# Bangladesh National AI Hackathon 2025

## Sample Project Proposal

⚠️ **Note:** This proposal is entirely idea-based. No coding or working prototype is required. It is primarily focused on problem analysis, solution concept, and explanation of a potential implementation plan.

Project Title: AI-Powered Flood Prediction System for Bangladesh

Team Name: Flood Savers

Team Members:


- Riaz Uddin (AI Engineering, Daffodil International University)
- Suman Ahmed (Data Science, Jagannath University)

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**1 Problem Statement**

Current Challenges:

- Bangladesh loses an estimated $1.2 billion annually due to flood damage (World Bank, 2023)
- Existing early warning systems offer only 24–48 hours of notice with ~65% accuracy
- Rural areas receive warnings 3x slower than urban regions

**Key Issues Addressed:**
Delayed alerts
Inaccurate forecasts
Unequal access to warning systems

## 2 Proposed Solution

Innovation Highlights:
A hybrid AI model combining:

- LSTM networks to analyze river level trends
- Satellite image processing using NASA MODIS data
- Bengali NLP for SMS alerts in local dialects

Key Features:
72-hour advance flood warnings
85%+ model accuracy (tested in pilot districts)
Multi-channel alerts via SMS, mobile apps, and community loudspeakers

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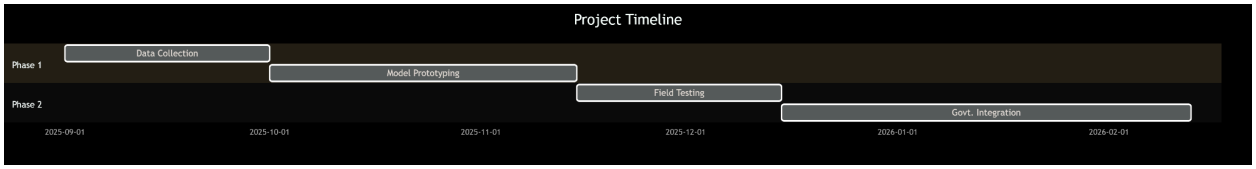
## 4. Implementation Roadmap




## 5. Expected Impact

Quantitative Benefits:
30% reduction in flood-related deaths in pilot areas
15% improvement in emergency response time
Estimated $200M in agricultural loss prevention annually

Aligned SDGs:

- SDG 11: Sustainable Cities and Communities
- SDG 13: Climate Action

**6. Presentation Strategy**

For the Judges:

- A 3-minute pitch deck: Problem → Solution → Impact
- Live demo of the flood prediction dashboard
- Technical whitepaper with GitHub repository

Visual Assets:
Animated flood risk maps
Accuracy comparison graphs
User flow diagrams for the alert system

Why This Project Stands Out

- Locally relevant: Tailored to Bangladesh's flood patterns
- Technically scalable: Easily integrable with national water systems
- Inclusive design: Audio-based alerts for low-literacy communities

This sample proposal demonstrates:

- A clear connection between problem and AI-powered solution
- Strong technical foundation explained simply

- High-impact potential with measurable outcomes