Building the resilience of BURO Bangladesh's customers to the impacts of climate change

A qualitative research report

June 2025

BURO Bangladesh

MSC MicroSave Consulting

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Abbreviations

Abbreviations	Meaning
DRRO	District Relief and Rehabilitation Officer
FDG	Focus discussion groups
IDI	In-depth Interviews
IT	Information technology
KII	Key informant interview
LEWS	Landslide early warning systems
LSD	Lumpy skin disease
LLA	Locally-led adaptation
MFIs	Microfinance institutions
NGO	Nongovernmental organization
PKSF	Palli Karma-Sahayak Foundation
PRA	Participatory research appraisal
SME	Small and medium enterprise
SSS	Society for Social Services
UFO	Upazila Fisheries Officer
ULO	Upazila Livestock Officer
VGF	Vulnerable group feeding
WASH	Water, sanitation, and hygiene

Executive summary

Research background and objectives

Climate change has been increasingly affecting the livelihoods of BURO's agri and agri-allied customers.

Vulnerable communities, particularly women farmers, struggle to access financial services to build their climate resilience.

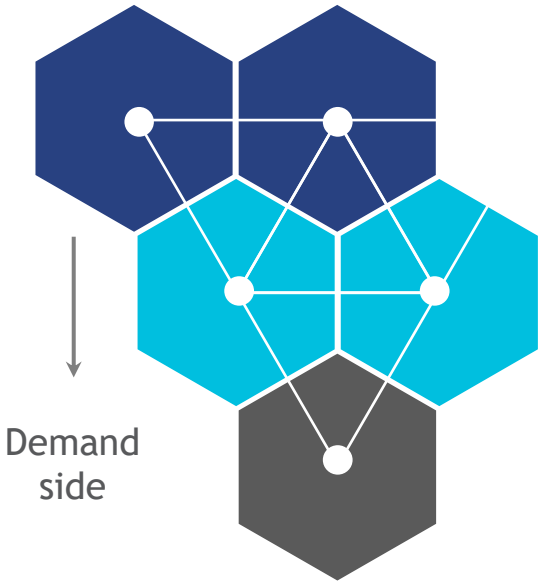
BURO wanted to understand the crucial role of financial products in adaptation for it to design effective solutions.

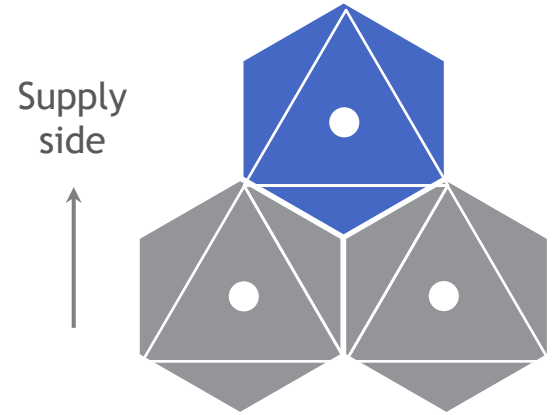
To do this, BURO partnered with MSC to assess climate change impacts, understand customer coping strategies, identify financial barriers, and evaluate how current services support or hinder customer resilience.

Objectives

- Assess the direct and indirect impacts of climate hazards on the lives and livelihoods of BURO's customers
- Examine the financial stability of BURO's customers in the context of climate-related challenges
- Investigate how BURO's customers use existing formal and informal financial products and services to cope with climate hazards
- Evaluate the role financial tools play to build resilience among BURO's customers
- Provide insights into how BURO can enhance its financial offerings to help customers adapt better to the impacts of climate change and maintain their financial resilience

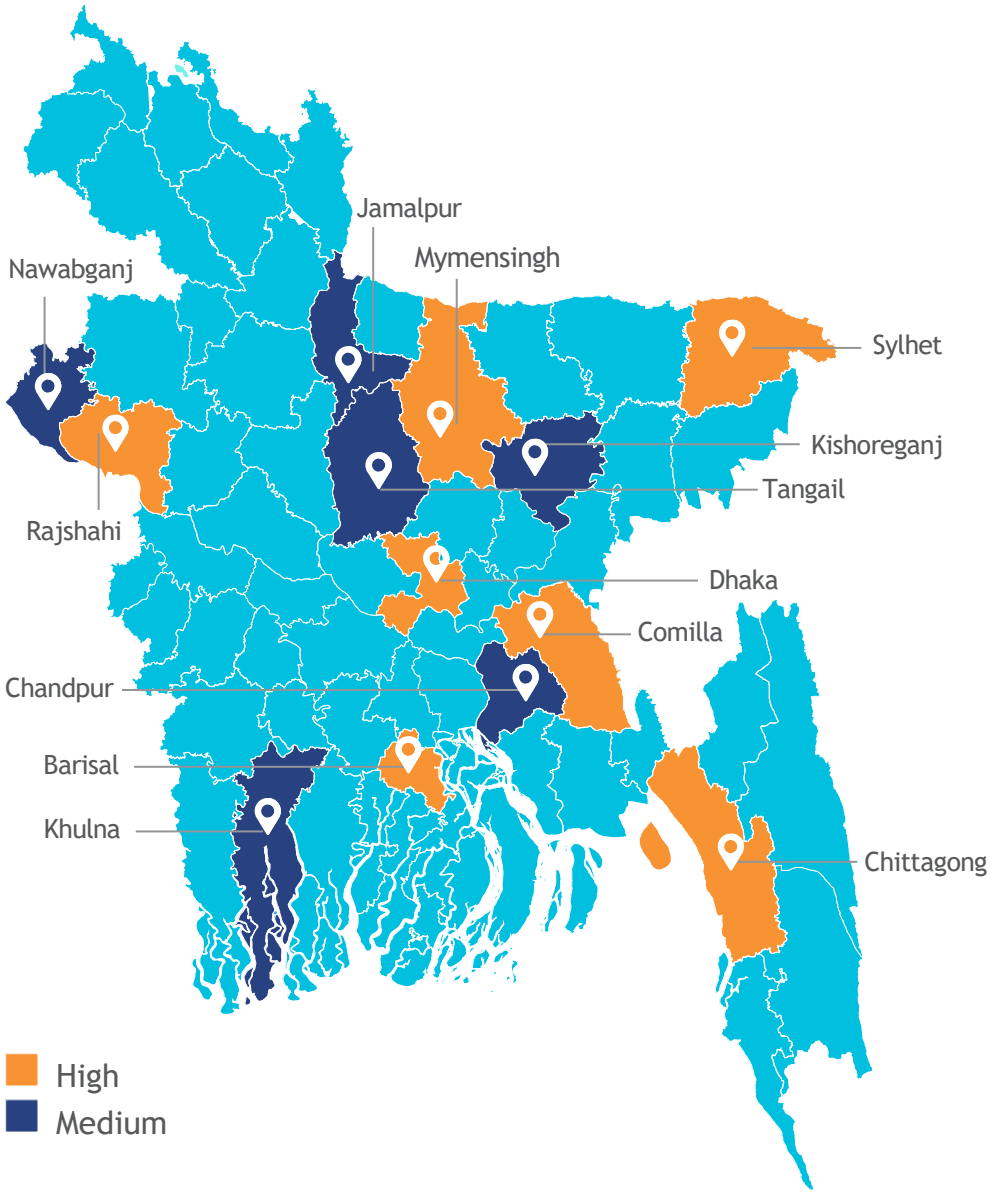
MSC and BURO adopted a hybrid approach to understand how BURO's services can support climate-vulnerable customers better.





BURO and MSC jointly applied MSC's proprietary behavioral design approach—Mi4iD to understand customer behavior, decision-making, and coping strategies to mitigate climate risks.	**24 FGDs** with **180 participants** who were BURO's customers across Satkhira, Rangpur, Tangail, and Cox's Bazar
Methods used to develop insights: PRA, IDIs, affinity mapping, product ranking, FGDs, and others	**76 IDIs** with male and female farmers, livestock owners, fisherfolk, all customers of BURO Bangladesh
Secondary research on local climate hazards and their impacts.	Secondary review of **40+** reports from the World Bank, UNDP, USAID, IFPRI, BRAC; the CoSAI datasets and their analysis also informed the research
Key informant interviews and interviews with BURO staff	**Ecosystem-level stakeholder consultations, which included:** • Government officials, such as the District Relief and Rehabilitation Officer (DRRO), the Upazila Nirbahi Officer (ULO), the Upazila Fisheries Officer (UFO); • Input traders, such as Khairul Enterprise and Sazzad Traders; • Other NGOs, including BRAC and Shakti Foundation.
Rapid desk research on BURO's products and processes	**BURO staff interviews:** Four (Branch Managers)

Most of BURO's portfolio is concentrated in high climate-risk regions of Bangladesh.



BURO's branch network is heavily concentrated in regions with high climate risks. We have analyzed the regions based on two key factors:

- The GOB's Climate Vulnerability Index (CVI), which measures exposure, sensitivity, and adaptive capacity to climate risks.
- Branch density, which indicates BURO's operational presence in these regions.

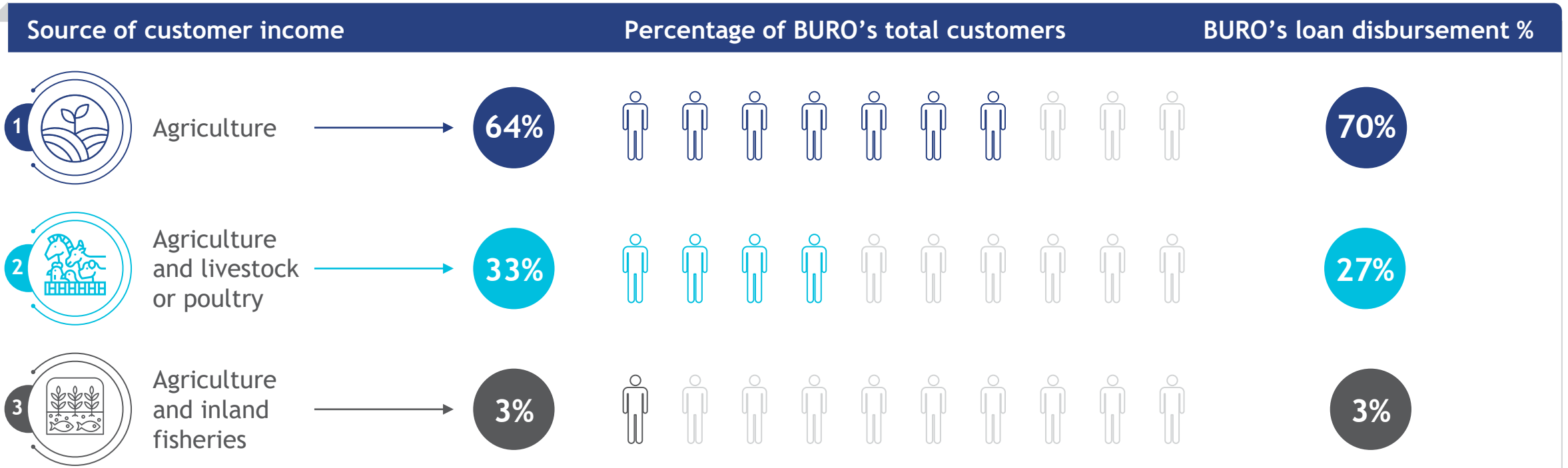
High-risk hotspots

Dhaka, Chattogram, Barisal, Sylhet, Comilla, Mymensingh, and Rajshahi have the highest combined scores, which makes them priority areas for resilience-building efforts.

Emerging risk zones

Khulna, Nawabganj, Chandpur, Jamalpur, Kishoreganj, and Tangail also show significant vulnerability and require proactive financial inclusion strategies.

Across its operations, most of BURO's customers rely primarily on a single source of income—agriculture, which makes them highly vulnerable to climate change.



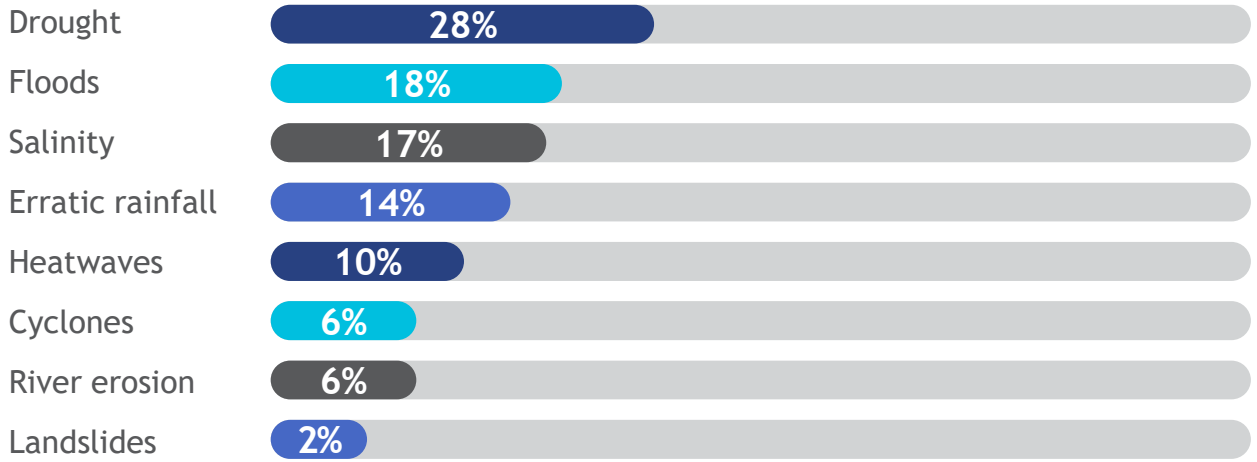
- BURO's customers rely mostly on agriculture as their dominant source of income, which makes a significant portion of BURO's clients highly vulnerable to climate-related shocks, such as droughts, floods, and extreme weather events.
- While diversification into livestock and poultry reduces some climate risk, these activities are still vulnerable to extreme weather conditions, disease outbreaks, and market fluctuations.
- If stakeholders can expand access to alternative livelihood opportunities, such as agroforestry and climate-resilient enterprises, it can help mitigate risks.

BURO's customers are exposed to frequent climate shocks, and face multiple hazards throughout the year.

Countrywide snapshot of hazards (2023-24)

- In 2024, Bangladesh experienced an extra 57 days, or almost two months of extreme heat due to climate change.
- The monsoon season for the year was particularly severe, with prolonged flooding in low-lying areas.
- Major rivers, such as the Brahmaputra, Ganges, and Meghna, experienced higher water levels than usual.
- Saltwater intrusion further inland affected groundwater quality in coastal regions.

Percentage of respondents exposed to climate events.



Regional hazard overview (2023-24)

Flood and heatwave, Tangail

- 46,000 people in remote char areas affected by flood
- Houses, markets, educational institutions, and croplands submerged for weeks
- Hit by extreme temperatures and severe heatwaves for a month

Cyclone Remal, Satkhira

- 200,000 people affected
- 1,500 houses damaged
- Week-long floods in the district due to the cyclone's storm surge, which reached 5-8 feet in coastal areas
- 4,000 fish enclosures flooded

Cyclone and landslide, Cox's Bazar

- Affected displacement camps housing nearly 1 million Rohingya refugees
- Around 27,000 refugees at risk of landslides due to rains influenced by Cyclone Remal

Heatwaves in Rangpur

- 22 people died of heatstroke in a span of 5 days during April 2024.
- The prolonged high temperatures negatively impacted paddy production (paddy pollination and grain formation leading to decreased rice yields).

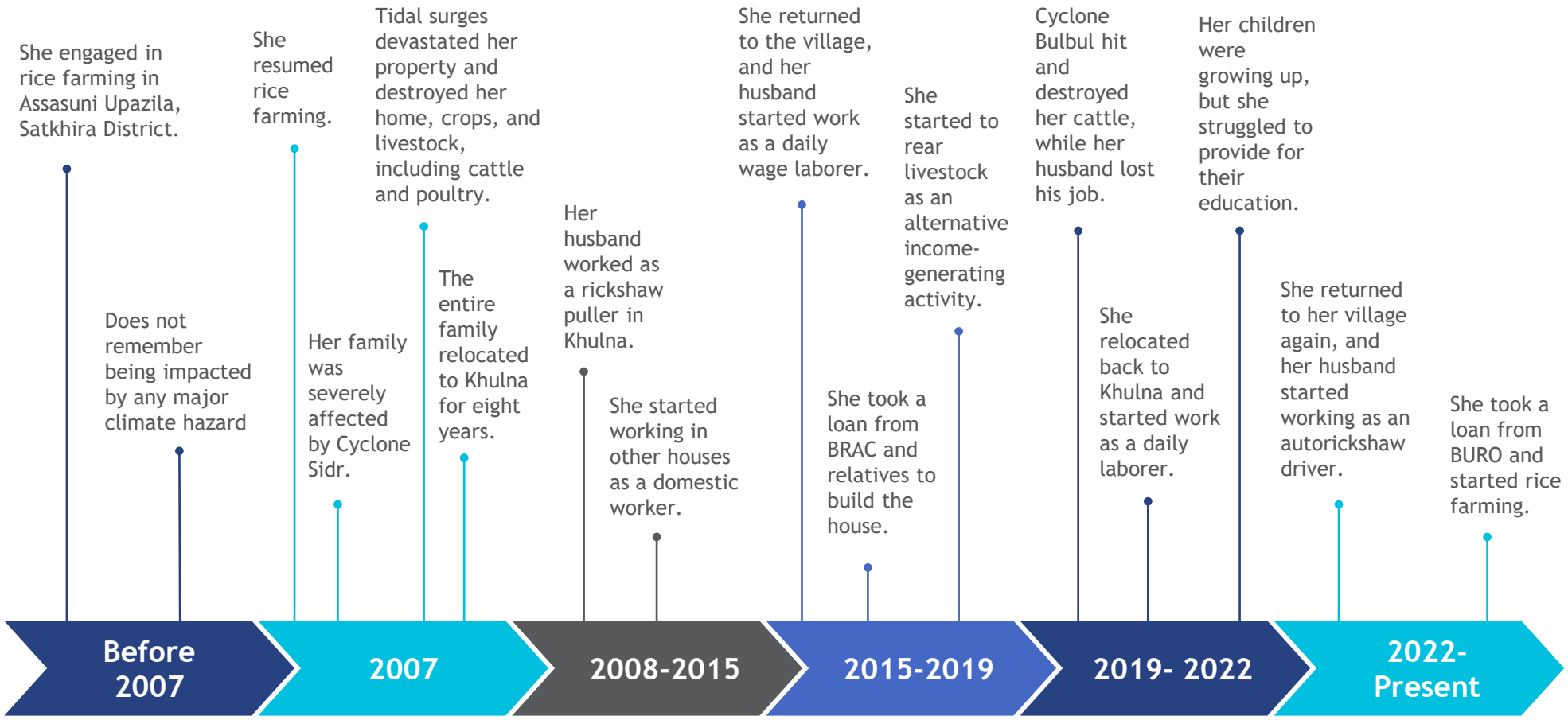
Source: Analysis of primary research

These hazards are recurrent, and customers encounter them repeatedly throughout their lives.

Age: 38
Gender: Female
Marital status: Married
Family size: 4 members
Education: Class 5

Occupation: Farmer
Landholding: Sharecropper
Livestock: 2 cows

Type of house: Pucca
Access to phone: Feature phone



A journey of resilience: Communities in places like Khulna and Satkhira struggle with geographical and economic mobility, as they need to repeatedly rebuild their lives and livelihoods in the face of recurring cyclones and floods.

Different climate hazards have distinct yet interconnected impacts on livelihoods of BURO's customers.

