



Strengthening Financial Resilience in Agriculture
Knowledge Exchange Series Part 2

Disaster Risk Financing Solutions for Climate-resilient Livelihoods in the Agricultural Sector

Session 2: The State of Inclusive Financial Services and Global Evidence on Strengthening Climate Resilience

The first session, "Index-based Livestock Insurance and the State of Global Evidence," focused on the evolution of index-based livestock insurance and emerging evidence of its impact. The second session broadened the focus to various climate-responsive financial services and products. The discussion and case study delved into the roles of these products in strengthening climate resilience and the market and policy enablers required to enhance their impact.

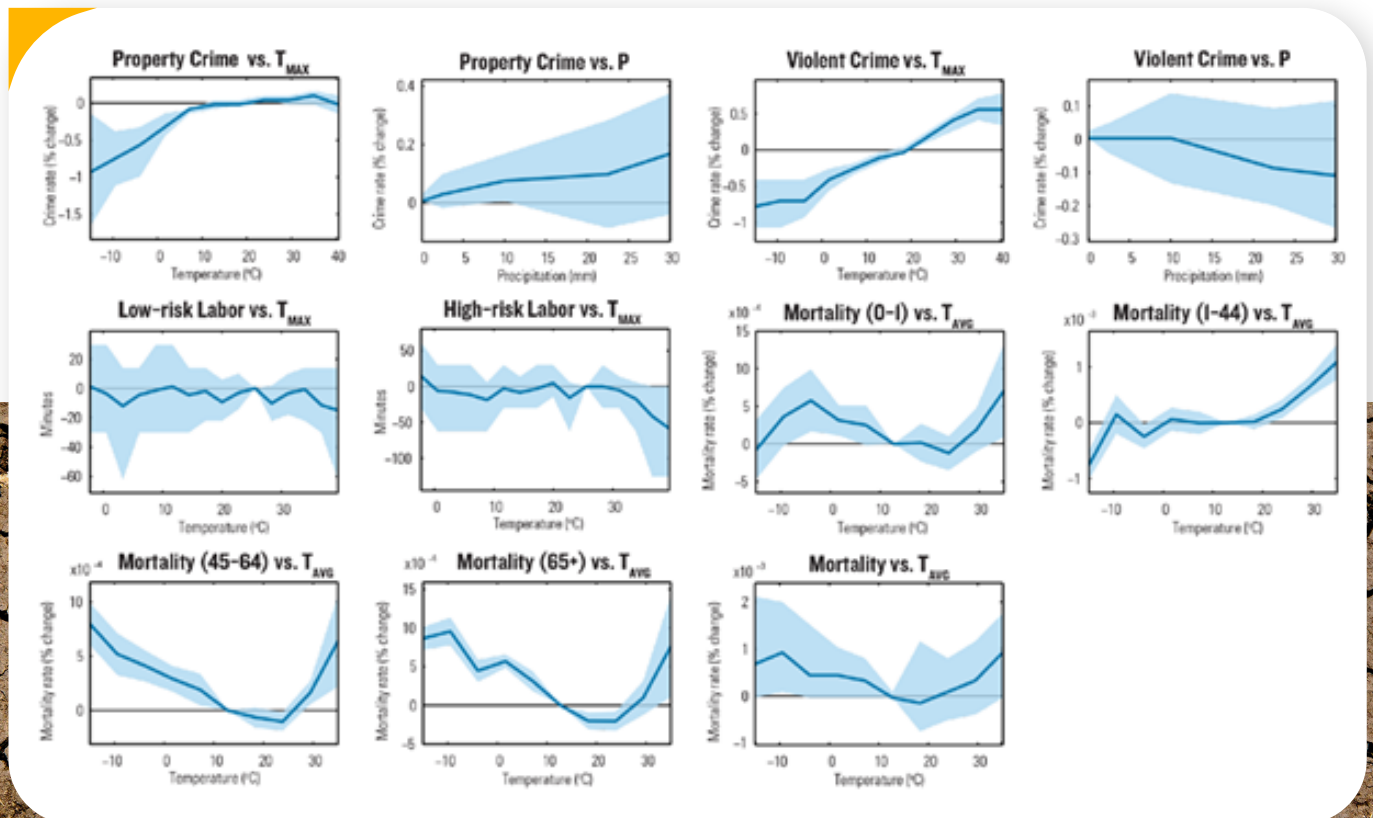
**Disaster Risk Financing
& Insurance Program**



Key Takeaways of the Webinar

- 1 Climate change, particularly temperature increases, negatively affects households' livelihood outcomes such as agricultural yields, labor supply, productivity, crime, suicide, and even conflict and wars. In low-income settings, people often adopt coping strategies that reduce risk but at the expense of longer-term earning potential.

