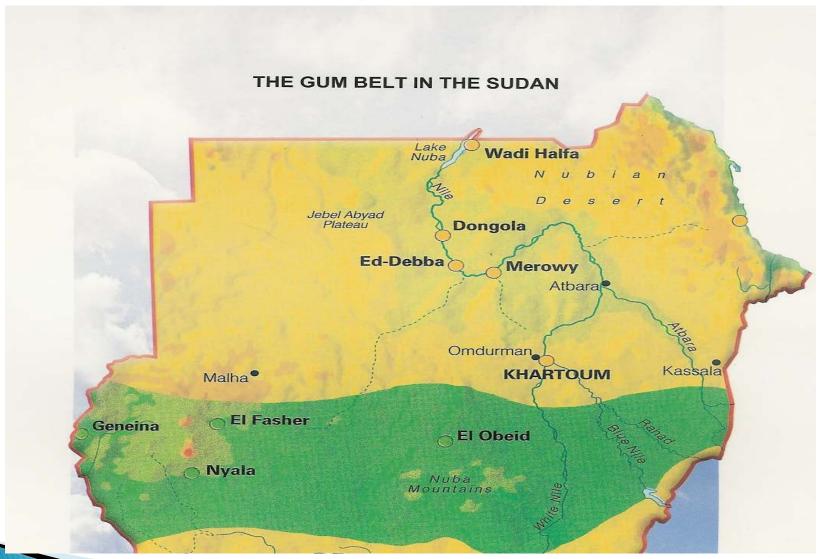


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Introduction

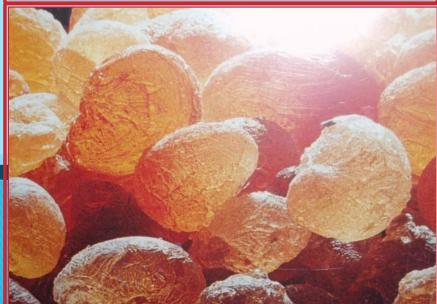


- Sudan exhibits a series of variation in soils, climatic conditions and hence ecological zones ranging from hot dry desert in the north to the moist tropical climate in the South
- Acacia senegal L (Willd.) is the most important tree species in Sudan with a wide range of uses,









Problem Statement

- North Kordofan has traditionally been regarded in the Sudan as a major source of primary agricultural production.
- Kordofan contributed substantially to national foreign exchange earnings through the export of cash crops, particularly sesame, hibiscus, groundnuts, melon seed, livestock and hides.

- Kordofan has been known for the production of gum Arabic. Until 1960 Sudan exported 85% of global demand of gum Arabic 50% of this from Kordofan.
- Traditional agroforestry, tree-fallow/cropping rotation system, practiced by farmers for generations.
- The hashab tree was the key to this traditional system and in maintaining ecological balance.

- Since 1960 onwards, the apparently well-balanced traditional system began to decline due to variety of factors, mainly the drought of 1973 1984 –1985.
- Some projects exerted considerable efforts to rehabilitate the gum belt in the state, but the price of gum Arabic is declining compared with other cash crops that led farmers not to tap their hashab trees, but cut them for charcoal.

- No organized body to organize the farmer's activities.
- Fluctuation of the price of gum.
- "Sheil" system, middlemen, etc.

Scope of the Paper

This paper is concerned with establishment and organization of local gum producers' associations and their role in managing gum forest resources and enhancing the livelihood of gum producers in Sudan: Case of North Kordofan State.

Opp0rtunities

- The local institutions possess the capacity and creativity of people to create bodies that effectively serve their needs.
- There are positive examples of what can happen when people have control of their own lives in solving the problems they are facing.
- Local institutions embody the local knowledge that has evolved in culturally and ecologically specific situations.

Establishment of Associations

- The initial Associations were comprised of farmers whose income is derived predominantly from the production and sale of gum arabic.
- The project assisted in the establishment and formation of twenty Farmers' Associations by the end of 1994. Moreover FNC established additional 300 associations after the termination of the project in North Kordofan up to date.

- Formation of Associations starts as an initiative of the community.
- A visit is made to the village to check the areas covered by gum producing trees and to ensure that the members are local residents.
- An awareness general meeting is held for all local people in the area,
- Forms are distributed to gather all the necessary information and,
- Finally the committee members are selected by elections.

Objective of Association

- The aim of these Associations is to maximize the farm-gate returns from gum to rural communities through the transfer of skills particularly by:
- improved tree tapping, collection and handling.
- value addition by cleaning, grading and packaging and;
- Collective delivery and marketing of gum.

- A lot of efforts were spent to increase farmers' technical know-how and managerial skills through training, workshops, and field-days for both Field Extension Agents and Associations committees.
- In 2002 the model evaluated by FNC,
- In 2003, (115) forestry graduates employed to organize the establishment of Farmers' Associations in the gum producing states.

