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| Agency for International Development PACR Project Assistance Completion Report | 1. Cooperating Country | Page 1a of 9 Pages |
| | 2. Project Name & Number | |

3. Functional Account(s)

| | |
|--|------------------------|
| 4. Project Assistance Completion Date (PACD) Original <input checked="" type="checkbox"/> Amended _____ | 5. PRO/AG No. and Date |
|--|------------------------|

6. Type of Agreement and Grantee: _____

Grant _____ Cooperative Agreement _____ LSGA _____ Other

7. Financial Inputs

| Project Element | | PP Budget | Latest Budget | Earmarked | Unearmarked |
|---|---------|-----------|---------------|-----------|-------------|
| #8. LOCAL STAFF AND ADMINISTRATION | Dollars | 401,500 | 1,024,368 | 1,024,368 | |
| | LS | | | | |
| #9. INFLATION | Dollars | 1,407,573 | 00.00 | 00.00 | |
| | LS | | | | |
| #10. CARE/NEW YORK ADMINISTRATION | Dollars | 385,607 | 446,700 | 446,700 | |
| | LS | | | | |
| #11. EXTENSION PROGRAM | Dollars | 119,058 | 119,058 | 119,058 | |
| | LS | | | | |
| #12. NURSERY CONSTRUCTION | Dollars | 59,530 | 59,530 | 59,530 | |
| | LS | | | | |
| #13. REPAIR FLOOD DAMAGE | Dollars | 38,465 | 38,465 | 38,465 | |
| | LS | | | | |
| #14. EXTERNAL AUDIT/ EVALUATION | Dollars | 63,000 | 63,000 | 63,000 | |
| | LS | | | | |
| Totals | Dollars | 5,550,000 | 5,860,105 | 5,860,105 | |
| | LS | | | | |

8. Outputs

| <u>Expected Output</u> | <u>Actual Outputs</u> |
|--|---|
| o Establishment of two nurseries and production of 3.6 million seedlings over LOP. | The two central nurseries established at Showak and Abu Rakham have an annual capacity of 300,000 to 500,000 seedlings. 3.80 million seedlings have been produced during LOP. |
| o Establishment of block plantations (8,000 feddans). | 8,741 feddans of block plantations have been established. |
| o Income generation opportunities for refugees and rural Sudanese (estimated 400,000 man days over LOP). | Approximately 600,000 man days of employment provided to refugees and rural Sudanese during LOP. |
| o Extension to demonstrate potential benefits through tree plantings | Arborday exhibitions and celebrations were held in many villages and settlements in the project area. Various GOS AND NGOs participated in tree planting ceremonies. 5 village and 9 school self-help nurseries were established. The school nurseries met with significant success and have become self sustaining. Many handouts (in Arabic and English) have been prepared and distributed on various aspects of tree planting, agroforestry, wood conservation, etc. |
| o Establishment of shelterbelts and windbreaks on farmland and adoption of agroforestry practices. | Promotional programs were held for farmers to establish shelterbelts and adopt agroforestry practices. This included training sessions, demonstrations and meetings. Agroforestry trials were established at two locations in the project area in 1986 and repeated in 1987. Initial results appear promising. More work, however, needs to be done in order to promote agroforestry on farmlands. A number of trials were conducted by the project on introduction of exotics, production of fodder, charcoal, production potential, plantation techniques, cropping potential, etc. |

- o Training of Forestry Department personnel, nursery and extension workers.

Overseas Training

1 person - Agroforestry Research, ICRAF, Nairobi.

1 person - Forestry Extension Officers Applied Communications, University of Philippines.

1 person - Applied Communications, University of Philippines.

Forest Guard Training

10 forest guards trained by FAO.

Teacher Training workshop was held by the project in which 20 teachers participated.

One person was trained in still photography and cinema maintenance. Training courses were held for Forest Overseers and Adult Education. 3-day training courses have also been conducted for other agencies in the area that include Euro-Action Accord, Sudan Aid, SCF (US), Community Aid Abroad and Christian Outreach.

- o Strengthen the institutional capability of the Forestry Department

One office building in Gedaref, one extension officer's residence in Gedaref, nursery and staff quarters at Showak and Abu Rakham. A large quantity of nursery and plantation equipment, vehicles, tractors, motor cycles has greatly strengthened the institutional capacity of the Forestry Department in the region. The Extension program that this project developed will provide useful information for extension elsewhere in the Sudan.

