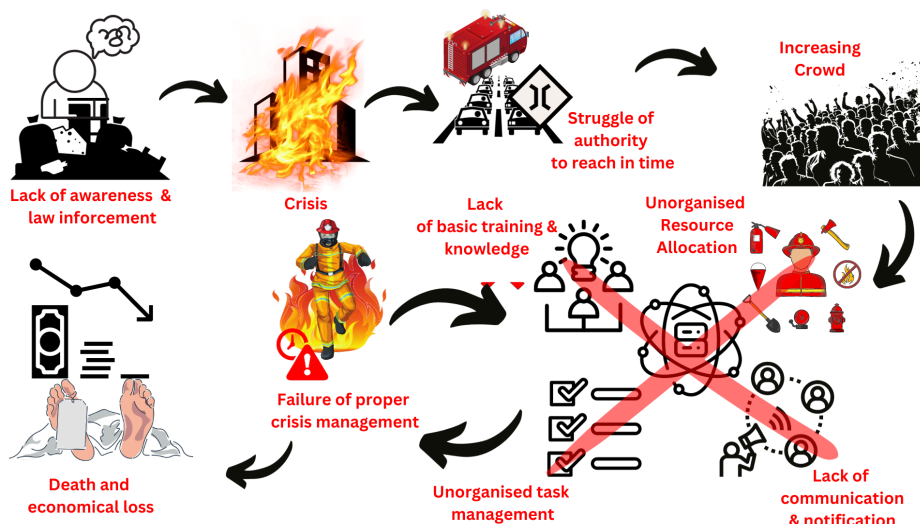


## Problem Statement:

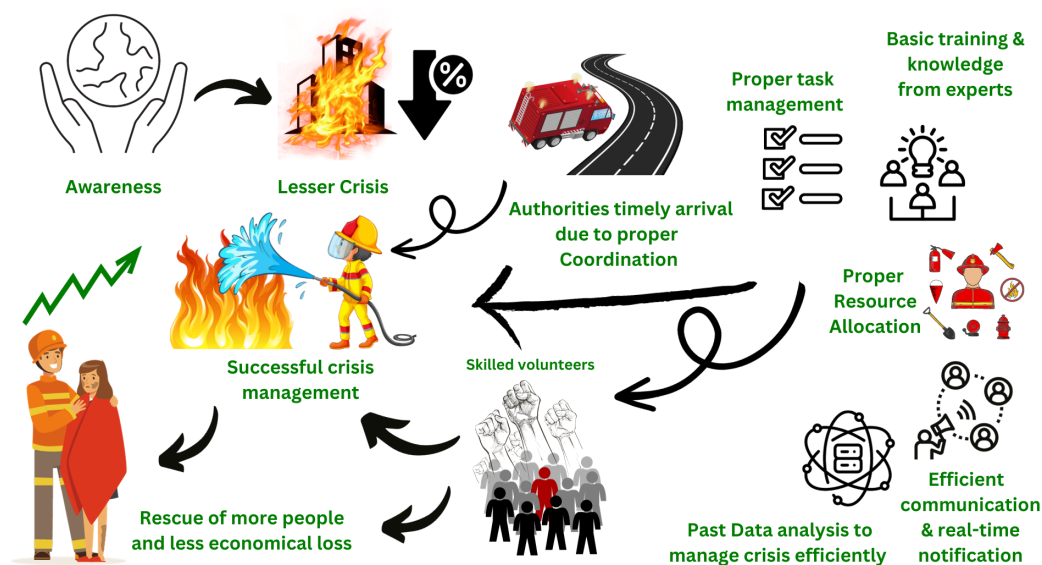
“While there was a shortage of water on the one hand, the enthusiastic crowd made the firefighting more challenging.” - Director of Fire Service and Civil Defence, Lt Col Mohammad Tajul Islam Chowdhury, Krishi Market Fire incident. (Source: Dhaka Tribune News, September 15, 2023). Such events underscore the need for multi-disciplinary approaches integrating resource planning, crowd management, real-time communication channels, and past incident analysis to help us build a proper Crisis response. According to data from the **Fire Service and Civil Defence**, around 285,000 fires occurred in the country between January 1, 1999, and December 31, 2020. Besides, the fire service data shows that at least 2,308 people were killed in fires across the country between 2004 and 2020. Although we have many people ready to help in times of these emergencies, we often face failure in crisis response and relief management. The reasons behind of the failures are:

- Credible information
- Traditional communication
- Proper Resource Allocation
- Proper Planning and Guideline
- Lack of basic training
- Public awareness
- Analysis simulation of past data



## Our Solution:

Our solution creates a proactive, tech-driven approach to fire hazard response by integrating trained community responders, IoT, GIS, and real-time data management. Instead of relying solely on traditional emergency services, we're building a network of trained local responders who are equipped to provide immediate support in the critical moments before formal aid arrives. We offer a holistic approach, addressing **preparedness, response, recovery, and mitigation**. This coordinated response empowers the local community, speeds up response times, and allows first responders to stabilise the situation and clear paths for official teams. Our solution redefines fire hazard response by creating a **digitally connected, self-sustaining responder network** that's faster, more local, and actively engaged in both preventative and reactive efforts. This combination of community empowerment, gamified engagement, and cutting-edge technology forms a seamless and highly adaptable solution that goes beyond traditional methods, making communities not just safer but actively prepared.



