FROM GROUND TO GLOBAL:

The Loss and Damage Dashboard for Climate Equity

Oxfam in Bangladesh and Oxfam Australia

AUGUST 2025

Sida OXFAM

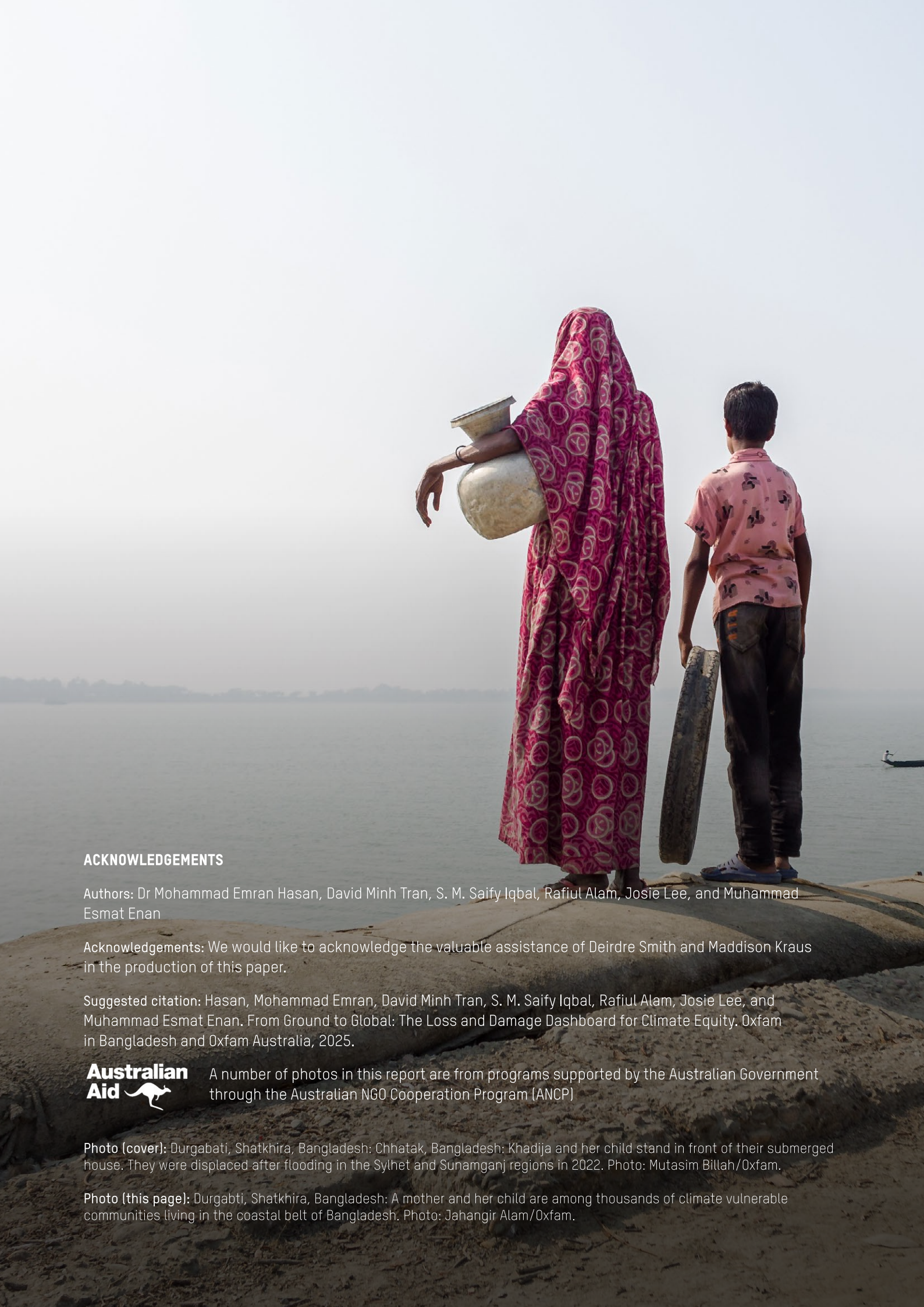

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Photo (cover): Durgabati, Shatkhira, Bangladesh: Chhatak, Bangladesh: Khadija and her child stand in front of their submerged house. They were displaced after flooding in the Sylhet and Sunamganj regions in 2022. Photo: Mutasim Billah/Oxfam.

Photo (this page): Durgabti, Shatkhira, Bangladesh: A mother and her child are among thousands of climate vulnerable communities living in the coastal belt of Bangladesh. Photo: Jahangir Alam/Oxfam.

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Feni District, Bangladesh: Community members wade through the flooded waters in Feni district, trying to salvage what they can from the submerged land. Photo: Md. Sariful Islam/Oxfam.

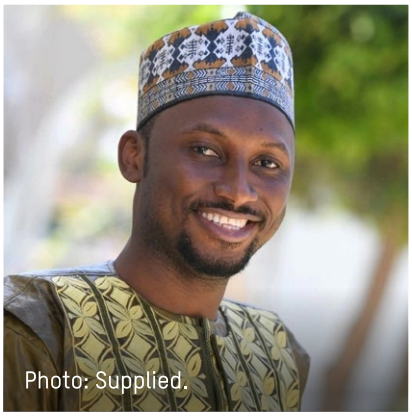


Photo: Supplied.

FOREWORD

By Alpha A. Djalon, Executive Director and Project Manager for AlfaVert. New Generation Program (L&DC and CLI), Loss and Damage Negotiator for Guinea.

It goes without saying that for loss and damage negotiators, scientific evidence is crucial. Research reports, peer-reviewed studies, and data from universities and expert institutions should be at the forefront of negotiations. These scientific proofs offer credible, evidence-based insights into the scale and scope of climate impacts, helping negotiators argue from a position of strength.

Visual storytelling tools such as short documentary-style videos or clips can also powerfully communicate the human and environmental impacts of loss and damage. These videos can illustrate real-world consequences in affected communities. Similarly, interviews with individuals and communities experiencing these impacts firsthand can provide compelling, emotional narratives that complement scientific data.

But what would have a significant impact is a centralised, accessible digital platform or dashboard, as has been created by the Oxfam in Bangladesh team. This dashboard could serve as a repository of country-level data on loss and damage, allowing users to look up, for instance, what happened in Guinea between 2015 and 2025. It would host real-time updates, videos, interviews and reports, offering negotiators and stakeholders a dynamic tool to access both quantitative and qualitative evidence.

The Oxfam in Bangladesh Loss and Damage Dashboard offers highly effective proof of the dashboard concept, delivering detailed community-based loss and damage data that can be scientifically verified on a centralised platform, with accessibility at the heart of its design. The Dashboard is an important tool in the toolbox for negotiators, which will significantly strengthen climate negotiations and better support countries facing climate-related losses.

Whether on a mobile phone, tablet, iPad or laptop, anyone can contribute to and engage with the database. With further funding and support, it could be expanded beyond a website to a mobile application so that users can receive real-time updates. For example, if new information is uploaded, for example a new event related to loss and damage in Indonesia or West Africa, a notification or pop-up could alert users immediately. This kind of functionality can make the tool dynamic and user-friendly.

Together, these three tools — scientific data, multimedia storytelling (videos/interviews) and an interactive dashboard — could enhance the effectiveness of climate negotiations by grounding them in evidence and lived realities. This would support more informed, empathetic and just outcomes at high-level dialogues and UN Framework Convention on Climate Change negotiation spaces.

EXECUTIVE SUMMARY

Loss and damage caused by climate change represents one of the most pressing and unjust global challenges today. Decades of delay and inaction have brought the world to a point where mitigation and adaptation measures no longer suffice, even if current ambitions are fully realised, leaving the Global South to bear the brunt of both economic and non-economic losses and damage.

Bangladesh is consistently ranked among the top 10 most climate-impacted countries in the world. The World Bank estimates that average annual losses from climate disasters currently cost Bangladesh about USD $3 billion, or 1% to 2% of GDP. This is projected to rise to 9% by the end of the century if ambitious and stronger mitigation actions, particularly from high-polluting global north countries and major fossil fuel companies are not implemented.

Considering the high level reporting of large-scale climate disasters alone, the Emergency Events Database (EM-DAT) reveals that in Bangladesh they have caused average annual economic losses of USD $515 million and affected 9.7 million people each year over the past decade. This is a 130% increase compared with the previous decade. Although this analysis is based on scientific rigour, and is a good proxy to show rising costs, it underestimates the true cost due to the inadequate reporting of loss and damage cases, mostly at the individual level and local community level.

Further, all these statistics significantly underestimate the true scope of loss and damage as they largely exclude slow-onset events like salinity intrusion and sea-level rise, overlook smaller-scale and localised impacts that disproportionately affect communities experiencing marginalisation, and fail to capture non-economic losses and damage.

Therefore, the way loss and damage is currently scoped, represented and measured remains underreported, underestimated, misunderstood and often fragmented, ultimately portraying only a partial story. This incomplete framing leads to weak negotiating positions, misaligned policy responses, and finance systems that fail to reflect ground realities, leaving loss and damage chronically underfunded. To address this gap, Oxfam in Bangladesh has developed a groundbreaking web-based interactive tool: the Loss and Damage Dashboard, a participatory, real-time data platform that enables communities to document, quantify and validate both economic and non-economic climate losses they endure. Tools like this are critical to closing the data gap and making visible the full human, non-economic and economic cost of climate change.

THE LOSS AND DAMAGE DASHBOARD: A COMMUNITY-LED INNOVATION

The Dashboard is a web-based, user-friendly system enabling communities to self-report climate-related loss and damage through digital forms and an artificial intelligence-supported toll-free voice calling system.

Reports are geotagged and validated with climatic, remote sensing and satellite data through Google Earth Engine, allowing visual, scientific verification of on-ground claims that establish connection with climate change.

The citizen science-based community reporting (social sensing), the scientific validation and estimation using Earth observation (remote sensing), and the policy and leadership engagement grounded in real-world understanding (common-sense) together form a three-tiered sensing loop. This integrated approach strengthens bottom-up climate governance, grounds decision-making in lived realities, and reinforces the urgency of addressing loss and damage.

PURPOSE AND VALUE

The Loss and Damage Dashboard was created to fill a critical gap between headline pledges and lived reality. Although the establishment of the Fund for Responding to Loss and Damage at COP 28 was hailed as historic, negotiations still stumble over three persistent problems: (1) the absence of granular, country-level figures to substantiate claims; (2) confusion between climate-induced and other losses, which global north countries exploit to delay action; and (3) top-down reporting systems that overlook slow-onset events and non-economic losses such as cultural heritage, mental health, and ecosystem decline that matter most to frontline communities.

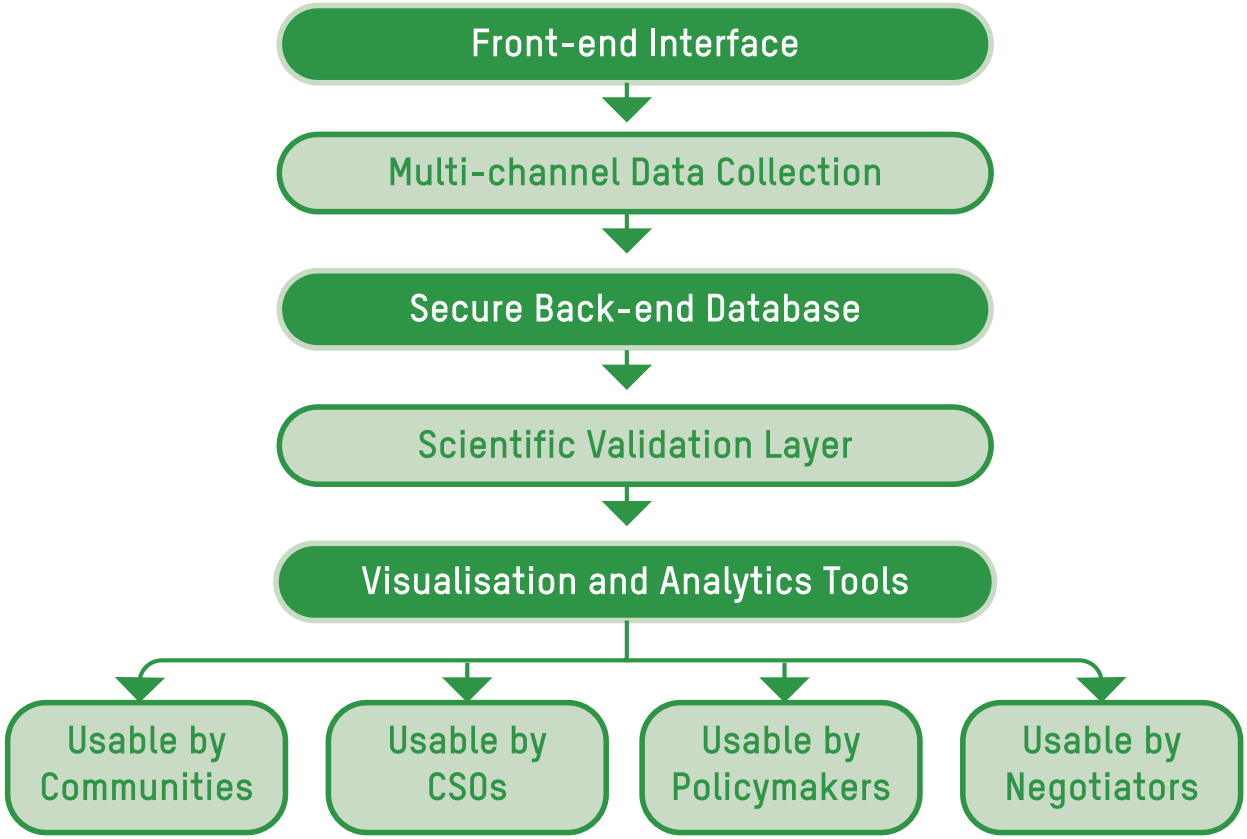
The Dashboard tackles these structural barriers through a "three-senses" approach. Social sensing enables citizens, regardless of literacy or internet access, to log incidents via smartphones or toll-free voice calls, creating a participatory, bottom-up record. Remote sensing layers this testimony with satellite and climatic data, rigorously verifying whether the loss is climate-triggered and quantifying changes over time. Common sensing converts these validated findings into intuitive visualisations that speak the language of policymakers and negotiators, ensuring that evidence is both human and scientifically robust.

