

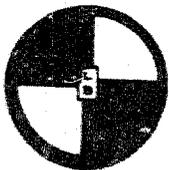
EVALUATION OF OFDA AND FFP GRANTS TO
CARE INTERNATIONAL IN MOZAMBIQUE

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Submitted to:

The Office of Foreign Disaster Assistance
and
The Office of the A.I.D. Representative
U.S. Agency for International Development
Maputo, Mozambique

Submitted by:



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11 June 1988

EXECUTIVE SUMMARY

The current situation in Mozambique is an anomaly. On the one hand, its rapid execution of and initial successes with an Economic Rehabilitation Program are fast turning it into a favored example of the International Monetary Fund. On the other hand, over 2.2 million Mozambicans are affected by severe shortages of food and other items essential to their survival, and a further 1.1 have been displaced from their homes due to a continuing cycle of drought, floods, and an active and widespread war of destabilization. It is thus currently one of Africa's more promising successes or major disasters, depending on one's point of view.

The U.S.-based non-governmental organization CARE International has worked in Mozambique since 1984, assisting in the creation of a Logistics Support Unit (LSU) within the governmental Department of the Prevention and Combat of Natural Calamities (DPCCN). The mandate of the LSU is to manage and transport emergency food and non-food commodities throughout the nation to at-risk populations. CARE's work has been supported since 1984 by a series of grants totalling approximately U.S.\$ 9 million from A.I.D.'s Offices of Foreign Disaster Assistance (OFDA) and Food For Peace (FFP). Prior to providing additional funding, these offices contracted for this Evaluation of CARE's performance to date.

The Evaluation assesses the Grant activities within both spheres of interest to A.I.D., i.e. the emergency situation and the overall economic environment. It thus analyzes CARE's performance in terms of overall effectiveness in meeting humanitarian objectives as well as efficiencies which have and have not been obtained in terms of creating a Mozambican disaster preparedness institution that can be sustained over time. It concludes that CARE has made a strong contribution to development of an effective and well-equipped Mozambican disaster relief structure, of which the LSU is but one part. CARE's careful attention to a system's approach to the needs will have a very high payoff in the medium and long term. CARE has been less concerned with efficiencies of the operation in the short term, given the massive needs. As CARE has done well in establishing an effective system, so it now must turn to the fine-tuning to enable the Mozambicans to maintain that system in the future.

The period 1984-1987 is characterized as one of high growth:

- In 1984 emergency assistance was delivered to only three of Mozambique's ten Provinces; by 1987, nine were benefitting from CARE and DPCCN services. "Phase 1" of a CARE Master Plan of Operations tracking commodities from the donors to the Provincial level was installed

and accountability for approximately 70 percent of commodities to the Provincial level was achieved; the Evaluation proposes a target for 1988 of 95 percent accountability to the Provincial level, which appears reasonable.

- Beginning in July, 1987, "Phase 2" of the Master Plan was initiated with the appointment and training of Delegates in 50 of Mozambique's accessible districts. Another 20 will be recruited and trained in 1988. This means that 61 percent of Mozambique's affected districts (i.e. all those that are accessible) will be fully accounting for commodities in the near future. The evaluation proposes a target of 50 percent accountability for these sites for 1988, which seems optimistic given the low skills level of the District Delegates. With a recommended strong refocussing on training, accountability at the District level should increase dramatically in 1989.

- In 1985 the DPCCN/LSU managed 61,550 tons of donor commodities to five Provinces; by 1987 the total had grown to 153,253 tons in nine Provinces, for an almost 250 percent increase in quantity and an over 50 percent increase in coverage. It must be emphasized that the 98,000 tons of the 1987 contribution that was cereals, represents adequate rations for only approximately 800,000 of Mozambique's 3.3 million at-risk persons; absolute availability of food is thus still a constraint.

- Given growth of widespread terrorist activities and concomitant difficulties with internal transport routes, LSU/CARE relies on use of 18 points of entry for commodities around the country, i.e. the three major ports, several minor ports, and numerous rail and road entry points from the interior. This compounds problems with accountability and increases costs, but is considered appropriate in terms of a high degree of effectiveness in reaching at risk populations;

- In 1984 the DPCCN/LSU fleet to move the commodities from points of entry to the Provinces and Districts consisted of 61 vehicles in varying states of repair; by 1988 it had a total of 489 trucks, tractors and light vehicles, of which 65 had been destroyed, 32 of these by terrorist mine explosions; and

- In 1984 DPCCN storage capacity throughout the country was about 5,000 tones; by 1988 it managed over 60,000

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tons of storage capacity in Provincial and District headquarters.

This growth has been supported by over 40 non-governmental organizations, UN agencies, and multilateral and bilateral donors, which in 1987 alone provided more than \$ 325 million dollars of emergency assistance. It has been managed by the increasingly effective DPCCN, which serves as the implementing agency of a multi-tiered GPRM emergency management structure. CARE professionals participate on several of the committees and have made a positive contribution to acquisition of donor commodities and equipment. By 1987, A.I.D.'s contribution to the LSU/CARE operating budget had decreased to less than 50 percent of the total.

The overall effectiveness has been accomplished through establishing LSU as a vertically integrated logistics unit, covering planning, collection of baseline information, and emphasis on developing a full "in-house" transport capacity. Given the "institutionalization" of the emergency and related growth of other structures, as well as the slight up-turn and cautious confidence in the economy, the Team recommends that the LSU begin "horizontal" integration in the interests of increased efficiency.

The key area in which the LSU can develop efficiencies and, in the process, help the nation move towards a recovery mode is in use of private sector transport. The Evaluation Team's data collection and analysis indicate that use of private truckers for long-haul and relatively safe routes would reduce LSU-direct cargo by approximately 10 percent and would save OFDA and FFP approximately \$ 132,000 in hard currency in the first year. Options beyond simple contract which involve more investigation but which would greatly increase LSU efficiency over time include: (i) selling DPCCN trucks to the private sector and then contracting with local currency for food transport; (ii) selling DPCCN's large trucks and replacing them with short-haul, robust vehicles for the District roads (with private transporters handling the Provincial runs); (iii) providing trucks and/or spare parts directly to the private sector through an A.I.D. Commodity Import-type Program; and/or (iv) contracting a transport management firm to initiate a hire-purchase scheme for private transporters.

Other areas for "horizontal" integration include shifting of the LSU Information Section into a newly created Department of Projects, Information and Planning in the DPCCN, increased use of other modes of transport, particularly cabotage (i.e. coastal barges) and river, and increased use of private sector vehicle repair facilities as these are rehabilitated.

The key recommendation for the short term is to move into a "no growth" phase, with emphasis on making what has been created work more efficiently. The Team strongly recommends that the fleet not be increased beyond its present levels. It further recommends no new initiatives or additional expatriate personnel within the LSU for CARE. Emphasis must be on improved cost accounting to identify opportunities for cost savings and on vastly increased, organized training at all levels.

In this regard, the Evaluation examines three options for improved accountability through end-use verification. It strongly recommends that the LSU not extend itself any further, i.e. adding another level of personnel at the sub-district, until Phase 1 (donor-to-Province) and Phase 2 (Province-to-District) are reaching acceptable levels of accountability. It provides analysis which indicates that a separate end-use system for all commodities would be very costly. It recommends instead a "low cost-no cost" option of the DPCCN enlisting the assistance of cooperating NGO's and UN agencies in a more formalized random spot check system. This will improve end-use confidence while not over-straining already fragile systems.

For U.S. Title II commodities, the Team cautions against OFDA supporting the creation of costly parallel structures by other NGO's. It recommends instead encouraging NGO's who are consignees of Title II food to develop District-based programs which emphasize end-use verification of commodities delivered by DPCCN/LSU at the level which it does not operate.

Based on this massive "high growth" phase, skills transfer at the managerial level has been inadequate and the Team recommends that OFDA/FFP plan to fund CARE at present levels for another 2 years and reevaluate the situation in April, 1990. It should, however, treat CARE more as a technical assistance contractor than an NGO and establish verifiable performance indicators in future Grants. It should also detail in the Grant what types of reporting, and in what format, A.I.D. requires. The information exists; A.I.D. must simply make its needs known.

Given the slight upturn in the economy and prospects for a good harvest in many locations this year the emergency management structure is beginning to move from the high growth and emphasis on effectiveness to the longer term emphasis of efficiently allocating donor and government resources. The transition from emergency to recovery is thus beginning. While the rapid development of a vertically integrated structure has enabled LSU/CARE to gain control in the one area it can control, it should now adapt to other types of needs if gains made are to be sustained. Beginning to "horizontally" integrate and in the

process stimulate the private transport sector is a recommended start. Providing transport services for agricultural marketing may well be a second step. This transition will require occasional pushes from the outside. OFDA and OAR/Maputo, either themselves or through intermediaries, need to provide this push through closer monitoring of the environment.

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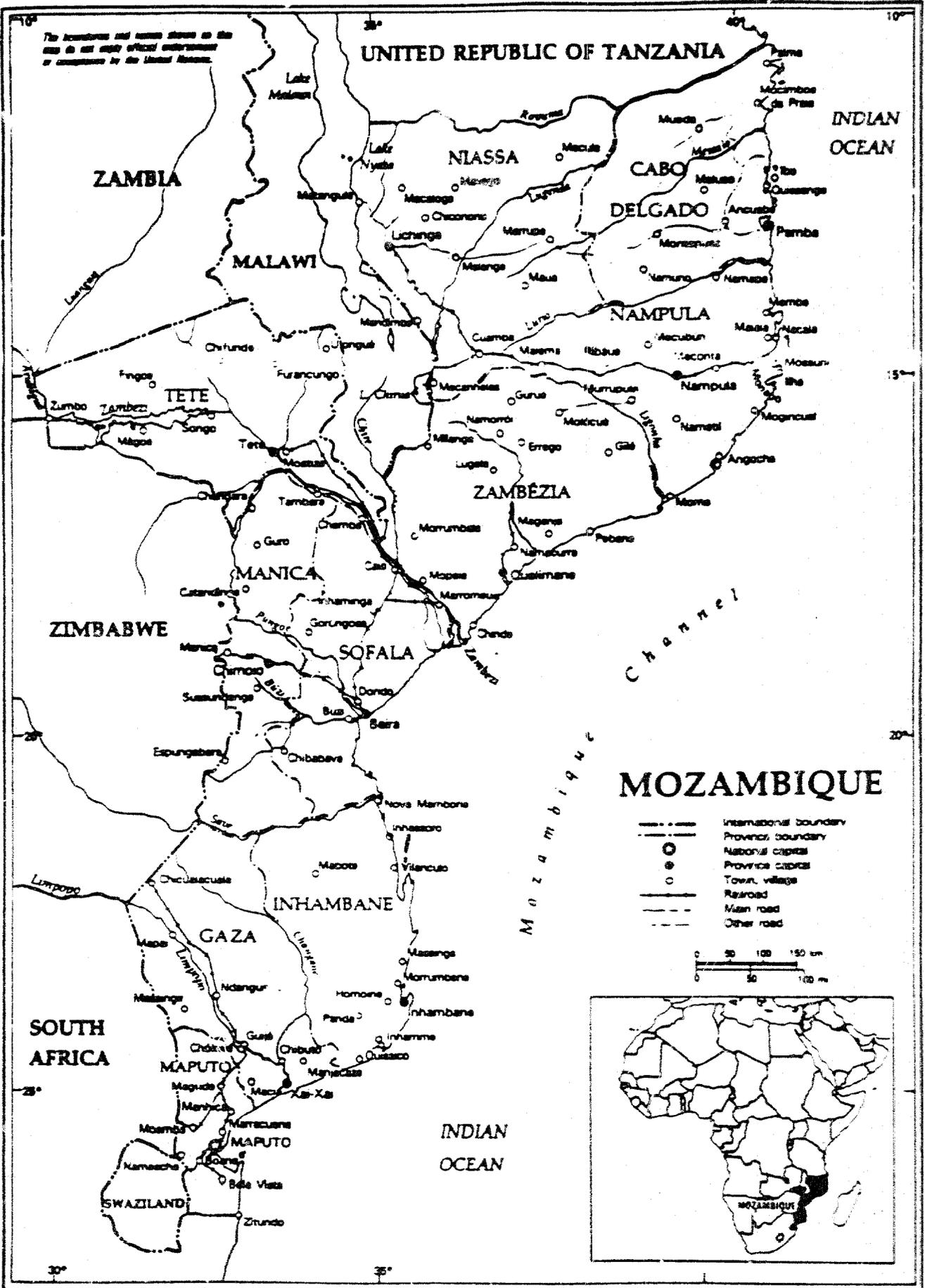
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GLOSSARY OF TERMS USED

Note: As this report is in English, although many acronyms derive from the Portuguese, English definitions are used where possible.

ADRA	:	Adventist Development and Relief Agency, a U.S. NGO
AfDB	:	African Development Bank
AFR	:	A.I.D.'s Bureau for Africa
Africare	:	U.S. NGO
AGRICOM	:	Mozambican parastatal agricultural marketing organization
A.I.D.	:	United States Agency for International Development
AIRSERV	:	U.S. NGO providing passenger air transportation in Mozambique for development and relief operations
Camionagem	:	Mozambican parastatal trucking company
CARE	:	Cooperative for American Relief Everywhere, an international non-governmental organization with headquarters in the United States
CCM	:	Christian Council of Mozambique, an NGO
CENE	:	Mozambican National Executive Commission for Emergency
CFM	:	Mozambican Railways
CIP	:	A.I.D.'s Commodity Import Program
COE	:	Mozambican Emergency Operations Committee
CPE	:	Mozambican Provincial Emergency Commission
DPCCN	:	Mozambican Department for the Prevention and Combat of Natural Calamities
EEC	:	European Economic Community
FFP	:	Food For Peace, food commodities provided under U.S. Public Law 480; also the symbol for the A.I.D. office concerned with such in Maputo and in Washington
FY	:	Fiscal Year
GPRM	:	Government of the People's Republic of Mozambique
IBRD	:	International Bank for Reconstruction and Development, the World Bank
ICRC	:	International Committee of the Red Cross/Red Crescent
IMF	:	International Monetary Fund
kg	:	kilogram
km	:	kilometet
LAM	:	Mozambican Airlines
LSU	:	Logistical Support Unit of DPCCN
metical	:	Mozambican currency, the plural of which is meticais; U.S.\$ 1.00 = 450 meticais in May, 1988
MPO	:	LSU/CARE's Master Plan of Operations
MSF	:	Master Shipment File of DPCCN/LSU
Mt	:	meticais, the Mozambican currency
N/A	:	not available or not applicable

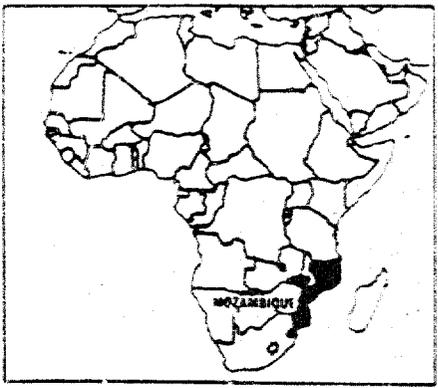
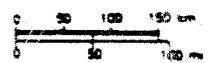
NGO : Non-Governmental Organization
 OAR : Office of the A.I.D. Representative (Maputo)
 OFDA : A.I.D.'s Office of Foreign Disaster Assistance
 OXFAM : Oxford Famine Relief Organization, an NGO;
 OXFAM/UK (United Kingdom) and OXFAM/US (United
 States) are both present in Mozambique
 PLO : CARE Provincial Logistics Officer in Mozambique
 PRE : Mozambique's Economic Rehabilitation Program
 PVC : Private Voluntary Organization, the same as NGO
 SADCC : Southern Africa Development Coordination Con-
 ference
 SCF/UK : Save the Children Fund/United Kingdom, an NGO
 SCF/US : Save the Children Fund/United States, an NGO
 T, tn. : ton; only metric tons are used in this report
 tn./km : ton/kilometer
 UN : United Nations
 UNDP : United Nations Development Program
 UNDRO : United Nations Disaster Relief Organization
 UNHCR : United Nations Office of the High Commissioner for
 Refugees
 UNICEF : United Nations Children's Fund
 UNSCERO : United Nations Office of the Special Coordinator
 for Emergency Relief Operations
 USG : United States Government
 VOC : Vehicle Operating Costs
 WFP : World Food Program
 WV : World Vision International, a U.S.-based NGO



The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

MOZAMBIQUE

- International boundary
- - - Provincial boundary
- National capital
- Provincial capital
- Town, village
- Railway
- Main road
- - - Other road



1. INTRODUCTION

The current situation in Mozambique is an anomaly. On the one hand, its rapid execution of and initial successes with an Economic Rehabilitation Program are fast turning it into a favored model of the International Monetary Fund. On the other hand, over 2.2 million Mozambicans are affected by severe shortages of food and other items essential to their survival, and a further 1.1 million have been displaced from their homes due to a continuing cycle of drought, floods, and an "...active and widespread war of destabilization being waged by externally supported armed bandits." (1988 Appeal, p. 5). It is thus currently one of Africa's more promising successes or major disasters, depending on one's point of view.