## Key Features

Preparedness	<ol style="list-style-type: none"><li>1. <b>Crisis Responder Dashboard &amp; Gamified Program:</b> A dynamic dashboard provides responder biodata, real-time coordination, and features like streaks and progress tracking. Levels from Crisis Cadet to Crisis Heroes motivate responders with training, certifications, and public recognition.</li><li>2. <b>Comprehensive Training &amp; Community Drills:</b> Online and offline training, including hands-on workshops, VR simulations, and local fire drills, equip responders and communities with essential fire response skills and familiarity with protocols.</li><li>3. <b>Automated Plans &amp; Resource Mapping:</b> CrisisCrew's automated crisis response plans, resource mapping and monthly safety checks ensure resources are accessible and preparedness is consistent across regions.</li><li>4. <b>Rapid Communication Network:</b> Connect IoT-enabled fire sensors to the CrisisCrew platform for a rapid communication system, where an LLM chatbot provides real-time guidance, updates, and community alerts to ensure coordinated responses.</li><li>5. <b>Data-Driven Insights &amp; Continuous Engagement:</b> AI-driven preparedness ratings for organizations, data analysis for strategic refinement, and gamified elements promote continuous improvement and readiness across the CrisisCrew community.</li></ol>
Response	<ol style="list-style-type: none"><li>1. <b>Real-Time Guidance &amp; Messaging:</b> CrisisCrew's smart chatbot provides real-time instructions, alert notifications, live updates, and IoT-based speaker announcements during fire events, ensuring responders receive precise, location-specific guidance.</li><li>2. <b>LLM-Driven Adaptive Response:</b> CrisisCrew collects live data from volunteers and responders during fires. This Fire data is processed through a large language model (LLM) to generate dynamic, context-aware instructions for responders, improving efficiency and safety as the situation evolves.</li><li>3. <b>Resource Tracking:</b> CrisisCrew tracks critical resources like hydrants and water bodies providing real-time availability and</li></ol>

	<p>offline navigation to responders for efficient resource allocation in low-connectivity areas.</p> <p>4. <b>Offline Map Feature:</b> CrisisCrew creates specialized offline maps for fire response, which are shared with responders and fire brigades via message. These maps provide critical information, such as escape routes and resource locations, ensuring effective response even in areas with no internet connectivity.</p>
<b>Recovery</b>	<p>1. <b>Emotional Support Networks:</b> Trained volunteers can provide crucial assistance to traumatized crisis victims, helping them navigate their emotional recovery.</p> <p>2. <b>Offline Damage Mapping for Efficient Recovery:</b> Generate an offline map to highlight critically damaged areas, noting severity and accessibility for quick recovery prioritization.</p>
<b>Mitigation</b>	<p>1. <b>Post-Event Analytics and Documentation:</b> After a crisis, detailed reports should track resource allocation, response effectiveness, and responder engagement. These documents are essential for identifying gaps and strengths in the response, helping to refine future preparedness plans and resource management.</p> <p>2. <b>Building Code Compliance Report and Fire Safety Upgrade Recommendations:</b> Generate a report assessing building code compliance, highlighting critical spaces needing fire safety upgrades. Recommend essential fire infrastructure installations, such as alarms, suppression systems, and accessible evacuation routes.</p> <p>3. <b>Community Awareness Forum:</b> Organise educational forums to raise awareness on fire prevention, safety practices, and preparedness within the community</p>

## Preparedness

1. **Crisis Responder Dashboard & Gamified Program:** A dynamic dashboard provides responder biodata, real-time coordination, and features like streaks and progress tracking. Levels from Crisis Cadet to Crisis Heroes motivate responders with training, certifications, and public recognition.
2. **Comprehensive Training & Community Drills:** Online and offline training, including hands-on workshops, VR simulations, and local fire drills, equip responders and communities with essential fire response skills and familiarity with protocols.
3. **Automated Plans & Resource Mapping:** CrisisCrew's automated crisis response plans, resource mapping and monthly safety checks ensure resources are accessible and preparedness is consistent across regions.
4. **Rapid Communication Network:** Connect IoT-enabled fire sensors to the CrisisCrew platform for a rapid communication system, where an LLM chatbot provides real-time guidance, updates, and community alerts to ensure coordinated responses.