By uniting these strands, the Dashboard delivers three core benefits. First, it generates credible, real-time numbers that global south negotiators can carry into loss and damage funding debates, closing the evidence gap exploited by opposing parties. Second, it democratises data production, giving voice and agency to communities historically excluded from assessment processes. Third, it offers governments and humanitarian agencies a dynamic tool for planning adaptation, disaster response and just-transition investments. Scaled across least-developed countries, the Dashboard can reveal the full magnitude and moral urgency of compensating climate-vulnerable populations.

ARCHITECTURE AND FUNCTIONALITY

The platform is built on five interconnected components: (1) A front-end interface presents users with interactive maps, real-time data visualisations, and region-specific statistics. (2) Multi-channel data collection is made possible via KOBO Toolbox forms, artificial intelligence-processed voice submissions, and online surveys, ensuring accessibility for both digitally literate and offline users. (3) A secure, anonymised back-end database stores individual and aggregate data with strict data protection. (4) A scientific validation layer leverages Google Earth Engine-based tools to verify loss and damage claims using land use changes, flood extent, vegetation loss, crop health and other analysis through earth observation, providing visual and empirical confirmation of community reports. This platform also compares reported loss and damage cases with the climatic data considering the historic pattern and anomalies. (5) Visualisation and analytics tools enable exploration of geographic heat maps, trend patterns and sector-specific summaries. Together, these functions ensure scientific rigour, user accessibility and real-time relevance, and are usable by communities, civil society organisations, policymakers and negotiators.

FIGURE 1: PLATFORM ARCHITECTURE AND FUNCTIONALITY



KEY FINDINGS FROM INITIAL DEPLOYMENT

Between June 2023 and March 2024, the Dashboard was piloted in 19 districts across Bangladesh. A total of 11,579 incidents were reported, with an overall estimated monetary value of BDT 1.35 billion (USD $11 million). On average, each individual in the dataset reported damages of BDT 117,000 (about USD $954), equivalent to one year and three months of income for the average Bangladeshi worker.

The types of loss and damage recorded highlight the scale and diversity of impacts. Non-economic loss was the largest category, with BDT 435 million (USD $3.56 million) in reported impacts, reflecting the extensive but often overlooked burden of trauma, displacement and cultural erosion. Non-economic loss was calculated by having participants assign monetary values based on associated impacts, such as lost productivity, care work burden, medical fees, legal redress, and productive hours lost for conflict resolution. This was followed by private asset damage (BDT 350 million or USD $2.86 million), agricultural loss (BDT 285 million or USD $2.33 million), and livelihood disruption (BDT 270 million or USD $2.21 million). Public infrastructure damage was comparatively minor, estimated at BDT 5 million (USD $41,000), potentially reflecting either stronger resilience in that sector or lower levels of community reporting.

In terms of gendered impacts, losses reported by men were consistently higher across all categories. For example, men reported BDT 300 million (USD $2.5 million) in non-economic loss, compared to BDT 130 million (USD $1.1 million) reported by women. Similar trends were seen in asset damage and livelihood losses. This may reflect cultural and structural barriers that influence how losses are perceived, experienced or reported, particularly in a patriarchal society where men are often seen as household heads or decision-makers. Despite this disparity, women still reported significant levels of harm, particularly in relation to health, including waterborne infections, malnutrition and reproductive health. This underscores the need for gender-responsive disaster and recovery planning.

Geospatially, the data revealed striking regional disparities. Districts such as Cox's Bazar, Kurigram, Satkhira and Sunamganj experienced

Cox's Bazar, Bangladesh: Rohingya refugee Ismail* stands in his shop after heavy rains inundated the Cox's Bazar Refugee camps causing severe flooding and landslides. "The flood water rose very rapidly. My two employees and I rushed to my shop and found water up to the roof. I could not save the goods, sugar, wheat, rice, lentils, chilly dust, and many other goods were destroyed. I am incurring a huge loss." Photo: Shaikh Ashraf Ali/Oxfam.

disproportionately high losses, in some cases exceeding BDT 500 million (USD $4.1 million). These areas are especially vulnerable to storm surges, cyclones, erosion and salinity intrusion. In contrast, other districts reported far lower levels of loss and damage, often about BDT 10 million (USD $82,000) or less. This spatial concentration of risk highlights the need for targeted investment in resilience, infrastructure and early warning systems in high-risk zones.

CONCLUSION AND STRATEGIC RELEVANCE

As the global community prepares to operationalise the Fund for Responding to Loss and Damage, the need for reliable, community-generated and scientifically validated evidence has never been more urgent. Traditional assessments have often been slow, top-down or unresponsive to lived realities. The Loss and Damage Dashboard fills this gap with a dynamic, participatory and scalable model that empowers those on the frontlines of the climate crisis.

By grounding advocacy in lived experience and empirical evidence, the Dashboard enhances transparency, strengthens the case for financial justice, and can help ensure that loss and damage finance flows to where it is most needed. As a replicable model, it also holds the potential to transform how climate vulnerability is documented, visualised and addressed not just in Bangladesh, but in other least-developed countries and across the global south.

1 LOSS AND DAMAGE: A TALE OF INEQUALITY

1.1 WHAT IS LOSS AND DAMAGE?

Loss and damage is the residual impacts for communities and countries after mitigation efforts to reduce greenhouse gas emissions and adaptation measures to prepare for and respond to its impacts.[1] It encompasses both irreversible losses and costly damage caused by climate change impacts that cannot be mitigated or adapted to.[2]

These losses and damage can be economic, including costs incurred from house, infrastructure and other forms of asset destruction, revenue loss, and reduced productivity in local and national economies as a result of climate impacts. They can also be non-economic, including loss of lives, culture and reduced access to education during disasters.[3] They also include rapid-onset impacts caused by climate-induced disasters such as cyclones, floods and wildfires, as well as slow-onset impacts such as sea-level rise, salinity intrusion, drought, acidification of the ocean and its effects on fish stocks, and desertification.[4]

1.2 CLIMATE CHANGE, INEQUALITY AND LOSS AND DAMAGE

Climate change is exacerbating existing inequalities, destroying and damaging communities, reducing adaptive capacity and increasing levels of poverty. As beneficiaries of early industrialisation and colonial exploitation and extraction, developed countries are primarily responsible for the current climate crisis. The 23 Annex II countries, including the United States, Canada, Australia, the United Kingdom and Japan, comprise only 12% of the world's population, but are responsible for half of all historical CO_2. emissions.[5] Conversely, the impacts of climate change fall primarily on developing countries, who bear the least responsibility, with loss and damage disproportionately affecting low- and middle-income countries.[6] Within countries, extreme weather events and rising temperatures unequally affect the most at-risk people, such as minority groups, rural people, women and children.[7] These populations typically lack the financial and institutional capacity to absorb or recover from climate effects and therefore experience greater declines in wages, productivity and health than wealthier people, amplifying the climate-induced loss and damage they face.

Loss and damage is thus a key justice issue. When the impacts of climate exceed mitigation and adaptation measures, loss and damage exposes and perpetuates existing structural inequalities both within countries and between wealthy, high-polluting countries in the global north, and countries in the global south. The inability to prevent or recover from climate harms is driving a cycle of deepening poverty and vulnerability, particularly for communities in the global south. Loss and damage will further entrench global and local inequalities unless there is decisive and coordinated action and dedicated financing, particularly from global north countries most responsible for the emissions that cause climate change.[8]

1.3 THE INCREASED BURDEN OF LOSS AND DAMAGE ON LEAST-DEVELOPED COUNTRIES

Climate-induced loss and damage is felt most keenly by people living in vulnerable situations and least-developed countries, compounding prevailing challenges related to poverty, inequality and climate adaptation. They frequently experience high poverty rates and limited ability to adapt, rendering them over-exposed to climate impacts that are both slow- and rapid-onset. These challenges stand to undo years of development progress and further entrench cycles of vulnerability and poverty.[9]

Current climate financing has very limited coverage. According to latest United Nations Environment Programme estimates, the annual gap between the amount of money delivered and the amount needed for adaptation is between USD $203 billion and USD $388 billion, with demands eight to 14 times greater than public adaptation financing flows.[10] Further, only a tiny fraction of funding reaches the people who need it most, while global humanitarian and development systems are stretched beyond capacity.[11] Developing countries and least-developed countries experience severe financial and technical constraints to coping with loss and damage. This is set to worsen, with total adaptation financial needs for developing countries estimated at USD $3.8 trillion by 2030.[12] Markandya and González-Eguino project economic losses and damage for developing nations between USD $290 billion to USD $1 trillion in 2030, USD $551 billion to USD $1.3 trillion billion in 2040, and USD $1 trillion to USD $1.6 trillion in 2050.[13]

1.4 DELAYED ACTION: THE GLOBAL NORTH'S ROLE IN EXACERBATING CLIMATE INJUSTICE

Apart from their disproportionate role in causing climate change, the inaction and denial of the global north in international climate negotiations are and

have been a major accelerator of climate change. Countries in the global north have long obstructed climate action through denial, scepticism and delay, and have continuously undermined actions around mitigation, adaptation and loss and damage measures, as well as finance vital for the global south.[14] Despite rhetoric calling for a just transition, wealthy countries have consistently failed to deliver on financial commitments. On the previous climate finance goal of USD $100 billion per annum, developed countries consistently failed to meet the goal, and when they did, it was only achieved on paper predominantly through debt-creating loans instead of grants. In 2023, only one-quarter of reported public climate finance was provided as grants, while the rest was mostly loans, many of which were non-concessional and offered no better terms than standard market rates.[15] More than half of the climate finance was directed to least-developed countries and more than one-third to Small Island Developing States.[16] This came in the form of loans, increasing their debt burden instead of offering effective support.[17] They have opted for talk over action, leaving lower-income, more vulnerable countries without the resources to cope with climate-induced catastrophes.[18]

This active inaction and absence of committed financial resources has entrenched social, economic and political disparities, contravened the pursuit of adaptation, and exposed vulnerable sections of society to the extreme impacts of climate.[19] In response, climate reparations, as has been reaffirmed by the recent International Court of Justice ruling' as well as robust support and robust support structures are urgently needed.[20]

1.5 THE HUMAN AND ECONOMIC COST OF LOSS AND DAMAGE IN BANGLADESH

Loss and damage from climate change significantly impacts countries like Bangladesh, affecting social, economic, environmental and ecological systems, and resulting in major economic, social and health losses, particularly experienced by at-risk population groups.[21]

Bangladesh faces challenges from sudden-onset events like irregular rainfall and flash flooding, and is exposed to a range of climate-induced hazards, including tropical cyclones, storm surges, riverine flooding, salinity intrusion and sea-level rise. Coupled with weak natural resource governance factors, this adversely impacts communities who experience marginalisation and who depend on natural resources.[22] These catastrophes lead to economic costs, including the destruction of crops, infrastructure and livelihoods, and non-economic losses, such as forced displacement, loss of cultural legacy and psychological anguish. The effects are disproportionately experienced by women, children and communities living in poverty in rural areas, whose adaptive capacities are frequently hindered by systemic inequalities and restricted access to resources. Repeated climatic shocks place significant strain on national budgets, reallocating resources from long-term development to emergency response and recovery efforts. Notwithstanding Bangladesh's proactive approach to climate adaptation, the magnitude and frequency of loss and damage progressively surpass the capacities of traditional adaptation measures.

A first glimpse at the costs of loss and damage can be found by analysing climate-induced disasters recorded in the EM-DAT, maintained by the Centre for Research on the Epidemiology of Disasters at the University of Louvain. Over the last 10 years, climate-induced disasters in Bangladesh have resulted in average annual costs of USD $515 million, and affect 9.7 million people per year, a 129% increase when compared to the previous decade.[23] Impacts are likely much higher in reality, given gaps in EM-DAT reporting, its focus on major climate-induced disasters, and not accounting for slow-onset disasters and non-economic losses.

Other studies find similarly devastating impacts in Bangladesh from sea-level rise, flooding, tropical cyclones, heatwaves, saltwater intrusion and erosion, projected to 2050 and beyond. The World Bank finds that the average annual loss due to disasters is estimated at about USD $3 billion, or 1%–2% of GDP, though this figure can be much higher in individual years.[24] By 2050, climate impacts will likely cost Bangladesh an additional 2% of its GDP on top of baseline losses from climate-related hazards, potentially rising to 9% of GDP by the end of the century, without further mitigation.[25] By the same year, it is estimated that Bangladesh will lose 17% of its territory due to rising sea levels, resulting in the loss of 30% of agricultural land in a country where nearly half of all workers and two-thirds of people living in rural areas make their livelihoods from agriculture.[26] Even despite major underestimates and data gaps at the macro-level, a clear picture of climate-induced escalating costs and impacts in Bangladesh is clear.

