Terms of Reference

Cell Broadcast Readiness Assessment in Mozambique and Tajikistan

GSMA

The GSMA Mobile for Development Foundation, Inc. ("GSMA") is a U.S. 501(c)(3) charitable organisation that seeks to relieve poverty and improve living conditions throughout the world through identifying opportunities for social, economic and environmental impact and to stimulate the development of scalable, life-enhancing mobile services. GSMA M4D is a wholly owned subsidiary of GSM Association ("GSMA").

The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with more than 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai and the Mobile 360 Series conferences. For more information, please visit the GSMA corporate website at www.gsma.com. http://www.gsma.com/https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/ For this project, the successful Respondent will contract with the GSM Association ("GSMA").

Project Background

Early Warnings for All (EW4All)

The GSMA welcomed the UN Secretary General's Early Warnings for All (EW4All) initiative, with GSMA's Director General joining the high-level advisory board of this initiative, and M4H contributing to Pillar 3 on warning dissemination and communication. Through M4H, GSMA supports partners to develop and scale mobile-enabled early warning systems (EWS) with activities including but not limited to: engaging the mobile industry in the EWS plans and processes, providing technical guidance, policy engagement, convening and coordinating stakeholders, and promoting success stories on our global platforms. This project will focus on two countries where EW4All activities have been already initiated:

Mozambique is highly exposed to natural hazards, particularly floods, tropical cyclones, droughts and related public health emergencies. Its long coastline and exposure to weather systems from the Indian Ocean make timely public warning and last mile dissemination especially important. Recent Climate risk analysis also highlights Mozambique's exposure to rapid-onset and slow-onset climate events including storms, flooding, drought and extreme heat.[1]

[1] Climate Risk Country Profile – Mozambique

Tajikistan is also exposed to Natural hazards due to its mountainous terrain, seismic risk and climatic condition. Key hazards include earthquakes, floods, mudflows, landslides, rockfalls and avalanches. These risks make timely, geographically targeted early warning particularly relevant, especially for communities in remote, mountainous and hazard prone areas.[2]

Project Overview and Objectives

From January to April 2025, GSMA, in partnership with key stakeholders in Tanzania, conducted a comprehensive Cell Broadcast (CB) Readiness Assessment. The assessment examined both the alert generation and alert dissemination processes, evaluated the technical and regulatory environment for Cell Broadcast implementation, and identified gaps and recommendations to strengthen national emergency warning capabilities. The findings were presented to the Government of Tanzania to support informed decision-making and future implementation planning.

Building on the Tanzania experience, GSMA has since refined and adapted the Cell Broadcast Readiness Assessment methodology for application in other country and regional contexts, including Nepal, Madagascar, Kenya and Southern Africa region. These engagements have strengthened the assessment framework, making it more adaptable to different regulatory, institutional and technical environments.

This assignment represents the next phase of GSMA's support to governments in strengthening Cell Broadcast readiness in Mozambique and Tajikistan. While both countries will undergo a comprehensive assessment, the scope and level of effort will differ to reflect the maturity of existing work and available information. In Mozambique, the assignment will build on previous regional engagement and existing baseline information, allowing the consultant to focus on validating, updating and deepening the assessment where required. In Tajikistan, the consultant will undertake a full, country-level readiness assessment to establish a baseline of the institutional, regulatory and technical requirements for Cell Broadcast implementation. The National EW4All meeting in Tajikistan was held in 2023 and several initial steps have taken place. In May 2026, GSMA convened a session on emergency telecommunications and cell broadcast, discussing on the potential for Cell broadcast technology being implemented in the country. There was consensus to conduct a cell broadcast readiness study as the first step towards implementing Cell Broadcast technology in the country. The Telecommunications regulator (Communications Servies) will lead this project.

[2] Tajikistan preparedness and resilience to disasters project

Mozambique

As part of GSMA's regional engagement and partnership with CRASA, a useful foundation for understanding Mozambique's Cell Broadcast (CB) ecosystem has been collected, including baseline information on the mobile communications landscape, hazard risk profile, and the broader enabling environment for emergency warning systems. However, this work did not constitute a comprehensive, country-level Cell Broadcast Readiness Assessment.

