

## **Moringa Programmes in Binga District (Zimbabwe) 10 years of Experience**

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### **1) Short background of Binga Trees Trust**

- Binga Trees Trust (BTT) is a non profit making educational and charitable organisation
- It started operating in 1996 in the North-Western part of Zimbabwe along Lake Kariba (see map) in one of the most economically disadvantaged and marginalised districts of Zimbabwe. Binga district with a population of about 140,000 is approximately 12500 square km of which about 15% is occupied by National Parks and Safari areas.
- The rain fall in Binga is generally poor and unreliable for sustainable and gainful agricultural practices. The soil is rather unfertile and perennial accessible water sources are scarce. Industrial activities are non-existing. Crafts and fishing are some of the sources of income with rather successful agriculture in the Southern parts.
- BTT's main objectives are to create opportunities for income generation to improve the population's nutrition and socio-economic status, mainly through the sustainable use of tree products.
- BTT provides training and information to the community about propagation, management and utilisation of indigenous and exotic trees with oil bearing fruits.
- BTT also gives training on cottage industries such as soap making, vegetable drying and basic training on record keeping, packaging of products and market linkages

### **1) Moringa Promotion programmes**

#### **Target groups**

- In collaboration with other NGOs and governmental organisations BTT started in 1997 a campaign to promote the cultivation of Moringa oleifera in the district
- since 1997 to 1999 courses for 66 primary and secondary schools' project teachers and headmasters covering the whole district were carried out on Moringa propagation and its nutritional benefits. Each school was given seed, planting pockets, technical support and literature to start up the nurseries.
- 21 district Agricultural extension officers were also initiated in the programme and given seed to distribute to the farmers in the community they are working with.
- through the Ministry of Health and Child Welfare the staff of the District Hospital and Rural Health Centres were introduced to Moringa cultivation and the nutritional benefits for severely malnourished children as well as TB and HIV+ patients
- Demonstrations and workshops were conducted for women groups, farmers and development agencies in the district.

#### **Content covered**

- Propagation and management of Moringa
- processing of leaves into leaf powder (drying and grinding)

- Nutritional benefits
- Packaging and marketing of Moringa leaf powder

## **2) Achievements**

### **District hospital supplementary feeding programme**

- In 1997 BTT and Min of Health introduced Moringa leaf powder as supplementary feeding to the severely malnourished children admitted in the wards of the district hospital. The leaf powder was added to their Binga Power Porridge, a locally produced pre-cooked mix of maize meal, beans and groundnuts. In addition mothers and pregnant women were taught how to prepare Moringa vegetables and leaf powder and have been given Moringa seed for planting at home. The mothers of the children under this programme were given bus fares to travel to the district hospital for reviews. Later the Moringa supplement was extended to admitted TB and HIV+ patients. However this programme is presently discontinued because of lack of funding.

### **Establishment of community, schools and individual Moringa plantations/gardens**

- The workshops resulted in the establishment of Moringa projects in the district. Currently there are 10 active community groups, 6 schools and several individuals with Moringa gardens
- A survey conducted by UNICEF and the Min of Health in February 2006 showed that out of 240 respondents 61% had a Moringa tree in their homestead and all respondents knew about the nutritional benefits of Moringa.
- For continuous and intensive leaf production BTT encouraged the idea of densely populated small beds. However this is not always possible because of seed unavailability
- BTT established in 1997 a plantation of 500 trees at the local agricultural training centre. A total of 35 kg of seed was harvested in the first year and the yield increased up to 55 in the following years. This enabled BTT to give the farmers and the schools planting material.
- BTT researched various models of tree cultivation and densely populated small beds for the production of foliage. This set-up has been used for teaching and to host a great number of visitors from around the country.
- projects of densely populated small beds were taken up by the District hospital and rural Aids Support groups for the production of leaf powder for malnourished children, feeding points for under-fives and People Living Positively With Aids.

