

**REGIONAL FINANCE AND PLANNING
PROJECT (650 - 0012)**

MID-TERM EVALUATION

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These pages are an extraction of the work of VITA, NGOs, which was operating in Darfur at the time of the evaluation. The Number at top of each page extracted is the exact one as appeared in the document.

EXECUTIVE SUMMARY

1. The Regional Finance and Planning Project RFPP is currently implemented in Darfur and Kordofan Regions, by 3 PVOs, VITA in Darfur and CARE and SCF in Kordofan. The project is jointly funded by USAID and Sudan Government, and is supervised by two Regional Technical Committees, one for each region. Present project life plan is effective up to August 1991.
2. The purpose of the project is to promote decentralized development, through tapping the potential dynamism of Sudanese tradition of self-help. Its objectives are to promote decentralization, enhance community organization, self-reliance and management capabilities, train leadership and communities to carry out sustainable development. The project operates in 5 main fields of: water development, Agriculture, agro-forestry, business credit and Women-in-Development, through implementing sub-projects in each of these areas.
3. Methods to implement projects include: extension services to beneficiaries, proposal formulation by committees assisted by PVOs, and administration of activities through PVOs.

Each PVO works as an autonomous body, consisting of a number of technical units, led by a core staff of expatriates, and employing a varied number of seconded, loaned or directly hired Sudanese, of different specializations and qualifications.

4. Achievements by the three PVOs are to be measured on physical outputs and on progress in enhancing beneficiaries abilities to: plan, implement and manage sub-projects. Assessment by PVO points out to the following results:

a. VITA: Mid 1989 - May 1990

- i. Executed 12 hand-dug wells out of 16 approved sub-projects, completed the construction works of one dam out of the 7 targeted; has not succeeded to execute the one planned hafir, and completed the rehabilitation of 1 rehed, out of 5 proposed.
- ii. So far, no achievements in the area of agriculture. However, preparatory work is underway to implement: (1) Jubraha farm sub-project, (2) Wedi farming sub-projects and to introduce donkey-drawn ploughs.

- iii Under the agro-forestry programme all 8 approved nursery projects have been completed.
- iv. Within the SSE/C, VITA completed the training of potential business groups in El Fasher town, covering 143 trainees, and is about to start a similar programme of training at Nyala.
- v. Women-in-Development activities are limited to 4 proposed sub-projects in the area of leather-making and handicrafts, with work started in two, to assist women to form production and marketing cooperatives.

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5. In area of RFPP operational objectives all 3 PVCs were exerted efforts in organizing and training beneficiaries; with the purpose of carrying out participatory planning, implementation and management of sub-projects. However, the impact of this, on the upgrading of community abilities, using unresearched and unmonitored, makes it difficult to adequately assess PVC's success in this regard. Despite this discrepancy, judgment could be passed, from the experiences lend by some successful examples seen during the evaluation, that the community-based approach of the RFPP is effective in attaining project objectives.

7. As to whether project is moving towards attaining its set objectives or not, this may be judged from the following judgments on project progress. On the positive side, there are indications and the local communities in the areas where it is operating. It is responding to a gap in development inputs short of being departmentally and financially met by the Regions' resources. Also, the project approach is sound, judged from the wide range of communities organized under different types of activities, the numbers of sub-projects formulated, the achievements in community resource mobilization, and the need for the project services, reflected by the number of applicants daily visiting the PVO office. On the negative side,

he project.....

the project is frustrated in many regeras. Implementation of current plans is obstructed by logistical constraints (fuel and cement); a wide gap between the size of people's conceptualized needs and the RFPP limited means in responding to these needs; generally, weak linkages with the departments, assumedly to take the role of the PWs when they leave, poor working relationships from the side of some of the cooperating agencies, and a felt lack of comprehension of project philosophies, approaches and means. In a final assessment and taking into consideration the above concerns, the 3 PWs could only partially fulfil their set targets, attaining maximum execution in the area of water supply; second to water, in areas of agro-forestry and SSE/C with variant achievements from one PW to the other; and least, in areas of agriculture and Women-in-Development.

8. Project sustainability under the present state of affairs looks cumbersome. The project targets at achieving a strong decentralization mechanism, whereby local communities, individual beneficiaries, and the private sector, each would attain a level of organization that would enable it to visibly combine its own resources with outside ones, to achieve an improved developmental output. Presently, under the RFPP,

the 3 PVOs are providing this outside source of inputs, on which project sustainability very much depends. In about a year from now, the 3 PVOs' shall phase out. The problem which immediately presents itself is the preparedness of the Regions, and the technical departments there, to play the roles of the PVOs'. There are no indications that this preparatory work is being started. If things go the way they are, by 1991, the RFFP shall end up with a number of sub-projects executed under the 5 areas of activities, and with many motivated communities, groups and individuals seeking betterment of their conditions, without a guarantee of access to a responsive source.

9. Of the immediate concerns towards project sustainability on the operational side, is a strategy for handling supplies, emphasising purchase and storage of big quantities of materials needed by project, exertion of more effort towards self-reliance in areas of training, organization, extension and linkages, and extension of project life-time. Activities that require special strengthening are: The agronomic component, through promoting basic inputs; the womens' programmes by working closely with

women, widening of jubaika farming and more opportunities for women to benefit from the SSE/C; design of broad-based models for environmental enhancement where integrated plans and extension could be effective; and strengthening of documentation.

10. The organizational concerns towards project sustainability centre around the issue of who will take over after the FVOs' leave, and under what structure. Creating strong linkages between the PVOs and the technical departments in the Regions, forming of technical offices or secretariats that enjoy some autonomy, to guide and coordinate the inputs of the departments to the project, under the TCs, seems to be a practical way out, to ensure project sustainability under its set targets and objectives. The operation of this structure shall very much depend on the appreciation of the regions' departments of the project's philosophy and their abilities in applying its mechanisms. Thus, an overlap period of FVOs' and the departments, operating the project together, is recommended. This could be the one coming year of the project life time - August 1990 to August 1991 - if that is feasible, or an extension for

1. INTRODUCTION1.1. Regional Finance and Planning Project

This is a Mid-Term Evaluation Report of the Regional Finance and Planning (RFFP) Project, currently implemented in Darfur and Kordofan Regions. The Project (650-0012) was initiated in 1979, financed jointly by USAID and the Government of Sudan (GOS). The RFP began with a traditional public sector institution - building approach by providing training, technical assistance and investment capital to planning units at the regional level.