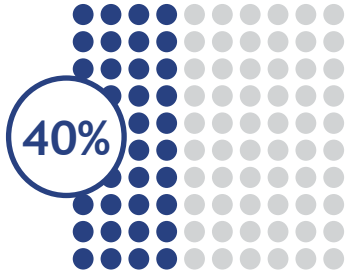
Hazard	Agriculture	Livestock	Fisheries
Cyclones	Cyclone Remal (2024) caused crop losses worth USD 90.7 million across 62,783 hectares.	More than 10,800 livestock households required emergency feed support due to destroyed grazing lands.	Coastal fishing communities' lost access to markets and equipment.
Floods	Floods lead to USD 2.2 billion in annual losses nationally, while 83% of crop producers report damage to standing crops.	Losses amounted to USD 39 million (BDT 4.11 billion) across 12 districts, including poultry and cattle deaths.	Losses in fisheries amount to USD 151 million (BDT 15.9 billion), with 180,000 ponds and farms damaged and 90,768 tons of fish lost.
Drought	Prolonged droughts threaten 28% of rice and 68% of wheat production under a 4°C temperature rise.	Among cattle, fodder availability was reduced along with lowered weight gain, though losses are not quantified.	Declining groundwater affects pond-based aquaculture.
Heatwaves and cold waves	Boro rice yields declined by 6–16%; 30% of mango buds dropped due to extreme heat.	Milk, egg, and meat production faced a 25% loss, while the poultry sector lost USD 19 million (BDT 200 crore) in two weeks.	Higher pond temperatures cause fish mortality.
Soil and water salinity	Salinity intrusion led to 20–40% yield losses in cereals, vegetables, and fruits.	Reduced grazing land and fodder scarcity lower milk production.	Shrimp farmers face declining yields as salinity affects breeding cycles.
Erratic rainfall	Disrupted planting cycles reduce crop yields, though broader flood or drought estimates subsume the losses.	Instances of disease outbreaks increased due to stagnant water, with unquantified losses.	
River erosion	96% of households lost cropland, with 40.5% fully washed away.	Displacement destroys livestock shelters and fodder storage.	Erosion alters river courses, which disrupts fish habitats and catch volumes.

Source: MSC analysis of secondary and primary research

BURO's customers adopt a range of strategies to anticipate, absorb, and adapt to the impacts of climate change-related shocks.

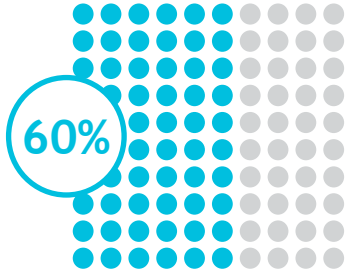
The BRACED program's 3As framework defines three core resilience capacities to manage climate-related shocks. Each capacity addresses distinct phases of risk management:

1. **Anticipatory capacity**: The ability of social systems to anticipate and reduce the impact of climate extremes before they occur
2. **Adaptive capacity**: The ability to adjust actions or characteristics to moderate long-term climate risks or exploit new opportunities
3. **Absorptive capacity**: The ability to cope with and recover from immediate impacts during or after a shock, using tangible assets, such as savings and food stocks, and intangible resources, such as social networks



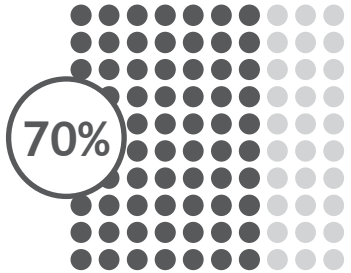
Anticipatory strategies

- Harvest rainwater for livestock use
- Use climate-resilient livestock breeds
- Use crop varieties resistant to flood, drought, and salinity
- Establish fodder banks and improve storage practices
- Shift sowing and harvesting times based on climate patterns



Adaptive strategies

- Practice agroforestry
- Diversify crops and use intercropping techniques
- Adopt direct seeded rice (DSR) and alternate wetting and drying (AWD) methods
- Implement rotational grazing and better pasture management
- Use biofertilizers and vermicompost
- Follow sustainable livestock feed practices
- Strengthen disease prevention and management systems
- Raise the plinths of houses and toilets



Percentage of respondents who adopt these strategies

Absorptive strategies

- Borrow from informal sources
- Shift occupation or livelihood
- Rely on community support
- Access loans from NGOs or MFIs
- Sell productive assets and reduce food consumption
- Use personal savings
- Organize community-based livestock health camps
- Migrate for work or safety

BURO customers require access to adequate financial resources, so they can successfully implement these strategies.

Anticipatory financial needs

1. **Credit for home reinforcement**: These are top-up loans to strengthen their homes against climate hazards. These loans help finance:
   - **Reinforcement of walls and roofs to** withstand high winds, heavy rain, and extreme heat;
   - **Installation of flood barriers and water diversion systems**, such as sandbag walls or permanent flood walls, to prevent water from entering homes;
   - **Stormproof storage**, which involves securing safe storage spaces for food and essential goods to minimize losses during disasters.
2. **Microinsurance for climate shock preparedness:** Microinsurance provides financial security to customers affected by climate-induced disasters and ensures they can recover quickly. It includes:
   - **Livelihood protection**, which covers losses due to crop failure, livestock loss, or damage to small businesses caused by floods, droughts, or storms;
   - **Health and emergency support**, which provides access to funds for medical emergencies resulting from climate-related incidents.

Adaptive financial needs

1. **Financial support for the adoption of sustainable farming practices:** This includes agriculture loans to invest in CSA. These products can help finance:
   - CSA infrastructure, which comprises credit for drip irrigation systems, solar irrigation systems, seed tillers, and rainwater harvesting;
   - Working capital to purchase flood or drought-tolerant crop varieties.
2. **Financial support for income diversification:** Customers need capital for alternative income-generating activities, such as:
   - Small-scale poultry farming, which offers a steady income stream with minimal land requirements;
   - Fisheries and aquaculture, which support fish farming as an alternative to traditional agriculture;
   - Non-agricultural microenterprises, which facilitate income diversification through activities, such as purchasing an auto-rickshaw or establishing a small grocery shop;
3. Flexible loan structures that are customized to income patterns and adjusted interest rates.

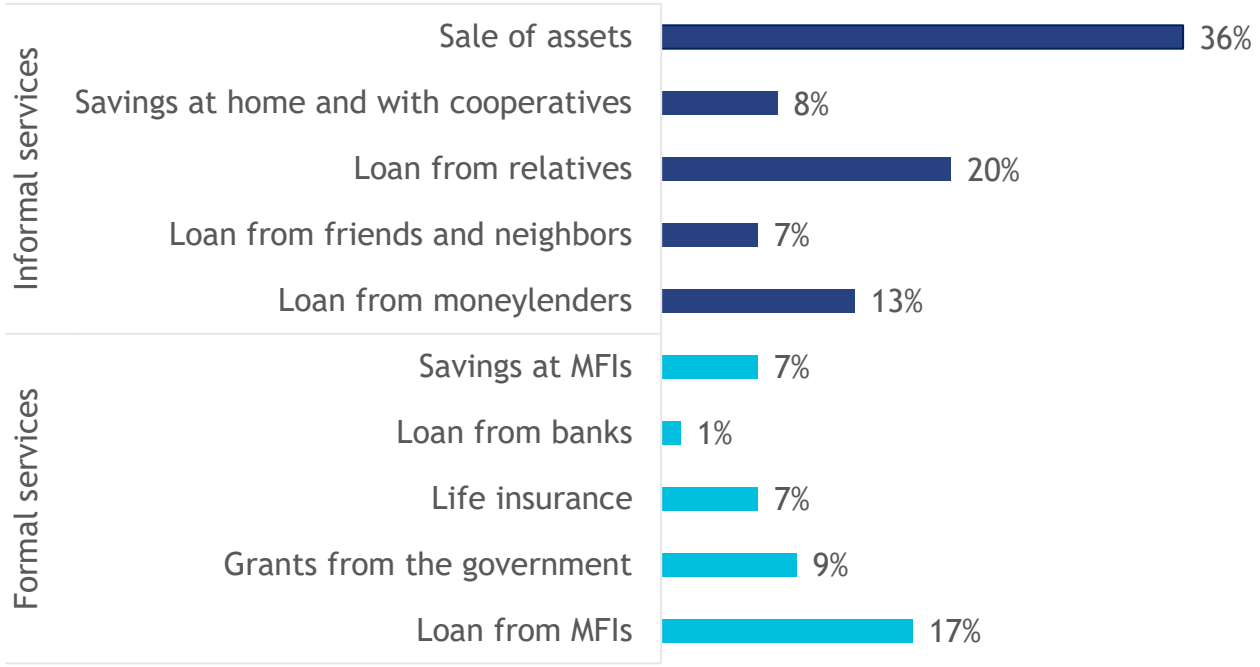
Absorptive financial needs

1. **Early-action financing for efficient disaster management:** Preemptive financing, based on early warning systems, is crucial to minimize losses, recover faster, and build short-term resilience against climate shocks.
2. **Contingency funds for quick recovery:** Such funds allow easy access to corpus savings with flexible, unrestricted savings accounts that allow quick withdrawals during emergencies.

Customers meet these financing needs primarily through informal channels, such as personal savings and community lending, often at a significant cost.

Customers rely on informal sources significantly for financial reliance. Of them, 77% borrow from relatives, and 100% of livestock owners sell assets as a last resort. In contrast, access to formal finance remains limited. Only 46% use microfinance borrowing, and government grants reach just 23%.

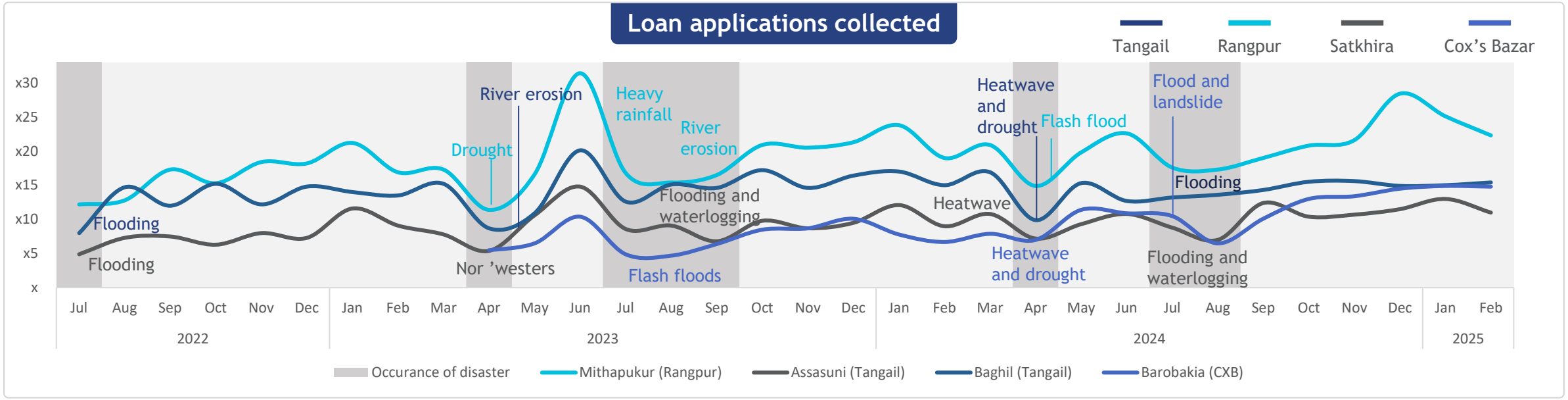
The preferred source of funds reported by respondents to cope with climate change:



All farmers, livestock owners, and fisherfolk prioritize interest rate reductions as their most urgent financial modification. Both farmers and livestock owners require installments adjusted to cash flows alongside short-term loans (loan moratoriums) to enhance financial flexibility.

Among new financial products, seasonal loans are a common priority across all three groups, while parametric insurance is particularly critical for livestock owners. Disaster loans are especially important for farmers, whereas emergency loans are needed across all groups, though their urgency varies.

Loan applications plummet during climate events, as borrowers hold back from applying due to behavioral constraints, while lenders hesitate due to various operational challenges.



BURO and other MFIs collect fewer loan applications during climate events, primarily due to borrower-side constraints and institution-driven limitations.

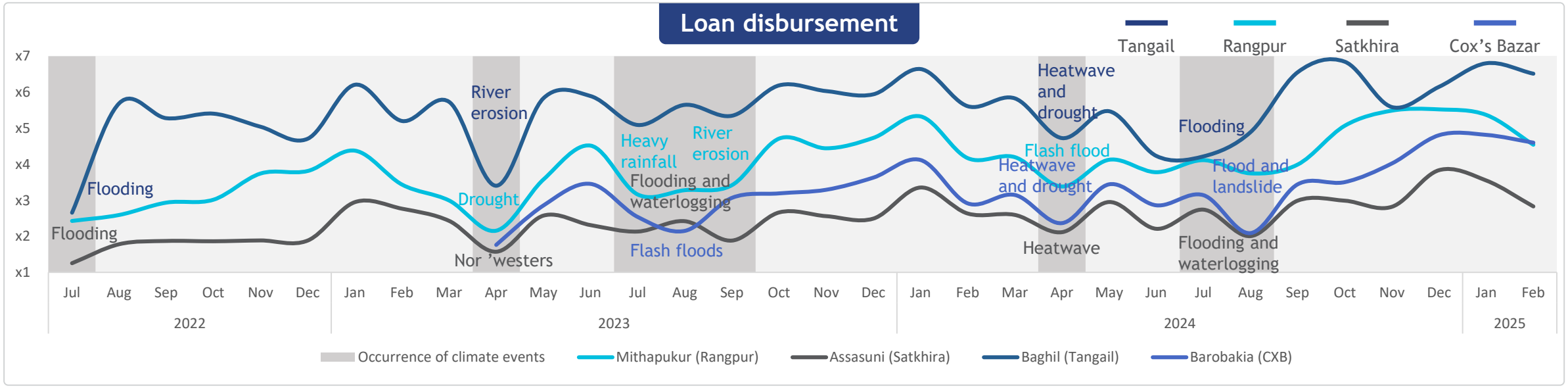
Institutional barriers:

- **Limited outreach due to restricted field activities:** Climate events often damage roads, communication systems, and infrastructure, which limits MFI staff's ability to reach clients and collect applications.
- **Operational priorities shift:** MFIs may shift their focus to relief efforts, client support, or portfolio monitoring rather than the promotion of new loans.
- **Stricter loan screening:** MFIs may raise their eligibility standards or postpone loan processing to mitigate risk, which discourages new applications.

Borrowers' perceptions:

- **Income uncertainty:** Many borrowers, especially farmers and small traders, experience income loss or business disruptions during climate events, such as floods and droughts. They hesitate to take on new debt without clear prospects for repayment.
- **Focus on basic survival needs:** Borrowers prioritize food, shelter, and safety over expanding businesses or investing in assets.
- **Increased risk aversion:** Clients become more cautious during disasters and may hesitate to take loans to prevent further financial stress.

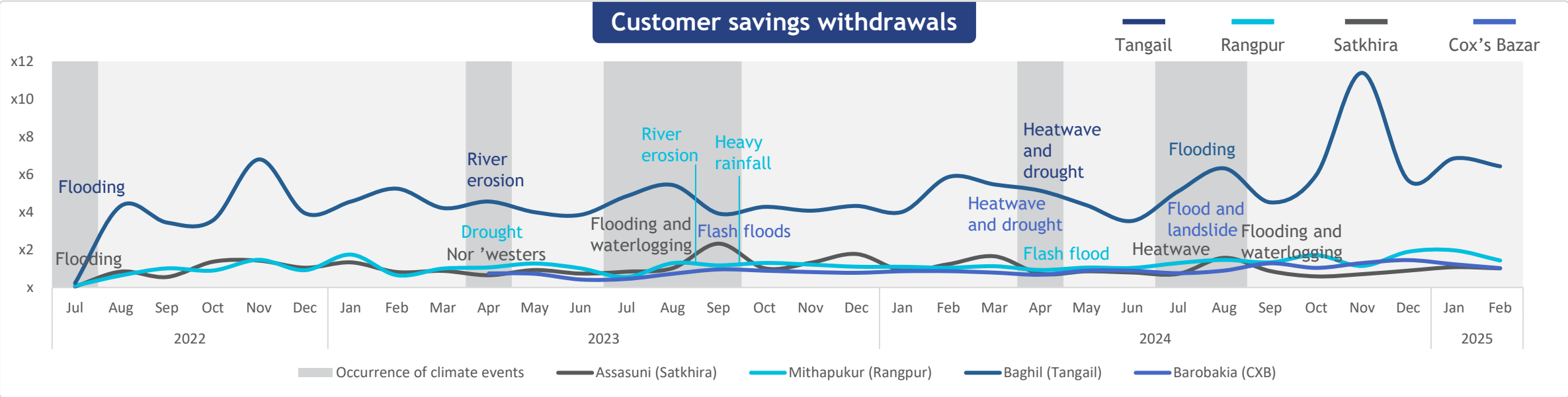
Clients have been relying increasingly on credit for recovery and resilience rather than growth, as indicated by rising savings withdrawals and a sharp increase in post-event loan uptake, which points to a need for adaptive, shock-responsive financial products. (1/2)



During the event of climate shocks, BURO reduces its loan disbursement, which is a typical response of all MFIs for several reasons:

- **Prudent disbursement to prevent over-indebtedness:** BURO slowed loan disbursement to prevent over-indebtedness of its customers. After disasters, many clients—especially those in distress—sought loans from multiple MFIs. BURO prioritized capacity-based lending to avoid worsening its customers' financial vulnerability.
- **Repayment deferrals resulting in financial strain:** In severely impacted areas, BURO's repayment deferrals eased client stress but delayed cash flows for BURO, resulting in provisioning and loan delinquencies, affecting BURO's financial performance despite supporting client resilience.
- **Proactive liquidity responsiveness:** BURO prioritized clients' immediate access to savings, especially in flood—and cyclone-affected areas, which was vital for household-level emergency response and coping. Thus, BURO maintained optimal liquidity deploying funds strategically and ethically.
- **Data sharing to manage a surge in post-disaster credit demand:** Following major floods and cyclones, credit demand surged, primarily for basic survival rather than productive credit to engage in income-generating activities. Many clients borrowed from multiple MFIs at the same time, increasing future repayment risks. BURO highlighted the urgent need for cross-institutional data-sharing and credit exposure tracking.
- **Operational disruptions — access, mobility, and field realities:** Climate shocks severely disrupted BURO's operations—floods and cyclones damaged roads, halting field activities, while extreme heat and power outages in drought-prone areas limited branch functionality. Women faced added health risks and caregiving burdens, further reducing their ability to engage financially during crises.

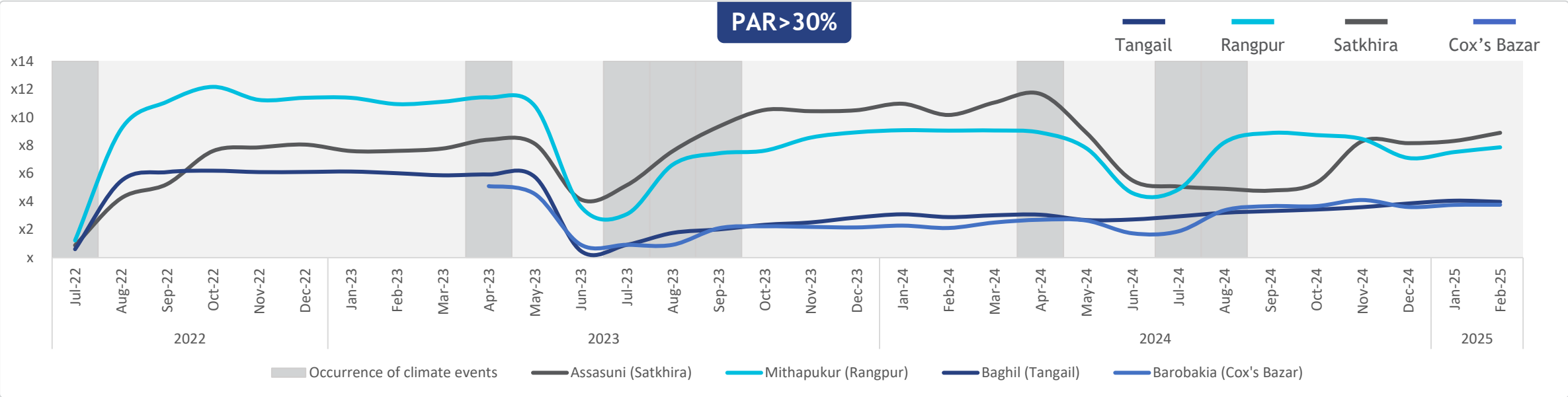
Clients have been relying increasingly on credit for recovery and resilience rather than growth, as indicated by rising savings withdrawals and a sharp increase in post-event loan uptake, which points to a need for adaptive, shock-responsive financial products.(2/2)



Customers withdrew savings at an increased rate after climate events in June '23 and June '24 in all branches. This could be the residual impact of the Apr '23 and Apr '24 events:

- **Difference in withdrawals:** During longer-term disasters, typically in July or August, savings withdrawals increase compared to the short-term ones, often in April.
- **Immediate survival needs:** Farmers withdraw savings after crop losses from climate-related disasters to cover emergency expenses, such as food, healthcare, and repairs.
- **Fund to revive farming:** After climate shocks, farmers suffer major losses in crops, seeds, and equipment, and rely on savings as a crucial source of cash to buy essential inputs, restart farming, and repair damaged assets.
- **Savings schemes:** Stringent saving schemes restrict access and force clients to liquidate their deposits during crises.

