



Africare

"L'Amélioration de la qualité de la vie en Afrique rurale
en développant les ressources hydrauliques, la production agricole, et les services de santé."

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Chad Relief and Rehabilitation Project

Grant N°.677-0000-G-00-3168-00

Project N° 677-0041

ACTIVITY PROGRESS REPORT N° 4.

ACTIVITY TITLE : HEAVY EQUIPMENT AND ROAD REHABILITATION

ACTIVITY N° PIC/T 677-0041-3-20022

EXECUTIVE ORGANIZATION : AFRICARE

DEPARTMENT : CHAD

CERTIFYING OFFICER : Dan Gerber, Country Representative

Submitted to : USAID Representative to Chad
Director Ministry of Public Works

cc : Office of Development Information
and Utilisation

Bureau for Development Support
USAID/W

July - October 1984

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I. - Introduction and General Reference

This fourth report of the Heavy Equipment and Road Rehabilitation Project (PIO/T 677-0041-3-20022) follows the format stipulated in the project agreement to document the work accomplished by the master mechanic during the period July 1, 1984 to October 31, 1984.

- Agency : Africare
- Activity Title : Chad Relief & Rehabilitation Project Heavy
Equipment and Road Rehabilitation Sub-Activity.
- Activity Number : 677-0041
- Grant Number : 677-000-G-00-3168-00
- Report Prepared by:
Dan Gerber - Country Representative based on
the draft written by Henry Tyszka, master
mechanic.

II. - Activity Description

The purpose of this OPG is to provide a master mechanic to the Ministry of Public Works to help repair approximately 18 pieces of heavy road equipment located in or near N'Djamena. To accomplish this purpose it is necessary for the master mechanic, working with the staff of Public Works, to : prepare a detailed work plan; identify needs in tools, equipment, and manpower; prepare an inventory of tools and equipment; help organize the Public Works garage; and supervise repairs and maintenance on the equipment.

This OPG is part of a larger USAID effort which has as its overall goal the repair of roads in need of extensive repairs and maintenance so that the transport of food and medicine and resumption of commercial and economic activities in Chad is facilitated. Close collaboration is needed between the Ministry of Public Works, USAID, and Africare since each have key roles to play to get what was a shell of a building and completely non-existent repair and maintenance operation functional. Among the responsibilities: Public Works needs to supply qualified work crews and management support; USAID needs to have the

workshop facility repaired and to purchase many of the spare parts with money outside the Africare OPG; Africare needs to supply 12 months of technical assistance and local procurement.

The effective date of the OPG was October 3, 1983 and the final date for commitments is June 1, 1985. The 12 month assignment of the Africare master mechanic is for the period of calendar year 1984.

III. - Implementation

During the period July to October 1984 repair work was completed on 5 additional vehicles:

- IH 1850 personnel transport
- Cat D6 Bulldozer
- IH TD 20 Bulldozer
- IH Tractor
- Cat 950 Front end Loader.

The following vehicles are either ongoing repairs or awaiting delivery of spare parts:

- Cat 977 Traxcavator
- IH 1750
- Mobile Repair shop
- Cat 12-E Grader
- Berliet Dump Truck
- Mercedes Road Grader
- Galion Road Grader
- IH 1850 Cisterne.

One vehicle is awaiting assessment --
 IH 1850 Dump Truck.

Overall the project is somewhat behind in its implementation schedule. This is due to the following factors:

- 1) delay in completion of the repairs to the workshop,
- 2) lower than hoped for worker productivity,
- 3) delays in procurement of necessary spare parts.

These factors are discussed in greater detail in section VII below.

IV. - Objectives/Targets

The implementation section above notes the status of repairs on the heavy road equipment at the end of this reporting period. The 5 vehicles repaired during this period bring to 9 the number repaired directly through the project. With the work currently underway on other pieces of road equipment it is likely that a few more will be repaired before the completion of the master mechanic's contract in late December.

The number which will be repaired prior to his departure depends partly on whether the ordered spare parts arrive in time.

These additional repairs will bring the total number of vehicles repaired close to the original goal of approximately 18 pieces of heavy equipment.

V. - Physical Progress

The number of vehicles repaired and those awaiting spare parts and undergoing repairs are listed above.

VI. - Major Accomplishments With Respect to Overall Purposes

Besides the repairs undertaken on the heavy road equipment listed above, during this reporting period four pieces of heavy equipment were retrieved. A comprehensive list of heavy equipment in Chad was also compiled by the National Road Bureau (OPNAR). This list also gives a rough estimate of the condition of each vehicle. Also as called for in the OPG, an evaluation was performed on the project (See Attachment A). The evaluation estimates the project has been 67% completed as of September 8, 1984.

