Ministry of Communications
& Information Technology

A Model of Circular Resilience: Smart Alert System (Mobile App or IoT Technologies)

ACTION PLAN 2025

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1. Background and Purpose

Background

- Samoa is highly vulnerable to natural disasters such as tropical cyclones, tsunamis, flooding, landslides, and droughts. The 2009 tsunami and Cyclone Evan (2012) highlighted the urgent need for rapid early warning systems that can reach all communities, including remote villages.

Purpose

- To establish a **Smart Alert System** in Samoa to provide **real-time, reliable, and localized disaster alerts**. This system will strengthen disaster preparedness, enable faster evacuation, and reduce loss of lives and assets, while supporting Samoa's national priorities for climate resilience and disaster risk reduction.

2. Current Status and Issues

- **Disaster warnings are delayed or do not reach all villages in time.**
- **Existing systems are vulnerable to power cuts and communication breakdowns.**
- **Remote communities often lack timely updates during emergencies.**
- **No integrated multi-channel digital alert system**
- **Current frameworks depend heavily on manual alarm system and communication**

SWOT Analysis

Strength

- Government commitment to disaster preparedness; strong **Community-based networks**

Weakness

- Limited ICT infrastructure; high dependence on external funding and expertise

Opportunity

KOICA partnership for digital solutions

- **use of IoT**
- **mobile apps for real-time alerts**

Threat

- Frequent extreme weather events; risk of infrastructure failure (power, internet, telecom)

S W O T

Gap Analysis

Proposed Purpose:

Establish a nationwide Smart Alarming System integrated with existing meteorological and emergency services

Proposed Overall Goals:

Ensure uninterrupted, real-time, and localized disaster alerts for all Samoan communities

3. Improvement Strategy

Improving Samoa's Current Status

- Deploy smart alarming devices (solar sirens, IoT sensors & alert systems) in high-risk villages
- Integrate alerts with meteorology monitoring system.

Strategies for Cooperation

- Strengthen coordination between MCIT, Disaster Management Office (DMO), Meteorology Division and village councils
- Promote top-down leadership support and bottom-up village participation through awareness programs

Integration of Duties

- Combine disaster management roles across ministries with ICT-driven platforms to streamline communication

4. Specific Action Plan

- Establish a National Smart Alarming Framework under respective Ministries and Disaster Management Office (DMO)
- Mandate integration of smart alerting systems in disaster risk management policy
- Enhance capacity building through training and technology transfer
- Build community resilience by ensuring warnings are trusted and actionable

Steps

STEP 1
- Identify priority hazard zones and communication gaps

STEP 2
- Install and deploy pilot smart alert systems

STEP 3
- Integration with disaster communication center/hub

STEP 4
- Build technical capacity and run community awareness programs

5. Outline of the Action Plan

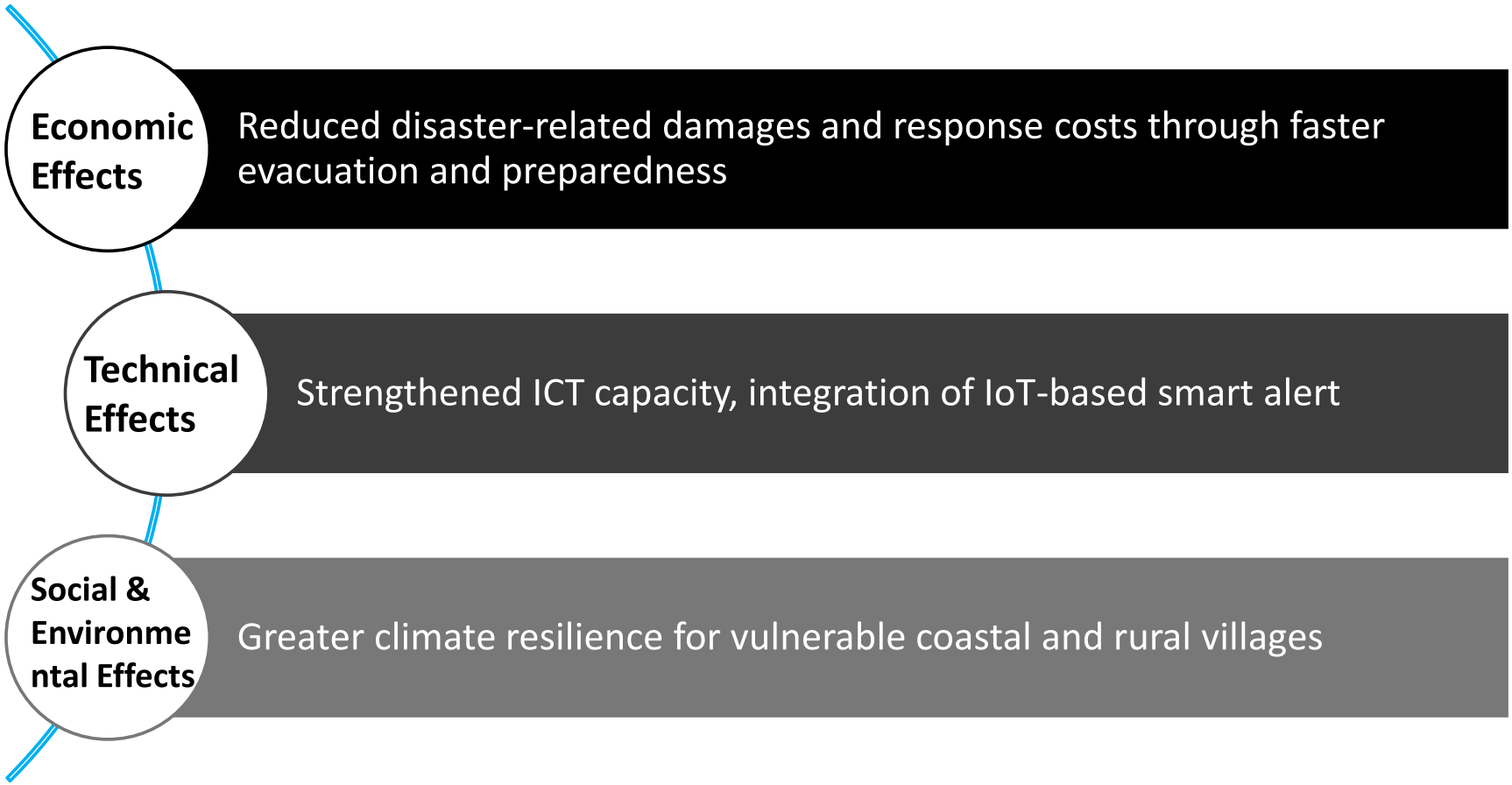
Name of Organization	Nature of the Organization	Major Functions
Ministry of Communication & Information Technology (MCIT) in collaboration with Disaster Management Office (DMO)	Government Ministries	ICT Development Digital Infrastructure Disaster Communication and public awareness

Duration of the Project

- **3 years (2026 – 2028) with phased implementation**



6. Expected Results – Outputs/Outcomes



Challenges and Risks

- Risk of technical failure during disasters
- Limited ICT literacy in rural aeras
- Sustainability of system maintenance after donor funding

Solutions

- Build redundancy (solar power, multiple alert channels)
- Continuous capacity building and community education
- Establish a maintenance and sustainability plan supported by government budget and regional partners

Thank You

Questions?