Climate shocks play a key role in PAR30 spikes. The disbursement trends suggest masking or amplifying PAR30.



Trends of PAR30 during climate shocks:

- PAR30 peaked for all branches the month after July ’22. The trend remained the same after August ’24, with the exception of Assasuni. A slight increase in disbursement was noted, which could be the reason for controlling PAR30.
- With the falling trend of loan disbursements in Dec ’24, the PAR30 shows an increase in all branches. Since no climate event occurred during this time, it could be due to the residual impact of the previous climate event in Jul-Aug’24.
- An increase in PAR30 was noted in all branches immediately after September ’23. The increase was lower in Tangail. This is in spite of increased disbursement in Agri and related loans. So, the actual impact on the loan portfolio might be higher and masked by disbursement.
- Deposit withdrawals increased after April and May 23, but the sudden fall in PAR30 may be due to the rise in disbursement in this period.

However, some of BURO's existing products help address certain financing needs.(1/2)

Existing products	Purpose	Anticipatory needs	Adaptive needs	Absorptive needs
General loan	The loan helps poor rural and urban households finance economic activities and build capital. General Loans provide working capital to disadvantaged households.	☑		
Microenterprise loan	These individual loans are assessed based on household cash flow, business projections, and the borrower's reputation in the community.		☑	
Agriculture loan	The loan supports agricultural activities and is given to landless and marginal farmers in organized groups.	☑	☑	☑
Hand loan/emergency loan	The hand loan helps protect household economies and assets, financing festivals, marriages, healthcare, and education.			☑
Disaster loan	The disaster loan provides immediate cash to help households recover from natural disasters and protect assets.			☑
Water and sanitation loan	The tube-well loan provides access to safe water, while the sanitary loan helps fund bathroom installation.	☑	☑	
Consumer loan	Key features of a consumer loan include need-based, flexible products, customer freedom with optional loans, open savings withdrawals not linked to loan status, convenience of using commercial funds as a Relationship Fund (RLF).	☑		☑

However, some of BURO's existing products help address certain financing needs.(2/2)

Existing products	Purpose	Anticipatory needs	Adaptive needs	Absorptive needs
General savings	The general savings account is like a current account, where customers can save or withdraw on demand.	☑		☑
Contractual savings	This is a financial tool for customers to use in investments or to fulfill social obligations, such as weddings, funerals, or children's education. BURO offers competitive interest rates, which give customers control over deposits and withdrawal terms for financial flexibility	☑		
Voluntary savings	These savings are considered as customer deposits and accrue interest based on the declared rates.	☑	☑	☑

While BURO can expand its product offerings, it also needs to address other systemic barriers.

1 Strict loan assessment criteria

MFIs' stringent loan criteria often restrict access to post-disaster financial support, especially for borrowers with delayed repayments from previous climate shocks. This makes them ineligible despite the circumstances. Additionally, customers with existing loans are not eligible to take top-up loans.

2 Guarantor and witness requirements

The requirement for multiple guarantors and witnesses adds complexity and discourages applications, particularly during disasters. During these times, quick and easy access to affordable financial products becomes crucial.

3 Gender disparities

Women, particularly in areas like Satkhira and Tangail, struggle to access loans during hazards, as lending institutions becoming more cautious about lending to women due to their unstable income. Mobility restrictions during floods and landslides further hinder their ability to visit financial institutions after a disaster.

4 Mistrust and fraud concerns

Livestock owners hesitate to invest in insurance due to limited awareness, high premium costs, and concerns about fraud. This mistrust leads many to prefer direct financial services, such as loans, over insurance options.

5 Repayment difficulties and rigid schedules

Fisherfolk struggle to repay loans during climate crises. Rigid repayment schedules and a lack of flexible options force them to borrow from high-interest moneylenders or relatives to meet deadlines, which aggravates their financial strain.

6 Lack of awareness and information

Farmers, livestock owners, and fisherfolk have limited awareness of available loans, especially disaster loans and seasonal loans. They often resort to the same financial products before and after hazards.

BURO needs an intentional strategy to enhance customer climate resilience through the integration of financial product innovation, risk-based credit underwriting, and institutional capacity building.

		Phase 1: 6 months -1 year	Phase 2: 1-2 years
Innovate	Level 3 – Business transformation	• Launch farmer credit card • Create a new pre-approved disaster loan product	• Launch voluntary climate emergency savings account (CESA) • Launch climate-resilient agriculture loans
Improve	Level 2 – Business effectiveness	• Modify existing loan structures	• Align the internal operations to address climate risks through the integration of blended finance mechanisms
Support	Level 1 – Business efficiency	• Raise customer awareness and capacity building	• Roll out savings and loan products bundled with parametric index-based insurance

Section 1: Research objectives and background

BURO commissioned MSC to assess the impact of climate change on customer financial behavior. The study intends to identify solutions that build customer resilience and climate-proof BURO's portfolio.

Background

- BURO Bangladesh's agriculture portfolio is worth BDT 54 billion. It is increasingly exposed to climate hazards, which include cyclones, droughts, floods, river erosion, and landslides. These hazards drive customer delinquency and affect more than 1 million borrowers in BURO's agriculture lending program.
- BURO currently lacks a comprehensive view of how climate risks affect customer livelihoods, financial behavior, and repayment capacity, especially among vulnerable communities.
- To address this, BURO partnered with MSC to assess climate impacts, understand customer coping strategies, identify financial barriers, and evaluate how current services support or hinder resilience.
- The study seeks to inform climate-responsive financial solutions that protect BURO's portfolio and strengthen customer resilience.

Objectives

1. Understand

- **Assess:** The impacts of climate change on livelihoods and financial stability
- **Identify:** Financial barriers to resilience, especially for female farmers

2. Evaluate

- **Evaluate:** How BURO's services support or hinder resilience
- **Provide:** Lessons for future lending in vulnerable regions

3. Design

- **Design:** Improved financial solutions for vulnerable customers

4. Strengthen

- **Inform:** BURO on protecting its agricultural portfolio
- **Establish:** BURO as a leader in climate-resilient finance

We used six key research questions to examine the impacts of climate change on BURO's customers, their coping strategies, financial needs, and barriers. Through these questions, we identified product innovations to enhance climate-resilience.

Key research questions

1. What are the direct and indirect impacts of climate change on the lives and livelihoods of BURO's agri and agri-allied customers?
2. What strategies do these customers adopt to minimize and recover from the impact of climate-related extreme and slow-onset hazards?
3. What is the actual and potential role of formal and informal financial services on the resilience of BURO's customers?
4. What barriers do BURO's customers, particularly female customers, face when they attempt to use these financial services to build climate resilience? What are some gaps and challenges related to the use of these financial products and services to build climate resilience?
5. Does climate change impact the transaction behavior of BURO's vulnerable customers?
6. What new financial products or services, or changes in existing products and services, are needed to increase the climate resilience of vulnerable BURO customers?

Variables that influenced qualitative data analysis

Design variables:

- The focus on high-impact climate hazards limited the nuanced understanding of slow-onset and gradual changes in environmental systems.
- The regions selected were frequently hit with multiple hazards, which complicated the process to single out one high-impact event whose effects were conspicuous, and whose consequences were long-term.
- Since the study relied on FGDs, IDIs, and KIIs, responses were likely influenced by social desirability bias. Interviews with NGOs and officials at times reflected institutional views that differed from community experiences.

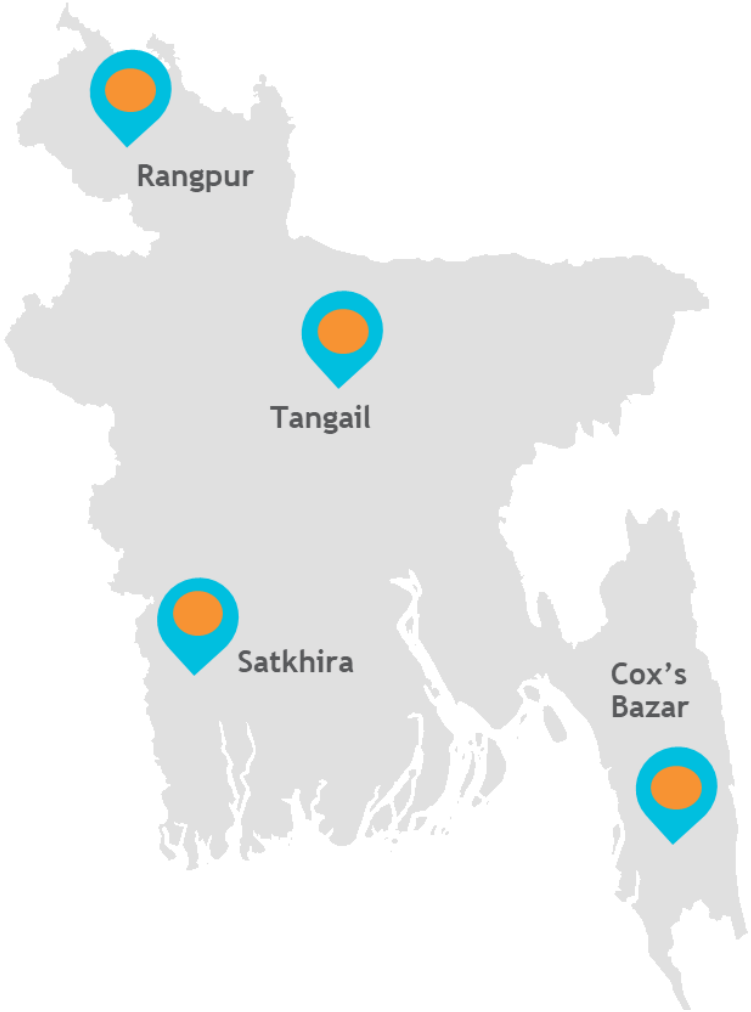
Physical variables during research:

- No physical variables adversely affected the collection, assimilation, and analysis of information.

We selected four diverse zones in Bangladesh where BURO has a strong presence. We captured a range of climate impacts and vulnerable communities for targeted research and interventions.

Rationale for selection of the geographic area

- We identified these four agroecological zones across Bangladesh for the primary research in consultation with BURO.
- Each of these areas experiences different climate-related hazards throughout the year, which provided a comprehensive view of the various impacts of climate change.
  - Sathkira (cyclone and soil salination)
  - Rangpur (drought)
  - Tangail (floods and river erosion)
  - Cox's Bazar (landslides)
- These regions host significant populations of vulnerable communities that are directly affected by climate hazards.
- BURO has a substantial customer base in these areas, which facilitates easier access to participants and provides an opportunity to link research findings directly to potential interventions.



We purposively sampled 124 stakeholders across the four districts. We conducted 80 in-depth interviews, 24 focus-group discussions, and 20 key-informant interviews with agriculture, livestock, and aquaculture practitioners, alongside system-level actors.

District	Method	Agriculture		Livestock		Aquaculture		System-level actors (agri-allied business, BURO branch manager, AEO/UFO/ULO, DRRO, NGO, input traders)	Total
Satkhira		Male	Female	Male	Female	Male	Female		
	IDI	3	3	3	4	3	3	1	20
	FDG	1	1	1	1	1	1		6
	KII							5	5
Total									**31**
Rangpur	IDI	5	4	4	6			1	20
	FDG	2	1	1	2				6
	KII							5	5
Total									**31**
Tangail	IDI	5	4	4	6			1	20
	FDG	2	1	1	2				6
	KII							5	5
Total									**31**
Cox's Bazar	IDI	4	3	4	4	2	2	1	20
	FDG	1	1	1	2	1			6
	KII							5	5
Total									**31**
Grand total									**124**

Section 2a: Demand-side analysis

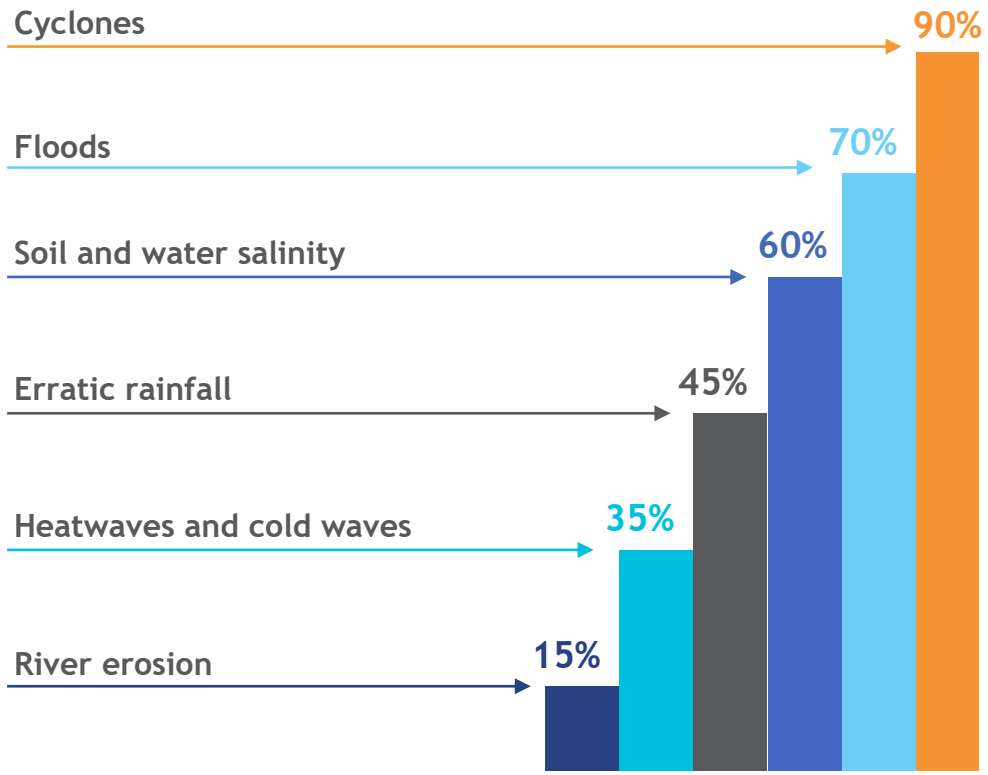
Deep Dive: Prevalent hazards across the four selected regions and their impact on the livelihoods of BURO customers

Satkhira, a coastal region, is highly vulnerable to cyclones, floods, and increasing salinity intrusion.

Prevalent hazards in Satkhira

- **Cyclones**, such as Aila (2009), Amphan (2020), and Yaas (2021) have severely affected Satkhira. Cyclone Aila displaced more than 1 million people, while Cyclone Yaas caused embankment breaches that inundated shrimp farms across thousands of *bighas*. Between 2015 and 2020, cyclones impacted 244,300 households in Satkhira, which highlights the region's vulnerability to storm surges.
- **Rainfall** in Satkhira has shown a declining trend in pre-monsoon periods but a slight annual increase of 4.96 mm/year in recent years. However, local observations suggest reduced rainy days, which creates challenges for agriculture. This erratic pattern disrupts crop cycles and increases waterlogging risks during heavy rains.
- **Soil salinity** in coastal areas has reached levels of 10 ppt and is projected to rise to 15-25 ppt by 2050. Increased salinity has already turned much arable land unproductive and hurt rice and crop cultivation.
- **Droughts** are becoming more frequent in Satkhira, with severe droughts recorded in the pre-Kharif and Rabi seasons. Between 2015 and 2020, droughts affected 240 households in Satkhira. Declining rainfall during critical farming seasons worsens water scarcity for irrigation.
- **Flooding** caused by monsoon rains and tidal surges frequently affects the region. From 2015 to 2020, floods impacted 5,650 households in Satkhira. Embankment collapses during high tides have worsened the situation as they lead to inundation in villages and shrimp farms.

Satkhira experiences frequent and intense cyclones each year, exacerbated by tidal surges that lead to significant flooding in the region.



Note: The cumulative sample of respondents varies across each location.

In Satkhira, both direct and indirect impacts hurt community resilience. Direct impacts include crop loss, livestock mortality, and soil salinity, while indirect impacts comprise disrupted education, poor health, asset loss, and forced migration.

Direct impacts

- Cyclones and floods wipe out houses, embankments, and standing crops, which leaves families displaced and without income.
- Salinity intrusion depletes soil fertility and makes it difficult for farmers to cultivate crops. Excessive rainfall worsens pest outbreaks, which further reduce yields.
- Floodwater contaminates drinking sources and leads to livestock diseases and mortality.
- Cyclones damage fishponds, which leads to stock losses and reduces income for fishing communities.

Indirect impacts

- Schools remain closed for extended periods due to waterlogging, which affects children's learning, particularly for girls.
- Contaminated water sources increase waterborne diseases, which disproportionately affect women and the elderly.
- Children, women, and the elderly have comparatively limited mobility and, hence, struggle to access medical care.
- Families lose critical assets and struggle to secure new loans. Many migrate to urban areas in search of work, which leads to further socioeconomic challenges.

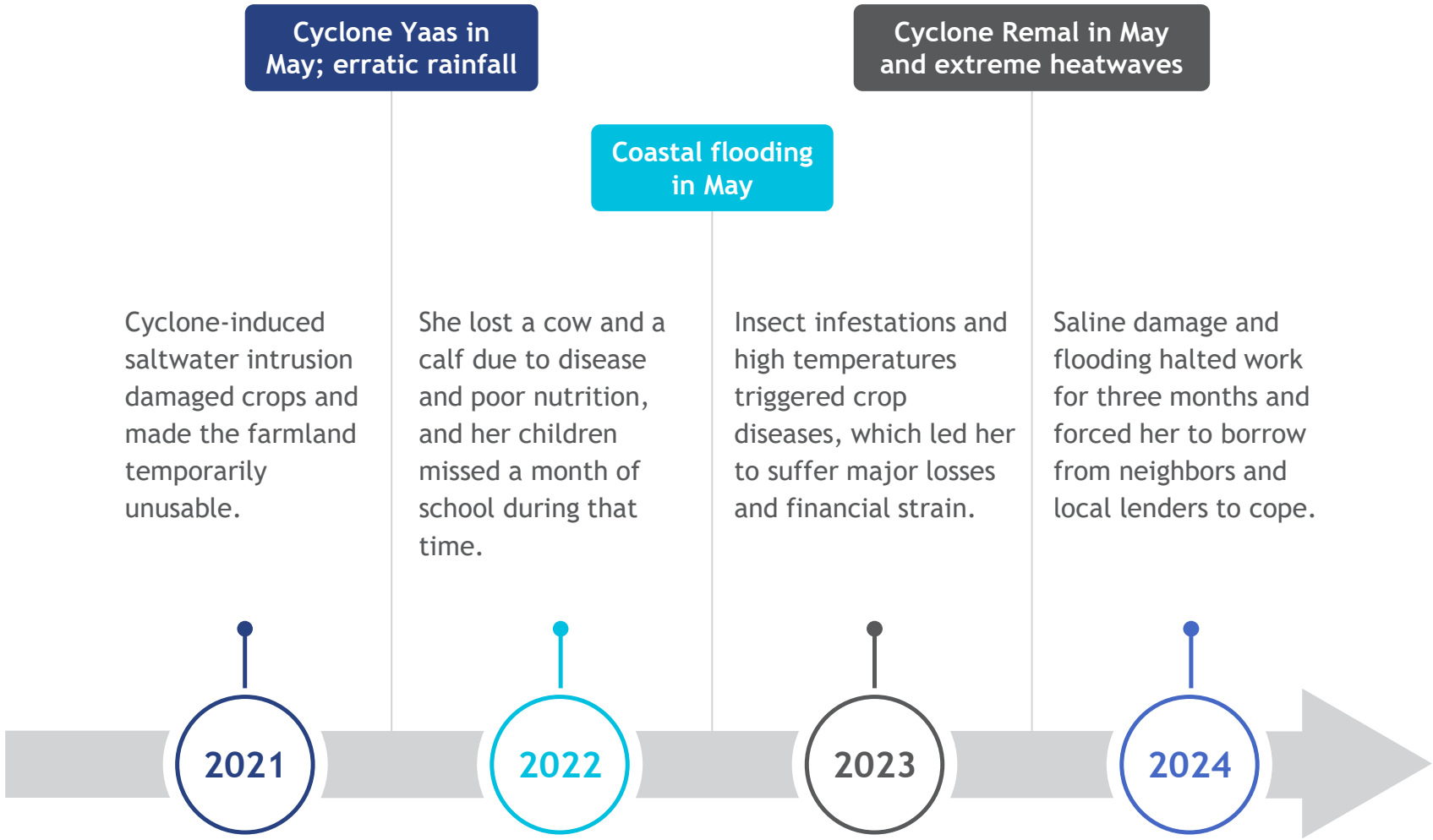
How cyclones and storm surges affect a rice farmer in Satkhira

This timeline illustrates the journey of a rice farmer in Satkhira. It highlights the increasing challenges posed by climate change. From cyclones and erratic rainfall to rising salinity and prolonged flooding, these impacts have severely affected her livelihood. Her profile is detailed below.

