

GSMA Mobile for Development Climate Impact Narrative



Executive Summary

Across all of GSMA Mobile for Development (M4D) programmes we prioritise three key impact areas: gender inclusivity, climate change and, through the GSMA Innovation Fund mechanism, investment in scalable innovations. Within the realm of climate change, M4D has been working alongside donors for over a decade to support low-carbon and climate resilience digital solutions that leverage mobile technologies. Their goal is to harness the power of these technologies to create innovative pathways for mitigating emissions, bridging the adaptation gap and achieving the objectives outlined in the Paris Agreement.

To understand and assess our impact in each of these areas we've developed an impact narrative to identify the problems our programmes aim to tackle, shared outcomes and establish measurement approaches to assess impact at both program and portfolio levels. Critically this enables us to collect and analyse climate data, enabling a comprehensive understanding of M4D's climate work. Additionally, it facilitates continuous learning and data-driven adaptation by providing insights into M4D's contribution to impact and outcome-level changes.



Mobile for Development climate narrative

To understand and investigate our programmes' climate impact, the GSMA have developed an impact narrative for M4D's work. This, along with a set of indicators and approaches to collect and analyse climate data, creates a narrative of the GSMA's climate work, as well as facilitates ongoing learning and data-driven adaptation.

This impact narrative outlines the logic connecting the problem we're solving and how we're getting there and addresses four main questions:

- **What are our primary outcomes?**
- **Why is the intervention needed?**
- **Who we're trying to reach?**
- **How our interventions work towards positive change for end users?**



**PROBLEM
STATEMENTS**

**IMPACT
GROUPS**

ACTIVITIES

OUTCOMES

IMPACT

Main narrative

PROBLEM STATEMENTS

Low rates of financial inclusion

Low rates of financial inclusion and affordable financial services limit absorptive capacities of communities, women, farmers and marginalised groups

Data and skills

Lack of access to climate data, agricultural inputs and services inhibits communities' ability to anticipate climate events and adapt sustainably

Climate change awareness and behaviour change

Communities and farmers lack awareness of contributing factors to climate change and continue to practice unsustainable land and natural resource management (NRM)

Migration and urbanisation

Climate change causes increased forcible migration and rapid urbanisation, creating stress and pressure on vulnerable infrastructure and resources

High emission rates and low use of renewable energies in low- and middle-income countries (LMICs)

Leveraging mobile tech

Sectors do not leverage mobile technology to maximise potential benefits, increase efficiencies, mitigate risks and ensure dignity and sustainability

IMPACT GROUPS



Underserved groups



Communities



Governments

ACTIVITIES

Forging partnerships between governments, Mobile Network Operators (MNOs), innovators and service providers

Capacity building and digital literacy training

Supporting and funding innovative solutions to climate problems

Identifying and sharing best practice, generating insights and evidence

OUTCOMES

Increased access to essential and sustainable utilities and services, including renewable energy, through digital solutions

Reduced barriers to climate finance as a result of improved awareness and support for climate finance policies among key stakeholders, including government, investors, donors, MNOs, Mobile Money Providers (MMPs), Natural Resource Management (NRM), Financial Service Providers (FSPs), innovators and the tech sector

Improved government awareness, engagement and support for climate initiatives, including environmental sustainability

Households, including farmers, women and marginalised groups, are more resilient to climate change and shocks through access to climate information and inputs and affordable financial services

MNOs, governments, tech industry (including GSMA Innovation Fund grantees), investors, humanitarian and development organisations develop and implement digital technology and services to better address climate problems and support communities to anticipate, adapt, absorb and mitigate climate shocks

IMPACT



Households, communities and governments are resilient, able to anticipate, adapt to, absorb and mitigate climate shocks

