

**REPUBLIQUE DU CAMEROON
PAIX-Travail-Patrie
MINISTRE DE L'ENSEIGNEMENT
SUPERIEUR**



**REPUBLIC OF CAMEROON
Peace-Work-Fatherland
MINISTER OF HIGHER
EDUCATION**

**FACULTE DE L'ENGINERIE
ET TECHGNOLOGIE**

**FACULTY OF ENGINEERING
AND TECHNOLOGY**

******* UNIVERSITY OF BUEA *******

**DEPARTMENT OF COMPUTER ENGINEERING
COURSE: INTERNET PROGRAMMING AND MOBILE
APPLICATIONS
COURSE CODE: CEF 440**

TASK 2

Facilitator: Dr. Valery Nkemeni

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GROUP MEMBERS

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REQUIREMENT GATHERING

Introduction

This is the process of collecting and analyzing and documenting and documenting the needs, expectations and constraints of a solution. It involves engaging with the stakeholders, users and subject matter experts to fully understand their objectives, problems and desired outcomes. In the same light, for our disaster management system, we took the same steps and everything is recorded in this report.

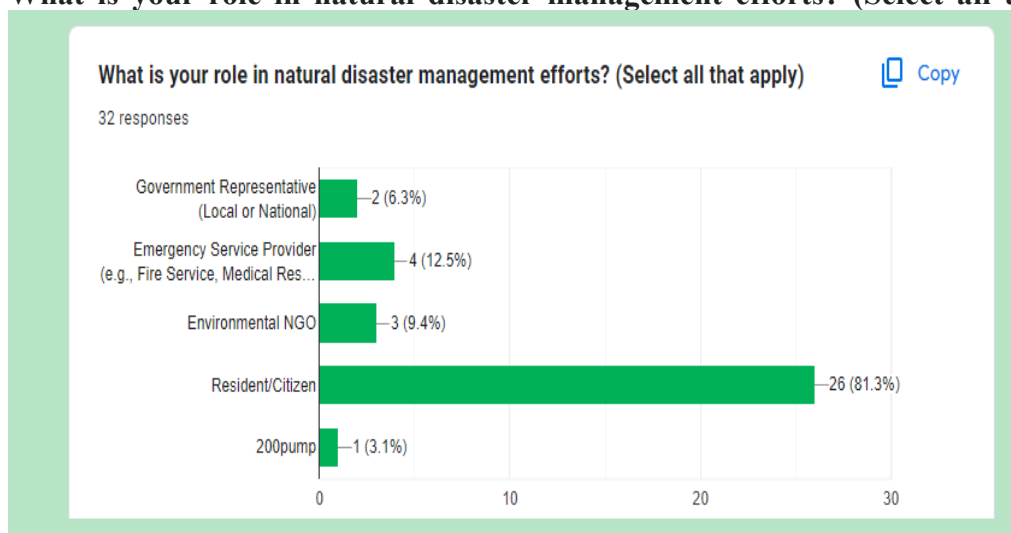
Methodology

To get the requirements needed for our disaster management system, we used Google Forms so we can get the opinions of our various stakeholders on how they want the app to look like and function. Eight questions were asked and thirty-two responses were recorded. In this report, we are going to show the response statistics of each question asked. The forms were sent out on the WhatsApp platform so that the stakeholders could fill. This is the link to the form that was used: [Link to form](#)

Summary of Findings

In this section, we are going to present all results gotten from each question.

