ResQme

A Project Report

Submitted in fulfillment

In

Network & Communications

By

Mitarth Jain

17BCE0765

Aditya Kumar Mishra

17BCE0687

Under the Guidance of

Prof. SIVANESAN S

School Of Computer Science & Engineering

VIT®

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

ACKNOWLEDGEMENTS

I sincerely thank Dr.G.Viswanathan - Chancellor, VIT University, for creating an opportunity to use the facilities available at VIT. I also thank Prof.SIVANESAN S.- Department of Computer Science, VIT university, for giving us the opportunity to do this project. I also thank the Dean and entire department of Computer Science, School of Computer Science and Engineering, for giving us this opportunity.

TABLE OF CONTENT

INTRODUCTION

In this project we are making a “crowdsourcing” based web platform where various volunteers and victims can share their information at the time of natural disasters.

Crowdsourcing involves obtaining work, information or opinions from a large group of people via the Internet, social media and smartphone apps. To collect all the information of a particular area that has been hit by any natural disaster by using social media with the help of crowdsourcing. This platform will be very useful in rescuing people and in obtaining useful information at the time of natural disasters.

ABSTRACT

Natural disasters are one of the most unpredictable disasters causing loss of lives and property. The first priority in this situation is to save people which is done by both the government and some NGOs. But there is a lack of interface between the victims, government and NGOs. Thus there should exist a platform where the victims and rescuers can communicate with each other and the victims can update the situation around them.At the time of disasters, NGOs and many rescue teams try to rescue people but what lacks that the volunteers don't have the location of the person.

Solution

A platform we want to built where we can collaborate the government actions and all civic engagements (it includes NGO's, help centers, rescue groups etc.)

It promotes innovative and responsible use of mobile and web technologies to facilitate the flow of critical and actionable information to those who need it before, during, and after disasters. Its purpose is to connect those who need help directly with those who can truly help.

Key components :-

1.) It maintains the Alert Map- which integrates, sources and manages critical information required in disaster preparedness, response and recovery. Through the Alert map, the group of volunteers helps validate critical information, such as people in need of rescue or relief during disasters, so that national agencies, local government units, the private sector, and civil society groups can respond to such needs.

2.) The microsites are a rich knowledge base of finding multimedia content that explains key concepts in disaster risk reduction and climate change adaptation, such as the nature of hazards and how risks associated with them could be used to prevent loss of lives and properties.

What is the Alert Map?

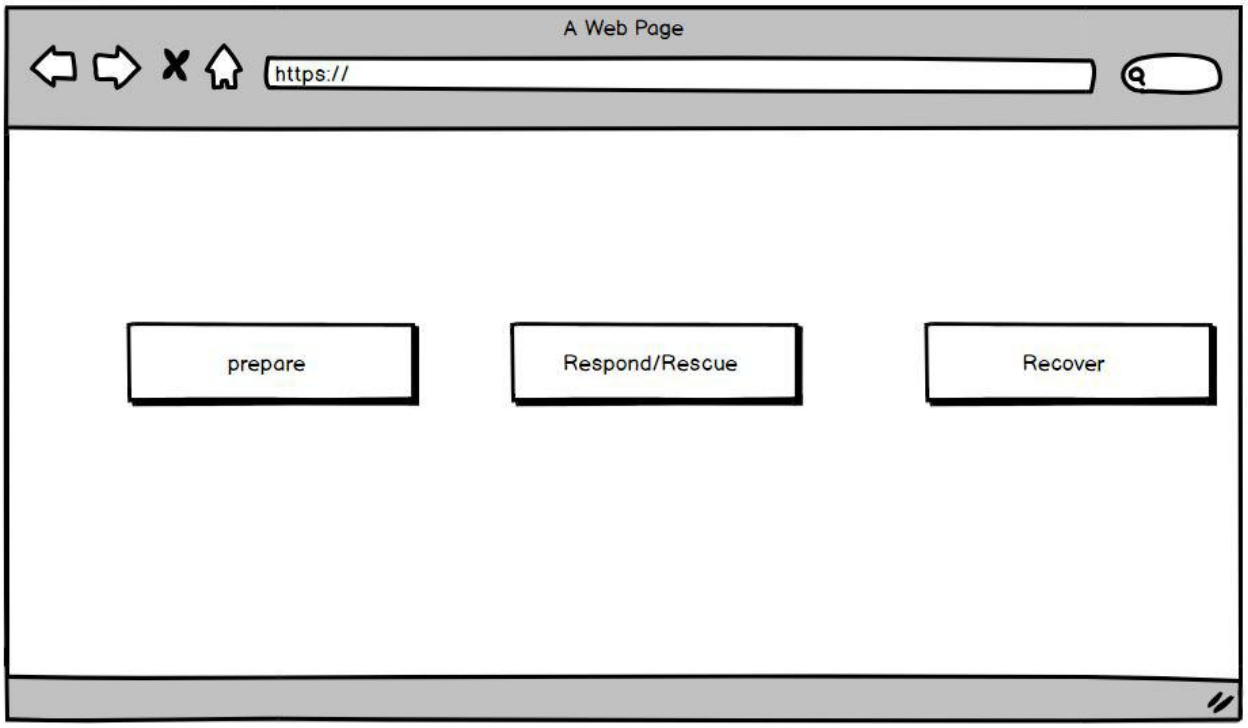
It is a platform where responders, government officials, NGOs, the private sector, and
individuals share critical information that can help save lives.

