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REVISED SECOND KITUI SAND DAM PROJECT PROPOSAL

(NTHONGONI)

A PROJECT PROPOSAL FOR

MENNONITE CENTRAL COMMITTEE

FOR ATTENTION OF WILLIE REIMER.

REVISED BY: SAM. M. MUTISO **NOVEMBER 2003.**

CONTENTS

1. INTRODUCTION TO REVISED PROPOSAL

Ukambani or Kambaland, densely populated by the Wakamba people and consisting of four Districts – Machakos, Makueni, Kitui and Mwingi – ESE of Nairobi in Kenya traditionally has been a quite treeless, hilly, gullied, semi arid, agricultural (as opposed to pastoralist) area which often has suffered from famine. Fortunately, much of the parent material and soils of the area are quite sandy such that any heavy rains result in sand saturated with water being deposited in some waterways. However, several months after heavy rains, people must dig dangerously deep "sink holes" in order to obtain water for people, animals and irrigation. And many rivers are so steep that little or no sand remains after the rains, such that people and animals often must travel 15 to 20 kilometres for water. But, the construction of cement and stone barrages (sand dams) at 0.5 –to 1 kilometre intervals in a river bed results in the collection of sufficient sand and water in most rivers such that water is available at shallow depths year round.

The NGO entitled Sahelian Solution Foundation Kenya (SASOL) with financing from many donors such as DFID, EU, SIDA, World Neighbours (and CFGB) began in 1994 catalyzing the local communities (one community unit around each sand dam) to work together in constructing such sand dams in the central portion of the Kitui District on the eastern side of Ukambani. To date, SASOL has catalyzed the construction by local communities of 400 sand dams. The construction of such sand dams along with the associated installation of terraces adjacent to the river valleys has resulted in much of central Kitui District being transformed into "oases" surrounded by a much more barren landscape.

Over a two-year period beginning in early 1999 in what we shall now call "The First Kitui Sand Dam Project", CFGB financed ($50,000 US) the construction of 13 sand dams in Central Kitui District on the Kiindu River just south of Kitui Town. The dramatic increase in the economic level of the Wakamba people located in the vicinity of SASOL's sand dams resulted in CFGB funding what we will now call "The Second Kitui Sand Dam Project" in Nthongoni Location of Yatta Division over 60 kilometres SW of Kitui Town. In October 2002 CFGB sent around $37,500 US of a proposed total of $50,000 US to construct 16 sand dams. Until now eight sand dams have been constructed and four more are to be completed before the end of December 2003. Miraculously, relatively heavy precipitation has resulted in all eight dams having been filled with both sand and water. Within the next few months the incomes of many of those households living near the eight dams will increase dramatically resulting from the production of irrigated vegetables.

Several months ago we were informed that an additional $25,000 US from a private donation directly through MCC likely could be used by SASOL for construction of an additional nine sand dams in Nthongoni Location. The current "The revised Second Kitui Sand Dam Project Proposal" has been written by SASOL's Field Director in consultation with MCC Kenya for the revised $75,000 US project.

Although the first $37,500 US were released to SASOL in October 2002, the project until now has gone slowly because of all of the preparatory work that needs to be done before starting the actual construction of dams. Also, SASOL has decreased its staff so that in the

event that DFID and SIDA (who have provided most of SASOL's recent funding) stop funding after the current contract ends on December 31 (a very likely event), not as many employees will need to be laid off. Also, it is simply good economics not to be over staffed when funding is tight. The few employees left had to spend much of their time on the SIDA and DFID dams and had little time for CFGB's dam until a short time ago, making the progress slow. Now the work has speeded up greatly. As mentioned before by the end of December, 12 dams or one half of the (now) 24 dams will have been completed necessitating the advancement of additional funds to SASOL in December if construction is not to be interrupted. Since effectively one half of the funds for the 24 dams have been given to SASOL, the guidelines of CFGB would dictate that no further funds could be released until the receipts for the first half ($37,500) have been submitted. Since it is not possible to submit the receipts until after December 31, following CFGB guidelines would mean that sand dam construction would have to cease at the end of December. It would be appreciated greatly if an exception could be made and part of the $25,000 US which are not from CFGB could be advanced sometime in December based upon the performance of SASOL up until now. The "mid term" report (for the $50,000 project) will be sent electronically within the next two days. It should be mentioned that the receipts that will be sent by DHL later this week only go until the end of August 2003 and SASOLS's accounting service will not have time until the end of 2003 to prepare more accounts or assemble the additional receipts. But, it is hoped that the aforementioned submissions will be adequate for FDMR to release part of the $25,000 US in December.