Coastal and deltaic areas, including Khulna, Satkhira and Barguna, are significantly impacted by sea-level rise, salinity intrusion and cyclonic storm surges, whereas riverine districts such as Gaibandha, Rangpur, Chandpur and Kurigram face

Sundarbans mangrove forest, Bangladesh: Topon is a fisherman who lives in the coastal area around the Sundarbans, the world's largest mangrove forest. Without ready access to fresh water, people living here are often ill from the saltwater they are forced to use. It also affects their ability to earn money. Photo: Fabeha Monir/Oxfam. Oxfam acknowledges the support of the Australian Government through the Australian NGO Cooperation Program (ANCP).

persistent riverbank erosion, resulting in permanent displacement and disruption of livelihoods. In the north-eastern Haor wetlands, flash floods constantly threaten agriculture and infrastructure, hence intensifying food shortages. In one notable example, the 2022 floods submerged 56% of the north-eastern parts of Bangladesh, affecting 110 million people and causing acute health crises.[27] They ruined 67.9% of the county's agricultural land.[28]

For both coastal and riverine communities, households experience significant losses due to slow-onset events such as sea-level rise and salinity intrusion. In one study on Manpura Island, average household economic losses in the aftermath of Cyclone Yaas in 2021 due to reduced ecosystem services (e.g., rice and fish) range between USD $28 and USD $419 per household, including translated non-economic losses in the form of reduced social cohesion, increased mental health issues, and loss of fertile land.[29]

Cyclones like Amphan and Remal also exposed communities living on the coast to vulnerability. Socioeconomic vulnerability indices such as the Climate Risk Index and the Livelihood Vulnerability Index identified poor infrastructure, economic instability and inadequate preparedness for disasters as key provoking factors.[30]

Internally displaced people who are forced to move as a result of riverbank erosion face uncertain livelihoods, poverty, poor housing, lack of sanitation, social exclusion and inadequate government support.[31] Displaced women, children and people from marginalised communities disproportionately face non-economic loss and damage including deteriorating mental health and wellbeing, which often coincides with increased gender-based violence and diminished capacity for self-adaptation.[32]

The above cost estimations of loss and damage are broad and top-down, and do not capture the granular scales of individual and local-level data. Such localised information is not only essential for more accurate estimations, but also for effective risk zoning, targeted climate finance disbursement, and other climate actions. A self-reporting system allows for the inclusion of non-economic losses, which are often overlooked but equally critical to include. Therefore, it is well understood that the actual cost of loss and damage would be significantly higher if reported through platforms like the Loss and Damage Dashboard.

Feni and Noakhali Districts, Bangladesh: In 2024, Bangladesh faced one of its worst flooding crises in recent history. Relentless rainfall, overflowing rivers, and water releases from India triggered flash floods across 12 districts, including Feni, Cumilla, Chittagong and Sylhet. More than 5.7 million people were affected, and at least 23 people died. Homes, infrastructure, and vast areas of farmland were destroyed, leaving millions of people without access to food, clean water and medical care. Photo: Oxfam.

2 THE POLICY LANDSCAPE OF LOSS AND DAMAGE

2.1 THE HISTORY OF LOSS AND DAMAGE

Since Vanuatu and the Alliance of Small Island States (AOSIS) advocated for Vanuatu's inclusion in the United Nations Framework Convention on Climate Change (UNFCCC) as it was negotiated in 1991, loss and damage has become a major area of international climate negotiations and policy making. Unceasing leadership and advocacy of small-island and lower-income states, in the face of delays and sabotage from wealthy countries and petrostates,[33] resulted in an agreement finally being reached at COP27 in Sharm El-Sheikh to establish a Fund for Responding to Loss and Damage for developing countries. This focus is on countries particularly vulnerable to the adverse effects of climate change and a transitional committee was set up to discuss the institutional and operating parameters of the Fund.[34] The Fund was launched on the first day of COP28 in Dubai in 2023. It has a 26-member board composed of majority developing countries and is institutionally placed in a World Bank-hosted Financial Intermediary Fund for at least the next four years.[35] At COP29 in Baku, loss and damage was excluded from the final New Collective Quantified Goal on climate finance.[36] The December board of the Fund meeting in Manila, Philippines, outlined a 'start-up' phase to begin distributing funds and test operational approaches in 2025-2026, with a work plan to fully operationalise the Fund by 2027.[37]

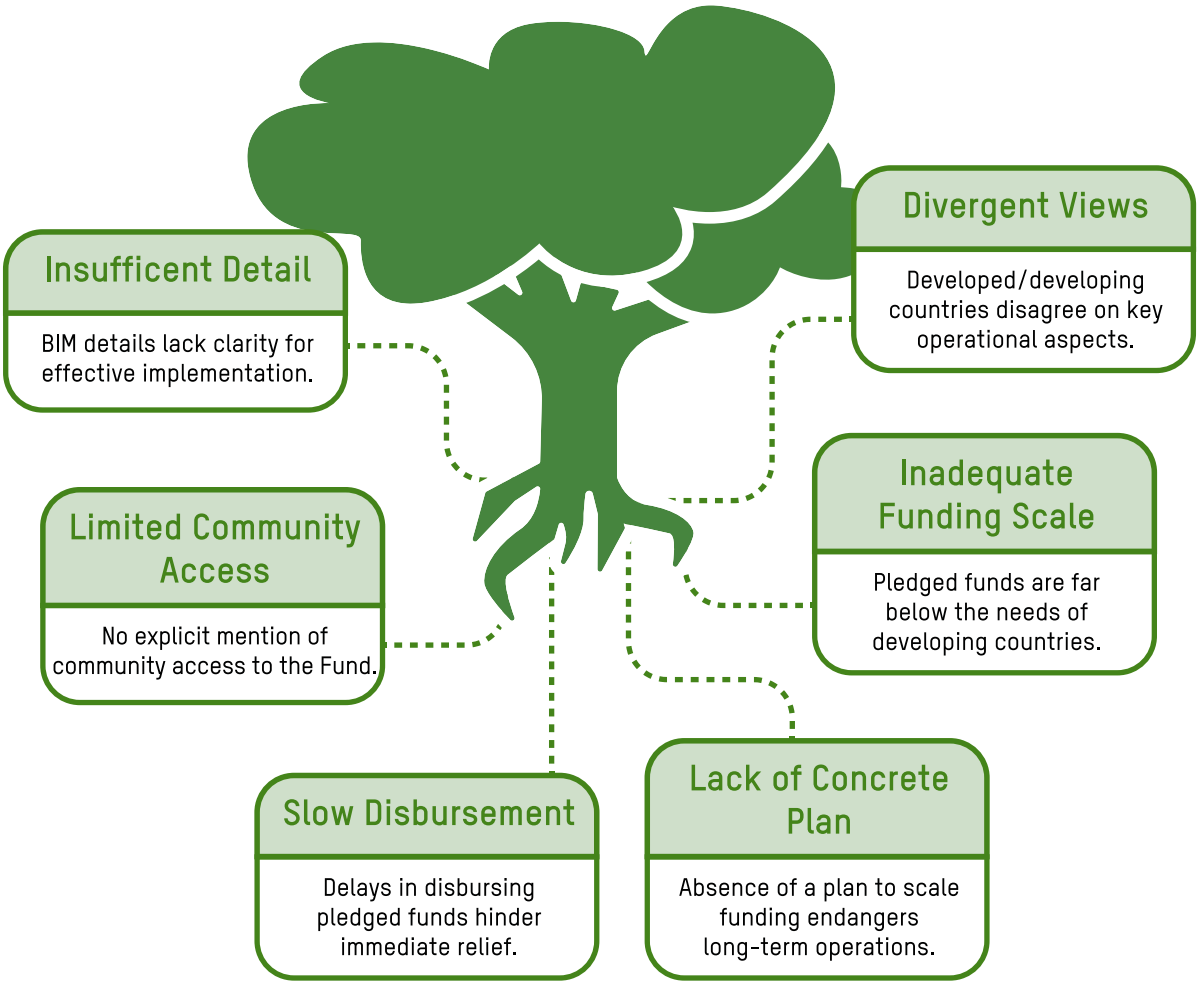
2.2 THE START-UP PHASE: BARBADOS IMPLEMENTATION MODALITIES

The Board of the Fund for Responding to Loss and Damage adopted at its fifth meeting (B5) in Bridgetown, Barbados, a decision to initiate the start-up period of the Fund, known as the Barbados Implementation Modalities (BIM). This two-year period (2025-2026) is described as a "test and learn" period to inform the long-term shape and functioning of the Fund. It involves a USD $250 million overall commitment with each of the interventions set at USD $5 million to USD $20 million in the form of a grant. At least 50% of the funds are earmarked for Small Island Developing States and least-developed countries. The BIM is underpinned by bottom-up, country-driven approaches involving climate-vulnerable constituencies and communities, albeit with no specific articulation of community access, and focused narrowly on "the most vulnerable" developing countries, defined as Least Developed Countries and

Small Island Developing States. At the recent sixth meeting of the Board in Cebu, Philippines, there was a worrying push by developed countries to introduce funding criteria that would likely create significant barriers for developing countries to submit proposals to the BIM and restrict access for developing countries to receive direct budget support."[38] Other critical elements such as partnership modalities and a monitoring and evaluation strategy have been entrusted to the secretariat to design.

So far, while agreeing at the recent sixth board meeting to finalise the resource mobilisation strategy by the seventh board meeting, there is still no roadmap for scaling the Fund up to a level needed to mobilise the hundreds of billions of dollars required every year to meet needs, calling into question whether the Fund can fulfill its mission over time. There is a lack of direct access mechanisms to funding for communities in the BIM. In particular, the decision fails to include a pilot for community-led or small grants projects, undermining the possibility for constructive engagement of Indigenous Peoples and local communities. The decision also fails to anchor the start-up phase in a human rights and gender-sensitive approach. Overall, the approach of the BIM opens the door for top-down implementation from multilateral development banks and United Nations agencies, despite calls from civil society organisations and community advocates.[39] These design flaws are inconsistent with the Fund's Governing Instrument agreed at COP28, which insists on direct access including for communities and equity.[40] With many operational aspects of the Fund still under discussion, it is essential to ensure that the mechanism is refocused to provide direct, inclusive and rights-based access from the outset.

FIGURE 2: INADEQUATE FUNDING AND SLOW OPERATIONALISATION OF THE FUND FOR RESPONDING TO LOSS AND DAMAGE



Noakhali District, Bangladesh: A flood-hit community grapples with rising waters as homes, roads and farmland are submerged. The widespread flooding turned this once-thriving area into a waterlogged landscape, highlighting the urgent need for relief and support as families face overwhelming challenges in the wake of the disaster. Photo: Oxfam.

2.3 THE FINANCE GAP: CHALLENGES AND SHORTFALLS OF FINANCE IN ADDRESSING LOSS AND DAMAGE

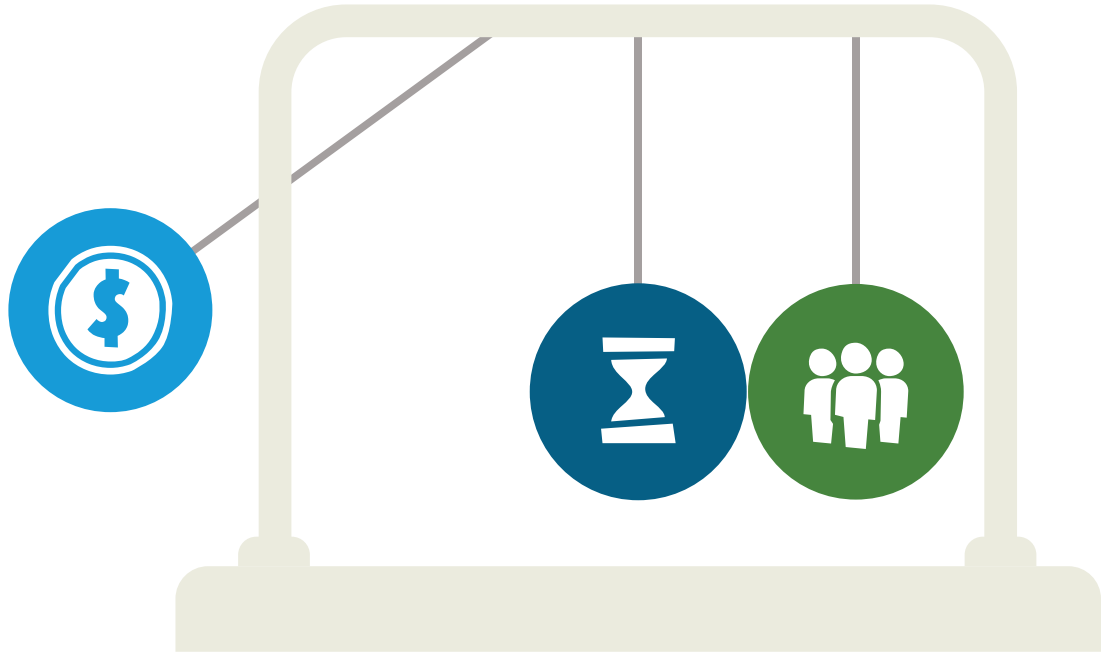
One of the biggest challenges facing climate-vulnerable countries in the global south is the uncertainty of global loss and damage financing mechanisms, together with the lack of clarity and commitment. COP27 was a landmark in securing an agreement to launch the Fund for Responding to Loss and Damage, but progress on operationalising the Fund has been notably slow, with many key issues still unresolved and amounts pledged remaining vastly inadequate to meet the needs of the most vulnerable countries, like Bangladesh.[41]

Current climate finance mechanisms, including the Green Climate Fund, mostly deal with mitigation and/or adaptation needs and leave behind the specific needs of communities facing loss and damage that is already unavoidable. Additionally, the finance delivery is frequently hindered by difficult processes, high thresholds and donor driven modalities. This not only delays disbursement but also restricts direct access by affected communities.

Specifically in relation to loss and damage in Bangladesh, there exists a lack of robust needs assessments and cost evaluations. This lack of evidence base makes it hard to advocate for financing them appropriately. Loss and damage considerations have not yet become fully incorporated into budgetary systems on the national level, which severely restricts the possibility of effective absorption and targeting of any future loss and damage resources.