9. Remaining Actions

a. Monitoring

N A

b. Covenants and Conditions

There were no covenants or conditions under this project

c. Audit Recommendations

An external audit has been conducted and the report received about CARE Sudan operations has been found to be satisfactory. The Report about CARE NY operations is still awaited.

d. Status of Final Evaluation

Completed. Final Report awaited.

e. Estimated Deobligation Amount

\$ 30,000.00

f. Terminal Date for Disbursement

3. 31. 1989

10. Close Out Check-List

- 1. a. The Project Officer, in conjunction with the Controller and Contracting Officer, has reviewed all AID-financed commitments (contracts, sub-grants, PIO/Ps) to ascertain what, if any, amounts remain to be billed and paid; to discover any disputes that have arisen or are likely to arise and to expedite their settlement to the extent possible. An accrual worksheet has been filled in with the help of the Controllers office and all amounts committed but no longer required have been de-committed.
- 2. b. The Project Officer, in conjunction with the Controller and Contracting Officer, has reviewed all earmarking documents to ascertain whether all disbursements can be made under existing earmarking documents and, where necessary, to make appropriate adjustments to ensure that sufficient funds will be available to cover all anticipated disbursements. All earmarked funds in excess of those required to complete the project's activities have been de-earmarked.
- 3. c. Official project files have been cleaned up and organized, those no longer required for implementation and monitoring have been retired to storage.

11. Other Comments

- 1. All activities completed except for de-obligation of amounts no longer required for want of final financial details from CARE.
- 2. Awaiting final financial position statement from CARE.
- 3. Awaiting completion of all Project close out activities

12. Clearances

| | | | |
|---|----------|---------------------------------------|--------------|
| Project Officer | Date | Program Officer | Date |
| S. Tahir Qadri AGR <i>[Signature]</i> | 12/01/88 | Dirk Dijkerman EPI <i>[Signature]</i> | 12/15/88 |
| Contracts Officer | Date | Controller | Date |
| Jerry Kryschtal <i>[Signature]</i> | 12/5/88 | L. Martin <i>[Signature]</i> | 12/16/88 |
| Gary L. Bayer S/ADO <i>[Signature]</i> | Date | C. A. Pryor PO <i>[Signature]</i> | Date |
| Frederick E. Gilbert D/DIR <i>[Signature]</i> | 11/6/89 | | Dec. 4, 1988 |

for John W. Koehring *[Signature]* Date 11/01/89
Mission Director

EASTERN REFUGEE REFORESTATION PROJECT (650-0064)

NARRATIVE

Background and status:

The Eastern Refugee Reforestation Project (ERRP) is an operational program grant (OPG) to CARE / Sudan, funded by USAID (\$5.05 million), the Netherlands Government (\$.47 million), and CARE (\$.38 million). The OPG was signed in March 1983 and implementation began in June 1983. The PACD for the project was June 30, 1988.

The project was located in Kassala Province, in the Eastern Region of Sudan. The project was headquartered in Gedaref, 420 km southeast of Khartoum. Field offices were located in Showak and Abu Rakham. The ERRP through a large scale reforestation and extension effort aimed at replacing some of the forests consumed by the influx of Ethiopian refugees into eastern Sudan and counteracting the general environmental degradation the region suffered, by promoting tree planting and appropriate resource management practices.

Project objectives can be summarized as follows:

- generating income earning employment opportunities over the life of the project for the rural population, particularly the refugee groups;
- demonstrating through physical achievement of planting targets integrated into the agricultural production system, the real potential of forestry support for agriculture in the area;
- establishing a base for training of local villagers and Forestry Department field staff in the proper integration of agriculture and forestry in semi-arid conditions;
- enhancing the institutional capacity of the Forestry Department to guide and service the demands for sound natural resources management;
- creating further income generation possibilities from the production and sale of wood products; and
- enhancing the rural living environment through the addition of tree shade, reduced wind and water erosion and general protection from the harsh climate.

In order to achieve these objectives, the following activities were undertaken:

1. Establishment of nurseries and production of tree seedlings
2. Plantation establishment and maintenance
3. Training and extension in community development and agroforestry
4. Management and harvesting of established plantations
5. Institutional strengthening of the Forestry Department.

The implementation of this project was completed on June 30, 1988, three months after the original PACD. A no-cost extension for these three months was approved in favor of CARE to facilitate smooth transition to a follow-on project funded by DANIDA and transfer of assets to the GOS.

A mid-term evaluation was conducted in November-December 1985 and its recommendations were incorporated in the post-evaluation activities. Major focus during post-evaluation period centered on application of lessons learned and intensification of the extension program. Final evaluation of the project was conducted during March 1988, the final report for which has just been received (10.9.88). This evaluation has been generally positive. However, it has pointed to a number of lessons that can be learned from this project, both in the project design as well as implementation.

