

## Project Assistance Completion Report

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## I. Administrative Data

- A. Project Title: Chad Relief and Rehabilitation Project - Heavy Equipment Repair and Road Rehabilitation
- B. Project Number: 677-0041.3
- C. Country: Chad
- D. Implementing Agency: Ministry of Public Works and National Roads Office (OFNAR); Africare
- E. Type of Funding: Grant, No.677-0041-3-20022
- F. Date of Grant: September 30, 1982
- G. Project Assistance Completion Date: September 30, 1986
- H. Authorized Amount: \$585,000.00  
Reduced to Actual Disbursements: \$559,372.03

## II. Project Objective

As originally conceived this project was to rehabilitate the OFNAR central workshop, repair some heavy equipment and pay operational costs of repairs to the N'Djamena/Guelendeng road. When it became evident that the first two activities would consume most of the projects funds, AID and the GOC agreed to focus on rehabilitation of the OFNAR central workshop and equipment repairs while eliminating the N'Djamena/Guelendeng road repair element. The revised objective was documented in Project Implementation Letters 3,4, and 5.

The Revised Project Objective Became:

To help the Ministry of Public Works address the problem of rehabilitating the road system through the repair and organization of the OFNAR workshop, and repair of 18 pieces of out-of-service heavy road maintenance equipment.

The project was divided into Phases I and II. Phase I was undertaken by Africare between October 1983 and December 1984. Phase II was implemented by USAID/Chad between January 1985 and September 1986 using two Personal Services Contractors (PSCs) and a U.S. Department of Transportation engineer working for USAID/Chad under an inter-agency agreement (PASA).

### III. Project Status:

The effective date of the grant was October 3, 1983 and the original Project Assistance Completion Date (PACD) was June 1, 1985.

All work under this project was completed by the final PACD of September 30, 1985. Unexpended funds of \$25,627.97 were transferred to other Chad Relief and Rehabilitation activities.

### IV. Project Accomplishments:

#### PHASE I

The Phase I objective was to repair heavy road building equipment owned by the Ministry of Public Works. Repaired road equipment was to be used to repair roads identified in the subgrant agreement. The repair of roads was in turn meant to facilitate the transport of food and medical supplies to Chad's interior, thus alleviating much of the human misery and suffering there.

In summary, the Africare scope of work called for Africare to:

- Assist in a survey of the equipment to be repaired and in the ordering of necessary repair parts.
- Assist in organizing the Ministry's equipment repair crew and in supervising their work. Africare was also required to perform some of the repair when the skills and experience levels of the Chadian work crews were inadequate.
- Assist the Ministry in organizing transportation of equipment to the Central yard (workshop) in N'Djamena for repair work, or, for equipment which could not be transported, supervise the necessary repair work in the field.
- Assist the Ministry in the reestablishment and organization of its central repair shop in N'Djamena.
- Assist the Ministry in preparing the monthly activity reports required by the sub-activity agreement between AID and the Government of Chad.
- Arrange for an evaluation of the project during its twelfth month of operation.

As the grantee, Africare also had to select a contractor to renovate the Public Works central workshop (turned over to OFNAR in 1984). In addition, Africare was responsible for commodity procurement, financial management, activity administration and project reporting. Africare's primary agent was a master mechanic working full time for one year at the

central workshop. This master mechanic was supported by the Africare N'Djamena office. As reported in the final Africare project report, the master mechanic's work objective was the repair of approximately 18 pieces of heavy road equipment located in or near N'Djamena. To accomplish this task the mechanic, working with the staff of Public Works:

- Prepared a detailed workplan, identified needs for tools, equipment, and manpower requirements
- Prepared an inventory of tools and equipment
- Helped organize the central garage and supervised equipment maintenance and repairs.

This Operational Program Grant (OPG) to Africare was part of a larger USAID/Chad effort which had as its overall goal the execution of extensive road repairs and road maintenance so that the transport of food and medicine, and resumption of commercial and economic activity in Chad was facilitated. Close collaboration was needed between the Ministry of Public Works, USAID/Chad, and Africare since each organization had key roles to play in converting a shell of a building into an OFNAR repair workshop again for heavy equipment and vehicle repairs as well as regular maintenance operations.

The division of responsibilities was as follows:

Public Works: Supplied qualified work crews and management support for the central workshop;

USAID/Chad: Financed repair work on workshop facility and purchased spare parts with project funds outside the AID grant to Africare;

Africare: Supplied twelve months of technical assistance and local procurement services.

