

Strengthening capacities and informing policies for developing value chains of neglected and underutilised crops in Africa

Neglected and underutilised species (NUS) offer niche markets and incomes for resource-poor farmers, better nutrition, and options for climate change adaptation, but such crops are often ignored in agricultural systems. Stakeholders in Benin, Kenya and Zimbabwe (e.g. farmers, processors, researchers, private sector) will take part in innovation platforms to develop national action plans for value chain upgrading of two promising crops, Bambara groundnut and amaranth. In Eastern, Western and Southern Africa, the approaches to developing NUS value chains will be shared by training young scientists, developing agricultural education curricula and informing policy makers, contributing to diversifying agricultural and food systems.

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Challenge

Africa hosts thousands of edible plants, but only a small number dominate agriculture. Many farmers, especially in marginal areas, rely on neglected and underutilised species (NUS) for their livelihoods. Globally, more than 4,000 food-plant species are consumed. The genetic diversity of NUS and their wild relatives comprises a major part of agro-biodiversity, but is in rapid decline and their potential is often overlooked. Worldwide, farmers are abandoning them as globalisation, population growth and urbanisation change agricultural and food systems. There is growing international recognition that nutritious NUS crops are important in improving the livelihoods of smallholder farmers in Africa and helping them adapt to climate change, calling for more research on NUS and application of results.

Focus

The value chains of two underutilised crops will be investigated: Bambara groundnut (*Vigna subterranea*), a native African legume, and amaranth (*Amaranthus spp.*), a leafy vegetable. Both are recognised as priority crops in Western, Eastern and Southern Africa. Bambara groundnut is widely grown in semi-arid Africa, it is drought tolerant, which helps farmers manage risks, and has high nutritional value. Amaranth is nutritious, rich in vitamins and essential minerals and widely cultivated and consumed. Yet, both crops are constrained by weak value chains that largely involve local markets. Lessons learned in developing value chains of these two different kinds of crops can be applied also to many other NUS. At least 150 young scientists from universities, research institutes and non-governmental organisations in 15 countries will be trained in value chain upgrading, and in communicating results of research to value chain actors, such as farmers' organisations, private sector operators, and agricultural development organisations. An enabling environment for value chain upgrading of underutilised crop species will be supported by influencing higher agricultural edu-

cation and informing agricultural policy makers on the potential of these crops for income, nutrition and adaptation to climate change.

Rationale

More than 200 young scientists from 10 African countries have been trained on NUS topics in an earlier EU-ACP S&T project, 'Building human and institutional capacity for enhancing the conservation and use of neglected and underutilised species of crops in West Africa, Eastern and Southern Africa', but their research was often somewhat narrow without prior holistic analysis of the value chains of the crops they focused on. The current project brings scientists and key value chain actors, e.g., farmers, processors, traders, wholesalers and retailers, as well as supporting organizations, together for more relevant and applicable research and development on NUS. Sensitising educators to integrate NUS into higher agricultural education curricula will enhance the competence of future graduates. Influencing agricultural policy actors – including high-level government officials, their advisers, as well as the media – will be an instrument towards more diverse agricultural systems that also are more sustainable and sensitive to local culture and the role of gender. Capacity and supportive policies for value



Diversity of Bambara groundnut seeds at the International Institute of Tropical Agriculture (IITA) genebank (Ibadan, Nigeria, September 2007). © IITA



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chain upgrading will be developed which will benefit smallholder farmers, processors, traders, entrepreneurs, consumers and scientists.

Method

Strategies for value chain upgrading

- Organisation of a national stakeholder workshop in Zimbabwe to identify priority NUS crops.
- Organisation of three national innovation platform workshops on Bambara/amaranth value chains to identify constraints and agree on upgrading strategies, to be addressed via research, capacity building and policy support.
- Development of national action plans on Bambara/amaranth for Benin, Kenya and Zimbabwe, for policy dialogue at multi-stakeholder workshops.

Higher agricultural education

- Organisation of a regional NUS workshop on strengthening agroforestry curricula in Africa.
- Development of a curriculum guide to suggest approaches to integrate NUS value chains in education curricula.
- Development of at least two learning cases on NUS value chain upgrading for higher education and on-the-job training.

Capacity for value chain research and science communication

- Training of at least 75 young African scientists on research proposal writing focusing on value chain upgrading.
- Training of at least 75 young African scientists on science communication.

Communication of results

- Organisation of a NUS side-event at an African international meeting.
- The websites of the participating organisations will host information and share research and innovation developments regarding value chain upgrading of Bambara groundnut and amaranth. Social media will be used to promote courses, products and events.

Partnerships and networking

- Seeking of collaboration with on-going projects in the region working on the upgrading of Bambara groundnut and amaranth value chains.
- Development of researchers' capacity to address constraints to value chain development.
- Seeking of interactions with organisations interested in realising the promise of NUS Africa-wide.



African leafy vegetables such as amaranth are common in local markets, but have a short shelf life and high spoilage rate (Kampala, Uganda, December 2013). © Per G. Rudebjer



Training of West African scientists in value chain upgrading of Bambara groundnut (Accra, Ghana, September 2012). © Per G. Rudebjer

Results

- National report on status and priorities for research and value chain upgrading of NUS in Zimbabwe.
- National action plans towards the incorporation of research, and value chain innovation developments of Bambara/amaranth in Benin, Kenya and Zimbabwe.
- Best practices for upgrading value chains of NUS in Eastern, Western and Southern Africa.
- Strategies and tools for integrating NUS into higher agricultural education curricula agreed with universities and colleges, and shared via African educational networks.
- Publishing of a curriculum guide and learning case studies on value chain upgrading.
- Enhanced capacity of young African scientists to conceptualise and design inter-disciplinary research projects on NUS value chains, and to communicate research results to value chain stakeholders (e.g. farmers, processors, researchers, private sector).
- Strategies and methods for strengthening NUS research, education and policy communicated to university leaders, agricultural development personnel, and agricultural policy actors (e.g. high-level government officials, their advisers, as well as the media).

ACP regions and countries involved

Western Africa – Benin

Eastern Africa – Kenya

Southern Africa – Zimbabwe

Programme theme(s)

Agriculture and food security

Sector

Food crop production

Agricultural education / training

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