

Mobile technology in humanitarian action

**Submission to consultation on Australia's new
International Development policy**

Kimberly Brown, Head of Mobile for Humanitarian Innovation, kbrown@gsma.com

November 2022



The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

Find out more at [gsma.com](https://www.gsma.com)

***The GSMA Mobile for Development team** drives innovation in digital technology to reduce inequalities in our world by bringing together the mobile ecosystem, international partners, start-ups and governments. The M4D team has experts that drive financial inclusion, digital inclusion, humanitarian response and climate impact with focus on key themes like gender and local entrepreneurship.*

***The GSMA Mobile for Humanitarian Innovation programme, part of the Mobile for Development team,** works to accelerate the delivery and impact of digital humanitarian assistance. This is achieved by building a learning and research agenda to inform the future of digital humanitarian response, catalysing partnerships and innovation for new digital humanitarian services, advocating for enabling policy environments, monitoring and evaluating performance, disseminating insights and profiling achievements. The programme is supported by the UK Foreign, Commonwealth & Development Office.*

Learn more at www.gsma.com/m4h or contact us at m4h@gsma.com

Introduction

Against a backdrop of intertwining shocks of climate change, conflict and global displacement, Australia's new International Development Policy is an opportunity to **accelerate the transformative role that digital technology** is already playing in delivering effective humanitarian action. With most of the world covered by mobile networks, and increased reliance on digital technology as a result of the pandemic, there are enormous opportunities from the appropriate use of mobile technology.

The GSMA's Mobile for Humanitarian Innovation programme is funded by the UK government within the global trade association of the mobile industry and its Mobile for Development programme. Having reached 10 million people through accelerating the delivery and impact of digital humanitarian assistance, we have examples of how Australia can capitalize on **responsible public-private partnerships between the mobile industry and humanitarian agencies**. With increasing humanitarian need, the case for deeper, more coordinated relationships between multiple stakeholders including the private sector is ever more pressing. Investing in **digital humanitarian action offers a significant opportunity** in building resilience, better anticipating and responding effectively to disasters and conflict.

Key trends and challenges

Climate change is the most pressing existential challenge facing the world today and is a key driver of humanitarian need, along with related conflict and displacement. International actors agree that the Indo-Pacific region is on the "front line" of climate change,¹ as one of the most disaster-prone regions in the world. The threats facing the region from multiple hazards including rising sea levels, tropical cyclones, increasing air and sea temperatures, and changing rainfall patterns put the region at particular risk of social, economic, and political consequences. This includes increased food insecurity, climate-induced displacement, and in the most severe cases, the disappearance of nations all together.²

DFAT, fully aware of these challenges, projects that the **severity and frequency will only increase**.³ As storms increase in severity and sea levels rise, the global humanitarian community needs to be prepared for increasing humanitarian need and disaster relief both in the immediate aftermath of crises and for long-term displacement. Donors should consider how to better prepare, building resilience into

¹ <https://www.worldbank.org/content/dam/Worldbank/document/EAP/Pacific%20Islands/climate-change-pacific.pdf>

² https://www.dfat.gov.au/sites/default/files/pacific-risk-profile_pacific-region.pdf

³ https://www.dfat.gov.au/sites/default/files/pacific-risk-profile_pacific-region.pdf

systems and creating partnerships that can help governments better respond to these growing challenges.

Increasingly, our team sees **countries in the region are turning to technology to help**. GSMA's M4H programme has extensive experience responding to humanitarian challenges through mobile technology, including investing in mobile-enabled solutions, building partnerships to deliver digital humanitarian programmes at scale, and building a global research agenda to inform digital humanitarian action.

The role of mobile technology

What are the opportunities mobile technology can provide? Considering Australia's aims of: building effective, accountable states that can sustain their own development; enhancing states' and communities' resilience to shocks; and connecting with regional architecture, **mobile technologies can provide solutions on multiple levels**. Bringing together the power of technology with the operational capacity of humanitarian organisations and the sustainable systems of governments, the GSMA's Mobile for Humanitarian Innovation team has studied and capitalised on the potential of mobile technologies in emergency preparedness, response, and recovery.

Building connectivity as resilience

First, **mobile technology has a role to play in building resilience**. As mobile technology has spread around the world, connectivity has become an increasingly vital tool for people affected by crisis, as well as for humanitarian responders, and governments. It enables people to communicate with loved ones and access vital services and information, emergency responders to respond efficiently, and governments to coordinate and assess needs. Recognizing its essential role, donors must invest in connectivity itself as a form of aid and in ensuring the connectivity is resilient to increasing climate shocks, conflict, and displacement.

The M4H team supports the GSMA's mobile network operator members across the world to improve their disaster preparedness and response mechanisms. By helping operators to ensure their infrastructure can withstand shocks and that proper operational systems are in place to rebuild infrastructure when damaged, connectivity resilience can be improved.⁴ The GSMA brings operator members together under its [Humanitarian Connectivity Charter](#) to **share best practices in disaster resilience** and helps to link them to humanitarian organisations and governments to increase coordination.