This anomaly causes obvious problems in terms of strategic planning, implementation and evaluation. The clear and present suffering of millions of people dictates a direct humanitarian response of provision of food, shelter, and basic needs in the most effective manner possible. Yet in order to grow and prosper, the nation must consider the efficiency of how it responds to needs today in order to assure continuing resources for the future. The careful balance between the two is not an easy task.

Louis Berger International, Inc. was contracted by A.I.D.'s Office of Foreign Disaster Assistance (OFDA) to evaluate a series of grants it has made to CARE International for emergency assistance in Mozambique over the period 1984 to the present. The Berger team assessed the grant activities within both spheres of interest to A.I.D., i.e. the emergency situation and the overall macroeconomic environment. The report that follows thus analyzes CARE's performance in terms of overall effectiveness in meeting humanitarian objectives and of internal efficiencies obtained (or not) in terms of moving food and other life-sustaining goods to the affected and displaced populations. It additionally, however, examines some external efficiencies in terms of alternate means for achieving the humanitarian objectives within the greater framework of economic development. It concludes that CARE has made a strong contribution to development of an effective and well-equipped Mozambican disaster relief structure, but that it must now focus on developing efficiencies to enable Mozambique to sustain the system over time.

These themes of efficiency and effectiveness are discussed within the context of CARE and other agencies' activities in relief, recovery and development. Given the still unpredictable course of the insurgency and the likelihood of continued emergency conditions, it is believed that this more holistic approach is the most appropriate to A.I.D.'s interests and to Mozambique's needs.

1.1 Review of Scope of Work

The overall objective of the evaluation is to assess the accomplishments and progress achieved by CARE to date in (a) creating a Logistic Support Unit (LSU) in the Mozambican Department for the Prevention and Combat of Natural Calamities (DPCCN), and (b) carrying out emergency relief activities in Mozambique. The full Scope of Work is included as Annex A.

The report begins with a summary review of the background and context of the projects (Chapter 2). As directed in the Scope of Work, the evaluation then includes a summative assessment of the performance of CARE and its impact to date in both the institutional and humanitarian spheres (Chapter 3). The evaluation is also formative, however, in terms of analyzing key issues and providing recommendations for a proposed follow-on grant to CARE (Chapters 4 and 5). It additionally provides a separate section on "Lessons Learned" to be used by OFDA in planning possible similar programs in other countries (Chapter 6).

The issues identified by A.I.D. which are discussed in Chapter 4, and which are thus focal issues throughout, include the following:

- Operational capabilities of the LSU, specifically with regard to the management, distribution and end-use monitoring of Title II food distribution;
- Privatization, specifically with regard to expanding options for private sector transport of relief goods;
- Hard Currency Funding, in terms of substituting A.I.D.'s scarce dollar resources with currency generated by Title II sales;
- A future role of the LSU, in both the relief and recovery modes; and
- Program phase over, in terms of the GPRM's capacity to assume the responsibility for the LSU.

The evaluation was undertaken by the consulting firm Louis Berger International, Inc. as Delivery Order No. 34 under its Indefinite Quantity Contract PDC-0085-I-00-6097-00 with A.I.D. for Development Information and Evaluation. The team was composed of three Berger professionals--a Development Management Analyst, a Private Sector/Financial Analyst, and a Trucking/Transport Specialist--with experience in relief, recovery and development in Africa and elsewhere. Two of the three team members were fluent in Portuguese.

The team spent four weeks in Mozambique in May-June, 1988 researching and writing the report based on review of key documents and literature (ref. Annex J for Selected Bibliography); interviews with key individuals in Washington, D.C., Maputo, Mozambique, and provincial and district headquarters in Maputo, Manica, Sofala, and Zambezia Provinces (ref. Annex I for the List of Persons Contacted and Team Schedule); and analysis of findings within frameworks associated with both emergency assistance and with longer term development efforts. The draft findings and conclusions were discussed with CARE (Maputo-based staff and a New York representative) and the Office of the A.I.D. Representative (OAR)/Maputo prior to being presented in draft. An OFDA representative participated in final reviews in Maputo.

1.2 Acknowledgements

The team wishes to acknowledge the assistance of the many A.I.D. officials in Washington, D.C. at OFDA, FFP and within the Bureau for Africa, as well as the thinly-stretched staff at the OAR/Maputo. It also acknowledges with deep gratitude the considerable time and efforts of the CARE International and DPCCN staff in Maputo and the provinces visited.

2. BACKGROUND AND CONTEXT OF THE PROJECT

2.1 Evolution of CARE Project

CARE undertook exploratory visits to Mozambique in 1983 and signed its general country agreement with the GPRM on 9 February, 1984. This was shortly followed by signature of a "Basic Agreement" with DPCCN on 13 March, 1984, which outlined creation of a Logistical Support Unit for support to GPRM efforts in disaster relief. This document in essence forms the basis of CARE's "mandate" with respect to subsequent work with the LSU. Selected sections are quoted herein:

... The target horizon for accomplishing the dual task of constituting a fully operational LSU and training of local counterparts to a satisfactory level of performance is set at four years starting from the date of signature of a formal project proposal.

The Logistical Support Unit (LSU) will be created with the objective of obtaining a high degree of efficiency in the organization and execution of the logistics functions related to the distribution of food and basic

necessities for the survival of the victims hit by calamities and natural disasters. ...

The Basic Agreement led to an initial "Logistical Support Unit Project Agreement" between CARE and the GPRM, signed in October 1984 and valid through September 1985. This was followed by an "Implementation Agreement II 1986" valid from October 1985 to March 1987. Neither document differs significantly from the key objectives and activities of the Basic Agreement. The 1986 Agreement lapsed 31 March 1987. Given the Basic Agreement and established relationships, neither party has felt it urgent to formally renew ties, although some discussions are underway.

Concurrent with establishing formal relationships with the GPRM, CARE also sought assistance from OFDA. Since April, 1984, CARE has entered into three separate agreements, with amendments, with A.I.D. regarding the provision of OFDA and FFP funds for personnel, administrative and some materials and equipment costs. The terms and amounts of this assistance are summarized below.

Table 1: OFDA and FFP Grants to CARE International in Mozambique 1984-present

<u>Grant/Amendment No.</u>	<u>Dates</u>	<u>Amount (U.S.\$)</u>
OFDA ASB-0000-G-SS-4108	4/25/84-3/31/85	\$ 2,210,084
Amendment #1 (9/31/85)	extended-12/31/85	763,000
OFDA OTR-0000-G-SS-6063	3/30/86-3/29/87	3,601,831
Amendment #1 (5/29/87)	extended -4/30/88	1,075,028
FFP 656-48-000-7731	3/31/87-9/30/88	1,200,000
Amendment #1 (6/11/87)		200,000
TOTALS 1984-PRESENT	4/16/84-present	\$ 9,049,943

The official Grants guiding the A.I.D.-CARE International relationship have been strikingly short and general documents given a funding level of approximately U.S.\$ 2.2 million per year. Their purposes and scope of activities generally mirror those of the CARE-GPRM agreements although in more limited terms.

OFDA funded an evaluation of the 1984 Grant after one year of operation, in September, 1985. It concluded that "...CARE has, in view of the prevailing situation in Mozambique, performed an outstanding job and strongly recommends continued funding of the CARE program through December 1986." (Brennan, 1985, page 2).

The newer, and currently operative, Grant is found as Annex B and has as its objective "To continue to provide the logistical

support for emergency relief assistance to the victims of drought, famine and civil strife...CARE will manage and coordinate all requests and receipt of emergency relief assistance, transport, distribution and reporting of relief materials, and will provide the operational emergency food and supplies to the 5.7 million people in need of assistance."

This summary review of CARE's formal relationships with the DPCCN and with A.I.D. is instructive in terms of characterizing CARE's role in Mozambique. On the one hand, it is providing technical assistance through advisory services with a specific objective of creating a Mozambican institution capable of providing disaster relief logistic support within a given time period. On the other hand, it is to provide the logistic support itself, in the more traditional role of an NGO. It thus must both integrate itself within the structure of DPCCN in order to fulfill the advisory function while at the same time maintaining its NGO identity and reputation in performing the latter. This duality has implications for CARE's future phase out which are discussed in Chapter 4.5.

A second point arising from the review is that A.I.D.'s role in terms of monitoring the grants has been driven by CARE's dual role. On the one hand, A.I.D. views CARE as one of the NGO's in Mozambique, and maintains its standard "hands off" management of NGO activities. On the other, it views CARE very much as a technical assistance contractor to the DPCCN, with more specific performance requirements than might be expected of an NGO. Chapter 4.5 will also reassess A.I.D.'s posture towards this CARE effort and discuss options for the future relationship.

2.2 Current Context of the Project

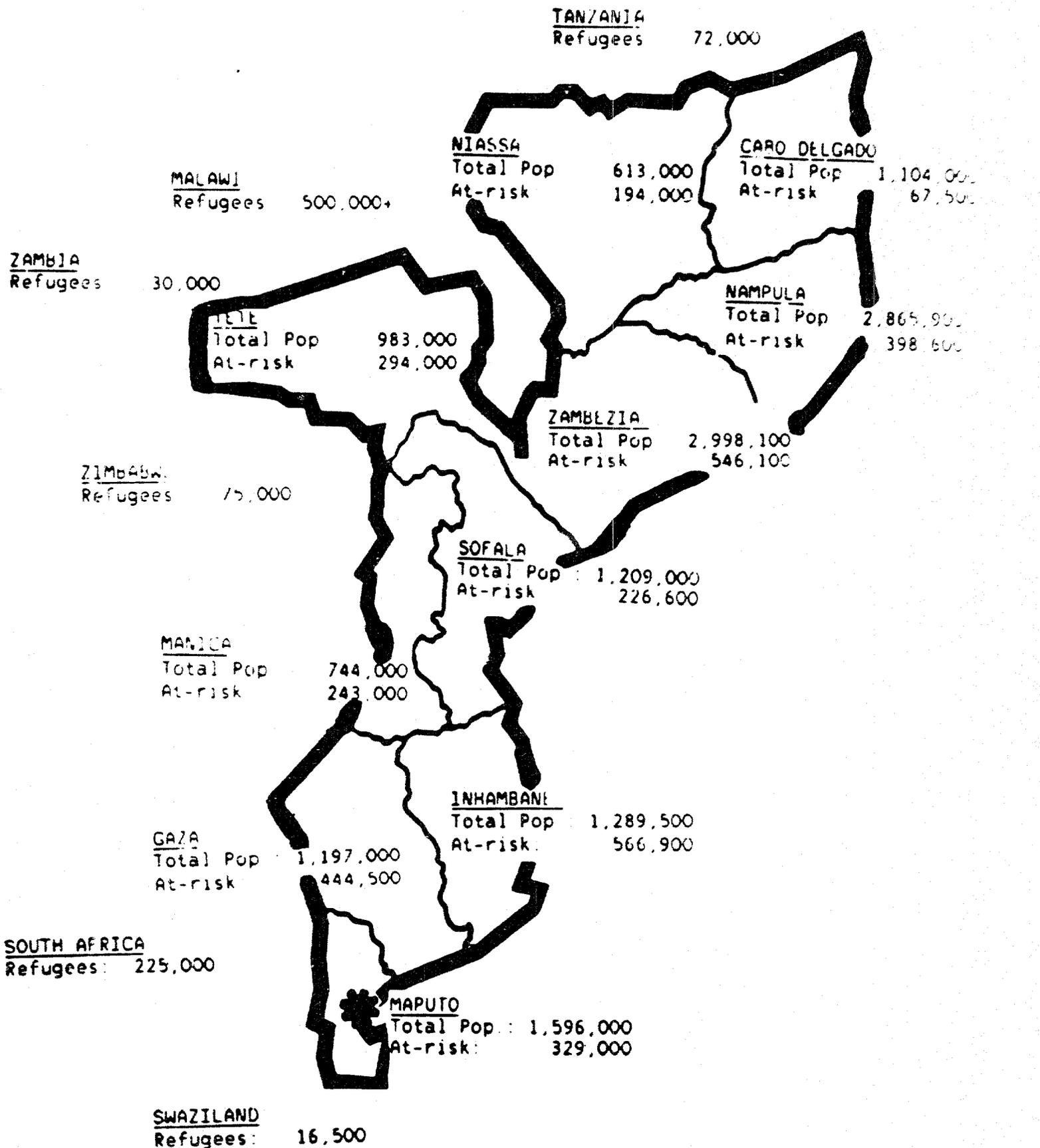
Although the basic documents guiding CARE's relationship with the GPRM and A.I.D. have changed very little over time, the situation in Mozambique has. The final report of the initial "CARE Probe to Mozambique" in early September, 1983 cites the three year drought as a key problem and reports a need for 300,000 tons of food for 900,000 people. The security problem is summarized as follows: "These movements coupled with plain vandalism and raids by South Africans make certain areas of the country unsafe." (CARE Probe, 1983, p. 4). At the time, there were virtually no local foods available in Maputo and everything was imported. Bilateral assistance was minimal. The colonial legacy, coupled with several years of drought and an ill-fated centrally-planned economic model, had led the country to the brink of bankruptcy. The Mozambican government, under President Samora Machel, was beginning a slight turn away from the Eastern Bloc and the United States was just preparing to exchange Ambassadors.

Slightly less than five years later, drought recurs in selected areas but the key factor contributing to the emergency is the random terrorism perpetrated by the "bandits." Current official figures place the number of people forced to leave their homes due to terrorist attacks at 1.1 million within Mozambique and an additional over 900,000 in refugee camps in neighboring countries. Those in Mozambique flee to live with friends or family in other areas or increasingly find their way to one of over 300 GPRM-established centers. In addition, the GPRM estimates that approximately 2.2 million persons are affected by the insurgency and need supplemental assistance to survive. Finally, because the insurgency has destroyed roads, bridges, power grids, water supply and other critical productive infrastructure the GPRM estimates that an additional 2.6 million people may have income but are not able to subsist due to shortages of commercial food (1988 Appeal, Table 1, p. 4). Figure 1 provides a summary of the current geographic distribution of the "at-risk" population.

The GPRM and the international community have responded in force to the changing situation. When CARE first entered Mozambique it was the only independent NGO. There are now over 40, providing in 1987 over \$ 22 million in assistance. An additional over \$ 300 million in relief and recovery contributions were provided in 1987 by bilateral and multilateral donors. (1988 Appeal, p. 12). The GPRM for its part has established a relatively effective structure for coordinating and managing this influx, with several tiers of high level committees and a the 1700 person-strong nationally operational DPCCN. Although the long-term mandate of the DPCCN is disaster preparedness and prevention, for the short and medium-term it is clearly a major force in relief and recovery operations. This "institutionalization" of the emergency raises questions for the future but there is no doubt that all have made rapid progress in rationalizing the immediate humanitarian response.

Over roughly the same time period, the GPRM has slowly moved from its Eastern-bloc orientation to a more pragmatic economic stance. Its Economic Reform Program (PRE), initiated in January, 1987, has moved rapidly in terms of policy reforms in macroeconomic, agricultural and food distribution sectors. The metical has been devalued by approximately 920 percent. Government has cautiously but officially begun to discuss incentives to private sector activities. Maputo civil service roles have been reduced by approximately 10 percent. Importantly, a ceiling has been placed on consumer price subsidies payable on certain food items. Although the growth expected as a response to these reforms is susceptible to the continuing drought and insurgency actions, and the economy is still in a generally dismal state, the openness of government to the reforms bodes well for the future.

