

SASOL FOUNDATION

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1. PROJECT SUMMARY

A. NAME: SAHELIAN SOLUTIONS FOUNDATION (SASOL)

B. PROJECT TITLE: KITUI IMPROVED MANGO NURSERY

C. DATE: 28/07/2000

D. PROJECT BUDGET: KENYA SHILLINGS 5,338,000

E. . FUNDS REQUESTED: KENYA SHILLINGS 3,082,000

F. . PERSONS IN CHARGE:

Mr. Sam Muthoka
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2. EXECUTIVE SUMMARY

This proposal seeks funds to establish an improved mango nursery for

Kitui farmers. The objective is to establish 100,000 trees for planting as well as establishing 200 mother trees for scion collection to increase the number of improved mangoes planted in the project area. The nursery will serve an area of an area of 2,015-sq. km. (201,500Ha.) of Central Kitui with a population of 182,264 in 32,020 households, with average land holding of 6.2 hectares per household, according to the 1989 Census. The program area has varied topography, which includes steep hills, rolling land and plains. The soils vary from black cotton to red soils to very sandy soils.

Over the past five years, the people in the project area have built 156 subsurface/sand dams under the supervision of SASOL. It is expected that the improved mangoes will be initially planted proximate to the dams in areas of ground water recharge. The planning figure is on the average about 3 trees per household.

It is estimated that 60% of all the households in the district are female headed. 80% of the people who show up for construction of dams are women.

It is expected that the completion of the project will enable the beneficiaries to expand mango farming thereby using this cash crop to improve their incomes. Improved mangoes are in demand nationally and internationally thereby giving this community which lives in a mango-producing zone to improve their incomes.

The project impacts will be primarily to the dam committee members who will be trained in establishment and management of improved mangoes. Women and children will also benefit. Women are the majority household heads. Children nutrition will be positively impacted on by the project as mangoes come on stream during seasonal hunger and form part of the diet.

It is expected that the project will be a platform on which the community can build access to micro enterprise activities related to mango production.

3. PROBLEM TO BE ADDRESSED

3. 1. NATURE OF THE PROBLEM

The population of the project area is poor. Kitui is one of the districts in s which more than half of the population is classified as poor with incomes of defined as less than 1US\$ per capita. . The project area land is of medium agricultural potential receiving between 500 and 800mm of rainfall per annum. This amount of rainfall is sufficient to support rainfed agriculture provided the right type of crops; trees and appropriate conservation practices are adopted. Households are generally large and with 60% female headed for the men are away poverty is endemic. There is no cash crop for the tobacco, which acted as one in years past led to degradation of the land and forest resources.

In the project area mangoes are viable for there are traditional mango trees, which have been in the region for more than 100 years. These do not offer good incomes for currently a heaped ninety-kg. Bag of mangoes sells for Ksh. 100! In comparison, in Machakos district, next to the project area, where there are improved mangoes each mango commands Ksh. As farm gate price.

Those farmers with the traditional trees cannot generate meaningful incomes out of these trees. The traditional trees do well with their massive size and girths. They harbour disease for farmers do not get enough income to justify better husbandry.

3.2. WHY ACTION IS NEEDED NOW

The major bottleneck to introduction of improved mangoes has been availability of scions. It is a primary objective of establishing this nursery to provide 100,000 improved plant for farmers to buy. Improved planting mango plants sell for between 100 and 150 shillings. The supply is uneven and far for most sources are between 150 and 250 km from the farmers of the project area. It is the intention of the project to offer to farmers initially good plants at Ksh. 50. The reason for this is to get the budding material into the community.

The second objective is to establish an orchard of 200 mother trees as back up for budding scions for the community. This will be on land controlled by SASOL and will be dedicated to the project area communities.

3.3. SASOL'S COMPETENCE

SASOL is focussed on solving water problems to create a platform for subsequent development through building capacity in natural resources conservation and management, local governance institutions, food security, health and education. All these are relevant to addressing poverty.

SASOL, on registration in 1992, got involved in food distribution in Kenya and Somalia. In 1993-1994, SASOL supported 13 schools by sponsoring a total of 750 children in Kitui District. In 1993, SASOL started construction of water points in schools. In this program, 93 shallow wells and 17 water tanks were constructed up to the end of 1999. This need was identified as a result of the work on school feeding.