While these gaps continue to hinder meaningful progress, recent developments offer cautious optimism. Driven by Pacific leadership, the ICJ's recent ruling affirmed that nations are legally required to safeguard the global climate system and that communities suffering damage from climate change could have a right to seek compensation.[42] The Fund for Responding to Loss and Damage is a recognition at the global level that we need new and additional financing mechanisms to support countries like Bangladesh to deal with loss and damage. As the decision to establish the Fund was made at COP27, the Fund seeks to create a mosaic of funding tools including insurance, risk mitigation and solidarity-based funding to respond to both rapid and slow-onset climate events. Efficient use of fund resources is important for preventing, preparing and providing direct support to the most vulnerable communities before disasters in line with principles of climate justice and Common But Differentiated Responsibilities and Respective Capabilities (CBRC-RC). Nevertheless, there are still obstacles to the adequate mobilisation of resources, transparent distribution and the embedding of support within country systems in order to enhance development and resilience.[43]

FIGURE 3: INADEQUATE FUNDING ENDANGERS FUND FOR RESPONDING TO LOSS AND DAMAGE



Insufficient Funds	Long-term Risks	Loss of Lives
Limited financial resources	Operationalisation at risk	Communities at risk

Satkhira, Bangladesh: Oxfam's partner organisation, Breaking the Silence, is working with local government on pond excavation initiatives to bring fresh water to communities experiencing water scarcity. Oxfam acknowledges the support of the Australian Government through the Australian NGO Cooperation Program (ANCP). Photo: Fabeha Monir/Oxfam.

3. THE CASE FOR ESTIMATING AND QUANTIFYING LOSS AND DAMAGE IN THE CONTEXT OF THE FUND FOR RESPONDING TO LOSS AND DAMAGE

3.1 WHY IS QUANTIFICATION OF LOSS AND DAMAGE NECESSARY?

Ascribing loss and damage to climate change is difficult, particularly in lower-income, developing nations with inadequate data quality and coverage.[44] Estimation of loss and damage is essential, both at a first principles level to understand the full scope of climate-induced damage and disruptions, as well as for risk-informed decision-making and adaptation investment.[45] Even further, loss and damage estimation is not merely a technical exercise but a political and moral imperative that is central to advancing equitable adaptation, securing climate finance, and enhancing resilience in the face of irreversible climate impacts.

The 2025 Review of the Warsaw International Mechanism for Loss and Damage underscores the importance of supporting countries to estimate and quantify the costs and needs associated with loss and damage, both economic and non-economic.[46] This is considered a critical step toward scaling up climate finance and improving access to support. In this context, the report calls for the development of a knowledge product on methodologies for quantifying and qualifying such losses, aimed at informing national planning and preparing technical and funding proposals.[47] This emphasis closely aligns with the purpose of Oxfam in Bangladesh's Loss and Damage Dashboard, the self-reporting platform that captures disaggregated, locally validated data on climate-induced losses and damage. The Dashboard estimates costs based on reported cases and incorporates non-economic losses such as displacement, cultural heritage loss and psychological trauma. By doing so, it brings into practice key priorities outlined in the Warsaw International Mechanism report, including enhancing the understanding of compound risks and supporting country-led efforts in climate risk planning and financial mobilisation.[48]

To address the complex, multi-layered nature of economic and non-economic loss and damage, precise estimation serves multiple functions

Feni and Noakhali districts, Bangladesh: As floods hit Bangladesh in 2024, Oxfam teams used a tractor to navigate paths, determined to reach even the most isolated communities. With roads submerged and access limited, every effort was made to deliver vital support. Photo: Oxfam.

that includes recovery and rehabilitation efforts, strengthens applications for climate finance, and reinforces the evidence base for global climate negotiations. Methodologies like the Damage and Loss Assessment (DaLA), Post-Disaster Needs Assessment (PDNA) and the United Nations Office for Disaster Risk Reduction (UNDRR) Disaster Tracking System[49] offer systematic frameworks for evaluating sectoral impacts and quantifying monetary values of damage. Recent studies have focused on developing disaster loss indicators compatible with global reporting standards[50] and assessing community disaster resilience.[51] Geographic Information Systems (GIS) and advanced remote sensing techniques have been employed to compare the economic damage of flooding under current and future scenarios.[52] Researchers, activists and practitioners have increasingly emphasised the necessity of incorporating participatory methodologies and indigenous knowledge systems into loss and damage evaluations to improve contextual relevance and procedural equity.[53] Loss and damage assessments are crucial for formulating national adaptation policies and supporting the implementation of the Fund for Responding to Loss and Damage. However, methodologies and tools such as DaLA exist to assess climate-related loss and damage risks, but their application requires consideration of data requirements, strengths, weaknesses and capacity needs in developing countries.[54]

International negotiating processes have been and continue to be shaped by discursive power, with inter-country and inter-regional power dynamics, as well as ethical and legal framing significantly contributing to the attainment of milestones.[55] As such, robust loss and damage assessments that are participatory and gender-based, are necessary for engaging with international mechanisms such as the Warsaw International Mechanism for Loss and Damage and the Fund for Responding to Loss and Damage under the UNFCCC. These require evidence-based justifications to channel resources to climate-affected communities. They also provide the empirical foundation for legal and ethical claims related to climate justice and accountability, especially in the context of losses that are irreparable or non-compensable.[56]

As the loss and damage discourse transitions from an emphasis on compensation to an expanded call for climate justice,[57] building the capacity for low- and middle-income countries and climate-impacted and marginalised peoples to quantify loss and damage is vital to enable their full participation in international climate negotiations.

3.2 WHERE AND WHAT ARE THE CHALLENGES IN BANGLADESH FOR QUANTIFICATION

Bangladesh is confronted with a multifaceted set of problems in managing loss and damage attributable to climate change, with vulnerabilities evident across various geographic, socio-environmental and socio-economic contexts.[58] Notwithstanding Bangladesh's advancements in adaptation planning, substantial deficiencies persist in institutional capability, especially in executing thorough loss and damage assessments and incorporating results into sectoral and local development strategies. The lack of disaggregated data and dependable approaches for quantifying economic and non-economic losses hinders evidence-based policy development. Fiscal limitations and restricted access to global climate finance channels impede prompt and sufficient responses to irreversible climate effects. Social inequalities, such as gender inequities and the marginalisation of indigenous populations, exacerbate recovery processes, as at-risk groups frequently lack fair access to resources and representation in decision-making. Confronting these difficulties necessitates the enhancement of national policies and institutional frameworks, as well as guaranteeing operational access to mechanisms like the Fund for Responding to Loss and Damage under the UNFCCC, in conjunction with the integration of locally led, inclusive assessment methodologies.[59]

While formal institutions play a crucial role in building adaptive capacity in agriculture, they often overemphasise technology and fail to acknowledge cultural factors or collaborate effectively with informal and local institutions.[60] To address these challenges, Bangladesh should align its climate policies with other development frameworks, improve data sharing mechanisms, develop common monitoring systems, and foster partnerships between formal and informal institutions.[61]

3.3 THE NEED FOR EVIDENCE-BASED ADVOCACY FOR ACCESSING LOSS AND DAMAGE FINANCE

To effectively fight for fair and appropriate loss and damage finance, we need to move past anecdotes and isolated case studies. A centrally controlled and maintained database capturing and quantifying loss and damage impacts would be a powerful tool to monitor and visualise climate-induced losses by region, by sector, and through the lens of at-risk communities.

4. THE LOSS AND DAMAGE DASHBOARD

4.1 WHAT IS IT?

In response to the need to quantify and capture loss and damage impacts at a community level, Oxfam in Bangladesh created the Loss and Damage Dashboard, an innovative, community-driven, web-based platform that enables climate-vulnerable populations to self-report climate-induced losses and damages. It captures both economic and non-economic losses in real time and validates them through satellite remote sensing, GIS analysis and historical climate data. By integrating citizen science, digital literacy programs with advanced data collection, remote sensing and database management technologies, the Dashboard builds a dynamic, progressive and verifiable dataset of climate impacts, making it a vital tool for advocacy, negotiation and action.

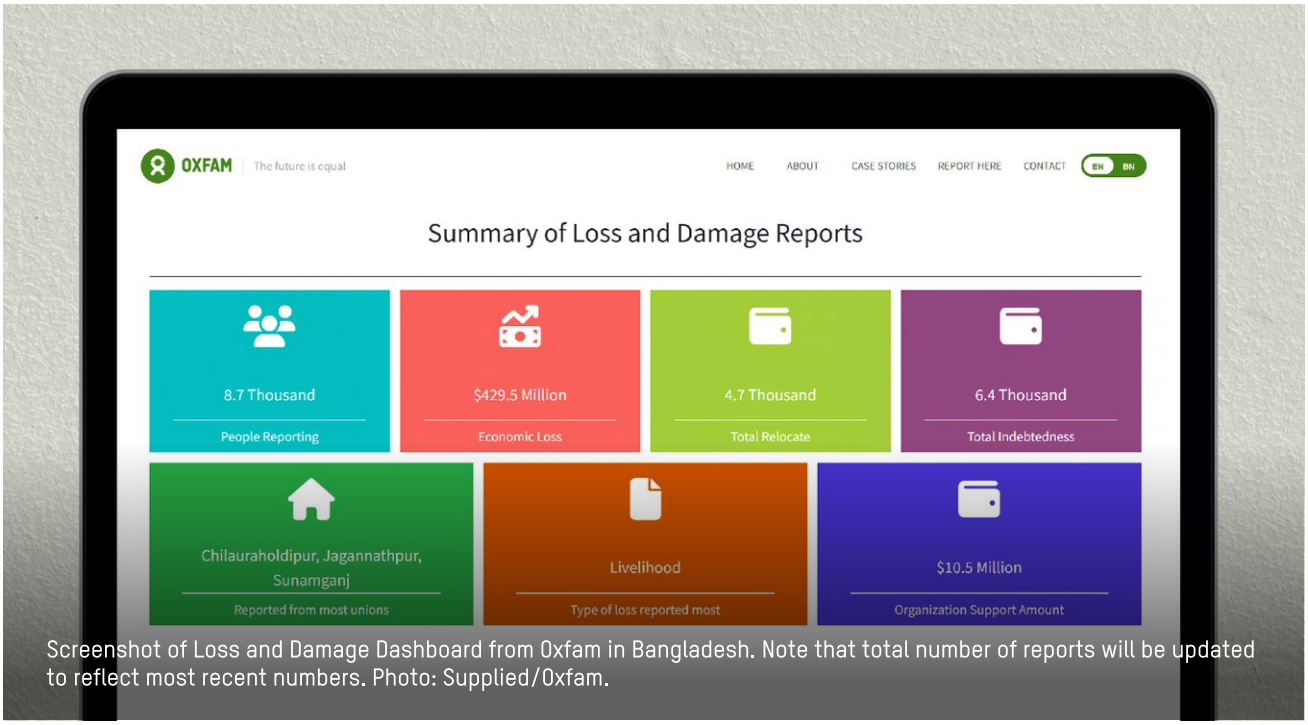
Unlike conventional reporting systems that depend on top-down assessments, the Dashboard democratises climate data by placing the power of reporting directly in the hands of those most affected. Its interactive interface and integration with tools like Google Earth Engine allow users and policymakers to track changes in land use, identify high-risk zones, and correlate local reports with broader climate patterns. This dual emphasis on personal agency and scientific accuracy makes the platform not only a data collection tool but also a transformative vehicle for recognition, accountability and climate justice.

4.2 WHAT IS IT FOR?

The Dashboard addresses the urgent need for credible, community-grounded evidence to support negotiations on climate finance and loss and damage compensation. Developed nations often debate or deny the scale of climate-induced loss and damage and use discourses of delay to prevent more ambitious action on loss and damage.[62] The Dashboard counters this by bringing the lived realities of climate-vulnerable communities to the forefront, showcasing both human and economic costs. It empowers affected communities, strengthens advocacy efforts, and informs local, national and global policy dialogues.

It also captures overlooked dimensions of loss that are not easily quantifiable in formal assessments, such as cultural dislocation, psychosocial trauma and long-term environmental degradation. By enabling localised reporting and archiving climate vulnerability at the community level, the Dashboard serves as both a tool of accountability and a repository of resilience. This helps communities build their own evidence base to demand targeted support and more equitable allocation of climate finance.

Through this inclusive, transparent approach, the Dashboard advances climate justice by ensuring that the experiences and voices of those most affected are central to decision-making and global discourse.



Screenshot of Loss and Damage Dashboard from Oxfam in Bangladesh. Note that total number of reports will be updated to reflect most recent numbers. Photo: Supplied/Oxfam.

4.3 HOW IT WORKS

To effectively monitor and respond to climate-induced loss and damage at the community level, an integrated digital reporting system is proposed including:

Community reporting: Individuals submit reports via a simple online form or toll-free voice call system backed by artificial intelligence, which transcribes and classifies verbal submissions into texts to fill the form. This design ensures inclusivity for users without internet access or digital literacy and lowers the barrier for community engagement.