## **3) Lessons learnt**

### **Attitudes and practice of people in Binga related to Moringa**

- The appreciation and acceptability of Moringa in the district rose immensely from 1997 to date. The above mentioned survey showed that 95% of the respondents eat Moringa in various ways. The interviewed mothers prepare and incorporate Moringa leaves and/or leaf powder into the diet of their children.
- The results show that Moringa has been accepted as food supplement for both the malnourished and HIV+ people.
- In addition leaves are used as medicine by 16% of the respondents whereas 20% make use of root and or bark powder for its "medicinal" properties.

- It is quite impressive that Moringa over this period of ten years has developed from a rather unknown vegetable; just good enough to eat in the months that other vegetables are scarce, to the status of a first class vegetable in high demand all year through for young and old.

However there are sometimes social complications/challenges:

- a) People want to continue to be given seed all the time while they harvest all the leaves and flowers either for selling or consumption.
- b) Some want to be provided with steel fences not only to protect their trees but also their homes as fences are a symbol of a high status within the community
- c) The health centres should in principle be the strategic entry points but presently they have no personnel to monitor and run tree projects. The beds or trees will either die or are left as a common property from which anyone anytime can pick the leaves. The staff have no time to pick and process the leaves to give it to the people admitted to the wards.
- d) Many schools have not sufficient water to drink let alone to run a tree project! The success of the tree projects in schools depends on the attitude of the school head, the agricultural teacher or environmental teacher. The change or transfer of teachers from a school also affects the continuity of programmes
- e) Quality control is a major problem in the production and processing of marketable products. The simple drying cabinets that BTT had constructed were made of plastic material that is not very suitable for the use in rural areas. The driers were soon abandoned or used for other purposes like chicken runs.
- f) Working in groups often becomes a failure as it is apparently complicated to share the proceeds fairly. It creates a lot of social conflicts and eventually the project may fail.
- g) Some people do not see any reason to start income generating projects as long as there are organisations giving free hand outs.

### **Commercialisation of Moringa products**

- Information about the Moringa benefits has been abused by people who sell it as a cure for HIV/AIDS on basis of the high content of Vitamin A with its known immune boosting ability. The intake of Moringa leaf powder gives people hope that it can reverse their HIV status.

- The scientifically unproven “medicinal” value of the root and bark of the Moringa as treatment for multiples of ailments brought the Moringa on the media limelight in the country. This led to an influx in Binga of traders from in and outside Zimbabwe. At the moment Binga is the only place in the country that is producing a big quantity of Moringa powder. However other non governmental organisations have since introduced the tree in other parts of Zimbabwe.

- people from big cities buy a lot of Moringa leaf powder which they sell at very high prices to people who are desperately in need of AIDS treatment. This hype and demand led to anti social practices as people sold any type green powder as Moringa.

- it also led to an unsustainable harvest of Moringa trees as trees were stolen from people’s homes and gardens, big trees were up rooted for bark and root products and trees were never allowed to set fruit for seed production.

- The Moringa hype had an effect on the Binga community as they sold all the Moringa they had and were no longer consuming it in their homes. That meant their nutritional problems and critical deficiency of Vitamin A in the district was not being solved.

However the fact is they needed money to solve other problems and it was their chance to make money as the demand for Moringa products was very high.

**Sustainability of Moringa projects in developmental, nutritional, social and economic empowerment.**

- A very interesting development is that the government has declared the Moringa tree as the tree of the year in 2007.

- The Moringa hype has decreased over the last year. People are now getting the facts and more knowledge about Moringa. Researches by scientific institutions have assured the public of the nutritional benefits of Moringa.

Big companies in the food and beverages industries are now buying Moringa in bulk orders to fortify their products. This is an advantage to the farmers who have grown Moringa as they are assured of reliable markets.

- Some members of the community have become very creative such as burning Moringa branches to produce lye that they use to make soap ( in stead of buying very expensive caustic soda) while the ash is also used in the cooking of okra to decrease its sliminess. Some families are now selling that ash within their community.