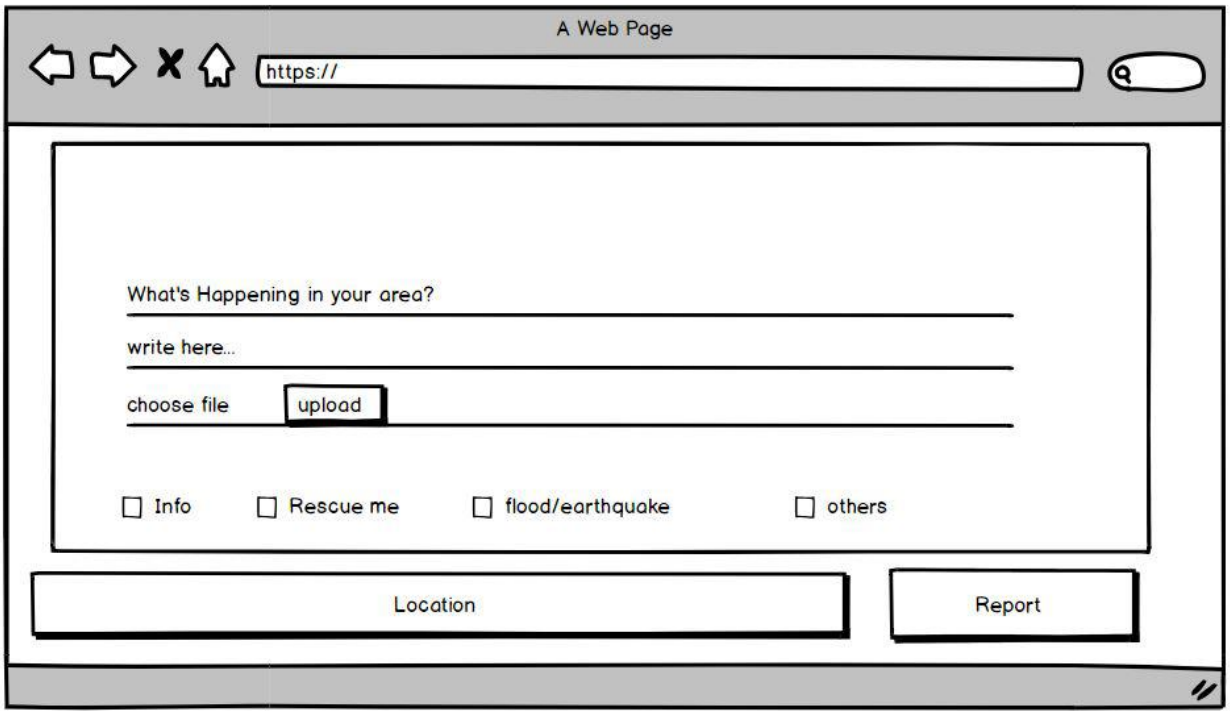
Using the Alert Map, we can trace or the crowds to help source and obtain the streams
of data, particularly during disasters.