This revised proposal differs little from the initial proposal except for the increase in the number of dams from 16 to 24 and the number of beneficiaries from 11,500 to 14,750. And, like the original proposal, it does not follow exactly CFGB proposal guidelines. In spite of this it is hoped that the "relatively inadequate" proposal together with the many additional reports/videos/ etc. concerning SASOL's sand dams that you already have are convincing enough that FDMR feels an additional $25,000 should be allocated such that nine more sand dams can be constructed by SASOL. The 188 page report entitled "Kitui Sand Dams: Social and Economic Impacts" shows most clearly the (economic) benefits of sand dams. Even though you have mentioned that you have a copy, another will be sent to you along with the receipts.

2. SUMMARY.

1. NAME OF PROJECT

Revised Second Kitui Sand Dam Project

2. IMPLEMENTING NGO

Sahelian Solutions Foundation – (SASOL).

3. LOCATION OF PROJECT

Nthongoni Location (Yatta Division) -Kitui District, Kenya

4. **PROJECT OBJECTIVES**

To sustainably increase community water supply in dry areas of Kitui in order to alleviate perpetual water shortages.

(A) PROJECT OUTPUTS

(1) Construction of 24 sand dams with off-take wells.
(2) Community training
  (a) Natural resource management
  (b) Project Management
  (c) Hygiene & Sanitation

(B) PROJECT ACTIVITIES

1. Sand dam construction
2. Community training

5. DURATION OF PROJECT

1.75 Years

6. TOTAL PROJECT BUDGET

$ 113,907 US

7. COMMUNITY CONTRIBUTION

$ 38,907 US

8. REQUESTED FROM MCC

$ 75,000 US

3. INTRODUCTION (ORIGINAL)

SASOL, founded in 1990, assists Kitui communities to address household and production water scarcity through sand dam technology. The planning objective was to shorten the distances to water sources to below 2 km. whilst making water available for alternative production systems. Typically, women walk 10-15 km to water sources in the district.

Construction of sand dams is economically and socially effective since the technology is simple and lends itself to participatory development. Communities contribute labor, sand and stones, artisan housing and food for the people working on dams as well as the artisan.

Data from an ongoing social and Economic Impact Study indicates that the sand dams have immediate impacts on cost of water. For example at Mbitini Market, the price of water was reduced by 75% as a result of the construction of sand dams. But perhaps most significant is the transformation of household production. With increased quantity of water, the local people grow kale (sukuma wiki), tomatoes, onions, improved varieties of mangoes, bananas, sugarcane, bees, fruit tree seedlings and other tree seedlings. Fishing, which was uncommon in the area, is a new economic activity. Brick making is on the rise.

District wide interview data from the study shows that each household owning land adjacent to rivers in which there are sand dams is now earning an average of over $1,300 US in the dry three months of August, September and October from bucket irrigated vegetables. Income from horticultural trees is on the rise, though yet to be aggregated and documented. There are 1,969 households in Maluma/Ithumula sub-location. 38.5% of the interviewed households reported that they were engaged in vegetable planting the first year after completion of the dams. Conservatively assuming that only 2% of the household did serious planting the first year, and further averaging down the household earned income to $1,185 US, with an average household having 8 people, the dry months per capita income is $49 US. This compares to the mean income from food sales of $1.65 US as reported in the 1999 Welfare Study by CBS. The vegetable household incomes translated to $40,790 US during the first year of adoption for the entire Maluma/Ithumula region. This figure is collaborated by the local councilor who estimated that $52,630 US were earned in the sub location. For the whole district, keeping the same assumptions, the dams could generate $1,552,630 US. during the dry three months whilst using the land for other production during the rest of the year. We should note that there was minimal extension effort for this new production. With these incomes, the whole district can move into a higher economic plane dramatically. Further, from a health point of view, consumption of vegetables and horticultural produce has impacted positively on health, especially of women and children. This is the way to fight poverty.