MOZAMBICAN REFUGEES AND AT-RISK POPULATIONS (April 1988)



Total Population: 14,599,500
 At-risk Population: 3,310,200
 Refugee Population: 868,500 +

Source: GPRM/DPCOM

3. PROJECT PERFORMANCE TO DATE

This chapter of the evaluation provides the summative assessment of CARE's performance as measured against the OFDA grant objectives. Chapter 3.1 summarizes in tabular form indicators of growth of the DPCCN and its capabilities--primarily attributed to CARE inputs--to manage, transport, distribute and monitor emergency commodities. Chapter 3.2 provides a more analytical assessment of the quality of CARE's performance. Chapter 3.3 summarizes impact to date.

3.1 DPCCN/LSU Growth 1984-1988

The DPCCN was created in 1980 by the GPRM in recognition of the fact that periodic drought, floods and cyclones are facts of Mozambican life and need to be anticipated, prevented (if possible) and their aftereffects managed. The 1983 drought left crop production down by 70-80 percent; subsequent famine led to an estimated 40,000 deaths and approximately 4.7 million people affected. In January, 1984, Cyclone Domoina left 109 dead, 49,000 displaced, and 350,000 affected. The country was still trying to assist the victims of these disasters when CARE initiated activities in October 1984.

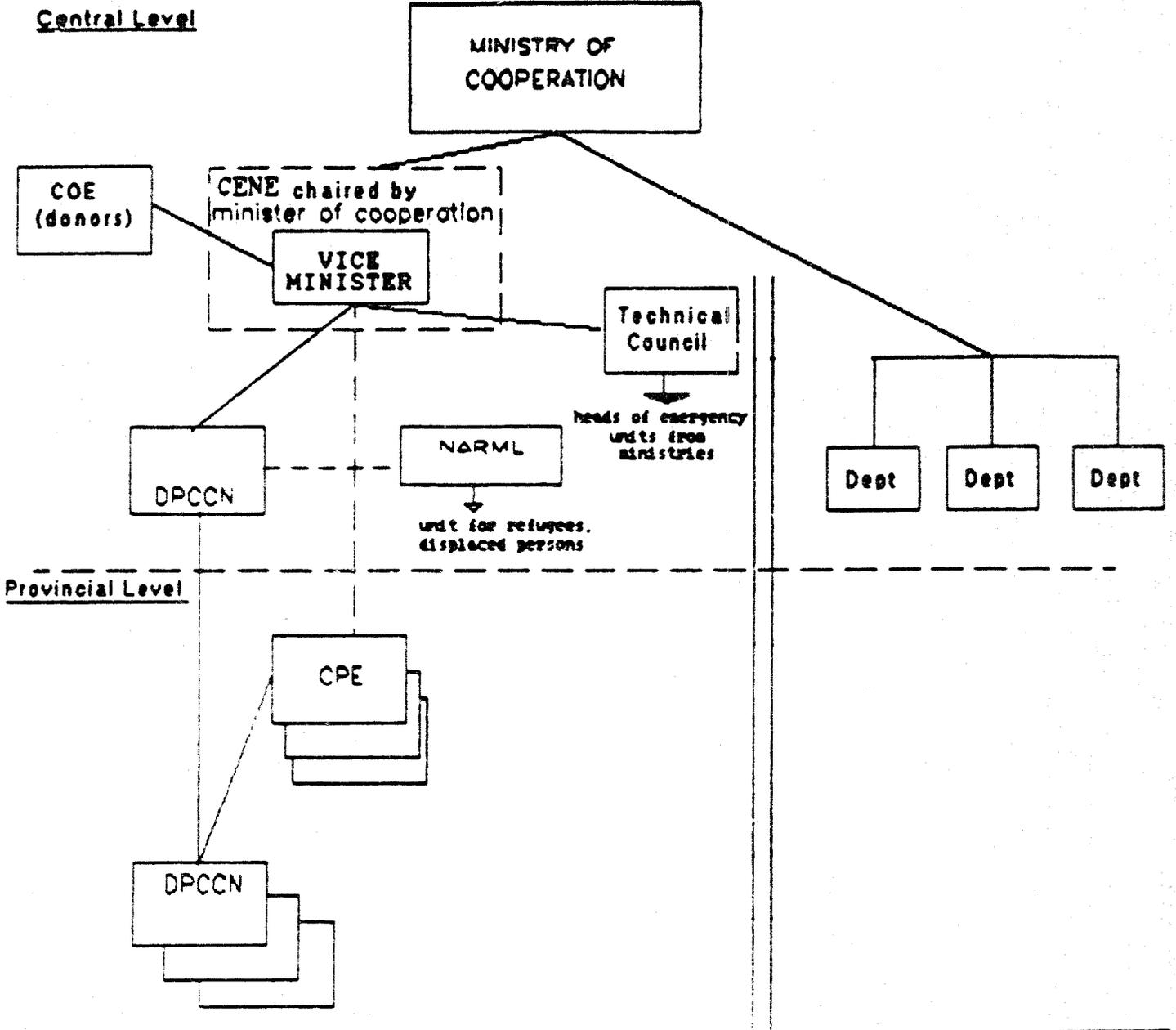
The DPCCN itself in 1984 had a skeletal staff and somewhat ambiguous organizational structure. In 1988, it is the key executing agency of a multi-tiered multi-million dollar national emergency management structure involving the National Executive Commission for the Emergency (CENE), the Emergency Operations Committee (COE), Provincial Emergency Commissions (CPE) in 10 Provinces, and numerous sub-commissions and sub-committees. Figure 2 overleaf reflects this structure.

In 1984, however, little existed besides the thinly staffed DPCCN. CARE started slowly building the LSU as its key operating unit, first in Maputo and critically affected provinces. Although the original GPRM-CARE agreement had targeted work in 5 provinces, in 1984 only 3 were covered by CARE. Over time this coverage expanded in response to need as the terrorist actions spread, with increases to 5 provinces in 1985, 7 in 1986, 8 in 1987, and 9, or all but Cabo Delgado, in 1988.

It should be noted that the LSU per se exists only in Maputo. It is one of four departments within DPCCN with a new official designation as the "Department of Operations" (ref. Annex C). It is physically separated from the rest of the DPCCN. CARE provides LSU staff with a "Food Basket" perquisite each month, not received by others in DPCCN, promoting a "separateness" which is problematic now and moreso for the longer-term.

Figure 2

EMERGENCY MANAGEMENT STRUCTURE



EMERGENCY ACTIVITIES IN STRICT SENSE	EMERGENCY GENERATED ACTIVITIES	NORMAL ACTIVITIES - PRE - economic rehabilitation programme - development activities.
-relief operations-	rehabilitation of family life	resettlement
	reintegration of population	reconstruction
	reconstruction of infrastructures	prevention
	prevention development	development

In the provinces, all staff except the CARE expatriate Provincial Logistics Officer (PLO) is considered provincial DPCCN and is not under LSU/CARE's direct management. Each Province has its own, slightly different, organizational structure and the PLO works most directly either with a Logistics Officer, a Commodities Officer and/or a Planning and Information Officer. Although the CARE PLO's and central staff develop systems for, train, advise and assist provincial operations, their authority to act is more limited. This discussion thus focusses on the overall growth and achievements of the DPCCN with special reference to the CARE/LSU role where indicated.

The growth of the DPCCN staff nationwide, with CARE personnel highlighted, is shown at Table 2.

Table 2: DPCCN and CARE Staff 1984-Present

<u>Source/Position</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
<u>CARE</u>					
Maputo Central	5	7	11	11	9
Provincial	3	5	7	8	10
<u>DPCCN</u>					
Maputo Central					
Management	2	2	2	4	4
Mid-Level	8	10	14	25	27
Support	160	240	300	380	400
Maputo Province					
Management	0	0	1	1	1
Mid-Level	0	0	3	5	13
Support	0	0	50	100	135
Gaza Province					
Management	1	1	1	1	1
Mid-Level	3	4	6	14	16
Support	50	60	90	120	130
Inhambane Province					
Management	1	1	1	1	1
Mid-Level	1	3	5	20	20
Support	10	30	80	110	125
Sofala Province					
Management	1	1	1	2	2
Mid-Level	3	6	9	20	22
Support	60	125	134	133	130
Manica Province					
Management	1	1	1	1	1
Mid-Level	2	3	6	16	18
Support	40	62	79	95	110

Continued next page

Table 2 continued: DPCCN and CARE Staff 1984-Present

<u>Source/Position</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
Tete Province					
Management	1	1	1	1	1
Mid-Level	2	5	7	13	13
Support	30	100	142	153	169
Zambezia Province					
Management	0	1	1	1	1
Mid-Level	0	1	5	16	20
Support	0	5	40	82	146
Niassa Province					
Management	0	0	1	1	1
Mid-Level	0	0	5	7	13
Support	0	0	30	62	95
Nampula Province					
Management	0	1	1	1	1
Mid-level	0	3	6	7	19
Support	0	10	42	67	83
Cabo Delgado Province					
Management	0	0	0	1	1
Mid-level	0	0	0	2	3
Support	0	0	0	3	12
Sub-Totals DPCCN					
Management	7	9	11	15	15
Mid-Level	20	35	66	145	184
Support	350	632	987	1305	1535
Total CARE	8	12	18	19	19
Total DPCCN	377	376	1064	1465	1734

Source: LSU/CARE June 1988

The growth of the DPCCN in terms of geographic coverage and personnel mirrored not only widespread need for emergency support but increasing availability of critical commodities from the donor community and increasing abilities of the LSU to move the commodities to where they are needed. The receipt, clearance and distribution is managed to the provincial level by LSU Central Operations in Maputo and the provinces and districts thereafter, with central guidance and supervision.

Table 3 reflects the almost 250 percent over the last three years. It should be highlighted that the food commodities provided in 1987 were adequate to feed only 25 percent of the at-risk population in Mozambique (ref. Figure 1) at the full ration for subsistence.

Table 3: DPCCN/LSU Commodities Managed by Type and by Year
(metric tons)

<u>Commodities</u>	<u>1984*</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>Total</u>
Cereals	N/A	52,871	91,081	98,000	241,952
Beans	"	1,499	7,933	23,000	32,432
Edible Oils	"	701	3,390	10,703	14,794
Sugar	"	-	222	1,068	1,290
Salt	"	303	204	1,059	1,566
Milk Powder	"	1,476	513	3,307	5,296
Other Food Items	"	900	805	2,091	3,796
Sub-Total Food	N/A	57,750	104,148	139,228	301,126
Seeds	N/A	1,778	688	8,233	10,699
Tools	"	261	46	1,103	1,410
Clothes/Blankets	"	1,311	605	1,655	3,571
Cement	"	-	240	178	418
Medicines	"	18	54	2	74
Soap	"	269	675	2,053	2,997
Other Non-Food	"	163	85	801	1,049
Sub-Total Non-Food	N/A	3,800	2,393	14,025	20,218
Total Commodities		61,550	106,541	153,253	321,344

* Data for 1984 are not readily accessible.

Source: LSU/CARE, June, 1988

These commodities have entered Mozambique through one of 18 entry points (ref. Figure 6 at page 30) and have been moved by one or a combination of transport modes, including rail, river, ocean, air and road. Parastatals and other NGO's are normally chosen for the first three. DPCCN/LSU has, however, acquired its own truck and tractor fleet from the donor community which is essential to reach many rural areas and which it has progressively assigned throughout the country. Provincial workshops supported by LSU exist in several locations to provide immediate maintenance and repair, many with expatriate mechanics assigned by cooperating NGO's. The LSU Central Operations in Maputo provides overall fleet management and supervision and centralized procurement and distribution of necessary spare parts, tires, fuel, oil and lubricants. Table 4 summarizes the fleet growth by type and location and year.

Table 4: DPCCN/LSU Fleet Composition 1984-present

Location or Province	Vehicle Type by Capacity	Year Deployed				Current Totals	Percent of Total
		84	85	86	87		
Central Operations	10 T and over	-	-	23	11	34	19.4
	< 10 T	1	-	-	1	2	-
	Tractor	-	-	-	1	1	-
Maputo Prov.	< 10 T	3	-	1	21	25	14.5
	Tractor	-	-	-	6	6	7.6
Gaza	10 T and over	-	7	-	5	12	6.7
	< 10 T	-	3	4	5	12	7.0
	Tractors	-	5	-	5	10	12.7
Inhambane	10 T and over	15	-	-	-	15	8.3
	< 10 T	1	10	-	5	16	9.3
	Tractors	-	2	-	6	8	10.1
Sofala	10 T and over	16	-	-	13	29	16.1
	< 10 T	-	-	-	16	16	9.3
	Tractor	-	-	15	4	19	24.1
Manica	10 T and over	2	12	1	3	18	10.0
	< 10 T	-	-	-	-	-	-
	Tractors	-	-	2	5	7	8.9
Tete	10 T and over	12	-	4	3	19	10.6
	< 10 T	9	1	-	8	18	10.5
	Tractors	-	-	8	4	12	15.2
Zambezia	10 T and over	-	-	-	36	36	20.0
	< 10 T	-	-	2	34	36	20.9
	Tractors	-	-	-	9	9	11.4
Niassa	10 T and over	-	-	-	17	17	9.4
	< 10 T	-	-	-	25	25	14.5
	Tractors	-	-	-	3	3	3.8
Nampula	10 T and over	-	-	-	-	-	-
	< 10 T	-	-	-	22	22	12.8
	Tractors	-	-	-	4	4	5.1
Nationwide	10 T and over	45	19	28	88	180	100.0
	< 10 T	14	14	7	137	172	100.0
	Tractors	-	7	25	47	79	100.0
	Light Vehicles	2	17	12	27	58	
TOTALS		61	57	72	299	489*	

* of which 32 destroyed by mines and 33 otherwise non-functional

Source: LSU/CARE June 1988

At each transshipment point, and prior to distribution to deslocados centers or localities, the commodities are held in warehouses or intermediate storage areas managed by DPCCN

personnel following the LSU Master Plan of Operations. The storage areas are a combination of DPCCN owned, borrowed or rented space. Provincial and district level personnel receive training and guidance from CARE LSU staff. Table 5 reflects the growth of DPCCN storage capacity by location by year.

Table 5: DPCCN/LSU Storage Capacity 1984-present
(metric tons)

Province	Headquarters	1984	1985	1986	1987	Comments
	Districts					
Maputo	Central Ops.	1500	2500	-	2500	+2500 soon
					+rentals 5-10,000	
Maputo	Maputo	-	-	800	800	now 1800
	Districts	-	-	400	715	
Gaza	Chibuto	-	15000	15000	15000	
	Districts	-	1500	1500	2500	+1500 soon
Inhambane	Inhambane	400	800	1300	1300	+1000 plan
	Districts	-	400	800	800	
Sofala	Beira	1000	1800	3800	3800	+5000rental
	Districts	300	300	700	900	
Manica	Chimoio	1000	1000	1500	2500	+2500avail.
	Districts	700	900	900	1200	
Tete	Tete	350	4000	5000	9400	
	Districts	-	400	500	500	
Zambezia	Quelimane	-	-	4200	10500	
	Districts	-	-	3000	3000	
Nampula	Nampula	-	-	1500	2500	
	Districts	-	-	500	500	
Niassa	Lichinga	-	-	1000	2000	
	Districts	-	-	800	300	
Totals	Headquarters	4250	25100	34100	50300	
	Districts	1000	3500	9100	10415	

Source: LSU/CARE June, 1988

The commodities are distributed through a number of channels (ref. Chapter 3.2.2) to displaced and affected persons. Table 6 reflects distribution of the key commodities of maize, beans and oil per province per month for 1987.

The quantities of commodities "distributed" in Table 6 do not tally with those in Table 3 for amounts "managed." Additional tables and discussion in Chapter 3.2 which follows, and in selected annexes, will provide more disaggregated information and clarification on these differences.

