Africa is endowed with immensely rich agricultural biodiversity. Hundreds of species of crops, trees and animals are raised or harvested from a diverse range of agricultural and natural ecosystems. The current role and future potential of many of these species is often overlooked in agricultural policies and programmes. However, the conservation and use of neglected and underutilized species (NUS),¹ together with traditional knowledge relating to them, are fundamentally important to tackling poverty, malnutrition and climate change, and to seizing new opportunities for agricultural growth.
Background

African nations, like most other countries, concentrate their agricultural and food policies on a limited number of crops and commodities. Just a few crops, such as maize and rice, together with locally important staples, banana in Uganda for example, and globally traded commodities, such as tea, coffee and cacao, account for the bulk of Africa's formal agricultural sector and agricultural investment.

Work on neglected and underutilized species, such as African leafy vegetables, Andean grains and minor millets, has been underway for at least 20 years. More recently, a series of international meetings and action plans have acknowledged the untapped potential of such species – also referred to as minor crops, or ‘orphan’ crops – for contributing to food and nutrition security, generating income in rural areas, mitigating risk, and building resilience to cope with changes in climatic, agronomic and economic conditions.

Ghana hosted the 3rd International Conference on Neglected and Underutilized Species: For a Food-Secure Africa in Accra, 25–27 September 2013. The 176 participants, from 36 countries, shared research results and debated policy issues under three themes:

- The theme Resilience of agricultural and livelihood systems shed light on the nutritional value and agronomic performance of neglected and underutilized species, and their role in diversification of food systems.
- The theme Value chains explored opportunities and constraints in upgrading of value chains of neglected and underutilized species, and their potential to generate rural income, giving examples from both Africa and other regions.
- The theme Creating an enabling policy environment assessed how policy frameworks relate to neglected and underutilized species, and how capacity development and institutions can be strengthened, including through partnerships and platforms.

This Accra Statement summarizes the recommendations from the conference for realizing the promise of neglected and underutilized species.

Recommendations and actions

1. Include neglected and underutilized species in national and international strategies and frameworks that address global issues

Neglected and underutilized species and diverse agricultural and food systems have a direct bearing on vital global issues – food and nutritional security, the alleviation of poverty and adaptation to climate change. Linking neglected and underutilized species to these global issues will ensure that their current role and potential contributions are recognized and made use of.

Actions:

1.1 Include neglected and underutilized species in national and international strategies, frameworks and programmes to alleviate poverty, ensure food security and adapt to climate change.

1.2 Recognize the role and potential of neglected and underutilized species in sustainable agricultural development.

1.3 Direct financial resources for implementing the Convention on Biological Diversity (CBD) to conserving and managing neglected and underutilized species.

1.4 Promote research into the various possible roles neglected and underutilized species can play in alleviating poverty, ensuring food security and adapting to climate change.

2. Establish a list of priority neglected and underutilized species on which to focus

Because there are many neglected and underutilized species – crops, trees and livestock – countries and institutions could make more efficient progress if they focused on national and regional priority species. Some countries, like Benin and Kenya, have already prioritized neglected and underutilized species at the national level to guide investment in research and development. Similarly, some countries have jointly developed priority lists at the sub-regional level.

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1 The term ‘neglected and underutilized species’ is a broad term which includes for example crops, trees, animals and insects. The conference and policy discussion focused primarily on species of plants (crops, trees, medicinal plants).
3 Organized by Bioversity International, the International Foundation for Science (IFS), Ghana’s Council for Scientific and Industrial Research (CSIR), the United Nation’s Food and Agriculture Organization (FAO) and Crops for the Future (CFF).
Actions:
2.1 Establish criteria for setting priorities for research and upgrading value chains of neglected and underutilized species – crops, trees and livestock.
2.2 Identify and prioritize cultivated and wild neglected and underutilized species used in a country, based on literature reviews and information gathered from diverse sources.
2.3 Organize national priority-setting processes that allow key stakeholders, including farmers' organizations and the private sector, to participate fully.
2.4 Strengthen sub-regional and regional collaboration and align priorities.

3. Support research on neglected and underutilized species and their agronomic, environmental, nutritional and socioeconomic contributions to resilient production systems

Research on neglected and underutilized species has a key role in setting priorities, developing value chains, and guiding decisions on conservation and recommendations for interventions targeting food and nutrition security. Research is, however, under-funded and fragmented.

