

Collaborating to Prevent Malnutrition: The Experience of an Innovative Community Intervention in Bikita District, Zimbabwe

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An innovative project working to prevent malnutrition using locally available and affordable food has been operating in the rural areas of Bikita district, Zimbabwe. The team that call themselves Upenyu (meaning 'Life' in Shona) work to empower people with nutritional and agricultural knowledge and preservation methods of commonly available foods. The Upenyu team was formed in response to an increased incidence of malnutrition in children and adults seen at the Silvera Mission Hospital. These observations lead to an in-depth investigation about the nutritional content of locally consumed foods and into the agricultural condition required for the farming of crops, vegetables and fruit in the area. Upenyu concluded that highly nutritious and affordable foods, that are climatically well adapted and drought resistant, can be grown and incorporated into the diets of the people of Bikita.

Upenyu, which consists of three local farmers and one health professional from the local hospital, provide workshops around the rural areas of Bikita to interested villagers, support-groups, farmers, garden cooperatives, and health professionals. The workshops are structured to provide 1) health education regarding locally available foods; 2) a practical components - where participants take part in the production and cooking of highly nutritious foods; and 3) agricultural instruction and practice- regarding growing, natural repellents, and natural fertilizers. The community workshops became very popular in the district and the team conducted over fifty workshops in rural communities between September 2011 and September 2012. Workshops often had between five and twenty participants.

Upenyu states "to ensure the knowledge gained at our workshops will easily be implemented into people's daily lives, we work directly in the villages and in the field - using what participants have and bring." Interested groups approach the team's contact person to set up dates and to discuss what is required for the workshops. Participants bring their own pots, firewood, mortar, cutlery and even some food to be cooked. Upenyu provides knowledge, recipes, and contributes with edible resources for the manufacturing of the products taught at the workshops.

In simple conditions – equivalent to those at home – Upenyu works to empower people to ensure the consumption of a healthy diet. Upenyu promotes the consumption and growing of soya, finger millet / rukweza / rapoko, and mowa / amaranthus / imbuya / bonongwe. Many of these foods were traditionally consumed in Zimbabwe prior to the widespread consumption of maize, covo, and rape as staple foods. Upenyu believes that the knowledge of Zimbabwe's ancestors in regards to eating habits and choices of crops were best suited for the local soil and people. The crops that Upenyu promotes are shown to have superior nutritional qualities when compared to maize, covo and rape.

a) Soya (Protein-Group, Minerals)

Medical benefit: to prevent Kwashiorkor (a form of malnutrition with loss of proteins, swelling of the body, and peeling of the skin).

Nutritional science: protein-rich and reported to act as a phyto- oestrogen to implement calcium into the bones.

Agricultural benefit: natural fertilizer due to its action with nitrogen; ideally intercropped with maize.

Practical use: Many products can be manufactured Soya milk, Soya flour, Soya coffee, Soya mince etc.

b) Finger millet / Rukweza / Rapoko

(Staple-Food-Group, Carbohydrates, Minerals, Vitamins)

Medical benefit: Prevents calcium-and vitamin B3 deficiency (Maize is known to be a calcium-inhibitor and poor in Vitamin B3).

Nutritional benefit: Rich in calcium (strengthen bones) and iron (improves quality of blood); 8x more magnesium than maize flour and longer satiable than maize.

Agricultural benefit: More drought resistant than maize.

Practical use: Can substitute maize flour. Higher chance of secure harvest even in dry areas.

c) Mowa / Amaranthus / Imbuya / Bonongwe

(Vegetable-Group, Minerals, Vitamins)

Medical benefit: Prevents and relieves muscle cramps, numbness or neuropathy; used to prevent upper respiratory tract infections; good for eyesight.

Nutritional benefit: Rich in: magnesium (for muscles and nerves); calcium (strengthen bones); vitamin C; and vitamin A.

Agricultural benefit: Grows everywhere easily with high yield.

Practical use: Can be a substitute for vegetables like covo or rape that have limited nutritional content.



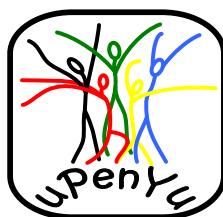
Preservation methods and the drying of seasonal products are additionally taught at the workshops and have been found successful in ensuring the consumption of a variety of nutrients throughout the year, and as a source of income generation when dried goods are packaged, labelled and sold.

Upenyu is selling and promoting high quality, 100% organic dried goods such as bananas, mangoes, pawpaws, tomatoes, chillies (piri-piri), sweet and sour lemons and oranges from the farmers of Bikita district in Harare shops, private people on order, and to other resellers.



The Upenyu approach and philosophy is grounded in empowering people with the capability of self-determination and responsibility in regards to their health and food supply rather than depending on hand outs or medical interventions. The intervention employs an 'upstream' approach where the root causes of malnutrition are addressed and examined and attempts at primary prevention are made. The approach is in contrast to many tertiary interventions which generally respond with food hand-outs that are unsustainable, costly, and disempowering to communities. Although the intervention design did not include a formal evaluation the

incidence of malnutrition was observationally reported to have decreased at the local hospital in the months following the community workshops. The Upenyu team is unique in that: the workshops are based on collaboration and sharing between the participants and the team; it is a grassroots project; and, it believes in the power of the people to respond and prevent malnutrition within their communities.



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