PRAs done in the program area later established that water was the development priority for it took people away from dealing with production for food security which in turn addresses poverty. Most of the program area population did not have access to secure water supply. Irregular and contaminated supplies were on average 5km from most households. Women and girls spent a lot of time in water fetching chores. Consequently SASOL decided to concentrate on building water supply as a platform for subsequent development. A pilot program for community water supply was started in March 1995. A total of 126 river barrages with 67 off-take wells have been constructed by December 1999. The estimated water storage capacity of these barrages, without considering extra channel storage, is in excess of 5m.cubic meters. This water serves a population of about 200,000 people. The barrages are built on the sub-catchments of the Tiva and Thua rivers.

The organisational chart is found in Appendix 1.

4. PROJECT APPROACH

4.1 ACTIVITIES TO BE CARRIED OUT

- a. Assemble project staff- manager, nursery supervisor.
- b. Hire Nursery Labour.
- c. Dig Well.
- d. Purchase Pump, Water Tank and Accessories.
- e. Purchase Traditional mango seeds.
- f. Clear Nursery Site (cut trees, destump, dig, level).
- g. Collect manure and soil for planting
- h. Plant 110,000 traditional mango seeds in plastic bags
- i. Grow 10,000 mango seedlings over a period of eight months.
- j. Purchase Improved Mango SCIONS
- k. Graft 100,200 seedlings
- l. Prepare land for planting 200 mother trees (bush clearing, destumping, terracing, hole digging, cultivating).
- m. Harden 100,200 improved mango seedlings.
- n. Conduct Training for Dam Committees (780 people) on Improved Mango Tree Establishment and Management.
- o. Sell 100,000 improved mango seedlings.
- p. Plant 200 improved mango mother trees.

4.2. EXPECTED RESULTS

- a. Labour trained in Nursery and Mother Tree management.
- b. 780 Dam Committee members trained on planting and management of improved mango trees.
- c. 200 Improved Mango Mother Trees established and available for future scion needs.
- d. 100,000 Improved mango seedlings purchased at Ksh.50.
- e. 100,000 Improved mango seedlings planted.
- f. Dam Committees planning extension of improved mango planting.
- g. System of Dam committees to get into mango nurseries and marketing micro-enterprises negotiated with MESP and a lender identified.

4.3. BENEFICIARIES

The primary beneficiaries of this project will be:

- a. 2 Junior Labour trained in nursery techniques for production of improved mango seedlings
- b. 780 dam committee members trained on establishment and management of improved mango trees.
- c. SASOL, which will have custody of 200, improved mango mother tree.

The secondary beneficiaries, and to some extent more important for the long term are:

- a. The population of the project area found in an area of 2,015-sq. km. (201,500Ha.) of central Kitui with a population of 182,264 in 32,020 households. According to the 1989 Census as shown below, they are distributed as follows:

| Location | Sq. Km. | Population | Density |
|-------------|---------|------------|---------|
| Kyangwithya | 180 | 41,003 | 228 |
| Mulango | 320 | 35,697 | 112 |
| Kisasi | 277 | 30,522 | 110 |
| Nzambani | 237 | 24,286 | 102 |
| Miambani | 310 | 22,836 | 74 |
| Yatta | 297 | 14,369 | 48 |
| Kanyangi | 394 | 13,551 | 34 |

- b. Within the general population, women who head 60% of all the households in the district and by extension the area will benefit by getting a simple source of cash income and food.
- c. Since 80% of the people who show up for construction of dams are women, they will also benefit not only in terms of planting improved mango seedlings but also in taking part in the training on establishment and management of the same.
- d. It is also important to note that children will benefit from the program not by just the improved household production but directly by utilisation of mangoes for food. They ripen when there is seasonal hunger and will contribute to the health of the children who are often underfed give the poor food security.

4.4. KEY ASSUMPTIONS

- a. The first key assumption is that SASOL will continue to enjoy the community good will it has since 1990. This is so since we will be asking significant numbers of dam committee people to

take part in unpaid training where they finance their lunches as well as donating their time. SASOL will also have custody in the long-term of the improved mango mother trees. We have taken this approach since to put them on one member's farm will raise problems of entitlements.