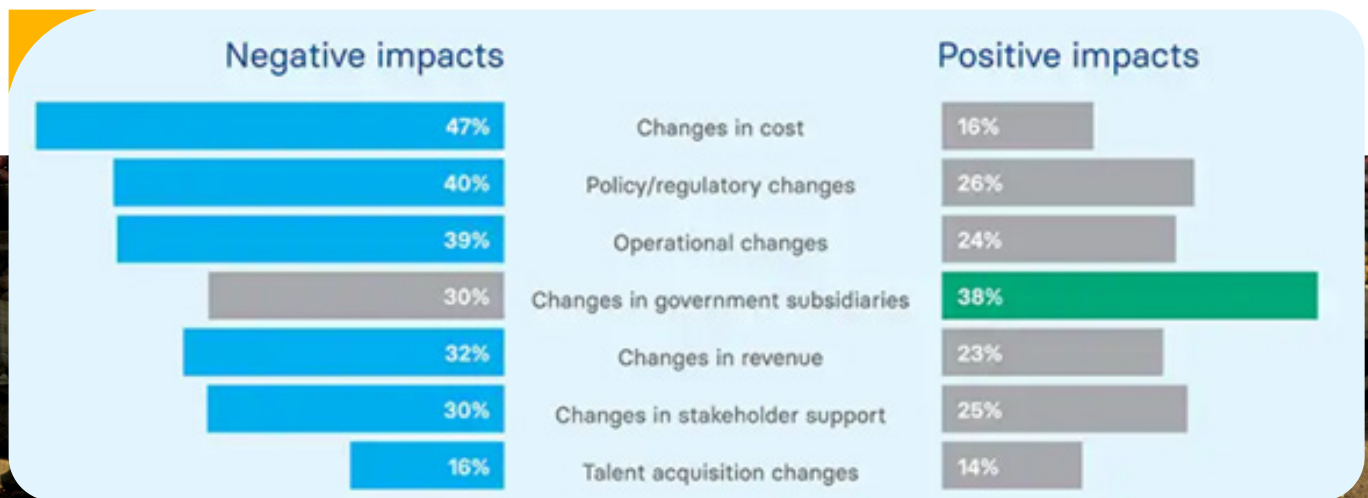
Figure 1: Various Impacts of Climate Change (Source: World Bank)



- 1.1 Climate risks disproportionately affect women, yet they have less access to financial solutions, which creates a pressing need for gender-sensitive climate-responsive financial services. Women have higher exposure to climate change, are more vulnerable to its implications, and have access to fewer resilience tools and strategies to manage risk, including financial services. However, conventional financial products are often not designed to meet their hierarchy of financial needs, their differences in relationships with formal institutions, communication, and distribution needs.

2 Although financial service providers know about climate change, many regard it as a secondary concern or need more expertise and data to develop effective, climate-responsive financial products. A global study of 167 agricultural finance institutions in North America, Europe, and India found that five out of six organizations expect climate change to impact the financial situations of their clients, resulting in a higher probability of default and loss in the future, yet only one out of four of these institutions significantly factor climate change impacts into their decision-making. At the same time, 59 percent have not set climate change goals or targets.

Figure 2: Impacts from weather changes or extreme events on agricultural finance institutions, 2018-2022



Source: Gauthier et al. (2022)

