Local knowledge of indigenous tree planting and management in miombo woodlands in Zimbabwe.

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BACKGROUND AND OBJECTIVES

Tree species biodiversity and abundance is steadily decreasing in many rural woodland areas in Zimbabwe. Species richness in the forests may be maintained if people enrich their homesteads and surroundings by planting important indigenous tree species. Local knowledge of tree resources in communal miombo woodlands were tested through an action research project, as well as testing species performance under local farming conditions.

METHODS

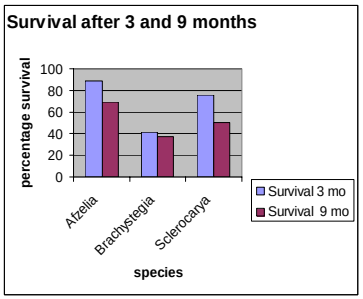
This project was carried out in Romwe village, Chivi district, southern Zimbabwe. Tree seeds were distributed to interested individuals who were asked to use their own knowledge in planting and managing the seeds/seedlings. The process would generate information on existing local knowledge, as well as give the participants an opportunity to learn by doing. Participatory monitoring phases were made in February and September 2001 and February 2003. Enquiries of the number of seeds received, germinated, survival rates, who planted, where and why, management practices, motivation for planting, problems experienced and lessons learned were made.

Selected tree species for the project (local names in Shona).

Species	Uses	Abundance	Pressure
Afzelia quanzensis Mukamba	carpentry, carvings, high commercial value	locally rare	high, forbidden to cut, illegal harvesting
Brachystegia glaucescens Muvunze	firewood, bark/fibre, fodder	very common	high, lack of pole sized trees in the woodlands
Sclerocarya birrea Muptura	fruits/jam/beer, craft/mortars, medicine	occasionally common	medium, female trees kept for fruits

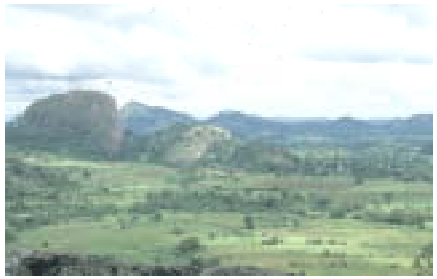
Reasons and motives for planting trees (more than one motive could be chosen) in 2001.

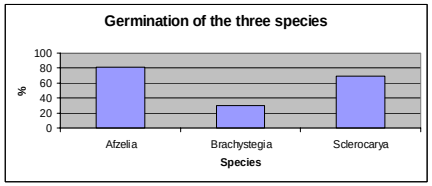
Motive	females	males	total no of replies
Carving	18	3	21
Income	14	5	19
Windbreak	12	5	17
Shade	9	6	15
Fruit	13	1	14
Test/innovation	6	3	9
Conservation	7	1	8
Poles	2	4	6
Firewood	4	2	6
Medicines	6	-	6
Heritage	1	2	3
Social pressure	1	2	3
Prize	1	-	1
Aesthetics	1	-	1
Fibre	1	-	1
Total replies	97	34	141
Number of respondents	30	12	42



RESULTS

- Females succeeded better than men to germinate the seeds and were generally better managers, more innovative, including collecting seeds and transplanting additional seedlings from the bush.
- Many individuals of both sexes learnt that native trees can be planted and are not only a gift from God (which is a common belief in the area).
- People had strong motives for locating their seeds/seedlings within their homesteads: control/access of resources, soil erosion prevention, ecological similarity of tree habitats and proximity to water sources.
- Both men and women were quite innovative, e.g. trying out different indigenous methods for pest and disease control, water saving and moisture retention approaches. They also started testing other wild tree species.
- Experiences were shared in a voluntarily created tree planting group at bi-annual feedback sessions as well as during informal interactions. After a large community feedback meeting the group increased by a third, showing a growing interest in indigenous tree planting.
- Efforts at tree planting and management were constrained by external factors such as drought and macro-economic crisis. There is an increase in the use of wild forest products during times of crises.





CONCLUSIONS

Although this study has not proven that pressure on the surrounding woodlands will decrease by planting local trees, it shows that rural people have specific knowledge about indigenous tree planting and management. This project contributed to increase awareness and motivation among people, particularly women, who generally tend to have the major responsibility of feeding the family. This process will hopefully lead to a wiser utilisation of the woodland biodiversity, including improving the livelihoods of the rural people.

Data from this study is being submitted under the title: Local knowledge of indigenous tree planting and management: lessons from an action research process.
Copies can be obtained from the authors