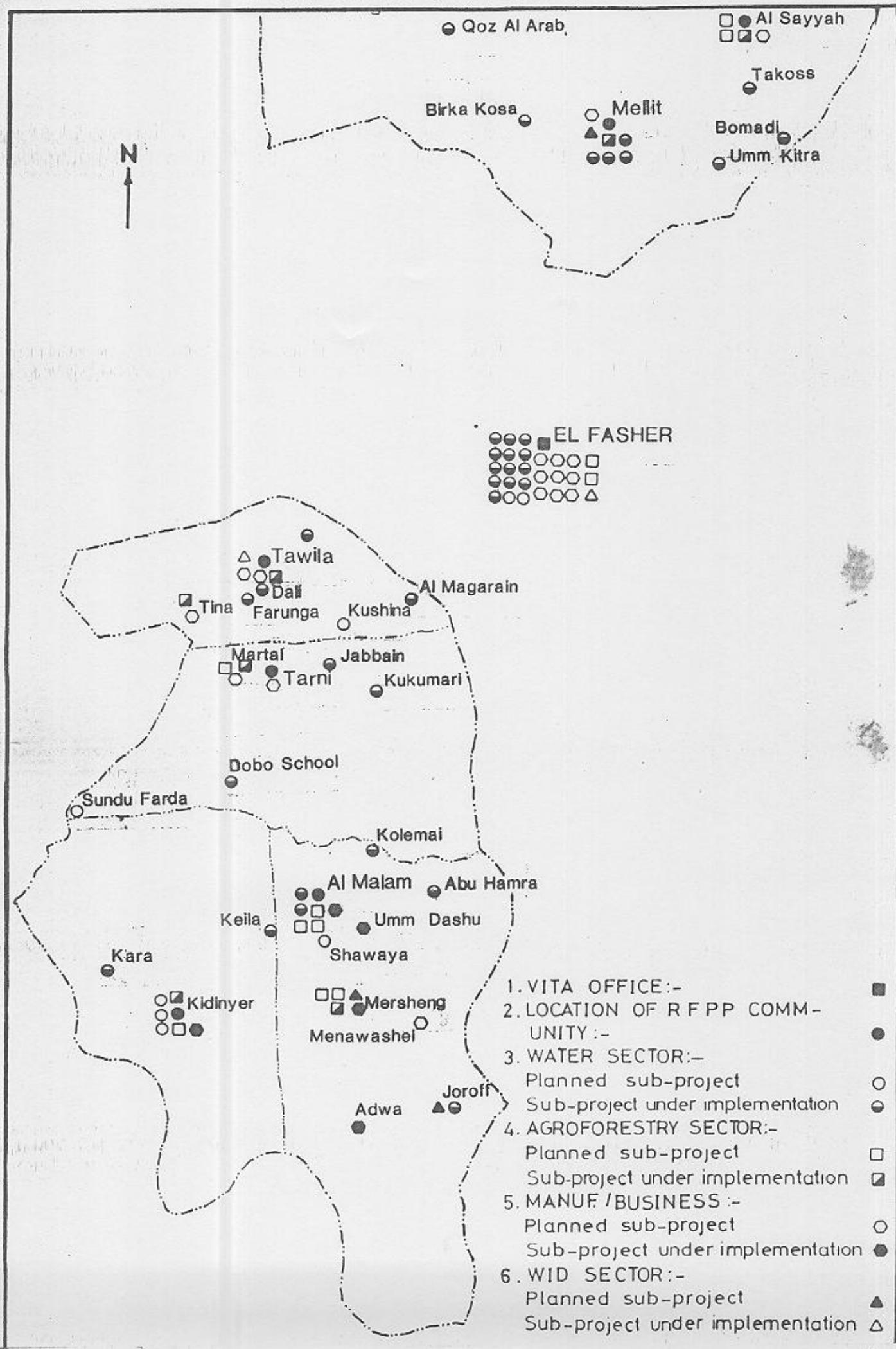
The Project was amended in 1986 and 1987 to emphasize the local initiative component of the project purpose to promote decentralized development. The new project strategy is to tap the potential dynamism of the Sudanese tradition for self-help. The project now directly responds to specific problems at the village level by helping potential beneficiaries to identify and plan projects that they wish to execute, maintain and operate without draining government budgets and technical resources.

Three U.S. private voluntary organizations (PVOs) under cooperative agreements with USAID, are assisting villagers to develop skills in identifying, organizing and managing development activities in three project areas: (VITA) in the Darfur and (CARE) and (SCF) in the Kordofan Regions. CARE and SCF began operation in mid 1986, and VITA in mid 1989. the 3 PVOs are now jointly implementing a variety of sub-projects with villagers.

1.4. PVOs' Geographic Area :

The RFPP areas of activities are in Darfur and Kordofan Regions in the following districts and rural councils (See Figure 1)

MALAM, R.Cs, DARFUR REGION



1.5. Project Organization

1.5.1. Objectives under which PVOs work

The 3 PVO's working in the RFPP, among others, responded to an advertisement to work in development projects in Western Sudan in August, 1985, and attended in January 1986 a workshop held in El Obeid, Kordofan Region, and El Fasher, Darfur Region, to specify geographical and technical areas of interest.

The 3 PVOs have rich experiences in developmental work. Both CARE and SCF worked in Sudan before; the former in the fields of water supply, forestry, energy conservation and alleviation of drought impacts; while the latter, worked in relief and developmental operations.

