

**The Production and consumption urban and
peri-urban vegetable of better quality for the
improvement of livelihoods in Kindu, Maniema
province**

**Project submitted to the
"Fund Civil Society for Good Governance"**

By

Mambo Initiatives Against Hunger and Poverty Inc.

May 2012

Work Team

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Association for the Agropastoral Development in Maniema (ADAM). Okenge Avenue, 11, Kasuku District, Commune of Kasuku, Town of Kindu.
2. Germaine RASHIDI MEDI, Chairperson of the Board of Directors,

Association for the Development of Women's Initiatives of the Maniema (ADIF). Avenue Lwangi, no. 34, District 3Z, Common Kasuku, town of Kindu.

Title : Production and consumption urban and peri-urban vegetable of better quality for the improvement of livelihoods in Kindu, Maniema province

Introduction

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The town of Kindu is similar to the other larger cities in sub-saharan Africa which have experienced a strong growth of the population due to a combination of high birth rate dominant (3.5 per cent per year), the influx of young people from rural to urban areas in search of jobs and better social amenities, and perhaps more importantly the movement of populations fleeing the wars of 1996-97 and 1998-2003 for the relative security of the cities. It is estimated by the United Nations in September 2001, there has been more than 2 million displaced from rural areas to urban areas (<http://www.ocha-rdc>). A serious economic crisis that began in 1990 has accentuated the precarious nature of life and of the vulnerability of the population. The urban centers with their large population have been particularly affected by the economic crisis caused by bad governance and aggravated by the wars whose many consequences include a slowdown of economic activities, an increase in unemployment, a general impoverishment of the population, poor nutrition and the consequent degradation in the health of particularly vulnerable groups of children and a disturbing increase in deaths. Malnutrition is cited as one of the main causes of the death of three million people in the civil war Congolese (http://news.bbc.co.uk/2/hi/africa/country_profiles/1076399.stm).

The harmful effects of micronutrient malnutrition especially iron, zinc and vitamin A deficient on children are well known and include reduction of resistance to disease, a delay of growth, a poor cognitive development and night blindness thus affecting the ability of learning. Full of vitamins and minerals, fruits and vegetables are an excellent source of nutrients, but the annual per capita consumption of vegetables in the Democratic Republic of the Congo in 2005 covered only 14 per cent of 73 kg recommended by the FAO and WHO. And the reduction in the production of fruits and vegetables in the DRC is lowered to 3.8 million tonnes in 1989-91 to 2.9 million tonnes in 2004, a decrease of 25 %.

Urban agriculture, including plant production, provides fresh food products, creates jobs and income which contribute to the social balance, improves the environment through the management of garbage and serves green belts. The production urban and peri-urban vegetable offers, in effect, all these services in the cities. The promotion of culture urban and peri-urban, marketing and consumption of nutritious vegetables should be a weapon of choice in the fight against poverty and malnutrition found in Kindu.

The producers of the vegetables found in and around the city, cannot fully exploit their land in an optimum manner because they cultivate to low yields of Varieties susceptible to diseases and pests, low quality seeds, from dubious sources and are not well informed on the appropriate management of fertilizers and other inputs, etc. The result has been that the vegetable supply is less than what is required by the population of this

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urban center. On these markets, the prices of vegetables are quite high especially during the off-season, rendering the product out of the reach of a large proportion of consumers. Another concern is the almost exclusive dependence of cassava leaves as a vegetable-sheets because of the ease of this culture, whereas we find of indigenous vegetables to African high performance and more nutritious such as amaranth, solanaceae (*Solanum* spp.), vegetables beans, etc. and widely consumed elsewhere on the African continent.

Objectives of the project

General Objective :

The general objective of this project is to improve the production and consumption of various vegetables African indigenous and exotic as a means of combating poverty and malnutrition in the town of Kindu and its surrounding areas, areas negatively affected by political conflicts.

Specific objectives : the specific objectives of this project are:

1. Strengthen the capacity of the producers in the improvement of techniques and strategies for the stabilis e the vegetables of better quality;
2. C aracteriser the systems of production of vegetables in urban and periurban areas of Kindu;
3. Increase the availability of varieties of exotic vegetables resistant to diseases and pests, high yield and nutrients which are most widely consumed ;
4. Expanding the range of indigenous vegetables , especially leafy vegetables, available to farmers and to promote their culture ;
5. Improve the awareness d e the nutritional importance in the consumption of vegetables more useful to the human body.

Expected Results of the project

1. The Documentation is made on the characteristics of the production of vegetables and peri-urban in Kindu.

Investigations to perform will result in the identification of:

- (i) Different techniques of production and different systems used by farmers;

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- (ii) Major obstacles encountered by the producers;
 - (iii) Main vegetable products to each season and the results obtained.
 - (iv) Socio-economic characteristics of the production and the farmers concerned ;
 - (v) Environment and security problems such as I has pollution, the use of pesticides and other chemical inputs, etc.
2. The varieties of vegetables to high yield and nutritious exotic are available for producers and consumers.