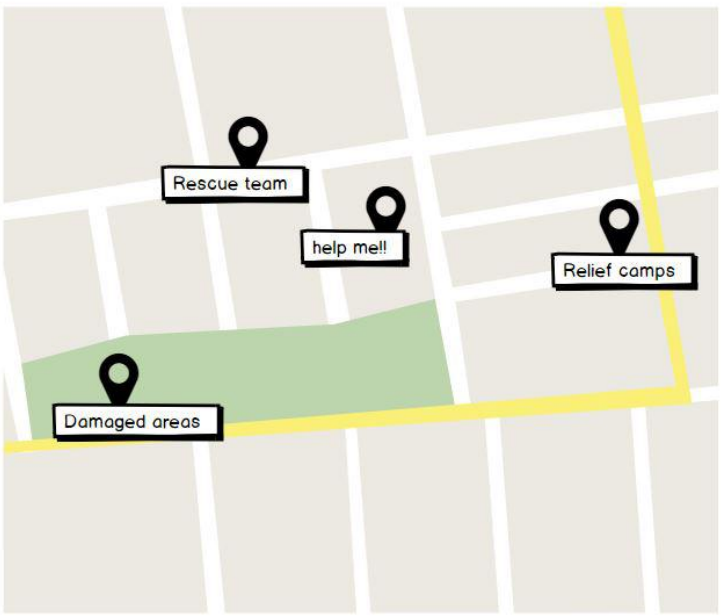
The map will be designed to scan social media for appeals for help or rescue, appeals
for relief aid, and situation reports nationwide. It analyzes and plots the data in a single mobile-friendly map that is accessible to all.

With the platform, the public - including local government officials and responders –
can visually identify areas in need of help or relief and what exactly is needed. In addition, rescue team can also respond that help is on the way.

Paper Based model:-







This are some paper design for the web platform we have built.

In this platform different social media websites like Facebook, Google+, Twitter Have been used to obtain the information and used Google Map APIs to find the real time location of people who needs help and show it on the map automatically.

This will help the volunteers to easily visualize the areas need of help.

How It Works?

In our web platform, we have partnered with different NGOs and rescue teams who are always there to help people in danger at the time of natural disasters.

We have used the concept of crowdsourcing to obtain the particular information about the person whether he/she needs help or any kind of info related to disaster.

When you open the platform, you will see a Alert Map button, this alert map is the map where all the information along with location of people can be seen. The map is publicly accessible to all, so that the volunteers as well as the person who truly wants to help can reach out to person who needs help.

We are using Google Maps APIs to find the real time location by using the property of crowdsourcing present in social media sites. When a person wants to report on our platform for rescue or info or flood any related information to disaster, he/she has to login through the facebook/twitter/google+ id because this sites have your actual real time location. We will be using that location to locate you on the alert map.

As soon as you report, the markers on the map can be seen. We have created a news feed where the volunteers can see all the situations happening like who are saved, who else to save, info related to infrastructure damgage or bridge washed out anything similar to that.

Its will locate all the information on the map with exact location which can save many lives at the time of disasters.