The objectives of the RFPP under which the 3 PVOs presented their work plan are:

- i. To promote decentralization in the fields of provision of services.
- ii. Enhance communities organizations to be more autonomous and self-reliant, making use of the traditional self-help characteristics of

the population. Projects have to be self-managed without relying on Government funds.

iii. Train Community Development Committees, CDGs, in all phases of activities, and lead them to gain and acquire skills in management and organization; so as to have confidence in their abilities and to carry out sustainable development processes.

iv. Develop the private sector and improve on its expansion and services.

1.5.2. PVOs credibility to effect projects

The credibility of the PVOs is reflected in the skills they have so far shown in assisting communities to identify projects, as perceived needs by the people, and to set objectives and purposes targeted to be achieved by these projects, to conclude positive results. The revised and modified work plan originally submitted in 1988 was meant to cater for the different approaches, that would be adopted according to experiences gained; with the intention of effectively responding to set targets. e.g.

sustainability, cost effectiveness and to solving constraints, as dictated by external circumstances.

1.5.3. Approaches to achieve objectives

The 3 PVOs are adopting the organization of the people, as a main community development approach. They all generally agree in principles of organization, emphasizing the following concepts:

- i. Tribalism is the primary social and political network and native administration plays a powerful and effective institutional role, hence close collaboration with Nazirs, Omdas and Sheikhs, is accorded a high priority.
- ii. Full participation and involvement of the people by working with all segments of the community.
- iii. Factual assessment of the points of views of the beneficiaries.
- iv. Creation of linkages within components of the

project, and with outside agencies and inputs, that relate to the project.

1.5.4. Methods to implement programmes

The methods derived, to achieve the programme objectives, are based on the wise use and management of local resources of man, water, soils, forests, livestock, etc., with communities to be trained for each purpose.

These methods are:

- i. Extension services through extension packages forwarded to individuals, communities, their CDCs, encouragers and agents, by trained extensionists of both sexes.
- ii. Proposals formulation: based on the work plans, subprojects perceived by the communities and the individuals, are processed and prepared, with the assistance of PVOs technical departments, for approval and implementation.
- iii. Administration of activities; The PVOs have administrations to implement, coordinate and link the various components of sub-projects, according to set goals and objectives. Implementation is performed according to plans and designs already studied and approved by the RTC, and for which people are organized and trained.

8. ACHIEVEMENTS WITHIN SET OBJECTIVES

2.1. An Overview of the Three PVOs.

2.2. VITA

2.2.1. Water Supply :

VITAs' sub-projects, in the area of water supply, include :

- Hand-dug wells
- Hafirs
- Dams
- Rahads

a. Hand-dug wells

Under this sub-project, the implementation of the programme is preceded by settlement of the well sub-project with the beneficiary population, through their village and water development committees; completion of the preparatory work e.g. securing of materials like cement, and the other local materials like sand and gravel, which is contributed by the community, and selection of the villagers who would assist in the excavation and construction work. Included in this, is the formation of 4 man teams to be trained in well construction works, usually chosen by the villagers; with the objective of forming in future well-digging enterprises, with loans given by the ABS to purchase construction equipment, and with NWC providing the technical know-how.

Achievements by VITA cover 12 hand-dug wells out of 16 approved sub-projects in Tawilla, Mellit and al Malam RCs. The aim is to improve the water supply for humans and animals.

The hand-dug wells programme also covered El Fasher town, where 15 privately owned hand-dug wells were approved for rehabilitation. Of these, 8 were rehabilitated; with

the rest awaiting the availability of cement. One of the important outcomes of this activity is the organization of El Fasher Well Owners' Association (ELFWOA).

The idea of rehabilitating these wells, came from the Regions' Ministry of Health, to reduce water contamination hazards. The work was supervised by a technical committee, with membership drawn from Ministry of Health, NWC, VITA, Sudanese Red Crescent, and the Regions' Government. Some of the costs of the rehabilitation were met by the well owners. In a meeting with the owners, they expressed their appreciation of VITAs' assistance, and have shown interest in joining hands with VITA for further improvements.

b. Dams

The target for dams construction was raised from 6 to 7 dams. Major construction works have been completed in two dam sites, with earth moving awaiting access to NWC machinery. The volumes of earth to be moved from these dams sites is huge for manual labour engagement; also costs are not manageable compared to the use of machinery. The rest of the dams programme is delayed due to lack of cement and shortage of fuel needed for NWC earth moving machinery.

c. Hafirs

The number targeted was 2 hafirs, scaled down to 1. NNC was contracted to design and construct the hafirs, with the JDCs contributing in material and labour. Besides, VITA will assist by supplying construction materials. So far, the civil work was completed for this hafir, but still awaiting earth movement.

d. Rahads

Five rahads are targeted for execution, with one completed.

2.2.2. Agriculture

VITA has limited activities in the area of agricultural development, as could be judged from the list of approved sub-projects. Planned activities are confined to one jubraka farming sub-project, and 2 wadi-farming sub-projects, in el Tins and Syyah, which will start this rainy season. Improved seeds have been received for the two projects.

Home gardens and animal traction, using donkey-drawn

perimenta, from the implementation stage of project identification and mobilization. A model of a donkey-drawn plough, imported from Jebel Mera Rural Development Project, is proposed by VITA for propagation in the project area. 250 farmers from Tawilla R.C. have already listed themselves for acquiring the plough, and paid the first instalment of Ls. 100.

The ploughs shall be manufactured by the El Fasher black smiths group, trained by VITA under the SSE/C programme. VITA is targeting this activity to serve the project goal of creation of rural-urban linkages.

2.2.3. Agro-forestry

VITA is working in R.C.s which have been severely affected by desertification and drought, especially the two northern ones. Natural regeneration of trees is not easy to attain under the uncertainty of rainfall and the open range and woods land uses. Production of seedlings to be planted at the right time and in fields owned by the farmer, is more feasible in bringing good results. Nursery development is therefore suggested to serve improving the ecology and as a source of income, for community based activities, from the sales of seedlings.