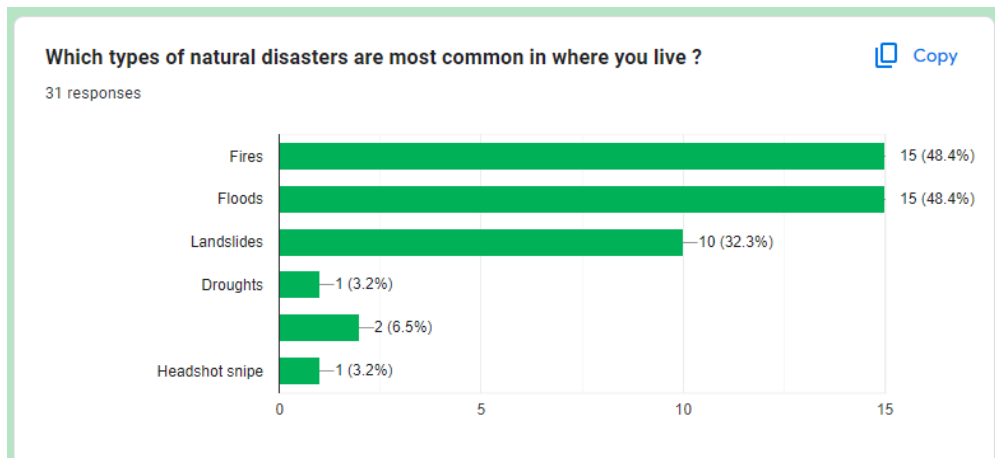
1. What is your role in natural disaster management efforts? (Select all that apply)



From this screenshot above, we identify our stakeholders to be :

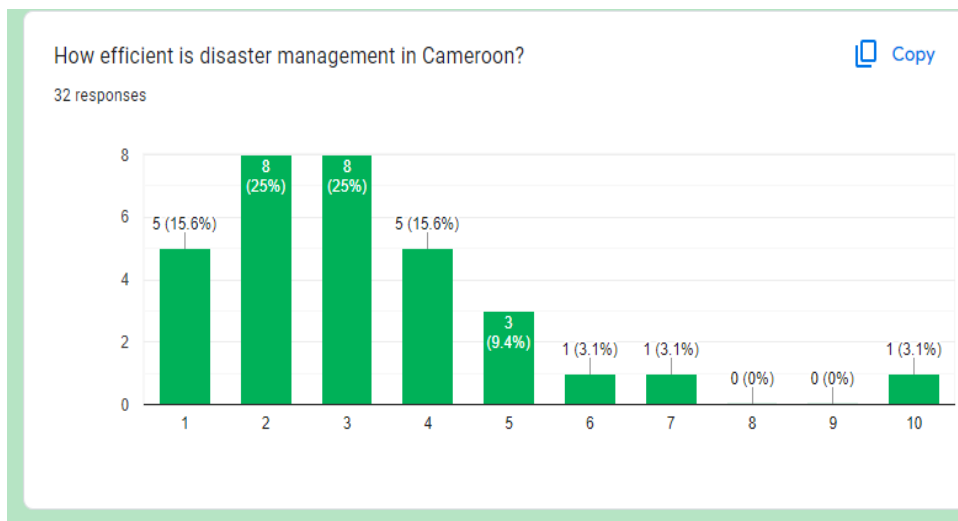
- Government Representatives
- Emergency Service Providers
- Environmental NGO's
- Residents/Citizens

2. Which types of disasters are most common where you live?



From the above screenshot, it shows that fire and floods are the most common disasters in Cameroon followed by landslides and drought.

3. How efficient is disaster management in Cameroon?



From the above screenshot we can conclude that Cameroon still needs a more efficient way to manage disasters although she is not doing a bad job since most people rated its efficiency using lower values.

4. What are the biggest challenges faced during natural disasters in Cameroon?

Out of the thirty-two people who were interviewed, twenty-eight people listed some of their challenges which are listed below:

How to prevent people from dying

The time to mitigate it is very slow. For example let's take a case of fire breakout, for the people in charge of handling it to come the disaster must have already damaged majority of things

Inability to prevent them.

Lack of equipment so stop the disaster from occurring

No rescue team

Death

No immediate response

Retaining valuables

Lost of families

People loss their homes

Way find it difficult to channel the disasters to the right authorities.

No Direct systems/personnel put in place to minimize damage, only things put in place arerhere to asses the situation and do nothing useful about it!!

Reintegration of victims

absence of fire fighters

Migration

Backstab

Bankolo

Famine

Protection of individuals and properties

Finding lost people

Insufficient materials to rescue the situation, poor construction planning

Resources and evacuation centers

Lack of facilities

Disorganization

It renders victims homeless

Loss of lives and houses .

