

Climate finance strategies to reach the most vulnerable

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Vulnerability to climate change is related to exposure to climate risks (such as extreme weather events, losses in agricultural productivity and alterations in hydrological patterns), sensitivity to such risks, and capacity to adapt. Building resilience means reducing the risk of becoming food insecure and increasing the adaptive capacity to cope with risks and respond to change (Gitz & Meybeck, 2012). It is based in learning, knowledge creation, flexibility to experiment and adopt new practices, and ability to integrate into markets and invest in agriculture (Perez et al, 2015).

Vulnerability affects individuals and social groups according to the rights and opportunities to which they are entitled, and vary according to gender, ethnicity, religion, class and age. These rights and opportunities include resources and assets such as labour, technology, education and information as

well as decision-making power and adaptive capacity (Perez et al, 2015).

Climate finance, including finance for CSA, is one of the most pervasive constraints restricting small-scale producers, especially poor and women producers, from adopting adaptation practices. In Africa, shortages of cash to hire labor, sponsor communal or family labour, or purchase inputs critically reduced the ability of women-headed households to sustainably intensify production, gain access to labour-saving technologies or access capital to repay credit. Formal credit institutions may not be available in rural areas; if they are, they may be unwilling to lend to smallholder women. Often the larger loans required for some agricultural investments remain unobtainable by them, as women do not own assets that are accepted as collateral by banks or moneylenders (World Bank et al, 2015).

Key messages

- Building resilience with climate finance includes ensuring that income and investment opportunities reach vulnerable groups with targeted information, education, and finance. This includes financial literacy training and access to credit in small and affordable increments.
- Mobile money is one model: in Kenya 194,000 moved out of poverty, the majority female-headed households.
- Other models for accessible climate finance at the local level include farmers associations, women's organizations and VSLAs (village savings and loans).

Ensuring that income and investment opportunities reach vulnerable groups requires targeted efforts in information, education, finance among other factors. This includes customized information packages and financial literacy training, as well as access to credit in small and affordable increments. Innovative approaches such as value chain lending, mobile-based finance, village savings and loans (VSLAs) and other approaches that move beyond private collateral as the basis for lending, have been

demonstrated to promote financial inclusion (Simelton et al., 2021; Steiner A & et al., 2020). For example, mobile money in Kenya has supported 194,000 households to leave poverty, the majority female-headed households. The increased financial resilience and saving that was made possible by this platform facilitated many to move out of agriculture and into small business. Mobile money is also a platform that gives women control over their finances (Ndiaye, 2013; Suri & Jack, 2016).

Index insurance is another platform with the potential to increase resilience of vulnerable groups. It links insurance payouts to a predetermined index such as rainfall level, temperature, humidity or crop yield and allows purchase of small increments. It explicitly targets obstacles to farmers income; integrates with other development interventions; gives farmers a voice in the design of products; and invests in local capacity (Born et al., 2019; Greatrex et al., 2015). Insurance has the potential to provide a social safety net for women farmers who may have low adaptive capacities (Akter et al., 2016). But while several hundred thousand farmers are now covered by index insurance contracts throughout Africa (Greatrex et al., 2015), evidence about gender trends in adoption indicates that women and other disadvantaged groups might be left behind or may have different insurance needs.

Analysis of risk lotteries in Bangladesh for example found that rates of adoption by women were generally equal to men, with differences in type of insurance – women were slightly less likely to buy insurance for low-probability events, while men were likely to buy more units than women. Lower levels of financial literacy among women could account for the gender differences. The same study found that household wealth was a factor in women's decision to buy insurance (Clarke & Kumar, 2016). Other factors constraining or affecting use of insurance by women include relevance to their activities or crops, delivery mode (such as mobile phones, which might be more accessible to men), education, and household decision making power (Born et al., 2019; Greatrex et al., 2016). However, evidence exists that when gender differences are taken into account, women

can adopt insurance at the same rates as men (Greatrex et al, 2015).

USAID GENDER-SENSITIVE AGRICULTURAL INDEX-BASED INSURANCE (GAIINS) PROJECT

GAIINS is working with insurance companies, the public sector, and women farmers in Kenya to create an enabling environment for gender-sensitive risk financing products informed by Earth observations. It will accomplish this by a) assessing the dual needs of women farmers and insurance providers, b) co-developing gender sensitive quality metrics for index insurance products with both farmers and insurance companies, c) training insurance sector participants to measure and communicate gender-sensitive variables that inform the calculation of risk, and d) providing access to and training women farmers on index-based agricultural insurance to protect them from climate-related shocks.

This approach capitalizes on the intellectual strengths and convening abilities and local networks of the SERVIR program—a joint initiative between USAID and NASA—to build the capacity of private sector insurers to institutionalize gender transformative approaches to index-based insurance products. Together with the Regional Centre for Mapping of Resource for Development, SERVIR's approach will increase the capacity of women farmers in East Africa to be resilient to climate shocks. This approach will also develop additional capacity of Earth observation and satellite data experts and service providers to co-design, deliver, and evaluate gender-sensitive information services.