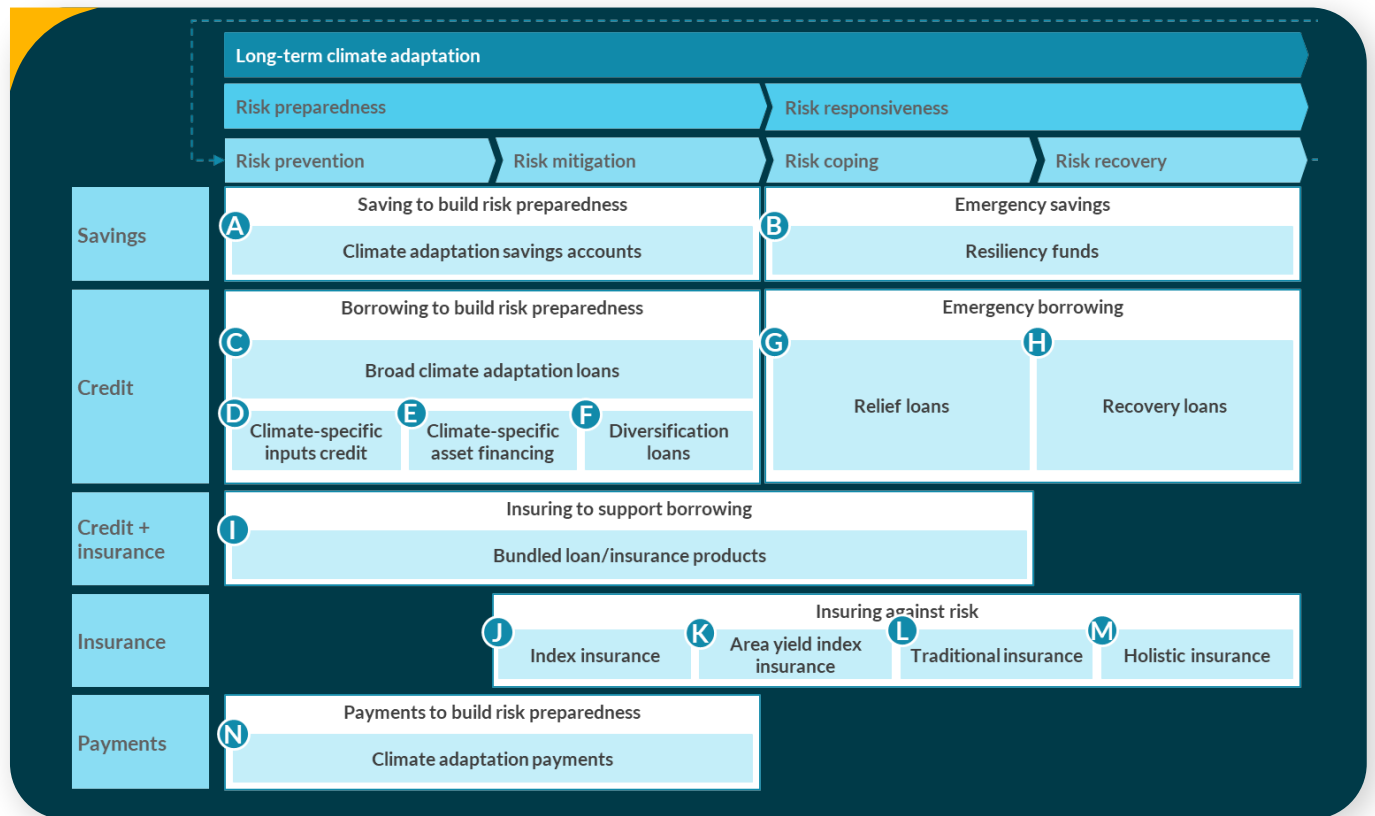
3 The most widely used financial product to help households dependent on agriculture to cope with climate change impacts is index insurance;* meanwhile, the use of flexible credit is increasing (See Figure 3 for a range of climate-responsive services). Both products improve ex-post smoothing, but studies have shown mixed results regarding their impact on ex-ante climate adaptation. In India, insured farmers were more likely to invest in higher-risk, higher-return cash crops, indicating that insurance can encourage productive risk-taking behavior, with the effects being most prominent among more educated farmers. Globally there is significant evidence of positive ex-ante and ex-post impact of microinsurance from Randomized Control Trials¹. Ex-ante: index insurance can lead to substantial increases in on-farm investment, usually 15-30% compared to uninsured. Ex-post: poorer households reduce reliance on meal reduction as an ex-post coping strategy; better-off families reduce reliance on de-stocking (selling off livestock) as a coping strategy, avoid decapitalization, and show higher rates of agricultural investment in the year following a shock and an insurance payout compared to a control group. However, ex-post impact largely depends on downside basis risk.

To learn more about basis risk, visit Session 1 “Index-based Livestock Insurance and the State of Global Evidence.”

¹Morsink, K. and Plevin, J.L., Forthcoming. Measuring the Welfare of Index Insurance: A Conceptual and Literature Review.

Emerging evidence shows that flexible credit can improve business outcomes without deteriorating repayment rates. Standard credit with fixed frequent repayments starting right after disbursement has had little to no impact on risk-taking and climate adaptation. This is likely due to borrower behavior; typically holding back cash and avoiding investments with the highest risk-adjusted return. Flexible credit eases repayment schedules to better match borrowers' income fluctuations due to climate change. Introducing variability in repayment addresses the shortcomings of traditional microcredit and improves business outcomes for borrowers. In addition, recent innovations include contingency credit, whereby catastrophic events trigger the loan disbursement.