At least three varieties of tomato, chili, pepper and cabbage having the characteristics and culinary taste preferred by consumers will be added to the diversity of vegetables present in the study area.

3. Indigenous vegetables Africans are introduced especially vegetables-sheets and those domestic and locally selected on the local markets.

Two varieties of each species of *Amaranthus* sp., *Solanum macrocarpon* , *Solanum scabrum* , *Cochorus oliotorius* , *Hibiscus* sp. (Roselle), the cowpea-vegetable and all native species African nutrients will be available for producers of vegetables. Three local vegetables interesting will be selected among those obtained in the missions of collections companies and domestic to be introduced from producers and consumers.

4. The systems sustainable and profitable production are developed and documented.

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The experimental research on field will at the point of production systems cost-effective based on the plant material improved and adapted to the environment, the management practices of the soil and the nutrients and appropriate pest control and disease control measures.

5. Les key stakeholders are trained in the production of vegetables, expansion and use.

At the end of the project, the following stakeholders would be forms:

- a) 10 Research technicians (6 of UNIKI, 2 of ADAM and 2 of ADIF);
 - b) 20 Extension agents (10 of ADAM and 10 of ADIF ;
 - c) 150 Producers of vegetables (producer Associations partners of these two NGOS).
6. The public education and awareness materials are products.

Documents (brochures and posters) and of radio and television programs of the manipulation, the preparation/cooking and the nutritional importance of legumes in french and Kiswahili will be produced.

Activities of the project

The number of the project sites in Kindu are 3:

- University of Kindu
- NGOS ADAM
- NGOS ADIF

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Objective 1: Strengthening the capacity of the producers in the improvement of techniques and strategies for the production of vegetables for better quality:

It will be matter of develop, validate and train producers in techniques of production of improved seeds, nursery and the safe use of agronomic constraints specific identified in the investigation on the basis of tests at the experimental station of the University of Kindu.

Objective 2 : characterization of production systems for vegetables in the urban and suburban areas of Kindu:

Use a questionnaire well structure . The local producers of vegetables will be investigations in urban areas and the periurban areas of Kindu to gather baseline data for the analyzes of characterization of production systems.

Objective 3 : Increase the availability of varieties of exotic vegetables to high yield, nutrient and the most widely consumed:

Of the varieties of tomatoes, peppers, peppers, cabbages and onions from the commercial companies and the national programs of vegetables in Africa will be evaluated at the experimental station of the University of Kindu in demonstration plots. In this station will be also the multiplication of seeds which can thus be used in the release to the plots of the producers of the urban and peri-urban zone of Kindu.

Objective 4 : Expand the range of indigenous vegetables, including the vegetables-sheets available and promote their culture:

- (i) It will be to organize collection missions in order to identify and collect varieties of vegetables important aboriginal and widely consumed ;
- (ii) The vegetables will be selected domestic and evaluated;
- (iii) The evaluation will be conducted also on other indigenous vegetables introduced African regional centers and national programs of vegetables in Africa.

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Objective 5 : To improve the awareness of the nutritional importance of the consumption of vegetables which should lead to more nutritional contribution:

- (i) Does surveys on the consumption of vegetables in Kindu and its environs for:
 - Evaluate the perceptions and knowledge of the benefits nutritional vegetables ;
 - Determine the vegetables the most consumed and the quantities of vegetables consumed per capita ;
 - The factors that affect the market for vegetables and on the level of their consumption by the population.
- (ii) The project will develop vegetables dishes indigenous to assess their acceptability by consumers.
- (iii) The project will organize seminars and workshops on the importance and the proper maintenance of vegetables.

Impact and beneficiaries

Economic Impact and nutritional

The main beneficiaries of this project will be the small producers, particularly the women, the farmers who produce the vegetables for home consumption and local sale. The technologies for the improvement of production will increase production qualitative and quantitative of these farmers, which will make them more competitive on the markets with the best prospects to earn a higher income, which should be reflected by means of improved livelihoods.

Have access to a wide variety of vegetables and at affordable prices can certainly influence positively on the nutritional status of households of producers and consumers. And this should have a positive effect on the health, growth and development particularly of children.

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Social Impact

In implementation of this project in Kindu and its surrounding area will create a platform for the collaboration and interaction between the groups of different producers and between the farmers and the merchants who live in different parts of the area according to the ethnic origin for and contribute to reduce social tensions.

Environmental Impact

The project plans to use the techniques that are appropriate for the protection of the environment. The safe and appropriate use of fertilizers, fungicides and insecticides for the control of insects and diseases will be one of the techniques of integrated control which will be developed with the producers and to reduce chemical contamination of the agricultural workers and the soil. The use of household waste composted properly will also allow to reduce the large amounts of garbage which are located, by location, in the town of Kindu, these days.