Brief Review of accomplishments:

Rural Sudanese and refugees have been employed to raise seedlings in the project's Showak and Abu Rakham nurseries and to plant these trees in the more than 8,000 feddans of rainfed plantations that the project has established in the vicinity of Um Gargor, Karkora, Abu Rakham, Tenedba, and Wad Awad settlements. Besides growing seedlings for the plantations, the project nurseries have annually produced thousands of utilitarian, amenity, and fruit trees for distribution to local populations and organizations. An agroforestry extension program is working throughout the project area on a wide variety of village and school nursery programs, environmental education, and agroforestry demonstration plots. The institutional capacity of the Forestry Department has been strengthened through management and technical training, and the provision of office buildings, permanent nurseries, vehicles, and equipment.

Other Donor(s) Contributions / Activities:

USAID has been the primary source of funding for this project. However, a amount equivalent to US \$ 470,000 was contributed by the Government of Netherlands and an amount of US \$ 380,000 was contributed by CARE. The GOS contribution was made in kind, in the form of land for plantations and salaries of the seconded staff.

Summary of lessons learned:

Project design:

- o The two project sites are so geographically remote from the ERRP headquarters in Gedaref, that some senior staff have spent the equivalent of over 100 work days per year driving between sites.
- o A number of assumptions that formed the basis of project design, particularly with respect to various technical interventions, were not adequately investigated.

For example, plantation establishment proved to be much more difficult than foreseen and appropriate agroforestry techniques have yet to be identified or demonstrated. The project design assumed that effective plantation establishment techniques and agroforestry systems existed or could be readily identified for the project area.

Similarly, the objective of plantations serving as a source of badly needed fuelwood, fodder, fencing, and domestic construction material, assumed a certain yield from the plantations. The plantations established, even if fully stocked, are unlikely to yield enough produce to meet the communities needs for tree products.

o The ERRP addressed a relief problem and a development problem. It was intended to provide relief from immediate problems of unemployment and consequent poverty in the settlements and nearby Sudanese villages and to help resolve the problem of natural resource degradation. The relief problem was, however, not investigated or articulated in the project design and was neither addressed by the mid-term evaluation.

o Although the project document provided for possible changes that could be made in the design as the project gained experience, it did not propose a planning process to make and effect those changes.

o The log-frame exercise required for all the USAID funded projects was not undertaken for this project, with obvious difficulties in project monitoring, particularly with respect to testing of assumptions that were used at the time of project design.

o Donors and development assistance program designers should not undervalue the importance to development of infrastructure -- vehicles, building, and equipment -- that becomes the property of the implementing agency and goes a long way in strengthening the institution.

Vehicles are worn out in 4 - 5 years use in rural Sudan. Therefore, project budgets should provide vehicle and equipment replacement during projects' final months to assure the implementing agency of receipt of worthy assets.

Project implementation:

o The project has demonstrated a high level of cooperation between the Central Forestry Administration, the Commissioner of Refugees, the USAID and CARE and served as an excellent example of inter-agency coordination.

o The project did not fully utilize the provisions that were made for consultancies. This could have impacted the project implementation as some of the unutilized consultancies were meant for addressing certain technical aspects of the project, such as those of an agronomist.

o Expatriate staff have sometimes devoted part of their time to routine tasks that could have conveniently been carried out by the local staff, for example disbursement of wages to the nursery and plantation labour.

o The extension unit has developed effective procedures and materials to encourage project beneficiaries to engage in tree planting activities. These techniques can be applied not only in the follow-on project but as well to similar projects elsewhere.

o The principal difficulty encountered by the extension component of the project has not been the development of effective extension techniques, but the lack of proven technical interventions to extend.

o Too little emphasis seems to have been placed on monitoring and evaluating seedling root development and the effect of compost on the growth and survival of seedlings. Changes made in nursery techniques, such as changes in the potting mix, were not based on valid analysis and evaluation and there is no way to find out whether these changes were valid or not.

o The rainwater management and water harvesting techniques developed by the project that have significantly improved the survival of seedlings in the plantations, can be utilized for plantation establishment elsewhere in the Sudan or in other countries where similar agro-climatic conditions exist.

o Continuing mortality in some of the plantations needs to be investigated and the factors responsible for such mortality, whether ecological or otherwise need to be assessed.

Similarly adequate assessments and investigations of species' silvicultural requirements and agroclimatic conditions of the sites need to be made before determining whether to use a direct seeding or planting technique for plantation establishment.

o Various experimental trials undertaken by the project during implementation proved to be worthwhile, particularly those related to rainwater management, water harvesting, species trials and various agroforestry techniques including establishment of shelterbelts on mechanized farms.

o The ERRP program has been and continues to be highly regarded by the Regional and Central Forestry Administration staff. The project seems to have established a base for extension training for forestry staff and for villagers. There exists a physical setting, trained personnel, established procedures, methods and materials for implementation of such programs. These institutional developments will be further refined during the implementation of the follow-on project.