VITA forestry programme is in the start stage, partly due to expatriate agro-forester terminating his contract. The

Two agroforesters working presently for the project, have managed to complete the development of three nurseries, at El Fasher, Mellit and Marsheng, and three school nurseries in Nyala, with the training of communities and supervisors at schools completed. The 6 nurseries are targeted to operate as of this season. Seedlings to be produced shall cover natural trees, fruit trees, and ornamental plants. As for the proposed forage preserves, these are still in the idea stage.

2.2.4. SSE/Credit

In preparation for small scale enterprises credit (SSE/C), VITA has completed the training of the potential business groups in el Fasher town (October, 1989) - (January, 1990). The training covered:

- metal workshop owners, 72
- carpenters, 102
- 'Marskeeb' makers, 56
- blacksmiths and tinsmiths, 13

The training of similar groups in Nyala would start in May 1990.

The training was preceded by a preliminary survey, to assess the training needs and to arrive at the potential size of trainees, under different occupations. A training coordinator from El Fisher Commercial Secondary School was drawn in for the activity, under the supervision of the SSE/C Project Manager.

A training manual was prepared (in Arabic) for the purpose. The substance of training centres around business management, accounts, and book-keeping.

One of the impacts of the training is that the trainees have started organizing themselves into business groups. Preparatory committees have been formed, or in the process of formation by the groups, to register into business co-operatives. However, registration is obstructed by the bureaucratic procedures of the Cooperation Department.

VITA established urban-rural links between blacksmiths group and Tawila farmers for the production of donkey-drawn ploughs. Other areas showing prospects for SSE/C financing, as indicated by the 10 approved projects, are:

- brick kilns
- live-stock restocking

- poultry
- flour mills
- oil mills.

2.2.5. Women-in-Development

The total number of sub-projects targeted for execution is 4, mainly in the areas of leather-making and handicrafts. The objectives of these projects, is to organize women groups into viable production units, in the form of cooperatives.

Achievements cover:

- Briefing on cooperative formation, procedures and management.
- Preparation of cooperative by-laws.
- Acquiring buildings on rent in El Fasher and Mellit to be used by the cooperatives, and also plots of land from the government for the same purpose.
- Funds are available for the purchase of tools, equipment and payment of incentives, salaries and loans.

Following the formation of the cooperatives, VIT is planning to organize training courses in cooperative principles and also in technical matters related to improvement of production quality. In the past 9 months, VIT has put efforts, to improve the organizational capabilities of the women committees, of the leather and handicrafts groups.

3. EVALUATION OF PVOs ACTIVITIES

3.1. Project Nature and Philosophy

The nature of the RPP emphasises the participation of people, both men and women, in the activities and services rendered by the project to promote production, people's income and community well-being. The project stresses the Sudanese tradition of self-help to achieve a high degree of participation.

All three PVOs are adhering to the project philosophy, as outlined above. Achievements in community organization, training and sub-project initiation and implementation, Annex II, reflect clearly the development of project activities along this line.

The currently implemented sub-projects, under the 5 general areas of action serve the project objectives of :

- i. Engaging people to participate in developmental inputs and services that used to be rendered by the government in the past. All executed projects reflect beneficiaries' participation at various degrees.

- ii. Such participation will promote decentralized development, where people will work out and implement as far as possible, their own conceived projects, with the least dependence on government services. Again, this could be attested from the range of approved sub-projects, people's resource contribution, cooperation in organization and training, etc.
- iii. People have to learn and practice planning procedures, which is being promoted by the three PVOs, evidenced by the organization of the various ~~U.P.~~ village-based institutions; which have been trained in extension and in the different areas of activities: water, agriculture, agro-forestry, small scale enterprise credit and women-in-development.

3.2. The methods applies by the three PVOs to effect the RFPP adopt the following processes:

- Direct administration and staff
Each PVO has its autonomous structure, led by experienced staff and employing a number of national personnel. The latter are comprised of technicians and sub-technicians

of qualifications ranging from high secondary to post graduate, and holding posts such as hydrogeologists, engineers, agricultural and forestry extensionists, agricultural co-ordinators, agro-foresters, women coordinators, etc.

Examining the staff situation, would reveal that most activities are run by young Sudanese who had little previous field training. Except for VITA, which is engaging at present 7 Sudanese, on secondment basis, constituting 41.2% of their total staff, the other two PVOs show a low level of seconded staff. SCF seconded staff of 4 persons represents 10.3% of their total technical staff, while CARE seconded staff of 3 persons represents 16.7% of their total staff; see Charts 1, 2 and 3.

The future of the Sudanese staff after project completion under the PVOs is uncertain. Probably, they will face a hard situation, if their absorption in permanent government service, after the PVOs' leave is not settled as early as it deserves. The look for a permanent job, may motivate young technical staff to quit soon, despite the relatively high pay they now enjoy.

Non-adherence to specialization qualities, by putting

an agriculturist in the place of a forester, as is the case now with VITA, will affect standards of execution and limit the prospects of acquiring the right specialized staff.

3.2.2. Training

a. Beneficiaries training

The training of the PVOs staff in the fields of extension and organization, and the transfer of the relevant technology to the people is progressing well.

As for beneficiaries, communities are subjected to several packages of extension in the various fields, to cover in particular the handling of sub-projects conceived by the people.

Extension and training packages also aim at creating fundamental changes in the behaviour and outlook of the participants, towards the new and modified methods of land use and environmental protection; aided by the organizational skills they acquired and the technologies they gained.

b. RFPP training

The RFPP has developed a comprehensive staff training programme, which was started in 1989 with the earlier RPP-Regional Planning Project. The programme aims at upgrading the capabilities of the centre (Khartoum) and Regions' staff of the ministries that have linkages with the RPP project; namely Ministry of Finance and Economic Planning, Planning, Ministry of Local Government, and to a lesser degree National Transport. The programme was operative prior to the involvement of the PVOs, and continued afterwards. Details of the training achievements under the programme are given in Annex III.

Though it is difficult to measure the direct impact of the training, given under this RFPP component, and the degree it has served the project objectives, it can be broadly stated that a large cader of government officials have benefited from this training. As such, there are prospects of utilizing those trained in promoting project programmes if the proper linkages are created between the RFPP

and those ministries that have been targeted to benefit from the training; being the most concerned with the project goals.