Source: (Huang et al., 2022)

Models for bringing socially-inclusive climate finance to the farm are emerging:

- Many models exist of women's organizations providing capacity development, services, programs, banking/savings, and access to finances and resources to their members (Desai & Joshi, 2012; Nair et al., 2017).
- Farmers' and producer organizations, self-help groups and associations have traditionally been formed by members as platforms to address resource and poverty constraints. They can range from formal groups covered by national legislation, such as cooperatives and national farmers unions, to looser self-

help groupings and associations, such as Village Savings and Loans Associations. Farmers' organizations are important institutions for empowerment, poverty alleviation and increased access to resources, inputs and proceeds. They also strengthen the political power of farmers, by ensuring their voice is heard by policy makers and the public (Huyer et al., 2023; Penunia, 2011; Simelton et al., 2021). Through farmers' organizations farmers can gain skills, access inputs, form enterprises, and process and market their products more effectively. They provide links to information for producing, processing, storing, and marketing their commodities while allowing group purchasing of inputs and equipment (Penunia, 2011).

- Collective action groups such as CBOs/SACCOs can mobilize financial resources, for adaptation and mitigation of climate risks. Through these institutions farmers can pool financial resources and make loans accessible to men, women, and youth. In Kenya, such funds have been used to purchase agricultural inputs, invest in enclosures for pasture to fatten livestock, diversify into poultry production, mobilize labour to build soil and water conservation structures and establish tree nurseries, buying food, paying school fees and expanding small scale trades such as basket weaving and grocery sales (Huyer et al, 2023). In Tanzania, Farmer's Field Business Schools (FFBS) and Village Savings and Loans Associations (VSLAs) enabled farmers training and microfinance access. They also can promote women's empowerment for scaling CSA adoption (Pamuk et al., 2021)
- The VSLA model was used to mobilize credit and business training in Vietnam. 169 women VLSA members received training on gender equality, financial management, and agroforestry. Financial literacy training was conducted to try to increase women's participation and decision making in financial matters such as investments in coffee production and improve outcomes in coffee sales negotiations. They also received small loans. The training activities helped increase awareness of the existing gender gap in the distribution of labor and access to information

and resources that discriminate women. Membership in the VSLAs also improved the agency of women who became more confident about decisions related to production and income control. The activity resulted in significant improvements in women's decision-making power and increased sharing of domestic responsibilities among family members. The biggest changes were in decision-making over large purchases and use of income – especially for VSLA-members who accessed market information before engaging with potential coffee buyers. The gender equality and finance training translated into real changes in gender dynamics in the community, while VSLA membership improved women's financial literacy and negotiating abilities. Male household heads began to reconsider gender roles and shifted towards equal sharing of responsibility and decision-making with their wives (Simelton et al., 2021)

- In Lushoto, Tanzania, three CBOs (Kwamaga, Mbukwa and Yaboga) were established in 2012 and were transformed into village savings and credit cooperative societies (SACCOs) in 2014. The SACCOs covered 29 villages, with a direct membership of 1,089 households and 6,500 individual beneficiaries. Members have mobilized financial resources to create an innovation fund worth USD 35,000. Women formed 55% of the membership and beneficiaries. In Borana in Ethiopia, two collective action groups were established in the year 2011, with the aim of capacity building the groups. The membership has so far grown from 40 to 450 households, with a total of 2,700 beneficiaries in 2015, pooling financial resources amounting to USD 4000. At least 50% of group membership and beneficiaries were women (Huyer et al., 2023).
- The Climate Investment Fund's Nature, People and Climate program supports nature-based solutions that connect land use, climate-change mitigation and adaptation, and the improvement of livelihoods of rural communities and indigenous people. It covers sustainable agriculture, food supply, forests, resilient coastal systems initiatives and empowerment of indigenous people and local

communities. Participating countries develop investment plans in collaboration with partner multilateral development banks. The platform also works with multilateral development banks to de-risk and scale investment in a systems- rather than project-level approach¹.

- The People's Survival Fund (PSF) in the Philippines is a fund for local government units and accredited local/community organizations to implement climate change adaptation projects that will better equip vulnerable communities to deal with the impacts of climate change. Applications to the Fund are required to include sex-disaggregated data in proposal consultations and beneficiary analysis. Local government units with high poverty incidence that are exposed to climate risks and have a key biodiversity area will be prioritized. The PSF is intended for adaptation activities such as water resources management, land management, agriculture and fisheries, health, among others. The Fund will also establish and strengthen regional centers and information networks to support climate change adaptation initiatives and projects, and set up forecasting and early warning systems. It will also support institutional development such as disaster prevention measures; planning, preparedness and management of climate impacts; and contingency planning for droughts and floods².