VII. - Delays and Bottlenecks

Three areas which are causing the project to fall somewhat behind schedule are delays in completion of repairs on the workshop, lower than hoped for worker productivity, and delays in procurement of necessary spare parts. Each of these areas is discussed below.

A. Workshop Repairs

The contract for repairing the workshop was terminated with 35 % of the work yet to be completed. (This contract is outside of the Africare OPG). Beside taking longer than anticipated to repair the facility — which in turn has slowed repairs on the equipment — the work yet to be completed effects security and safety. Locks and security structures have yet to be completed. With the purchase of additional tools and spare parts the risk of theft becomes a greater concern.

The concrete floor has only been 50% completed. This results in decreased workshop efficiency. Vehicles must be pushed from one side of the workshop to the other and a four inch difference between the level of the new floor and the old floor causes difficulties. Also, it is a safety hazzard should a truck without brakes be moved. Leaks to the roof also are a safety problem as one large puddle forms in front of a tool crib and another leak is in the engine overhaul area near an electric installation.

B. Work Force Productivity

While attendance has increased markedly since the implementation of a Food For Work program requiring the workers to turn in attendance cards each morning and to collect them at the end of each day, problems continue concerning worker presence during the work day. Unauthorized disappearances and absences are not uncommon. Workers often stay away from assigned shop sections so that they cannot be located as needed. This often results in lengthy delays .

Also individual perceptions concerning the appropriateness of assigned tasks has posed some problems. For example in the machine shop area, which is one requiring the most attention to cleanliness due to the precise nature of the work and machines, there is little maintenance. Machines are rusty, grimy, lack lubrication and are in generally poor repair. Efforts to have this area better maintain have met with resistance. The floors are not swept regularly nor are relatively costly custom made covers for the equipment placed over the machines when they are not in use. This example illustrates the kind of problem encountered to date which reduces shop efficiency and safety.

To improve productivity the following suggestions have been made:

- 1) Since the main function of the workshop foreman is to assure the continuity of workshop operation, the foreman should be on site 100 % of the time. Any duties requiring attention off-site should be performed by delegating the responsibility to an assistant.
- 2) Duties should be assigned so that specialized personnel are not assigned tasks that may be performed by less specialized personnel.
- 3) All work and traffic flow should be cleared with the foreman. All vehicles needing repair should be covered by a work order. Vehicles awaiting repairs should be assigned a parking space in the yard that does not block access to doors and passage through the yard. Deliveries of parts should be designated as to which door to use and where to place the parts delivered so as not to block aisles.
- 4) The foreman should float constantly from repair crew to repair crew to monitor work being performed as to progress and quality. Blockages and needs should be anticipated and other tasks assigned until blockages are eliminated or needs met.
- 5) Each crew should be assigned a work site at which they remain while waiting further assignments. Crews should signal when a work need or blockage is encountered, and report for further assignment once a task is terminated.
- 6) Each crew should be assigned an area for which they are responsible to clean daily, and the foreman should inspect.

The shop foreman should assign tasks to section heads who will be responsible for immediate supervision of their sections as to quantity and continuity of work. Section heads should be made aware of a sufficient number of tasks needed to be done so that work crews are kept occupied.

- 7) Workshop manuals and parts catalogs should be consolidated and a sign-out procedure established. It should be noted that manuals and catalogs of American made equipment pose problems for ordering parts and repairs as they are often not translated into French.

C. Procurement of Spare Parts

Due to the limited number of available spare parts in Chad delays in procurement of spare parts were not unexpected. During this period it was proposed to increase the Africare OPG by \$ 165,000 to allow Africare to procure needed spare parts directly thus helping speed up procurement. This proposed amendment has yet to be approved at the end of this reporting period.

VIII. Non-AID Inputs

Care/Chad's Food For Work Program is being carried out efficiently.

IX. Attachments

- A. Evaluation of Heavy Equipment Repair and Road Rehabilitation (N° 667-0041.3).
- B. Financial Status Reports for the period 04/01/84 to 06/30/84 and 07/01/84 to 09/30/84.

EVALUATION OF HEAVY EQUIPMENT REPAIR AND ROAD REHABILITATION (NO. 677-0041.3)

An internal evaluation of the project was carried out in August, 1984 by a three-person team representing USAID/Chad, the Directorate of Public Works, and AFRICARE respectively: Henry Tyszka, Project Senior Mechanic; Ouandjare Babai Malaye, Chadian Project Manager; and Samir M. Zoghby, GDO.