3.2.3. Coordination and links

Coordination and links with GOS institutions are unformalized e.g. National Forestry Corporation; Departments of Agriculture, Department of Cooperatives, NWC, etc. More efforts are needed to develop these links, in order to promote the departments responsibilities, and involvement in the project activities. Working together would add to the efforts rendered by the PVOs', and would strengthen programme execution.

3.3. Water Supply

3.3.1. Nature of the water supply projects

The water resource and water systems development in the 3 PVOs areas are essentially engineering, hydrogeological and hydrological works comprising the following sub-projects.

- Rehabilitation of existing water yards and hand-dug wells.
- Construction of open-shaft wells
- Construction of dams.
- Construction of hefirs
- Rehabilitation of tanks
- Construction of water ovens/khezans.

The task of each PWO is governed by the prevailing geological and hydrogeological conditions in its project area. Hence where the Basement Complex rocks dominate, no water yards exist, as is the case with VITA activities in Darfur; while where deep sedimentary rocks of water bearing nature prevail, water yards have been erected (CARE and SCF project areas).

3.3.2. Programme operation

The operation of the water supply component is a three partners activity: PWOs, NWC and the local communities. In evaluating the water sector, the major achievements are:

- a. Creation of technical capabilities in the PWOs, through direct recruitment and secondment of staff of engineers, geologists and hydrogeologists to carry out the water programmes.

- b. Preparation and implementation of training programmes in the fields of water provision, rehabilitation of water sources and water use; covering: encouagers, extensionists, villagers, communities, school children, etc. in all relevant aspects that lead to more improved water supplies.
- c. Encouragement of villagers to have a role in the provision and management of their water sources, through the various types of institutions created; which provides good grounds for formalizing this role to attain sustainable systems in future. Villagers' role could be enhanced in areas of fund raising to contribute to maintenance requirements, purchase of small and handy spare-parts, etc. With regard to waterworks major repairs and replacement of heavy and expensive mechanical parts, villagers have a limited role to play, and should continue to be the responsibility of NWC.
- d. Enabling villagers to acquire planning skills, through their involvement in the sub-projects preparation phases, and their participation in the procurement of essential materials, tools and equipment for the construction and rehabilitation of water systems. This

footers further, the derive for funding sustainable water sources.

The above operational achievements fall within RFFF planning philosophies and procedures, explored at the opening of this section on evaluation. The real progress in this concern is not the number of water systems provided or rehabilitated, but more important is the merging of the resources of the three partners, to improve on the water supply situation in the project area. This is believed to have been started and has proven to work; however, it requires strengthening in certain areas, namely:

- a. Committees legal status: as to officialization of the role of the committees responsible for the water activities, as they are charged with administrative and financial functions, which entail accountability.
- b. Management capabilities: strengthening the bookkeeping abilities of the water committees, through more training and continuous monitoring.
- c. Conflict between PVOs/NWC: resolving the outstanding conflict between PVOs' and NWC, regarding the policy

of management of water sources. While the RMP holds the philosophy that communities are capable of running their water sources, and that the project could be used as a vehicle, to lead communities to attain this goal, NWC still sees the role of communities to be limited to their contribution to the provisions required by the rehabilitation of a water system and not to shoulder the direct responsibility of management.

- d. Addressing constraints: achievement within targetted goals is hampered by constraints of shortage of fuel, cement and timely availability of earth-moving machinery.
- e. Sustainability unassured: the sustainability of hand-dug wells, that are provided by the communities, seems to have better prospects than the rehabilitation of water-yards, under the prevailing low maintenance capabilities of NWC, and the non-catering in the rehabilitation programme for an operational maintenance phase, to keep these water-yards efficiently operating. There shall be a gap between communities assuming full responsibilities of running their water-yards and NWC

catering for the efficient maintenance of the rehabilitated water-yards.

The evaluation team is convinced that the national staff of the water sector, employed by the PVOs, and in their respective fields, have shown efficiency in working closely with NWC, in the formulation of sub-project plans, implementing the plans with the communities, and supervising both NWC and the communities inputs. This aspect of project planning and supervision is further strengthened by the monthly self-evaluation carried out by the PVOs working teams, covering all activities; pointing out strengths, weaknesses, constraints, opportunities and strategies for improvement. This self-evaluation promotes staff confidence in the progress of the work plans and invites modifications when dictated by the circumstances.

However, there are still these conceptual and operational gaps between the RFFP and NWC, regarding the limits to the role of communities in the management of water sources, more particularly water-yards. At the centre level (Khartoum), and judged from the participation of NWC in a number of conferences, convened to promote community-based management

philosophy, NWC shows preparedness for the promotion of policies leading to that, yet when viewed on the Region's level such preparedness seems not to exist. This conflict has not been resolved; centre, Regions-wise within NWC, and between NWC and RFPP.

3.4. Agriculture

3.4.1. Farmers' organization

The organization of the farmers into CDE's and cooperatives is one of the important achievements. This provides the start for intersectoral linkages between the various sources of water, and land and the various land use activities, which may lead in future to improvements in areas of crop farming, agro-forestry, and agro-pastoralism.

3.4.2. Prospects of improving cropping patterns

The single field cropping has the prospects of being changed into mixed cropping; where trees, fruit trees, vegetables and improved range could be practiced, as exemplified, for example, by the concepts adopted in Wadi farming (under VITA) sub-projects. This shall contribute to the improvement

of the agricultural production systems in these semi-arid lands, by enriching the soil, increasing yields and improving farmers incomes.

3.4.3. Procurement of improved seeds

All three organizations have programmes for the distribution of improved seeds; however, the coverage has been inadequate; in some cases due to limited supplies from the seed sources. The following characteristics need to be considered when preparing for the improved seed package: resistance to drought, resistance to agricultural pests and high yielding characteristics.

3.4.4. Crop protection

Little is being done by the three projects in this regard, limited to the distribution of some seed-dressing chemicals. Farmers in the three project areas complain of disasters caused yearly by agricultural pests. Sub-projects in this respect, need to be promoted, and people have to be trained to fight pests. Links with crop and plant protection institutions merit also being created.