The impact of the dams is not just in terms of incomes and health. Sociologically, organizing for the dam construction has led communities to improved leadership and more systematic community organization of development, including identification of interrelationship between sectors. Communities are more conscious of the fact that they can bring positive development with their own skills and resources. More systematic organizing has led to dealing with community issues like shortage of wood for cooking and construction etc.

Households are able to plan their consumption of farm products. Sanitation has also improved. Key in this is the construction of toilets. **These issues are part of the training for dam construction.**

4. BACKGROUND

4.1 CATCHMENT APPROACH

SASOL uses the very holistic catchment approach for sand dam construction. The approach depends on the cooperation of the community in the development of sequential sand dams on dry river- beds, coupled with terracing and re-vegetation on individual plots. There is a dual participation of the community and the individual.

4.2 POLICY CONFORMITY

The district's Focus for Rural Development is the official policy of GoK. The policy empowers the district Development Committee to design and prioritise agenda for development in the District spelled out in District plans.

The Kitui District plan has amongst in priorities two areas addressed in this project, increase of accessible water resources in the District and improvement of women group management skills for effective economic development.

4.3 PROJECT APPROACH

In the ASALs there is an acute shortage of water in the dry season. The few sources are far apart and in- adequate. People and animals travel long distances to water sources.
Since seepage is slow, there are long waiting periods at the water source to draw enough water.

There are two rainy seasons in Kitui District. The first rains occur in April to June and the second rains November to December. The rains are unreliable and erratic. The rains fail totally every third season. In the long dry periods the communities experience acute water shortages.

Many technologies have been tried to supply water to the communities in these dry periods. Boreholes are expensive to install, are extractive and often are not sustainable. Shallow wells also offer an extractive technology, which is not sustainable. Water tanks which collect water from roofs are expensive and do not provide much water. Earth dams suffer from extensive losses due to evaporation; they also are easily contaminated and therefore a risk to health. Sand dams facilitate ground water recharge, water is stored below the sand reducing evaporative losses and sand filtration reduces contamination.

As mentioned earlier, the project uses the catchment development approach. Construction of sand dams is the base upon which other activities by the community are built. Sand dams retain water, which flows down the sandy riverbeds. After construction of the dams for continuous supply throughout the season, runoff and deep percolation should be facilitated on the land. Land terracing is the first step in slowing floodwaters and allowing percolation.

In doing this the growing season is extended by increasing and maintaining higher soil moisture levels.

After the sand dams are charged and water availability assured, tree seedlings can be raised and reafforestation started.

The Project is community driven and managed. The community picks out the sites in accordance to user suitability and their knowledge of the area. Then together with SASOL staff the technical suitability of a site is assessed and reviewed as necessary. Each agreed site then elects a site committee, which supervises the implementation, operation and maintenance of the site. The community mobilizes for the provision of local material, labor, storage of external material and maintenance of artisans at site.

Using participatory methodologies, SASOL helps communities to organize their knowledge, establish records, fill in any gaps in knowledge that the community might have and input new ideas, knowledge and information. Major areas of concern are in record maintenance, leadership, and community organization as well as resource management.

5. PROJECT CONTEXT

5.1 SOCIAL APPRAISAL - FOOD SECURITY STATUS

The economic activity in the area is dominated by subsistence agriculture and livestock production. Sale of agricultural produce and livestock generate much of a typical family's income. Additional family income is generated through labour export. This factor results in many female-headed households. Fifty percent of working males are wage earners outside the area. Sixty-five percent of households are female headed.

Population density in Nthongoni Location of Yatta Division is given as 61 per sq. Km.