TABLE 6: DPCCN/LSU Distribution
of Key Commodities
By Province
1987

Cereals
Beans
Oil

Province		Target	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Maputo	C	2816	80	65	1185	254	373	268	989	86	829	325	881	238	5573
	B	322	10	42	95	16	39	2	228	0	86	172	33	572	1295
	O	80	1	0	0	0	0	1	0	2	34	41	137	303	519
Gaza	C	3431	89	75	697	931	262	333	421	501	365	530	12	7	4223
	B	392	101	97	117	78	33	97	116	467	538	366	121	243	2374
	O	98	5	8	0	0	3	1	1	1	0	1	29	202	251
Inham	C	5416	909	927	1000	84	877	947	978	764	150	9	635	541	7821
	B	619	6	11	234	98	35	14	281	536	207	9	78	9	1518
	O	155	13	7	0	0	0	0	140	212	69	11	31	35	518
Sofala	C	4249	271	231	842	212	665	873	1431	943	1097	888	914	950	9357
	B	486	98	65	31	75	118	164	85	195	220	608	102	200	1961
	O	121	0	0	1	1	1	0	45	128	120	67	56	99	518
Manica	C	2474	300	197	155	97	25	2	95	91	296	343	678	316	2595
	B	283	89	75	19	43	79	98	21	85	35	109	130	203	986
	O	71	3	0	0	0	0	0	0	33	41	44	6	24	151
Tete	C	2385	2119	2029	2346	2914	2649	2090	1626	1594	736	117	1614	924	20758
	B	272	131	18	148	227	224	310	564	230	94	42	221	247	2456
	O	68	138	38	64	106	159	6	70	178	44	124	58	60	1045
Zambe	C	3592	517	393	1074	1541	656	478	1090	2269	1715	1723	1430	1028	13914
	B	410	48	40	42	183	245	189	8	3	297	301	262	510	2128
	O	103	0	0	5	40	16	85	82	177	116	233	208	155	1117
Niassa	C	3188	2	0	0	0	0	2	0	27	23	9	12	13	88
	B	364	3	0	0	0	0	0	0	0	0	0	78	35	116
	O	91	0	0	0	0	0	0	0	7	1	0	0	1	9
Nampu	C	6176	0	0	0	0	0	0	0	0	0	5	16	0	21
	B	706	0	0	0	0	0	0	0	0	0	0	0	0	0
	O	176	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	C		4287	3917	7299	6033	5507	4993	6630	6275	5211	3949	6192	4057	64350
	B		486	348	686	720	773	874	1503	1516	1477	1607	1025	2019	12834
	O		160	53	70	147	179	93	338	738	425	521	525	879	4128

SOURCE: LSU/CARE, June 1988

3.2 CARE Progress Towards Outputs in OFDA Agreement

The current OFDA grant against which CARE's performance must be measured is found in Annex B. The ten points in its "Scope of Activities" can be clustered for more organized discussion as follows:

Commodity Planning and Monitoring

3. Establish and maintain inventory accountability of assistance received, transported, warehoused and distributed; and
8. Assist, design and manage a "Commodity Management Plan." This shall require field verification to the extent that field visits do not become unsafe.

Channels of Distribution

1. Clear and receive emergency goods at the port;
2. Maintain proper warehousing or intermediate storage with coordinated liaison with other government departments as necessary;
4. Participate with the DPCCN for the movement of relief supplies with the appropriate coordination of other donors;
5. Manage or coordinate all available land, air and sea transport at the disposal of the DPCCN for the movement of relief supplies;
6. Control internal management, administration and financial accountability by maintaining operational information pertaining to transport use, fuel consumption, including availability and needs, and inventory accountability of transport resource; and
7. Participate with the DPCCN and other donors in the assessment of provision of facilities, personnel and material resources required for the service and maintenance of a vehicular transport under DPCCN.

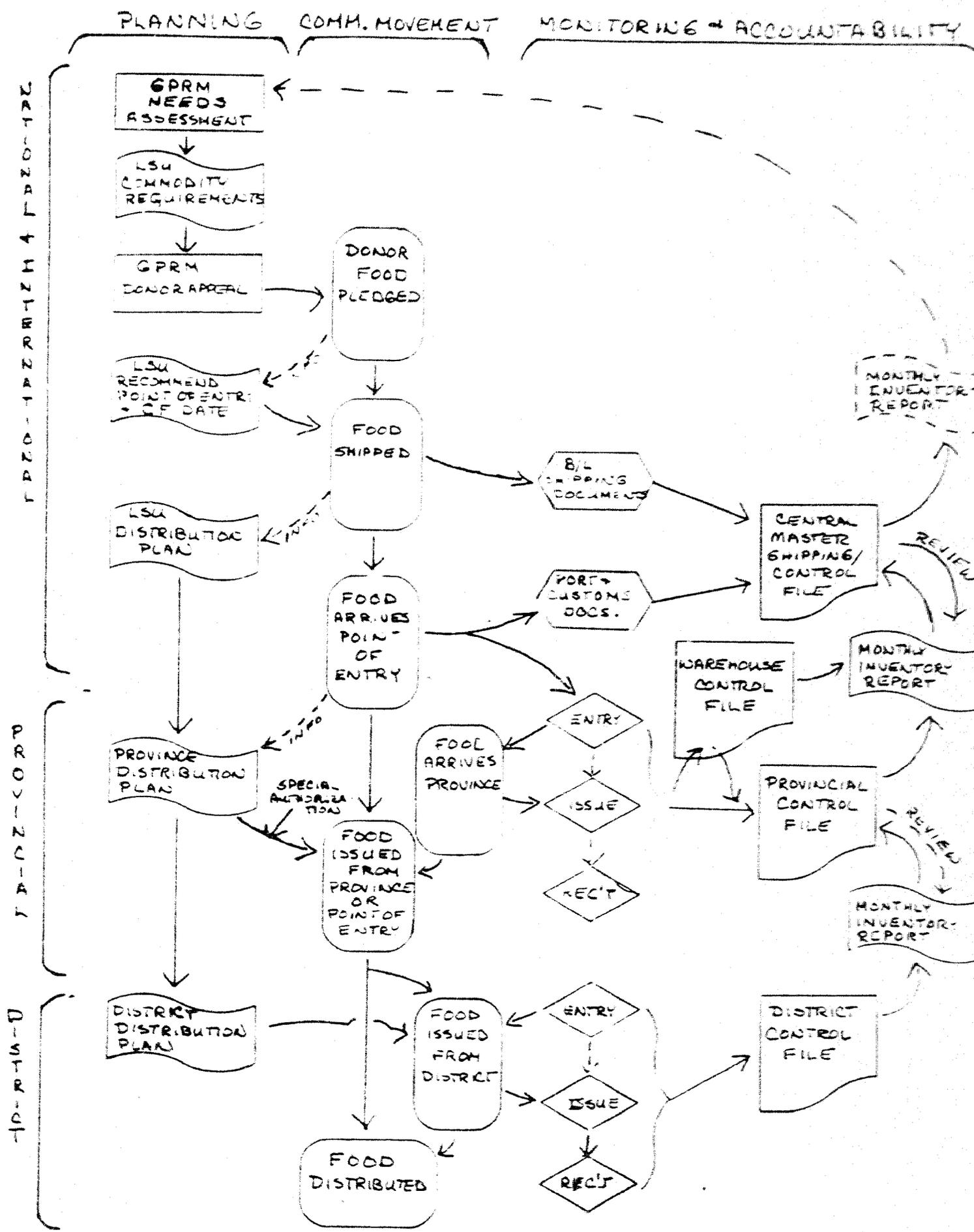
Information and Reporting

9. Document the functions of the LSU.

Human Resources Development

10. Plan, schedule and direct the training of national staff in logistics by means of on-the-job training and other more formalized regimes.

These clusters are discussed in sequence in the sub-chapters which follow.



3.2.1 Commodity Planning, Monitoring and Accountability.

All LSU functions and particularly those related to commodity management are governed by a Master Plan of Operations (MPO), which is synonymous with the "Commodity Management Plan" required under the A.I.D. grant. It forms a comprehensive system comprising several sub-systems at different levels, and is suitable for both manual and computerized operations. The Team believes it to be a useful and appropriate system given Mozambique's vast needs.

The MPO was developed over the first two years of CARE's operations and was formally introduced in September, 1986. It has been phased in logically, starting in late 1986 with the national and provincial levels (referred to as Phase 1) and, beginning in July 1987, moving gradually into the districts (Phase 2). A Phase 3 of activity is proposed to start in July, 1988. This will consist of developing an MPO Manual which will include standardized position descriptions and will more closely link functions being performed with organizational structures throughout the DPCCN.

Information generated by the system is in different stages of computerization. The CARE Computer Specialist and his counterpart are currently running analysis and reporting functions on a desktop computer (using some Lotus and primarily dBase software) at Central Operations in Maputo; data from seven provinces had been fully entered as of the Team's visit and made possible much of the information in this report. Battery capable laptop computers have been ordered for each province, and radio transmission capability should become a reality during the next year. In the meantime, use of standard (hard copy) forms is the norm in the field and likely to remain so at most levels in the future.

The MPO in its hard copy entirety is available at the LSU in the form of a 3-4 inch thick binder of forms and other management instruments. It is represented in summary form in Figure 3 on the preceding page. It is composed of three basic sub-systems: planning, commodity movement, and monitoring and accountability. This discussion will focus on planning and monitoring and accountability. Commodity movement is highly complex and is discussed separately in Chapter 3.2.2.

Planning

The weakest link currently in the sub-system is that which is represented in Figure 3 in the top left-hand corner: GPRM needs assessment. This is a critical input for the effective and efficient operation of the LSU but is, for the most part, outside of its control. In spite this lack of precise definition of needs and the overriding key constraints of availability (there is never enough food for those in need) and accessibility (over 75 percent of commodities must move with armed escort), LSU/CARE

is doing an increasingly better job in targeting food to "at-risk" populations.

Recognizing the importance of "the numbers" to donors in particular, in late 1987 the government began an elaborate process to develop credible figures for the 1988-1989 Appeal conference held in April. The process was directed by the GPRM National Executive Committee for Emergencies, or CENE, and assisted by the Office of the United Nations Special Co-ordinator for Emergency relief Operations (UNSCERO). Working closely together, CENE and UNSCERO directed a process which included an international conference at Inhambane in December 1987 and a UN inter-agency mission in February, 1988. Most of the donor community found the results satisfactory.

This major effort to establish credible figures for the Appeal has enabled the LSU to establish target commodity levels for each province of the country for the next two years based on needs as they existed in the first quarter of 1988. The problem is that there exists no particularly effective means of continually up-dating the figures so that the LSU can proactively plan for shifting needs. That is, needs are continually assessed upward through the government structure. DPCCN itself, based on assistance from CARE, contributes significantly to the process through its newly-installed District Delegates' Monthly Reports. Although this new input is useful, criteria for "affected" population, definition of persons "with income", crop monitoring and nutritional surveillance are still in nascent states. Collation and interpretation of what data exist are just starting. Again, this is an area outside of LSU control and thus CARE's mandate, but one which requires significant donor and GPRM attention.

Accepting the numbers as established by the government, and working within the CENE-approved ration scales, LSU/CARE assesses commodity requirements on a provincial basis. This was completed on a global scale for the April Appeal, but is also a continuous activity of the Coordination Division of the LSU. LSU/CARE personnel participate in weekly meeting of an Emergency Operations Committee (COE), which is chaired by the head of CENE and includes representatives from international donors (5, including A.I.D.), NGO's (3), the UN system (3) and other GPRM representatives (including the DPCCN Director). The COE also has a Food and Logistics Sub-Committee to ensure that what food is available is moving quickly to the needy areas. The two work closely to schedule Calls Forward for donor shipments.

LSU/CARE has recently begun two reporting activities which enhance this on-going process considerably. The first is preparation of a monthly DPCCN "Availability/Utilization/Stock Balance" report, which consolidates information from District and Provincial Monthly Inventory Reports. This lists the key

commodities--cereals, legumes, oil--available, distributed, and on hand per province. This report was developed at the request of the World Food Program (WFP) and initiated in July, 1987. It has not yet been computerized. These reports for the period July, 1987 through April, 1988 are found at Annex H.

The second is the preparation of the "Commodity Flow Monitoring Report," samples of which are presented as Figures 4.1-4.3. The objective of this series of report is to monitor levels (pledged and received) of the three key commodities--cereals, beans and oil--on a provincial and national basis. These reports form the basis for determining where and when commodities are to be programmed and/or shifted. They are provided to CENE and WFP. This series is computerized.

The samples cross-reference donor shipments to provinces and highlight two continuing difficulties for planners: donor preference and absolute availability of food. Although A.I.D. Title II shipments directly to the DPCCN are not tied to any one province, many donors' shipments are. Thus certain provinces, e.g. Tete, may receive pledges for close to 100 percent of requirements while others, e.g. Nampula, may receive zero. In all cases, there is not enough food to meet the targeted "at-risk" group with recommended subsistence-level rations throughout the year. Planners must simply hope that families have other sources of food, e.g. nuts, roots, berries, and move what they can. This constraint of sheer availability of food is one of the more frustrating for LSU personnel.

Once the LSU receives evidence that a shipment is en route (via the DPCCN) it opens a Master Shipment File (MSF) for the shipment and assigns it an MSF number. This number becomes the key accountability tool for all tracking. It also develops a Distribution Plan for the shipment, based on the planning process discussed above. Where food is to arrive directly into a province, the LSU directs the Provincial DPCCN to develop the Distribution Plan.

Chapter 3.2.2 describes more fully the transport modes, options and decision points that relate to developing the Distribution Plan. Suffice it to say that it is not a simple linear process of matching availability of food with needs, and of moving the food via the most expeditious route. Figure 5 provides a graphic presentation of "accessibility" in Mozambique as of February, 1988. Preparation of central and provincial Shipment Distribution Plans thus must account for inordinate turnaround time for shipments (15 days for a convoy in some places) and vagaries of port operations and shipping schedules. Although the LSU and its DPCCN Provincial counterparts are gaining experience with the problem, accessibility remains the major impediment to effective and efficient movement of the commodities and is likely to remain so for some time.