Problem statements





Problem statements

<p>Low rates of financial inclusion</p>	<p>Low rates of financial inclusion and affordable financial services limit absorptive capacities of communities, women, farmers and marginalised groups.</p>	<p>production and expanding into rural areas. A lack of data on smallholder incomes and credit histories limits the ability of FSPs to accurately predict future cash flows and assess farmers' creditworthiness. Farmers often live in remote areas, which makes collecting and verifying this information costly, especially when the reward is unclear.</p>
<p>Data and skills</p>	<p>Rural communities and specifically women, are less likely to have access to mobile internet, and therefore financial services and climate information. Sub-Saharan Africa has the largest rural-urban gap, with rural populations 54% less likely to use mobile internet than their urban counterparts. Only 27% of adults living in rural areas use mobile internet, compared to 46% in the Middle East and North Africa and 49% in South Asia.</p>	<p>Lack of awareness of insurance services, largely due to the low penetration of financial services in rural areas. Even when farmers are aware of insurance, insufficient knowledge and understanding of financial services means they may not immediately trust the service provider or their ability to pay out a claim as promised. For farmers who are aware of insurance, they are only likely to use it if they understand how the service works and the value it offers.</p>
<p>Climate change awareness and behaviour change</p>	<p>Farmers are perceived as too high risk for investment by Financial Service Providers (FSPs). The agriculture sector is increasingly vulnerable to climate change and environmental risks, as well as market risks, such as price volatility and poor infrastructure. Most FSPs have little incentive to invest in gathering intelligence on agricultural</p>	<p></p>
<p>Migration and urbanisation</p>	<p></p>	<p></p>
<p>High emission rates and low use of renewable energies in LMICs</p>	<p></p>	<p></p>
<p>Leveraging mobile tech</p>	<p></p>	<p></p>

Problem statements

Low rates of financial inclusion	<p>Lack of access to climate data, agricultural inputs and services inhibits communities' ability to anticipate climate events and adapt sustainably.</p>	<p>Low levels of connectivity as a barrier to accessing information: Connectivity varies significantly by different socioeconomic groups and by country income levels, with:</p>
Data and skills	<p>Low cross-sector collaboration: Data availability is low due to poor collaboration and data sharing between extension services, private and public agricultural sector.</p>	<p>94% of the 'unconnected' living in LMICs.</p> <p>Adults in rural areas are still 33% less likely to use mobile internet.</p>
Climate change awareness and behaviour change	<p>Weather data is difficult to collect, verify and access. In LMICs, real-time and historical weather observational data are either difficult to obtain or simply do not exist. Where historical data exists, it is often hard to find, understand and apply to decision making.</p>	<p>Women in LMICs are 16% less likely to use mobile internet than men and progress in reducing the mobile internet gender gap has stalled</p>
Migration and urbanisation	<p>Digital literacy as a core challenge: low digital literacy among farmers and marginalised groups inhibits both the use of tech and the collection of reliable customer data. This is furthered by low connectivity in rural areas and high handset cost.</p>	<p>Across LMICs, the poorest 20% in terms of income are 49% less likely to access the internet than the richest 20%. At the end of 2021, only 20% of the population in LDCs were using mobile internet, compared to 55% in other LMICs (excluding LDCs).</p>
High emission rates and low use of renewable energies in LMICs	<p>Women and marginalised groups often do not have access to information and resources that can support climate-informed decision-making. Without access to these services, women and marginalised groups are excluded from information and services that could support the adaptation to and absorption of climate change and shocks.</p>	<p>Governments do not effectively prioritise climate change within national agendas and often lack capacity to adopt innovative and sustainable service delivery.</p>
Leveraging mobile tech		



Problem statements

Low rates of financial inclusion	<p>Communities and farmers lack awareness of contributing factors to climate change and continue to practice unsustainable land and natural resource management.</p> <p>Communities often have low awareness of climate change, its causes and consequences, and the value of biodiversity in sustainable livelihood and income generation.</p> <p>Households and communities have low awareness of healthy waste sorting and management practices. Waste is often not sorted at the end facility and is often dumped without proper environmental processing.</p> <p>Farmers have low elasticity to change traditional practices. With no financial security or safety nets, farmers are unable to invest in inputs (e.g. irrigation systems, refined seeds) to change practices that may not yield benefit for several seasons. Farmers may also have low awareness of alternative land practices and a lack of knowledge, inputs and financing to change traditional farming (e.g. little/no access to extension services).</p>
Data and skills	
Climate change awareness and behaviour change	
Migration and urbanisation	
High emission rates and low use of renewable energies in LMICs	
Leveraging mobile tech	