Age: 46
Gender: Female
Marital status: Married
Family size: Five members
Education: Class 1
Occupation: Farmer

Landholding: 10 decimals
Type of land: Unirrigated
Main farming products: Rice, vegetables, pulses, and mustard
Livestock: Two cows, three goats

Type of house: Semi-pucca
Access to phone: Feature phone

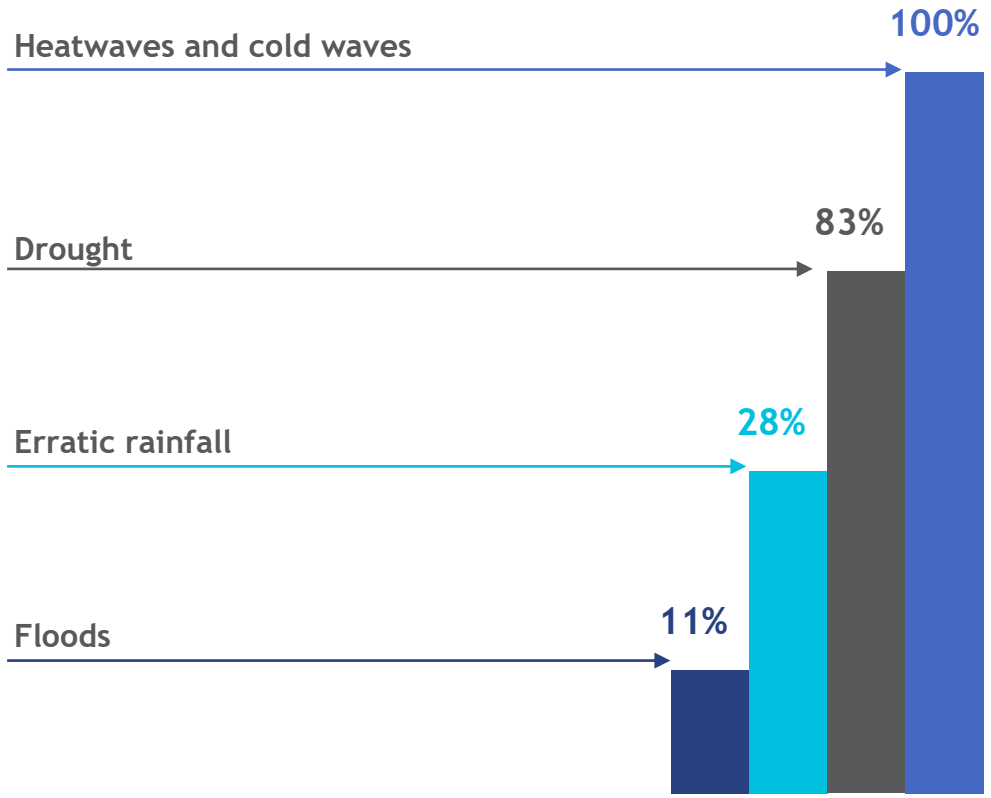


Rangpur faces recurring droughts, heatwaves, cold waves that disrupt agriculture, livelihoods, and infrastructure.

Prevalent hazards in Rangpur

- Rangpur has experienced frequent droughts, especially between 2000 and 2009, when rainfall dropped below 3 mm for extended periods. These droughts disrupted agriculture, which depends heavily on consistent rainfall. While conditions improved slightly after 2010, droughts remain a recurring challenge.
- Heatwaves in Rangpur have intensified in recent years. In April 2024, temperatures soared to 38°C in Rangpur City and 39.4°C in Sayedpur. This heatwave caused at least 22 deaths along with a rise in heat-related illnesses, such as heatstroke and diarrhea.
- Cold waves during winter are common in Rangpur. Temperatures occasionally drop below 5°C. These cold spells disrupt daily life and damage winter crops, such as potatoes and wheat.
- Hailstorms, which often occur between March and May, are a regular hazard in Rangpur. They damage key crops, such as rice and maize, and often destroy homes and power lines, which leads to significant economic losses.
- Although Rangpur is far from the coast, cyclones, such as Remal, bring heavy rainfall and strong winds to the region.
- Nor'westers are violent storms that hit Rangpur during March–May. They bring strong winds, lightning, and hailstorms, and cause widespread destruction of crops and infrastructure. Farmers face heavy losses during this season each year.

The recent heatwaves and drought conditions in Rangpur have significantly impacted Boro rice cultivation in the region.



Note: The cumulative sample of respondents varies across each location.

In Rangpur, both direct and indirect impacts affects vulnerable communities. Direct impacts include reduced crop yields, livestock diseases, and fish mortality. Indirect impacts include rising health issues, higher farming costs, and increased financial insecurity.

Direct impacts

- Droughts cause land to crack and reduce yields of key crops, such as rice and potatoes. Excessive heat and winter fog increase pest infestations, further threatening food security. Droughts also lead to a considerable decline in groundwater levels and create challenges for irrigation.
- Heat stress leads to diseases, such as lumpy skin disease and foot-and-mouth disease. Cold waves result in pneumonia outbreaks, which reduce milk production in cattle and livestock productivity.
- Droughts lower pond water levels, which increases fish mortality. Cold waves cause sores and gill infections in fish, which lead to reduced yields and income losses.

Indirect impacts

- Heatwaves cause dehydration, heatstroke, and exhaustion. People, especially women and the elderly find it difficult to work for long hours in high heat conditions.
- Heatwaves compel farmers to resort to frequent irrigation to counteract extreme heat, which increases their expenses. The cost to maintain livestock health also rises.
- Many families are forced to sell livestock or take loans at high interest rates to cope with agricultural losses, which harms their long-term financial security.

The impact of extreme heat and cold waves on a livestock owner in Rangpur

This timeline illustrates the journey of a livestock owner in Rangpur and shows the worsening impacts of climate change. From extreme heat and cold waves to heavy rainfall and drought, these challenges have a severe effect on her livestock, income, health and overall well-being.

Age: 26
Gender: Female
Marital status: Married
Family size: Six members
Education: Class 6
Occupation: Livestock

Livestock: Six cows, two goats, two hens, and five ducks

Type of house: Kuccha
Access to phone: Smartphone

2021

Waterlogging in cattle sheds and contaminated drinking water resulted in diarrhea and bacterial infections. Excess sweating and dehydration added to the ailments.

2022

Cold waves in January, heavy rainfall in October

Cows developed skin nodules and high fever. They also lost weight rapidly, while unpredictable rainfall led to a scarcity of green fodder and forced her to buy expensive feed supplements.

2023

Heavy rainfall in September

Water sources dried up, which made it challenging for her to access clean drinking water for her family and livestock.

2024

Drought in March; Extreme heat and rainfall in May, June

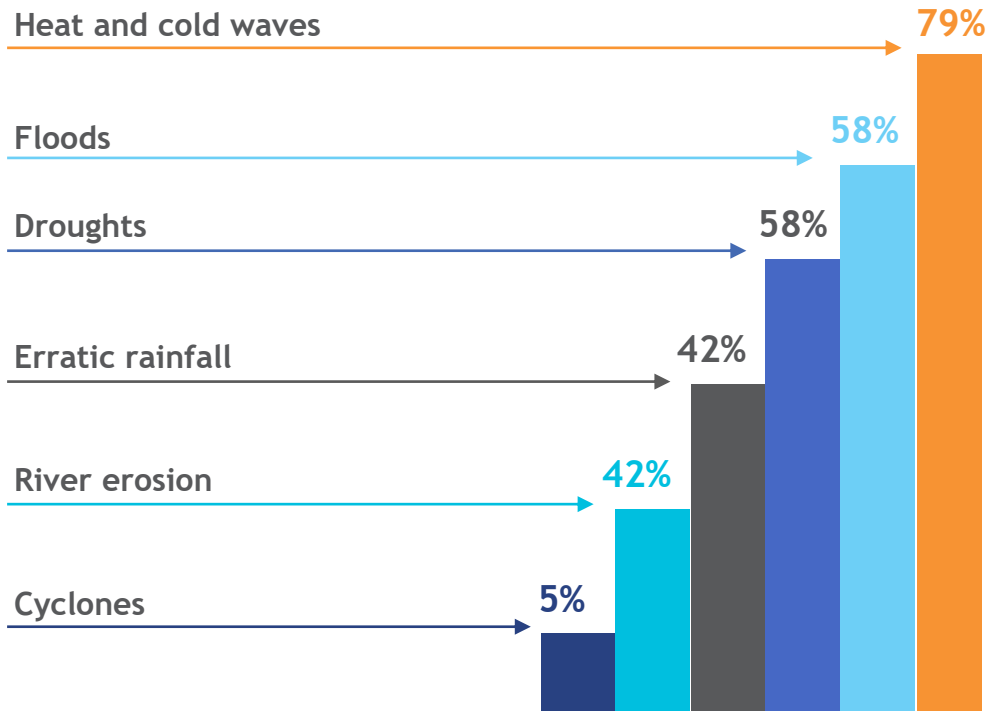
Two cows died and some showed symptoms of lumpy skin disease (LSD) even after vaccination, which added financial pressure and forced her to borrow from neighbors. She, her family, and her livestock had to struggle with deteriorating health.

Tangail faces frequent severe flooding, river erosion, and occasional droughts, which lead to widespread agricultural losses, displacement, and heightened vulnerability for farming communities.

Prevalent hazards in Tangail

- Tangail experiences severe flooding almost every year due to heavy monsoon rains and the swelling of rivers, such as the Jamuna. In 2020, the Jamuna River flowed 35 cm above the danger level, which affected the lives of more than 124,000 people in 91 villages across upazilas, such as Bhuapur and Kalihati. Floodwaters often submerge agricultural land for months and damage crops, such as rice and jute, and worsen farmers' economic conditions.
- Torrential rains worsen flooding in Tangail by raising water levels in rivers and low-lying areas. In 2024, heavy rainfall caused the Jamuna and Jhenai rivers to overflow, which left thousands waterlogged in Gopalpur and Sadar upazilas.
- Rising river levels during monsoons are a persistent threat in Tangail. In 2024, the Jhenai River rose 78 cm above the danger level at Jokar Char point. This led to widespread flooding of croplands and damage to embankments. As a result, communities became more vulnerable to future floods.
- In 2019, severe erosion by the Jamuna River devastated Nagarpur Upazila and Tangail District. The erosion swallowed large tracts of land, including paddy, jute, and peanut fields, as well as schools, madrasas, and mosques in Ward 7 of the union. Approximately 500 families were forced to vacate their homes and lands that year.
- Mild droughts during dry seasons also affect Tangail. Reduced rainfall impacts crop yields and irrigation systems. While less destructive than floods or erosion, these droughts strain agricultural productivity and contribute to food insecurity for farming communities.

Recent severe flooding in Tangail has resulted in significant river erosion, following a period of intense heatwaves that left the land dry and vulnerable. These situations are adversely affecting both farmers and livestock owners in the region.



Note: The cumulative sample of respondents varies across each location.

In Tangail, both direct and indirect impacts of floods have a severe effect on vulnerable communities. Direct impacts include reduced crop yields, livestock diseases, and fish mortality, while indirect impacts comprise rising health issues, higher farming costs, and increased financial insecurity.

Direct impacts

- Every year, river erosion claims farmland and forces families to relocate and start over. Floodwaters destroy homestead gardens and reduce the quality of household nutrition.
- Pasture fields disappear due to erosion, which make it difficult for livestock owners to find adequate fodder. Meanwhile, animals suffer from malnutrition and disease.
- Flooded roads and bridges cut off access to markets and essential services, which hurts people's income and mobility.

Indirect impacts

- Families are forced to relocate frequently, which hurts traditional support systems and increases economic instability.
- Pregnant women and mothers with young children face severe difficulties in mobility and have to grapple with inadequate healthcare and nutrition.
- Schools and hospitals often remain submerged, which disrupts learning and healthcare. People and women in particular struggle to reach financial institutions during floods.
- Floods force people to dip into their savings to cover emergencies, which leaves them with no buffer to manage future shocks.

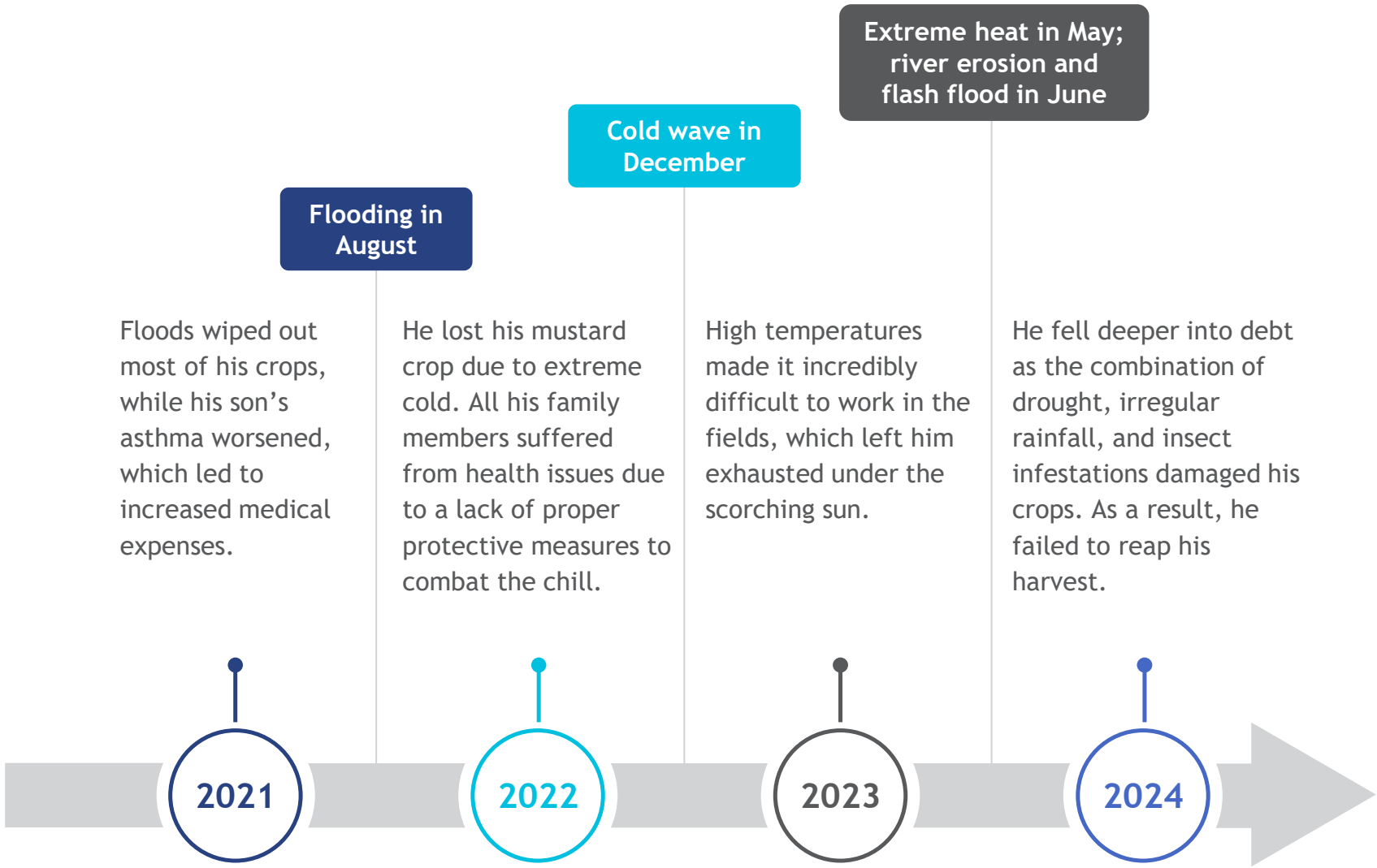
The impact of river erosion and floods on a cash crop farmer in Tangail

This timeline illustrates the journey of a cash crop farmer in Tangail and showcases climate change's escalating impacts. From river erosion and flash floods to extreme heat and cold waves, these challenges have severely affected his livelihood. His profile is detailed below.

Age: 40
Gender: Male
Marital status: Married
Family size: Two members
Education: Class 5
Occupation: Farmer

Landholding: 15 Decimals
Livestock: Hens
Main farming products: Mustard, wheat, rice

Type of house: Semi-pucca
Access to phone: Feature phone

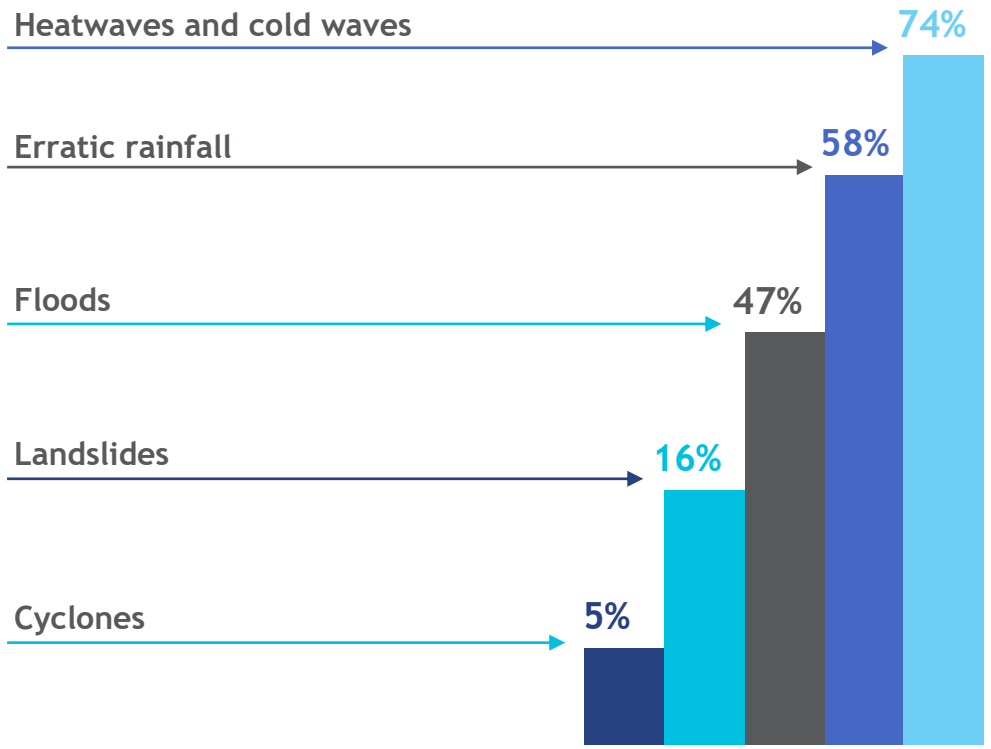


Cox's Bazar is increasingly affected by landslides, extreme heat, and waterlogging

Prevalent hazards in Cox’s Bazar

- Landslides are common in the hilly areas of Cox’s Bazar, exacerbated by deforestation and heavy rainfall. Between 2010 and 2020, more than 500 people died in landslides, with 149 fatalities in June 2017 alone.
- Cox’s Bazar experiences rising summer temperatures, which often exceed 31°C (87°F). This contributes to prolonged heatwaves that affect agriculture and public health. The region also experiences intermittent droughts during dry seasons that disrupt farming and worsen food insecurity for rural households.
- Waterlogging is a major issue due to unplanned urbanization and poor drainage. In September 2024, record rainfall caused severe flooding, which stranded thousands and damaged homes.
- Extreme rainfall frequently leads to flooding in Cox's Bazar. In September 2024, heavy rains affected around 800,000 people and stranded 25,000 tourists.
- Soil salinity in the region has been increasing due to seawater intrusion, which degrades agricultural land, threatens food security, affects freshwater sources, and stresses local communities.
- Cox’s Bazar is vulnerable to cyclones, which bring strong winds and heavy rainfall that destroy infrastructure and displace thousands each year. These events worsen flooding and salinity intrusion.