Actions:
3.1 Include neglected and underutilized species – crops, trees and livestock, both cultivated and wild – in national and international research and development programmes.
3.2 Ensure that a proportion of the 10% of national budgets that African nations agreed to allocate to public investment in agriculture under the Comprehensive Africa Agriculture Development Programme (CAADP) is devoted to neglected and underutilized species.
3.3 Map the existing diversity and distribution of neglected and underutilized species, systematically assess communities' access to, and use of NUS, and validate their contribution to households' livelihood systems, through gender-sensitive research.
3.4 Collect, organize and make available morphological, biochemical, nutritional and genetic data on priority neglected and underutilized crops and their wild relatives.
3.5 Develop improved varieties of neglected and underutilized species and use participatory variety selection to increase productivity, improve quality and minimize traits unattractive to farmers and consumers.
3.6 Document and make use of local and indigenous knowledge – paying particular attention to women's expertise – in producing and marketing neglected and underutilized species.
3.7 Support participatory, multi-stakeholder research.
3.8 Link research with the development of value chains in a systems approach to address biophysical and socioeconomic constraints in producing, processing and marketing neglected and underutilized species.
3.9 Expand research, including crop modelling, on the role of neglected and underutilized species in strengthening the resilience of agricultural systems and adapting them to changing climatic conditions.
3.10 Step up and support research on the value of neglected and underutilized species for food security – their nutritional content, the bioavailability of the nutrients they contain and their importance for human health.

4. Support the development of value chains and small agribusinesses for neglected and underutilized species

Local producers, processors and traders, often women, derive household income from neglected and underutilized species. But value chains are often poorly developed and products may not meet the standards of supermarkets and exporters, resulting in low sales volumes, poor profits, high spoilage rates, unfair sharing of the value added, and missed opportunities for growth. Institutional support for value chains of neglected and underutilized species is limited compared to that for major staple and commodity crops.

Actions:
4.1 Support development of value chains for priority neglected and underutilized species and their products by facilitating multi-stakeholder processes to identify constraints and strategies for upgrading chains.
4.2 Provide support and incentives to local small or start-up agribusinesses based on neglected and underutilized species.
4.3 Engage in public–private partnerships to develop value chains for neglected and underutilized species.
4.4 Develop technical solutions, standards and institutional support for processing, packaging and marketing products of neglected and underutilized species to address deficiencies in skills, efficiency and food safety.
4.5 Support the establishment of institutions and mechanisms for disseminating marketing information.
4.6 Support mechanisms to finance farmers who grow neglected and underutilized species and who participate in upgrading value chains.
5. Strengthen collaboration and information-sharing between researchers, extension specialists, the private sector, and farmers and their organizations

Knowledge about neglected and underutilized species tends to be fragmented and not easily accessible to value chain actors, researchers and development organizations. Informal systems that hold important knowledge are poorly linked to scientific knowledge systems. Close collaboration with stakeholders in problem-based, demand-driven research on neglected and underutilized species is needed, with the findings put to use through efficient and appropriate knowledge sharing.

Actions:
5.1 Involve multiple stakeholders and promote an interdisciplinary research culture to ensure that research is problem-oriented and demand-driven.
5.2 Align and accelerate conservation and research both within and among countries.
5.3 Capitalize on information and communication technologies to involve farmers in innovative research, improve market information, and effectively share knowledge and practices.
5.4 Establish national and regional platforms to encourage and facilitate links between producers and private-sector actors interested in developing value chains for neglected and underutilized species.
5.5 Strengthen knowledge-sharing platforms at the global level to harmonize tools, methods and terminology in neglected and underutilized species research, and to facilitate access to information and databases of both formal knowledge and 'grey' literature.

6. Promote the cultivation of neglected and underutilized species through campaigns to raise awareness of the commercial opportunities they offer and their agronomic and nutritional benefits

The image of neglected and underutilized species as 'poor people's crops' can hamper commercialization. Stimulating the production of neglected and underutilized crops, trees and livestock may not be enough; there is also need to change consumers' and farmers' perceptions of their potential and, in particular, of their value in diverse, locally-based diets. Promoting neglected and underutilized species will increase awareness and contribute to market-driven development of value chains.

Actions:
6.1 Run campaigns in urban areas to promote diverse diets based on local crops in partnership with chefs, supermarkets, the hotel industry and the media.
6.2 Work with farmers, community-based organizations and women’s groups to create awareness of the nutritional benefits of a diverse diet that includes neglected and underutilized species.
6.3 Strengthen the links between agricultural, health and nutritional policies and programmes to promote a food-based approach to nutrition which takes advantage of neglected and underutilized species.
6.4 Review agricultural subsidies to create greater opportunities for neglected and underutilized species and provide incentives for their cultivation.

