

# NICANVEG UNDER-UTILISED VEGETABLES



Rural women farmers  
Food security  
Economic empowerment  
Nutrition

## Vice-Chancellor Prof. Idowu Bamitale Omote discusses Research Uptake at Obafemi Awolowo University

The mission of Obafemi Awolowo University is to promote by research and other means the advancement of knowledge and its practical application to social, cultural, economic, scientific and technological problems. The University's Strategic Plan seeks to improve strategies for dissemination of research findings, and to reappraise, strengthen, and reposition the research institutes, centres and laboratories to enable them respond effectively to emerging national and global challenges. Towards this end, the project on underutilised vegetables has been selected to showcase the research dissemination channels within the University. Sustained cultivation and consumption of indigenous leafy vegetables may hold the key to solving the persistent problems of food insecurity and poor nutrition in the nation at large and in developing countries as a whole. Reaching the beneficiaries – rural women, policy-makers, researchers etc. – will enhance Research Uptake.

## THE IMPORTANCE OF INDIGENOUS LEAFY VEGETABLES TO HUMAN NUTRITION HAS BEEN REALISED IN THE PRESENT SITUATION OF ECONOMIC MELTDOWN, GLOBAL FOOD CRISIS AND CLIMATE CHANGE.

### Problem statement

Given the generally poor state of the rural farmers, and their inability to purchase highly nutritious food items, most rural dwellers resort to the consumption of indigenous leafy vegetables. These vegetable species are still gathered from the wild with great difficulty. In addition, organised research systems have not given these species priority in crop development for the improvement of human nutrition and enhancement of farmers' income. A common feature of many underutilised species is the poor storage of the harvested plant products, which limits shelf life and hence commercialisation.

### Rationale for research

Poverty-stricken rural women are the custodians of gathering, utilisation and preservation of the underexploited indigenous leaf and fruit vegetables. Most studies on leafy vegetables by researchers have focused on the routinely cultivated species. A significant proportion of crops are lost before getting to the ultimate consumers for lack of adequate storage facilities. The production and post-harvest handling procedures practised in tropical regions perpetuate heavy losses, while inadequate infrastructural facilities cripple marketing prospects. Processors are faced with high production costs due to low yields obtained during processing, inadequate supplies of desired quality raw material and the high cost of packaging. Also, problems are faced when attempts are made to meet quality standards stipulated by sophisticated markets. Solutions to these problems lie in the establishment of organised systems of production and the introduction of suitable post-harvest handling procedures. The general objective of this Nigerian-Canadian Vegetable (NICANVEG) project is to increase food security and economic empowerment of resource-poor rural women farmers of Nigeria through the utilisation, cultivation, processing and preservation of underutilised vegetable species.

### Methodology and activities

This proposed research will use a participatory approach involving rural women farmers and scientists. The thematic areas of interest are:

- i) **Development of an eco-geographic database** of Nigerian vegetables to compile baseline information that will be used for gender analyses and provide input into other phases of the

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study. In addition, the baseline information will form the basis against which we can compare information gathered at the end of the study to assess the impacts of the study.

- ii) **Agronomic characterisation** – to determine the optimum agronomic practice which includes the best planting material and optimum planting density that can guarantee optimum performance, yield and economic returns and also identification of key leafy vegetable species for promotion and production.
- iii) **Advanced on-farm study** – to establish beneficial management practices with respect to fertility and water-use efficiency, and establish demonstration plots using appropriate Best Management Practices on farmers lands.
- iv) **Food technologies and market analyses** – develop post-harvest methods for processing and preservation of vegetables using technologies that can be readily adopted by the local farmers and end users/consumers.
- v) **Gender and marketing analyses** – to enhance the economic viability of the selected vegetable crops as well as to explore the marketing opportunities inherent in its processing and value addition.
- vi) **Communication** – multi-media publications, training, workshops and demonstrations.

A major focus of the project is training for poor rural women on production, processing, utilisation and marketing of underutilised vegetables for food security and financial empowerment.

### Research output and policy implications

Some of the research outputs so far include:

- Development of a GIS-linked database of the eco-geographical occurrence, uses, local processing methods, indigenous knowledge and nutritional qualities of the species collected.
- Gender disaggregated baseline databank on the management of underutilised indigenous vegetable resources.
- Selection of five indigenous vegetables using standardised criteria, multidimensional analyses and information provided by the users during the baseline surveys.
- Baseline conditions of underutilised vegetables in the study area and identification of drivers of vegetable cultivation and utilisation.
- Documentation of the impacts of crop diversification on environment, farm resilience, resource-use efficiency and gender equity.
- Development of agronomic package for high-premium underutilised vegetables of Nigeria.
- Establishment of field-tested procedures for implementing agronomic packages.
- Value addition for underutilised vegetables through improved processing.



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#### IDRC SPONSORED PROJECT – Duration: 2012–2015 (42 months)

##### Participating universities

1. Obafemi Awolowo University, Ile-Ife, Nigeria
2. Osun State University, Osogbo, Nigeria
3. Cape Breton University, Sydney, Canada
4. University of Manitoba, Winnipeg, Canada



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