FEATURES

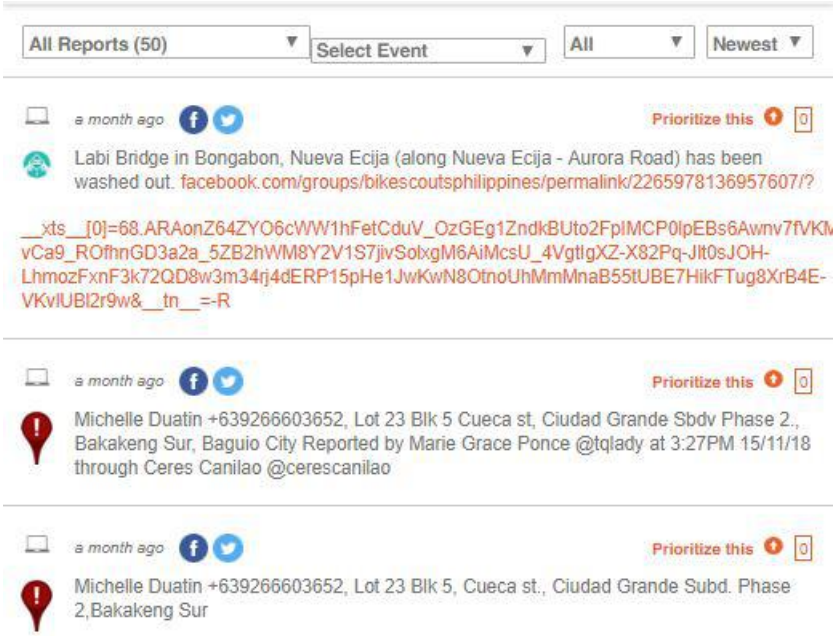
During a natural disasters, volunteers just want to get to the point-simplifying is our utmost priority,minimizing processes as much as possible.

More Accurate Reports

It is easier to filter reports on first glance.

• Upon clicking, a card is displayed on the right showing more helpful information.

• This way, switching and skimming through hundreds, even thousands of reports, is faster and more efficient. The primary actions are readily available for verification and/or invalidation process.



Don’t miss anything that’s crucial

Rescue reports overrides all types of reports when it comes to importance and urgency. Every 15 minutes, the system will refresh and place all the overdue rescue reports on top of the list. This way, volunteers won’t miss them.

Keep track of rescue’s progress

On-ground volunteer’s main objective is to assist and give aid to people affected by the crisis and make sure they are safe. People managing and assigning these rescue reports should have a way to see the progress of each rescue.

A bird’s eye view

The alert maps shows all different type of markers(rescue/info/flood) on the alert map with proper count. Volunteers are always on-the-loop with the reports and every information at the time of disasters.