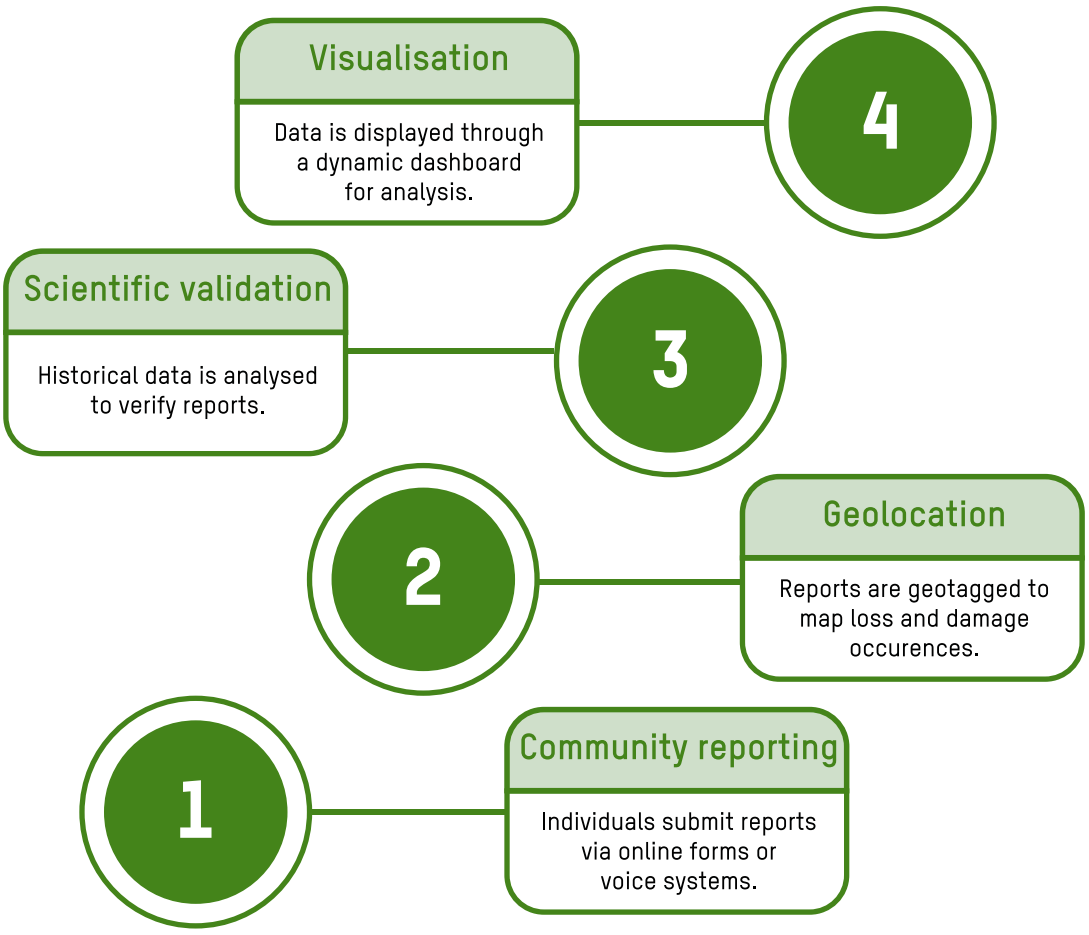
Geolocation: Each submission is automatically geotagged, allowing the platform to accurately map loss and damage occurrences. This spatial mapping identifies hotspots, supports vulnerability assessments, and informs area-specific response planning.

Scientific validation: Once reports are logged, the platform analyses historical satellite imagery and climate data using Google Earth Engine. This layer confirms changes in land use, surface water expansion, or vegetation loss over time, helping to authenticate claims through evidence-based verification.

Visualisation: The validated data is then aggregated and displayed through dynamic dashboards, enabling users to explore real-time statistics, trends and visual representations of economic and non-economic losses by region, type and scale.

Data protection: While users contribute individual experiences, their identities and personal details are anonymised. Only aggregated summaries are made public, ensuring data privacy while preserving the credibility and usefulness of the dataset for decision-making.

FIGURE 4: BUILDING A COMPREHENSIVE LOSS AND DAMAGE PLATFORM



4.4 BRINGING INNOVATION AND TECHNOLOGY TO THE CLIMATE CRISIS

The Loss and Damage Dashboard offers a pioneering blend of:

Accessibility and technology: Offline voice reporting systems paired with advanced satellite verification create a platform that is both user-friendly and scientifically robust. It ensures communities with minimal connectivity can still contribute meaningful data, while also allowing for automated intake and categorisation using artificial intelligence.

Citizen science/social sensing: Empowering communities as primary data generators allows them to share locally experienced impacts. This bottom-up approach enables more accurate, timely and representative data for decision-making. Artificial intelligence models also support the classification and summarisation of community-reported inputs, making the Dashboard scalable and adaptive.

Scientific integrity with remote sensing: Leveraging remote sensing, Earth Observation and artificial intelligence tools, such as those integrated via Google Earth Engine, the Dashboard validates reported changes in land use, flood extent and vegetation loss and compares the reported case with historical trends in climatic data to determine whether the case is climate change–induced. These technologies reinforce the credibility of community narratives by translating them into verifiable spatial datasets.

This model enhances transparency and addresses long-standing gaps in climate impact documentation. By using satellite-derived indicators, geospatial analytics and machine learning tools, the Dashboard transforms localised climate experiences into globally relevant datasets. It sets a new standard for combining technological innovation with participatory methods in environmental monitoring and climate loss assessment.

Visualising loss and damage data for accessibility: Citizen science-based inclusive reporting of loss and damage is visualised through the Dashboard using meaningful statistics, text summaries, graphs, maps and figures. This visualised information, compiled and analysed with scientific rigour, aims to be accessible and legible even to those without technical training or expertise.

4.5 BRIDGING PEOPLE, CHALLENGES, SOLUTIONS AND TECHNOLOGY

The Dashboard creates a cohesive ecosystem that includes:

- People: Vulnerable individuals and communities act as primary data providers.
- Challenges: Systemic underreporting and misrecognition of loss and damage are documented and visualised.
- Solutions: Community-driven reporting mechanisms and scientific validations build a robust evidence base.
- Technology: Remote sensing, GIS and artificial intelligence converge to create an accessible, credible and scalable platform.

By integrating these elements, the Dashboard serves as a conduit between ground realities and national, regional and global policy arenas.

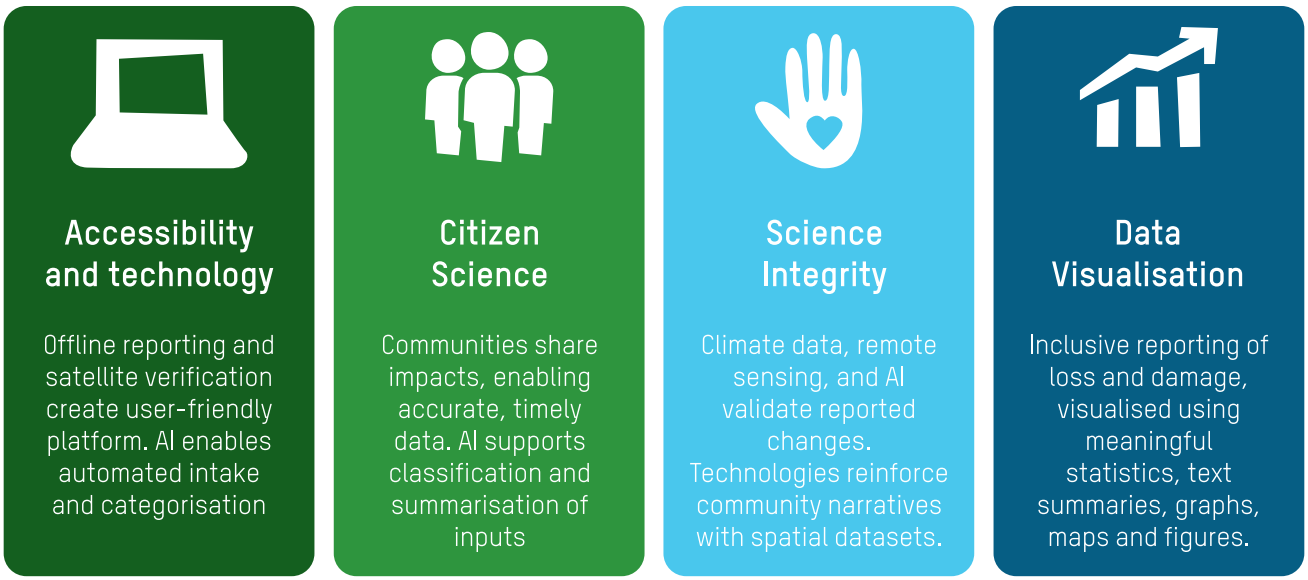


FIGURE 5: CITIZEN SCIENCE APPROACH FOR EVIDENCE GENERATION

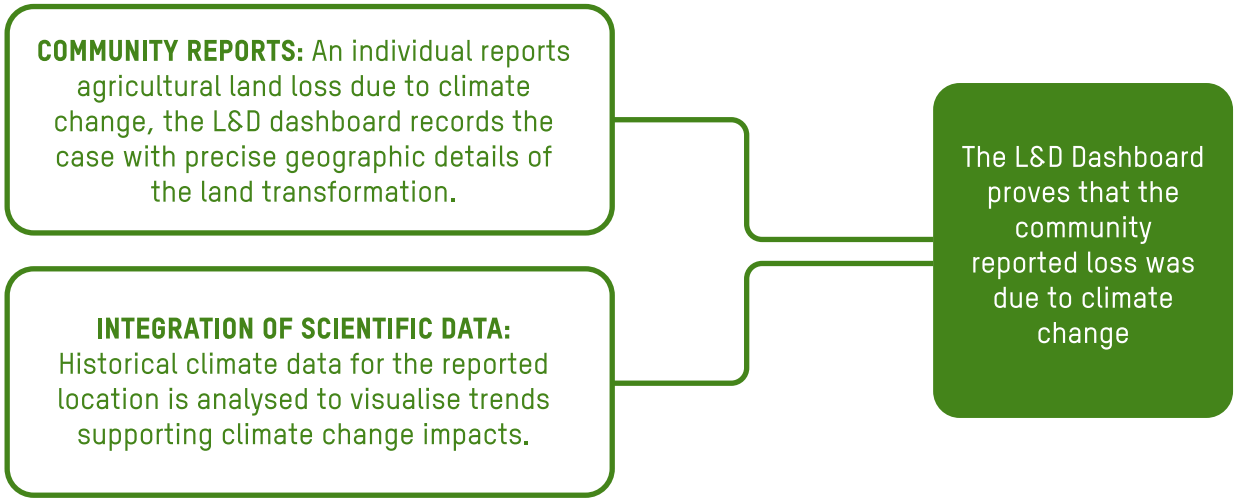
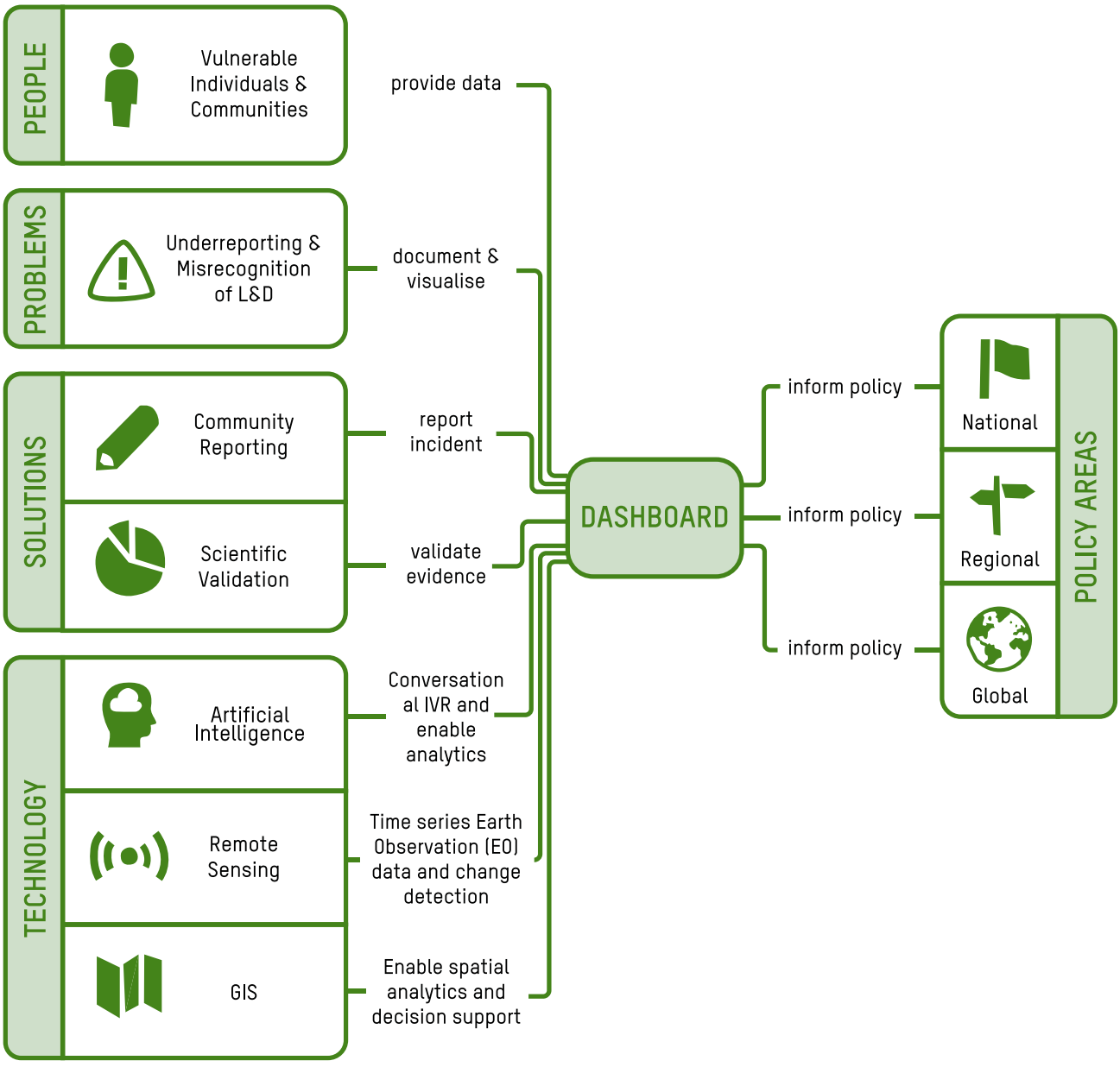


