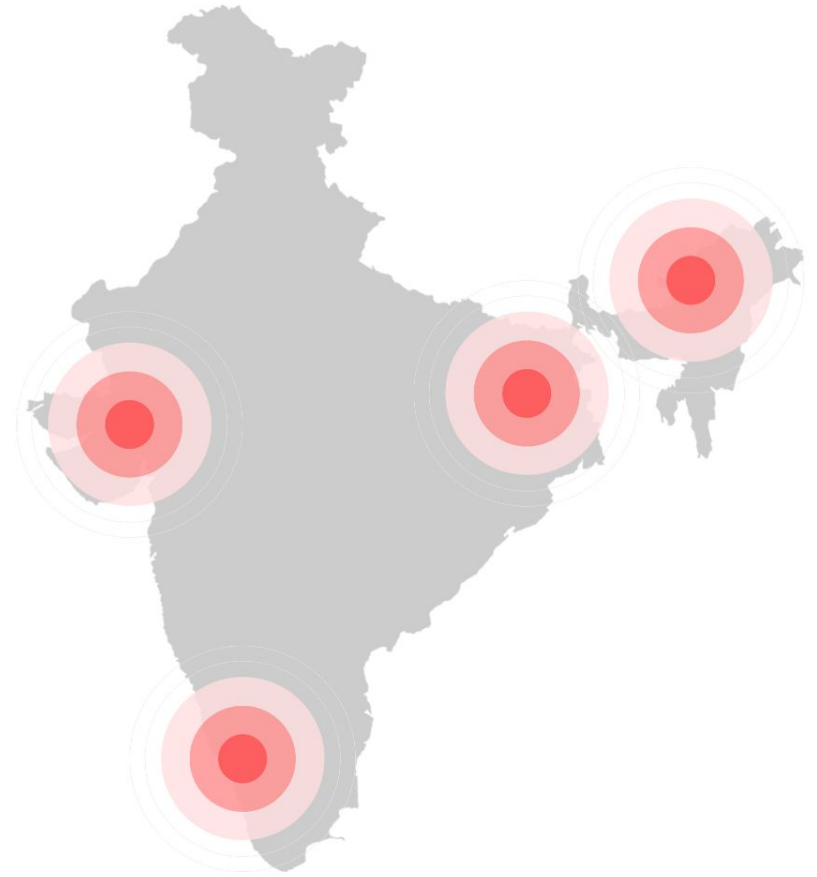
With each donation made, you are a step closer to completing levels and earning badges as a token of goodwill and gratitude which can be used to boost your profile.



# Impact on society

108 crore people were affected in 321 natural disasters in India. These pressing issues that have affected the people widely are management issues, lack of staff and rescuers, lack of awareness, communication problems, lack of assets, absence of food supplies at the right place on the right time, and other constraints.

The intended service is scalable to many crisis, across the country and worldwide. A simple and effective solution strengthening the current systems.



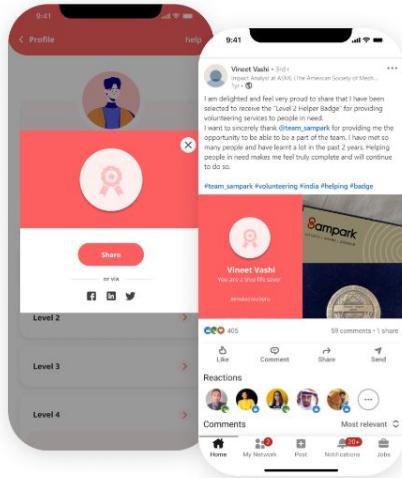
# Sustainability

India is among the top 3 nations with the most natural disasters across the world. In the past 20 years, we have lost nearly 80,000 lives due to natural disasters. 108 crore people were affected in 321 natural disasters in India. These pressing issues that have affected the people widely are management issues, lack of staff and rescuers, lack of awareness, communication problems, lack of assets, absence of food supplies at the right place on the right time, and other constraints.

Need of the hour is an information management system to tackle the repeated disaster effectively. The system is scalable to all crisis and can be integrated in the existing system.



# Practicality/ Business Viability



**Sampark**  
LOCATE | SHARE | DONATE

## We Are Together

Stuck in a **Crisis**?

**Call/SMS: 1800-1000-1000**

Tell us what your need, We will supply them.  
You are not alone.

Let us together make a difference

A circular inset image showing a group of people, including a police officer, wading through floodwaters with supplies.

With every donation, you reach towards a higher level and ultimately securing badges, gamifying our service can incentivise participation in the noble cause of making donations. An easy, adaptable and timely solution.

People stuck in crisis can be informed regarding emergency helpline so they can be tracked down.

# Thank you

Thanking **Shubham Agrawal** for mentoring team RISK.

## CREDITS

Times of India

Dergipark.org

The quint

BBC.com

Eastmojo

Deccan Herald

thenewhumanitarian.org

indiadonates.org

The Hindu