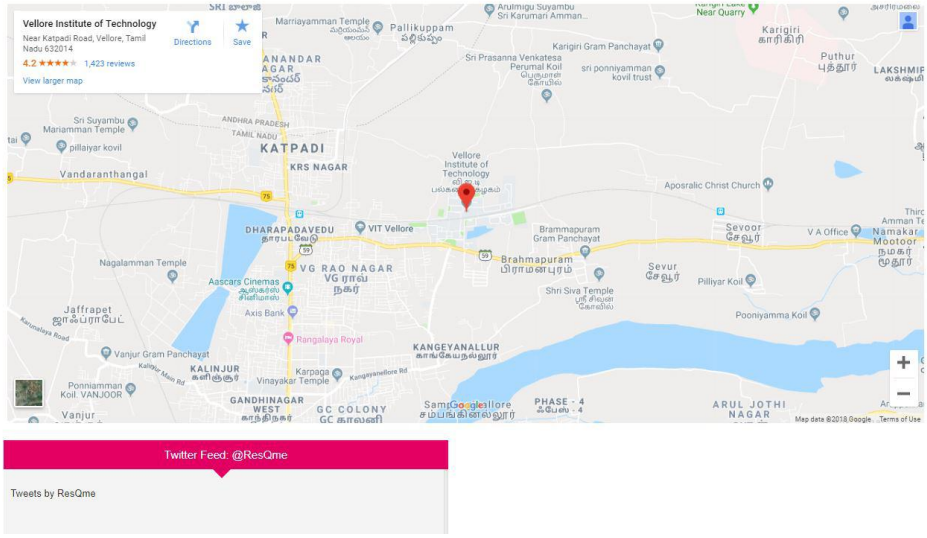
PARTNERS

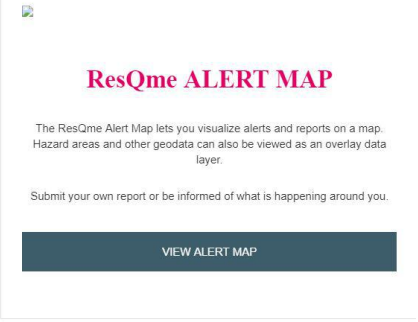
More Partners

ResQme is a collaborative platform that combines government action with civic engagement to help communities reduce risks and deal with climate change and natural hazards. Using mobile and web technologies and social media, it ensures the flow of critical and actionable information to those who need it before, during, and after disasters and connects those who need help directly with those who can truly help.

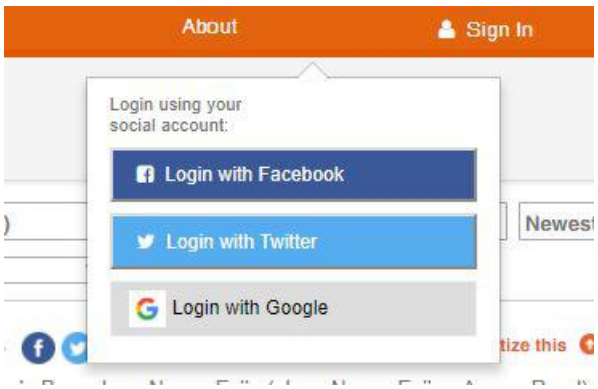
RESPOND

During times of crisis, information is as critical as food and shelter. Learn how to better respond to a disaster and know about the people who pud their lives on the line to save others. Help crowdsource and communicate critical information that could save lives.