The following reflects the findings of the evaluation team. The list of actions to be checked was drawn from the Project Agreement.

1. Determination of equipment to be repaired
 - a. Responsible agent: Public Works
 - b. Status: 90% completed
 - c. Observations: 16 pieces of Heavy Equipment of the 18 to be repaired have been identified.

2. Determination of parts needed to repair road equipment
 - a. Responsible agent: Public Works
 - b. Status: 88% completed
 - c. Observations: Major parts have been determined. Other parts needed are determined as each piece of equipment is overhauled.

3. Procurement of needed parts
 - a. Responsible agent: USAID
 - b. Status: 35% completed
 - c. Observations: Purchase order issued and mailed. Some parts were retrieved from destroyed equipment, others were bought locally, and some were recuperated from the vandalized spare parts shop at the workshop. Some parts were also provided by CARE/Chad for the pieces of equipment which they repaired to be used on the Food For Work Road Repair Project (677-0041.4).

4. Recuperation of road repair equipment and return to N'Djamena
 - a. Responsible agent: Public Works
 - b. Status: 90% completed
 - c. Observations: Six pieces of equipment were recuperated:
 - A mobile workshop from Mani
 - A grader (T500C) from Douguia
 - A front-end loader (530A) from Massaguet
 - A I.H. bulldozer (TD20G) from Douguia
 - A trax from Douguia
 - A tractor (Seaman) from Douguia

All the other ten pieces were located in N'Djamena.

5. Determination of workshop tools and equipment
 - a. Responsible agent: Public Works
 - b. Status: 80% completed
 - c. Observations: Most needs have been identified.

6. Recruitment of Master Mechanic
 - a. Responsible agent: USAID/AFRICARE
 - b. STATUS: 100% completed
 - c. Observations: Master Mechanic arrived in January, 1984. He has established a close working relationship with his Chadian counterpart.

7. Procurement of workshop tools and equipment
 - a. Responsible agent: USAID
 - b. Status: 50% completed
 - c. Observations: Part of the tools were purchased in Cameroon. A PIO/C has been issued and a purchase order mailed. An additional final tool list is being completed.

8. Repair of Workshop
 - a. Responsible agent: USAID
 - b. Status: 60% completed
 - c. Observations: The repair of the workshop was plagued by a three-cornered problem: the perennial delays by the contractor, the repair of water leaks, and the hooking up of appropriate electric voltage. The water problem has been resolved and the electricity problem is being resolved. The contractor has 18 days as of 8/2/84 to complete the work, otherwise he will be penalized by a very heavy fine. There is a misunderstanding with the contractor concerning a cement floor in the workshop. Part of the job is completed and we are looking for a way to complete the job.

9. Procurement of utility vehicle
 - a. Responsible agent: USAID
 - b. Status: 100% completed
 - c. Observations: The vehicle has arrived and a driver was hired.

10. Organization of workshop management and division of responsibility
 - a. Responsible agent: Public Works and AFRICARE Master Mechanic
 - b. Status: 100% completed
 - c. Observations: The workforce at the workshop has been organized into five work groups: Heavy equipment, trucks and cars, engine overhaul, electricity, machine shop and body shop.

11. Repair of Road Equipment
 - a. Responsible agent: Public Works
 - b. Status: 48% completed
 - c. Observations: Eight pieces of equipment have been rehabilitated, and eight are undergoing repairs.

12. Training of Chadian teams working in workshop
 - a. Responsible agent: Public Works, and AFRICARE Master Mechanic
 - b. Status: 60% completed
 - c. Observations: On-the-job training underway

13. Organization of road brigades
 - a. Responsible agent: Public Works
 - b. Status: 0% completed
 - c. Observations: Delays in the organization of the road brigades are due to the transfer of responsibility for road maintenance and repair from the Division of Public Works to the National Road Authority (OFNAR) which is still underway.

14. Presentation of workplan and budget for Phase II
 - a. Responsible agent: Public Works
 - b. Status: 0% completed
 - c. Observations: See 12.c

15. Certification of Public Works accounting system
 - a. Responsible agent: USAID
 - b. Status: 100% completed
 - c. Observations: The Public Works system has been certified. We now have to ascertain the modalities of the transfer of responsibility from Public Works to OFNAR to make sure that, if transferred, the trained Chadian personnel and the system used are the ones we certified.