The project area is a rainfall deficit region receiving between 500 - 800mm per year. Furthermore this rainfall is irregularly distributed and there is generally a total failure in one out of three rainy seasons. The area is prone to droughts and frequent crop failures. This land is semi-arid and is classified as Agro-Ecological zone 4/5 according to the Jaetzold classification. The rainfall is bimodal; the first rains occur in April to June and are highly unreliable. The second rains regarded as the major rains start in October and tail off indeterminately in late December/early January.

Droughts mean hunger and food shortages. Increasing the water holding in the land reduces the severity of drought and food shortages. It also increases the time for on farm water harvesting as opposed to water fetching activities, leading to greater farm production.

Water harvesting on farm is an integral part of sand dam construction. This comes from the realization that rivers have no water of their own. Water originates from farmland. Rather than letting the water run off, the participants are trained to retain it on their land as a part of the process in order to extend their crop production period hence harvests.

5.2 WELL BEING ANALYSIS

Indicators used as identified by the community Matulani village in Kawongo/Kathome sub-location are the following:-

1. Enough food
2. Firm house
3. Livestock
4. Donkey

Indicator	Household
4	13
3	14
2	10
1	6
0	15

(Source: World Neighbours Impact Assessment report 1999)

This data shows at least 25% households having inadequate food. This figure might be as high as 50%.

6. PROGRAMME INFORMATION

6.1 OBJECTIVES

The goal of SASOL Foundation's projects in general is to sustainably increase community water supply in dry areas of Kitui District by increasing the number of available water supply points in the dry season.

Purpose of SASOL Foundation's projects in general is to increase the retention of water in the dry riverbed sands for use by the community through the construction of sand dams. This technology results in the retention of water, which passes through these seasonal rivers for use in the time of adversity. With support of external resources the community can effectively utilize local resources to supplement their existing water resources.

OUTPUTS OF THE PROJECT IN NTHONGONI LOCATION OF THE YATTA DIVISION IN THE KITUI DISTRICT

1. Sand dams as a sustainable water harvesting technology in ASALs constructed, used and adapted in Nthongoni location. It is anticipated the current project will be centered on the western end of the defined area SASOL has been working on. The project seeks to construct 115 sand dams with off-take wells for use by the community in the area, 24 (originally 16) of which would be financed by CFGB/MCC.
2. Improved environmental management of the project area in Kitui District. The management of the environment is critical to the catchment development approach. Construction of sand dams in the river channels is the first step towards retention of water

in the catchment. The second step is to control runoff on the land using terracing. The third step is to increase ground vegetative cover. This can go in two stages, one being the protection and maintenance of existing vegetation, which would be followed by additional new trees when the water base stabilizes.

The increase of vegetation usually begins with increased growing of vegetables whose local availability changes the consumption patterns of the beneficiaries. Excess vegetables sold outside the project result in increased incomes.

3. Key lessons from the project documented and disseminated to partners in ASAL water development. The use of river sands to harvest and store water for communal use has been neglected, as it is poorly understood. Yet this could be the source of much of the water in the ASALs during droughts. To bring it to the fore and wider usage the project is obligated to extend the technology as widely as possible.

6.2 BENEFICIARIES - INSTITUTIONAL APPRAISAL

Approximately 14,750 (originally 11,500) in Nthongoni Location who live relatively close to the 24 sand dams (originally 16) whose construction is being financed by CFGB ($50,000 US) and MCC ($25,000 US) will benefit from the sand dams.

Out of these we estimate that 50% will be constantly using the facilities throughout the year, while in drought periods more than 100% will make use of the water, as people from outside this area will be coming to fetch water. Amongst these, women who together with children bear the brunt of the water chores will gain maximum benefits.

Time for fetching water will be shortened from about 6 to 12 hours in dry season to a maximum of 2 hours for those furthest from the river. In the short run also women and children gain from the better nutrition stemming from vegetable growing on river valleys which follows immediately after there is enough water for bucket irrigation as observed in the previous project on the Kiindu River financed partially by CFGB ($50,000 US). In the long run, the whole community will benefit as the land productivity improves from the sale of vegetables and farm products coupled with water related economic activities such as brick making thus increasing the income of many.