In 2024, erratic rainfall resulted in unprecedented flooding, which marked the most significant event of its kind in the past 50 years.



Note: The cumulative sample of respondents varies across each location.

In Cox's Bazar, both direct and indirect impacts severely strain community resilience and recovery. Direct impacts include repeated crop loss, fish mortality, and infrastructure damage, while indirect impacts comprise rising disease, depleted savings, malnutrition, and forced migration.

Direct impacts

- Farmers are forced to replant rice multiple times in a year as floods wash away seedlings, increasing labor and input costs.
- Unstable water conditions and increased iron content in rivers reduce fish health, which leads to increased mortality and income losses.
- Landslides destroy homes and roads, which restricts access to markets and essential services.

Indirect impacts

- Contaminated floodwaters increase cases of malaria, cholera, and skin infections, and affect women and children the most.
- The increased costs to replant crops and rebuild homes deplete household savings, which makes financial recovery difficult.
- Families rely on dry foods for survival during floods, which lead to inadequate diets and malnutrition, particularly for children.
- Floods and landslides disrupt supply chains and push up the prices of seeds, fertilizers, and pesticides.
- Hazards affect the lives and livelihoods of families and force many to migrate.

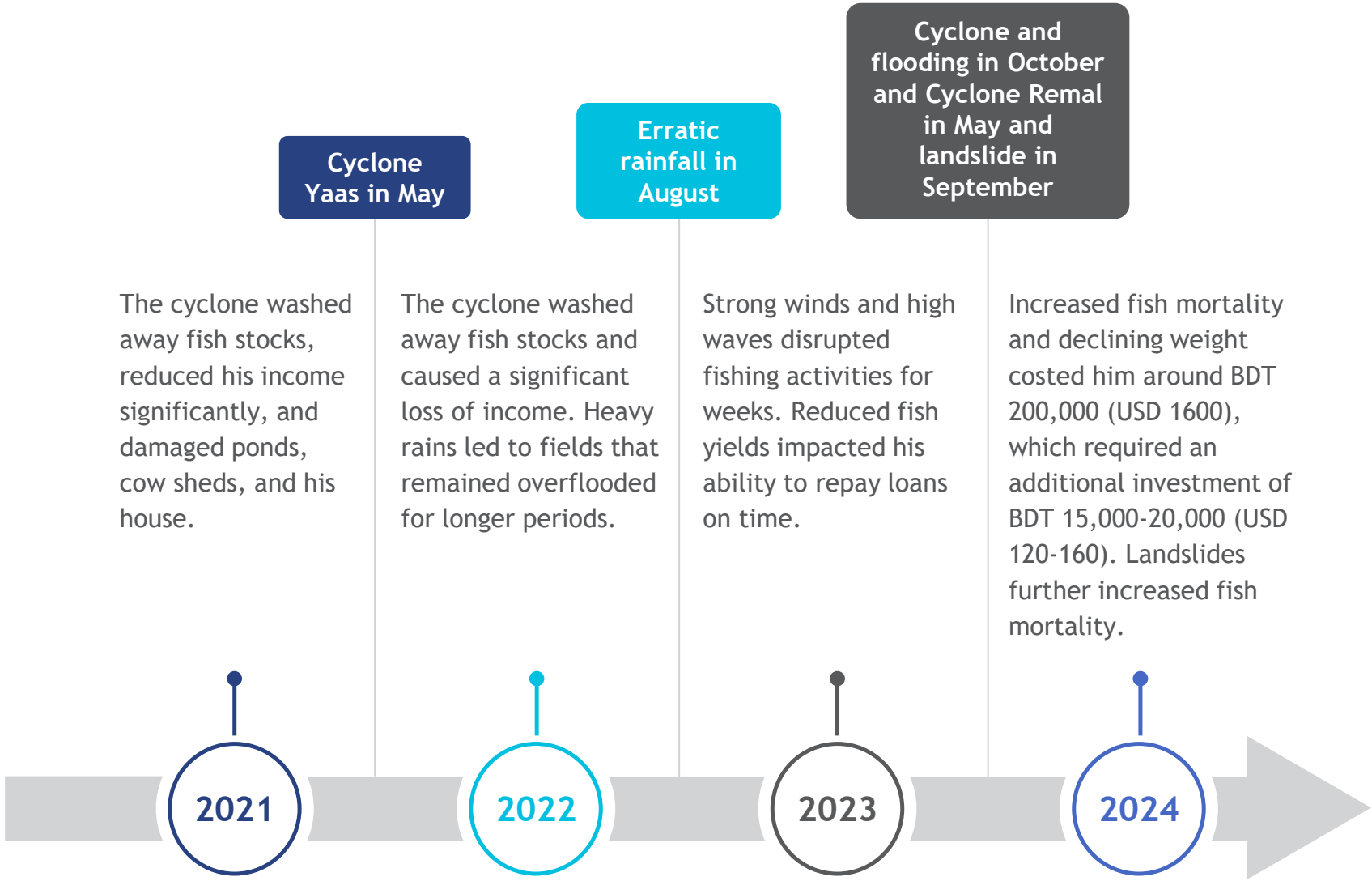
The impact of climate hazards on a fish farmer in Cox’s Bazar

This timeline shows the journey of a fish farmer in Cox’s Bazar and depicts the escalating impacts of climate hazards. Events, such as cyclones, erratic rainfall, increased soil salinity, and flooding, have severely disrupted his livelihood, fish stocks, and financial stability.

Age: 42
Gender: Male
Marital status: Married
Family size: Four members
Education: Uneducated
Occupation: Fisher

Landholding: Own pond

Type of house: Pucca house
Access to phone: Feature phone



Women suffer disproportionately from climate hazards and face increased health, economic, and social burdens across all regions.

Access to resources and control over them

- Women's limited mobility and household responsibilities restrict their access to financial institutions and reduce their financial independence.
- Societal norms limit women's access to income-generating opportunities.
- Migration due to cyclones and floods leads to economic instability, especially for women.

Beliefs and perceptions

- Gendered expectations place the burden of both household and farm management on women.
- Anxiety over loans, food security, and crop failure disproportionately affects women due to their dual roles.

Practices and behaviors

- Women take on increased responsibilities during and after climate shocks and must often manage both home and agricultural work.
- Climate shocks often compel families to withdraw their children from school to contribute financially, which disrupts education cycles.

Laws, policies, and institutional ecosystem

- Institutional support to address women's specific needs remains limited in disaster-affected and migrant contexts.
- Inadequate sanitation and stagnant water raise health risks, with women and the elderly particularly vulnerable during extreme weather events.

Photo: MSC and BURO research team. December 2024

Exhibit 1.5: Climate hazards affect women disproportionately during climate events, with particular detrimental effects on their mobility, health, and financial stability within families.

> The extreme heat led to an increase in the iron content of the water. It caused fish to die and led to health problems for me and my family. My son got sick because of the river water and lack of hygiene. **- A female farmer who participated in an in-depth interview in Assasuni, Satkhira.**

Section 2b: Demand-side study

Deep dive: Coping strategies to recover from climate hazards

We can categorize BURO's customers into three types of personas based on their preparedness and response to climate change-related shocks and stresses

Pragmatist

Education

Till class 10

Anticipatory capacity

High

Adaptive capacity

Low

Absorptive capacity

High

Strategist

Education

Graduation

Anticipatory capacity

Medium

Adaptive capacity

High

Absorptive capacity

High

Survivor

Education

Uneducated

Anticipatory capacity

Low

Adaptive capacity

Low

Absorptive capacity

High

Customers whose sole livelihood is farming demonstrate a “survivor” persona. They rely on absorptive and adaptive strategies that leave them vulnerable to escalating climate shocks.

- Farmers have yet to fully adopt effective adaptation strategies to cope with climate hazards and rely mainly on crop diversification and intercropping as cost-effective methods.
- In Satkhira, farmers cultivate salt-tolerant rice varieties to combat rising salinity, such as “A to Z,” “Partex-3,” and “Rock Miniket.” They also construct embankments to protect their fields. However, heatwaves and cyclones have been making these efforts increasingly unsustainable.
- In Rangpur, farmers modify planting schedules to adjust to erratic rainfall, grow drought-tolerant rice varieties, such as BIRI 56 and BIRI 57, and invest in small-scale irrigation and pest control measures.
- Some farmers have reduced their harvesting period from 100 days to 80 days. Yet, unpredictable weather, such as unseasonal rain and extreme heat, often undermines these efforts.
- In Tangail, farmers have switched crops. For instance, they now grow maize instead of Boro rice and sweet pumpkin instead of summer vegetables. They have increased the use of pesticides and fertilizers, especially inorganic ones, to boost productivity. Yet this has also raised production costs significantly.

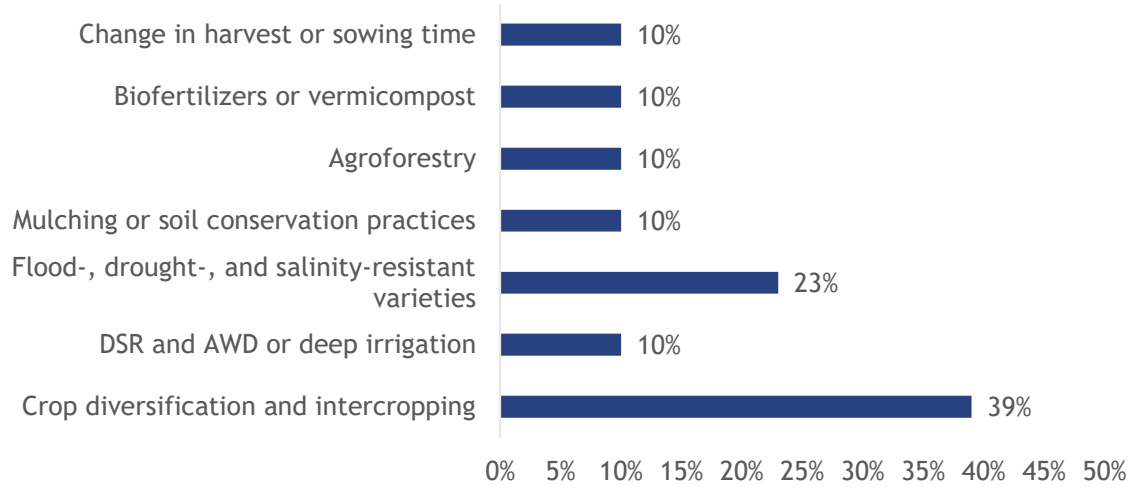


Exhibit 2.1: Farmers across regions have adopted crop diversification and intercropping strategies to mitigate the impact of climate change. Yet, these measures remain insufficient.

> The impact of intercropping is good as it does not take extra land, I can use the space in the potato line to cultivate onion and garlic.
>
> Yet, the use of fertilizers and medicine in cultivation increases the cost.
>
> **- A male farmer who participated in an in-depth interview in Tangail**

Customers engaged in both farming and livestock rearing exhibit a mix of “strategist” and “survivor” behaviors. They take precautionary measures before hazards and rebuild shelters afterward.

- After the devastation of Cyclone Bulbul in Satkhira, many farmers rebuilt their livestock shelters with sturdier materials to enhance resilience.
- Farmers adapt their cattle sheds seasonally to protect livestock from extreme weather. They use wet clothes on the sheds in summer to reduce heat stress and apply thick fabric to provide warmth in winter.
- Livestock owners of Rangpur maintain hygiene through regular disinfection with antiseptic solution or potassium permanganate solution to reduce the risk of infections.
- Farmers prioritize disease prevention by ensuring timely veterinary checkups and vaccinations. As additional measures, they feed cows lemon juice and baking soda to prevent the lumpy virus and use mosquito coils and sprays to control insect infestations in cowsheds.
- Traditionally, farmers reared indigenous cows, which required minimal care and could graze independently. However, many have shifted to Friesian cows, which grow faster and offer higher economic returns but require more feed, care, and medication, which has increased their maintenance costs.

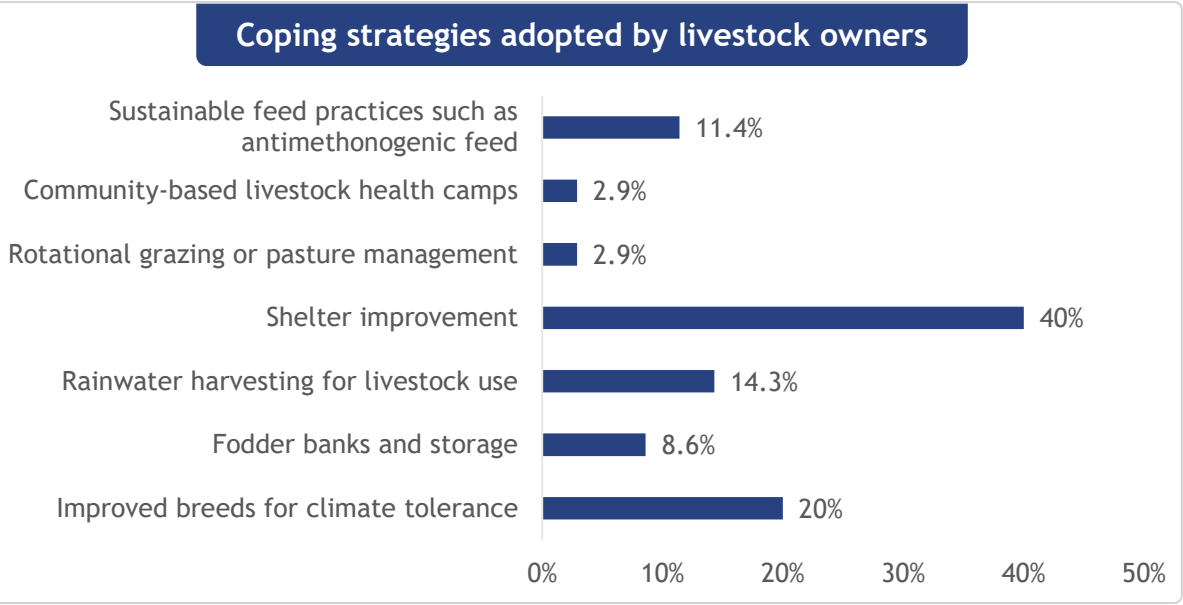


Exhibit 2.2: Livestock owners have demonstrated a significant commitment to enhancing shelter practices, particularly in the aftermath of a disaster.

> I keep my cows and goats clean by regularly disinfecting them with medicine. This helps reduce infections, but many animals still die during extreme heat due to poor cleaning and infections from skin diseases.
>
> **- A livestock owner from Rangpur**

Fisherfolk are mostly “strategists.” They adopt precautionary and adaptive measures, such as selective breeding and multi-species farming to strengthen resilience against recurring hazards.

- In Satkhira, fisherfolk use selective breeding and water management techniques effectively. These measures are cost-effective and enhance fish survival and productivity amid changing climate conditions.
- Fisherfolk prefer selective breeding for its affordability, while proper water management helps maintain fish health, reduce stress, and increase income.
- Although these practices benefit for both fish growth and the environment, they require additional costs and modifications to traditional methods and make adoption challenging.
- Fisherfolk hesitate to invest in improved equipment or infrastructure due to concerns over affordability, availability of resources, and the unpredictability of climate impacts.
- In Cox’s Bazar, more complex techniques, such as integrated multi-species farming and pond redesigning, remain uncommon due to high costs, infrastructure requirements, and limited awareness.

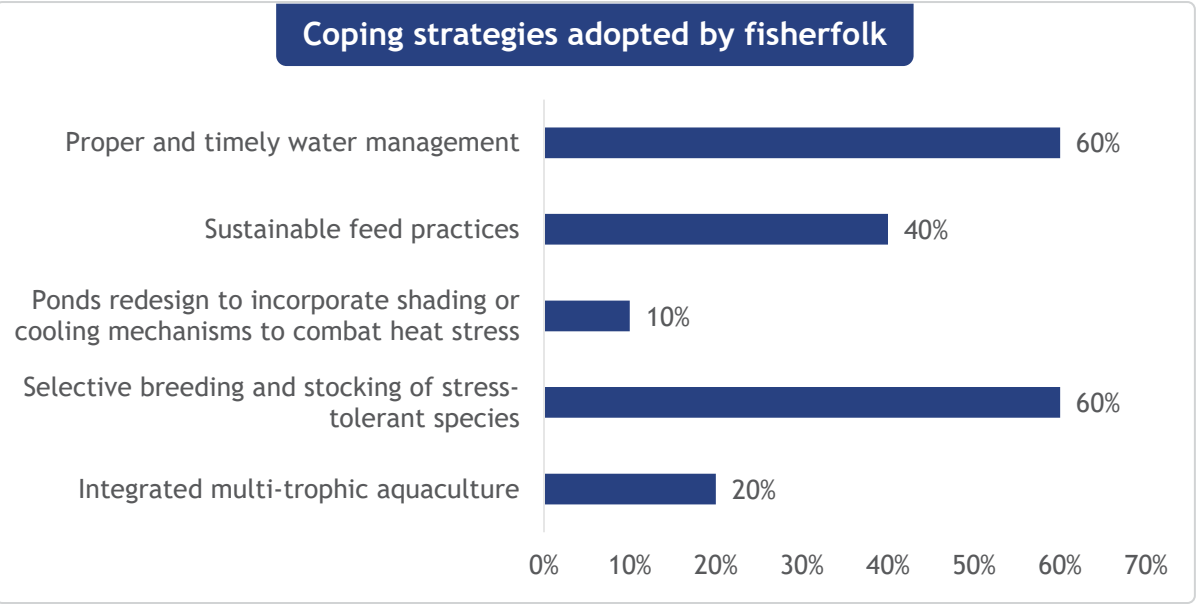


Exhibit 2.3: Fisherfolk predominantly focus on effective water management practices to safeguard their fish from disease, particularly during the summer season, in a bid to maintain optimal pH levels in the water.

> I practice selective breeding and manage water properly. I also change the type of fish I raise during floods because the water's salinity level drops afterward. However, some fish still die due to extreme salinity.
>
> **- A fisherfolk from Satkhira**

Section 2c: Demand-side study

Deep dive: Impacts of climate change on the transaction behavior of BURO's customers

Climate shocks and volatility causes portfolio vulnerability as they affect loan disbursements and deposits, which leads to customer dropout (1/2)

Satkhira:

- **July ’22:** Heavy monsoon rains triggered widespread flooding in flood-prone coastal areas, after a 150-foot embankment on the Kholpetua River collapsed and submerged villages.
- **April ’23:** Severe nor’westers and thunderstorms damaged infrastructure and farming lands.
- September 2023: Prolonged heavy rains caused severe waterlogging in low-lying areas of farming land and fishing grounds.
- **April ’24:** An intense and prolonged heatwave scorched vital crops and caused widespread wilting and a sharp drop in yields.
- **August ’24:** Heavy and persistent monsoon rains led to severe flooding and waterlogging in the coastal districts.