GAPAs in Sudan

- The idea of formation of GAPAs started at specific site (N. Kordofan State 1992 as I am a founder), and replicated at different producing states in Sudan.
- The participation of stakeholders in GAPAs is outstanding.
- Each day new comers adopt the innovation.
- Total No. of GAPAs in Sudan 2975
- Registered 2077
- Total member (60% women) 1.5 million
- Total area of gum trees/ha 1.22 million

GAPAs/States

State	No. of GAPAs	Total members/HH	Total Area/Ha.
N. Kordofan	230	23,041	1,380,046
W. Kordofan	157	12,871	693,187
S. Kordofan	560	28,980	2,890,300
White Nile	38	2,234	45,410
Blue Nile	490	34,286	2,279,474
Sennar	450	18,540	850,756
Gedarif	35	2,105	367,285
E. Darfur	64	4,323	100.775
W. Darfur	39	1,360	55,700
S. Darfur	14	714	68,805
Total	2077	1,500,000	1,200,000

Other Roles played by Gum Producers Associations

- Planning of reforestation, by seeds and seedlings.
- Village and home nurseries.
- Tree-crop Management.
- Proper storage and quality improvements.
- Exchange and Transfer of Technology.



Matching Grants from WB Project











Adoption of Technology

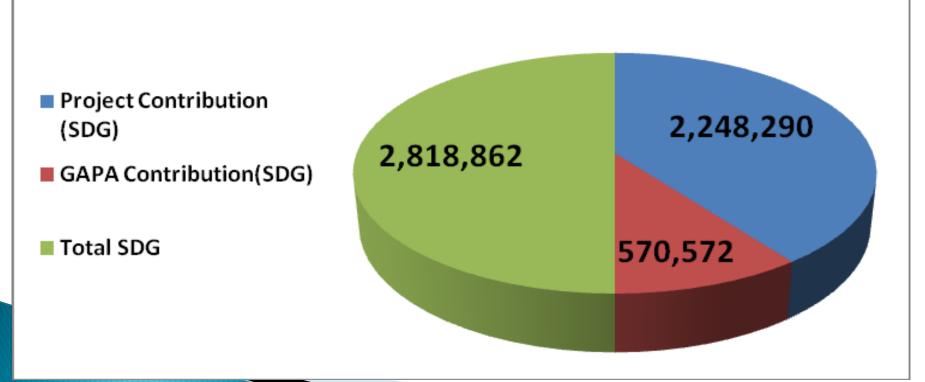


Adoption of Technology











Difficulties Confronted in the Establishment of Gum Associations

- Migration of the real owners, one of the conditions of membership in association is the permanent residence of the real owner permanently or partially,
- The procedures of registration of the association is difficult, high cost of registration fees.

Conclusions:

- The area of the associations is characterized by big family sizes,
- After the establishment of the association, areas under *hashab* increased.
- Extension service contributed to the safeguard of gum gardens.
- Seedlings production at the village level helped the farmers to gain technical know-how.

- The Stocking density of hashab tree was highly influenced by the expansion of agriculture
- The continuous rise in the prices of agricultural crops compared with low prices of gum discouraged the farmers from tapping their trees.
- The associations, and through the adoption of different activities contributed significantly to the development in the rural areas in terms of credit, loans, water etc.
- Consolidation of social relations among farmers.

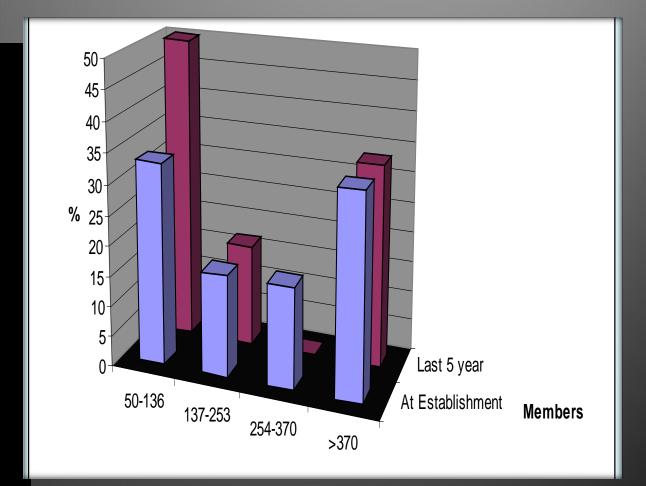
• Farmers in areas without associations are aware about the role of the associations in raising the standard of living and their contribution to the development of the study area.

Although the adoption of the innovation of the associations in the study area is high, considerable proportions of gum producers were not encouraged to join.

Reasons:

- Personal reasons,
- Mistrust communal work due to the pitfalls of the other cooperatives in the study area.

This may be attributed to the lack of enough confidence and mistrust which could easily be resolved through extension.





Lessons Learnt

- Introduction of incentives e.g. REDD+ and CRBON MARKET, motivations and extension service would highly encourage the farmers to manage their gum gardens for gum production.
- The FNC should investigate suitable means for motivating the farmers to tap their trees.
- Provision of public services, particularly drinkable water, will help in the process of gum tapping and picking since the main cost of gum production is the cost of provision of drinking water to the labors.

- The FNC has now a successfully tested model that should be adopted, utilized and managed to expand to other similar areas.
- Encouraging the establishment of gum Arabic associations, building their capacities, improving their skills and enabling them to take part in setting policies and decisions related to pricing, storage, processing and export of gum Arabic will result in an overall development of the sector.

- The involvement of local communities in the production and marketing of gum arabic is expected to result in successful and sustainable resource management.
- Linking Gum Producers with related institutions policy and legislative bodies and most importantly with the end users will end in better welfare of the whole local communities.

