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Press release

Adaptation to climate change: Agroecology is key for agriculture

Climate change, with consequences including droughts, storms and floods, threatens the livelihoods of farmers worldwide and thus food security. The Food and Agriculture Organization of the United Nations (FAO) and Biovision, with contributions from the Research Institute of Organic Agriculture (FiBL), published a study about this issue that focuses on sub-Saharan Africa. The study shows that using agroecological methods increases the ability to adapt to climate change and contributes to climate protection. The study also shows in which direction food systems can be developed to be better equipped to deal with climate change.

Agroecology, including organic farming, builds on key elements that involve adaptability to climate change. These elements promote soil health, high levels of agro-biodiversity and high diversification in agricultural production systems. Agroecology also contributes to climate change mitigation, mainly through increasing soil organic matter (carbon sequestration), lowering general fertiliser levels and soil-borne nitrous oxide emissions, and reducing synthetic fertiliser use (and hence emissions related to its production). This is shown by the meta-analysis carried out in the study regarding agroecology's potential to adapt and increase resilience to climate change.

Strengthening farmers

Climate change is increasingly posing problems for farmers in sub-Saharan Africa: irregular rainy seasons, droughts, storms and floods destroy their harvests, thus endangering food security and the livelihoods of farming families in particular. The effects of climate change require changes that align with agroecological principles to strengthen farmers' resilience. The study shows that the farmers who have participated in agroecological projects in Kenya and Senegal are more resistant to the consequences of climate change. They are better able to cope with times of crisis and ensure their food security.

Adrian Müller, FiBL employee and co-author of the study's meta-analysis, says: "Healthy soils are the key to sustainable agriculture and to food systems that can deal with the challenges of climate change and guarantee food security. Implementing agroecology in practice, and organic farming, results in soil health and therefore deserves comprehensive support."

Instrument for international climate policy

The study also analysed the role of agroecology in international climate policy, as the potential for agriculture to adapt to climate change and contribute to climate protection is increasingly being recognised. For the implementation of the systemic, interdisciplinary and comprehensive aspects of agroecology, however, current laws, policy instruments and strategies generally fall short. Rethinking policy and institutional design is necessary to take full advantage of agroecology's potential.

Frank Eyhorn, CEO of Biovision, therefore, demands concrete action now: "The facts can no longer be ignored. The consequences of climate change, but also of the COVID-19 pandemic, show that the predominant system of industrial agriculture is at a dead end. The decision-makers are now being called upon to set a new course – in the direction of agroecology."

Implementation strategies in education, consulting and research
The study provides several key findings. Firstly, there is enough knowledge available to promote agroecology and its practices as a strategy for adapting to climate change. Secondly, agroecology's interdisciplinary and systemic nature is a strength, but one that also poses particular challenges to policy and institutional design when addressing agroecology. And thirdly, agroecology implementation is knowledge-intensive, and its promotion in education, extension services and research requires appropriate strategies.

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Additional material:
- The study at a glance (factsheet)
- Symbolic photograph "Small farmers from Meru County, Kenya, practicing agroecology"

Caption for the photograph
Through organic farming training courses for rural populations, Biovision together with its local project partner Institute for Culture and Ecology ICE (Kenya), (www.icekenya.org), is helping to improve the living conditions of small farmers, for example in Monica and Joseph Gatobu in Meru County, Kenya.
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Link
The complete study "The Potential of Agroecology to Build Climate-resilient Livelihoods and Food Systems" was published on the FAO website on 10 August 2020 and can be downloaded under the following link: http://www.fao.org/documents/card/en/c/cb0438en

The Biovision Foundation for Ecological Development
Biovision, founded in 1998, is a pioneer of change and stands for a fundamental agroecological transformation of food systems. The Swiss foundation, politically independent and undenominational, is based in Zurich and has a branch office in Geneva. It is oriented towards the UN sustainable development goals of Agenda 2030 with a focus on Goal 2, "Zero Hunger".
In sub-Saharan Africa, Biovision provides help for self-help. Together with local partners, innovative ecological solutions are developed and disseminated to overcome hunger and improve the lives of small farmers.
In 2013 the Biovision Foundation, together with its founder Dr. Hans Rudolf Herren, one of the world's leading experts on sustainable agriculture, was awarded the Alternative Nobel Prize.

The Research Institute of Organic Agriculture, FiBL
The Research Institute of Organic Agriculture, FiBL, is one of the world's leading research institutes on organic agriculture. FiBL's strengths are interdisciplinary research, joint innovations with farmers and the food industry, and rapid knowledge transfer. 280 employees work at the various FiBL locations.
Homepage: www.fibl.org