

ACP SCIENCE & TECHNOLOGY PROGRAMME

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Co-ordinator

Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), Uganda

Partners

- African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE), Kenya
- Bioversity International, Italy
- Council for Scientific and Industrial Research (CSIR)
 Plant Genetic Resources Research Institute (PGRRI), Ghana
- International Foundation for Science (IFS), Sweden
- University of Nairobi, Kenya
 University of Malawi, Malawi
- <u>- Université d'Abomey-Calavi</u>
- Institut de Recherche et de Développement sur la Biodiversité des Plantes Cultivées, Aromatiques et <u>Médicinales (IRDC</u>AM), Benin

Associates

- Crops for the Future Limited, Malaysia
- Association for Strengthening Agricultural Research in Eastern and Central Africa
- (ASARECA), Uganda - Forum for Agricultural Research in Africa (FARA), Ghana

Project duration 36 months From 10/11/2009 to 09/11/2012

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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

Typical market selling neglected and underutilised species (NUS) vegetables.

Problem

The erosion of indigenous food culture contributes to diet-related health problems and reduces income opportunities. Diets rich in energy but poor in nutritional elements are replacing traditional biodiversity-rich dishes whose vitamins and micro-nutrients would contribute to nutritional security and reduce incidence of obesity and cardiovascular diseases. Because of decades of under-investment, the human and institutional capacities required for research, marketing and knowledge sharing on agricultural biodiversity – in particular on neglected and underutilised species (NUS) – are weak or even absent. The significant research support systems that commodity crop scientists benefit from are minimal for young scientists who are interested in researching and developing alternative species.

Focus

The project will raise awareness among scientists, educators, policy makers and practitioners of the potential of neglected and underutilised species (NUS) in national policies and programmes for agricultural research and development, poverty alleviation, and health and nutrition. Particular attention will be paid to:

- Assessing the state of and need for human and institutional capacity for research on and marketing of NUS;
- Strengthening capacities of young scientists to develop and manage research projects on NUS;
- Increasing recognition of the importance of agricultural biodiversity in developing and implementing national programmes related to the Convention on Biological Diversity, the UN Framework Convention on Climate Change, and the UN Convention to Combat Desertification. These conventions have strong

links to farmers' on-farm conservation and management of agricultural ecosystems, where NUS play an important role;

- Enhancing farmers' gainful participation in markets by developing capacity to address agronomic, processing and marketing issues that constrain the commercialisation of many NUS; and
- Informing policy makers and educators on the role and benefits of NUS for farmers' income generation, risk management, and health and nutrition benefits.

Rationale

A strengthened capacity for NUS research would contribute to improved livelihoods and increased income among the poor in Sub-Saharan Africa (SSA) as follows:

- NUS are robust and well adapted to a range of agroecological niches. Most of these species are landraces, ecotypes or wild species, and can therefore ensure production in situations where modern varieties would fail;
- Many NUS are rich in iron, vitamins and micro-nutrients;
- Many species have a potential for wider commercialisation and income generation. They are cultivated by drawing on indigenous knowledge, which can be used in their marketing as 'speciality crops';
- Policies and strategies for adaptation to climate change can benefit from recognising the potential of the rich diversity in NUS; and
- NUS correspond to traditional tastes, cooking and processing practices, in addition to other aspects of the local farmers' socio-cultural setting. They are part of the identity of local communities, and represent a diverse and unique cultural asset in the hands of the poor.





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ACP countries and regions involved Eastern Africa – Ethiopia,

Kenya, Uganda Southern Africa – Malawi, Mozambique Western Africa – Benin, Ghana, Mali, Nigeria, Senegal

Programme theme(s) Agriculture and agro-industry

Sector Agricultural research

Keywords

Underutilised crop species, research, training, nutrition, health

Contact the project

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Project website

http://ruforumbiodiversity project.blogspot.com/

Method

The project activities are, in chronological order:

- 1. Assessment of the state of and need for human and institutional capacity for research on and marketing of NUS by means of a first series of four national stakeholder meetings and two regional workshops.
- 2. A series of three training courses on research management:
 - How to conceptualise and prepare a good scientific research proposal;
 - Research design and data management;
- Scientific writing.
- 3. Two training courses per region in thematic areas central to NUS research:
- Value-chain approaches;
- The role of NUS in health and nutrition.
- 4. Dissemination activities:
- Repositories and resources on NUS made available on an Internet platform;
- Publication of research papers through open-access, on-line journals;
- Organisation of a Pan-African International Conference on NUS research and development. The present networks are instrumental in sustaining the results of the project by integrating NUS dimensions in curricula and related programmes to strengthen the scientific and institutional capacity for higher education in Africa.
- 5. A second series of national stakeholder meetings in two countries with inputs from the results of the Pan-African Conference on NUS.
- 6. National monitoring of progress in NUS research capacity.
- 7. End-of-project workshops (national and inter-

regional) to extract and share lessons learned and to make recommendations to be incorporated into policy briefs, including advice for climate change and adaptation strategies.

The training courses use participatory, workshop-style pedagogy, based on experiential learning. At least 10 training courses are foreseen, of which three focus on strengthening the ability to plan, implement and publish results of research, and two cover key thematic areas of relevance to NUS research.

Outputs

- Regional priorities and strategies outlined for research, capacity development and knowledge sharing on NUS research in western, eastern and southern Africa.
- Repositories and resources for NUS research compiled and published on a dedicated Internet platform.
- NUS research published in African journals.
- Pan-African International Conference on NUS.
- Policy recommendations for the promotion of NUS.
- Curriculum guidelines for universities.

Outcomes

- 40 scientists from 10 African countries trained in research proposal writing.
- 40 scientists trained in research design, including a value-chain approach and data management skills.
- 40 NUS scientists trained in scientific writing and communication.
- 40 scientists aware of the role of NUS for health and nutrition.
- Policy makers and educational leaders aware of the role of NUS in climate change adaptation and health and nutrition strategies.



West Africa:

Eastern and Southern Africa: Uganda, Kenya, Malawi, Ethiopia, Mozambique