3.4.5. Intercropping

This agro-forestry activity is not strongly addressed in the agricultural programmes of the three PVOs. Intercropping is important in enriching the soil, increasing crops yields and conserving the water and soil resources. Farmers have been practicing this activity in their bush-fallow system, where they integrate hashab in their cropping practices. Trials with other multipurposes legume trees may prove useful to the farmers.

3.4.6. Provision of veterinary care

This component is promoted by SCF, and merits being considered by the two other PVOs. Grass roots veterinary care workers, have proven to be useful in implementing the sub-projects, designed to procure vaccines and drugs, protect livestock against pests and diseases. These workers are not in the appointed list of the PVOs, nor of the GOS, but work on incentive basis. Their continuity with the project depends on their satisfaction with the incentives they receive.

3.4.7. Agricultural credit

The RFPP is carrying out elaborate extension programmes aiming at the upgrading of community organization, participatory planning, environmental enhancement and agricultural development. ABS is providing agricultural credit to farmers in a number of districts where the RFPP is operating; Umm Ruwaba, En Nahud and Nyala. In many cases farmers within the RFPP areas have not heard of the ABS agricultural credit. It is seen as fostering project targets, that RFPP informs farmers about the ABS credit possibilities.

3.4.8. Animal drawn ploughs

The development of this sub-project by VITA will help farmers in cultivating more land, reducing the cost of labour, improving soil texture, and subsequent increases in crop yields and farmers' incomes. The plough could be an element in a larger animal-drawn implements package, to be funded under the SSE/C. CARE and SCF may consider examining the prospects of animal drawn implements, and benefit from VITA's experience in this area; drawing on the same credit component.

3.5. Agro-forestry3.5.1. Village nurseries

Introduction of village nurseries for the production of tree seedlings, using the waste water from water-yards, and the production of vegetables during the seedlings off-season, is a helping activity; in augmenting forestry development, improving nutrition and raising farmer's income. The little available quantity of waste water, however, is a limiting factor to expanding this activity.

Establishment of more nurseries, coupled with extension and training in agro-forestry, shall help in educating people about causes of desertification, and the importance of trees for the local environment. The participation of the people in the nursery sub-projects is encouraging; attested in their procurement of local materials, construction and establishment of the nurseries, and their involvement in nursery management and protection.

3.5.2. Selection of tree species

Agro-forestry technical service require further investigation. in the fields of tree selection for various

purposes and needs, to satisfy demands in food, fodder, fibres and many other forest products. Species to be selected should be in relevance to economic, social, environmental and ecological conditions of the project area. Local trees of Hashab, Kitter, Babanus, Subagh, Sider, Tabeldi, Hejleig and Aradeib are of many benefits to the people. Exotic trees such as Mesquite, Ailanths and Leucea may prove useful to introduce, for the supply of wood and fodder, and for providing cover for the eroded areas.

3.5.3. Live fences

Fences are established by the people, to protect their crop lands and gardens. Excessive cutting of trees is going on, to use their thorny branches for fences, which is aiding desertification. Live fencing will reduce cutting of trees. Some research needs to be done to select suitable species from local and exotic trees for fencing purposes. Kitter is a good live fence, where rain or irrigation water is adequate. Mesquite can grow on very dry areas. Ingil is another suggested local species. Both Mesquite and Luecina species may prove to be suitable in fencing home gardens, and also in providing free fodder to household livestock.

3.5.4. Extension and training

Forestry sub-projects are rather new in the PMS areas, particularly nursery development and introduction of new tree species in agricultural activities. The current programmes need to be strengthened in many respects. Extension and training should be more elaborate and concentrating on:

- collection, treatment and storage of tree seeds,
- establishment of small village nurseries and raising of tree with little costs,
- transplanting of seedlings and protection of growing young trees in the field, and
- application of effective methods of tree harvesting including thinning, pollarding and felling, and regeneration methods, including coppicing, sowing and seedling planting.

3.5.5. Hashab management

Hashab management on the farms is not new to villagers in the project area. People knew how to select good

seeds from their healthy trees and sow them with their crops. The practice of growing Hashab through seedlings is less known and farmers need to be trained on it. The use of improved gum tapping tool (the sonky), developed during the sixties and presently included for propagation under CARE agro-forestry programme, deserves being considered by VITA and SCF; with appropriate modifications if required. The use of the sonky will facilitate the tappers' job and will lessen damages to the trees.

3.6. Small scale enterprise credit

3.6.1. Status by PVO

Apart from the principle of increasing people's capacity to improve on their living standards through raising their incomes, there is practically no consensus between the 3 PVO's on the sub-projects to be formulated and financed through the SSE/C. The two PVOs, VITA and SCF who started some activities on this credit have different areas of emphasis at this stage of project implementation.

CARE, because of not addressing the project in their original work plan proposal, has only worked on agricultural

credit. So far it has not built up a trained cadre of their staff to handle sub-projects under the SS/C. It is now considering to do so in the extension period of the project.

CARE's change of attitude is the result of being convinced of the prospects of handling commodity surplus for sale, by the villagers and farmers, to augment their incomes, besides the potential of businesses in small industrial activities.

VITA is viewing SS/C, from the existing variations in the economical set ups of North and South Darfur, and also from the premises of linkages between the urban and rural sectors of the economy. On the urban side, including the big towns of Nyala and El Fasher, VITA is working on the development of sub-projects conceived by tradesmen and workshop owners: Carpenters, blacksmiths, tin smiths, metal workers, 'markoub'-makers, etc. In the rural areas, VITA is targeting to develop such sub-projects including animal-drawn ploughs, oil mills, grain grinding mills, etc. The possible links between sub-projects in urban and rural areas are viewed by VITA as serving project developmental goals, where improved artisan technology, shall help promoting newly introduced technologies in rural areas.

SCF is approaching this goal by facilitating access to

*Indigenous Sudanese shoe.

benefit from ABS and by improving people's skills in business management, through appropriate extension work and training.

