Cell Broadcast for Early Warnings in Africa

A scalable opportunity to strengthen last-mile warning dissemination

94.1%
of the population covered by a mobile network

66%
of people aged 10 and over own a mobile phone

USD 80m
needed to fund Cell Broadcast in 27 African countries

THE OPPORTUNITY

Africa's extensive mobile connectivity creates a major opportunity to use existing infrastructure for life-saving warning dissemination. 94.1% of the population is covered by a mobile network and 66% of people aged 10 and over own a mobile phone, yet the continent does not currently have a fully operational national public warning system (PWS) based on Cell Broadcast. Demand for practical, scalable mobile warning solutions is growing as countries advance the Early Warnings for All initiative.

The immediate opportunity is to finance country-owned national public warning systems based on Cell Broadcast. The indicative investment need is approximately USD 80 million, covering capital expenditure and three years of operating expenditure.

INDICATIVE INVESTMENT NEEDS

USD 80 million

Capital expenditure(CAPEX) and three years of operating expenditure(OPEX) for 27 African countries

Estimates are preliminary and assume a nationwide, centralized solution in each country.

CAPEX covers a Common Alerting Protocol (CAP)-based public warning system for alert origination, the Cell Broadcast Entity (CBE), a centralized Cell Broadcast Centre (CBC) serving all mobile network operators, implementation and integration, capacity building and applicable radio access network (RAN) licences.

OPEX covers three years of cloud hosting, support and maintenance for the PWS/CBE and CBC.

Costs vary by the number of operators, technologies, and network size.

Cell Broadcast (CB) is a mobile network technology that delivers emergency warnings simultaneously to compatible phones within a defined target area.

Fast and geo-targeted — warnings can be issued within seconds to a defined target area

Resilient at scale — one-to-many transmission reaches millions of devices, including during high network demand

Automatic and accessible — no application, registration or personal data is required

Prominent and actionable — distinctive sounds and vibration attract attention; multilingual messages with clear instructions help people take action

AFRICA IMPLEMENTATION PIPELINE

ITU groups countries by how far their Cell Broadcast preparation has advanced, from those ready for near-term engagement to those still building the enabling foundations.

PIPELINE GROUP	COUNTRIES	BASIS FOR POSITIONING
Potential near-term engagement opportunities 12 countries	Angola, Cabo Verde, Comoros, Kenya, Lesotho, Mauritius, Rwanda, Senegal, Seychelles, Somalia, South Africa, and Zimbabwe	Advanced technical preparation and/or demonstrated country demand.
Readiness development pipeline 13 countries	Botswana, Chad, Republic of the Congo, Ethiopia, Gambia, Ghana, Madagascar, Malawi, Niger, São Tomé and Príncipe, Tanzania, Uganda, and Zambia	Documented national readiness or foundational work.
Enabling support and emerging preparedness 8 countries	Democratic Republic of the Congo, Djibouti, Eswatini, Liberia, Mauritania, Mozambique, Namibia, and South Sudan	Enabling support recorded; national pathway to be confirmed.

Data Source: ITU Facts and Figures 2025.