FIGURE 6: LOSS AND DAMAGE DASHBOARD ECOSYSTEM

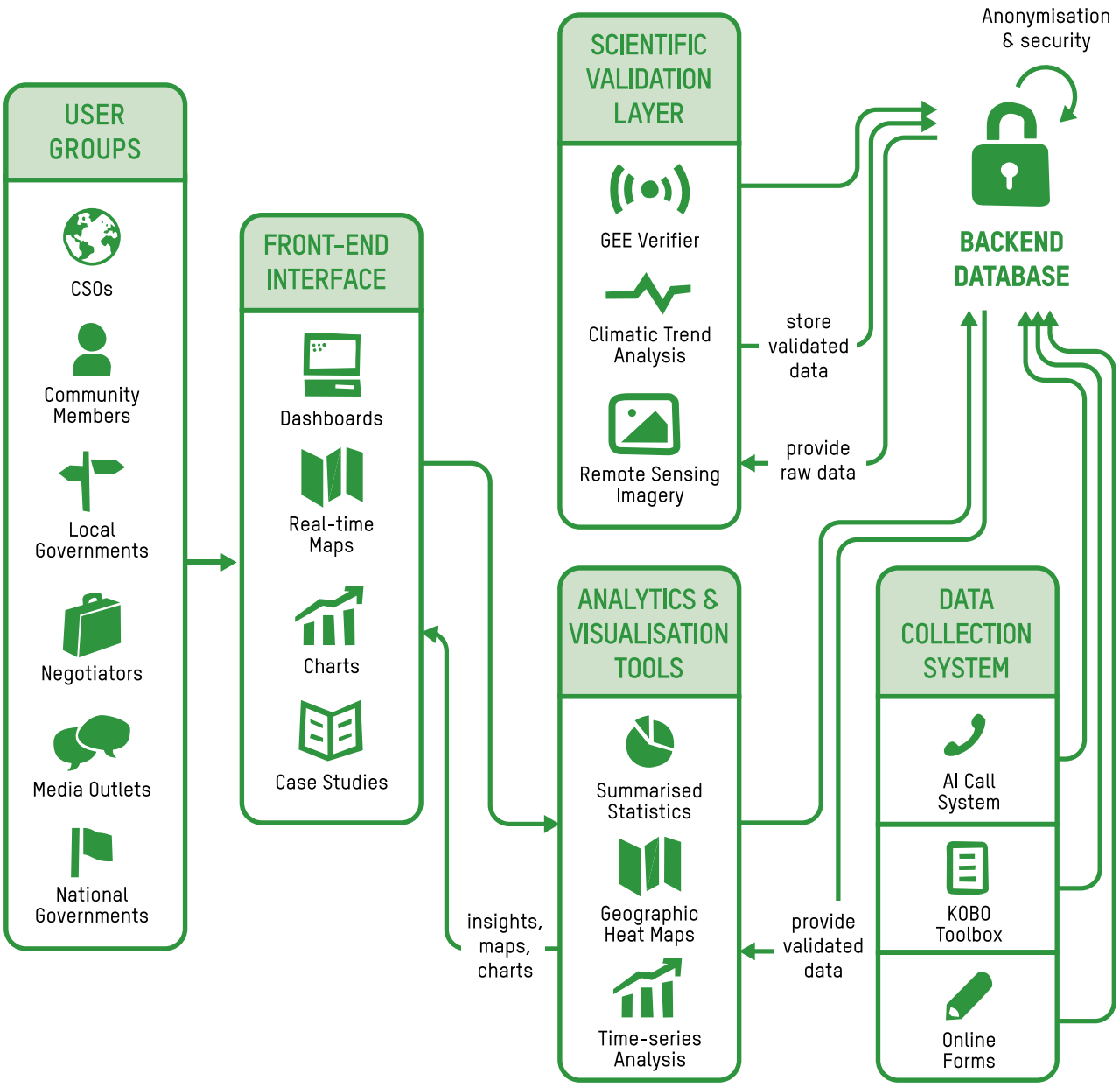


4.6 ARCHITECTURE OF THE DASHBOARD

The platform is structured into interconnected components:

- **Front-end interface:** User-friendly dashboards with real-time maps, charts and case studies.
- **Data collection system:** Surveys via KOBO Toolbox, online forms and artificial intelligence-enabled, toll-free call systems.
- **Backend database:** Secure, anonymised database managing individual and collective data.
- **Scientific validation layer:** Integration of Google Earth Engine-based verifier applications, climatic trend analysis and remote sensing imagery.
- **Analytics and visualisation tools:** Summarised statistics, geographic heat maps and time-series analysis outputs.
- **User groups:** Community members, civil society organisations, local and national governments, negotiators and media outlets.

FIGURE 7: STRUCTURE OF THE PLATFORM



4.7 TIMELINESS AND INNOVATION

The operationalisation of the Fund for Responding to Loss and Damage demands verified, community-generated evidence, which traditional top-down assessments have struggled to provide. The Loss and Damage Dashboard is timely because it:

- Bridges a critical data gap with real-time, scalable and participatory mechanisms.
- Increases negotiation power by providing validated, visualised proof of climate impacts.
- Fosters digital inclusivity by making reporting accessible even without internet or smartphone access.

It is a breakthrough innovation combining bottom-up reporting with top-tier scientific validation to meet the demands of contemporary climate diplomacy.

4.8 SUSTAINABILITY AND COMMUNITY OWNERSHIP

Sustainability and scalability are core to the Dashboard's design:

- Community maintenance: Youth volunteers, civil society organisations and local communities are trained to collect data, as well as manage and update the database.
- Digital inclusion: Offline and voice-based reporting ensures no community is excluded due to technological barriers.
- Institutional integration: The platform is being designed to connect with national climate reporting frameworks and climate finance mechanisms.
- Replication potential: Following the pilot in Bangladesh, the model can be readily replicated to other least-developed countries in need of practical, scalable and inclusive solutions.

By embedding ownership at the community level, the Dashboard ensures longevity, relevance and evolving effectiveness.

Bangladesh: Ms Doulotunnesa's community has been severely impacted by climate change, with increasingly high temperatures and levels of salinity in the water. Ms Doulotunnesa, along with other women from the community, attended training sessions by Oxfam's partner organisation, Breaking the Silence, which covered climate change, gender equality and women's empowerment. Oxfam acknowledges the support of the Australian Government through the Australian NGO Cooperation Program (ANCP). Photo: Fabeha Monir/Oxfam.

5 FINDINGS FROM THE OXFAM IN BANGLADESH DASHBOARD, PHASE 1

5.1 THE CUMULATIVE COST ESTIMATED FROM THE LOSS AND DAMAGE DASHBOARD

The Oxfam in Bangladesh Loss and Damage Dashboard was deployed in 19 districts of Bangladesh from June 2023 to March 2024. Five subtypes of loss and damage were found across nine months, including:

- Agricultural damage
- Livelihood disruption
- Private asset damage
- Public infrastructure damage
- Non-economic loss

Within each subtype, there were further nested categories and variables captured in the reporting system.

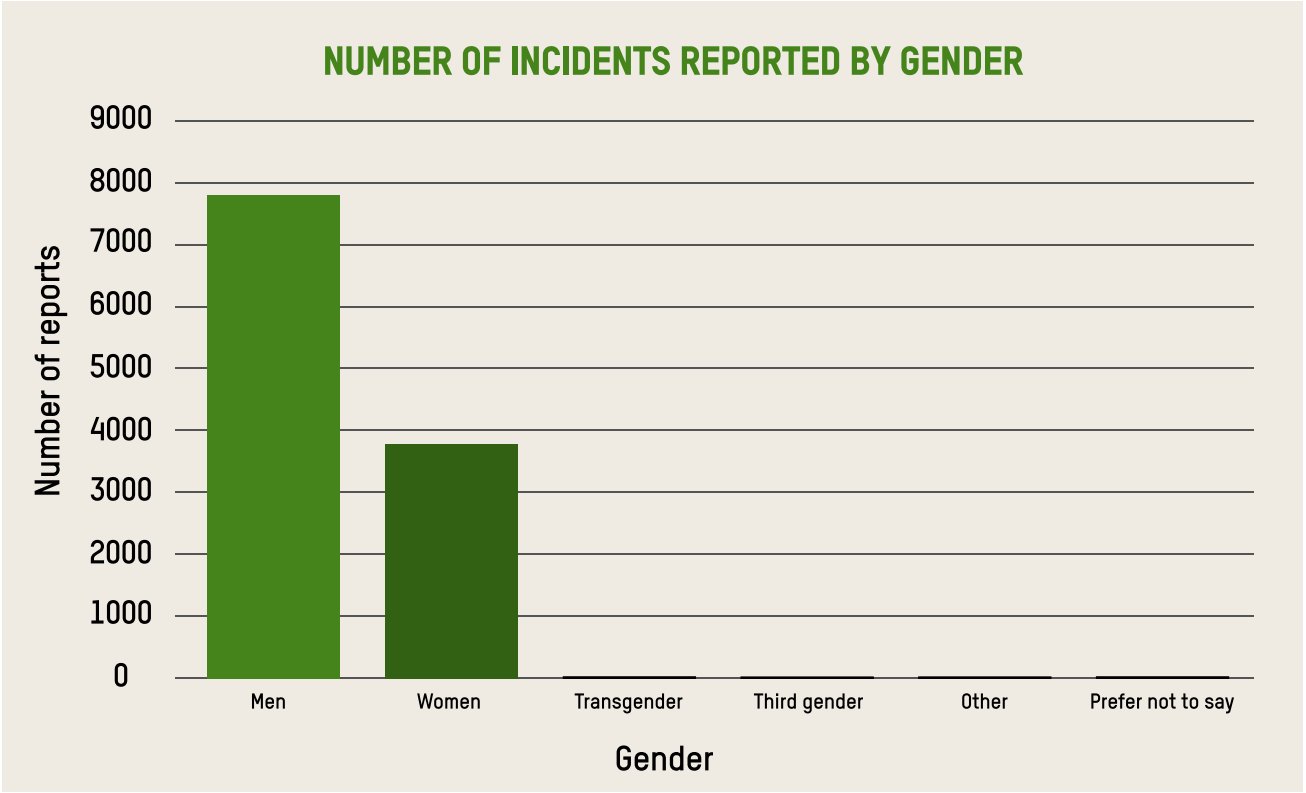
The total number of incidents reported to the database was 11,578, with 3,768 reports made by women, 7,799 reports by men and four by individuals who identified as transgender (Figure 8).

The total monetary valuation of loss and damage reported within this timeline was 1.4 billion Bangladeshi Taka (BDT) or USD $11 million. Per capita, people in the database experienced damages totalling 117,000 BDT or USD $954, equivalent to more than 15 months of work for the average Bangladeshi.[63]

5.2 TYPES OF LOSS AND DAMAGE REPORTED

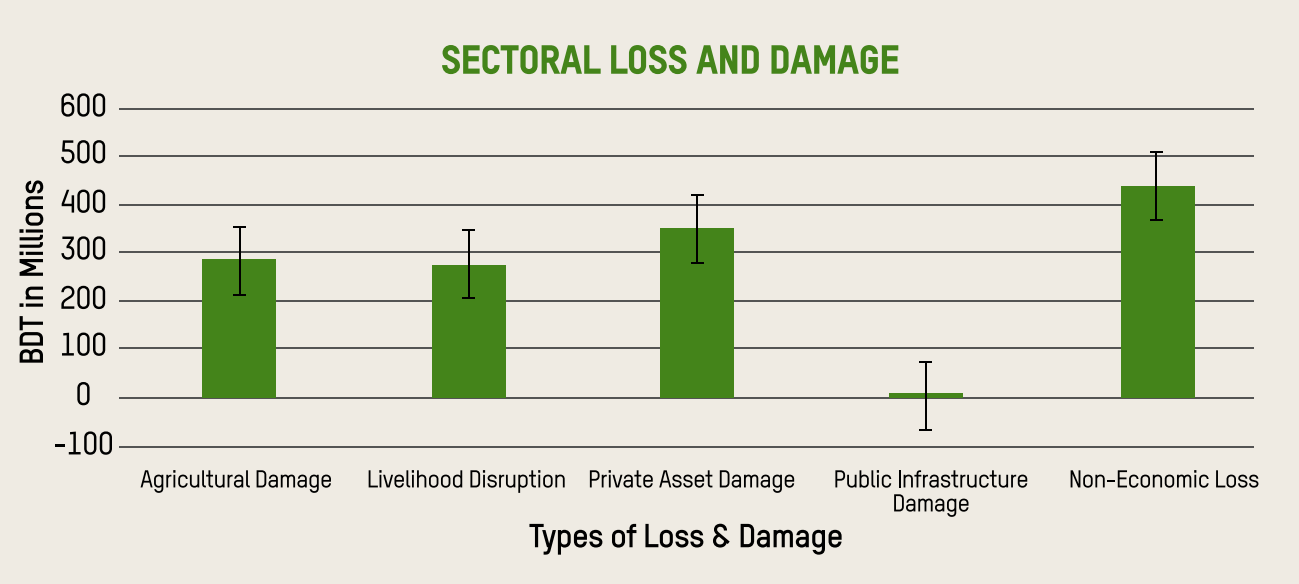
Figure 9 highlights the disproportionate impact caused by several adverse events on marginalised communities across Bangladesh, with non-economic loss, totalling BDT 435 million (USD $3.56 million) as the most substantial category in the database, greatly exceeding all types of direct physical damage. This underscores the significant and frequently neglected human and societal costs associated with loss and damage, including psychological trauma and cultural heritage loss that necessitate increased focus in disaster recovery frameworks. Non-economic loss and damage was calculated through a range of sub-variables, including psychological stress, death of family members, social relationships, gender-based violence and family feuds, among others. These sub-variables were assigned monetary values by participants based on associated impact, such as lost productivity, care work burden, medical fees, legal redress and productive hours lost for conflict resolution.

