

Biodiversity and climate change adaptation on ecological organic farms in the Tropics

Ecological organic farming takes a holistic system approach which enhances biodiversity and improves the adaptability of farmers. This adaptability is more important than ever as climate change, pandemics, rising food prices, etc. threaten the livelihoods of African farmers. Ecological organic farming provides an alternative to the business as usual, standard approach to farming. Farmers adopting this approach will be more resilient in the face of challenges, while helping to mitigate climate change and protecting valuable biodiversity.

This factsheet introduces: how organic farmers can team up with a diversity of plants, animals and micro-organisms to increase their ability to adapt to changes and reduce risks. It describes farming practices that support biodiversity and adaptation to a changing climate and highlights some benefits that biodiversity can provide for farmers and society. The information is based on long-term experiments and on-farm research conducted in the scope of three projects across different countries in Africa, as well as Bolivia and India. Further products in the series, e.g., posters, videos and more, are linked in the 'Further information' section on the last page of this factsheet.



Key findings from the research

- The holistic ecological approach applied in organic farming **promotes biodiversity** on farms and, in turn, **increases a farmer's ability to adapt** to changes – lessening risks.
- Ecological organic farming shows clear human **health and environmental benefits**.
- This farming approach promotes and conserves biodiversity, improves soil health, reduces pollution of water, soil and air and uses more renewable energy, meaning lower greenhouse gas emissions.

Adaptation is the ability of a farm to be flexible and productive in the face of challenges to the system.

Current challenges that require increased adaptability for farmers include: the increasing droughts and intense rain events occurring with climate change, the COVID pandemic, rising fertiliser and food prices, etc.