This assignment will therefore build on the existing baseline rather than duplicate previous analyses. The consultant will be expected to validate and update the available information through engagement with key national stakeholders, including government institutions, the telecommunications regulator, and Mobile Network Operators (MNOs). The assessment should examine the institutional arrangements for alert generation and dissemination, review the legal, policy, and regulatory framework, including data privacy and sovereignty considerations, and identify sustainable implementation and financing options.

Furthermore, there might be potential funding opportunities for Mozambique to procure a cell broadcast system in the coming year. As a result, the final output should provide a comprehensive, country-specific readiness assessment (including a clear roadmap that reflects the country's institutional, regulatory, and technical context) and the technical spec the government could use to procure the Cell Broadcast solution in Mozambique.

Tajikistan

Tajikistan has an active national EWS process under EW4All, including the launch of EW4All in August 2023 and the adoption of a national EWS Roadmap in July 2024. Following the GSMA workshop in May, the stakeholders are aligned to work towards adopting Cell broadcast technology in the country

This assignment should explore how Cell Broadcast could support and underpin Tajikistan's multi-hazard early warning system, including through engagement with the relevant disaster management, hydrometeorological, telecommunications and mobile industry stakeholders.

Objective

The objective of this consultancy is to provide technical assistance to GSMA, MNOs and other key stakeholders to assess readiness to implement Cell Broadcast as part of mobile enabled early warning systems in Mozambique and Tajikistan.

- For Mozambique, the consultant will conduct a targeted country level deep dive building on GSMA - CRASA regional assessment, with emphasis on filling outstanding data gaps including policy and regulatory review, costing and validation.
- For Tajikistan, the consultant will conduct a full CB readiness assessment, including market overview, stakeholder engagement, technical assessment, policy and regulatory review, blueprint development, costing and validation.

Methodology

The consultant will follow a collaborative, step by step approach based on the GSMA CB Blueprint developed in Tanzania. GSMA will provide relevant background materials, including the Tanzania CB blueprint, the GSMA - CRASA Regional assessment and Mozambique country reports.

The methodology will combine desk review, stakeholder interviews, structured data collection, technical assessment of MNO infrastructure, review of emergency warning processes, policy and regulatory analysis, solution architecture, costing and validation through stakeholder workshops. For Mozambique this will be a targeted follow-on assessment focused on validating and completing CRASA assessment findings. For Tajikistani, this will be a full baseline readiness assessment covering all components.

Scope of Work / Services & Deliverables with high level timeline:

Refer below the scope of work for individual markets for the consultant to follow.

Component	Mozambique	Tajikistan
Key stakeholders to work with	GSMA, ITU / EW4All partners / INGD (national disaster management agency) /INCM (telecommunications regulator) / INAM (meteorological agency) where relevant, /all licensed MNOs, the World Bank emergency services, humanitarian, and other relevant national stakeholders.	GSMA, ITU/EW4All partners, Committee of Emergency Situations and Civil Defence, Communications Service under the Government of Tajikistan, hydrometeorological authority, all licensed MNOs, relevant ministries, humanitarian organisations and other national stakeholders to be confirmed during inception.
Component 1 - Market overview and gap review	- Review the Mozambique CRASA country report and regional report. Validate and complete existing data on MNO geographic coverage, 2G/3G/4G/5G technology coverage, market share, mobile penetration, smartphone and feature-phone split, mobile usage gap, current alerting policies and emergency telecommunications context. Focus on missing or incomplete data rather than duplicating completed CRASA analysis.	- Conduct a full desk review of the Tajikistan mobile market and emergency alerting environment, including MNO geographic coverage, technology coverage, market share, mobile penetration, smartphone and feature-phone split, mobile usage gap, current emergency alerting policies and existing alert dissemination channels. R - Develop a full country disaster risk profile, including priority hazards,

