

Transitioning to AGROECOLOGY

NUTRITION & HEALTH

ECONOMY

ENVIRONMENT

SOCIETY

CULTURE

Agroecology
is both a science
and a movement.



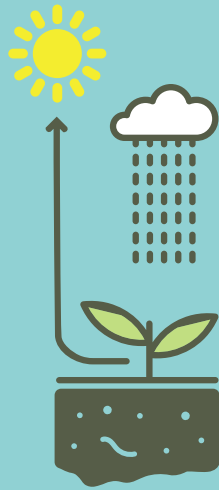
As a **science**, agroecology entails the application of ecological concepts and principles to the design and management of agricultural systems. Based on the interactions between plants, animals, soils and climate, agroecology seeks to optimize the productivity, sustainability and resilience of agroecosystems; promote positive ecological interactions; minimize or eliminate the use of external inputs; conserve natural resources through efficient usage and recycling; and enhance the functional biodiversity of farming systems.

As a **movement**, agroecology has expanded from being solely a set of agricultural practices, to being a principles-based approach to agricultural development, one grounded on equitable and just food systems, that valorize traditional, local knowledge and culture, and preserve the natural environment.

Supported by

Avec la
participation
de

Implemented by



Mada is committed to supporting smallholder farmers in Akkar transition to agroecology. Through material and technical support, **Mada** focuses on minimizing risks for the farmer, maximizing yield, and showcasing the various benefits of agroecology: nutritional, economic, environmental, social and cultural. This factsheet is the second in a series to be developed under the project *Wielding Agroecology to Transition Agriculture for Development (WATAD)*—under the Shabake II project supported by the Agence Française de Développement – AFD and the Centre de Crise et De Soutien and implemented by the French Public Agency for International Technical Cooperation - Expertise France. Under this project, **Mada** is building the individual and collective capacities of smallholder farmers in Akkar to transition to agroecology, and fostering the enabling environment for agroecology to prosper.

Agroecology & the Economy

Industrial agriculture is founded on maximizing profits through economics of scale, automation, and mass production. Short-term revenue is prioritized at the expense of local communities, labour, and the environment, and production is consolidated into larger units of lands that outcompete smaller producers. Developing countries such as Lebanon, where agriculture is not state-supported, are left dependent on imports, unable to meet their food demand, as conventional agriculture is no longer profitable for smallholder farmers, and large part of the consumer-base cannot afford diverse, nutritious diets. Agroecology contributes to economic resilience through:

1 Improved Farmers' Income

- (a) **Diversification:** mixed plant and animal systems with different growth cycles allow continuous income across seasons and diverse markets, reduce risks of crop failures, and mitigate exposure to price volatility;
- (b) **Resilient varieties and heirloom seeds:** these are locally adapted, resistant to climate change, passed down from several generations, and less prone to climatic risks and disease outbreaks that bear financial consequences;
- (c) **Independence from external inputs:** these constitute a massive cost for smallholder farmers, often leading to endless debt cycles;
- (d) **Reduction of environmental and public health impacts:** these are largely overlooked, yet represent major economic losses, especially when the health of farmers and agricultural workers is factored in.

2 Farmers' Economic Autonomy

Agroecology mobilizes biological diversity and local knowledge, reducing dependency on external inputs and trade, and reconnecting mental and manual labor. It puts the control of inputs, resources, and knowledge in the hands of farmers, allowing them to be their own decision makers. National and global economic shocks do not severely impact an autonomous farmer.

3 Equitable Food Systems

Agroecology reforms markets, shortens distribution networks, and builds transparent relationships based on solidarity instead of linear supply chains. Through collectivization, farmers mutualize resources, generate decent employment, harness local markets, and actively respond to demand. By bringing producers and consumers closer and fostering trust, agroecology reduces storage, refrigeration, and transport costs, and transforms consumers' behaviors, shifting their priorities from simply minimizing cost at point of sale to maximizing value-for-money.