

WOMEN AND THE PLANET - EARTH, AIR, WATER & SUN

WHY THIS MATTERS

Global economic losses from extreme weather disasters have averaged over US\$230 billion per year over the past decade. Disaster preparedness and resilience are critical to women's economic empowerment: women and girls are disproportionately affected by disasters, yet remain under-represented in resilience planning, recovery financing and economic continuity measures.

Extreme weather events are increasing in frequency and severity, with devastating economic consequences. Women, carrying a disproportionate share of household, care and food-security responsibilities in their communities, are an underutilized resource in disaster mitigation, preparedness, response and recovery. Extreme weather events can reverse years or decades of social and economic development gains. Formal and informal women-owned businesses are less likely to access post-disaster recovery resources; the cost is reflected in lost property, ended livelihoods and permanently changed economic trajectories.

The global insurance market reflects this strain directly. The global weather catastrophe protection gap (difference between economic losses and insurance cover) widened to US\$424 billion in 2025, with insurance penetration in emerging markets remaining far below advanced-market levels. In addition to existing disaster risk management techniques that lower mortality, financial loss, and infrastructure damage, closing this gap requires innovation-driven ways to address the needs of women (including those who are uninsurable due to institutional constraints).

THE CHALLENGE

- **Extreme weather** is intensifying, and women – carrying most household, care and food-security burdens – have less financial slack (savings, insurance, credit) to absorb shocks.
- **Women remain an underutilized critical resource** in disaster preparedness, mitigation, and recovery, rarely shaping the finance/early-warning systems meant to protect them.
- Approximately 38% of **women-owned informal businesses** are in food production, while most formal women-owned businesses are under- or uninsured, leaving much of women's economic activity outside any protection mechanism.
- 80% of women-owned businesses have **limited/no access to credit** (a \$1.7T global gap), since collateral requirements assume land/property ownership women often lack – the same barrier blocking disaster loans and insurance.
- Women-owned enterprises are less likely to **access post-disaster recovery funds**, turning temporary shocks into ended livelihoods and permanently altered economic trajectories.
- **AI-driven early warning**, parametric insurance and real-time risk scoring depend on mobile connectivity and digital financial access and literacy – but women in Low- and Middle-Income Countries (LMICs) are still 12-14% less likely than men to use mobile internet. Therefore, every AI/Earth Observation (AI/EO) tool must be built to be gender responsive.



W20
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ADVOCACY BRIEF
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THE RECOMMENDATIONS

To increase the representation of women in Disaster preparedness and resilience Planning, recovery financing, economic continuity measures and limit the disproportionate impact of climate disasters on women, G20 nations are recommended to:

- **AI & Innovation for Preparedness and Recovery:** Leverage AI and Earth-observation technology for early warning, enable access to finance and make individualized, real-time disaster risk assessment viable at a scale and cost previously unavailable – closing the protection gap in ways traditional insurance and financial tools alone cannot achieve.
- **Resilient Water Security and Sanitation:** Invest in decentralized, climate-resilient water and sanitation infrastructure and development-focused WASH policy that drives equity and durability– not emergency-only measures – to close the acceleration gap the UN estimates is needed to meet 2030 water and sanitation targets and improve disaster preparedness.
- **Infrastructure & Nature-Based Resilience:** Consider gender-responsive standards in public infrastructure investment and scale nature-based solutions – afforestation, wetland restoration and land rehabilitation – as cost-effective complements to build infrastructure.
- **Preparedness, Recovery and Economic Continuity:** Promote inclusion of contingent finance – such as insurance, precautionary saving, disaster grants and other risk-sharing mechanisms – in financial literacy programs, recognizing that rapid recovery depends on advance access to contingent finance.

GLOBAL SNAPSHOT

AI & Innovation for Preparedness and Recovery: Disasters now cost roughly \$2.3 trillion a year globally against a \$424 billion insurance protection gap, while only 60% of countries have a functioning early warning system (43% of small island states) despite proof that strong coverage cuts disaster mortality six- to eightfold. AI paired with satellite Earth observation is closing that gap by enabling real-time, individualized risk scoring – letting Mozambique receive a \$5.4 million automated payout within days of a 2025 disaster via African Risk Capacity and helping the World Bank's Global Shield Facility protect 4.2 million people (2.3 million women) in FY25. Digital access remains a challenge in developing countries; the approximately 810 million women who remain unconnected are excluded from mobile-delivered alerts and payouts these systems rely on.

Resilient Water Security and Sanitation: With 2.2 billion people still lacking safe drinking water and 3.4 billion lacking safe sanitation, meeting 2030 targets requires a significant increase in current progress on safely managed drinking water (UN-Water/JMP 2025). At current rates, sustainable water management won't be achieved until 2049. Decentralized, development-focused (rather than emergency-only) investment is the acceleration lever because the gap is disproportionately rural (eight out of ten people without basic water services live in rural areas) and gendered (women and girls spend 250 million hours a day collecting water, and a 1°C temperature rise reduces female-headed household income by 34% more than male-headed ones)

Infrastructure & Nature-Based Resilience: Nature-based solutions are strongly cost-effective versus grey infrastructure: a review of 402 observations across 87 studies confirms mangroves, wetlands and forests are consistently among the most effective disaster-risk measures. Building resilience into infrastructure adds only ~3% to project cost (UNDRR) yet returns \$11 saved per \$1 spent on hazard-resistant codes (FEMA/NIBS) and could avoid over \$600 billion in cumulative global disaster losses by 2060.

Preparedness, Recovery & Economic Continuity: Contingent finance access is a global gap: only 56% of adults in LMICs can access emergency funds within 30 days, and nearly 50% couldn't cover one month's expenses in a crisis. Approximately 700 million women globally still lack an account, and in several regions, women are 19+ points more likely than men to need help using one – a literacy/confidence gap that limits uptake of insurance and savings products. World Bank now tracks gender specific CDRFI indicators (e.g., % of women insured, % financially literate) as core to disaster recovery speed.

The W20 Plant - Earth, Air, Water and Sun full report, in the **W20 Guidebook for Policymakers**, presents additional recommendations, each accompanied by measurable targets, implementation metrics, and illustrative case studies to support adaptation and implementation across diverse national contexts.
www.Women20.org