5.3 COMMUNITY INVOLVEMENT- GOVERNANCE

The beneficiaries have right from the beginning been involved in the preparations for and construction of the first 16 dams in the project. A meeting with community leaders through the Chiefs Office, which contacted SASOL, explained to the people the need for water management in the community. The community as a whole gave a commitment to undertake the construction of the first 16 dams and recently committed itself to the construction of an additional nine dams.

Together with community representatives the sites are identified. These are the sites where the community has agreed to develop sand dams and offtake wells. Their commitment to mobilize resources is demonstrated by collecting stone at the specific sites. The administration plays a major role in legitimizing the rules the community makes and the Government Water Department is consulted for advise.

The project is designed to give the community maximum responsibility in its running of its own water projects. The artisans working on sand dams are in the hands of the community who take responsibility for their welfare.

All material, which is delivered to each dam site, is received and stored by the community, which is responsible for its security. Normally stores are established at the homestead of one of the community homesteads near the site. The chairperson or members of the site committee together with the owner of the store are responsible for all store issues. Records of the store issues are kept both by the community and the artisans. It is important to note that material orders are delivered by delivery notes from the suppliers to specific sites that are the recipients. Payments are made on the strength of material received by the community in good order. The community certifies the receipt of material in the presence of SASOL staff. This method ensures that the community right from start has a sense of ownership and has an interest in protection of the received assets, which they identify with. Under the circumstances it is difficult to tamper with the supplies, as there is collective responsibility for the material. It is also an incentive to collect local material, which is needed, to complete work at the site.

Since material delivered to a community is for a specific purpose, it cannot be diverted into any other use. If for an unseen reason the material cannot be used at the site, SASOL has an option to transfer it to a different site after consulting with the community. Fortunately this has not happened in the past. Also, any residual material is transferred to the next site. To do this, the community releases such material with proper documentation and is advised where it will be used. This material is received at the new site using the same procedure as if it came from the supplier.

The system is designed to educate the communities to take responsibility of public goods. This should eliminate the highly destructive notion that it is not theirs and can therefore be plundered. Rather as a public asset it is for the good of the community and everyone should ensure its well-being.

6.4 THE ROLE OF WOMEN IN THE PROJECT.

Women play a major role as water managers in the household. Since the construction of sand dams concerns mainly water, women have a large role to play. They decide which areas are most convenient to obtain water and the distribution of these points for maximum coverage. In community meetings, the women's voice is heard loud and clear. In fact in the project on the Kiindu where CFGB first assisted SASOL more than half of the sites developed were overseen by chair-ladies, who organized the sum total of work at the site as well as organizing for increased male involvement to support their work.

6.5 ACTIVITIES OF THE PROJECT.

The main activities of the project are:

1. Community organization
2. Training to empower the community to

    (a) Improve local leadership
    (b) Manage their environment.

(c) Establish and maintain meaningful records.
(d) Institute effective hygiene and sanitation measures in the community
(e) Plan effectively

3. Establish s a baseline level of food security. In fact before the construction of the first 16 dams a food security baseline survey was carried out and the results submitted to FDMR. These results will be submitted again within the next week as a part of the mid term report. There should be no need to extend the survey as the additional nine dams will be constructed more-or-less in the same area. After all dams are constructed the survey will be repeated (probably in June, 2004), It will likely be repeated several times in the next several years if Sasol continues to get funding from CFGB, MCC and/or other sources.

4. Construction
   (a) Establish suitable dam sites to serve the community effectively.
   (b) Formation of site committees to supervise work at site
   (c) Construction of sand dams/wells

6.6 EXPECTED IMPACTS

(a) Reduced distance to water
(b) Reduced time for water fetching
(c) Water available throughout the year
(d) Increased food security

Indicators

(1) Distance to water
(2) Time for leisure and other on farm activities
(3) Level of food security in the project area

Verification of indicators

(a) Baseline data (including data that can be used to monitor the level of food security)
(b) Reports and reviews
(c) Community records.

6.7 IMPACT ON THE ENVIRONMENT

The main thrust of the project is the retention of precipitation in the catchment area where it is received. The direct consequence of this is increased availability of water in the catchment area, which would lead to higher water table levels both on the riverbeds and on the adjacent land.