Figure 3: Taxonomy of climate-responsive financial services (Source: CGAP)



3.1 While there have been many pilots of index insurance, very few have reached a significant scale of 100,000 beneficiaries due to the challenges of selling insurance to farmers: liquidity constraints, trust issues, and understanding of the product. Three types of insurance programs have scaled up: 1) Meso-level program in which policyholders are municipalities or financial institutions; 2) Micro-level insurance bundled with inputs or credit; 3) Commercial insurance designed for large scale farmers.



Figure 4: Pilot projects of index insurance over the world (Source: World Bank)



Figure 5: Selected programs that have scaled up (Source: World Bank)



3.2

Index insurance products have evolved, trending towards insuring more moderate events rather than catastrophic ones. This means insurance is used for liquidity rather than risk management, which points to a critical gap in climate-responsive savings and credit products. Evidence from India suggests that, since 2006, insurance products have begun to pay out more frequently while keeping the same premium. This increased the likelihood of a payout, which was more desirable for farmers. The trade-off is that while payouts are more frequent, they are smaller in amount, hence leaving a significant protection gap when a significant shock happens, and financial support is most needed.

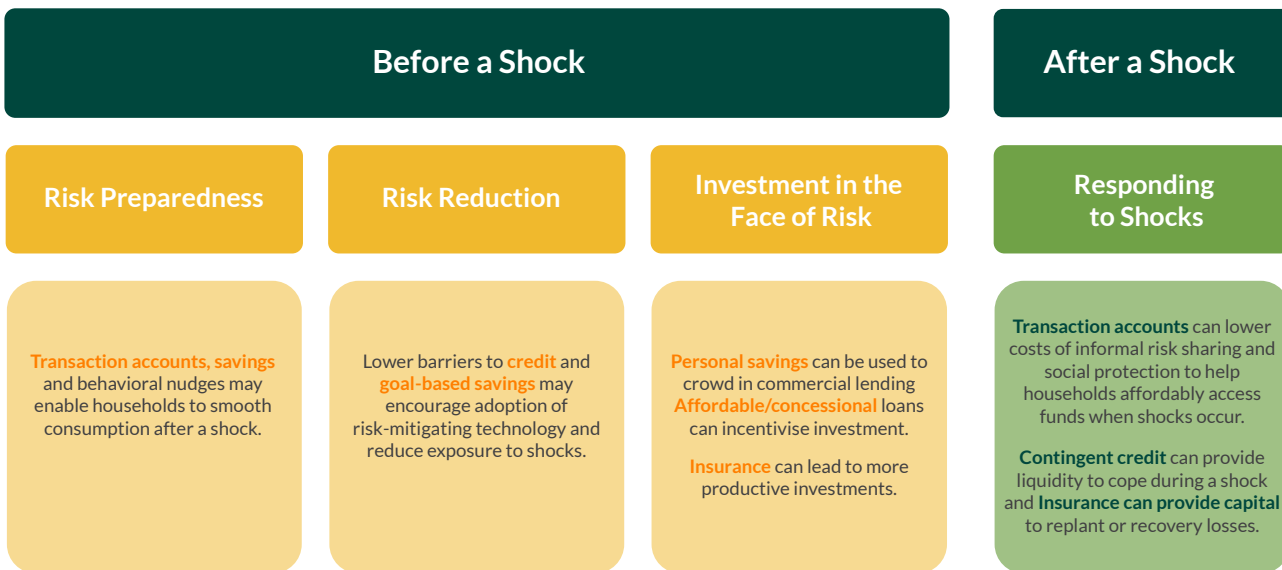
4 Financial inclusion is a critical enabler for climate adaptation; however, this is not automatic; inclusive policies and collaborative efforts across a range of disciplines (financial inclusion, climate change, and gender) are necessary to deepen the effectiveness of financial services for climate adaptation and resilience.

4.1 Financial inclusion can support households' resilience strategies, which often involve some combination of savings, lending, remittances, and insurance (See Box 1). It can also leverage the private sector and tap into private capital for adaptation. However, business cases for adaptation finance are harder to build due to longer time horizons, difficulty in analyzing resilience to shocks, and the fact that adaptation investments are typically not inherently income-generating.

4.2 There is a need for a better understanding of the combinations and features of financial services that best build resilience to different risks. The risk of adverse consequences from financial services in emergency situations; for example, emergency loans resulting in people being worse off in the medium and long term, should be considered.

