Global Facilitation Unit
for Underutilized Species

Underutilized Plants - Achieving the Millennium Development Goals

Rural people and increasingly urban/ peri-urban farmers are the custodians of traditional underutilized plants, so called as their potential to improve people's lives is often little-appreciated and overlooked.

These crops are for the most part excluded in policies and programmes aimed at development so much that their appreciation and use have also declined amongst rural populations.

THEY CAN:

- **Improve food security, nutrition and health**
- **Generate income**
- **Preserve the cultural identity of local communities**
- **Provide environmental services**

AS SUCH THEY CONTRIBUTE TO:

MDG 1 **Eradicate extreme poverty & hunger**
MDG 3 **Promote gender equality and empower women**
MDG 4 **Reduce child mortality**
MDG 5 **Improve maternal health**
MDG 7 **Ensure environmental sustainability**

Photo: Paul Bordoni/GFU

Fox tail millet *(Setaria italica)*

Photo: Paul Bordoni/GFU

Self Help Group of women in seed bank, Bangalore, India

MINOR MILLETS

(*Eleusine coracana*, *Panicum sumatrense*, *Setaria italica*)

Like other underutilized species, minor millets thrive in marginal growing conditions allowing cultivation where other plant species would fail to grow. These cereals are not only a precious source of micro-nutrients but they also provide income and empower woman of local communities organized in Self Help Groups, thus raising their social and economic status.
By focusing on the whole value chain, these groups selected the best performing varieties and worked to improve local landraces thereby identifying the best options to add value to these minor millets while promoting their benefits to consumers and policy-makers. The introduction of a mechanical mini-milling system drastically reduced the drudgery associated with pounding these cereals, one of the major causes which had led to a shift away from these grains.
While the farmers worked on production, others took care of raising awareness about the importance of these millets through radio, print, food fairs and festivals, workshops and school programmes encouraging to use more millet in the daily diet.
Micro-entrepreneurs were essential to the process of adding value with packaging and labeling that helped fetch a better market price. Incomes have increased as a result of the higher demand for millet, and farmers stand to gain more.

AFRICAN VEGETABLES: OPPORTUNITIES FOR BUSINESSMEN

(*Solanum aethiopicum*)

Elisamia Abraham Pallagyo in Tanzania has focused his farming on African eggplant (*Solanum aethiopicum*), an indigenous vegetable from sub-Saharan Africa. He started off with less than a hectare of land, on which he grew three varieties: 'Tengeru white', 'Manyire Green' and 'DB3', a line bred by the World Vegetable Center (AVRDC).
With entrepreneurial flair Mr. Pallagyo has concentrated on quality and marketing, ensuring the high quality and constant supply of his produce from his land to his customers. By setting up a team of pickers that sort, package and prepare the harvest for delivery to the market, he has involved and allowed people earn a wage thereby helping them improve their standards of living. Mr. Pallagyo also buys the crop from other farmers, becoming a middleman. Successful marketing has allowed Mr. Pallagyo the opportunity to invest first in a bicycle, then a motorbike and finally in a second-hand pick-up helping him in his business. The use of a mobile phone helps Mr. Pallagyo stay abreast of market fluctuations.
This business man and his family have not only improved their standard of living but they have also created employment opportunities for others and have secured a steady supply of high-quality African eggplants to the market.

Photo: M.L. Chadha/AVRDC

Farmers grading African eggplant *(Solanum aethiopicum)*

Photo: Prometeo

Emmer *(Triticum dicoccon)*

EMMER: RESURGENCE OF A ROMAN STAPLE IN ITALY

After Caesar's invasion of Egypt, emmer (*Triticum dicoccon*) found a home in Italy. The nutritious grain became a staple of Roman society. During the past century, two main reasons caused the sharp decline of emmer production: (i) economic pressure for higher productivity led to the selection of free-threshing wheat *(T. aestivum, T. durum)* which better responded to increased inputs, and (ii) change in eating habits as people became more attracted to industrialized food seeing emmer as the food of the poor. In the 1980s, the demand for emmer grew as its nutritional value and particular taste began to be appreciated by health-conscious people and gourmets. Today, emmer is processed into a range of popular, modern foods. Grown without external inputs, this adds to its reputation as a healthy food for which consumers are prepared to pay a premium price. Between 1998 and 2000, the market grew by 15% each year and the farm-gate prices for the raw material increased by 30% each year. Typically produced by small–scale farmers, emmer is now also grown by richer farmers, who are attracted by the high price.

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