Figure 4.1: Commodity Flow Monitoring Report: Cereals

REPORT DATE: 09-Jun-88

DISTRIBUTION OF MAIZE DONATIONS FROM 1 JAN 88 TO 31 DEC 88

PROVINCIAL REQUIREMENTS FOR 1988

	GAZA	INHAMBANE	MANICA	MAPUTO	MAMPULA	NIASSA	SOFALA	TETE	ZAMBEZIA	C. DELGADO	TOTAL
affected accessible population (APRIL 1988)	444,500	564,900	243,000	329,000	398,397	194,000	226,600	294,000	546,115	67,500	3,310,212
relative per cent of total affected population	13 %	17 %	7 %	10 %	12 %	6 %	7 %	9 %	16 %	2 %	100 %
total requirements per person/day at: 350 gr	56,785	72,421	31,043	42,030	50,921	24,784	28,948	37,559	69,766	8,623	422,880
received as of today's date: 09-Jun-88	24,892	31,746	13,608	18,474	22,321	10,864	12,690	16,464	30,582	3,780	185,372
pledged as of today's date:	16,367	24,583	13,423	15,398	6,804	6,742	18,303	18,549	27,865	2,900	151,541
received as of today's date:	2,944	15,328	2,680	1,198	1,004	3,950	8,607	6,392	8,270	1,000	51,373
required received to date:	12 %	48 %	20 %	7 %	4 %	36 %	68 %	39 %	27 %	26 %	28 %
pledged as of today's date:	21,948	16,418	10,928	17,226	21,317	6,914	4,083	10,072	22,312	2,780	133,999
ADDITIONAL PLEDGES NEEDED FOR 1988 - metric tons:	40,418	47,838	17,620	26,632	44,117	18,042	10,645	19,010	46,901	5,723	271,339
percentages:	71 %	66 %	57 %	63 %	87 %	73 %	37 %	51 %	67 %	66 %	64 %

DONOR	SOURCE	GAZA		INHAMBANE		MANICA		MAPUTO		MAMPULA		NIASSA		SOFALA		TETE		ZAMBEZIA		CABO DELGADO		UNALLOCATED		TOTAL Pledge	TOTAL Recv'd	ETA	ATA	REMS		
		Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd							
Open Balance 01JAN88		63	63	258	258	23	23	136	136	0	0	0	0	2,003	2,003	343	343	2,865	2,865	0	0	0	0	5,691	5,691					
DIFAM/CCM/CARITAS	Zimb.	3,334	2,247	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,334	2,247	en route		(1)		
SCF/CEE	CEE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,334	0	/01/88		(2)	
PMA/BELGICA	Zimb.	2,000	634	2,000	2,000	0	0	0	1,000	1,000	0	0	0	0	0	0	0	0	4,000	0	0	0	0	0	4,000	0	/01/88		(2)	
WV/USAID	EUA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000	3,634	09/03/88		(3)	
WV/CEE	Zimb.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,500	5,405	0	0	0	0	10,500	5,405	en route		(4)	
WV/CIDA/CANADA	Zimb.	0	0	0	0	12,000	1,257	0	0	0	0	0	0	0	0	4,960	2,361	0	0	0	0	0	0	0	4,960	2,361	en route		(5)	
PMA/GB	Zimb.	0	0	0	0	0	0	1,040	900	0	0	2,000	2,000	0	0	0	0	0	0	0	0	0	0	0	0	1,257	en route		(6)	
CCM	EUA	0	0	0	0	0	0	162	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	2,900	en route		(7)	
PMA(ENOP 3563)	EUA	0	0	2,000	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	162	11/01/88		(8)	
CCM	Malaw	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	2,000	11/01/88		(9)	
CCM	Malaw	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	264	250	/02/88		(10)	
PMA(ENOP 3563)	-	0	0	12,325	10,070	0	0	2,000	0	1,000	0	364	0	3,000	0	2,585	0	0	0	0	0	0	0	0	0	21,274	10,070	en route		(12)
USAID	USA	1,500	0	5,500	0	0	0	8,000	0	1,000	0	364	0	3,000	0	2,585	0	0	0	0	0	0	0	0	0	21,274	10,070	en route		(12)
CARE/UK	Zimb.	0	0	1,000	1,000	1,400	1,400	0	0	0	0	0	0	2,500	2,500	0	0	0	0	0	0	0	0	0	0	20,000	2,500	en route		(13)
LWF	Zimb.	0	0	0	0	0	0	0	0	0	0	0	0	1,600	1,600	0	0	0	0	1,000	1,000	0	0	0	3,000	5,000			(14)	
LWF/MICOM	EUA	0	0	0	0	0	0	0	0	0	0	0	0	2,000	104	0	0	0	0	0	0	0	0	0	0	2,000	104	en route		(15)
WV/AUSTRALIA	Zimb.	0	0	0	0	0	0	0	0	0	0	0	0	1,500	100	0	0	0	0	0	0	0	0	0	1,500	100	28/03/88		(16)	
CCM	USA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,661	3,688	0	0	0	0	0	0	0	10,661	3,688	en route		(17)	
LWF	-	970	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	0	/04/88		(18)	
IBRDPT(arras)	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	/05/88		(19)
DIFAM	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	21/04/88		(20)
PMA/DINAMARCA	-	3,000	0	0	0	0	0	0	0	0	0	1,700	1,700	2,700	2,300	0	0	0	0	1,900	0	0	0	0	0	9,300	4,000	en route		(22)
PMA	-	0	0	0	0	0	0	2,000	0	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	0	5,000	0	1988		(23)
DIFAM/CEE	CEE	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0	0	0	5,000	0	1988		(23)
GOV. ESPANHA	Zimb.	3,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	1988		(24)
GOV. ITALIA	Ital.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,500	0	/04/88		(25)
CEE	-	0	0	1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,800	0	1988		(26)
PMA/DINAMARCA	-	1,500	0	0	0	0	0	2,100	0	3,600	0	0	0	2,000	0	0	0	0	0	0	0	0	0	0	0	1,500	0	1988		(27)
Ending balance		16,367	2,944	24,583	15,328	13,423	2,680	15,398	1,198	6,804	1,004	6,742	3,950	18,303	8,607	18,549	6,392	22,865	8,270	2,900	1,000	5,607	0	151,541	51,373					

Figure 4.2: Commodity Flow Monitoring Report! Beans

REPORT DATE: 09-Jun-88

--- DISTRIBUTION OF LEGUME DONATIONS FROM 1 JAN 88 TO 31 DEC 88 ---

PROVINCIAL REQUIREMENTS FOR 1988

	GAZA	INHAMBANE	MANICA	MAPUTO	MAMPULA	NIASSA	SOFALA	TETE	ZAMBETIA	C. DELGADO	TOTAL
affected accessible population (APRIL 1988)	444,500	566,900	243,000	329,000	398,597	194,000	276,600	294,000	546,115	67,500	3,310,212
relative per cent of total affected population	13 %	17 %	7 %	10 %	12 %	6 %	7 %	9 %	16 %	2 %	100 %
annual requirements per person/day at: 40 gr	6,490	8,277	3,548	4,803	5,820	2,832	3,308	4,292	7,973	986	48,329
required as of today's date: 09-Jun-88	2,845	3,628	1,555	2,106	2,531	1,242	1,450	1,882	3,495	432	21,185
pledged as of today's date:	2,871	7,680	2,405	3,052	505	170	3,756	1,813	4,297	500	28,487
received as of today's date:	371	1,236	877	1,452	5	44	1,516	909	2,851	0	9,461
of required received to date:	20 %	34 %	56 %	69 %	0 %	4 %	105 %	48 %	82 %	0 %	45 %
shortage as of today's date:	2,274	2,392	678	654	2,546	1,198	166	973	644	432	11,724
ADDITIONAL PLEDGES NEEDED FOR 1988 - metric tons:	3,619	597	1,143	1,751	5,315	2,662	(448)	2,479	3,676	486	19,842
percentage:	56 %	7 %	32 %	36 %	91 %	94 %	14 %	58 %	46 %	49 %	41 %

PCCN No.	DONOR	SOURCE	GAZA		INHAMBANE		MANICA		MAPUTO		MAMPULA		NIASSA		SOFALA		TETE		ZAMBETIA		CABO DELGADO		UNALLOCATED		TOTAL	TOTAL	ETA	ATA	REMS		
			Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Pledge	Recvd	Recvd				
	Open Balance	OIJANBB	371	371	236	236	154	154	377	377	0	0	4	4	1,516	1,516	113	113	997	997	0	0	0	0	3,968	3,968					
71	NV/USA/CV	USA	0	0	0	0	500	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	500			31/05/87 (11)		
28A	CEE/FFH (amendment)	Zimb.	0	0	0	0	0	0	0	0	0	0	0	0	450	188	0	0	0	0	0	0	0	0	450	188	en route		(12)		
36B	CCN	Suaz.	300	0	300	0	0	0	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,200	0	1988		(13)		
08B	NV/USAID	USA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	500	0	0	0	0	0	500	500			07/09/87 (14)		
19	CCN	Suaz.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	500					
71	M. VISION	USA	1,000	0	0	0	750	222	0	0	0	0	0	0	0	0	0	750	608	1,800	1,354	0	0	0	1,363	0	1,363	0	1988	(15)	
41E	CCN	Malaw	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,300	2,184	en route		(16)		
53	PMA (ENOP 3563)		0	0	2,644	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	99	40	en route		(7)	
37B	USAID		1,000	0	3,500	0	1,000	0	1,000	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,711	0	1988		(18)	
51	FMI		0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	500	0	1,000	0	500	0	0	0	10,000	0	04/88		(9)		
05C	ZIMFA	Zimb.	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	1988		(10)	
06B	CCN	USA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	15/02/88	(11)	
05B	IGRBP		0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	75	0	75	0	04/88	(12)
7A	CIDA/Canada		0	0	1,000	1,000	0	0	1,075	1,075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5			7/03/88	(13)
3.36	LWF	Zimb.	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	3,075	2,075	7/04/88		(14)	
	Ending balance		2,871	571	7,680	1,236	2,405	877	3,052	1,452	505	5	170	44	3,756	1,516	1,813	909	4,297	2,851	500	0	1,438	0	28,487	9,461					

Figure 4.3: Commodity Flow Monitoring Report: Oil

REPORT DATE: 09 Jun 88

DISTRIBUTION OF OLEO DONATIONS FROM 1 JAN 88 TO 31 DEC 88 --

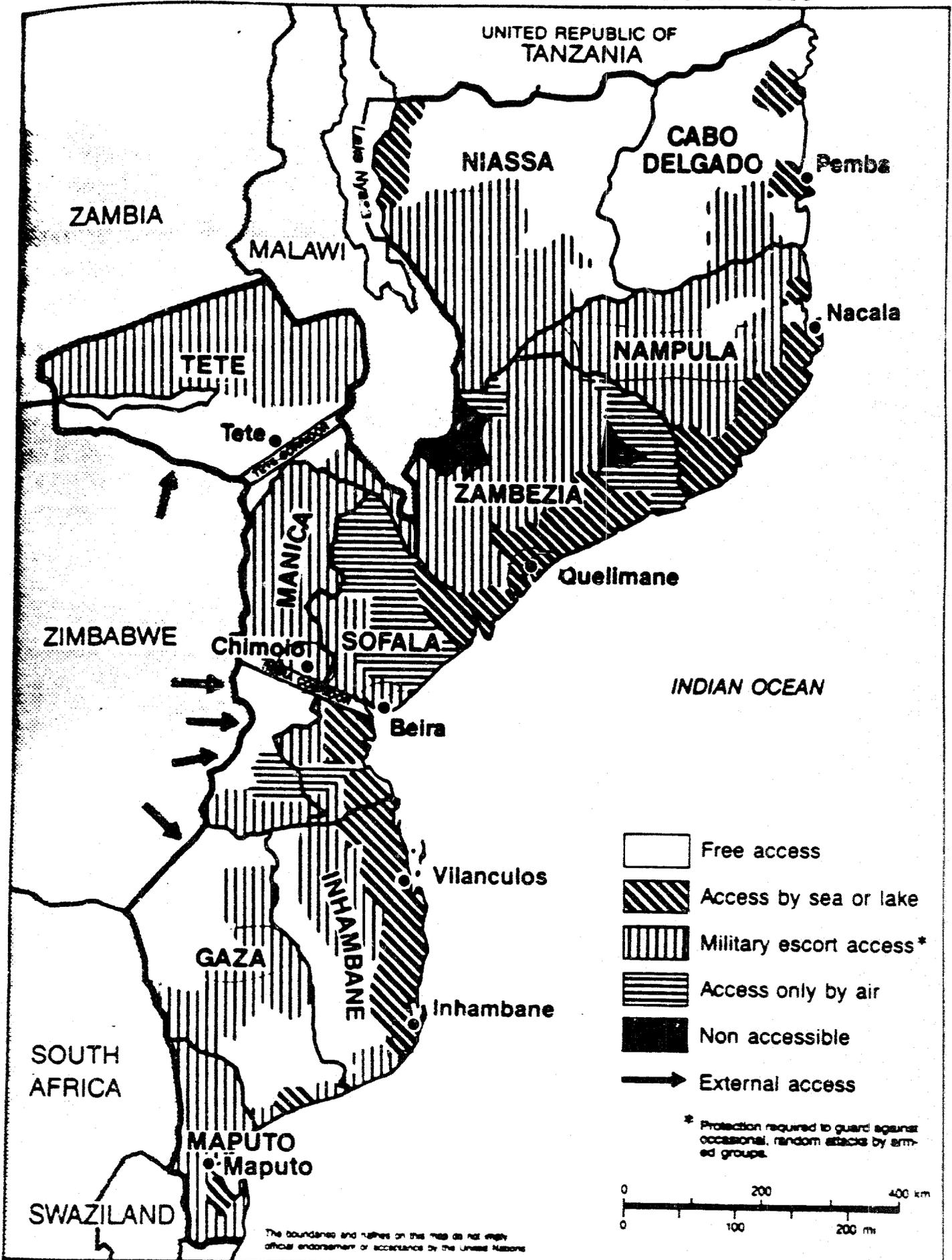
PROVINCIAL REQUIREMENTS FOR 1987

	GAZA	INHAMBANE	MANICA	NAPUTO	NAMPULA	NIASSA	SOFALA	TETE	ZAMBIZIA	C. DELGADO	TOTAL
Affected accessible population (APRIL 1988)	444,500	566,900	243,000	329,000	398,597	194,000	226,600	294,000	546,115	67,500	3,310,212
Relative per cent of total affected population	13 %	17 %	7 %	10 %	12 %	6 %	7 %	9 %	17 %	2 %	100 %
Annual requirements per person/day at: 10 gr	832	1,061	456	616	746	362	425	550	1,025	246	6,319
Required as of today's date: 09 Jun 88	565	465	200	270	327	159	186	241	449	108	2,770
Pledged as of today's date:	901	1,084	2,098	1,074	500	53	2,046	2,181	2,149	500	16,882
Received as of today's date:	201	84	948	274	0	25	561	1,281	1,649	0	5,023
% of required received to date:	35 %	18 %	474 %	101 %	0 %	16 %	301 %	531 %	367 %	0 %	181 %
Shortage as of today's date:	164	381	(748)	(4)	327	134	(175)	(1,040)	(1,200)	108	(2,253)
ADDITIONAL PLEDGES NEEDED FOR 1987:											
quantity:	164	381	(1,647)	(458)	246	309	(1,621)	(1,631)	(1,124)	(254)	(10,563)
percentage:	8 %	7 %	(680) %	(74) %	33 %	85 %	(381) %	(297) %	(110) %	(103) %	167 %

BPCCN No.	DONOR	SOURCE C/C	GAZA		INHAMBANE		MANICA		NAPUTO		NAMPULA		NIASSA		SOFALA		TETE		ZAMBIZIA		CABO DELGADO		UNALLOCATED		TOTAL Pledge	TOTAL Recv'd	ETA	ATA	REMS	
			Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd	Pledge	Recv'd				
	Open Balance 01JAN88		201	201	84	84	98	98	274	274	0	0	0	0	0	546	546	56	56	1,149	1,149	0	0	0	0	2,408	2,408			
508E	NV/USAID	USA	0	0	0	0	500	440	0	0	0	0	0	0	0	500	435	0	0	0	0	0	0	0	0	1,000	875	en route		(11)
520	CCH		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	/05/88		(2)
571	M.VISION	USA	0	0	0	0	1,500	409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,500	0	/05/88		(2)
641B	CCH	Malaw	0	0	0	0	0	0	0	0	0	0	0	0	0	1,623	790	1,000	500	0	0	0	0	0	0	4,125	1,699	en route		(3)
657	USAID		700	0	1,000	0	0	0	800	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	25	/04/88		(4)
685F	ZIMDFA	Zimb.	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000	0	04/88		(5)
678B	LNF		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	15/02/88		(6)
30.8	DIFAMB/CEE	CEE	75	0	0	0	0	0	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	15	15	/01/88		(7)
30.33	PRM(ENOP 3563)		0	0	1,663	0	0	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	75	0	/04/88		(8)
	Ending balance		976	201	2,747	84	2,099	948	1,074	274	500	0	95	25	2,061	561	2,181	1,281	2,149	1,649	500	0	2,300	0	16,882	5,023				

MOZAMBIQUE

CONDITIONS OF ACCESSIBILITY FEBRUARY 1988



Based on the Shipment Distribution Plan, following the MPO, Provincial and District DPCCN staff develop Monthly Distribution Plans. The Provincial level plans are developed based on the balance of needs, availability and accessibility in consultation with the Provincial Emergency Commissions. Based on information available to the team, it appears that five provinces are routinely developing and following such Monthly Plans. "Phase 1" of the MPO has only recently been installed in Cabo Delgado (where there is no CARE presence), Niassa, Nampula and Maputo Province (which used to be handled by Central Operations). Zambezia has for a number of reasons not been using the Plans lately. Continued supervision and more training is necessary to ensure these are usefully completed both for the Provincial staff's guidance as well as to enable the Districts to anticipate arrivals.

District Delegates were only assigned to 50 districts beginning in July, 1987, and the District-level Monthly Distribution Plans and planning process are still in very nascent states. In one district visited, for example, the Delegate had divided an incoming shipment equally by the number of localities/centers he services. Thus a small center with 85 people was receiving the same allocation as a settlement of over 10,000. In another district, there did not appear to be any plans. CARE is fully aware of these problems and is planning increased training at the District level to address them. Guidance by the new DPCCN Department of Projects, Information and Planning will certainly be useful in this regard.