Rangpur:

- **April ’23:** Severe drought marked by high temperatures caused poor vegetation health and water scarcity, which adversely affected agriculture and livelihoods.
- **July-Sept ’23:** Heavy rainfall and the swelling of the Teesta River caused widespread flooding in Rangpur. The swell submerged croplands and led to significant crop losses. Incidents of river erosion were also reported during September.
- **April ’24:** A flash flood triggered by upstream rainfall and rapid river swelling inundated low-lying areas. It damaged standing crops and livestock and threatened local livelihoods.

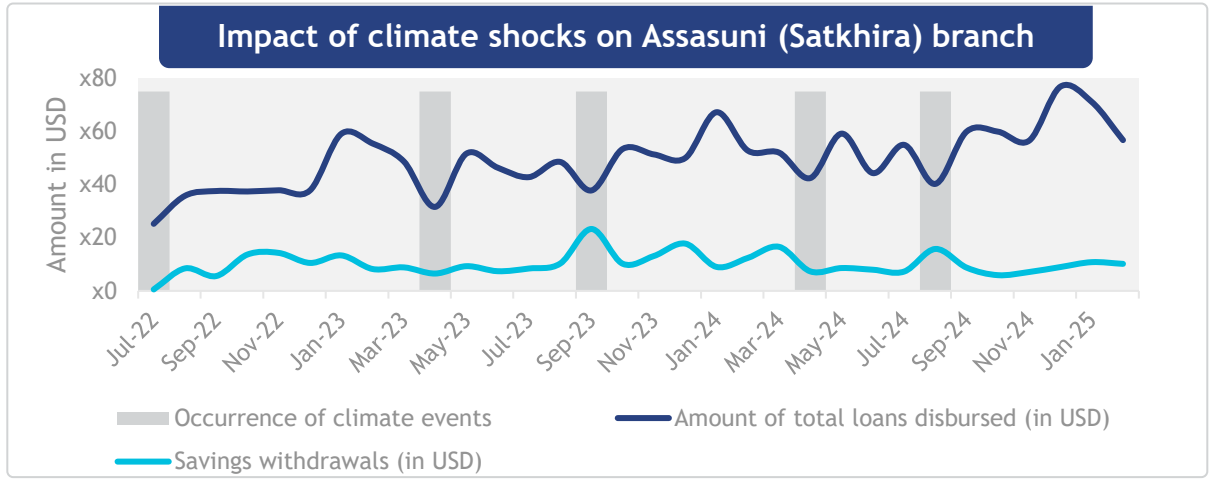


Exhibit 1.1: Fall in loan disbursement during Jul ’22, Apr ’23, Sep ’23, Apr ’24, & Aug ’24

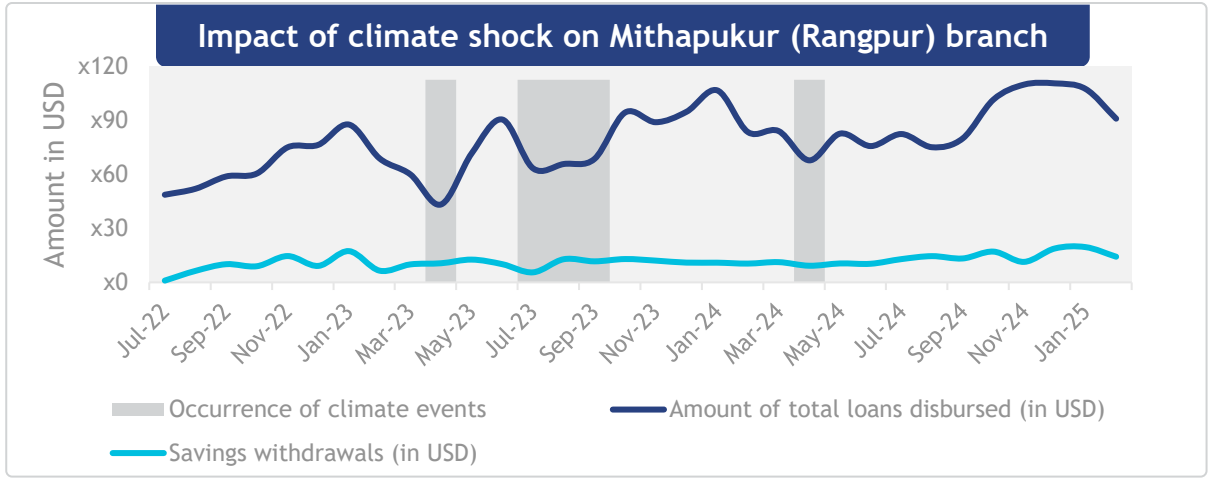


Exhibit 1.2: Fall in loan disbursement during Apr ’23, Jul ’23 to Sep ’23, & Apr ’24

Climate shocks and volatility causes portfolio vulnerability as they affect loan disbursements and deposits, which leads to customer dropout (2/2)

Tangail:

- **July ’22:** Excessive monsoon rainfall and river overflow caused widespread flooding. It submerged agricultural land and severely impacted food grain production.
- **April ’23:** Severe riverbank erosion displaced rural populations, destroyed agricultural land, and disrupted traditional farming livelihoods.
- **April ’24:** Tangail endured a moderate to severe heatwave with temperatures exceeding 38°C and persistently high heat index levels, which posed serious health and livelihood risks.
- **July-Aug ’24:** Flooding from heavy monsoon rainfall and increased upstream runoff inundated homes, roads, and crops, displaced people, and caused shortages of food and animal feed.
- **November ’24:** No severe climate events occurred during Nov ’24, but loan disbursement and savings withdrawal suffered, likely due to the two-month-long post-event climate shocks.

Cox’s Bazar:

- **August ’23:** Heavy monsoon rainfall triggered major flash floods. The floods led to overflowing rivers and submerged homes, infrastructure, and croplands, and caused severe damage to agriculture.
- **April ’24:** High temperatures and fluctuating weather reflected broader climate variability. These two factors disrupted the agricultural calendar, hindered crop growth, and complicated farm management.
- **August ’24:** Pekua upazila experienced a deadly landslide and flood. Heavy rainfall inundated homes, croplands, and fish enclosures, especially in Titong union, which heightened the danger for residents and increased the risk of landslides.

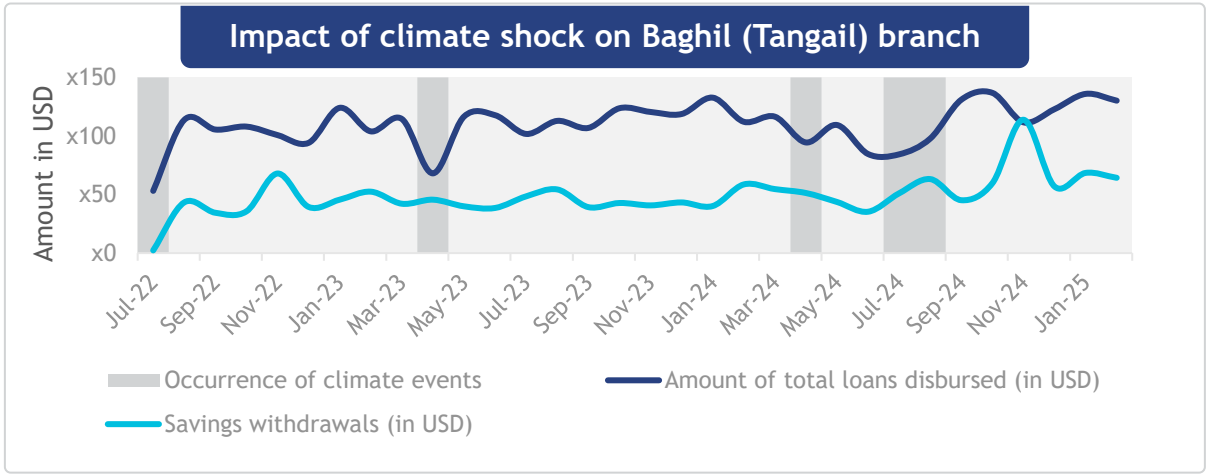


Exhibit 1.3: Fall in loan disbursement during Jul ’22, Apr ’23, Apr ’24 & Jul-Aug ’24

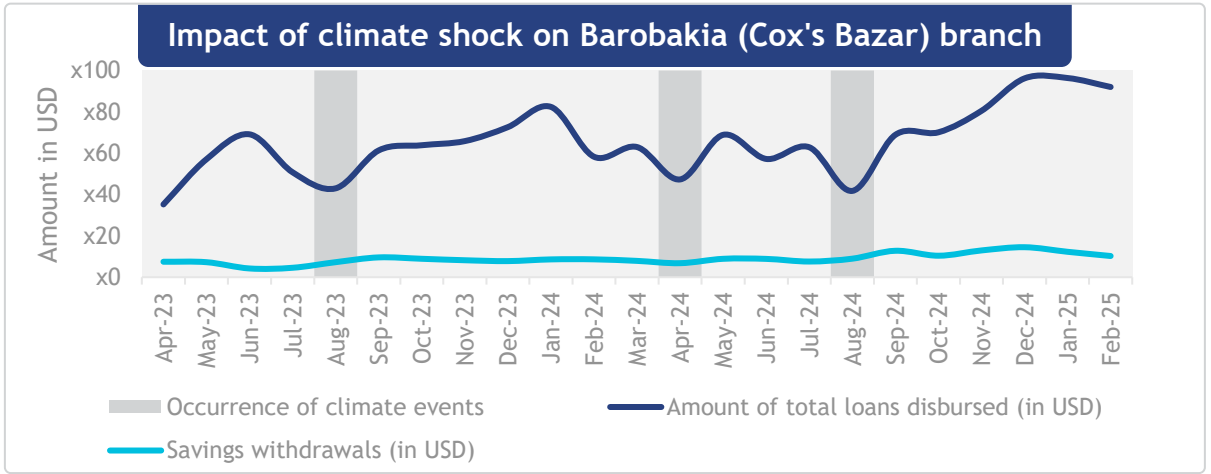


Exhibit 1.4: Fall in loan disbursement during Apr ’23, & Aug ’24

Farmers usually borrow from multiple sources to meet loan repayment obligations, which increases their financial burden.

- Farmers struggle to repay loans due to income loss during climate-related events, which typically delays payments by two to three weeks, but they face pressure to catch up within a month.
- In Satkhira, many farmers borrow from moneylenders to meet repayment deadlines, which increases their financial stress and long-term debt.
- In Rangpur, farmers stated that loans with high interest rates worsen financial difficulties, especially during droughts and heatwaves when crop failures reduce income.
- In Tangail, farmers take loans from one NGO to repay another, which traps them in a cycle of debt that restricts access to new financial products due to arrears and instability.
- Even though borrowers face financial challenges, they consistently prioritize the repayment of BURO loans. This commitment often leads them to take on multiple loans from various sources. They may liquidate assets and obtain informal loans to ensure future access to credit.
- Crop losses and income drops from cyclones, floods, and heatwaves lead to loan defaults, which force some borrowers to take informal loans to repay BURO.

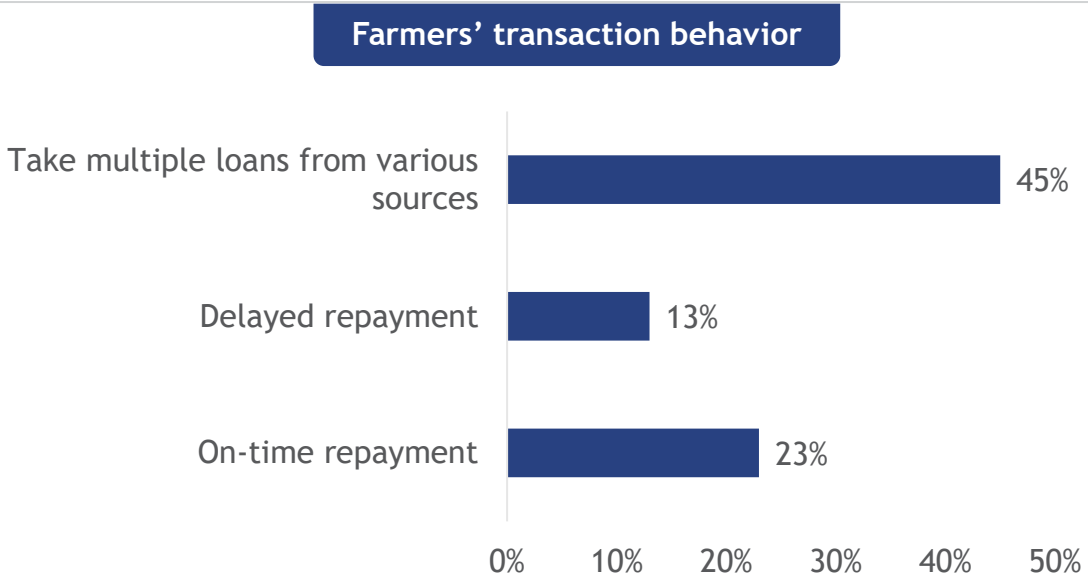


Exhibit 5.1: Our research suggests that farmers obtain loans from multiple sources to ensure timely repayment of their installments to BURO.

> Indeed, climate hazards have a significant impact on loan repayment. Unfortunately, I missed the payment deadline, which led me to take out additional loans to cover the installment.
>
> **- A male farmer from Assasuni, Satkhira**

Livestock owners struggle to maintain financial stability, as extreme weather disrupts their income streams.

- Climate-related challenges reduce income and force livestock owners to rely on savings instead of contributing to them, which disrupts their financial stability.
- Many livestock owners avoid taking loans for cattle, as they fear that additional debt will increase their financial burden during uncertain times.
- In Rangpur, frequent heatwaves and cold waves discourage livestock owners from taking larger loans to scale up cattle farming, as they worry about the risks involved.
- Some livestock owners in Satkhira sell their cattle at very low prices during extreme floods to meet urgent financial needs, sacrificing long-term assets for short-term relief.
- Many households use the entire income from livestock and poultry for loan repayments, which leaves little to no surplus for other expenses.
- Climate hazards further strain repayments, as damaged roads and flooded fields limit income-generating activities. Without alternative sources of income, many livestock owners struggle to stay financially afloat in the wake of disasters.

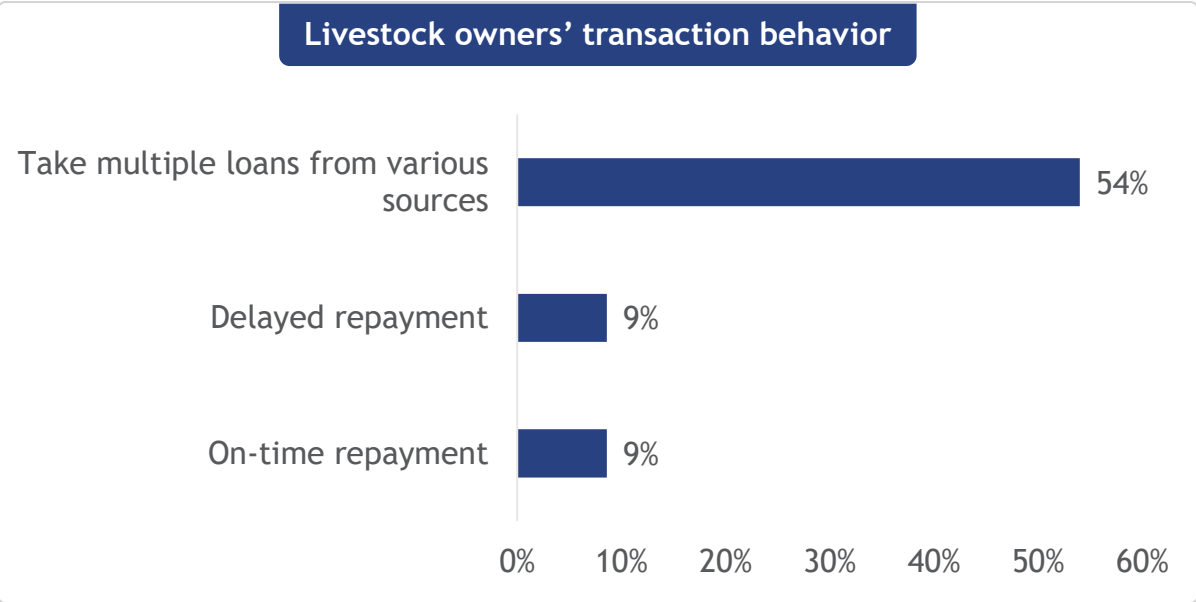


Exhibit 5.2: After a disaster, livestock owners demonstrated a significant decline in timely payments.

> During severe floods, many of us are forced to sell cattle at very low prices to meet immediate needs. We give up valuable long-term assets for short-term relief, which affects recovery. We need better financial support to avoid these tough choices and safeguard our livelihoods.
>
> **- A farmer from Tangail Sadar**

Fisherfolk maintain a strong relationship with BURO by ensuring timely loan repayments and often rely on multiple loans to stay financially afloat.

- Fisherfolk in Cox's Bazar rely on multiple loans from various sources due to income instability caused by climate-related disruptions. With existing loan installments to repay and essential living expenses to cover, they often need additional financial support.
- Only 30% of fisherfolk can repay their loans on time, as unpredictable earnings linked to climate factors make it difficult for them to maintain consistent financial commitments.
- A small percentage of fisherfolk experience delayed repayments, primarily due to strict installment collection schedules with limited flexibility.
- Despite these challenges, fisherfolk strive to maintain a good repayment record with BURO to ensure continued loan access. While delays typically range from one to seven days, they make every effort to stay on track with payments.

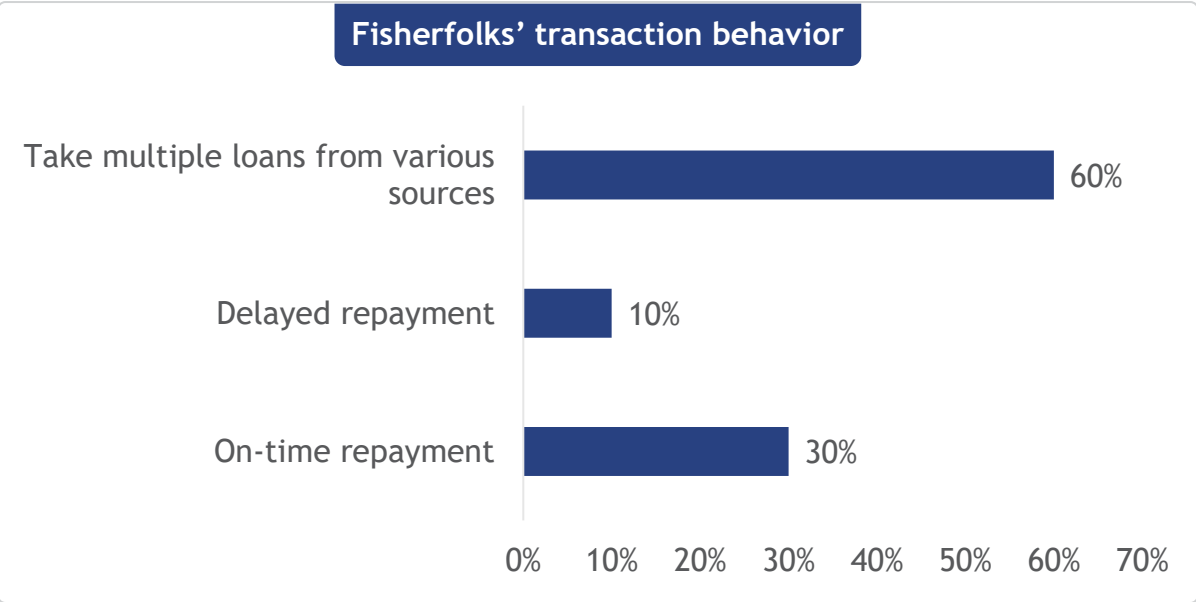


Exhibit 5.3: Fisherfolks are dependent on securing multiple loans from various sources to repay loans taken from BURO on time.