7. Increase support for conservation of neglected and underutilized species in situ, on farm and ex situ, and strengthen seed systems

Genetic diversity is necessary for species to evolve, and for selecting and breeding improved varieties. Diversity in neglected and underutilized species is largely in decline. Up-scaling value chains can further reduce diversity. Effective strategies that combine ex situ conservation in genebanks and in situ conservation (including on farms) must be put in place. Furthermore, farmers’ production of neglected and underutilized species is often restricted by lack of quality germplasm.

Actions:
7.1 Develop long-term conservation strategies for neglected and underutilized species and their wild relatives that combine ex situ conservation in genebanks and in situ conservation in genebanks and on-farm conservation.
7.2 Include neglected and underutilized species in national biodiversity conservation strategies.
7.3 Review policies on forests and other agroecosystems, including policies on non-timber forest products, to remove disincentives that may contribute to genetic erosion of neglected and underutilized species, and to strengthen conservation and sustainable management.
7.4 Strengthen and fill gaps in existing collections of neglected and underutilized species held ex situ in national, regional and international genebanks.
7.5 Use participatory community-based methods to encourage in situ and on-farm conservation, including conservation in home gardens and payments for ecosystem services which conserve neglected and underutilized species.

7.6 Establish and support community-based seed systems for neglected and underutilized species that integrate on-farm conservation, varietal improvement and distribution.

7.7 Expand national seed systems to include popular farmer- and local varieties.

7.8 Ensure that national authorities recognize cultivars developed through participatory variety selection (PVS) and make PVS a mandatory component of national breeding programmes.

7.9 Support programmes for multiplying seed of priority neglected and underutilized species.

7.10 Strengthen and promote mechanisms providing multilateral access to germplasm of neglected and underutilized species, in particular by expanding Annex 1 of the International Treaty on Plant Genetic Resources for Food and Agriculture.

8. Empower custodian farmers, and support farmers' rights to share the benefits from neglected and underutilized species

Farmers conserve neglected and underutilized species and the genetic diversity they embody by cultivating them in production landscapes. Farmers who derive fair benefits from these efforts will be more likely to continue growing them, and thereby continue providing this environmental conservation service. But farmers' actions also depend on the external environment; constraints to their participation in value chains, such as discriminating food and trade regulations, may need to be addressed.

Actions:
8.1 Recognize and identify options to implement farmers' rights with regard to sharing the benefits from varieties of neglected and underutilized species.

8.2 Empower farmers by providing information and training on the benefits of neglected and underutilized species and ecologically sustainable farming practices.

8.3 Reform land tenure policies to encourage farmers to grow neglected and underutilized species – trees, perennials or other crops – that generate a continuous income stream.

8.4 Assess the impact of European Union (EU) Novel Food Regulations on exports of neglected and underutilized species to Europe.

8.5 Ensure neglected and underutilized species are included in the definition of 'principal foods' in the Codex Alimentarius.

9. Strengthen the capacity of individuals and organizations in research, education and development of neglected and underutilized species

The broad range of tasks involved in conserving and managing neglected and underutilized crops and trees requires skilled research and leadership. Capacity to facilitate development of value chains and to conduct research to resolve biophysical and socioeconomic constraints are critical needs. Education programmes and training opportunities to develop these competencies should target young people as well as working professionals.

Actions:
9.1 Include topics on local and traditional crops in primary school educational curricula, grow neglected and underutilized species in school gardens and incorporate them in school meals.

9.2 Integrate topics on neglected and underutilized species in higher agricultural education and, when appropriate, revise the content of curricula to impart knowledge and skills in the conservation and use of neglected and underutilized species.

9.3 Foster scientific and leadership capacity for research on neglected and underutilized species in areas such as adaptation to climate change, value chain upgrading, and nutrition and dietary diversity.

9.4 Strengthen capacity to use 'cross-cutting' research tools and methods, such as multi-stakeholder platforms, gender-sensitive approaches and participatory action research.

9.5 Expand on-the-job training in research and development on neglected and underutilized species for working professionals.
The work of Bioversity International to enhance the sustainable conservation and use of neglected and underutilised species around the world is generously supported by the International Fund for Agricultural Development (IFAD), the Technical Centre for Agricultural and Rural Cooperation (CTA), the Federal Ministry for Economic Cooperation and Development, Germany (BMZ), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the United Nation's Food and Agriculture Organization (FAO), the European Union (EU) – Asia Caribbean and Pacific (ACP) Secretariat, the CGIAR Research Programme on Climate Change, Agriculture and Food Security and the CGIAR Research Programme on Policies, Institutions and Markets.

This document has been produced with the financial assistance of CTA. The views expressed herein are those of Bioversity International and can therefore in no way be taken to reflect the official opinion of CTA.