Project Title: Natural Disaster Intensity Analysis & Classification AI

Problem-Solution fit canvas 2.0

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

The global GIS in disaster management market size stood at $2.3 billion in 2019, and it is expected to reach $9.4 billion by 2030, exhibiting a CAGR of 13.7% during the forecast period (2020 - 2030). The major factors supporting the growth of the industry include the surging number of natural disasters, strong focus of government and emergency management organizations on adopting advanced GIS solutions, high need for analyzing geospatial data, and increasing public awareness about reducing the socioeconomic impact of natural disasters.

6. CUSTOMER CONSTRAINTS — CC

Awareness, education, preparedness, and prediction and warning systems can reduce the disruptive impacts of a natural disaster on communities. Mitigation measures such as adoption of zoning, land-use practices, and building codes are needed, however, to prevent or reduce actual damage from hazards.

5. AVAILABLE SOLUTIONS — AS

Planning to warn the people which will minimize the effects of disasters .Recovery and reconstruction.

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Natural disasters can cause great damage on the environment, property, wildlife and human health. These events may include earthquakes, floods, hurricanes, tornadoes, tsunamis, landslides, wildfires, volcanic eruptions,extreme temperatures.

Property damage.

Structural damage to buildings.

Loss of utilities like electricity and water.

9. PROBLEM ROOT CAUSE — RC

The lack of resources and capacties (e.g., financial, human and technical) and a low level of knowledge an education emerged in all case studies as major root causes for several drivers of disaster risk.

7. BEHAVIOUR — BE

Analysis of public behavior plays an important role in crisis management, disaster response, and evacuation planning. Unfortunately, collecting relevant data can be costly and finding meaningful information for analysis is challenging. A growing number of Location-based Social Network services provides time-stamped, geo-located data that opens new opportunities and solutions to a wide range of challenges.

Identify strong TR & EM

3. TRIGGERS — TR

Large economic losts, reduced accumulation of capital and infrastructure, long recovery period after disasters.

4. EMOTIONS: BEFORE / AFTER — EM

Before the disaster, a positive association was found between place-identity and wellbeing, indicating that the stronger emotions participants evolved to the place, as well as remembered more and thought about the place, the stronger wellbeing they experienced at the site. After the disaster, the strength of this relationship decreased more than twice, accounted for by the weakening of the emotion-wellbeing link

10. YOUR SOLUTION — SL

Natural disasters cannot be prevented but they can be detected.
We can measure disaster risk by analysing trends of, for instance, previous disaster losses. These trends can help us to gauge whether disaster risk reduction is being effective. We can also estimate future losses by conducting a risk assessment.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

We demonstrate how to improve investigation by analyzing the extracted public behavior responses from social media before, during and after natural disasters, such as hurricanes and tornadoes.

8.2 OFFLINE

Dissemination of information from nearby Government agencies and NGO'S.