FIGURE 8: INCIDENTS REPORTED BY GENDER



Feni and Noakhali District, Bangladesh: Oxfam teams wade through flooded areas with supplies for people most in need. Photo: Oxfam.

FIGURE 9: SECTORAL LOSS AND DAMAGE MONETARY VALUATION



Private asset damage was the second highest type of loss and damage reported, linked to costs totalling about BDT 350 million (USD $286 million). This was followed by Agricultural damage (BDT 285 million or USD $233 million), and Livelihood disruption (BDT 270 million or USD $2.21 million). All impose significant economic strains on individuals and communities. On the other hand, Public infrastructure damage was notably much lower than the other subtypes, totalling BDT 5 million or USD $41,000. One factor could be the increased focus of individuals on infrastructure damage contained within their household. However, given how individual livelihoods are associated with and are influenced by public infrastructure, such as embankments, flood shelters and roads, a lower rate of reporting may also create a need for an enhanced resilience and adaptation mechanism to tackle loss and damage. This comprehensive perspective highlights the imperative for integrated disaster management policies that emphasise both concrete economic loss, damage and recovery needs as well as the highly significant non-economic effects from loss and damage that demand increased investment to cultivate genuine community resilience.

5.3 CORRELATIONS BETWEEN LOSS AND DAMAGE SUB-TOPICS

Table 1 offers essential insights into the complex interdependencies across different types of loss and damage, indicating that impacts are interconnected and propagate through socio-economic systems. A robust positive connection of 0.47 exists between Livelihood disruption and Non-economic

TABLE 1: CORRELATIONS BETWEEN LOSS AND DAMAGE SUBTYPES

Sectors	Agricultural damage	Livelihood disruption	Private asset damage	Public infrastructure damage	Non-economic loss
Agricultural damage	1	0.38	0.2	N/A	0.37
Livelihood disruption	0.38	1	0.41	N/A	0.47
Private asset damage	0.2	0.41	1	N/A	0.29
Public infrastructure damage	N/A	N/A	N/A	1	N/A
Non-economic loss	0.37	0.47	0.29	N/A	1

Note: Where 1 is fully correlated and 0 is uncorrelated

loss, demonstrating that economic instability significantly intensifies psychological anguish, social disintegration and other intangible human costs. This is further substantiated by moderate correlations indicating that Livelihood disruption is associated with Private asset damage (0.41), and Agricultural damage correlates with both Livelihood disruption (0.38) and Non-economic loss (0.37), highlighting the direct impact of physical damage to private property and agricultural resources on income loss, thereby exacerbating non-economic distress. The widespread occurrence of 'N/A' values for Public infrastructure damage across various categories is significant, indicating a fundamental disjunction. The determinants affecting public infrastructure damage or its immediate cascading effects function independently and are not linearly correlated with the drivers of private, agricultural, livelihood or non-economic impacts, thereby requiring separate analytical and policy strategies for this sector.

5.4 LOSS AND DAMAGE AND GENDER

Figure 10, viewed through the prism of prevailing patriarchal customs in Bangladesh, illustrates a critical and complex depiction of loss and damage implications. The graph consistently indicates that loss and damage reported by men are substantially greater across all categories, for example, Male Non-Economic Loss at BDT 300 million (USD $2.5 million) compared to Female at BDT 130 million (USD $1.1 million); Male Private Asset Damage at BDT 250 million (USD $2.1 million) compared to Female at BDT 100 million (USD $80 million). In a country with patriarchal norms, such as Bangladesh, cultural norms and social structures inside and outside the home may promote a reporting pattern like this by designating men as key asset holders or decision-makers, hence prioritising their experiences in reporting and data collection. The presence of substantial, though lower, female-reported losses is significant, indicating that even with fewer female participants, their experiences of loss and damage are still considerable and warrant specific attention.

Figure 11 depicts the number of female participants reporting a particular health impact. Water-borne infections (about 725 participants) and Disaster-induced injuries (nearly 700 participants) are the most commonly reported health consequences, signifying extensive public health issues associated with sanitation, access to clean water and immediate safety. Malnutrition (about 650 individuals) and Skin illness (roughly 625 participants) are also significantly widespread, indicating persistent problems arising from extended food insecurity and poor living conditions. The presence of Reproductive health (about 125 participants), is essential here in highlighting unique gender-specific vulnerabilities

FIGURE 10: LOSS AND DAMAGE VALUATION BY GENDER

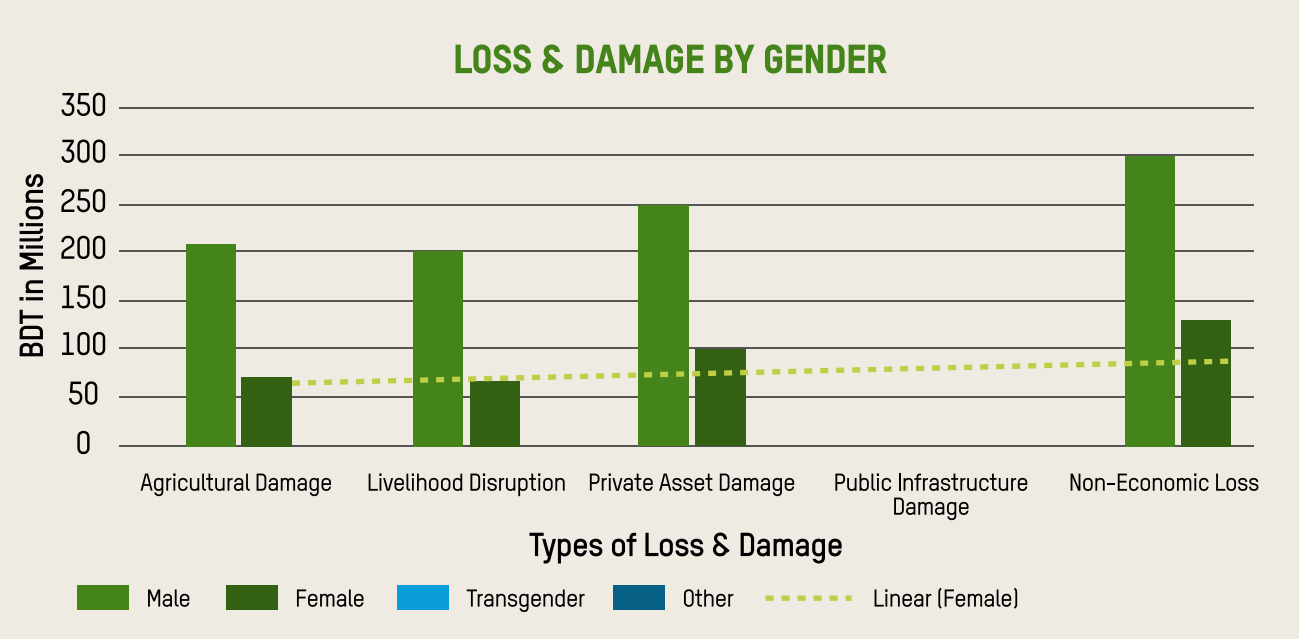
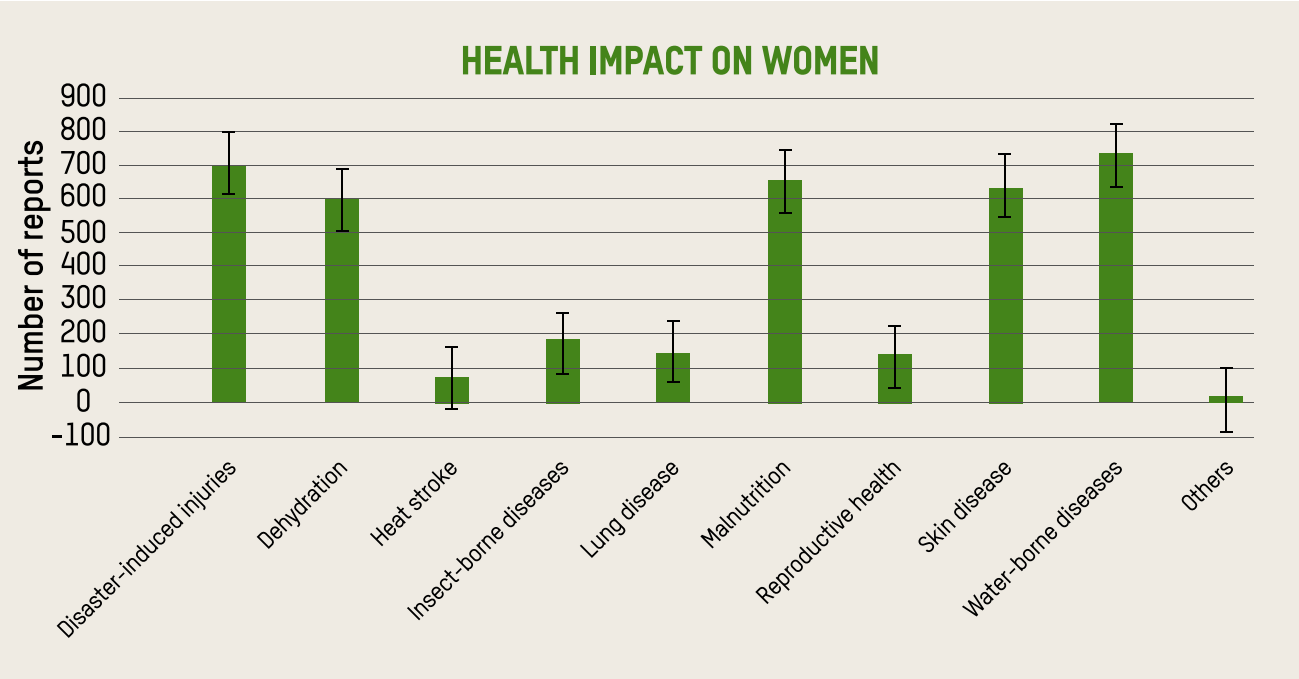


FIGURE 11: HEALTH IMPACTS ON WOMEN

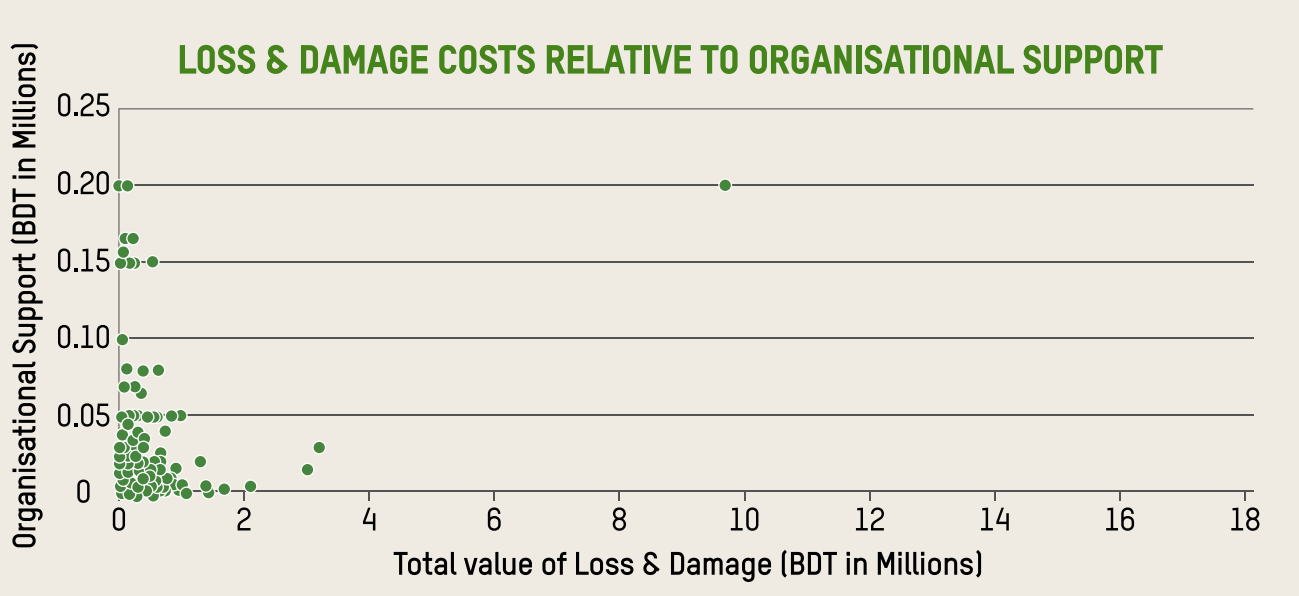


and post-climate impacts sometimes neglected in generalised health evaluations. The data here enabled detailed insights into some of the health burdens encountered by women after adverse climate-induced events and highlights the critical need for tailored, gender-responsive health treatments that tackle both acute and chronic health issues, including specialised reproductive health care, to adequately assist women in disaster-affected regions.

5.5 LOSS AND DAMAGE COSTS VERSUS GOVERNMENT ALLOCATION UNDER REVENUE BUDGET FOR SPECIFIC ADMINISTRATIVE AREAS

Figure 12 depicts a multifaceted correlation between the extent of loss and damage and the organisational support provided. Organisational support encompasses the involvement and contributions of local and national governmental bodies, as

FIGURE 12 SCATTER PLOT OF TOTAL LOSS AND DAMAGE COSTS RELATIVE TO ORGANISATIONAL SUPPORT THE COMMUNITY RECEIVED



well as non-government organisations (NGOs) and international NGOs. The predominant data points are concentrated around the origin, signifying that the organisational support is likewise minimal (under 0.05 million BDT). This clustering indicates that minor loss and damage incidents frequently receive insufficient organisational assistance. Nevertheless, there are significant anomalies: one case reveals a higher loss and damage value without any organisational assistance, underscoring a considerable deficiency in support for substantial losses. This data point, representing a case study of 10 million BDT (USD $82,000) in loss and damage to a greatly insufficient 200,000 BDT (USD $1,636) in organisational support, indicates that although certain minimal loss events receive assistance, the relationship is not consistently linear, and numerous significant losses remain unsupported.