- b. The second key assumption is that in the long term improved mango prices will not only hold but will improve so that farmers can get the incentive to establish modern orchards of the same. Discussions with the Horticultural Crops development Authority lead us to believe that in the near term of domestic and export sales of improved mangoes will hold firm.
- c. The third key assumption is that farmers will begin to plan long term expansion of improved mangoes and marketing of the same.
- d. There are no key problems militating against the project anticipated.

4.5. COST EFFECTIVENESS

Improved mango seedlings cost between Ksh. 100 and 150 and are only found outside the district. If transport and opportunity costs of locating a good supply are factored in, it is conceivable that the Kitui farmer will be buying them at Ksh. 200. This program will offer them to farmers at the subsidised rate of Ksh. 50, which will recover the project cost.

4.6. SUSTAINABILITY

This is a one off project, which will set up production of improved mangoes in Kitui so those farmers can expand it later. Whether they choose to borrow and establish improved mango nurseries and production micro-enterprises is not clear now. SASOL hopes it will happen for the district has a tradition of growing unimproved mangoes. The returns on improved mangoes are superior.

4.7. PROJECT WORK PLAN

Month 1 Assemble staff, hire labour, purchase supplies and equipment.

Month 2 Clear land, Dig Well, Plant traditional mango seedlings.

Month 3-8 Pot and grow seedlings in nursery.

Month 9 Purchase and raft improved mango scions.

Month 10-11 Harden Seedlings and prepare for planting mother trees.

Month 12 Sell improved mango seedlings and plant mother trees

5. PROJECT STAFFING

1. Mr. Sam Muthoka - Field Manager/Board Secretary

Mr. Muthoka, a graduate industrial chemist, has more than ten years experience in managing community development projects.

2. Matthew Kitema

Mr. Kitema, with training in agriculture and agroforestry has more than ten years experience in community organising.

3. Prof. G-C. M. Mutiso

Prof. Mutiso, a political scientist by training, has over thirty years experience in research, policy and media as they relate to rural development. He will be the project officer for this activity.

6. MONITORING, REPORTING AND EVALUATION

6.1. INDICATORS OF PROJECT SUCCESS

a. One improved mango nursery with 110,000 trees successfully established

b. 100,000 improved mango seedlings grown, sold and planted by beneficiaries

c. 200 mother trees established and held in custody for the beneficiaries by SASOL.

d. Beneficiaries negotiated micro enterprise activities based on this project platform.

6.2. PROJECT MANAGEMENT PROCESS

a. Budget management

SASOL's practice is to separate accounting and field implementation. On field operations, the Field Manager or a

designated project officer, requests payment and prepares documentation of the same which is authorised by the Chair of the Executive Board, representing the legal holders of the funds, the Board. The Chair of the Executive Board countersigns checks.

b. Accounting

The accounting function is contracted to a firm of accountants. Since each donor has a separate account, SASOL reports to each donor on monthly basis, if needed. We do not see why we cannot report the same to the donor. Since the accounting service is contracted, there are no accounting cost implications in this proposal.

c. Activity Management and Programme Monitoring

The project officer, responsible for keeping monitoring data on the activity, makes monthly reports to the Field manager and this is onward sent to the donor at intervals decided on signing for a grant to the donor.

d. Evaluation

Since this is a small project it is recommended that there be at terminal evaluation only.

