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“Can agroecological farming feed the world?  
Farmers’ and academia’s views”

## Harmonising views of farmers and academia on paradigm shifts towards diversification in African agricultural systems

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### Abstract

Agriculture is one of East Africa’s most important sectors, however, various environmental, socio-economic and policy related constraints inhibit its potential to meet growing food needs driven by rapid population growth and urbanisation, alleviate poverty and stimulate socio-economic prosperity. Realizing full agricultural potential will therefore require significant paradigm shifts for the diversity of sectors engaged in agriculture, nutrition and food systems. For these reasons, the DAAD Agriculture-Alumni Training Network organised a one-week travelling workshop in Kenya themed ‘Paradigm shifts in Agricultural Systems towards Sustainable Land-use in Africa’. The approach was to collect and analyse views from academia, farmers and other stakeholders to identify existing and potential paradigm shifts in the context of farming systems diversity.

Increasing diversity of framing systems against principles of established industrialised food production was seen as a promising and innovative concept across disciplines and stakeholders to improve system resilience against crises and maximise sustainable agricultural production. Farming system diversification considering (among others) the application of argro-ecological principles, making use of traditional knowledge, incorporating socio-economic and socio-ecological backgrounds, and biodiversity conservation were considered superior to conventional land use concepts especially in the context of climate change. Such approaches incorporate the maintenance of ecosystems services on different spatial and temporal scales from plot to landscape level and during global change processes. Encompassed in these shifting approaches is the sustainable management of resources such as water, soil fertility, and biodiversity (e.g. pollinators). Some examples which could be better realised in diversified farming systems include the spatial and temporal integration of different agricultural production based on animals, crops or tree components in order to close nutrient cycles, integration and co-existence of wildlife habitats and food production, exploration and acceptance of alternative diets and protein sources such as insects, application of nature based solutions for sustainable resource use or disease and pest control, the participatory development and transfer of innovations and new technology, as well as the promotion of small scale farming, adapted agri-food networks and market access. As an emerging and promising educative approach, concrete impacts are expected in the form of professional partnerships between participants and their respective institutions.

**Keywords:** Africa, agricultural systems, diversification, sustainable agriculture

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