

Climate Adaptation and Resilience

Our work

- ✦ [Food Security and Nutrition](#)
- ✦ [Climate Adaptation and Resilience](#)
- ✦ [Biological Diversity in Agriculture](#)
- ✦ [Management of Natural Resources](#)
- ✦ [Green Credits and Savings and Loan Groups](#)
- ✦ [Women's Rights and Equality](#)
- ✦ [Strengthening Civil Society](#)



Coffee farmer in Guatemala. Photo: Carlos Zapparoli

Climate resilience refers to a socio-ecological system's ability to prepare for, manage and adapt to climate-related shocks, changes and disasters (C2ES, 2019). This means, for example, that a local community with high climate resilience, compared to a local community with low resilience, will be able to maintain its functions in the face of climate change to a greater extent. High climate resilience also means an increased ability to adapt to future changes.

Climate change leads to more frequent and more intense extreme weather conditions, rising temperatures, rising sea levels and unpredictable rainfall patterns. This puts ecosystems under pressure and threatens small scale farmers' livelihoods and food security. Building climate resilience is therefore important to reduce poverty and ensure access to enough and nutritious food for all.

How does climate change affect the fight against hunger and poverty?

Climate change is already having a significant impact on the fight against hunger and poverty. Not only can we already see changes in the climate, but due to

delays in the climate system, further changes are inevitable, even if emissions were eliminated today (IPCC, 2018; Matthews and Caldeira, 2008). This occurs because global warming takes time, and CO₂ has a long life in the atmosphere – emissions from the past decades will affect the climate for hundreds of years. This means that it is not enough to cut emissions; we have to adapt to changes. If we do not succeed in building resilience against climate change, hunger and poverty will increase.

Small scale farmers and indigenous peoples are among those who suffer the most from a changing climate. Food production depends on stable climate conditions and predictable seasons. As the weather becomes more extreme and unpredictable, it becomes more difficult for farmers to produce food and harvest good crops. This leads to reduced food production, less income and often higher food prices.



Female farmers in Malawi. Photo: Julie Lillesæter, Differ Media

The Development Fund's work with climate resilient development

The UN Intergovernmental Panel on Climate Change (IPCC) argues for the importance of climate resilient development. The term refers to the process of cutting greenhouse gas emissions, while implementing adaptation measures to ensure sustainable development (IPCC, 2022). The Development Fund is clear about the urgent need to cut global emissions, and this is part of our policy

position. At the same time, adaptation to current and future climate change is the focus of our work.

The Development Fund recognises that a comprehensive approach is necessary to support small scale farmers and their local communities in the work for adaptation and increased resilience. This means that we, together with local partners, both work with activities that directly responds to climate change, such as access to various seeds or the collection of rainwater, while at the same time we work towards changing the context in which climate change takes place. Strengthening cooperatives and local civil society organisations, increasing women's participation in decision-making, ensuring diversification of income sources and increased knowledge are examples of activities that are not aimed solely at climate change, but which nevertheless have an impact on people's ability to deal with them.

Research argues that a number of factors influence one's ability to deal with climate change. Health, infrastructure, income, knowledge and education, social institutions and networks, technology and the possibility of political influence are



A farmer is watering her home garden in Malawi. Photo: Julie Lillesæter, Differ Media

examples of factors that influence how well a household and local community can handle climate-related shocks. This makes adaptation a social process, and not just a technical and practical process. There is a greater probability of

achieving climate resilient development if one manages to address the underlying causes of vulnerability (Eriksen et al., 2015). This is what The Development Fund wants to be aware of with our approach to climate adaptation.

The Development Fund's climate adaptation and resilience implementations

The Development Fund implements a number of measures to increase climate resilience among small scale farmers. This includes, among other things:

Climate Adaptive Villages: In collaboration with local partners, The Development Fund has developed methods for climate adaptation in the local communities we work in. Here, the local people themselves point out which challenges climate change has created for their village, and they also provide suggestions to how the challenges can be solved. The Development Fund contributes with financial support and guidance, while responsibility for implementation lies with the local population. A Climate Adaptive Village makes farming easier. With increased food production, there will be more nutritious food for the family and the surplus can be sold on the local market. Increased income makes households more resilient.

Training and knowledge sharing: An important climate adaptation measure is to spread knowledge about agricultural methods that can withstand more unstable



Seeds are planted in soil. Photo: Julie Lillesæter, Differ Media

weather conditions. Among other things, The Development Fund provides training in various techniques to preserve the moisture and nutrient content of the soil, as well as knowledge of how new and more food plants/crops can be used on the same plot of land. The farmers then pass on the knowledge to other farmers. The aim is for these agricultural techniques to contribute to reduced emissions and environmental footprints, including through carbon storage in the soil.

Water access: With more frequent and severe droughts, as well as unpredictable rain, it becomes all the more important to have stable access to water. Together with local partners, The Development Fund helps finance various forms of water access, including the collection of rainwater in tanks and ponds, in addition to the construction of irrigation systems.

Access to seeds: Safe and stable access to seeds is particularly important for farmers who are affected by extreme weather such as floods and droughts. The Development Fund supports the start-up and operation of seed banks where farmers can both store and borrow seeds in case crops fail. In the seed banks, farmers can also keep collections of different local and traditional varieties.

Strengthening grassroots organisations: We work towards strengthening farmers' collective action and ability to influence decision-making processes. This includes supporting farmers' organisations and their participation in political processes, creating awareness of rights and opportunities for influence, as well as working for improved legislation at the local level.

These are some of the activities that The Development Fund carries out in order to contribute to increased climate resilience in rural local communities. The activities strengthen farmers in their efforts to increase their food security and reduce poverty, as well as their co-determination and influence. Our measures alone are still not enough to ensure a completely climate resilient development. This requires major changes at all levels of society, which address deep-seated drivers of vulnerability.

Would you like to support The Development Fund's work?

🌱 [Here you can read about how you can get involved in our work against hunger and injustice](#)

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