7. BUDGET

7. 1. LINE ITEMS

| | |
|--|---------------|
| a. Nursery Site Preparation (SASOL) | =Ksh. 50,000 |
| b. Potting Materials | |
| Animal Manure 100 tons @ Ksh.2, 000 per ton 000 (SASOL) | =Ksh.200, |
| Soil 300tons @ Ksh.500 per ton 000 (SASOL) | =Ksh.150, |
| c. Well | |
| Digging @ Ksh.300 per foot x 20 feet (SASOL) | =Ksh. 6,000 |
| Construction materials (SASOL) | =Ksh. 15,000 |
| Construction and Artisanal Labour (SASOL) | =Ksh. 18,000 |
| d. Water Tank (DONOR) | =Ksh.210,000 |
| e. Piping (DONOR) | =Ksh. 40,000 |
| f. Pump | |
| Yanma Engine with Davey Pump (DONOR) | =Ksh.200, 000 |
| g. Nursery Water | |
| 50mlsper plant per day=5,000liters per day 5.5 c. m. @ Ksh. 250per c. meter x 250 days 344,000 (SASOL) | =Ksh. |
| h. Plastic Pots 7x 12 inches 250 5x110,000=Ksh.550,000 (DONOR) | G @ Ksh. |
| i. Traditional Mango Seeds 110,000 @ Ksh. 1 (SASOL) | =Ksh. 110,000 |
| j. Grafting Scions 110,000@ Ksh. 10 1,100,000 (DONOR) | =Ksh. |
| k. Grafting Charges 110,000 @Ksh. 5 (DONOR) | =Ksh. 550,000 |
| l. Nursery Permanent Labour | |
| 2 persons @ Ksh. 300/person/month Sh. 6,000X 12 months (DONOR) | = Ksh. 72,000 |
| m.Establishment of 200 Mother trees | |
| Land Clearing and terracing (SASOL) | =Ksh. 100,000 |

Hole Preparation 200 holes @ Ksh. 100 each =Ksh.200,000 (SASOL)

Manure 15kg/hole/200 holes =3 tons @ Ksh.2, 000 =Ksh. 6,000 (SASOL)

n. Training of 780 persons on Improved Mangoes (26 groups of 30 persons) Transport 780 x Ksh. 40 =Ksh. 39,000 (SASOL)

Lunches 780 x Ksh. 100 =Ksh. 780,000 (COMM)

Training Materials 26 groups x Ksh. 3,000 =Ksh. 78,000 (SASOL)

Agroforestry Trainer 40 days @ Ksh. 4,000/ day =Ksh. 160,000 (SASOL)

o. Project Supervision Ksh. 30,000 p m x 12 m. =Ksh. 360,000 (DONOR)

TOTAL BUDGET

KSH. 5,338,000

7.2. BUDGET SOURCES

| COMMUNITY | DONOR | SASOL | TOTAL |
|-----------|-----------|-----------|-----------|
| 780,000 | 3,082,000 | 1,476,000 | 5,338,000 |
| 14.6% | 57.7% | 27.7% | 100% |

8. PERSON RESPONSIBLE FOR PROJECT

SUMMARY CURRICULUM VITAE

MUTISO, GIDEON CYRUS MAKAU

PROFESSION: Development Management/Institutions
Consultant

NATIONALITY: Kenyan.

EDUCATION:

BA Political Science. 1965 (Cum Laude), Parsons College, Fairfield, Iowa, USA.

MA Political Science. 1966, University of Kansas, Lawrence, Kansas. Thesis: The Use of Economic and Political Development as Ideology in Kenya.

Ph.D. Political Science, 1968. Syracuse University, Syracuse, New York, USA. Thesis: Socio-political Ideas in African Literature in English.

EMPLOYMENT RECORD:

1968- 1979 Taught at Princeton University, Rutgers University, St. Johns University, Montclair State University and the University of Nairobi.

1979-1983 Deputy Managing Editor, Daily Nation, Nation Newspapers, Nairobi, Kenya

1983-Date Founder and Managing Director of Muticon Ltd., Development Management Consultants.

1989-1999 Founder and Executive Chairman of SASOL Foundation- An NGO Specialising in Development of ASALs.

KEY QUALIFICATIONS:

Prof. Mutiso obtained his PH.D. from Syracuse University, New York, USA, in 1968. He lectured in the U.S. and at the University of Nairobi until 1979.

In 1983, he founded Muticon Ltd., which specialises in development management. He has carried out more than a hundred and ninety consultancies for government, ngos, private sector and donor agencies. Prof. Mutiso has authored ten books and over eighty professional papers on development, including education, environment, governance, management, gender, organisational development, participation, strategic planning and capacity building. In 1989, he created SASOL Foundation, a rural development NGO specialising on ASALs.

He has conducted consultancies in Sudan, Uganda, Ethiopia, Somalia, Tanzania, Malawi, Zimbabwe, Mauritius, Nigeria, Ivory Coast, Ghana, Senegal, South Korea, Netherlands, France and USA.

The SASOL Board has requested him to be the project officer of this activity.

