

A photograph of a seed garden. In the foreground, there are rows of low-growing green plants. In the background, several people are standing among taller corn plants, examining them. The text is overlaid on the top half of the image.

The role of seed gardens in enhancing local seed security and impact on the use and conservation of agrobiodiversity





The SADC/GTZ SSSP

- Small-scale Seed Production by Self-Help groups
- Enhancing seed security through development of viable local seed provision systems
- Promoting Participatory Variety Selection and Seed Production
- Up to 1998/99 season activities restricted to main season



General cropping pattern in Zambia


- Main season
 - Summer
 - Rainy: November to April
 - Production of all food crops
- Off season
 - Winter
 - Dry: May to October
 - use of dambos
 - Largely for vegetable production
 - A few cases of green maize production



Small-scale farmers situation

- Exposed to use of hybrid seed and fertiliser prior to 1990
- Experienced devastating droughts in the 90's
- Poor access to seed of modern varieties
- Poor access to credit for seed and fertiliser
- Seed losses in storage

Objective



To assess the feasibility of seed gardens as an alternative or complementary local seed provision system to rainy season seed production.



Rationale

Good source of pure and healthy seed in readiness for main season, opportunity for FSV bulking, farmers' training and verification of genetic purity.



Conditions

- Adequate water
- Access to water source
- Proper fencing



Garden set up

- Very small areas (maximum 30 square metres)
- Varieties used are all modern and have been in the area long before the SSSP started.





Activities

- Farmer mobilisation
- Selection of suitable sites (fertile soil, access to water)
- Training farmers in improved seed technology
- Field days



Results

- Seed yields higher than expected
- Benefits (seen by farmers themselves) lie in the enhancement of seed and food security, good quality seed, surplus for sale
- Attainment of knowledge on winter seed production.













Incentives for use and conservation of agrobiodiversity

- Use of crops/varieties with characteristics suitable to farmers
- Improved seed management and health (minimal contamination, manageable plot sizes, seed with high vigour, fewer diseases).

Incentives for use and conservation of agrobiodiversity contd....



- Enhanced seed security and maintenance of diversity
 - Good entry point for foundation seed of FSV
 - Opportunities for seed increase in case of seed losses



Incentives for use and conservation of agrobiodiversity contd....

- Avails farmers better planning for main season
- Good market for seed and grain within and outside project area
- Enhanced food security
- Appropriate Seed Policy



Impact on agrobiodiversity

Enhanced crop/variety diversity

- Complement local landraces
- Reduce pressure on local landraces to meet all food and income needs

Enhanced farming systems diversity

- Opportunity for off-season production of otherwise ecologically unsuitable crops e.g. beans
- Multiplication of sweet potato and cassava planting materials
- Opportunities for vegetable production



Major lessons learnt

- Use and conservation of seed of modern varieties enhanced by active participation of farmers in variety selection at farm level.
- Cultivation of modern varieties does not necessarily lead to the disappearance of local landraces and can contribute to rural food security.



Major lessons learnt contd.....

- NARS technology(modern varieties, off-season production) and conditions (wetlands in winter season) may be existing and adapted to local level use and contribute to seed security.
- Successful seed production at farm level is facilitated through active well-established CBOs that facilitate effective community cooperation



Major lessons learnt contd.....

- Training and learning through experimentation form essential components in the development and adaptation of technology, and thereby to the use and conservation of crop genetic diversity.