5.6 PROJECTING LOSS AND DAMAGE COSTS FOR THE SPACE AND TIME DIMENSION

Figure 13 and 14 depict loss and damage among different districts, with Cox's Bazar emerging as a notable outlier, exceeding 500 million BDT (USD $4.1 million) in loss and damage funding, greatly overshadowing all other regions and highlighting a severe geographical concentration of loss and damage in the country. This outsized experience of loss and damage reflects the district's high vulnerability and exposure to frequent storm surges and cyclones. Following Cox's Bazar, Kurigram (about 200 million BDT, or USD $1.6 million), Satkhira (about 180 million BDT or USD $1.5 million) and Sunamganj (about 170 million BDT, or USD $1.4 million) exhibit considerable losses, underscoring further regions of notable susceptibility. Conversely, several districts including Chapainawabganj, Dhaka, Jhalokati, Khulna, Kurigram, Magura, Naogaon, Netrakona, Pabna and Rajshahi have negligible losses, often about 10 million BDT, indicating either reduced vulnerability to hazards or enhanced resilience. The significant variation in loss and damage values throughout districts highlights the need for spatially focused interventions and resource distribution, emphasising places severely affected, such as Cox's Bazar, Kurigram, Sathkhira and Sunamganj for disaster planning, response and recovery initiatives. Kurigram is highly vulnerable to flooding and riverbank erosion, while Sathkhira experiences severe intense cyclones, flooding, storm surges and salinity intrusions.

5.7 COMMUNITY INTERVIEWS FROM USERS OF THE LOSS AND DAMAGE DASHBOARD

To understand if such a dashboard would be useful for the community, Oxfam partners BARCIK and ACD interviewed some community members (two women, two men, and two youths):

Selina Mumu, 29, an indigenous woman of Chanduria Union, Tanore, Rajshahi, and Aroti Soren, 36, a rural woman from Daingpara, Damkurahat, Deopara of Godagari, Rajshahi, are aware that climate change is happening, and have both experienced loss and damage. They shared that they would like to report such losses if there was an opportunity to share with

donors and governments, without incurring phone costs or charges. They think this kind of information could be useful at the international level, and would help secure support for communities on the frontlines. They normally made reports through their phones, through someone in the village, or through the support of a local NGO or union office.

Fajlul Hoq Khan, 35, from Kasta, Boldhara, Shingair, Manikganj, is involved in agriculture and said he would be able to report losses and damage from his own phone. He also thinks that the system would improve the quantity of information and enable information exchange between more parties, including people directly affected by climate change and those working in the agricultural sector.

Rukia Begum, 60, a farmer from Bayra, Shingair, Manikganj, thought positively of the reporting system for loss and damage. She is unsure of its benefits at the international level, but thinks this system is highly valuable in terms of information exchange and raising the awareness of different kinds of loss and damage and possible responses to community users of the database. She reported cases of loss and damage through her own phone, with the assistance of others in the village and NGO and local government offices through discussions with partner organisation members.

Iman Ali, 62, who is involved in agriculture in Noyabari, Bayra, Shingair, of Manikganj, tried cultivating jute twice but faced loss due to drought. On the loss and damage reporting system, he thought that since people from all over the country would be reporting, responsible authorities, either individual or relevant institutions, would be better able to understand the gravity of the problem. From this, they could develop solutions and raise the profile of loss and damage and community responses for others. He said it is possible for organisation members to discuss loss and damage affecting their community together and report opinions and recommendations through their phones, others in the village, NGO and local government offices, and partner organisation members.

FIGURE 13 LOSS AND DAMAGE BY DISTRICT (HEATMAP)

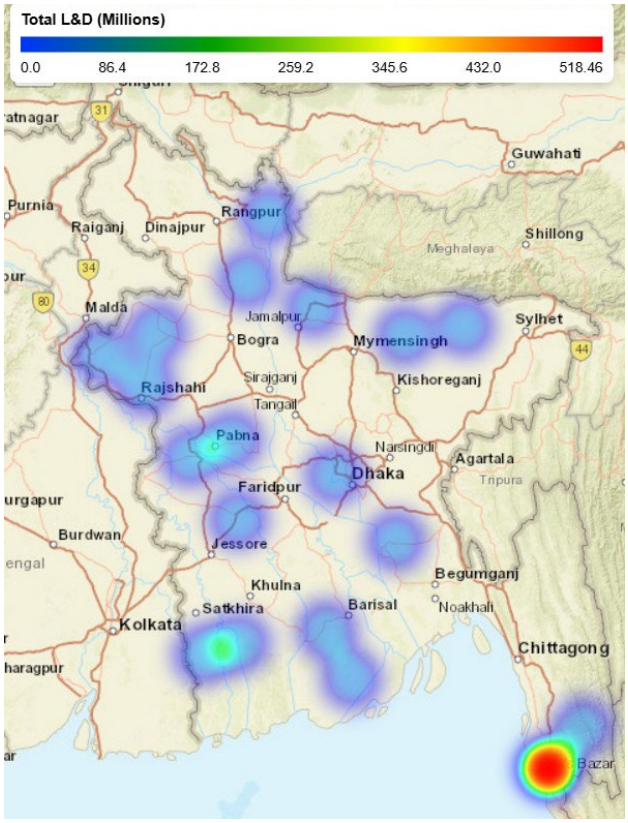
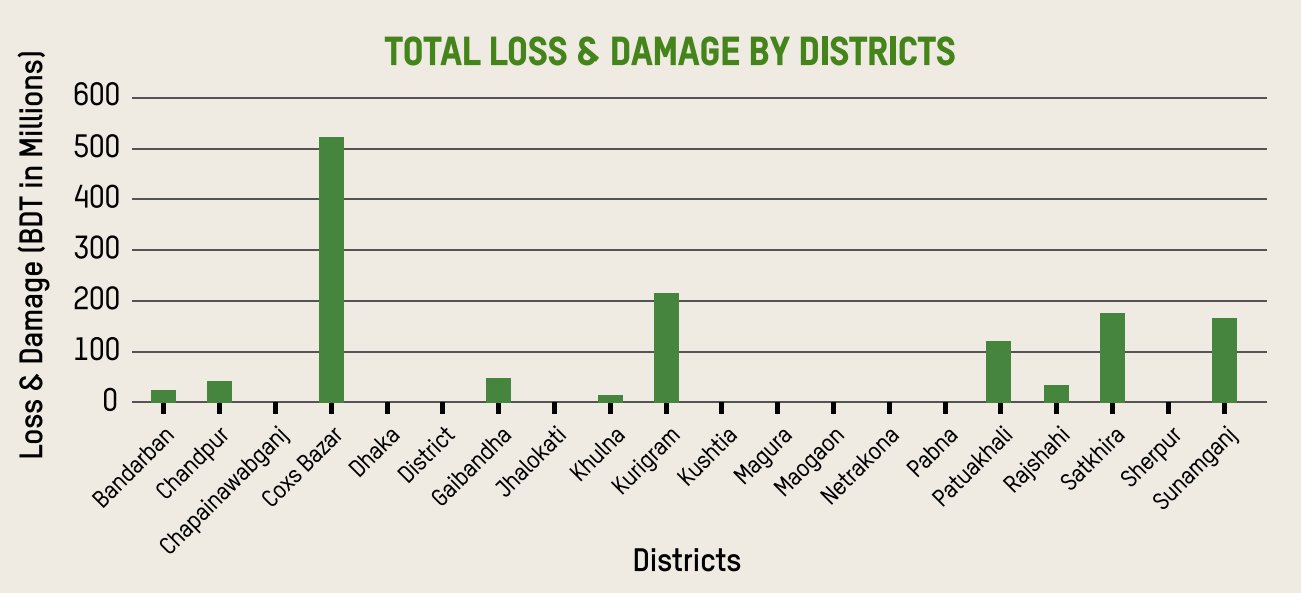
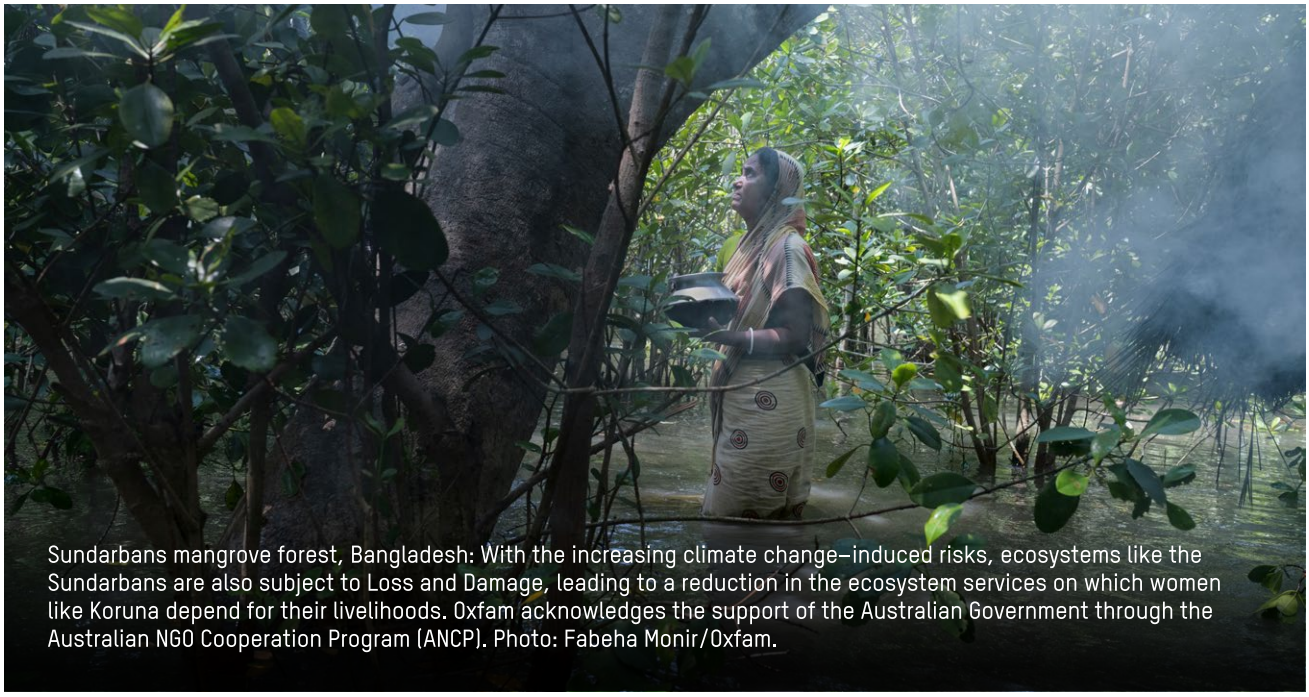


FIGURE 14 LOSS AND DAMAGE BY DISTRICT (Column graph)



6 THE FUTURE OF THE LOSS AND DAMAGE DASHBOARD



Sundarbans mangrove forest, Bangladesh: With the increasing climate change–induced risks, ecosystems like the Sundarbans are also subject to Loss and Damage, leading to a reduction in the ecosystem services on which women like Koruna depend for their livelihoods. Oxfam acknowledges the support of the Australian Government through the Australian NGO Cooperation Program (ANCP). Photo: Fabeha Monir/Oxfam.

The Loss and Damage Dashboard provides a strong evidence base for loss and damage impacts and targeted advocacy at national and international scales through an innovative integration of scientific data and community-based participatory processes, integrating in-depth gender and human rights analysis. It also strengthens the basis upon which loss and damage negotiations take place. The Dashboard promotes transparency and accountability and facilitates cross-fertilisation of lived realities with policy responses.

Looking ahead, the Loss and Damage Dashboard is poised to evolve into a globally recognised, community-anchored digital infrastructure for climate justice. With technological refinement and stakeholder collaboration, its features will expand to include artificial intelligence-driven damage prediction, climate finance disbursement tracking, and integration with national disaster response systems. Localisation of language interfaces, mobile optimisation and stronger links with government planning tools are already under exploration.

Importantly, the Dashboard can serve as a vital data and coordination tool for a Bangladesh Government National Mechanism/Framework on Loss and Damage, supporting comprehensive, participatory and rights-based risk and loss and damage needs assessments, informing policy decisions, tracking finance flows, and aligning national efforts with international frameworks like the Paris Agreement and the Sendai Framework.

The Loss and Damage Dashboard, with proper piloting testing, can be shared with the Warsaw International Mechanism, its executive committee and the Santiago Network for further development and replicability in other least-developed countries under UNFCCC processes. Replication in other least-developed countries supports the building of regional platforms of shared climate evidence that can be fed into the operationalisation of the Fund for Responding to Loss and Damage and loss and damage negotiations in other UNFCCC fora.

Future versions of the Dashboard will bridge upstream policymaking with downstream community realities more seamlessly. As countries begin operationalising the Fund for Responding to Loss and Damage, the Dashboard can play a critical role in verifying claims, channelling support to affected populations, and enhancing transparency in fund utilisation.

Ultimately, the Dashboard's future rests in supporting frontline communities, not just to report and visualise loss but to lead solutions. Sustained investment in digital literacy, community-led monitoring and feedback mechanisms will be essential to keep it relevant and people-centred. As the climate crisis deepens, such tools will become indispensable in ensuring justice is not just promised but delivered.

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Cox's Bazar, Bangladesh: Flooding inundates bamboo and tarpaulin shelters in the Cox's Bazar refugee camps.
Photo: Shaikh Ashraf Ali/Oxfam.

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