9. ORGANIZATION'S CV

9. 1. SASOL'S KEY OFFICERS.

1. Mr. Francis M. Katua - Executive Board Chair

Mr. Katua, a retired Deputy Director of Education, currently he is a local businessman, has many years in development.

2. Mr. Peter Van Dongen - Board Treasurer

Mr. Van Dongen is a consultant on hydrology. He has lived and worked in Kenya for twenty-five years.

3. Ms. Jennifer Mutia - Board Member

Ms. Mutia is a community leader in the program area.

4. Mr. Evans Ngava - Board Member

Mr. Ngava was a senior manager in BAT. On retiring he established a local business and is also a preacher.

5. Ms. Catherine Mumo - Board Member

Ms. Mumo is currently a headmistress of a local girl's high school. Before this she taught since graduating.

6. Ms. Mary Mulwa - Board Member

Ms. Mulwa, a graduate teacher, is currently a head mistress of a girl's high school in the district.

7. Ms. Grace Mutinda -Board Member

Ms. Mutinda, a graduate and past headmistress of a local girl's high school, serves as development worker for a church.

8. Mr. Sam Muthoka - Field Manager/Board Secretary

Mr. Muthoka, a graduate industrial chemist, has worked in community development over the past ten years.

9. Mr. David Kithuku - Construction Supervisor

Mr. Kithuku has more than twenty years experience in construction of water structures in the district.

10. Matthew Kitema

Mr. Kitema, with training in agriculture and agroforestry has more than ten years experience in community organising.

11. Ms. Mary Maingi

Ms. Mary Maingi is the field office Administrative Assistant cum Secretary.

9.2. OBJECTIVES OF SASOL FOUNDATION:

SASOL was established to render governance, technical and financial assistance for the development of arid and semi-arid regions. Special emphasis is laid on solving water problems as a platform for subsequent development through building capacity in local governance institutions, natural resources conservation and management, food security, health and education.

9.3. SASOL PHILOSOPHY:

Most communities in the Arid and Semi-Arid (Asal or Sahelian) parts of Africa have suffered development. This is so because many of the activities are not planned to address key issues in the development of these areas. Often knowledge is borrowed from wetter parts of the continent and applied irrationally. Expertise is usually from without those communities. More often than not development agents do not listen to the communities who have operated some of the most sophisticated social institutions in human history. All these problems are compounded by short-term sectoral development strategies.

Increasingly, development of these areas has to be within the context of sustainable ecological resource use. This demands that communities participate in the design and implementation of activities. It further means that new ideas, technologies and institutions have to be generated to produce for the exploding populations. New natural and human resources management techniques are called for if these populations are not to lose their humanity and die off in the degrading environments and attendant poverty. The need is urgent.

Central in SASOL philosophy is commitment to participative development, which can not be if resource conservation, within the framework of time tested technologies sustained by ASAL populations, is ignored. This does not mean that the scientific approach, planning and new ideas are not introduced to base communities. It simply means that the beginning point is what is known and sustainable by the base communities as evaluated by them and multidisciplinary teams. Clearly water is central in this.

PRA Training is the preferred method used to involve the community in all aspects of development. As people deliberate

together, they discover their ability to image, plan, implement, and manage on sustainable basis their programs.

9.4. PAST DONORS AND FUNDING

| DONOR | YEAR/S | KSH. | |
|-------------|-----------|--------|--|
| 1. ICS | 1990-1992 | 8M. | These funds were for the school-feeding program. |
| 2. SIMAVI | 1993-1999 | 15.5M. | Funds used for construction of school wells and water tanks. |
| 3. WATERAID | 1995-1996 | 7M. | Funds were used for the construction of dams and wells. |
| 4. DFID | 1997-1999 | 15M. | Funds were used for the construction of dams and wells. |
| 5. SIDA | 1997-2000 | 13.6M | Funds were used for the construction of dams and wells. |
| 6. MCC | 1999 | 3M. | Funds used for dams, riverine protection and nursery trials. |

9.5. ADDITIONAL DOCUMENTATION

Enclosed are the following evaluation documents.

1. Where There Is No Water: An External Evaluation of the WATERAID Dam Construction Funding
2. DFID Mid-Term Evaluation.
3. SIMAVI Phase 1