Lost of properties

Non Asisstance

Let the app be easy to use and has main functionalities as ticked above

This app should be created in such a way that even those in Rural area can detect their own disaster.

Easy to use

Might share later

No

1. Simple and intuitive interface
2. Offline functionality
3. Lightweight and optimized
4. Multilingual support
5. Visual and audio content
6. Text-to-speech and voice commands
7. Contextual help and tutorials
8. Community engagement
9. Regular updates and maintenance
10. Collaborations with telecom providers
11. Real-time updates on disaster situations
12. Emergency contact directory
13. Hazard awareness and preparedness resources
14. SOS and panic button
15. Crowdsourcing and reporting capabilities
16. Offline maps and navigation
17. Family and community safety plans
18. Volunteer and donation opportunities
19. Social sharing and communication features
20. Accessibility features

Add Brazil servers

No

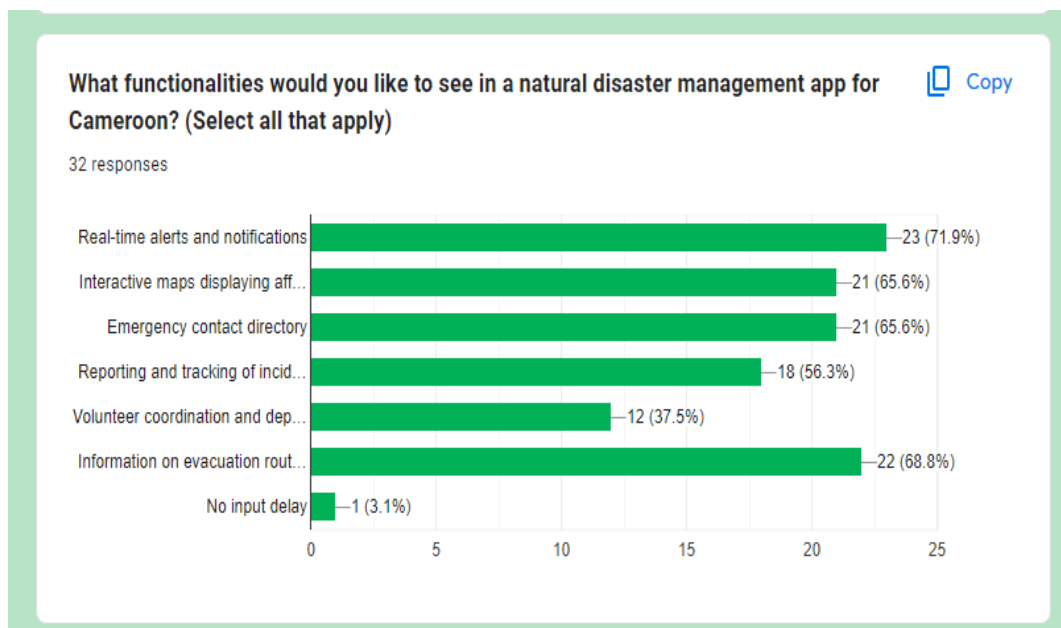
Very important is that citizens should be prevented from constructing on disaster zones
It should be able to keep track of people in disaster prone areas during a sudden breakout
such that even if they are unreachable we can still get to them and help them

No, that will be all.

It'll be advisable to make the app compatible on android , iOS and web systems .

Available everywhere and needs no connexion to be used

5. What functionalities would you like to see in a disaster management app for Cameroon.



6. How can the app be easy to use and accessible in places with limited resources.

Seventeen responses were gotten and are given below:

I don't know

They can easily get in touch of emergencies

By educating residents of the areas common to have natural disasters on how to use the app

It can have a place for donors or people that might want to contribute for the people facing these disasters

Reach out to the higher authorities of the area with smart phones, of which in it include the App , so that , any disaster can be detected .