> There was a time I struggled with a two-week repayment delay due to strict installment schedules. I had no income during that period, which made the situation even more difficult.
>
> **- A fisherfolk from Pekua, Cox's Bazar**

Section 2d: Demand-side study

Deep dive: Actual and potential roles of formal and informal financial services in impacting the resilience of BURO's customers

Farmers have limited access to formal financial services after disasters, which forces them into distress asset selling.

- In the aftermath of climate-related disasters, farmers in Satkhira face significant financial challenges as they work to recover. Many are compelled to liquidate their livestock, including cows, goats, and poultry, to address immediate expenses.
- In Satkhira, farmers turn to moneylenders and NGOs for loans, as financial losses make it difficult to sustain their livelihoods.
- Despite their efforts, they struggle to access additional loans from BURO, as they are often deemed ineligible for multiple simultaneous loans.
- Farmers in Rangpur recognize the importance of timely loan repayments to BURO. They know that they must maintain a good credit history to secure future financial support.
- Few farmers have life insurance, but many of them report delays or difficulties in receiving payouts when they need them most.
- As a result, they often resort to borrowing from multiple sources, including other NGOs, even as they repay existing loans.
- In the immediate aftermath of a disaster, households rely on government and NGO relief alongside personal savings to cover urgent needs before financial recovery becomes possible.

> Last year, the heavy floods forced me to sell my cows and goats to survive. Without that income, it became impossible to support my family. On top of that, the increasing food prices made it even harder to manage.
>
> **- A male farmer from Pekua, Cox's Bazar**

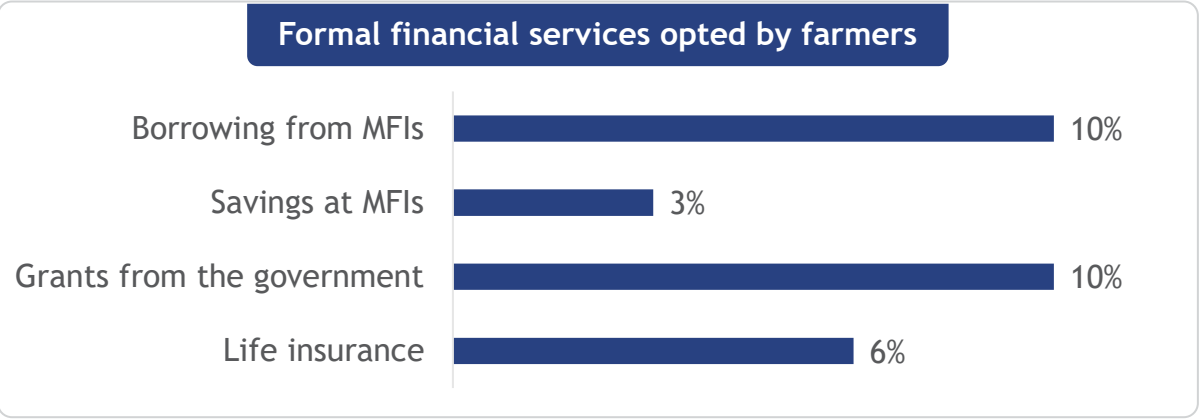


Exhibit 3.1: Farmers throughout the region have fewer opportunities to access formal financial services. However, only a limited number can secure loans from MFIs.

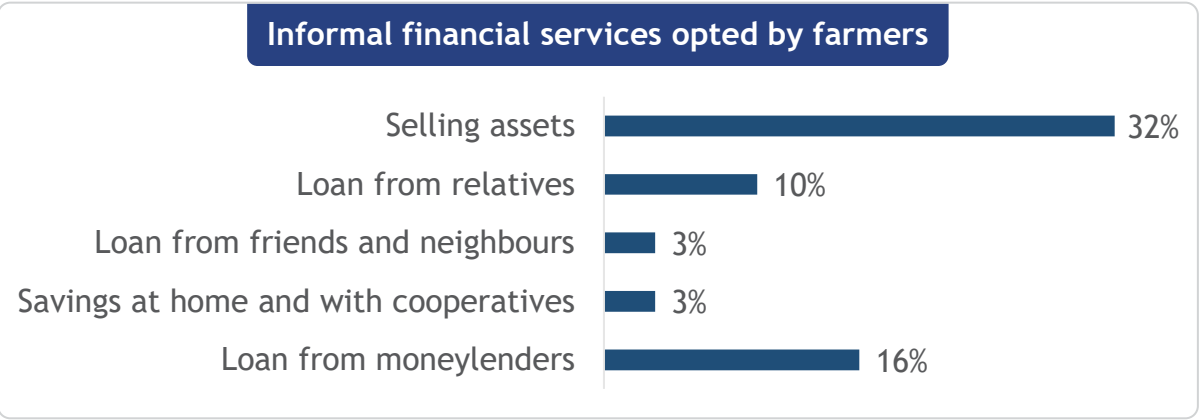


Exhibit 3.2: Farmers largely rely on informal financial services, which often leads them to liquidate their assets in the aftermath of a disaster.

Livestock owners depend heavily on savings and asset sales as a survival strategy during disasters.

- Livestock owners rely on their savings to invest in resilience strategies, such as improved sheds and vaccinations, and do not take loans specifically for livestock. However, climate hazards often force them to deplete these savings to protect their animals.
- In Satkhira, farmers exhausted their savings during Cyclones Remal and Amphan, while during Cyclone Aila, many turned to informal lenders, such as *Mohajan*, after they lost their income. Attempts to secure loans from NGOs often failed due to concerns about repayment.
- In Tangail, extreme heatwaves led some farmers to borrow BDT 10,000 (USD 85) from BURO to purchase a motor and water tank to ensure access to clean water for both cattle and household needs.
- While some farmers take loans to buy new cattle, others rely on informal borrowing to purchase cattle feed during floods or droughts.
- The Friesian breed of cattle is a popular investment due to its higher yield, but its maintenance costs are significantly higher, which makes it a financial risk for small farmers.
- In times of crisis, farmers often sell their livestock as a financial coping mechanism. They treat their cattle as a form of savings that they can liquidate when needed.

> During the last flood, I used borrowed money along with my household savings to save my cow. Thankfully, she later gave birth to a calf. After that, I sold the cow to get some cash, which helped me get through the tough times. **- A female livestock owner from Mithapukur, Rangpur**

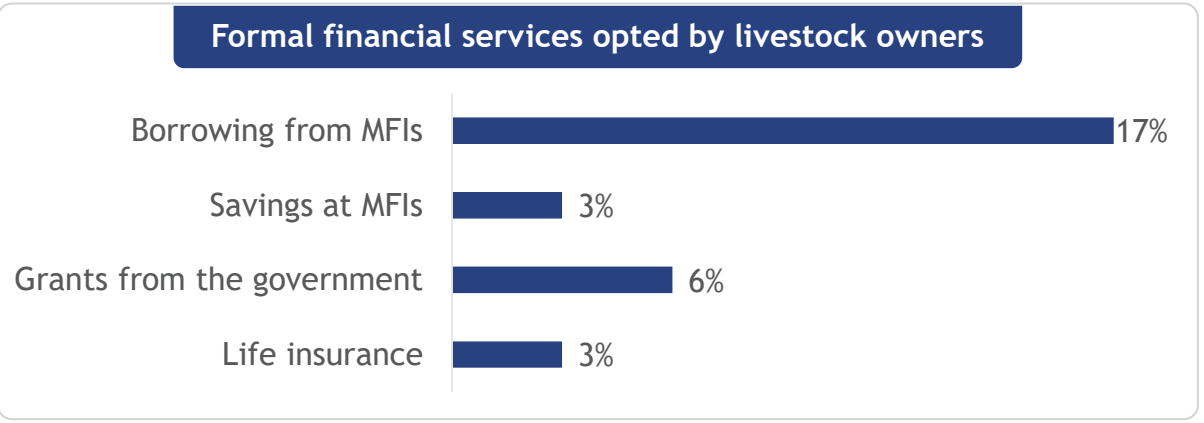


Exhibit 3.3: Livestock owners lack access to loans from microfinance institutions as part of their survival strategy during or after a disaster.

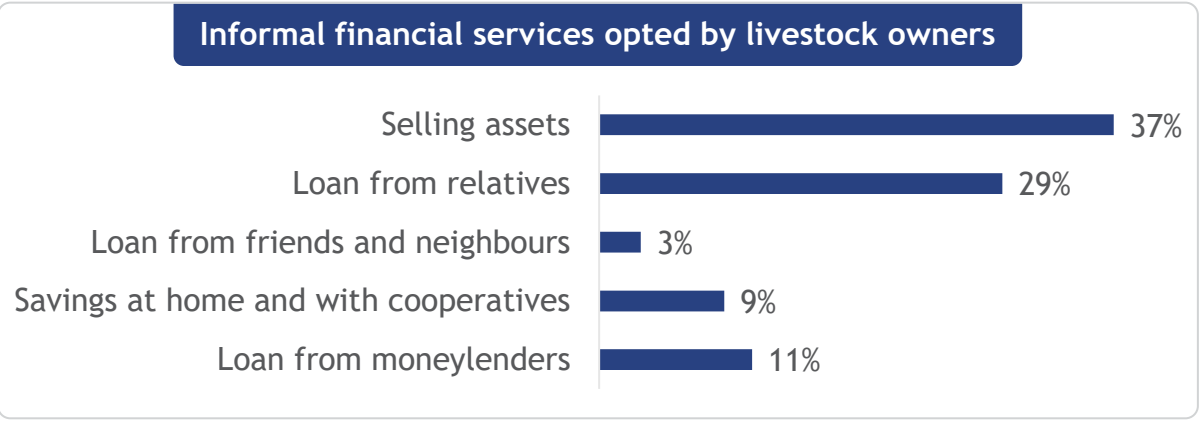


Exhibit 3.4: Livestock owners depend heavily on the sale of assets to cope with climate disasters.

Fisherfolk turn to social networks and asset liquidation to cope with climate-driven income losses.

- MFIs offer more accessible financial services than traditional banks, with simpler requirements, lower collateral, and tailored products designed for low-income individuals.
- Insurance coverage among fisherfolk in Satkhira and Cox's Bazar remains low due to limited awareness, high premium costs, and distrust in insurance companies, as many believe payouts are unreliable due to policy restrictions, such as pre-existing conditions, claim limits, proof of loss, and extra documentation, among other factors.
- Government grants have limited outreach and strict eligibility criteria, which leave many fisherfolk excluded. They also observe that crop and livestock farmers receive more financial support than those in fisheries.
- Fisherfolk in Satkhira rely on social networks for urgent monetary support in times of financial distress, particularly during seasonal income fluctuations or emergencies.
- Fisherfolk resort to several strategies to cope with climate hazards. They often sell livestock or other assets to cover loan payments, buy food, and sustain fish farming operations. However, while this provides short-term relief, it weakens their long-term financial stability.

> Government grants do not reach many fisherfolk. I also notice that farmers with crops and animals get more relief or grants than we do in fisheries.
>
> **- A fisherfolk from Pekua, Cox's Bazar**

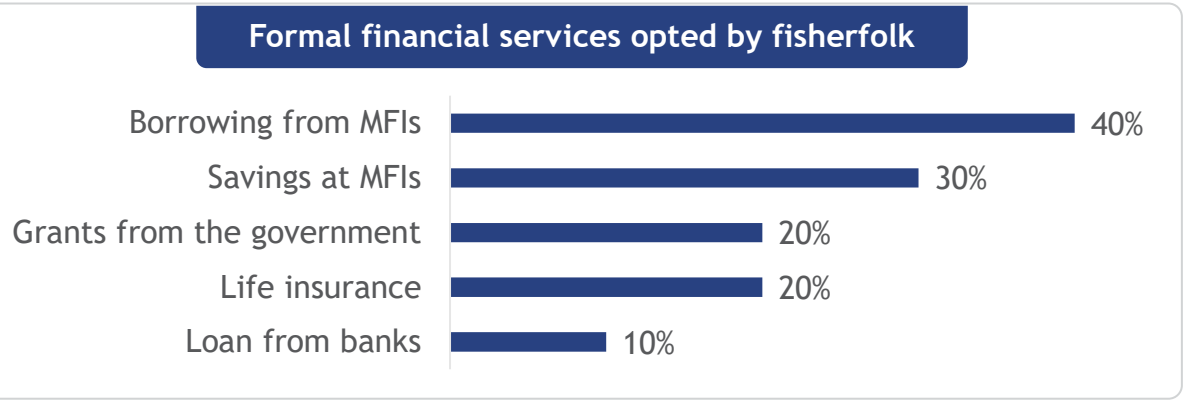


Exhibit 3.5: Fisherfolk access their savings and borrow from MFIs to adapt to the climate impact, but their adaptation efforts are insufficient to cope with the aftershock of the disaster.

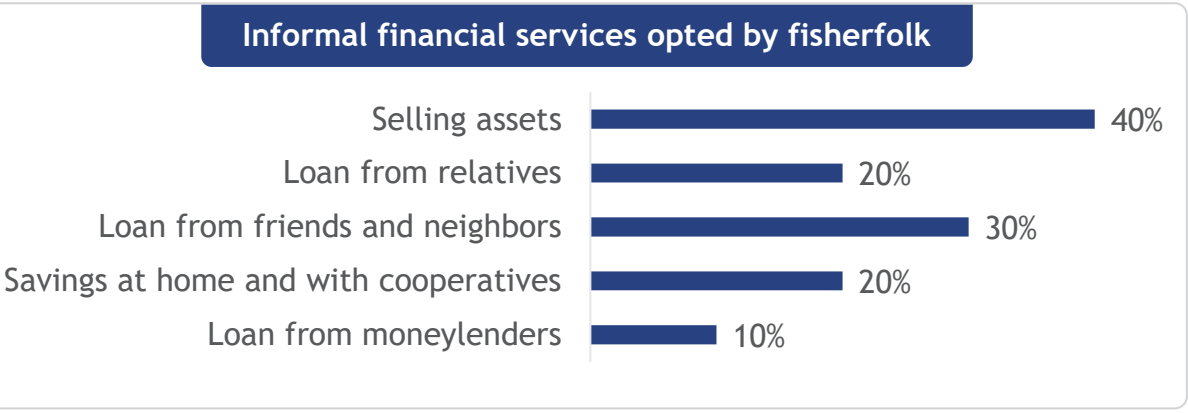


Exhibit 3.6: Fisherfolk predominantly sell assets and obtain loans from friends and neighbors.

While system-level actors are central to providing disaster relief, more focused and strategic interventions are needed to enhance resilience.

1 Department of Fisheries

- Rising temperatures, overfishing, and habitat destruction have depleted fish stocks, particularly in regions, such as Cox's Bazar.
- The government enforces seasonal bans on fishing to protect fisheries, such as a 22-day hilsa ban and a 65-day marine fishing ban. During these bans, fishers receive relief through the Vulnerable Group Feeding (VGF) program.
- Many fishers struggle to transition to alternative livelihoods due to limited training and market access. Stakeholders can address this issue through the expansion of programs, such as "One House, One Farm," to help them diversify their income sources.

2 Department of Agriculture Extension (DAE) and Department of Livestock Services (DLS)

- The DAE is working to address the declining jute cultivation in Tangail due to irregular rainfall and a lack of water during the jute harvesting period in June-July.
- They seek to promote climate-resilient crop varieties that withstand floods, droughts, heat, and salinity.
- The Upazilla Livestock Officer visits the field based on their calendar and advises the farmers on what to do in critical situations that involve livestock.
- Despite these helpful strategies, many farmers do not follow the recommendations and continue to incur losses during climate hazards.

3 District Relief and Rehabilitation Office (DRRO)

- The DRRO performs pre- and post-disaster relief and rehabilitation. These activities include providing cyclone centers in primary schools, feed for livestock, food for children and the elderly, and cash for rehabilitation, such as during Cyclone Remal.
- The DRRO maintains a disaster risk reduction plan and shares information on upcoming disaster preparedness with relevant government and nongovernment offices.
- They provide relief under VGF cards to contribute to the Social Safety Net program.

4 Agriculture input dealers

- Agriculture input dealers face transport issues due to damaged roads after climate disasters, which leads to product delivery delays.
- They note that demand for fertilizers and insecticides increased after the floods in Satkira as people sought to address land and crop damage.
- They offer credit to customers during crisis periods, relying on their relationships as neighbors and fellow villagers.
- Dealers provide guidance to farmers based on the knowledge they have gained from company representatives.

Section 2e: Demand-side study

Deep dive: Barriers that BURO's customers struggle with when they seek access to financial services

MFIs' strict loan assessment criteria prevent farmers from accessing much-needed post-disaster financial support.

- Farmers in Satkhira stated that BURO's loan assessment practices can make it challenging for farmers who have delayed repayments due to climate disasters when they seek access to additional financial support.
- Stringent criteria can exclude those in urgent need. Many farmers report being ineligible for BURO's emergency loans due to existing loans despite strong repayment histories. Female farmers also face added barriers, such as the requirement for two guarantors, one of whom is often expected to be their husband.
- Women in Satkhira face significant challenges when they seek access to loans during climate-related crises. Although MFIs and NGOs serve this demographic, loan providers assume they cannot repay during climate-related crises due to low or irregular incomes.
- While some farmers find loan accessibility relatively easy, they may struggle to manage multiple guarantors and witnesses, especially during and after climate hazards.

Photo: MSC and BURO research team. November, 2024

Exhibit 4.1: A rice farmer in Assasuni, Satkhira district, raised concerns about the loan assessment criteria used after the disaster.

> NGOs assess farmers' eligibility for loans, which unfairly penalizes those who have already lost everything. During emergencies, all farmers should have access to loans without stringent assessments.
>
> **- A male farmer of a focus discussion group from Assasuni, Satkhira.**

Mistrust and fraud concerns discourage livestock owners from investing in insurance for climate resilience.

- In Satkhira, livestock owners show interest in insurance for their cattle but have limited awareness of how it works. While they see its potential benefits, high premium costs and concerns about making payments during climate hazards make them hesitant to enroll.
- In Tangail, concerns over fraud and mistrust in insurance schemes lead many farmers to prefer direct financial support through loans, community training, and health services instead.
- Social norms further limit women's financial participation in Tangail, where some livestock owners discourage female family members from engaging in income-generating activities or participating in financial discussions with MFI staff. Male members of a household typically handle loan applications and repayments.
- Mobility restrictions add another layer of difficulty. While men can travel to branch offices to manage financial matters, distance and post-disaster conditions make accessing financial institutions more difficult for women.
- During floods, loan repayments are delayed for three to four weeks, which adds further financial strain on affected households in Cox's Bazaar.

MSC and BURO research team. November, 2024

Exhibit 4.2: A livestock owner in Assasuni, Satkhira district, is interested in cattle insurance but lacks awareness of available products and their benefits.

> I do not know much about premiums. While I understand insurance, I worry about fraud. I would rather have direct support, such as loans, training, and health services, instead of insurance schemes.
>
> **- A female livestock owner from Sadar, Tangail.**

Fisherfolk face difficulties securing guarantors, creating barriers to accessing formal financial services.

- In Satkhira, fisherfolk struggle when they attempt to repay loans during climate crises, such as Cyclone Remal. Without flexible repayment options, missing even a single installment can force them to borrow from local moneylenders, who charge high interest, or from relatives to meet deadlines.
- While MFIs, such as BURO, offer accessible loans, many fisherfolk struggle to arrange the required two to four guarantors, which makes it difficult to secure credit, especially during emergencies.
- Rigid repayment schedules add to their financial strain, as delays due to climate shocks often result in late fees and increased hardship.
- Unlike other sectors, gender-related challenges are minimal in fisheries, as women in many areas have even greater access to MFI loans than men.

MSC and BURO research team. November 2024

Exhibit 4.3: In 2024, a shrimp pond was submerged due to Cyclone Remal, which resulted in significant damage to aquatic life and caused a substantial loss of income.

> During Cyclone Remal this year, I borrowed money from a relative to repay the loan to BURO because the installment payment is not flexible.
>
> **- A male fisherfolk from Assasuni, Satkhira**

Section 2f: Demand-side study

Deep dive: New financial products or services needed to increase the resilience of BURO customers

New financial products are needed to help farmers recover from climate shocks and build resilience.