Higher water table levels mean that shallow wells have water nearer to the surface and scoop holes on sandy riverbeds are shallower. Loss of life as a result of being buried by collapsing deep scoop holes will thus be eliminated and the safety at these scoop holes is improved.

Increased amount of water available throughout the year encourages vegetable growing in river channels using bucket irrigation. Napier grass and associated plants can survive throughout the year to protect riverbanks during heavy rains and at the same time providing fodder for animals during the dry season.

A raised water table also facilitates the colonising of new plants which could not grow before. On the other hand some plants will die due to water logging. Overall, however, ground cover improves.

Through terracing and water harvesting water is held on higher land of the catchment for longer periods. This results in the soil remaining moist for longer periods, facilitating a longer period conducive to crop production. Some of the water held in the higher land eventually flows through the ground into the river channels recharging them. This phenomenon ensures adequate supplies of water even in extended droughts.

The availability of water means that tree seedlings can be grown. The non-availability of seedlings in the locality has been one of the biggest hurdles to tree planting in the past. Additionally when tree nurseries are developed in the community, only trees people desire to plant are grown. The tree planting exercise then continues smoothly as all of the community stands to gain by planting trees; the process once initiated is self-sustaining.

Seedlings planted up to 15 to 20 kilometres from sand dams soon grow into trees. These affect the microclimate due to shade lowering temperatures. Trees also have a major influence on water losses from catchments hence they enhance farm productivity.

With raised water tables and greater ground cover, evapotranspiration is increased. Furthermore increased ground cover reduces runoff, facilitating percolation and higher soil water storage capacities. Theoretically once the improvement cycle is started it should go on perpetually.

There is a possibility that the raised water level can result in water logging, salinity and sodality. Although chances of this happening are remote, monitoring for these phenomena is ongoing. In fact a major study has been initiated to monitor for water logging, salinity and sodality.

Part of project proposal is a small monitoring system to observe changes in water levels and observe vegetative and water quality changes.

7.0 **PROGRAMME MANAGEMENT**

7.1 Inputs

SASOL is managed by a Board of Governors who supervise the workings of the organization. The Executive Board chairman is the Co Signatory of all the cheques for payments made by SASOL.

The Program is run by a

- Field Manager
- Construction Supervisor

- Construction Assistant
- Administration Assistant
- Community Organizer
- Security Guard
- 21 Artisans

7.2 The Budget for this project is split up as follows:

MCC Contribution	$75,000 US
Community Contribution	$38,907 US
Total Project Cost.	**$113,907 US**

7.3 Contact person

Sam Mutiso
Field Manager.

7.4 Bankers

National Bank of Kenya
Box 166
Kitui.
Tel: 254-141-22035/22443
Fax: 254-141-22916.

Segregated account to be opened on receipt of funds.

But, of course the funding will have to be sent through MCC Kenya's Dollar account-

Standard Chartered Bank of Kenya Limited, Westlands Branch
Box 14438
Nairobi, Kenya
Account Number-870 603 400 4900
Tel- 254-2-4441129
Fax-254-2-4448956

8. MONITORING AND EVALUATION

This project is run on fully participatory basis. The sites for development are picked by the community. The community then picks the store where the external inputs are going to be delivered. It also elects a committee, which would policy, the material at site and plan for works.

The committee establishes by laws, which have to be followed for the work at site. The committee is trained on site management.

Further to the committee a general gathering in the village is conducted to establish baseline data on the village situation at the beginning of the project.

Follow-up of the work is made together with the village elder man and the community, who sort out any problem at any particular site. At the end of the project the village committee sits to do a Participatory Project Appraisal with SASOL.

In addition, MCC Kenya's Food Person, Bernard Kinayia, and the MCC Kenya Co-Country Representative, Larry Loewen-Rudgers will visit the project site at least four times.

Finally, SASOL Foundation has frequent overall monitoring visits from water conservationists from Universities in the Netherlands. SASOL Foundation's work is well monitored!

