

Transitions to living in harmony with nature



The Sustainable Agriculture Transition

Summary of the transition: Redesigning agricultural systems through agroecological and other innovative approaches to enhance productivity while minimizing negative impacts on biodiversity. This transition recognizes the role of biodiversity, including pollinators, pest and disease control organisms, soil biodiversity and genetic diversity, as well as diversity in the landscape, for productive and resilient agriculture that makes efficient use of land, water and other resources.

Enhanced biodiversity in agricultural ecosystems would contribute both to the sustainability and to productivity of agriculture. For example, food production is stabilized by diversity among and within crops. The diversity and abundance of pollinators is associated with improved yields and nutritional quality of crops dependent on animal pollination. Biodiversity among crops and livestock, as well as among arthropods and other species in agricultural ecosystems including soil biodiversity, reduces the incidence of pests and diseases. Systems that integrate multiple crops, livestock, fish and trees on farms, can further promote productivity and sustainability through synergistic interactions.

Increasing the productivity and sustainability of agriculture can reduce pressure on forests and other biodiverse ecosystems and, with the appropriate policy measures in place, allow space for increased conservation and restoration activities. It can also improve the resilience of agricultural systems, locally and globally, and contribute to climate change mitigation and adaptation. More sustainable agriculture can also provide habitats for biodiversity,¹⁸ improve connectivity to prevent isolation of species, and support the health and well-being of people through a cleaner, more diverse and resilient rural environment.

Key components of the transition:

- Promote integrated pest and disease management.
- Enhance management of land water.
- Integrate systems of crops, livestock, fish and/or tree production for productivity and ecological benefits.
- Maintain biodiversity in agricultural ecosystems.
- Promote on-farm learning and research.
- Improve connections between farmers and consumers.
- Provide an enabling environment.