	- Validate and expand the country disaster risk profile already referenced in the CRASA assessment, including priority hazards, historical disaster impacts, seasonal patterns, geographic hotspots, existing hazard maps and implications of mobile coverage planning and CB alert targeting.	historical disaster impacts, seasonal patterns geographic hotspots, existing hazard maps, and implications for mobile coverage planning and CB alert targeting.
Deliverables / days	Updated Mozambique gap matrix and market overview, identifying what was covered under CRASA, what needs validation and what remains missing. **2days.**	Full Tajikistan market overview report (Russian), including coverage, technology, user base, usage gap and policy context**.** **3 days.**
Component 2 - Stakeholder engagement and inception	Hold targeted introductory calls with Mozambique stakeholders, with priority on INCM and the NDMO and any agencies not fully engaged during the regional assessment. Confirm SPOCs, validate scope and agree the data completion approach.	- Hold introductory calls with all key Tajikistan stakeholders. Present the project plan, confirm the stakeholder ecosystem, identify SPOCs and agree the data collection and engagement process.
Deliverables / days	Inception note, stakeholder map, confirmed SPOCs and updated workplan for Mozambique. 3 **days.**	- Inception note, stakeholder map, confirmed SPOCs and updated workplan for Tajikistan. **3 days**.
Component 3 - Data collection and technical readiness assessment	Complete missing data from NDMO, MNOs and INCM. Prioritise NDMO operating model, alert generation process, existing dissemination channels, CMC/NEOC capability, SOPs, activation thresholds, CAP use, language needs, GIS/hazard maps and links to MNO coverage. Validate MNO technical data, network generations, RAN vendors/nodes, CBC readiness, BCPs, outage resilience and cyber security requirements.	- Conduct full technical evaluation of existing MNO network readiness and emergency alerting processes. Assess MNO infrastructure, network generations, coverage, RAN vendors/nodes, potential CBC integration requirements, BCPs, outage resilience, cyber security requirements, data sovereignty considerations and device compatibility.
Deliverables / days	Mozambique CB readiness gap assessment, including updated data tables, technical gaps, operational gaps and recommendations to close gaps. **3 days.**	- Tajikistan CB readiness assessment (Russian), including technical, operational, regulatory and infrastructure gaps and actionable recommendations. **5 days.**
Component 4 - Policy, regulatory and institutional review	Review the legal, regulatory and institutional framework for CB EWS implementation in Mozambique. Focus on mandate, agency roles, obligations on MNOs, regulator role, data privacy, cyber security, cloud/data sovereignty, USF or other funding mechanisms and any regulatory instruments required to enable CBS.	- Conduct a full review of the legal, regulatory and institutional framework for CB EWS implementation in Tajikistan. Assess mandate, agency roles, obligations on MNOs, regulator role, data privacy, cyber security, cloud/data sovereignty, licensing implications, funding mechanisms and any regulatory instruments required to enable CBS.
Deliverables / days	Short policy and regulatory note for Mozambique, including issues requiring government or regulator action. **2 days**.	- Policy and regulatory note for Tajikistan, including issues requiring government or regulator action. **3 days.**
Component 5 - CB implementation blueprint and costing	Develop a country-level implementation pathway for Mozambique based on the CRASA findings and completed data. Include recommendation on centralised vs decentralised architecture, CBE/CBC operating model, hosting options, CAP and GIS requirements, device and language considerations, indicative CapEx/OpEx, funding options and phased next steps.	- Develop a full CB implementation blueprint for Tajikistan based on the Tanzania/Nepal model. Include recommendation on centralised vs decentralised architecture, CBE/CBC operating model, hosting options, CAP and GIS requirements, device and language considerations, indicative

