A. First team meeting

Date: 2nd April, 2025
Time: 10:15 pm

B. Name of Team/Group

Invincibles

C. Team's Agreed Problem Statement

Many residents of communities in the urban centre and coastal areas in the greater Accra region of Ghana are vulnerable to floods due to **limited Resilient Infrastructure** to Mitigate the challenge. Though flooding is a natural disaster that affects almost all parts of the region, the coastal areas and urban centres in the region are the worst hit and current infrastructure is often poorly equipped to withstand such events. As climate change accelerates, the frequency and severity of floods are increasing, leading to loss of lives, property, livelihoods and economies and destruction of the environment in the region.

The incidence of floods in the region is common during the rainy seasons where there is usually downpours for most part of the months in the year causing damage to properties, livelihoods and death of individuals. The worst affected are residents of the urban centres where drainage is poor due to improper housing. Climate change vulnerabilities countries all over the world are facing have made the situation unbearable.

Intervention such as construction of resilient infrastructure such as proper housing to withstand floods, well planned drainage systems, and sustainable urban planning of affected areas is critical. This measure is a long term solution and will be hindered by funding and bureaucracies. In the meantime the development of an App can play a major role in mitigating floods and flood-related challenges. This app will use Ghana

Meteorological Agency data to send localized flood warnings via push notifications or SMS, allow residents to report blocked drains, unregulated constructions with photos and geotags, Integrate GIS-based flood maps to show users flood-prone areas, enable access to emergency hotlines (Eg. NADMO) and educational tips on flood preparedness and survival etc. Due to challenges of poor internet and inadequate knowledge of use of technology by some residents, there would be offline access to educational resources, usage of compressed graphics, inclusion of multilingual voice/text content and the development of a USSD or SMS backup version for non-smartphone users.

By using technology and incorporating climate resilience into infrastructure development, we can better protect vulnerable communities in Ghana, minimize the impact of floods, and reduce long-term damage to people, economies, and ecosystems.

D. Team Roles

Hoyah Evans
Roles: UI/UX Researcher (Primary), UI/UX Designer (Primary), Data Analyst (Backup)
Abdul-Firdaws Saaka
Roles: Project Manager (Primary), Product Manager (Backup)