9. BUDGET

Item		**(US$)**
Construction cost material and Artisanal labour. - Tools - Materials & Artisanal labour for sand dams. - Materials for wells		 1,500.00 33,250.00 12,000.00
Training - Community		11,375.00
Participatory Monitoring & Evaluation Environmental Monitoring		2,000.00
Institutional support		1,062.50
Audit fee		625.00
Nairobi office expenses		1,075.00
Personnel		5,625.00
Office running costs		1,487.50
Vehicle running costs		5,000.00
Sub-total		**75,000.00**
Community Contribution		38,906.75

Item		(US$)
Total Projects Costs		**113,906.75**

10. BUDGET NARRATIVE

Construction Costs
Included in these costs are the labour costs of SASOL's artisans who work at each dam (and well site). Although SASOL has 21 artisans, only a few are working at any one time on those dams and wells financed through MCC Kenya; most artisans are working on the construction of many other dams financed by other donors such as DFID, SIDA, etc (most of this other funding ends at least temporarily as of 31 December 2003). Materials for the construction of sand dams and wells funded through MCC Kenya include mainly cement and steel reinforcement. Sand and crushed stone and considerable manual labour are all provided by the community close to each dam. (Please see other categories for greater description of the community's contribution).

Training (Community)
SASOL's Community Mobilizer facilitates the formation and instruction of the community level committee that provides the day-to-day management of the building and use of each dam and associated well. The Community Mobilizer also facilitates community education in the areas of natural resources management which includes among many other things carrying out "conservation" agriculture (farming on the contour, building of terraces, agroforestry) that lead to greater retention and supply of water and plant nutrients. Community members also learn about hygiene and sanitation as well as becoming good stewards of the environment. The salary of the Community Mobilizer is included in the "personnel" category. But, all other costs associated with community mobilization, such as carrying out of workshops, transport for exchange visits, etc are included in this "Training" category.

Participatory Monitoring and Evaluation, Environmental Monitoring
The community also participates in monitoring of the project implementation of the level of success of the project, of the environmental impact and of the project's impact on the community's general economic levels and in particular on the level of food security (thus far the baseline food security level). Although the community participates in these activities, they are usually facilitated by SASOL's personnel or outside research organizations/universities. SASOL's personnel costs are included in the "Personnel" category. But of course there are many other costs associated with these monitoring activities.

Institutional Support
This category includes primarily the cost of accounting services that are provided from outside SASOL.

Audit Fee
The accounts of SASOL are audited by a company independent of that supplying the accounting services.

Nairobi Office Expenses
The chairman of SASOL's Board operates a consulting firm (Muticon) out of an office in Nairobi. The chairman monitors closely the activities of SASOL, edits and/or writes proposals and research as well as program reports for SASOL and is SASOL's liaison person with donors. His transport cost to Kitui appear under the "Vehicle Running Costs" category but he does not charge any fee for his SASOL consultant services. The costs in the "Nairobi Office Expenses" category include normal office expenses such as stationary, electricity, telephone, fax, email costs, etc.

Personnel
Portions of the Field Manager's, the Construction Supervisor's, the Construction Assistant's, the Community Mobilizer's, the Administrative Assistant's and the Security Guard's salaries are included in this category. As mentioned before portions of the 21 artisans' salaries fall under the dam construction costs.

It should be mentioned that these administrative costs as well as others have been intentionally minimized such that other donors are covering some of the administrative costs that should be covered by CFGB and other MCC donors.

Office Running Costs
Portions of field office costs similar to the Nairobi costs are included in this category.

Vehicle Running Costs
The sand dams financed by this project are located over 60 kilometres from the field office in Kitui town and frequent trips by SASOL's one Toyota Land Cruiser are made to the dam sites. Thus a portion of vehicle maintenance including fuel costs is included in this category as well as the cost of the SASOL's Director's transport to Kitui area.

Community Contribution
The community supplies sand, crushed stone, water and labour for transporting these materials to the dam site (and crushing the stone). The local dam committee and particularly its chairman manage the day-to-day, pre-construction, construction and post-construction activities. In addition, construction material purchased from outside the site are guarded by the local community. The value of these community in-kind contributions and those mentioned previously is included in this category.