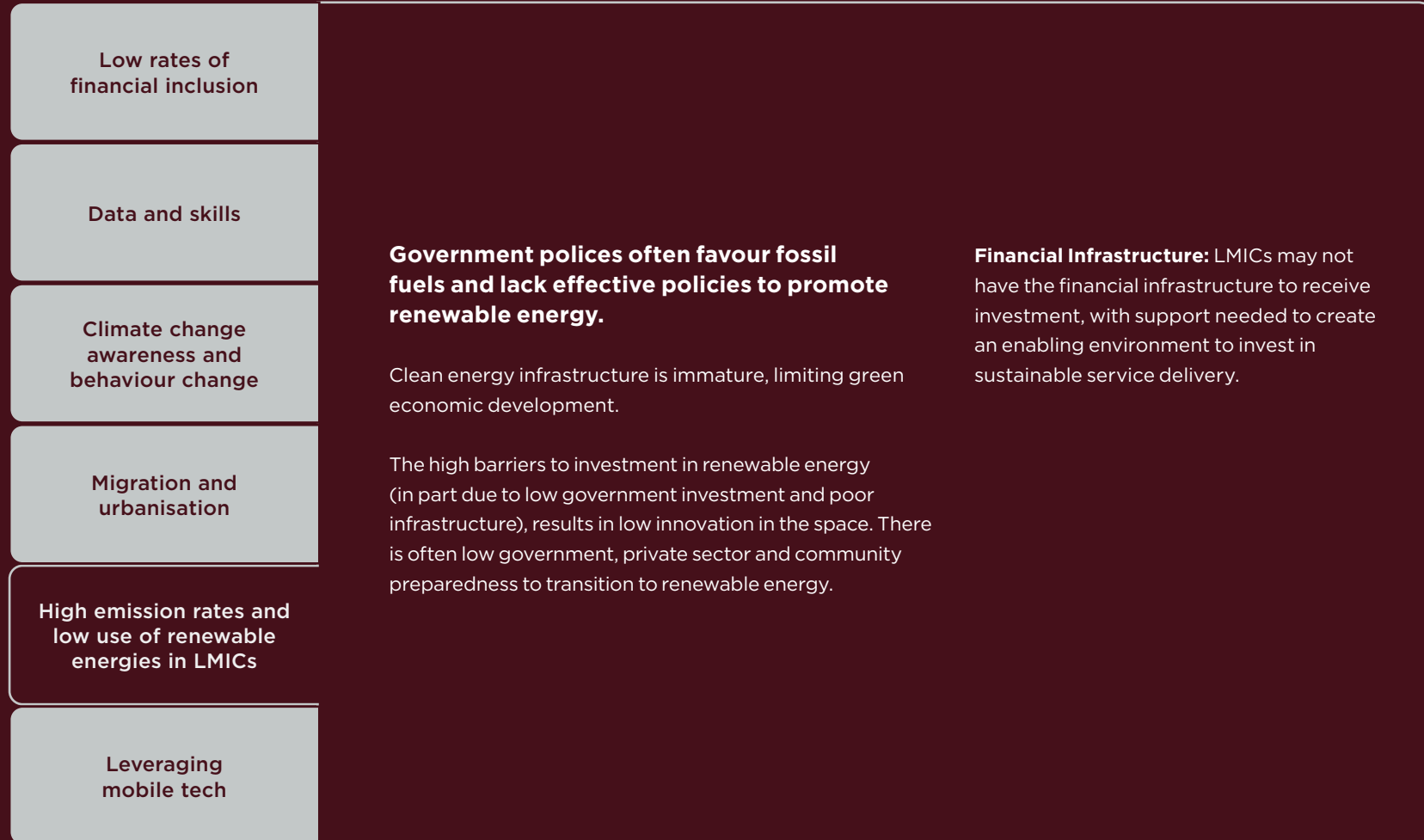


Problem statements

Low rates of financial inclusion	<p>Climate change causes increased forcible migration and rapid urbanisation, creating stress and pressure on vulnerable infrastructure and resources.</p> <p>Cities are experiencing high levels of population growth and rising spatial and material inequalities. This piles pressure on vulnerable infrastructure, increasing construction needs.</p> <p>Climate change disproportionately affects women, who are 80% of people forcibly displaced by climate-related disasters in developing countries, and they are more likely to die as a result of natural disasters like droughts, floods, and storms.</p> <p>Rapid urbanisation drives poor housing and informal settlements. Over 63% of the urban population in least-developed countries live in slums. Urbanisation without growth has important implications for a city's built environment and its long-term ability to provide basic services to its population. Poor urban planning</p> <p>means that cities are often ill-equipped to absorb growing populations, with informal settlements rising. This disproportionately impacts women - making up 80% of people forcibly displaced as a result of natural disasters.</p> <p>The cost of waste management is not passed on to consumers, driving high prices for government service delivery and low incentive for behaviour change at a community level.</p> <p>A lack of systems to provide population information and (confidentially and ethically) leverage data effectively to trace population movements to target aid, anticipate conflict, take appropriate mitigate measures and target populations with support.</p>
Data and skills	
Climate change awareness and behaviour change	
Migration and urbanisation	
High emission rates and low use of renewable energies in LMICs	
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Problem statements





Problem statements





Impact groups



M4D works with start-ups, MNOs and governments to achieve climate impact with three key groups



UNDERSERVED GROUPS



COMMUNITIES



GOVERNMENTS



M4D's impact groups incorporate different stakeholders



UNDERSERVED GROUPS

- Women
- Smallholder farmers
- Households living below the poverty line
- Persons with disabilities