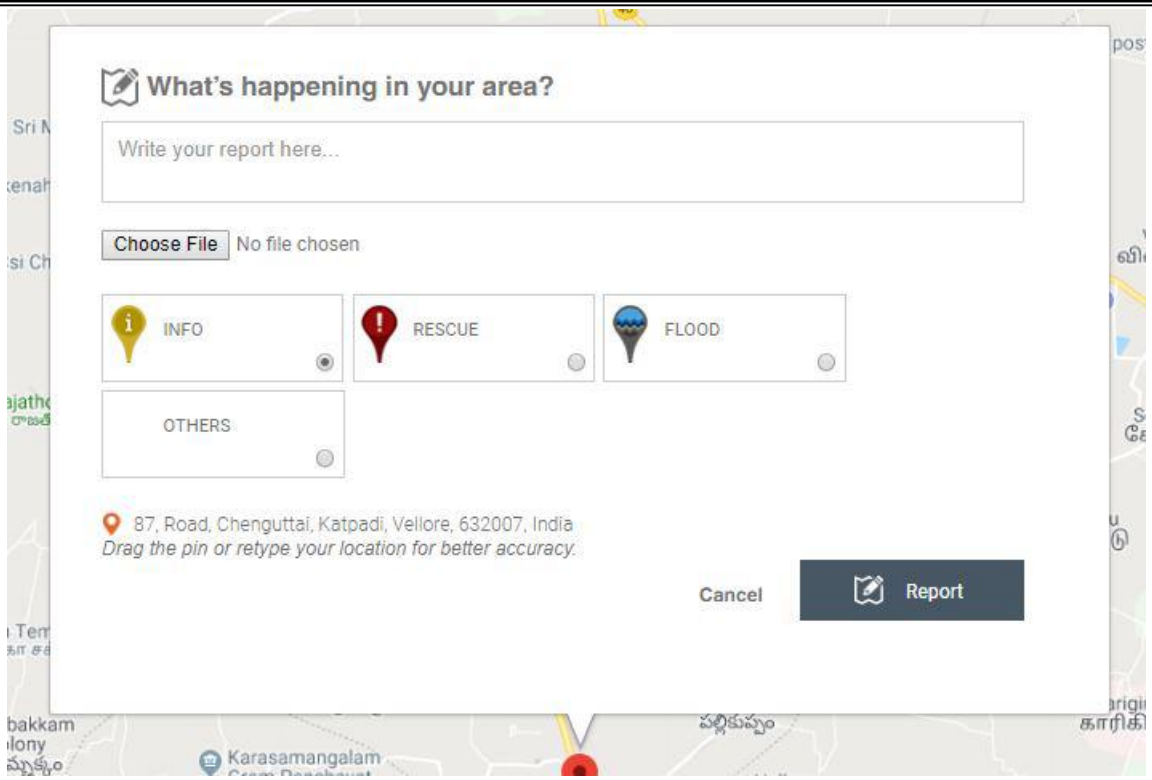




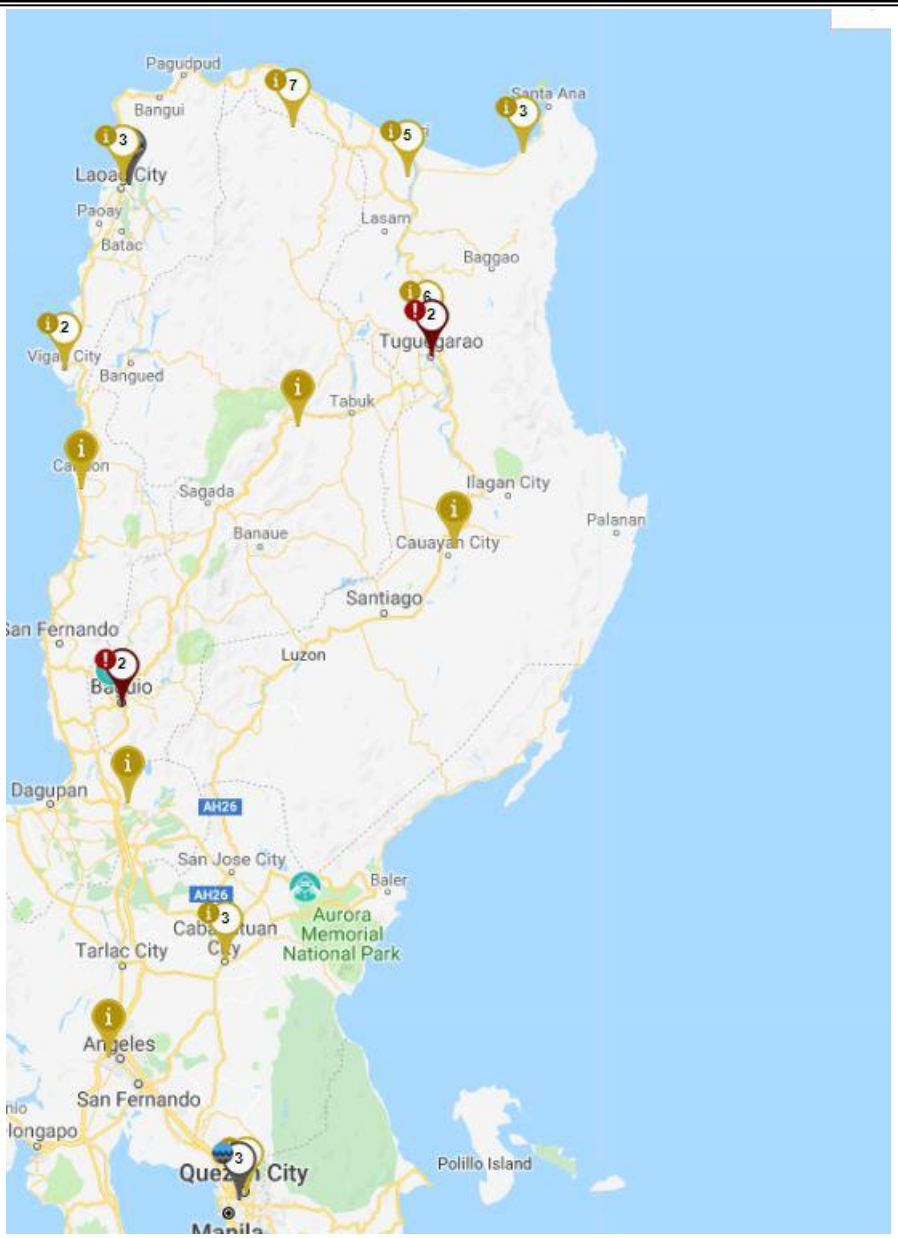
Live twitter feeds can be seen to get information about the rescue progress, who all are saved.