Integration in the program of the Congolese Government

The project that concerns the seed sector, with the aspects of capacity building, extension or dissemination of the planting material, important in the agricultural development of the RD Congo, integrates well in the Strategy Document of the Growth and Poverty Reduction (PRGS WHICH IS CURRENTLY BEING DEVELOPED) and/or of territorial plans, the fact of the main objective of the Fund which is the creation of income and the revitalization of the local economy. As it is said in the PRGS WHICH IS CURRENTLY BEING DEVELOPED, "in addition to the inadequacy of the means that this either in terms of credit or inputs, the agricultural sector has suffered from the weakness of the State, at both central and regional levels, with, as a corollary, a general decay of the economic fabric and a deterioration of the agricultural workforce, the problems of access to markets and evacuation of products associated with the inefficiency of agricultural extension have accentuated the degradation. To circumvent this situation, the program of reform of the central services and decentralized from the Department of Agriculture, to bring about an improvement in productivity, is built around multiple axes. It is particularly of national planning, of the agricultural research, based on the decentralization of agricultural services and the strengthening of the institutional capacity central and provincial; the development of the potential of the provinces in respect of the environment

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and of the backup of productive bases natural, in the context of the Document of Growth and Poverty Reduction (PRGS WHICH IS CURRENTLY BEING DEVELOPED) ".

The integration of this project in the PRGS WHICH IS CURRENTLY BEING DEVELOPED is still justified by this sentence from the document itself: "It is indisputable that the development of agriculture will be the engine of economic recovery of the R. D. Congo and the cornerstone of the strategy of the fight against poverty developed by the program of the Government with its partners (PRGS WHICH IS CURRENTLY BEING DEVELOPED) ".

Work Program/ Calendar (designation of services, indication of responsible for the delivery, time bar in the delivery)

The duration of the project will be 12 months.

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	Semester 1						Semester 2						
Activity	Month 1	2	3	4	5	6	7	8	9	10	11	12	Body responsible for implementation
Planning Meeting													Coordinator
Training of technicians to UNIKI													Claims Specialists and Agronomist
Preparation of land and establishment of the driver field at the University of Kindu													Partners of local NGOs and technicians of the University
Collection and put in place													Specialist Agronomist
Selection of plant material in the Driver field													All Partners forms and the Trainers
Multiplication of seeds													Trainers and all the NGO Partners

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Technology transfer in the sites with farmers' associations: training and establishment of fields													Coordinator and partners trained technicians
Study Days in fields-schools: extension with the other farmers													All partners
Workshop for expansion strategies													All partners
Final Evaluation													Evaluator

Project Budget

					For 12 months			
Expenditure	Unit	Quantity	Cost	Costs				

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			Unitary (In US \$)	Totals (In US \$)
1. Human Resources				
1.1 Wages (gross amounts, local staff)				
1.1.1 Technical	By Month	60	2 00.00	12 0 00.00
1.1.2 P are closely linked to support	By Month	120	10 0.00	12 0 00.00
1.2 Per conferences where for missions				
1.2 .1 On site (staff assigned to the project)	Per diem	90 0	5 0.00	22 5 00.00
Sub-total human resources				46 5 00.00
2 . Equipment, materials and supplies				
2 .1 Purchase of motorcycles				
	By moto	4	1,500.00	6 0 00.00
2 .2 Furniture, computer hardware				
	By Computer	5	1,000.00	5,000.00
2 .3 Other - improved seeds for multiplication and dissemination				
	By variety	1 0	5 0.00	5 00.00
2.4 Other - agricultural tools (watering cans, hoes, spades, machetes, rakes)				
	By tool	100	25	2 50 0.00
Sub-total equipment and supplies				14,000.00
3 . Local Office				
3 .1 Cost of operation of motorcycles				
	By Month	48	1 00.00	4 8 00.00
3 .2 Rental of offices				
	By Month	12	500.00	6,000.00
3 .3 Supplies - office supplies				
	By Month	12	200.00	2,400.00
3 .4 Other services (telephone, electricity, post, maintenance)				
	By Month	12	250.00	3,000.00
Sub-total local office				16 2 00.00
4 . Other costs, services				

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4.1 Costs of planning meeting	By meeting	20	100.00	2 00 0.00
4.2 Training Costs	By training	200	45 .00 U.S.	9,000.00
4.3 Costs of assessment	By study	1	1,000.00	1,000.00
4.4 Costs of workshops/seminars	By workshop	250	20.00	5 00 0.00
4.5 Actions of visibility (signs, posters, advertising)				1 00 0.00
Sub-total other costs, services				18,000.00
5 . Sub-total direct costs				94,700.00
6 . Unforeseen Events (5 per cent of the sub-total direct costs)				4,735.00
7. Total costs (5 +6)				99,435.00