GenAI for Good CHALLENGE

AI-Powered Extreme Weather Advisor in Bangladesh

IEEE Humanitarian Technologies (IEEE HT) and the International Telecommunication Union (ITU) are harnessing generative AI to help rural communities in Bangladesh prepare for climate change through a weather advisor that improves resilience.

THE CHALLENGE

Bangladesh is among the world's most climate-vulnerable countries, where farmers face rising droughts, heatwaves, and erratic rains that endanger harvests and food security. Without new tools, rural communities risk losing crops, income, and economic opportunities.

EQUITY AT THE CORE

The advisor is designed for inclusion—especially for low-literacy users, rural farmers, and women. Multilingual access, voice features, and clear and unbiased interaction would ensure weather and safety advice reaches all users.

SCALING DIGITAL IN CLIMATE

Through the GenAI for Good Challenge, IEEE HT and ITU are seeking AI innovators to design and prototype an AI-powered advisor that can scale early warnings and preparedness. The envisioned solution would meet people where they are—through SMS, WhatsApp, social media, and voice—and could provide clear, evidence-based weather alerts, deliver personalized recommendations for farming and household safety, connect users to national meteorological services linked to global data, enable multilingual access for rural populations, and offer rapid-response messaging during droughts, heatwaves, and other emergencies.

When developed and deployed, this solution could:

- Provide localized early warnings to thousands of farmers and households
- Support drought and heatwave preparedness through clear steps
- Reduce crop losses and protect rural livelihoods
- Amplify the reach of trusted weather and disaster information services

Bangladesh is one of the first 30 countries selected for the UN's *Early Warnings for All* initiative, underscoring global priorities for climate action. The Bangladesh use case offers a model for scalable digital tools that deliver timely alerts to strengthen national preparedness

ABOUT THE CHALLENGE

The GenAI for Good Challenge is designed for innovators developing AI solutions that address urgent global challenges in health, agriculture, and climate resilience. The Bangladesh extreme weather advisor is one of three focus areas in 2025.

THE CHALLENGE PROCESS

Step 1 — Submit a written application for generative AI-driven solutions aligned to one of the defined use cases.

Step 2 — Selected teams advance to prototyping, applying open-source framework developed by ITU to design prototypes.

Step 3 — Teams refine solutions with input from technical experts and local stakeholders to ensure readiness and social and environmental impact.

Step 4 — Finalists present their prototypes to a panel of global judges and partners from the IEEE and ITU networks

Step 5 — Winning teams move into deployment planning with IEEE, ITU, and in-country partners and access up to $25k in grants.

Step 6 — Solutions are implemented in partnership with UN in-country offices, global partners, national ministries, and ITU local leads—depending on the focus area.

Reasons to join:

Tackle real-world problems.

Work on urgent challenges identified by UN agencies and local organizations—issues with immediate relevance in-country, not just theoretical use cases.

Deliver impact where it matters most.

Your solution has the potential to scale from local to national levels, creating meaningful change and improving lives on the ground.

Go beyond the lab.

Advance your solution in a real world setting with funding and a structured framework built for deployment and impact.

GET INVOLVED

Applications open October 7 and close December 1. To get started, visit the Challenge website or email GenAI4Good@ieee.org.

About IEEE Humanitarian Technologies (HT)
HT empowers volunteers and partners worldwide to apply technology ethically and effectively to address societal challenges—from local initiatives to global policy. Learn more at ieeeht.org.

About The International Telecommunication Union (ITU)
ITU is the United Nations agency for digital technologies, helping connect everyone, everywhere and shaping the digital future for all. Learn more at itu.int.

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