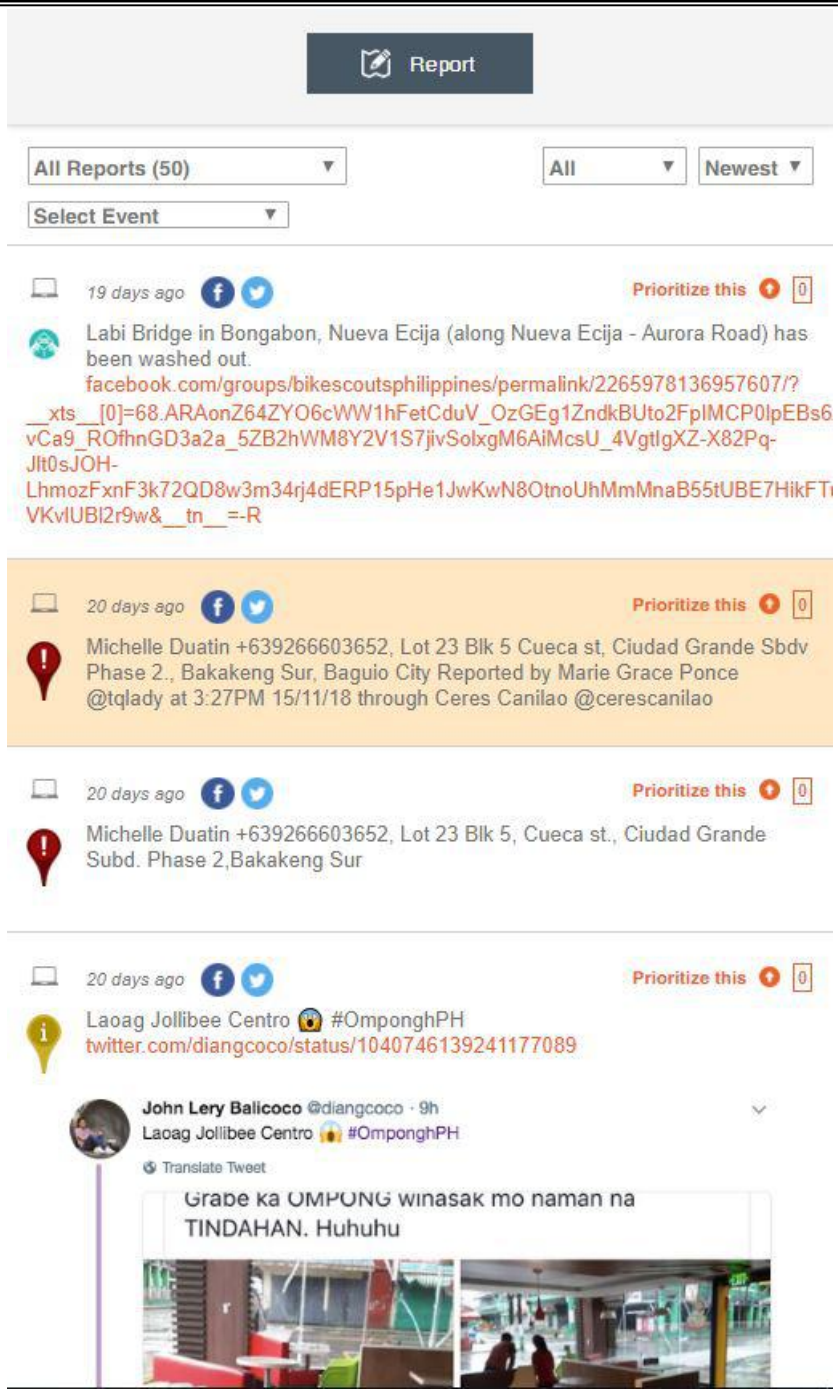
Login using your social media account


What's happening in your area?
Write your report here...
Choose File
No file chosen
INFO
RESCUE
FLOOD
OTHERS
87, Road, Chenguttai, Katpadi, Vellore, 632007, India
Drag the pin or retype your location for better accuracy.
Cancel
Report
Karasamangalam