While VITA is concentrating at present on business groups, with other activities as well considered, SCF is more in the areas of small trade businesses. The two fields of activities are complementary to each other, in any of the three project areas. The sub-projects developed by VITA and SCF reflect the following characteristics:

- they meet and answer potential needs perceived by villagers and the town groups.
- there are high prospects of possible and practical sub-projects to be developed to receive SSE/C.

The storming of the offices of VITA in El Fisher, and SCF in Umm Ruweba by applicants, at the time of this evaluation, seeking SSE/C, confirms the above two findings.

3.6.2. Prospects of SSE/C

The sub-projects developed under the SSE/C by VITA and SCF are being held to generate the following benefits:

- raising local productivity,
- broadening of local economic opportunities,

- ~~improving~~ incomes levels,
- enhancing local supply of goods and services,
- processing of goods to increase their value,
- strengthening of village self-reliance, experiences and knowledge, and
- upgrading of women's skills.

It is already felt, in those areas, where SSE/C has been granted, that the flow^{of} goods and services has been stimulated and the existing activities are expanding and giving profit. The number of individuals and households that benefited from SSE/C, through the help of SCF, are in the range of a 100 in 3 sub-projects. The applications submitted for new loans, indicate clearly, that the number of beneficiaries shall immensely increase in future.

SCF, in order to enable farmers and villagers to fully acquire the procedure of SSE/C, is adopting an approach of integrating the training activities into the procedure of loan-giving. For SCF the training is very important, and is designed to lead to initiation of activities, upgrading of organizational capabilities and encouragement of accumulation of small trader's resources.

Project formulation is done jointly by beneficiaries and the SCFs' credit staff. Following the application put by the beneficiary, the SCF staff conducts a feasibility study of the sub-project, on basis of the information supplied by the applicant, and presents the study to the ABS, which decides on the loan and complete the contractual forms to be signed by the applicant. Accordingly, a cheque to the amount of the credit is issued, to be cashed by the beneficiary from a local bank. This is usually done in presence of the Chairman of the VDC, credit staff of SCF and a representative of ABS. The same group follows the borrower to the village to witness the distribution of the loan to the beneficiaries, in case the borrower is a guarantor to a group of applicants. The purpose of these elaborate procedures is educational, especially at this starting stage of the administration of the loan.

Repayment is 100% and ABS is satisfied with managing the SSE/C, since it is easier to administer compared to agricultural credit, because borrowers are organized in groups under guarantors. Also the SSE/C is availing an opportunity for ABS to experiment with credit activities outside agriculture, an area which ABS may promote in the future.

straightened with ABS to ensure the operational and institutional sustainability of this form of credit.

3.7. Women-in-Development

3.7.1. Difficulty of measuring progress:

The indicators featured in the technical proposal, for measuring the impact of the three projects on women could not be adequately applied. For instance, it is difficult to measure income resources prior and after project implementation, which is also true for changes in nutrition, upgrading of management skills, enhancement of organizational capabilities, and interaction with outside systems.

The difficulty of measuring progress according to these yard-sticks, stems from the fact that, the project implementation period is too short, to effect such basic changes. It is also due to the weak documentation of the sub-projects results where achievements have been attained.

In the preceding section on achievements, the current situation of women programmes was adequately covered. From these dispositions, it is clear that the emphasis in women's

~~Programmes varies considerably among the three PWCs. The problems encountered, are too of varied nature. In what follows, the status of women's programmes shall be discussed under each PVO.~~

3.7.2. VITA

VITA, has a limited range of women sub-projects. The ones identified include, two women leather-making sub-projects, one handicrafts sub-project and one jubrake farming sub-project. The leather and handicrafts sub-projects are targeted to organize women participants into cooperatives; the registration of one of them has been completed.

These three sub-projects are actually founded on women who are already in business, practising the production and marketing of leather and handicrafts articles. Cooperatives development is aimed at organizing women into production units, assisting them in acquiring premises for their activities and supplying them with sewing machines to increase production

Two issues are worthy of investigation, in relation to the leather and handicrafts sub-projects, namely marketability of their products and the prospects of replicability of these

models. The market side has not been studied. Limited marketing possibilities may undermine cooperatives flourishment, especially that El Fasher and Nyala are already saturated with home-made leather and handicrafts articles. As for Khartoum, the proposed cooperatives have not so far succeeded in establishing marketing channels there. The prospects of the three cooperatives, to develop viable businesses, depend on improving production quality, a matter which is hard to attain, within the life-time of the project.

Jubraka improvement is a minor activity for VITA at present, since it is limited to one project idea. This component needs to be addressed more strongly, for the fact that crop farming is the main activity of rural communities in Darfur; also because women play a major role in farming. VITA could benefit from CARE built-in experience (ENSAP project) in Jubraka farming, especially on the organizational side of the activity.

Considering training, VITA has a limited input in the training of women in villages. Women's organization is entrusted to the community extension (male) agent; with women's represented by three members; an area which needs some strengthening.

4. ENVIRONMENTAL CONSIDERATIONS

4.1. Background :

The environment, in Darfur and Kordofan Regions, has been greatly affected by the 1983-1984 drought and the preceding prolonged misuses of land. Removal of wood cover, overgrazing and uncontrolled fires, overexploitation of marginal (fragile) lands, have severely denuded the land soil, resulting in high rates of desertification. On the other hand, the post-drought period has witnessed good rains which helped the regeneration of the natural vegetation.

The Water Committee

El Fasher wells supply the town with about 70% of its water needs. The wells suffer contamination from their muddy surroundings, where the spill water from the filling of containers, mixed with animal dung, enter into the wells and finds way by hand dipping into the storage tanks. The project objective is to reduce the risks of contamination; by providing a closed water distribution system, through raising the well neck, constructing an elevated spon around the well and raising and improving the water tank. These improvements would minimize the incidence of water-borne diseases, e.g. typhoid, dysentery, etc. and generally improve the quality of the water.