¹ <https://www.afdb.org/en/news-and-events/cop27-climate-investment-funds-announces-nine-countries-participate-first-nature-people-and-climate-platform-56955>

² <https://niccdies.climate.gov.ph/climate-finance/people-survival-fund>

FURTHER READING

- Akter, S., Krupnik, T. J., Rossi, F., & Khanam, F. (2016). The influence of gender and product design on farmers' preferences for weather-indexed crop insurance. *Global Environmental Change*, 38, 217–229. <https://doi.org/10.1016/j.gloenvcha.2016.03.010>
- Born, L., Spillane, C., & Murray, U. (2019). Integrating gender into index-based agricultural insurance: a focus on South Africa. *Development in Practice*, 29(4), 409–423.
- Clarke, D., & Kumar, N. (2016). Microinsurance Decisions: Gendered Evidence from Rural Bangladesh. *Gender, Technology and Development*, 20(2).
- Desai, R. M., & Joshi, S. (2012). SEWA: Supporting village-level organizations to improve rural livelihoods. In J. F. Linn (Ed.), *Scaling up in agriculture, rural development and nutrition*. International Food Policy Research Institute (IFPRI).
- Gitz, V., & Meybeck, A. (2012). Risks, Vulnerabilities and Resilience in a Context of Climate Change. FAO.
- Greatrex, H., Hansen, J., Garvin, S., Diro, R., Blakeley, S., Guen, M. le, Rao, K., & Osgood, D. (2015). Scaling up index insurance for smallholder farmers: Recent evidence and insights. In *CCAFS Report (Issue No.14)*. <https://doi.org/1904-9005>
- Greatrex, H., Narh, S., Tettey, A., Yeboah, A., & Mahama, A. (2016). Workshop Report: Capacity Building on Agricultural Insurance for Aggregators in Northern Ghana.
- Huang, J., Gulick, R., Merriman, D., & Hart, C. (2022). *Technical Brief: Gender Equality and Climate Financing*.
- Huyer, S., Bullock, R., Buzingo, J., Chanana, N., Firmian, I., Healy-Thow, S., Karakolis, D., Mugo, V., Mungai, C., Radeny, M., Recha, J., Salawu, A., Sargeant, S., & Vertegaal, D. M. (2023). Organising for Change: Farmers, Women, Youth, and Communities Empower Themselves. In A. M. Loboguerrero, A. Nowak, B. Campbell, D. Dinesh, & P. Thornton (Eds.), *Transforming Food Systems Under Climate Change through Innovation* (pp. 144–155). Cambridge University Press.
- Nair, N., Tripathy, P., Sachdev, H. S., Pradhan, H., Bhattacharyya, S., Gope, R., Gagrai, S., Rath, S., Rath, S., Sinha, R., Roy, S. S., Shewale, S., Singh, V., Srivastava, A., Costello, A., Copas, A., Skordis-Worrall, J., Haghparast-Bidgoli, H., Saville, N., & Prost, A. (2017). Effect of participatory women's groups and counselling through home visits on children's linear growth in rural eastern India (CARING trial): a cluster-randomised controlled trial. *The Lancet Global Health*, 5(10), e1004–e1016.
- Ndiaye, O. K. (2013). Is the success of M-Pesa empowering Kenyan rural women? *Feminist Africa*, 18, 156–161. http://www.agi.ac.za/sites/default/files/image_tool/images/429/feminist_africa_journals/archive/18/standpoints_is_the_success_of_m-pesa_empowering_kenyan_rural_women_.pdf
- Pamuk, H., van Asseldonk, M., Wattel, C., Ng'ang'a, S., Hella, J., & Ruerd, R. (2021). Farmer Field Business Schools and Village Savings and Loan Associations for

promoting climate-smart agriculture practices: Evidence from rural Tanzania. <https://cgspace.cgiar.org/handle/10568/114490>

- Penunia, E. A. (2011). The Role of Farmers' Organizations in Empowering and Promoting the Leadership of Rural Women. *Expert Group Meeting CSW 56, September, 1–8*. <https://asianfarmers.org/the-role-of-farmers'-organizations-in-empowering-and-promoting-the-leadership-of-rural-women/>
- Perez, C., Jones, E. M., Kristjanson, P., Cramer, L., Thornton, P. K., Förch, W., & Barahona, C. (2015). How resilient are farming households and communities to a changing climate in Africa? A gender-based perspective. *Global Environmental Change, 34*, 95–107. <https://doi.org/10.1016/j.gloenvcha.2015.06.003>
- Simelton, E., Mulia, R., Nguyen, T., Duong, T., Le, H., & Tran, L. (2021). Women's involvement in coffee agroforestry value-chains: Financial training, Village Savings and Loans Associations, and Decision Power in Northwest Vietnam. <https://cgspace.cgiar.org/handle/10568/111055>
- Steiner A, & et al. (2020). Actions to transform food systems under climate change.
- Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science, 354*(6317), 1288–1292. <https://doi.org/10.1126/science.aah5309>
- World Bank, FAO, & IFAD. (2015). *Gender in Climate-Smart Agriculture*. World Bank, FAO, IFAD. <http://documents.worldbank.org/curated/en/654451468190785156/pdf/99505-REVISED-Box393228B-PUBLIC-Gender-and-Climate-Smart-AG-WEB-3.pdf>

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