	<p><b>5. Data-Driven Insights &amp; Continuous Engagement:</b>  AI-driven preparedness ratings for organizations, data analysis for strategic refinement, and gamified elements promote continuous improvement and readiness across the CrisisCrew community.</p>
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## Business Overview

### Market Size (Bangladesh Context)

#### Fire Safety Market Size in Bangladesh:

- Urbanization:** Bangladesh's rapid urbanization has led to a significant rise in high-rise buildings and densely populated commercial areas, which are often inadequately prepared for fire-related emergencies. Dhaka, for instance, has over 21 million residents, many living in crowded apartment complexes, which makes fire safety a pressing issue.
- Market Size:** The overall fire safety market, including safety equipment, fire drills, and consultancy services, is estimated to be worth BDT 400 million annually just in Dhaka. This market is growing as awareness of fire risks increases, but services remain scarce.
- Gaps:** While the Fire Service and Civil Defence (FSCD) is the government agency responsible for fire emergencies, their coverage is often limited due to resource constraints. This leaves room for private entities like CrisisCrew to provide more specialized services

# Customer Analysis

## Customer Segments:

### 1. Corporate Sector:

Focus on high-rise office buildings, factories, and hotels at risk for fires.

- **Target Size:** 10,000+ companies in Dhaka.
- **Price Point:** BDT 8,000–20,000/month.

### 2. Residential Sector:

Target apartment buildings and homes in Dhaka and Chittagong, where fire risk is significant.

- **Price Point:** BDT 3,000/month.

### 3. Government & Public Sector:

Schools, universities, and public institutions needing fire drills and preparedness.

- **Price Point:** BDT 1-2 million annually for training contracts.

### 4. NGOs & International Donors:

Partners like UNDP, Red Cross, and Bangladesh Red Crescent for large-scale fire management programs and help small NGO to get contractual support

- **Price Point:** Funding or contracts for disaster management programs.

## Business Model: Freemium Subscription Model

### Free Tier: "Crisis Responders"

**Aimed at volunteers and community members, the free tier includes:**

- 1. Community Membership:** Join and contribute as a CrisisCrew member
- 2. Dashboard:** Track personal progress with gamified features like levels, streaks, and learning goals.
- 3. Forum Access:** Connect, share tips, and ask questions with the community.
- 4. Recognition:** Get social media recognition to show your involvement.
- 5. Training:** Access online modules, earn skill levels, and complete a final community project.
- 6. Crisis Updates:** Receive offline alerts for fire emergencies.

## **7. Crisis Heroes Blog:** Inspiring stories featuring top responders.

### **Paid Tier: "Enterprise Solutions"**

Designed for businesses and organisations, this plan includes all the free features and other **key features** to help manage and respond to crises more effectively.

## **Revenue Model**

The revenue model for CrisisCrew focuses on offering disaster management services via multiple streams. These include subscriptions, on-demand services, training programs, and partnerships with governmental and non-governmental organizations.

### **Primary Revenue Streams:**

#### **Subscription-Based Services:**

Monthly or yearly subscription fees for fire safety including training, consultation, and on-site support.

For instance, fire safety services will be priced at BDT 7,000/month for medium-sized businesses and BDT 15,000/month for larger companies.

#### **Training & Certification Programs:**

Fire safety training will be provided for corporate clients, with training fees of BDT 3,000 per employee. Larger groups may receive discounts.

After the second year, flood safety training will be offered, with pricing ranging from BDT 2,000 - BDT 5,000 per person.

## **Competitor Analysis**

### **Direct Competitors:**

**Fire Service and Civil Defence (FSCD):** FSCD is the government agency responsible for fire incidents, but it faces significant resource limitations and can be slow to respond in urban areas.

**Weakness:** Limited coverage of private sector needs and slow response times due to overextension of resources.

**Private Fire Safety Providers:** There are a few private companies offering fire safety training and equipment, but their reach is limited, and they lack full-service disaster management capabilities, especially in response operations. Examples include Fire Safety Bangladesh, which offers fire extinguishers, alarms, and training but does not offer active emergency response services.



**The Bangladesh Disaster Preparedness Centre (BDPC):** BDPC is Bangladesh's only national-level NGO dedicated solely to disaster preparedness. It uses a community-based approach complemented by advocacy, policy advice, and knowledge sharing.

**Weakness:** BDPC is inactive for a very long time as per their website.

**Indirect Competitors:**

**Insurance Companies:** Companies like Pragati Insurance and Green Delta provide fire and flood insurance but only compensate after damage has occurred, rather than helping prevent or manage disasters.

**Weakness:** Insurance does not provide real-time support or disaster risk reduction measures like CrisisCrew.