- Farmers need immediate access to emergency loans during climate disasters, such as cyclones or floods. These loans should offer longer repayment periods and low interest rates to support recovery efforts.
- Loan repayment schedules should be tied to the income cycles of farming and livestock activities. This would allow farmers to make payments when they have revenue from crop harvests or livestock sales.
- Affordable insurance products should be offered to cover risks associated with climate-related events. These policies should include coverage for crop failure, livestock loss, or damage to infrastructure.
- Farmers need access to inputs, such as seeds, fertilizers, livestock feed, and pest-resistant plants at subsidized rates. This will help them recover faster after climate-related losses.
- Farmers need regular guidance on best practices for crop cultivation, livestock care, and strategies to adapt to climate risks. This could include training sessions or one-on-one advisory support.
- Farmers face challenges accessing healthcare during climate disasters. They will benefit if they receive discounted or priority health services during these times.
- Farmers need training programs focused on modern farming techniques, livestock management, and climate adaptation strategies to enhance their resilience.

Photo: MSC and BURO research team. December, 2024

Exhibit 6.1: A group of female farmers in the Mithapukur Upazila of the Rangpur district engaged in a discussion regarding the necessity of adapting to climate change's impacts.

> We need flexible loans with one-time payment options after disasters. Repayments should match farming and livestock cycles, so we can pay after selling our crops or animals.
>
> **- A farmer from Satkhira.**

Livestock owners require flexible loans, asset support, and tailored financial services to withstand climate risks.

- Livestock owners expressed their difficulty when they had to repay loans during natural disasters and suggested that financial institutions consider the extent of damage and the time needed for recovery when they assessed repayment timelines.
- They recommended policy changes to allow for extended repayment periods and temporary suspension of installments during crises to ease financial strain.
- The livestock owners suggested lower interest rates and repayment holidays during extreme weather conditions as additional relief measures.
- Women emphasized the need to simplify the loan application process and make emergency loans more accessible without the need for guarantors, as climate disasters demand immediate financial support.
- They recommended regular workshops and training sessions on climate-resilient livestock care, disease prevention, and sustainable fodder management to improve resilience.
- Livestock owners called for tailored loan products that address climate-related challenges, such as loss of cattle or fodder shortages, and provide funding for rebuilding efforts.
- Many also suggested that BURO support them through asset transfers, provide cows, goats, or other income-generating livestock, and provide veterinary and advisory services to strengthen their livelihoods.

Photo: MSC and BURO research team. December 2024

Exhibit 6.2: Livestock owners are increasingly prioritizing flexible loan options that can be tailored to meet their specific needs.

> I need lower interest rates and repayment breaks during extreme weather. This would help me recover without stress when floods or storms damage our farms and incomes.
>
> **- A male livestock owner from Rangpur**

Fisherfolk need post-disaster financial assistance and customized loan products to sustain their businesses.

- Fisherfolk need dedicated post-disaster recovery loans to rebuild damaged fish farms, boats, and equipment after climate shocks, such as floods and cyclones. These loans should have low interest rates and flexible repayment schedules.
- Fisherfolk should be encouraged to save for climate emergencies through higher interest rates on designated emergency savings accounts, alongside instant withdrawal options for quick access to funds when needed.
- Fisherfolk need one-time repayment loans that allow them to pay back after the fishing season rather than weekly installments. They also need short-term loans with monthly installment plans to match their income cycles.
- They need loans aligned with fish farming and fishing cycles, which would provide funds to purchase fish fry and feed, as well as for maintenance costs. Fisherfolk who were unaware of these loans should be given more information and access to these products.
- Small cash transfers or grants should be introduced to help fisherfolk restart their livelihoods after climate-related disruptions and reduce their dependency on high-interest debt.
- Fisherfolk should receive training on fishery management, sustainable fishing practices, and alternative livelihoods for off-season employment. Special vocational programs should target women in fishing communities, on aspects, such as fish processing, net making, or other income-generating activities.
- Subsidized fish feed and fertilizers should be provided to support sustainable fisheries. Fisherfolk should have access to doctors, clean drinking water, and healthcare support, especially during climate crises.

Photo: MSC and BURO research team. November, 2024

Exhibit 6.3: Fisherfolk in Satkhira district's Assasuni Upazila cultivate shrimp in ponds that are often flooded during cyclones.

> We need training in fishery management, sustainable fishing, and off-season jobs. Special programs for women and some grants or relief would really help our fishing communities survive and grow.
>
> **- A fisherfolk from Satkhira**

Section 3:
Supply-side study
Analysis of BURO's portfolio

BURO's current products primarily seek to meet customers' immediate needs and do not adequately support long-term sustainability.

Existing products	Purpose	Ticket size	Loan tenure
General loan	The loan helps poor rural and urban households finance economic activities and build capital. General Loans provide working capital to disadvantaged households.	BDT 5,000- 25,00,000 (USD 40-USD 20,000)	Weekly for 1-2 yrs or monthly for 2-3 yrs
Microenterprise loan	These individual loans are assessed based on household cash flow, business projections, and the borrower's reputation in the community.	BDT 50,000-BDT 25,00,000 (USD 400-USD 20,000)	Weekly for 1-2 yrs or monthly for 2-3 yrs
Agriculture loan	The loan supports agricultural activities and is given to landless and marginal farmers in organized groups.	BDT 10,000-BDT 25,00,000 (USD 80-USD 20,000)	Weekly for 1-2 yrs or monthly for 2-3 yrs
Hand loan	The hand loan helps protect household economies and assets, financing festivals, marriages, healthcare, and education.	BDT 5,000-BDT 50,000 (USD 40-USD 400)	3-6 months
Disaster loan	The disaster loan provides immediate cash to help households recover from natural disasters and protect assets.	BDT 1,000-BDT 20,000 (USD 8-USD 170)	1 year
Water and sanitation loan	The tube-well loan provides access to safe water, while the sanitary loan helps install bathrooms.	BDT 5,000-BDT 200,000 (USD 40-USD 1,650)	Weekly for 1-2 yrs or monthly for 2-3 yrs
Consumer loan	Key features include need-based, flexible products; customer freedom with optional loans; open savings withdrawals not linked to loan status; use of commercial funds as a Relationship Fund (RLF).		

While BURO's savings products provide financial assistance after disasters, a dedicated savings option specifically designed for climate-related emergencies is not available.

Existing products	Purpose
General savings	The general savings account is like a current account, where customers can save or withdraw on demand.
Contractual savings	This is a financial tool for investments or to fulfill social obligations, such as weddings, funerals, or children's education. BURO offers competitive interest rates that give customers control over deposits and withdrawal terms for financial flexibility.
Voluntary savings	These savings are considered as customer deposits and accrue interest based on the declared rates.
Microinsurance product: Customers' security fund	The Customers' Security Fund ensures social protection and economic stability by reducing household vulnerability, managing risks, and enhancing profitability.

Section 4: Recommendations

BURO needs an intentional strategy to enhance customer climate resilience through the integration of financial product innovation, risk-based credit underwriting, and institutional capacity building.

		Phase 1: 6 months -1 year	Phase 2: 1-2 years
Innovate	Level 3 – Business transformation	• Launch Farmer Credit Card • Create a new pre-approved disaster loan product	• Launch the voluntary climate emergency savings account (CESA) • Launch climate-resilient agriculture loans
Improve	Level 2 – Business effectiveness	• Modify existing loan structures	• Align the internal operations to address climate risks and de-risk the loan portfolio through a blended financing mechanism
Support	Level 1 – Business efficiency	• Raise customer awareness and capacity building	• Roll out savings and loan products bundled with parametric index-based insurance

Annexes

Summary of findings

Hazard	Location	Direct impacts	Indirect impacts	Coping strategies
Cyclones and floods	Satkhira	• Wipe out houses, embankments, and standing crops. • Salinity intrusion depletes soil fertility. • Excessive rainfall worsens pest outbreaks. • Damage fishponds. • Floodwaters contaminate drinking sources, leading to livestock diseases and mortality.	• Schools remain closed. • Increased waterborne diseases. • Limited mobility to access medical care. • Loss of assets, struggle to secure loans • Migration to urban areas.	• Cultivating salt-tolerant rice varieties (e.g., A to Z, Partex-3, Rock Miniket). • Constructing embankments. • Rebuilding cattle shelters with sturdier materials. • Selective breeding and water management techniques in fisheries.
Extreme heatwaves, drought and cold waves	Rangpur	• Droughts cause land to crack, reducing crop yields. • Excessive heat increases pest infestations. • Heat stress leads to livestock diseases (lumpy skin, foot-and-mouth). • Drought lowers pond water levels, increasing fish mortality. • Cold waves cause sores and gill infections in fish.	• Dehydration, heatstroke, and exhaustion. • Increased irrigation expenses. • Rising costs of maintaining livestock health.	• Modifying planting schedules. • Growing drought-tolerant rice varieties (e.g., BIRI 56, BIRI 57). • Investing in small-scale irrigation and pest control. • Maintaining hygiene through regular disinfection with Savlon or potassium permanganate solution. • Using thick fabric for warmth in cattle sheds • Timely veterinary check-ups and vaccinations.

Summary of findings

Hazard	Location	Direct impacts	Indirect impacts	Coping strategies
Floods and riverbank erosion	Tangail	• River erosion claims farmland, forcing families to relocate. • Floodwaters destroy homestead gardens. • Reduces pasture fields for livestock.	• Relocation leads to the breakdown of support systems and economic instability. • Pregnant women and mothers face difficulties. • Schools and hospitals are submerged. • Flooded roads and bridges cut off access to markets. • Financial institutions become difficult to reach.	• Crop diversification (maize instead of Boro rice, sweet pumpkin instead of summer vegetables). • Increased use of pesticides and fertilizers to counteract productivity loss. • Increased reliance on dry food during floods. • Rebuilding sturdier livestock shelters.
Floods and landslides	Cox's Bazar	• Farmers forced to replant rice. • Unstable water conditions affects fish health. • Landslides destroy homes and roads.	• Increased cases of malaria, cholera, and skin infections. • Increased costs of replanting crops and rebuilding homes deplete savings. • Reliance on dry foods leads to malnutrition.	• Integrated multi-species farming and pond redesigning. • Selective fish breeding and water management • Changing fish species based on salinity levels after floods

Persona from the front-line of climate change

Mashkura Sheikh adapts and thrives despite climate challenges

Age: 35
Gender: Female
Marital status: Married
Family size: 4 members
Education: Class 5
Occupation: Farmer

Landholding: 15 decimals
Type of land: Unirrigated
Livestock: 6 Cows, 7 Goats, 3 Ducks

Type of house: Pucca
Access to phone: Smartphone

> I suggest that BURO could improve its financial services by offering short-term loans with low-interest rates, specifically designed for immediate needs during climate events.

Personality traits

- Mashkura fights for her family's future despite having only a Class 5 education, never letting challenges hold her back.
- She carefully manages her finances, relying on savings and only taking loans when absolutely necessary.
- She shares knowledge and experiences with fellow farmers, advocating for better financial support and climate adaptation strategies.
- From tending to crops and livestock to running her household, she works tirelessly every day.

Effects of climate hazards on life and livelihood

- Faces frequent climate disasters like cyclones (Remal, Amphan, Aila) and extreme soil salinity.
- This year’s flood washed away her fish, damaged her home, and caused livestock losses.
- Cyclone Amphan killed all her fish, leaving her financially strained.
- Salinity and high iron content in water affected her crops, livestock, and family’s health.
- Her son fell sick due to poor drinking water quality.
- Struggles with declining soil fertility and water scarcity, making farming difficult each year.

Access to financial products

- Has over 50,000 BDT in savings with BURO and actively contributes to it.
- Took a 70,000 BDT loan from BURO last year to recover from flood losses.
- Prefers savings over loans but relies on MFI loans when needed.
- Previously had a 10-year insurance policy worth 300,000 BDT but doesn’t currently have insurance, as she finds savings more flexible.
- Received limited government aid in the form of pesticides and fertilizers during climate disasters.

Adaptation to climate change

- Reinforced her house with tiles to prevent damage from saline water.
- Built a brick shelter for her cows to protect them from floods and storms.
- Installed nets and raised pond borders with soil to prevent fish from washing away.
- Collects rainwater in a tank and purifies it with alum (Fitkiri) for drinking.
- Advocates for short-term, flexible loans to help farmers recover after climate disasters.

Khairul Sarder prepares every year to fight the hazards, sometimes he wins, and other times he learns

Age: 50
Gender: Male
Marital status: Married
Family size: 5 members
Education: Class 2
Occupation: Fisher

Landholding: Leased pond
Livestock: Hens

Type of house: Kuccha
Access to phone: N/A

> I believe relief funds and more support from organizations like BURO are crucial during and after disasters. I'm grateful to BURO for the loan that helped me recover from Cyclone Remal.

Personality traits

- He is resilient and ensures timely loan repayments even during financial struggles.
- Works hard to sustain his fishing business despite financial hardships caused by climate disasters.
- Has awareness of the various financial products that are available
- He is community-oriented and often seeks and shares advice with his neighbors.

Effects of climate hazards on life and livelihood

- Khairul Sarder faces frequent climate hazards such as cyclones, floods, heatwaves, and rising water salinity.
- Cyclones and floods have severely impacted his fish farming, causing fish deaths due to poor water quality and sweeping them away.
- He lost his cow to illness caused by cyclone-related conditions, adding to his financial struggles.
- Climate disasters often leave him without any income, making it difficult to support his family.
- He suffers from health issues due to drinking contaminated water and enduring extreme heat.
- Rising water salinity has forced him to buy fresh water daily, increasing his expenses.

Access to financial products

- Uses his savings during crises, but they are not always enough for full recovery.
- He took an 80,000 BDT loan from BURO after Cyclone Remal to rebuild his livelihood.
- He does not have insurance because he finds it too costly and impractical.
- He received some assistance from an organization but found formal support difficult to access.

Adaptation to climate change

- Shifted to saltwater fish farming to cope with rising water salinity.
- He uses nets around his ponds to prevent fish from being swept away during floods, though some losses still occur.
- After Cyclone Remal, he used his BURO loan to recover and restart his fish farming business.
- He works closely with his neighbors, sharing advice and strategies to overcome climate challenges together.

Masuma Khatun fights storms to protect her family and livelihood

Age: 26
Gender: Female
Marital status: Married
Family size: 6 members
Education: Till class 8
Occupation: Livestock and fishery

Livestock: 6 cows, 2 goats, 2 hens and 5 ducks

Type of house: Kuccha
Access to phone: Smartphone

> I didn't ask for help because I didn't know anyone would give it.

Personality traits

- Masuma never misses a loan payment, even if it means skipping meals. She fears losing trust with lenders.
- She refuses to ask for help, preferring to sell livestock or use her savings.
- While pregnant, she still cared for her animals, fetching clean water when floods contaminated local sources.
- After a cyclone destroyed a neighbor's shed, she started reinforcing hers with mud. She now dreams of a brick shelter.

Effects of climate hazards on life and livelihood

- Cyclone Remal killed two of her goats overnight. Her cows fell sick from drinking dirty floodwater.
- Her husband lost a month's wages when floods shut down the brick factory.
- With no income during cyclones and floods, she cut back on meals to stretch every taka.
- She feels helpless when heatwaves make her cows sick, but she has no money for proper treatment.
- After the cyclone, she waded through knee-deep water to check on her cows, only to find them weak and barely able to stand from days of drinking contaminated water.

Access to financial products

- She has savings with BURO but uses them only in extreme emergencies.
- MFIs lend to women but refuse loans during climate disasters when she needs them most.
- She avoids insurance after seeing a neighbor struggle with high premiums and no payouts.
- When floods hit, she sold a goat to pay her loan rather than risk defaulting.

Adaptation to climate change

- She raised her sheds with mud, but floods still damaged them.
- She plans to build a brick shelter, though it will take years to save enough.
- She ensures loan payments, even if it means starving herself.
- She believes MFIs should offer emergency loans and flexible repayments during disasters.

Sectors we work in

Providing impact-oriented business consulting services


Banking, financial services, and insurance (BFSI)


Water, sanitation, and hygiene (WASH)


Government and regulators


Micro, small, and medium enterprise (MSME)


Social payments and refugees


Youth


Gender equality and social inclusion (GESI)


Education and skills


Digital and FinTech


Agriculture and food systems


Climate change and sustainability


Health and nutrition

Multi-faceted expertise

Advisory that helps you succeed in a rapidly evolving market


Policy and strategy


Products and channels


Research, evaluation, and analytics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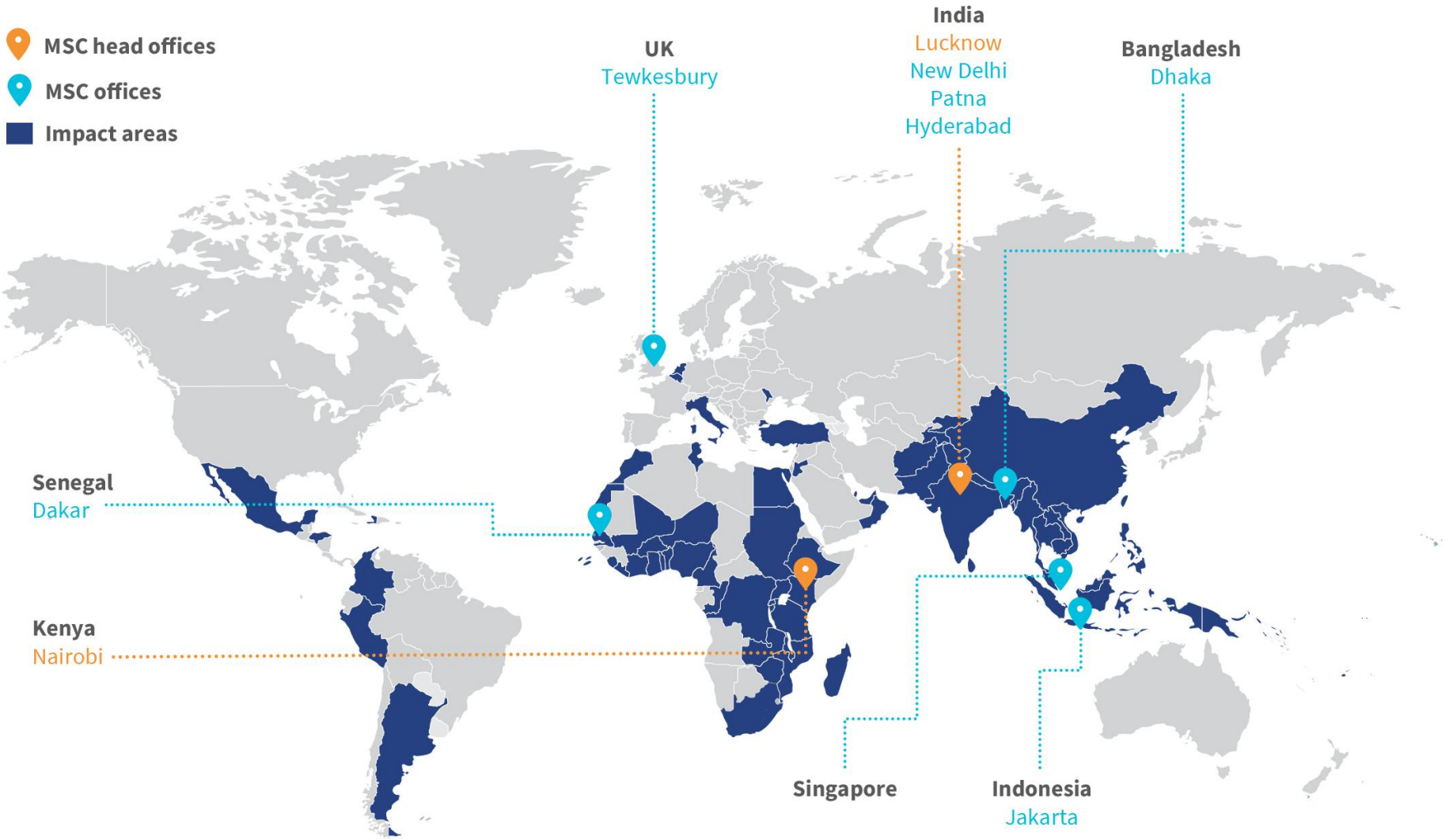

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