		CapEx/OpEx, funding options and phased next steps.
Deliverables / days	Mozambique country-level CB implementation blueprint and costed roadmap. **3 days.**	- Tajikistan CB implementation blueprint and costed roadmap. **4 days.**
Component 6 - Stakeholder dissemination and validation workshop	Facilitate an in person validation workshop in Mozambique with relevant national stakeholders to present the draft readiness findings, validate the revised assessment, confirm the remaining gaps and agree next steps towards implementation. GSMA will support coordination of the workshop with national stakeholders and cover agreed venue-related costs separately.	- Facilitate an in-person validation workshop in Tajikistan with relevant national stakeholders to present the CB infrastructure gap assessment and blueprint, validate findings, define next steps for implementation and agree the ongoing stakeholder engagement process. GSMA will support coordination of the workshop with national stakeholders and cover agreed venue-related costs separately
Deliverables / days	Workshop presentation materials, facilitation plan, workshop summary, final Mozambique readiness report and document supporting the government to include the CB spec into the official tender. 4 **days.**	- Workshop presentation materials, facilitation plan, workshop summary, final Tajikistan readiness report and draft outline on CB solution to the government to submit to potential donors. **4 days.**
Total No of Days	17 Days	22 days

Other Requirements:

- All deliverables must be written in clear and concise UK English and submitted in formats agreed in advance with GSMA. The Tajikistan outputs have to be translated to Russian after the GSMA review.
- The consultant must demonstrate the ability to work effectively with country stakeholders and source materials in the relevant working languages for each country For Mozambique, Portuguese language capability is strongly preferred. For Tajikistan, Tajik and/or Russian language capability is strongly preferred.
- The consultant is expected to maintain regular communication with GSMA, including timely responses to emails and participation in scheduled coordination calls.
- Regular status updates will be required to report on progress against agreed activities and deliverables.
- The consultant must proactively flag any risks, delays, or issues that may impact delivery, and propose mitigation measures where relevant.

Relevant Experience and Expertise

Essential:

- Demonstrable track record of delivering similar assignments.
- Strong experience in early warning systems, emergency communications, or disaster risk management.
- Experience working with mobile network operators and telecoms industry and/or government stakeholders (e.g. Ministries of IT/telecoms, regulators, NDMOs).
- Understanding of mobile-enabled EWS approaches, including Cell Broadcast and other public warning dissemination channels.
- Proven ability to coordinate multi-stakeholder projects across government, private sector, and humanitarian actors.
- Strong analytical and reporting skills.
- Full professional proficiency in English, with the ability to produce high-quality written outputs in clear UK English.
- For Mozambique, Portuguese language capability is preferred, either within the proposed consultant team or through a clearly identified support arrangement.
- For Tajikistan, Tajik and/or Russian language capability would be a requirement, either within the proposed consultant team or through a clearly identified support arrangement.

Desired:

- An existing strong regional network, including members from multiple MNOs in the region.
- Relevant local experience and additional relevant language proficiencies.

Proposals Requirements

Technical proposal:

1. A short (1 page) statement of suitability, highlighting relevant experience.
2. A short (1-2 page) discussion of the proposed approach and methodology for delivering the scope of work, including:
    a. Approach to stakeholder engagement and coordination
    b. Approach to analysing EWS systems and enabling environments
    c. Approach to model design and validation
    d. Consideration of regional context and best practices
3. Any proposed changes to this ToR.
4. CV and location of the proposed consultant(s)

Financial proposal:

1. Daily rate (GBP)
2. Total detailed project cost (GBP), excluding VAT[1].
    a. The Total Price should be inclusive of all costs, insurances, fees, costs, expenses, liabilities, obligations, risks, and all financial requirements associated with the delivery of the services and outputs.

Evaluation Criteria

The proposal will be scored based on:

Criteria	Importance	Weighting
Cost	Proposal's value for money	20%
Quality	Quality and clarity of the proposed approach	35%
Capacity to deliver on time and on budget	Demonstrated expertise in CB technology and EWS best practices, with a thorough understanding of mobile network technology and infrastructure capabilities for emergency communication. Proven ability to manage projects efficiently, ensuring completion on time and within budget.	30%
Relevant experience, regional expertise and language capability	Bidder's experience in successfully conducting similar projects. Experience working in Eurasia region including Tajikistan, SADC region, or comparable contexts. Demonstrate Portuguese capability for Mozambique and Tajik and/or Russian capability for Tajikistan.	15%

Proposals are to be submitted no later than **1700 (BST) on 31 July**. Electronic submission should not exceed more than 5 MB in size per email and should be sent to: cgitobu@gsma.com and nstetsenko@gsma.com.

Clarification questions can be sent to above emails.