In summary, national emergency commodity "planning" on such a large scale in the Mozambican environment is certainly guided by overall needs but is primarily driven by conditions of availability and accessibility. UNICEF is taking the lead on assistance to both the Ministry of Health for nutritional surveillance and the new DPCCN department mentioned above for improved needs assessment. LSU/CARE can influence, but not control, conditions of availability and accessibility. Given these constraints, CARE has done a credible job and is increasingly doing a better job in terms assisting the GPRM and donor community in effectively targeting food to at-risk populations.

Monitoring and Accountability

Operating in parallel with the planning sub-system is a more complex monitoring and accountability sub-system. As stated, once the shipping documents are provided to LSU it assigns an MSF number and opens a file, both in the computer's new dBase system and one for hard copies. It moves from the point of entry (one of 18) according to the Shipment Distribution Plan. It thereafter moves according to the Provincial and/or District Distribution Plans, by which point it has been broken into numerous smaller shipments, all of which maintain the MSF number.

Through this process the shipment is tracked through a double-check system involving Control Files ("Ficha di Controle") at the Central, Provincial (office and warehouses) and District Levels. These are guided by and checked against multi-copy color-coded Waybills recording prime entry, entry into a warehouse, issue from a warehouse and acknowledgement of receipt ("Guia di Entrada", "Guia di Saida", "Guia di Recebido"). As demonstrated in Figure 3 (where the diamonds represent the Waybills), there are two sets, one each for the Provincial and District levels.

Matching, signed waybills are cross-checked against the Control File (by MSF number) at the District level for the District Monthly Inventory Report and at the Provincial level for its Monthly Inventory Report. Inconsistencies and missing signatures are noted and each level is supposed to provide feedback down the system. The Waybills must support the Control Files and both must support the Monthly Inventory at each level and between levels for 100 percent accountability of a shipment.

As evident from the discrepancy in Tables 3 and 6 in Chapter 3.1, however, the sub-system is not yet fully operational in the Phase 1 level, that is donor-to-province. For 1987, the sub-system captured only approximately 66 percent of cereals, 55 percent of the beans, and 38.5 percent of the oil, for a 62 percent average. There are a number of reasons for this gap, one of which is due to the sub-system and others to inadequate control, supervision and/or training. These are summarized below.

- o The sub-system is designed based on a "standard" distribution channel of movement from a point of entry to Provincial warehouse to a District warehouse and out. CARE personnel estimate that approximately 50 percent of the shipments are moved via such a "standard" channel. As demonstrated in Chapter 3.2.2, however, there are numerous other channels used to obtain efficiencies and to mitigate against problems of accessibility. Thus shipments which, say, enter via road at the Zimbabwe border and then move directly to a locality--thus not moving through a Provincial warehouse and often not even a District one--are not easily captured by the sub-system. Based on cursory cross-check of the transport sub-system's records the Team estimates that these points account for an additional 15,000 T of the key commodities, which would suggest that careful back-checking could bring the average up to about 80 percent. The LSU should attempt this for 1987, and should continue its work to improve capturing commodities moving through all channels in the future.

o The second problem with the relatively low accountability is the newness of the system and the general low skill level of national staff, particularly in the Provinces. Provincial warehouse and many District Delegates only have primary school educations, and have little experience with standard systems and forms. Truck drivers--key to getting Issue Waybills acknowledged--frequently have no idea of what they are or why they are important. Mozambicans have not gone through previous disaster situations in such an organized fashion, and have no collective experience on which to draw. Numeric skills seem particularly weak, so that inventory in warehouses and analysis of Waybills and Control Files is more arduous than might be the case elsewhere.

o A final and related problem is that of lack of reporting of losses. Simply stated, Mozambican staff at all levels are reluctant to report losses even if they are unavoidable and explainable. Port and shipping losses are not being systematically reported, both due to the continuing lack of a DPCCN contract for an ex-ship's tackle surveyor, and due to a reluctance to "look bad" in front of generous donors. Inland transit losses are frequently reported in Monthly Inventory as "distributions", even though careful checking of Control Files and/or Waybills indicates damage. Claims are viewed as arduous and unproductive processes. Thus food that is justifiably lost is not being captured, resulting in more ambiguous accountability.

CARE is fully aware of the problem with the sub-system itself and is taking steps to correct it. CARE is also keenly aware of the need for increased staff training and has recently initiated a process to develop it. During the Team's visit, a memo was issued to Provincial personnel strongly reminding them to more rigorously report losses. Chapter 5 includes specific recommendations in these areas.

As reflected in Figure 3 at the very bottom, the sub-system is not designed for and thus does not track absolute end-use. This gap is of particular concern to A.I.D. for its Title II commodities, which represent a significant portion of the key food commodities managed. It is the Evaluation Team's conclusion that this monitoring sub-system and the commodity movement sub-system cannot and should not be further loaded in the near term to accommodate this concern. They have only recently been introduced and much additional training and fine-tuning needs to be accomplished, particularly at the District levels. Options for end-use verification involving other cooperating NGO's and agencies are presented and discussed in Chapter 4.1.

A.I.D. has also expressed an interest in quantities of food released for sale with A.I.D. approval and the actual use of sales proceeds. The MPO system only partially tracks the former and the Logistics Support Unit has no role in the latter. A.I.D. will need to discuss these matters with the DPCCN and arrive at a mutually agreeable method to meet its needs. Tracking quantities released for sale in a more rigorous manner should not be difficult for the LSU to initiate, possibly through the use of some sort of code. Financial accountability for funds received is strictly outside of the LSU--and CARE's--mandate.

The commodity monitoring and accountability sub-system is, in summary, extremely well designed from a number of viewpoints. It provides for cross-checking entries and thus strong accountability at each point of the system. It is based on disaggregated and simple manual forms which can be read and filled in by someone with an elementary education. It is also structured so that computerization at central levels is possible, providing for excellent opportunities in data analysis and reporting. It is, in short, the work of highly-qualified professionals and CARE should be given strong commendation for its development.

Even with the current problems of under-reporting, the Evaluation Team concludes that the MPO is working very well given the magnitude of the undertaking and of the constraints. Reports indicate that the DPCCN had a skeletal organization based only in Maputo and virtually no tracking systems when CARE arrived in 1984, so although some might say progress should have been quicker, in general the accomplishments are impressive.

3.2.2 Channels of Distribution. Probably the most difficult of the MPO sub-systems in terms of balancing efficiency and effectiveness is movement of commodities. Needs, availability, accessibility, storage and transit dimensions all need to be considered so that no single one dominates the sub-system. As discussed above, one of these--needs assessment--is only partially within LSU/CARE's control and the other two--availability and accessibility--it can only influence. Thus while it has in general been quite effective in movement of commodities, including transport and intermediate storage, it has done so, indeed it has had to do so, in a less-than-efficient manner.

The basic transit model for delivering the commodities is simple: commodity shipments are called forward (or LSU/CARE informed of their shipment), arrive and clear customs, are transferred to intermediate storage centers and finally distributed. However, uncertainty of the exact nature and quantity of certain donor pledges and their shipping dates (i.e. availability); the security situation (i.e. accessibility); and regional infrastructure difficulties makes the flow-charting of current DPCCN channels of distribution quite complex. Annex D

provides a detailed discussion of these problems in "The Transport Sector in Mozambique: Implications for LSU Operations."

The long coastline and regional port system, together with extensive common borders with neighboring countries provide a variety of possible entry points. Figure 6 overleaf reflects the current 18 points of entry used by LSU/CARE. Table 7 below lists these points, keyed by number to Figure 6, by principal transport modes at entry and average time for cargo clearing and forwarding.

Table 7: DPCCN/LSU Points of Entry by Mode with Average Clearing and Forwarding Duration

<u>Mode/Point</u>	<u>Duration</u>
<u>Ship</u>	
1. Maputo	3-5 days
2. Inhambane	2 days
3. Vilanculos	3 days
4. Beira	45 days
5. Quelimane	4 days
6. Nacala	1 week
7. Pemba	2 days
<u>Rail</u>	
8. Nkomati (Maputo customs)	7 days
9. Entre Lagos	1 day
<u>Road and/or Rail</u>	
10. Chicualacuála	3 days
11. Machipanda (Beira or Chimoio customs)	7 days
12. Vilanove	same day
<u>Road</u>	
13. Namaacha	2-3 days
14. Nyamapanda (Tete customs)	2-3 days
15. Zumbo	same day
16. Zobwe (Tete customs)	2 days
17. Mandimba (Lichinga customs)	2 days
<u>Air</u>	
18. Mavalane (Maputo)	5 days

Source: LSU/CARE, June 1988

Figure 6

MOZAMBIQUE MAIN ENTRY POINTS FOR FOOD AID

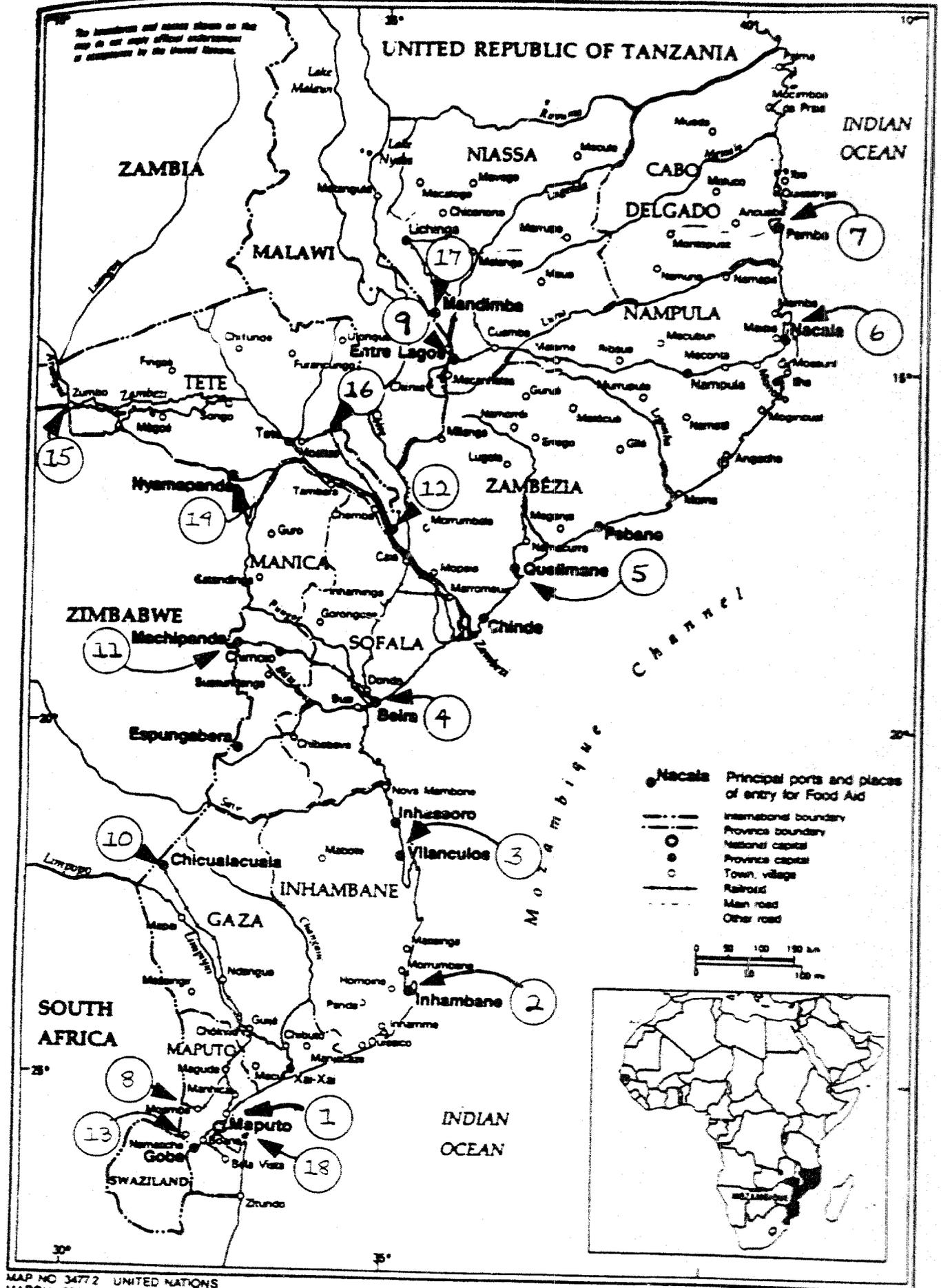
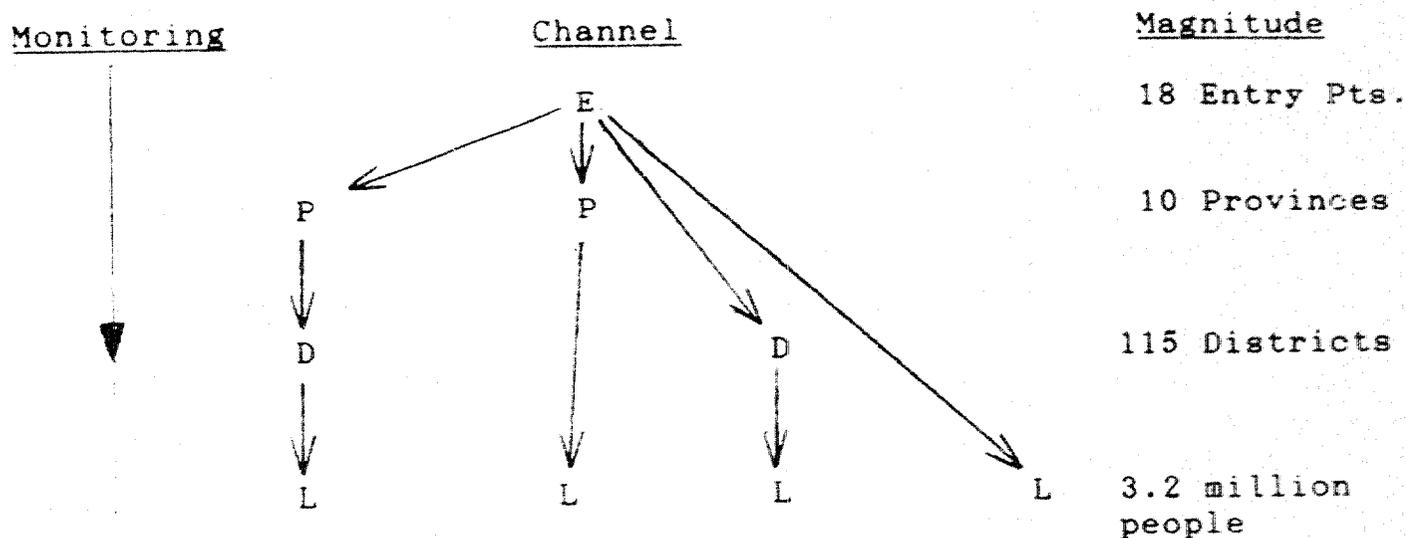


Figure 7 provides a schematic of some of the major channels of distribution, together with numbers of DPCCN-staffed locations in the system.

Figure 7: LSU/CARE Channels of Distribution

Point of Entry : E
 Provincial Warehouse: P
 District Warehouse : D
 Locality/Center : L



 Notes:

1. Transit lines can be multi-modal
2. Solid monitoring line indicates sub-system installed; broken line shows not yet in place.
3. Locality or deslocados center distribution can be further disaggregated into villages, families, etc.

Source: LSU/CARE and Evaluation Team, June 1988

The Figure identifies points of entry (E), provincial warehouses (P), district warehouses (D) and local distribution points (L). Examining the four examples in Figure 7, first stage transit in each channel can be carried out by any primary mode: sea, road, air and (theoretically) rail. Road services remain, however, the critical mode. Air cargo has to be taken to and sometimes from the airstrips, unless the village/camp is close. Rail can operate from the ports but is presently unreliable and

cargo is prone to theft. It is recognized that rail conditions may alter after the current investment programs in port rehabilitation are completed. In the meantime, trucks are used to load and unload rail wagons, making it a viable mode only over restricted parts of the distribution network. Ships can be employed for first stage movements and road vehicles are generally employed at transshipment points.