Table 4 gives the water test results of El Fasher well improvement programme, before and after rehabilitation. These results testify the effectiveness of the methods used. Of the eight wells sampled, after improvement, the total bacterial and coliform contents have been reduced to the normal WHO standards. Rehabilitation of the rest of the wells stopped due to shortage of cement.

Under VITA programme, a few rashed and dams improvements have been implemented. Their present status does not warrant evaluation; however, it is envisaged that large quantities of water can be stored. On the positive side, large bodies of water

Table 4. El Fisher well improvement programme - water test results

Well owners name	B-P No.	Location	Before Improvement (sample from tank)		After improvements (sample from tap)	
			Total Bact.	Coliform	Total bact.	Coliform
1. Ali Bedir	FP-01-WA	Awlad El Rif	1990	0	0	0
2. Mismaoud Mohamed	FP-02-WA	El Rodeef	1200	0	165	0
3. Ismail Saleh	FP-03-WA	El Fizan	3000	0	240	0
4. Youssef Abdul Aziz	FP-04-WA	El Rodeef	2600	10	180	0
5. Abdul Rahman Ali	FP-05-WA	El Fizan	3400	10	520	0
6. Abdul Aziz Saleh	FP-17-WA	El Fizan	3000	10	660	0
7. Yessen Mohammed Ali	FP-18-WA	El Fizan	920	0	210	0
8. ✓ Bahman el Reyah	FP-19-WA	El Wikla	1400	0	0	0
9. Milk Remy Mahmoud	FP-20-WA	Awlad El Rif	1040	10	0	0
10. Jofel Jaber	FP-21-WA	Awlad El Rif	1040	0	160	0
11. Ali Mohammed Youssef	FP-22-WA	El Rodeef	780	10	260	0
12. Mohammed Saleh Ali	FP-37-WA	El Fizan	2400	10	0	0
13. al-Tigani Omer Ali	FP-38-WA	Awlad El Rif	2160	10	0	0
14. Seid Mohamed el-Zekri	FP-39-WA	El Rodeef	0	0	0	0
15. Ibrahim Zain	FP-40-WA	Awlad El Rif	1200	0	0	0

El Fisher Civil Hospital recommends: Total bacteria count, less than 100
Faecal coliform contamination, less than 10

would avail adequate supplies, cut on travelling distances for water, increase livestock numbers and raise producers' income. Also the storage of water in large dams may lead to ground water conservation and encourage irrigation of crops e.g. tobacco such as in the case of Tawilla dam if rehabilitated. On the negative side adverse environmental effects are expected from the creation of big water sources, which will invite large numbers of animals and users, causing damage to the environment, through overgrazing, and increasing the rate of the on-going desertification.

To protect water sources from contamination, the hafir or dam will be fenced by barbed wire and guarded. Villagers will be trained in hygiene and sanitation, to raise their awareness, about the benefits derived from using good quality water. Coupled with ^{hygiene} and sanitation training which is extensively carried out by CARE, and prepared for under SCF, the water-supply situation shall be further improved. Besides, the use of spill water from the rehabilitated bore-holes, for nursery and vegetable gardens development, shall enhance the environmental quality in and around villages.

There is also the macro-effect of the rehabilitated water yards, as an added environmental benefit, creating new balances in the distribution of humans and livestock over an area, reducing

Thus, the effects of over concentration around a few number of operating water-yards, as it is presently the situation.

4.4. Agriculture and Agro-forestry :

Being small scale sub-projects, widely dispersed, their environmental impact is difficult to assess at this stage of the life of the project. General comments on the anticipated environmental benefits of the on-going activities shall be attempted.

On the positive side, the agricultural activities are targeted to increase production, secure more food, improve the income of the farmer and stabilize the rural population. They are traditionally practiced in the form of rain-fed farming, wadi farming, jubrakas, home gardens, vegetable gardens, etc..

Expansion of these activities under project support and without rational planning, may lead to negative impacts that have to be guarded against. Clearing of trees, extensive use of ploughs and increasing the cultivated acreage, on wadi banks, may disturb the ecological balance, by devastating vegetation, trampling of loose soils and causing erosion, which would add to the on going processes of desertification.

The challenge is thus, how to bring about these benefits without further land degradation. Only more imaginative land use and agricultural planning, coupled with strong agricultural extension services, could make the project attain this goal. Thinking comprehensively, at both farm and area level, and drawing on outside expertise to assist in agricultural planning, would enable meeting some of these environmental goals.

As for agro-forestry, the objectives to be served, should also be viewed in a macro-context. Certain practices all over western Sudan, have adversely affected the environment; expansion of cultivated land, increase in livestock numbers, extensive cutting of woods for various purposes, etc., have led to the depletion of natural resources (soils, trees, range and pasture).

The village nurseries and the direct sowing of trees, e.g. *Acacia senegal*, by villagers, serve many purposes in relation to the above factors of decay. They will have a primary impact on checking the rate of desertification in and around projects sites. If properly managed, these forestry efforts would lead to land stabilization, reduction of soil erosion and improved soil fertility. Besides, serving the above general goals, *heshab* trees would provide gum, fodder, fuel wood and help in nitrogen fixation.

The three PVOs' work plans, in the area of agro-forestry, are inclined towards planting indigenous species, besides, imported fruit and shade trees e.g. lemon, neem, etc., which have proven to be well adapted to the area.

Although the different sub-projects, carried out in the fields of agriculture, forestry, water provision and women, help in the betterment of the environment, there seems to be no specific sub-projects dealing directly with the environmental issues. For instance, no effort is devoted for the establishment of wind-breaks and shelter-belts.

4.5. Women-in-Development and SSE/C

Women-in-development activities would enhance the

environment, from economic and social angles, by increasing production, improving nutrition, providing employment and raising incomes. Also, if expanded upon, could check the long practiced out migration from the area, leading to population stability. Though, so far little has been achieved in the women area, there are positive indications from the sub-projects that have been implemented, that such goals are feasible to attain.

Small scale enterprises credit sub-projects have also socio-economic prospects in enhancing the local environment, by availing capital for investment in various businesses, increasing money circulation in the community at large, improving household income and stabilizing the rural population.