General Comments:

This project has had a number of problems. The Master Mechanic was recruited late, the workshop was not repaired quickly, parts and tools did not arrive as fast as expected, and road maintenance was taken from Public Works and given to a newly-created organization with all the ensuing transition problems. Yet, in spite of all these problems, the project is 67% completed. Problems were tackled and resolved:

1. A close working relationship was developed between the Master Mechanic and his Chadian counterpart.
2. A trip was made by both to Cameroon to purchase the most immediately-needed tools.
3. A Food-For-Work supplement was arranged with CARE as an incentive for workers now paid a half-salary to arrive on time to work and remain until the end of the day.
4. The workshop repairs are planned to be completed by September 11, 1984.
5. The transition from Public Works to OFNAR is underway and should be as smooth as possible allowing for typical problems of transition.

GDO:SMZoghby:lc

September 8, 1984

FINANCIAL STATUS REPORT

(Follow instructions on the back)

1. FEDERAL AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH REPORT IS SUBMITTED
 United States Agency for International Development

2. FEDERAL GRANT OR OTHER IDENTIFYING NUMBER
 677-0000-G-00-3168-00

OMB Approved No. 80-RO180

PAGE 1 OF 1

3. RECIPIENT ORGANIZATION (Name and complete address, including ZIP code)

AFRICARE, INC.
 1601 Connecticut Avenue, N.W.
 Washington, D.C. 20009

4. EMPLOYER IDENTIFICATION NUMBER
 23-7116952

5. RECIPIENT ACCOUNT NUMBER OR IDENTIFYING NUMBER
 2203 Chad Mechanic

6. FIN'L REPORT
 YES NO

7. BASIS
 CASH ACCRUAL

8. PROJECT/GRANT PERIOD (See instructions)

FROM (Month, day, year)
 10/03/83

TO (Month, day, year)
 06/01/85

FROM (Month, day, year)
 04/01/84

PERIOD COVERED BY THIS REPORT
 TO (Month, day, year)
 06/30/84

STATUS OF FUNDS

PROGRAMS/FUNCTIONS/ACTIVITIES ▶	(a) Personnel	(b) Travel and Allowances	(c) Equipment	(d) Supplies	(e) Other Direct	(f) Indirect Cost	TOTAL (g)
a. Total outlays previously reported	\$ 13,586.71	\$ 51,979.49	\$ 2,276.96	\$ 596.58	\$ 18.70	\$ 5,795.43	\$ 64,253.87
b. Total outlays this report period	15,121.48	8,839.10	7,300.43	750.87	111.37	7,393.34	35,516.59
c. Less: Program income credits	-0-	-0-	-0-	-0-	-0-	-0-	-0-
d. Net outlays this report period (Line b minus line c)	15,121.48	8,839.10	7,300.43	750.87	111.37	7,393.34	35,516.59
e. Net outlays to date (Line a plus line d)	28,708.19	66,818.59	9,577.39	1,347.45	130.07	13,188.77	69,770.46
f. Less: Non-Federal share of outlays	-0-	-0-	-0-	-0-	-0-	-0-	-0-
g. Total Federal share of outlays (Line e minus line f)	28,708.19	66,818.59	9,577.39	1,347.45	130.07	13,188.77	69,770.46
h. Total unliquidated obligations	-0-	-0-	-0-	-0-	-0-	-0-	-0-
i. Less: Non-Federal share of unliquidated obligations shown on line h	-0-	-0-	-0-	-0-	-0-	-0-	-0-
j. Federal share of unliquidated obligations	-0-	-0-	-0-	-0-	-0-	-0-	-0-
k. Total Federal share of outlays and unliquidated obligations	28,708.19	66,818.59	9,577.39	1,347.45	130.07	13,188.77	69,770.46
l. Total cumulative amount of Federal funds authorized	64,480.00	46,980.00	20,532.00	1,500.00	200.00	26,308.00	160,000.00
m. Unobligated balance of Federal funds	35,771.81	30,161.41	10,954.61	152.55	69.93	13,119.23	90,229.54

1. INDIRECT EXPENSE	a. TYPE OF RATE (Place "X" in appropriate box)		c. BASE	d. TOTAL AMOUNT	e. FEDERAL SHARE
	<input checked="" type="checkbox"/> PROVISIONAL	<input type="checkbox"/> PREDETERMINED			
2. RE	12.9%		\$10,924.84	\$1,409.30	\$7,393.34
3. DE	25.8%		\$45,656.84	\$11,779.47	
			\$56,581.68	\$13,188.77	
				\$5,795.43	
				7,393.34	