- Displacement affected communities
- Emergency affected communities



COMMUNITIES

- Peri-urban communities
- Urban and rural areas
- The international development and humanitarian sector



GOVERNMENTS

- At a local, municipal, national, and regional level





UNDERSERVED GROUPS



COMMUNITIES



GOVERNMENTS



M4D's climate initiatives leverage technology to improve climate resilience and mitigation at multiple levels.

- These impact groups are where we intend to see longer-term improved climate resilience
- This can be either direct or indirect impact (e.g. working with government will ultimately benefit citizens, or working with agritechs will increase farmers' access to services)





UNDERSERVED GROUPS



COMMUNITIES



GOVERNMENTS



To reach these groups, we work directly with a key set of stakeholders

- These stakeholders are the direct beneficiaries of M4D's support. This can include delivering capacity building or training, strategic advisory, technical assistance, or sharing insights and evidence.
- This unlocks longer-term impact for underserved and marginalised groups by increasing access to services, building capacity and providing critical inputs to improve climate resilience. These groups include:



GOVERNMENTS

START-UPS /
INNOVATORS

MNOs



MMPs

NON-GOVERNMENTAL
ORGANISATIONS
(NGOS)

Activities





M4D works to address core climate problems*

PROBLEM STATEMENTS

IMPACT GROUPS

WATCH THE VIDEO

Low rates of financial inclusion



Data and skills



Climate change awareness and behaviour change



Migration and urbanisation



High emission rates and low use of renewable energies in LMICs



Leveraging mobile tech



<https://www.youtube.com/watch?v=jWWB9p656jo>



For over a decade, GSMA Mobile for Development (M4D), with funding from our donors, has supported many low-carbon and climate resilience digital solutions that rely on mobile technologies. Watch this video to find out how M4D works to leverage the power of mobile technologies to create the new mitigation and adaptation pathways that we need to bend the emissions curve, close the adaptation gap and realise the goals of the Paris Agreement.

*GSMA Climate Action Taskforce addresses other areas of climate, including industry net zero commitments and handset recycling