By December 31, 1984, 11 pieces of heavy road equipment had been repaired directly through the project:

Galion T 500C	Road Grader
IH 530	Front End Loader
CAT 977 H	Traxcavator
Berliet GLH	Cistern
IH 1850	Personnel Transport
CAT D-6	Bulldozer
IH TD-20	Bulldozer
IH Hydrostatic	Tractor
CAT 950	Front End Loader
Galion T 500C	Road Grader
Mercedes	Road Grader

Also, repairs were underway on 4 other pieces of equipment:

IH 1750	Mobile Workshop (partially operational)
CAT 977 H	Traxcavator
CAT 12 E	Road Grader
Berliet GLC	Dump Truck

The above listing contained only those pieces of equipment directly worked on through the project. Nine additional pieces of equipment were repaired at the OFNAR garage. Thus, through rehabilitation of the workshop, purchase of tools, and the establishment and training of workcrews the project also contributed to these repairs. The 9 pieces of equipment repaired at the garage were:

CAT 941	Bulldozer	
Mercedes	Dump Truck	(1519)
Mercedes	Dump Truck	(5951)
Mercedes	Dump Truck	(5335)
Mercedes	Dump Truck	(1413)
Mercedes	Dump Truck	(5162)
Mercedes	Dump Truck	(5336)
CAT 120	Grader	Grader
CAT D-7F	Bulldozer.	

The central workshop also facilitated repairs of an unspecified number of Ministry of Public Works passenger vehicles, pick-ups, vans, and buses.

Delays and bottlenecks which affected the project were categorized by Africare as:

- Low morale and worker productivity
- Less than ideal local technical practices
- Delays in rehabilitation of the physical plant
- Procurement delays for imported parts (common to landlocked Chad), and
- Management problems (ie., poor organization).

As the Africare road equipment repairs activity improved the Ministry of Public Works capacity to rehabilitate and maintain part of Chad's road system, Africare has contributed to the overall goal of the Heavy Equipment and Road Rehabilitation Project, i.e., improving the road infrastructure to facilitate the transport of food, medicines, and in general help Chad's commercial and economic sectors through better access to commodities and markets. Initially, the grantee's program and productivity were severely affected by poor work attendance. A supplementary Food for Work program arranged with CARE/Chad improved the situation. Another solution adopted during the project was the provision of worker transport to and from the

central garage, a practice which existed prior to the unrest of 1979-1982.

The major accomplishment of the Africare grant was the supervision of the rehabilitation of a dilapidated, looted building into an operational repair facility and garage. Despite initial low worker morale, poor productivity and spare parts bottlenecks the central workshop was rehabilitated. The existence of the functioning central repair shop helped keep the OFNAR vehicle fleet in operating order, a situation which did not exist prior to the project.

In its final report Africare recommended: a system of reward and punishment to improve worker performance; more worker training through refresher courses and on-the-job training programs. Additionally, Africare recommended that in the future AID should finance a Public Works project to build on improved work habits developed by OFNAR personnel during the project.

#### PHASE II

The Phase II sub-activity followed Phase I. Phase II called for the employment of two Personnel Services Contractors for the central workshop repair facility; a spare parts inventory specialist and a master mechanic who could also serve as shop superintendent.

The shop superintendent, Mr. Aughenbaugh arrived on February 22, 1985 and the spare parts specialist Mr. Gerard Rene arrived on March 19, 1985. Both arrivals were later than the early January 1985 estimated date of arrival due to recruitment problems implicit when technically qualified French speaking personnel is needed.

The PID design team for project 677-0050 indicated that the two technicians were needed not only to repair equipment but also to prepare the groundwork for the 677-0050 project by setting up a good workshop organization.

Mr. Deby, the Director of the National Road Rehabilitation Office (OFNAR), created in 1984 to be responsible for road rehabilitation and maintenance, agreed that Phase II of the project should concentrate on the repair of heavy equipment to be used by OFNAR in its road maintenance activities.

In addition to the two PSC contractors, USAID/Chad also financed the PASA services (using PM and R funds) of a U.S. Department of Transportation road engineer to supervise the Phase II work while preparing the way for the start-up of the Strengthening Road Maintenance Project.

V. Project Finances

Technical Assistance (Africare)	\$151,954.47
Two Personal Service Contractors (PSCs)	59,084.09
Operating Expenses - PSCs	21,051.39
Commodities	13,199.13
Commodities	288,299.00
Local Costs - Central Workshop Repairs	25,783.05
Total	\$559,372.03

VI. Continuing Post-Project AID Monitoring Responsibilities.

There are no planned post-project evaluation or monitoring activities.

VII. Summary of Lessons Learned.

- A. The programming method (umbrella financing and the AID approved project paper) followed by activity justification papers, and further defined by individually approved work plans, was an effective and flexible method of rapid response to Chad's war and drought related emergency. This was particularly true in this project due to Africare's extensive capability as a PVO operational in Chad following the civil disturbances of 1979 - 1982.
- B. The implementation of this R & R project was a useful pre-project implementation phase for the follow-on \$27.5 million Strengthening Road Maintenance Project. The project has provided the Chadian counterparts with refresher On-The-Job-Training they needed after the work hiatus caused by the civil disturbances of 1979-82. The project also aided the work of the Strengthening Road Maintenance Project technical assistance team by providing a system upon which the team could build as it awaited delivery of ordered equipment, spare parts and arrival of other team members.

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