23. CERTIFICATION
 I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays and unliquidated obligations are for the purposes set forth in the award documents.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

Charles C. Kennedy
 TYPED OR PRINTED NAME AND TITLE
 C. Payne Lucas
 Executive Director

DATE REPORT SUBMITTED
 02/24/84

TELEPHONE (Area code, number and extension)
 (202) 462-3614

5A-201

Overhead rate adjustment per USAID Approval

7,393.34

FINANCIAL STATUS REPORT

(Follow instructions on the back)

1. RECIPIENT ORGANIZATION (Name and complete address, including ZIP code)

AFRICANE
1601 Connecticut Ave., N.W.
Washington, D.C. 20009

1. FEDERAL AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH REPORT IS SUBMITTED

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

2. FEDERAL GRANT OR OTHER IDENTIFYING NUMBER

677-0000-G00-3168-00

OMB Approved
No. 25-R0180

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1 1

PAGES

4. EMPLOYER IDENTIFICATION NUMBER

23-7116952

5. RECIPIENT ACCOUNT NUMBER OR IDENTIFYING NUMBER

2203 CHAD MECHANIC

6. FINAL REPORT

YES NO

7. BASIS

CASH ACCRUAL

8. PROJECT/GRANT PERIOD (See instructions)

FROM (Month, day, year)
10/03/83

TO (Month, day, year)
06/01/85

9. PERIOD COVERED BY THIS REPORT

FROM (Month, day, year)
07/01/84

TO (Month, day, year)
09/30/84

10.

PROGRAMS/FUNCTIONS/ACTIVITIES ▶	(a) PERSONNEL	STATUS OF FUNDS						TOTAL (g)
		(b) TRAVEL AND ALLOWANCES	(c) EQUIPMENT	(d) SUPPLIES	(e) OTHER DIRECT	(f) INDIRECT COST	(g)	
a. Net outlays previously reported	\$ 28,708.19	\$ 16,818.59	\$ 9,577.39	\$ 1,747.45	\$ 130.07	\$ 13,188.77	\$ 69,770.46	
b. Total outlays this report period	10,238.95	2,098.81	5,104.22	457.94	-0-	3,900.66	21,800.58	
c. Less: Program income credits	-0-	-0-	-0-	-0-	-0-	-0-	-0-	
d. Net outlays this report period (Line b minus line c)	10,238.95	2,098.81	5,104.22	457.94	-0-	3,900.66	21,800.58	
e. Net outlays to date (Line a plus line d)	38,947.14	18,917.40	14,681.61	1,805.39	130.07	17,089.43	91,571.02	
f. Less: Non Federal share of outlays	-0-	-0-	-0-	-0-	-0-	-0-	-0-	
g. Total Federal share of outlays (Line e minus line f)	38,947.14	18,917.40	14,681.61	1,805.39	130.07	17,089.43	91,571.04	
h. Total unliquidated obligations	-0-	-0-	-0-	-0-	-0-	-0-	-0-	
i. Less: Non Federal share of unliquidated obligations shown on line h	-0-	-0-	-0-	-0-	-0-	-0-	-0-	
j. Federal share of unliquidated obligations	-0-	-0-	-0-	-0-	-0-	-0-	-0-	
k. Total Federal share of outlays and unliquidated obligations	38,947.14	18,917.40	14,681.61	1,805.39	130.07	17,089.43	91,571.04	
l. Total cumulative amount of Federal funds authorized	64,480.00	46,950.00	20,532.00	1,500.00	200.00	26,308.00	160,000.00	
m. Unobligated balance of Federal funds	25,532.86	28,062.60	5,850.39	(305.39)	69.93	9,218.57	68,428.96	

11. INDIRECT EXPENSE

a. TYPE OF RATE

(Place "X" in appropriate box) PROVISIONAL PREDETERMINED FINAL FIXED

b. RATE

12-0%

c. BASE

\$ 5,562.16

d. TOTAL AMOUNT

\$ 717.52

e. FEDERAL SHARE

\$3,900.66

12. REMARKS: Attach any explanations governing adjustments.

\$3,900.66

comply in compliance with

13. CERTIFICATION

I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays and unliquidated obligations are for the purposes set forth in the award documents.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

C. Payne Lucas

TYPED OR PRINTED NAME AND TITLE
C. PAYNE LUCAS
EXECUTIVE DIRECTOR

DATE REPORT SUBMITTED

12/12/1984

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(202) 462-3614