Accessible to everybody

Should be easy to navigate under panic, should be responsive and reliable
By giving free connexion there and way to use it in era with risk of natural disaster
By making the app free
Have 0 ping

O

Government should provide standby materials in disaster zones

It will be able to serve as a guide to areas with more resources

Well, you could make it less complicated to operate for the population Also making the emergency contact directory very visible as it would be the first thing people should look for during a disaster.

Operate offline too Not really

Let the app be easy to use and has main functionalities as ticked above

This app should be created in such a way that even those in Rural area can detect their their own disaster.

Easy to use

Might share later

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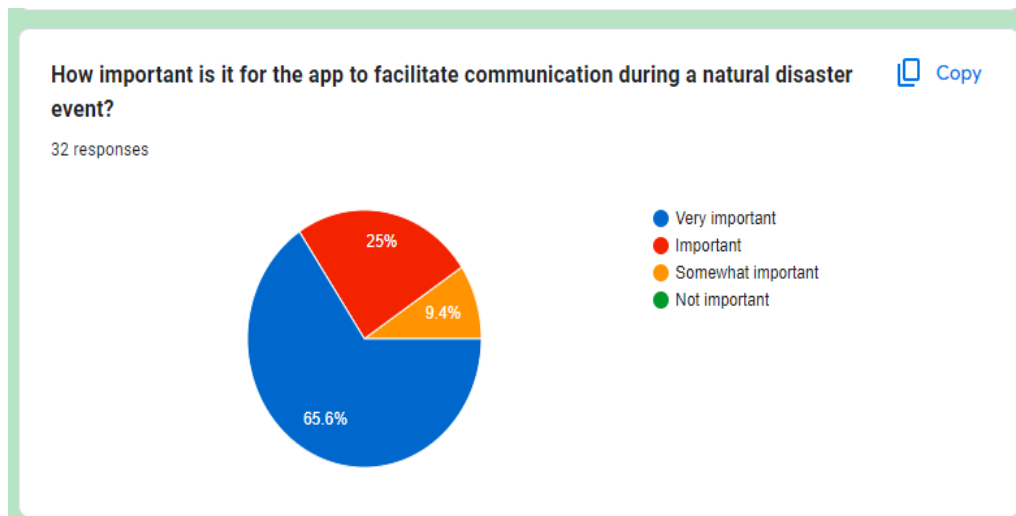
Add Brazil servers

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No, that will be all.
It'll be advisable to make the app compatible on android , iOS and web systems .
Available everywhere and needs no connexion to be used
Use the app freely

7. How important is it for the app to facilitate communication during a natural disaster event?



From the screenshot above, the majority of the respondents think that it is important for the app to facilitate communication during a natural disaster event with 65.6%.

8. Any additional comments for the design of the natural disaster management app for Cameroon?

Again, seventeen responses were gotten here and are listed below:

Not really

Let the app be easy to use and has main functionalities as ticked above

This app should be created in such a way that even those in Rural area can detect their their own disaster.

Easy to use

Might share later

No

1. Simple and intuitive interface 2. Offline functionality 3. Lightweight and optimized 4. Multilingual support 5. Visual and audio content 6. Text-to-speech and voice commands 7. Contextual help and tutorials 8. Community engagement 9. Regular updates and maintenance 10. Collaborations with telecom providers 11. Real-time updates on disaster situations 12. Emergency contact directory 13. Hazard awareness and preparedness resources 14. SOS and panic button 15. Crowdsourcing and reporting capabilities 16. Offline maps and navigation 17. Family and community safety plans 18. Volunteer and donation opportunities 19. Social sharing and communication features 20.

Accessibility features

Add Brazil servers

No

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No, that will be all. Not really

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Conclusion

Throughout this phase, we engaged with various stakeholders including emergency responders, local government officials, and community members to ensure a comprehensive understanding of the requirements. Key insights gathered indicate the necessity for real-time data integration, robust communication channels, and user-friendly interfaces that can be used under stressful and time-sensitive conditions. We have identified the critical features such as location-based services, push notifications for alerts, resource tracking, and multi-language support, which will enhance the app's effectiveness in managing diverse and dynamic disaster scenarios.