Report Form


Pagudpud
Bangui
Laoag City
Paoay
Batac
Santa Ana
Lasam
Baggao
Tuguegarao
Vigan City
Bangued
Tabuk
Sagada
Banaue
Ilagan City
Palanan
Cauayan City
Santiago
Luzon
Dagupan
AH26
San Jose City
Baler
Aurora Memorial National Park
Tarlac City
Angeles
San Fernando
Polillo Island

Alert Map


Report
All Reports (50)
All
Newest
Select Event
19 days ago
Prioritize this
0
Labi Bridge in Bongabon, Nueva Ecija (along Nueva Ecija - Aurora Road) has been washed out.
facebook.com/groups/bikescoutsphilippines/permalink/2265978136957607/?__xts__[0]=68.ARAonZ64ZYO6cWW1hFetCduV_OzGEg1ZndkBUto2FpIMCP0lpEBs6vCa9_ROfhnGD3a2a_5ZB2hWM8Y2V1S7jivSolxgM6AiMcsU_4VgtlgXZ-X82Pq-Jlt0sJOH-LhmozFxnF3k72QD8w3m34rj4dERP15pHe1JwKwN8OtnoUhMmMnaB55tUBE7HikFTVKvlUBl2r9w&__tn__=-R
20 days ago
Prioritize this
0
Michelle Duatin +639266603652, Lot 23 Blk 5 Cueca st, Ciudad Grande Sbdv Phase 2., Bakakeng Sur, Baguio City Reported by Marie Grace Ponce @tqlady at 3:27PM 15/11/18 through Ceres Canilao @cerescanilao
20 days ago
Prioritize this
0
Michelle Duatin +639266603652, Lot 23 Blk 5, Cueca st., Ciudad Grande Subd. Phase 2,Bakakeng Sur
20 days ago
Prioritize this
0
Laoag Jollibee Centro #OmponghPH
twitter.com/diangcoco/status/1040746139241177089
John Lery Balicoco @diangcoco · 9h
Laoag Jollibee Centro #OmponghPH
Translate Tweet
Grabe ka OMPONG winasak mo naman na TINDAHAN. Huhuhu

Report Feed

20 days ago

Prioritize this 0

LOOK: A billboard collapsed in Vigan, Ilocos Sur due to strong winds brought by #OmpongPH. 📷: PDRRMC - Ilocos Sur

Information can be shared through pictures or videos.

CONCLUSION

Benefits

By the help of this platform we will be able to collaborate the government actions with civic engagement to help the people from natural disasters to respond and recover.

The Alert Map lets you visualize alerts and reports on a map. Hazard areas and other geodata can also be viewed as an overlay data layer.Submit your own report or be informed of what is happening around you. Our site will contain all the features such as Prepare for a disaster, How to respond/Rescue and recover from the disaster.

How can civil society organizations benefit from partnering with us?

It will teach how to use social media and technology effectively in their campaigns and programs. Through engaging stories and social media content, helps amplify best practices and inspiring stories online to millions of people.
Civil society organizations are very good sources of information and have on-ground experience working with communities.

Future Enhancement

Features can be added such as Artificial Intelligence so that the system can prioritize ,receive the messages and update the alert maps during the disaster that will help the ground team a lot. Alert map info can be used before the disaster. Moreover offline communications can also be introduced. More verified reports can be detected easily. We can also obtain the data of the disaster movement path and display it on the map.

References:-

- https://stackoverflow.com/questions/4294935/google-maps-api
- https://developers.google.com/maps
- https://www.programmableweb.com/category/crowdsourcing/api
- https://github.com/googlemaps/