Activities



ACTIVITIES

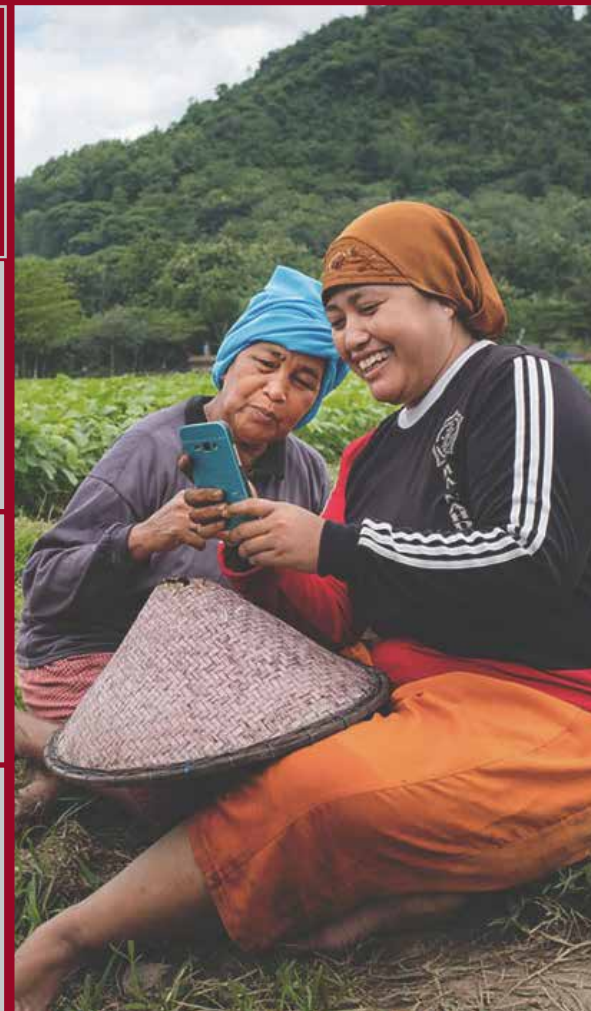
- Supporting stakeholders and MNOs to deliver digital skills training to women and underserved groups through strategic advisory, the GSMA Mobile Internet Skills Training Toolkit (MISTT) and commitment partnership initiatives
- Delivery of digital literacy and skills training to communities
- Training and capacity building support to government, FSPs and communities to increase awareness and use of climate finance
- Community education and awareness raising about sustainable practice in the waste management sector, sustainable practice in the energy sector and NRM

Capacity building and digital literacy training

Support and fund innovative solutions to climate problems

Forging partnerships between governments, MNOs, innovators and service providers

Identifying and sharing best practice, generating insights and evidence



OUTCOMES

IMPACT

Activities



Capacity building and digital literacy training

- Exploring business models, data collection and sharing models between stakeholders (e.g. agribusiness, agritechs and FSPs) for delivering financial services and climate-smart agriculture

Support and fund innovative solutions to climate problems

- Providing strategic advisory and guidance to public sector organisations and MNOs on digital adoption to increase climate impact

Forging partnerships between governments, MNOs, innovators and service providers

- Supporting innovators to leverage climate finance tools
- Providing technical assistance, capacity building and grant funding for organisations developing solutions and innovations for climate impact
- Forming partnerships and connections between innovators and MNOs

Identifying and sharing best practice, generating insights and evidence

- Developing and piloting technological solutions to support NRM, including coast mapping and improving network connectivity to enable climate investment in rural areas



ACTIVITIES

IMPACT GROUPS

PROBLEM STATEMENTS

OUTCOMES

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Activities



ACTIVITIES

- Facilitating collaborations that enable the development of accessible climate data, including weather services
- Fostering partnerships between mobile money providers and third parties that can provide vital services in response to climate change
- Partnering with thought leaders to evidence and execute best practice in the climate space