If the channels of distribution are thought of as a transit network spreading from established infrastructural centers to remote villages with limited accessibility, it is apparent that the needs of each stage in the distribution system are different, sometimes subtly and othertimes more radically. This is particularly true for transport and storage, the latter especially so where security is uncertain and a large full warehouse makes a tempting target for bandit attack. LSU/CARE has gained valuable experience in the last few years and must constantly weigh the pros and cons of each channel as shipments are called forward and decisions must be made.

The preferred pattern of cargo movement is from point of entry to Provincial warehouses. Thereafter, consignments are made to the District warehouses following procedures described in Chapter 3.2.1. As discussed therein, the allocations do not always relate to District numbers of "at-risk" persons, due to security problems or to authority selected officials exercise in setting consignment levels. This makes transport allocation difficult to plan and makes it tempting to play safe and get surplus capacity. As reflected in Table 5 at page 13, warehouse capacity is certainly adequate in most locations, with approximately 60,000 tons available for the requested (but not yet fully pledged) 210,000 tons to be called forward over a 12 month period.

Mention should be made that of the warehouses visited by the Evaluation Team, most were in sound condition and adequately secure. Rodent problems exist in many locations, particularly at the District level, but in that commodities do not usually rest more than 3-5 days in these locations this is not viewed as a major source of loss. Stock cards appeared up-to-date and the MPO tracking system more-or-less installed. A continuing lack of pallets and a need for additional training in proper stacking methods are problems of which CARE is fully aware.

Some District sites cannot accept large loads due to capacity, fear of attracting bandit attacks, or need to immediately distribute to localities/families at risk. Smaller and more robust trucks (e.g. 4 X 4) than those currently operated by DPCCN would be ideal for distributing to these locations. Their use could also avoid transshipment costs by directly shipping from Provincial to locality sites.

In many cases, distribution is more elaborate than that shown in Figure 7. It may involve one or two transshipments prior to arrival at a Mozambican point of entry. It may also incorporate storage at points of entry prior to movement to Provincial warehouses, and an additional distribution stage at local levels--to villages, for example--may be added. At each identifiable stage in the shipment, commodities are off-loaded and either transshipped or stored. This creates opportunities for damage or theft, and some loss must be expected. The question is how much loss is considered acceptable, given the trade-off between costly checking procedures and speed of distribution. As discussed above, the MPO must begin more rigorously capturing losses so that Central Operations can quantitatively assess the trade-offs of various routings.

DPCCN must also service areas of high risk, where the probability of attack is great. Over 7 percent of the fleet has been lost through attacks and land mines. The Evaluation Team also noted that as many vehicles were lost in other non-security related incidents, suggesting a potential focus of management action. LSU/CARE planners try to keep these losses to a minimum, either by: using convoy arrangements; bringing commodities through neighboring countries and thus avoiding insecure areas of a more orthodox Mozambique routing; and finally, when all else fails, by direct airlifting into fortified sites. These approaches require maintaining a surplus of trucks (although some Provinces need vehicles) and very low utilization levels. The average monthly figure for the period January through May 1988 was only 1622 kilometers per truck (minimum 400 km, maximum 2900 km). These levels are very inefficient and may only be tolerated by donors in the short term.

Of continuing challenge to LSU/CARE planning efficiency are the problems associated with donor dispatching of commodities and with calling forward needed cargo. The importance on scheduling can be demonstrated by the recent unannounced arrival of a 9,000 ton bulk maize shipment at Maputo Port. Central Operations had to work round the clock to clear this boat since it carried a \$ 6,000 daily demurrage fee. Should any other vessel have arrived while this was taking place, costly delays would have occurred. If donors could be made aware of the importance that shipping information has on LSU/CARE's operations, management in general would be greatly improved.

LSU/CARE has been quite successful in getting donor support for the supply of trucks and tractors, and for their maintenance. It has sensibly kept Provincial fleets fairly homogeneous in terms of vehicle makes and, with the assistance of UNICEF and SCF/UK, has spent time and resources building up regional workshop facilities, usually from the ground up. The progress in installing the truck/transport inventory and control systems is acceptable given the lack of local technical staff and low level

of training effort. Tables 8 and 9 show donor sources of the fleet since 1984 and status of workshop facilities and expatriate mechanic staffing respectively.

Table 8: DPCCN/LSU Truck and Tractor Units Provided by Donors 1984-Present

<u>Donor</u>	<u>Trucks</u>	<u>Tractors</u>	<u>Total Units</u>
Japan	67		67
Holland	59		59
A.I.D.	43		43
ODA	42		42
Italy	39		39
Oxfam	36		36
SCF/UK	33	4	37
Sweden	23		23
USA for Africa	16		16
UNICEF	8		8
UNDRO	7	10	17
UNDP	-	8	8
Eduardo Mondlane Found.	5		5
World Vision	5		5
France	2		-
CARE International	1	39	40
TOTAL	386	61	447

Source: LSU/CARE June 1988

Table 9: DPCCN/LSU Workshop Facilities June 1988

<u>Location</u>	<u>Expatriate Mechanic</u>	<u>Facility</u>	<u>Tools & Equipment</u>
Maputo-Cent.	1 UNICEF	adequate	adequate
Maputo Prov.	-	covered by	Central
Gaza	1 UNICEF	adequate	adequate
Inhambane	1 UNICEF	adequate	adequate
Sofala	-	private DAF	facility
Manica	1 UNICEF	adequate	adequate
Tete	1 CARE	contract with	CODAUTO
Zambezia	2 SCF/UK	adequate	adequate
Niassa	-	adequate	NONE
Nampula	1 OXFAM/UK	adequate	adequate

Source: LSU/CARE and Evaluation Team, June 1988

LSU/CARE has installed a transport sub-system information system which in the medium term should provide planners with a means of better utilizing the fleet. In terms of transport cost control systems, LSU/CARE staff has wisely kept forms simple, direct and focussed on key items. The systems are clear, uncomplicated and seem to be backed up by effective training. Presently, data are collected on fuel consumption, tons carried (split between LSU and other entities), utilization, availability and days in park/workshop.

These data are readily accessible and with them the Evaluation Team was able to calculate that in the period January through April 1988, the average DPCCN fleet availability was 78 percent, average fuel consumption was 3 km per liter, the average fleet utilization was 66 percent and vehicles spent an average of 4 days in the workshop and 5.4 days in the truck park. These data provide an indication that good start has been made towards establishing a transport information sub-system.

The Evaluation Team recommends that this base be built on in two ways, broadening the cost items to enable full truck costing to be calculated (see Annex F for details on Vehicle Operating Costs) and making the transport sector responsible for providing LSU/CARE planning staff with such data. This latter action would reflect the capabilities of LSU/CARE transport staff and go some way to making the two information sub-systems--commodity and transport--tie in more closely. Finally, a two way information flow, that is matching the data flow to Central Operations with summary data back to the Provincial levels for their control purposes is also considered desirable where it is not already in place. The diversity of channels in Mozambique is likely to remain for the short to medium term, and good monitoring systems are essential if efficiency and effectiveness are to become joint objectives.

3.2.3 Information and Reporting. The MPO as established currently focuses on information for internal use by the DPCCN. The key management information instruments and reports generated for internal planning and control are enumerated in the preceding two sections and problems with them discussed. Examples are found at Annex G. Chapter 4.1 will identify some key areas where this internal system should be improved, particularly with regard to end use and spot checking and cost accounting for fleet management planning. For purposes of internal supervision and control, however, the system in place is of very high quality. As training objectives are achieved and the kinks worked out of the dBase program it should prove easier and easier to use.

What was perplexing to the Evaluation Team is that much of this vast wealth of generally useful information has not until quite recently been synthesized into any standard reporting

format for dissemination to donors, nor have many of the donors until recently asked for specific reports. The publications that are prepared by LSU/CARE and externally distributed are listed in Table 10. "Origin" refers to the originating division within the LSU (Information or Coordination) and "Circulation" is per issue.

Table 10: List of LSU/CARE Publications

#	Title	Origin	Language	Frequency	Circ.
1	DPCCN Newsletter	Info.	Eng/Port	Monthly	200
2	Roster of Agencies	Info.	Eng/Port	Quarterly	200
3	CARE Fact Sheet	Info.	Eng/Port	Quarterly	20
4	DPCCN Fact Sheet	Info.	Eng/Port	Quarterly	20
5	LSU Briefing Packet	Info.	English	Bi-Monthly/ as required	20
6	CARE Quarterly Rep.	Info.	English	Quarterly	12
7	CARE Annual Report	Info.	English	Annually	50
8	LSU Project Proposal	Info.	English	Annually	30
9	Field Trip Reports	Info.	Eng/Port.	As required	8
10	Press Releases	Info.	English	As required	10
11	Food Situation Rep.	Coord.	English	Quarterly	25
12	Commodity Flow Monitoring Report	Coord.	Port	Bi-weekly	30
13	Cargo Index	Coord.	Port	Bi-weekly	30

Recipients: 20 CARE Mozambique staff (#'s 1,2,6,9,11,12,13)
 29 NGO's (#'s 1,2,9,11)
 44 CARE International Missions (#'s 1,2,6,7,8,10)
 6 United Nations agencies (#'s 1,2,7,8,9,11,12,13)
 5 Bilateral aid donors (#'s 1,2,6,7,8,10,11,12,13)
 13 Embassies (#'s 1,2,7,8,10,11)
 38 GPRM offices (#'s 1,2,7,8,11,12,13)
 20 Miscellaneous (journalists, teams, etc.) various

Source: LSU/CARE June 1988

Publications 1 through 10 amply fulfill the OFDA grant's requirement that CARE "document the functions of the LSU," and publications 6 and 7 fulfill CARE's performance reporting requirements under the grant. Publication 1, the DPCCN Newsletter, provides a province-by-province summary of conditions and activities which is of general interest to anyone concerned with Mozambique. Publications 1 through 4 are contained in Publication 5, the "LSU Briefing Packet," which comprises one of the best briefing kits the Team has found. Publications 11, 12 and 13 have only recently been introduced by the Coordination

Division and provide more of the type of quantitative information in which OFDA and FFP have expressed interest.

The Team did not specifically review the A.I.D.-DPCCN Title II agreements as part of its work. The OAR/FFP "DPCCN Reports" files contain the DPCCN Newsletters mentioned above, which are clearly inadequate for FFP requirements. Although with the recent inclusion of the hard data in the new publications 11, 12 and 13 the Newsletter begins to meet Title II requirements, much more needs to be provided on a routine basis. The Team suggests that the DPCCN agreements with other donors also may include reporting requirements that are not fully being met.

Chapter 5 includes a strong recommendation that DPCCN review its formal agreements on reporting to all donors and develop a master report that satisfies most needs. The LSU/CARE Donor Shipment Report that is still in development is one potential excellent tool to meet these needs. The Report tracks a commodity shipment by Master Shipment File number from arrival to distribution by quantity to receipt at Districts and distribution to centers or localities (i.e. sub-district level when fully installed). Samples of the report are provided at Annex H. Although some problems remain and numbers do not yet tally, the CARE Computer Specialist expects to have data from all provinces entered and the system fully operational within 3-6 months. As increased training and supervision achieve results with improved tracking and reporting of losses, in combination with the Commodity Flow Monitoring Report (Figure 3 at page 19) the Donor Shipment Report should fulfill a major portion of Title II, as well as most other donor, requirements.

This recommendation on increased external reporting is not made cavalierly in order to increase DPCCN (and LSU/CARE) workload. It is rather offered within the context of a possibly more stable situation in Mozambique and of possibilities of "donor fatigue". If another emergency occurs elsewhere in the world, and/or if conditions in Mozambique begin to improve, donors will more carefully assess the opportunity costs of their contributions to one or another location. It is very much in the DPCCN's interest to present itself as a tightly managed, responsible and responsive organization in terms of maintaining public accountability. This means that it should be routinely reporting on commodity use, including inevitable losses, to maintain strong credibility. The well-developed and computerized LSU/CARE MPO provides it an opportunity to provide very detailed reports in a relatively painless manner.

CARE is not a consignee and is not responsible for reporting on Title II or other commodities in its "NGO role". It is responsible in its "technical assistance role" for establishing a professional Mozambican Logistics Support Unit that is capable of monitoring and reporting on commodities. With reference to

Annex C, the new DPCCN reorganization plan places the external reporting function in a separate Department of Projects, Information and Planning. In its "NGO role," from the Department of Operations (i.e. the LSU) CARE may wish to consider providing assistance to the new Department from the LSU's existing Information Section. If CARE chooses not to do so, A.I.D. may wish to work with other donors (i.e. Swedish aid and UNICEF) to ensure this technical assistance is provided. In either case, the information now exists in retrievable form for vastly improved external reporting by DPCCN, and it is strongly encouraged to begin utilizing this resource.

3.2.4 Human Resources Development. The GPRM-CARE Basic Agreement of March, 1984, envisioned a "target horizon for accomplishing the dual tasks of constituting a fully operational LSU and training of local counterparts to a satisfactory level of performance" at four years, or March, 1988. It is likely that neither party foresaw the need for such rapid and massive expansion of the relief effort at that time. Most local counterparts are the first to say they would have difficulty doing the job if CARE expatriates were not still available.

Chapter 3.1 documents the rapid growth in DPCCN personnel throughout the country; commodities moved; fleet operated and maintained; and storage facilities obtained and operated. Although Chapters 3.2.1 and 3.2.2 emphasize a need for greatly increased efforts at training, this must be seen in the context of what has already been accomplished. Almost 1350 DPCCN staffers are currently functioning at some level of competence in positions that did not exist four years ago in a structure that was then described as "nascent" at best. Although the following paragraphs will again focus on increased training, they must be read with full appreciation of the magnitude of the effort to date.

The original CARE proposal for its first OFDA grant included a position for a full-time Training Officer to carry out the formal training planning function, with the ubiquitous "on-the-job" training to be undertaken by expatriates with counterparts. The Training Officer had not been recruited at the time of the September, 1985 evaluation and a recommendation to do so was included in that report. The position was filled, and by various accounts "it did not work out." The position has been vacant since February, 1988 and has been covered on a half-time basis by the CARE Information Coordinator.

Table 11 which follows provides a listing of formal training either provided by, facilitated or supported through CARE's efforts to date.

Table 11: Formal Training Courses Organized by CARE International Staff 1984-Present

<u>Theme</u>	<u>Location</u>	<u>Duration & Dates</u>	<u># of Participants /Occupation</u>
<u>Master Plan of Operations</u>			
	Chibuto	3 days 10/86	8 Prov. Staff
	Xai Xai	3 days 3/88	N/A
	Inhambane City	3 days 10/86	8 Prov. Staff
	Chimoio	3 days 8/87	9 Dist. Reps.
	"	3 days 10/87	" " "
	Beira	3 days 11/87	10 Prov. Staff
		3 days 3/88	" " "
	Nampula City	2 days 4/88	4 Prov. Staff
	Lichinga	2 days 4/88	4 Prov. Staff
<u>Commodity Management</u>			
Inventory & Warehousing	Tete City	3 days 12/84	3 Prov.Comm. & Wrhs. Mgrs.
Warehousing	Beira	2 days 4/85	3 Prov.Wrhs.Mgrs.
Accounting & Inventory	Tete City	2 days 5/85 & 2 days 6/85	4 Prov.Comm & Wrhs. Mgrs.
Invent.Control	Tete City	3 days 5/86	6 Prov.Comm.& Wrhs. Mgrs.
Accountability	Beira	2 days 7/85	2 Prov.Staff
Planning	Maputo City	2 days 4/87	1 Central Mgr.
Control Proc.	Inhambane City	5 days 1987	8 Dist. Reps.
Warehousing	Maputo City	1 day 8/86	4 Cent.Wrhs.Mgrs.
Warehousing	Maputo City	2 days 2/88	3 Cent.Wrhs.Mgrs.
<u>Customs Processing & Forwarding</u>			
Customs Clrnc.	Beira	1 day 6/85	2 Prov. Staff
Port Proced.	Maputo City	2 days 5/86	2 Central Staff
Customs Docs.	Maputo City	1 day 7/86	4 Central Staff
Shipping Docs., Control,	Maputo city	2 days 4/87	N/A
Shipping Docs; Comm.Flow Rep.	Maputo City	2 days 11/87	3 Central Staff
Port Clearnce, Accting Proc.	Maputo City	1 day 1/88	4 Cent.Supervis.

