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Traditional and Ecological Farming Systems in (Sub) Tropical Countries — History, Interactions and Future Perspectives

BERNHARD FREYER

University of Natural Resources and Applied Life Sciences (BOKU), Institute of Organic Farming, Austria

Abstract

Climate change, soil degradation and an increase of health problems impede a sustainable development of livelihoods in rural areas in (sub-)tropical regions all over the world. Prevalent traditional farming systems have been replaced and modified by the Green Revolution, LEISA and agroforestry systems. Today organic farming is discussed as a land use system which could help especially smallholder farmers to achieve a better income and to protect the environmental resources at the same time. This article reflects first conflict areas and interaction possibilities concerning subsistence farming seen from a system-theoretical perspective. A comparison between traditional and organic farming points out the different qualities. Based on a case study in the Rift Valley / Kenya the development of agriculture since the 1950's along the different land use approaches is demonstrated. The specific environmental risks and the degree of dependency on external inputs, market and economy are shown in a comparison between the different land use approaches. Under specific circumstances organic farming could fail to achieve sound environmental development. Nevertheless because of the system approach, organic farming offers a framework for a sustainable agriculture, integrating forestry, agroforestry, traditional farming techniques and selected approaches from the LEISA system.

Keywords: Agroforestry, LEISA, organic farming, systems analysis