Capacity building and digital literacy training

Support and fund innovative solutions to climate problems

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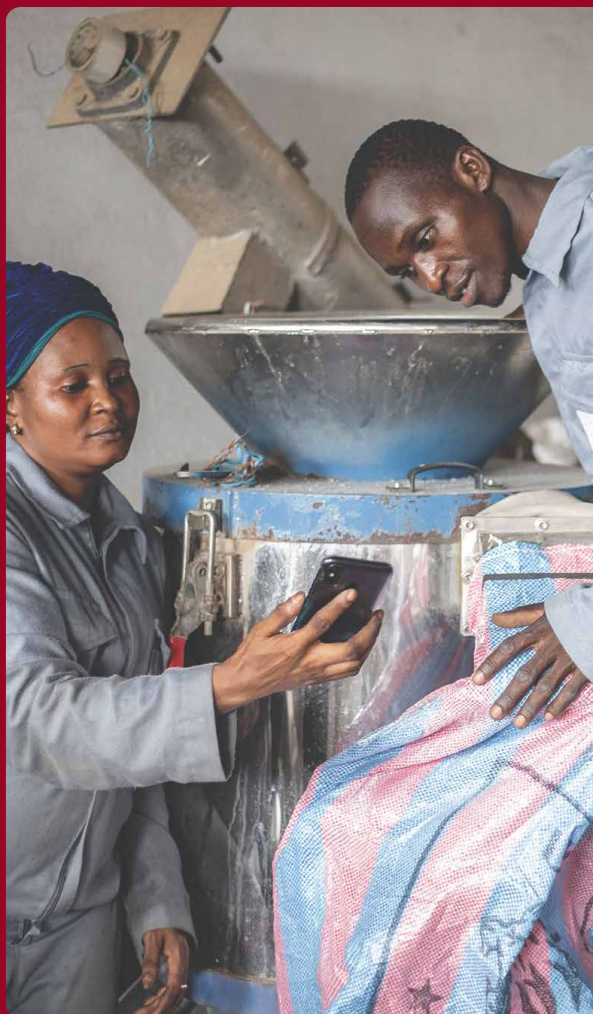
Identifying and sharing best practice, generating insights and evidence



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Capacity building and digital literacy training

Support and fund innovative solutions to climate problems

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Identifying and sharing best practice, generating insights and evidence

- Identifying best practice across programmes in climate finance approaches, such as climate smart agricultural input access, carbon credits, field-level data collection, climate finance and targeting specific under-served segments
- Sharing best practices, lessons learnt and examples of successful pilots across contexts
- Generating rigorous data and evidence on climate impact, women and Underserved groups' access to mobile and the use of mobile technology in Early Warning Systems (EWS) and anticipation of conflict and climate shock
- Data analytics to support FSPs by providing Know Your Customer (KYC) data on vulnerable communities to inform credit worthiness

ACTIVITIES



IMPACT GROUPS

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Outcomes



M4D programmes have 5 main climate outcomes

OUTCOMES

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PROBLEM STATEMENTS

Increased access to essential and sustainable utilities and services, including renewable energy, through digital solutions



SECTOR-LEVEL

MNOs, governments, tech industry (including Innovation Fund grantees), investors, humanitarian and development organisations develop and implement digital technology and services to better address climate problems and support communities to anticipate, adapt, absorb and mitigate climate shocks



SECTOR-LEVEL

Improved government awareness, engagement and support for climate initiatives incorporating digital technology, including environmental sustainability



GOVERNMENT-LEVEL

Households, including farmers, women and marginalised groups, are more resilient to climate change and shocks through increased climate awareness, inputs and affordable financial services



COMMUNITY-LEVEL

Reduced barriers to climate finance as a result of improved awareness and support for climate finance policies among key stakeholders, including government, investors, donors, MNOs, MMPs, FSPs, innovators and the tech sector



GOVERNMENT-LEVEL

- Supporting urban resilience by enabling access to sustainable essential utility services through digital solutions and innovative partnerships
- Active private and public energy sector, fuels investment in new technologies to increase access to renewable energy
- Increased access to and use of renewable energy in target communities
- Communities and government adopt digital solutions to energy, natural resource and waste management
- Improved access to and use of renewable energy at community level through technological solutions identified, develop and supported

M4D programmes have 5 main climate outcomes

OUTCOMES

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Impact





Households, communities and governments are resilient, able to **anticipate**, **adapt to**, **absorb** and **mitigate** climate shocks.

With thanks to our partners

This work is supported by The Bill & Melinda Gates Foundation, The Foreign, Commonwealth & Development Office of the United Kingdom Government, The German Corporation for International Cooperation (GIZ) and The Norwegian Agency for Development Cooperation (Norad), The Swedish International Development Cooperation Agency and supported by The GSMA and its members.

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Find out how GSMA Mobile for Development is driving digital innovation to create a low-carbon and climate resilient future



Find out more about GSMA Mobile for Development