E. Schedule for Week 6 Meeting

Date: 9th April, 2025
Time: 10:00 pm

F. Data Visualisations of Problem Statement

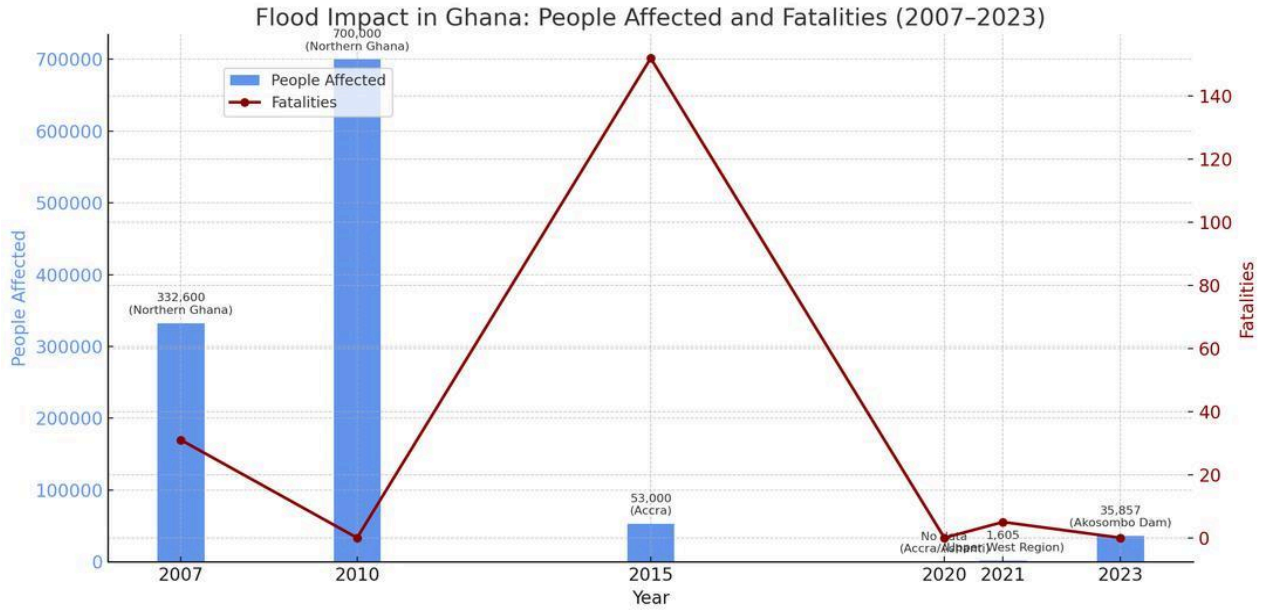


Figure 1: Impact of flood in Ghana

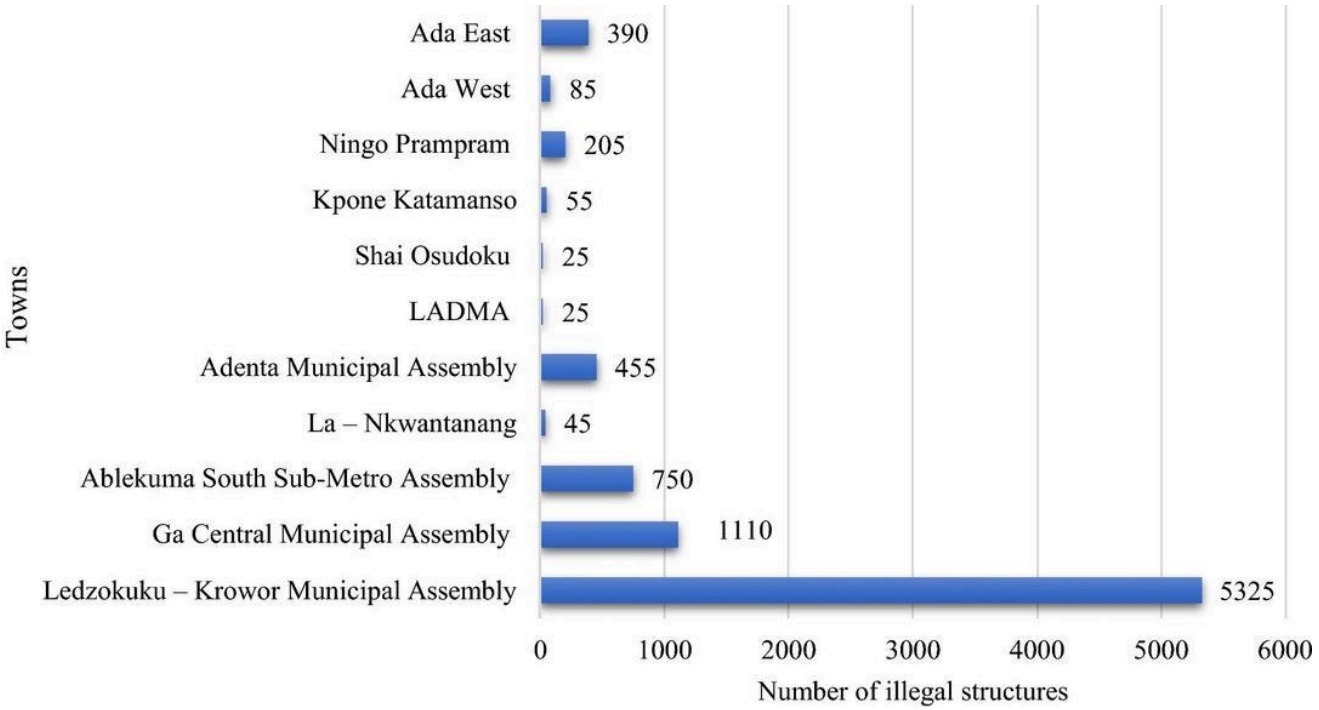


Figure 2: Illegal structures in the various areas in the Greater Accra

G. Action Items from Team Meeting

Research to get data for Analysis and visualisations, completion of remaining content on Savana and submission of milestone 5

H. Analysis of Data Visualisation

Figure 1 above shows the number of people affected by floods in the northern part of Ghana (332,600 people in 2007 and 700,000 people in 2010). Out of these numbers, there were more than 20 fatalities in 2007. The figure also shows 53,000 people were impacted by floods in 2015 in Accra with fatalities rising up to more than 14o that year.
Figure 2, on the other hand, shows the illegal structures in the various districts of the Greater Accra region. This clearly shows why the urban areas are worst hit by flooding. Ablekuma, Ga central and Ledzokuku-Krowor have the highest number of illegal structures in the region ranging from 750, 1110 and 5325 illegal structures respectively.

I. Reflection on Experience In Team and Team's Effectiveness so far based on the following:

1. What is working well in the team

The team is able to communicate and plan ahead on the circle App platform.

2. One good thing that happen during our Team's meeting

The good thing that happened during the meeting was that we were able to successfully agree on the problem statement to work with.

3. One thing our Team could do better in next meeting

Ensuring that we decide on a favorable date and time to hold the meeting so that all members can participate

4. Experience of Frustration

I am not experiencing any frustrations though there are challenges that need to be resolved in the group which I am sure we will overcome.

5. Ability to communicate with Team members on a scale of 1-4

3

6. Biggest concern about working with Team during phase two

My biggest concern is getting every team member to partake in our meetings.

7. How to address concern in point 7 above

Deliberate early to fix a favourable or convenient date and time

8. The one hope I have for my team during phase two

I am very hopeful we will get the work done and be successful in developing a tech solution for our stated problem.

9. Overall satisfaction of how my team is working together on a scale of 1-4.

3