In order to ensure the benefits of connectivity in the aftermath of shocks are equally felt, **it is also vital to close the digital divide**. Research by the GSMA's Digital Inclusion programme shows that women, people with disabilities, older people, and other marginalised groups are less likely to be able to access and use mobile

⁴ <https://www.gsma.com/mobilefordevelopment/resources/building-a-resilient-industry-how-mobile-network-operators-prepare-for-and-respond-to-natural-disasters/>

technology, and especially mobile internet, globally.⁵ To ensure benefits are equally felt, **the usage gap in mobile technology must be addressed by understanding and addressing the barriers they face.** In the GSMA's research this usually includes costs of handsets and bundles, charging capabilities, social barriers, low digital and functional literacy, know-your-customer and other regulatory barriers, safety and security concerns, and language barriers. Programming specifically to address contextually relevant barriers, identified through research, and focusing on marginalised groups, can help to reduce the usage gap.

At the same time, **the coverage gap remains a challenge in the Pacific region.** While 95% of the world is now covered by mobile networks, the Pacific region is home to some of the most challenging terrain in the world in terms of building and maintaining infrastructure. Small islands and areas with low population density, lack of road infrastructure, and challenges accessing energy to fuel towers all impact the commercial viability of building new infrastructure. **Donors have an opportunity to step in to help finance connectivity and explore alternative financing models to encourage the development of new towers.**

Anticipatory capacity

In addition to connectivity itself as a form of resilience building, mobile technology also has a role to play in **helping humanitarian organisations and governments anticipate natural hazards and conflicts.** Mobile technology can help to collect localised multi-hazard risk data to feed into early warning systems (EWS), as well as disseminate warnings to affected populations. In line with the UN Secretary General's goal of having everyone covered by an Early Warning System by 2027, **investing in EWS now and leveraging the opportunities mobile technologies present is vital.**⁶

Linked to EWS, the humanitarian system is increasingly focused on anticipatory action: solutions which anticipate potential humanitarian impacts and enable effective early response.⁷ With humanitarian needs on the rise, it is important for the global humanitarian community to shift to a model of using an array of tools to **anticipate oncoming crises and act early.** Appropriate technologies can help predict, with increasing degrees of certainty, the likelihood of many types of shocks. By pairing this detection capacity with preparatory steps humanitarian actors can take to mitigate damage and target relief, the humanitarian system can save lives and increase both the efficiency and the dignity with which aid is delivered.⁸

Mobile technology can be leveraged across the lifecycle of anticipatory action. The GSMA's M4H team has recently [launched a new round of innovation funding](#) to encourage the development of new use-cases, partnerships and business models in order to improve access to and the sustainability of digital-enabled solutions for those who are vulnerable to humanitarian crises. In the Pacific region, the GSMA has already supported Save the Children as they pre-position cash, leveraging

⁵ <https://www.gsma.com/r/somic/> ; <https://www.gsma.com/mobilefordevelopment/the-digital-worlds-of-displacement-affected-communities/>

⁶ <https://public.wmo.int/en/media/press-release/early-warnings-all-initiative-gains-momentum>

⁷ <https://www.gsma.com/mobilefordevelopment/uncategorized/the-gsma-innovation-fund-for-anticipatory-humanitarian-action/>

⁸ <https://www.unocha.org/our-work/humanitarian-financing/anticipatory-action>

Digicel's mobile money offering in Papua New Guinea to help displaced and climate-vulnerable communities in the event of a shock. These are the types of solutions, and partnerships, that the GSMA believes can **help build community and state resilience in the Pacific region**.

Response capabilities

Finally, mobile technology can play a key role in building response capabilities. In the event of humanitarian shocks, beyond the utility of connectivity as an end in itself, **mobile technology can also be used to better target humanitarian capacities**. For example, mobile technology can help to crowdsource information on flood damage, available aid, and need (e.g. FloodLight in Pakistan).⁹ Anonymised and aggregated call detail records can be leveraged to map population flows (e.g. Flowminder in Haiti).¹⁰ Mobile technology can be used in conjunction with drones to map and analyse humanitarian need as Nokia Saving Lives has illustrated in the Philippines.¹¹

The GSMA, leveraging expertise from both our Humanitarian and our Climate Tech teams, has seen a wide range of ways in which mobile technologies can be leveraged to help **humanitarian responses be more efficient, more effective, and more dignified**.

A central role for Australia in championing technology

Australia's leadership role in the region and influence in global humanitarian action places it in a strong position to champion the significant potential of greater digital transformation in the system of humanitarian preparedness and response. This points to a number of dimensions for Australia's future humanitarian role:

- Recognise the unique challenges and opportunities in the Indo-Pacific to support **context-appropriate humanitarian solutions** – with both significant penetration of mobile networks but also major inequalities between and within societies, exacerbated by complex geographical, political and economic factors
- Catalyse **partnerships between humanitarian actors and technology providers**, including the mobile industry to enable delivery of digital humanitarian action at scale

⁹ <https://pak-flood.usahidi.io/views/map>

¹⁰ <https://www.flowminder.org/>

¹¹ <https://www.gsma.com/mobilefordevelopment/blog/three-lessons-from-nokia-saving-lives-gsma-funded-innovation-project/>

- Champion the **central role of connectivity in humanitarian action in policy** discussions and through innovative business models to extend mobile coverage in remote and fragile locations
- **Support the efforts of disaster-affected governments** in the region to further effective mobile-based systems for hazard early warning and response
- Encourage and support mobile-based solutions where appropriate among DFAT funding partners, for example through **deployment of mobile money and digital cash and voucher assistance**
- Provide technical assistance in **setting up appropriate, ethical digital systems** to deliver dignified and effective humanitarian assistance