Box 1: Building Resilience through Financial Inclusion

Low-income households are particularly vulnerable to shocks but the least prepared to cope with and recover from the impact of shocks. The effects of climate change exacerbate vulnerability. Financial inclusion can enable households to manage risk before a shock and to recover after a shock occurs. This builds resilience—the ability to mitigate, cope with, and recover from shocks and stresses without compromising future welfare. Evidence suggests well-designed financial products and services can play a role in increasing low-income families' resilience by helping them to be prepared for risk, reduce risk, increase investment in the face of risk, and respond when a shock occurs.



Source: Adapted from Moore et al. (2019).

5 Climate change presents significant risks for financial institutions and could inadvertently reverse gains in financial inclusion. Financial services providers (FSPs) themselves are vulnerable to climate shocks and face stringent regulatory requirements and rising transaction costs. Climate change elevates clients' risk profiles traditionally targeted by financial inclusion, damaging potential collateral and weakening income streams. This could lead to financial economic redlining, with FSPs increasingly withdrawing services from high-risk areas and industries.

6 Public policy and public finance will be crucial in addressing these challenges. Governments and funders can deepen markets by funding research, creating data and market infrastructure, de-risking investments in product development, and sharing the risk of serving climate-exposed clients. For risks not coverable by the market, social protection programs are crucial.

Figure 6: Roles of the public sector (Source: CGAP)



Box 2: A case study of Self-Employed Women’s Association (SEWA), India

Women in India’s informal economy face diverse compounding challenges and are disproportionately affected by economic crises and climate shocks, making them more vulnerable and forcing them into the vicious circle of poverty. SEWA, a women's trade union with 2.5 million members, recognizes and addresses the significant challenges its members face including low income, lack of livelihood opportunities, and limited access to affordable financing. To tackle these issues, SEWA employs an innovative livelihood resilience approach, which consists of support for creating economic enterprises, providing market linkages, and developing alternative skills for sustainable livelihoods.

SEWA uses financial instruments, including the Livelihood Recovery and Resilience Fund (LRRF), to help SEWA members increase livelihood resilience to climate shocks. LRRF provides contingency funds for immediate support in the event of various climate shocks and assistance with recovery and rehabilitation. It uses blended finance structures to ensure affordable access to finance and fosters a track record of timely repayment. "Members are then linked with formal financial services providers." During floods in Gujarat, the LRRF provided immediate low-cost financial assistance to 216 members, helping them rebuild their livelihoods and save them from heavy debt. During the COVID-19 pandemic, it supported more than 1,300 members with micro-loans, helping them maintain their livelihoods despite the economic and climate shocks.

Table 1 Details of Livelihood Recovery and Resilience Fund (LRRF) and Extreme Heat Wave Micro-insurance

	Livelihood Recovery and Resilience Fund (LRRF)	Extreme Heat wave Micro-Insurance
Type of solution	Blended finance First loss guarantee Interest subvention Debt service suspension in event of shock	Risk transfer <ul style="list-style-type: none"> Sum insured: US\$3 per day up to \$100 Premium: \$14 (100% subsidy from development partner Adrienne Arsht-Rockefeller Foundation Resilience Center)
Problem addressed	Financial exclusion High cost of informal loans Limited capacity to cope and recover from shocks lack of credit record to access affordable formal financial loans	Labor income loss due to excessive heat
Reach	66,554	21,000
Lessons and Impact	More affordable loans (12% pa vs 80-213% pa) enabled women to sustain livelihoods. Timely payments (72%) Delinquency initially 4% dropped to 2%	Single peril products do not adequately cover members risks

Work Sheet 2:

The State of Inclusive Financial Services and Global Evidence on Strengthening Climate Resilience

Test your knowledge and record your insights through this easy, DIY worksheet!

Drawing on your understanding of the content in this fact sheet, attempt the following activities.

Activity 1: Identify which of the following statements are true or false.

#	Statement	True	False
1	Climate risks disproportionately affect women, therefore, they have far more access to financial solutions.		
2	Although financial service providers know about climate change, many regard it as a secondary concern or need more expertise and data to develop effective, climate-responsive financial products.		
3	Financial inclusion is a critical enabler for climate adaptation.		
4	Financial services providers (FSPs) themselves are vulnerable to climate shocks and face stringent regulatory requirements and rising transaction costs.		
5	Emerging evidence shows that flexible credit has no impact on improving business outcomes without deteriorating repayment rates.		

Activity 2: While there have been many pilots of index insurance, very few have reached a significant scale of beneficiaries due to the challenges of selling insurance to farmers. Can you list down the top three challenges for your specific country situations?

#	Challenges of selling insurance to farmers
1	
2	
3	

Activity 3: Reflections

[1] These are my top two take-aways from this fact sheet.

[2] Here are two concepts or ideas that I would like more information about.