Continued on next page

Table 11 continued: Formal Training Courses Organized by CARE International Staff 1984-Present

<u>Theme</u>	<u>Location</u>	<u>Duration & Dates</u>	<u># of Participants /Occupation</u>
<u>Transport Management</u>			
Control Proc.	Tete City	1 day 11/84 & 1 day 3/85	2 Prov. Mgrs. " " "
Veh.& Fuel Cntrl, Reporting Procedures	Tete City Tete City	2 days 5/86 7 days 3/87	2 Prov. Mgrs. 5 Prov. Staff
<u>Vehicle Maintenance</u>			
Vehicle Mtnce.	Tete City	1 day 11/84 & 1 day 4/85	35 Prov. Mech. & Drivers
Electric Sys.	Maputo City	2 years 85-87	2 Central Mech.
Leyland Mtnce.	Maputo City	4 weeks 1/87	3 Central & 2 Prov. Mech.
Mercedes Mtnce.	Maputo City	3 weeks 4/87	4 Prov. Mech.
Mercedes Driver Trng.	Maputo City	1 week 4/87	8 Prov. Drivers
Volvo Driver Trng.	Maputo City	1 week 5/87	12 Cent. Drivers
Volvo Mtnce.	Maputo City	3 weeks 8/87	2 Central & 4 Prov. Mech.
Nissan Mtnce.	Maputo City	3 weeks 7/87	15 Prov. Mech.
<u>Other</u>			
Intro. to Computers	Maputo City	1 day 6/87	7 Central Mgrs. & Staff
Budgeting Proc.	Maputo City	1 day 10/87	2 Central Mgrs.
Basic English	Xai Xai	3 months/2 hrs/ day 12/87-2/88	14 Prov. Staff

Source: LSU/CARE June 1988

Although the number of formal sessions held is impressive, they have primarily been held when a specific need arises and/or because a CARE or other NGO expatriate has a specific training interest, or in the case of the UNICEF Trainer Mechanics, a specific job requirement. On-the-job training has clearly also been undertaken, but given the exigencies of set-up within the emergency situation this has often slipped in face of a need to

get the job done. While this more ad hoc approach is totally understandable within the period of such tremendous growth and installation of the MPO, it highlights the view of training as "something we need to do when we get the time." The emergency situation appears to have reached an equilibrium and significant additional growth is not foreseen. It is now time to refocus on providing skills that will enable Mozambican staff to fulfill the MPO system's potential.

CARE is fully aware of this requirement and has recently developed a Draft Training Plan which proposes a much more systematic approach to needs. The key immediate need is to develop standardized position descriptions and thus skills levels for each position. Only then can a proper needs assessment, matching incumbents' skills to those required for the job, be undertaken. This should be followed by development of sequential training objectives for incumbents or groups of incumbents; development of training venues to meet those objectives; and finally training design. Phase 3 of the MPO, which focuses on the Manual of Operations, will meet some of these needs.

As stated much earlier, the LSU exists per se only in Maputo, with all provincial staff except CARE PLO's under line authority of Provincial DPCCN Directors. Development of position descriptions for the entire DPCCN of 1700+ persons is clearly beyond the scope of CARE's mandate. An excellent first step has been taken by a Swedish consultant to the DPCCN during his assistance with the reorganization plan. As reflected in Annex C, functions of each section of each department at the central level have been allocated within the new structure, and the number of positions set for all but the LSU. This, according to the consultant, has been left up to CARE. CARE PLO's are also assisting with development of organizational structures in each of the provinces in which they work.

This new and very positive initiative in developing the whole DPCCN as a rationally organized national institution, with the LSU (formally the Department of Operations) as but one piece, should be fully supported. Prior to this step, the DPCCN has existed but the vertically integrated LSU, with its 20 expatriates and 400 trucks, has clearly been the "tail wagging the dog". It will remain extremely important in the medium term, but must refocus its role on logistics and leave broader planning, information and overall training functions to their proper departments within the DPCCN.

The future LSU/CARE training plan--based on the process described above--should thus focus on all staff within LSU Central Operations and on logistics and commodities staff in the provinces. It should be developed in consultation with the new DPCCN Training Section, when that is staffed up. Chapter 5 recommends that CARE engage a consultant to assist with the

process so that it does not remain "something we need to do when we get time."

The Team recommends that the consultant focus on developing the training process and plan for Mozambican staff. At the same time, CARE management in Mozambique and New York are strongly urged to review and, if necessary, revise, position descriptions for expatriate staff in Maputo and the provinces. Because of the new DPCCN reorganization and concomitant shifting of functions it is also recommended that CARE periodically reassess needs and be prepared, if indicated to shift expatriates to meet needs.

All new and revised position descriptions should include verifiable requirements for on-the-job counterpart training, based on requirements identified by the consultant. CARE management must then more rigorously assure that staff carry out this function. Use of training contracts between expatriates and counterpart staff is a common, and effective, means of assuring this training takes place.

3.3 Impact to Date

It is the Evaluation Team's conclusion that CARE has made a positive and significant contribution to both the direct provision of relief supplies and the institutional development of a Mozambican entity to do so. Chapter 3.2 contains numerous examples of inadequacies and areas for improvement, but on balance the achievements are impressive.

Actual "impact" in humanitarian terms cannot be directly measured in that nutritional surveillance data are very scanty. If all food received in 1987 reached at-risk persons at the recommended ration of 350 grams of cereals per day, it would mean that only 816,667, or about 25 percent, of the target group received full subsistence rations. It is clear to Mozambican planners and to LSU/CARE that families are supplementing rations with whatever they can get and, in many places are not getting enough. Within this context, Table 12 reflects the derived impact of recorded LSU/CARE distribution to the Provincial level in 1987 (ref. Table 6).

Table 12: Estimated Percentage of "At-Risk" Population Served by DPCCN/LSU by Province in 1987

<u>Province</u>	<u>Cereals Provided (kg)</u>	<u>Number of Rations*</u>	<u>Number of At-Risk</u>	<u>% At-Risk Served</u>
Maputo	5,573	46,452	329,000	14.1
Gaza	4,223	35,192	444,500	7.9
Inhambane	7,821	65,175	566,900	11.5
Sofala	9,357	77,975	226,600	34.4
Manica	2,595	21,608	243,000	8.1
Tete	20,758	172,983	294,000	58.8
Zambezia	13,916	115,967	546,000	21.2
Niassa	88	733	398,600	-
Nampula	21	175	194,000	-
Totals	64,352	536,260	3,242,700	16.5

* Rations calculated as 350 g/person/day for 365 days or roughly 120 kilograms/person/year.

Source: Evaluation Team calculations from DPCCN/LSU data, June 1988

Given the increasing effectiveness of the MPO commodity tracking system described in Chapter 3.2.2 above, LSU/CARE should be able to track with accuracy 95 percent of commodities to the Provincial level and an approximate 50 percent to the Districts in 1988, thus improving potential for derived impact greatly. The MPO system's accountability combined with a proposed spot-checking initiative described in Chapter 4.1 will allow for improved assessment of humanitarian impact beginning this year. Absolute availability of commodities, however, will still be a concern.

In terms of institutional impact, CARE has made a strong contribution to development of an effective and well-equipped Mozambican disaster relief structure, of which the LSU is but one part. It is clear to all that the initial four year timeframe to train Mozambican staff established in the CARE-GPRM Basic Agreement did not anticipate the massive growth of needs. Lack of achievement of this target is not seen as significant although more rigorous attention to training would have been beneficial. CARE's careful attention to a system's approach to the needs will have a very high payoff in the medium and long term.

CARE has been less concerned with efficiencies of the operation in the short term, given the massive needs. As

discussed above, given potential for "donor fatigue" the following chapters will provide more detailed discussion of where efficiencies can and should be obtained now that needs appear to have reached an equilibrium. It is increasingly important that counterparts and staff learn that donor resources are not free and of unending availability if the institutional gains made to date are to be sustained in the future. As CARE has done well in establishing an effective system, so it now must turn to the fine-tuning to enable the Mozambicans to maintain that system in the future.

4. ANALYSIS OF KEY ISSUES

4.1 Operational Capabilities.

The Evaluation Team's Scope of Work includes "operational capabilities" as a specific issue and defines it as capabilities of the LSU to provide improved end-use monitoring capabilities. Chapter 4.1.1 below directly addresses this issue. Chapter 4.1.2 address another operational issue, that of fleet management, which the Team believes important to highlight. Both are important to the effectiveness and efficiency of future LSU/CARE activities.

4.1.1 End Use Monitoring. As highlighted several times in Chapter 3.2 above, LSU/CARE as a logistical unit is directly affected by the accuracy of GPRM needs assessment both in programming quantities of food required and in managing the movement of that food. Improving GPRM capabilities in this area is key to improving both the effectiveness and the efficiency of LSU/CARE and, by extension, of all DPCCN operations. One key input to improved needs assessment is feedback from more rigorous end-use monitoring of commodities distributed.

The issue of the lack of end-use monitoring or verification was raised in the September, 1985 evaluation of the OFDA-CARE grant, with the conclusion, "While understandable in the circumstances, the present level of commodity monitoring and end-use verification is considered inadequate." (Brennan and Lockwood, Evaluation, p. 14). The evaluation included as recommendation number 11 that "CARE devise standardized forms for use by locality authorities to report on distributions to end-users, insist upon their submission and instruct the authorities in their use." (Evaluation, p. 17). Geographic coverage by DPCCN was at that time less than half of what it is today; the massive expansion of the DPCCN operations rather than end-use monitoring has been a central focus, and end-use monitoring is still inadequate.

CARE has subsequently worked with the DPCCN to install the MPO so that Provincial and District level reporting on commodity flows are regularized and reasonably accurate so that when and if locality or deslocados center reporting becomes possible structures will be in place to direct, supervise, analyze and utilize reporting out. The system was installed at the donor-to-Province level (Phase 1) in 1986 and the Province-to-District level (Phase 12) in 1987. As discussed in Chapter 3.2.2 above, Phase 1 is still only capturing 67 percent of commodities and greatly increased training and supervision is indicated. Phase 2 is irregular with still only a small return on what is issued acknowledged. Absolute end-use is not tracked by the sub-system.

A.I.D. has provided a significant level of Title II food to the emergency operations, consigned either directly to the DPCCN or to one of two NGO's, World Vision International (WV) and the Christian Council of Mozambique (CCM). CARE has not been a consignee for this food, but through its assistance to the DPCCN/LSU is involved in management as it is for commodities from all donors. Table 13 reflects the U.S. Title II food aid as a percentage of key commodities received over time.

Table 13: Title II Commodities Managed by DPCCN/LSU
as Percent of Total Key Commodities Managed 1985-1987
(metric tons)

<u>Commodities</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>TOTALS</u>
<u>Cereals Total</u>	52,871	91,081	98,000	241,952
World Vision	13,000	9,000	21,500	43,500
CCM	526	1,456	0	1,982
Direct DPCCN	0	0	0	0
Sub-Total Title II	13,526	10,456	21,500	45,482
% Title II	25.6	11.5	21.9	18.8
<u>Beans Total</u>	1,499	7,933	23,000	32,432
World Vision	0	1,800	1,500	3,300
CCM	0	227	0	227
Direct DPCCN	0	0	10,024	10,024
Sub-Total Title II	0	2,027	11,524	13,551
% Title II	0	25.6	50.0	41.8
<u>Edible Oil Total</u>	701	3,390	10,703	14,794
World Vision	0	2,160	1,500	3,660
CCM	73	267	0	340
Direct DPCCN	0	0	5,151	5,151
Sub-Total Title II	73	2,427	6,651	9,151
% Title II	10.4	71.6	62.1	61.9

Source: LSU/CARE June 1988

A.I.D. has requested that the Evaluation Team investigate feasible means to further extend the operational capabilities of the LSU and provide improved end-use monitoring capabilities. Given A.I.D.'s requirements for Title II commodities and the fact that they represent a significant portion of overall food aid to Mozambique, this should thus be a concern of the DPCCN, including LSU/CARE.

Chapters 3.2 and 3.3 highlight the many problems and inefficiencies associated with the rapid geographic and demographic coverage by the LSU, including the low skills levels of national staff and the monumental intricacies of commodity movement given shipping, security and infrastructure constraints. It is the Evaluation Team's conclusion that the systems are still far too fragile and dependent on expatriate supervision to absorb yet another level of personnel, transport, and information management at yet a lower level.

The Team recommends the LSU/CARE take a minimum of a one year "breather" from this expansion phase and focus increased attention of making what exists work better. If it can achieve the recommended targets of 95 percent accountability at the donor-to-Province level and 50 percent at the Province-to-District, it will have achieved a great deal. CARE's plan to move to Phase 3, which essentially consists of regularizing roles and responsibilities within the existing system, is fully appropriate to meeting these targets. As noted above, this should include a greatly enhanced emphasis on local staff training. It can move to sub-district level reporting in the medium (2-3 years) horizon.

In the interim period, it is recommended that DPCCN work closely with interested NGO's and UN agencies to establish a more regularized spot-checking system. That is, numerous NGO's of international reputation have geographically-focussed programs throughout Mozambique and have existing transport and personnel residing in or visiting those areas on a regular basis. Most already work quite closely with Provincial-level DPCCN staff and provide informal reporting on distributions. Some, such as SCF/UK, even provide Provincial government with monthly reports which include comments on the food situation. It would likely not be a burden if DPCCN were to provide simple one or two page standard forms (suitable for LSU/CARE computer coding) to the organizations to more formally capture spot-check data. The focus should be on food availability (commercial and free) in the locality and on amounts, periodicity and any problems of distributions/sales.

The Evaluation Team did not interview all NGO's but in discussions with two--Africare and SCF/UK--indications were that if the system was initiated by the DPCCN they would have no problems participating in it. Assuming only 8 participating

NGO's or UN agencies (and there are over 40 in Mozambique), and assuming that each could undertake spot-checks in at least 2 localities or centers in 4 districts each month, a sample of 48 spot-checks covering 32 districts would be achieved. This represents roughly 40 percent of the accessible districts and would have a fair degree of statistical reliability. Obvious NGO's to begin with would be those A.I.D. is funding, including Africare, SCF/US, ADRA, and World Vision. In addition, OXFAM/UK and SCF/UK have active programs in Niassa and Zambezia and would likely be willing to participate. Finally, UNICEF and WFP are both closely involved in the emergency distributions and could also provide valuable information.

It is recognized that World Vision and potentially ADRA as Title II consignees have more specific need for proper end-use, and it is recommended that A.I.D. assist with funding for this purpose. The focus should be on coordinating with DPCCN at the national and provincial levels, as is currently the case, and should in all cases avoid creation of parallel systems. These NGO's should instead emphasize more active direct involvement in sub-province activities. The proposed district focus will thus greatly enhance end-use verification in districts in which they work while avoiding redundancies (and thus cost and inefficiencies) at the provincial and national levels.

Should A.I.D. require more formal end-use verification for commodities consigned directly to DPCCN, its hard currency contribution to DPCCN must be increased significantly. That is, it must avoid the tendency to overburden the LSU and should instead create a new project with the new DPCCN Department of Audit and Supervision as the LSU should not be asked to audit itself. This could be through CARE, or through another NGO, or through a commercial consulting firm. Based on skills transfer experience to date (not just with CARE), an absolute minimum of 4, and preferably more, expatriates would be required, each covering a maximum of 2 provinces, for at least 2 years to establish the program and attain the sort of statistical validity required (estimated costs minimum \$ 800,000 inclusive of housing, international travel, shipping, school allowance, etc). Light vehicles, currently in very short supply in the provinces, would need to be acquired and maintained (estimate \$ 160,000 minimum). As approximately 75 percent of the commodities are moved via armed convoy at the sub-province level, the frequent 10-15 day turnarounds would indicate very high per diem costs (estimate 90 days/year/expatriate x 2 years x \$ 101 for \$ 73,000 minimum). Finally, air travel would be very high if accessibility remains as it is in that it is not possible to move between any provinces except Beira, Manica and Tete without it (estimate \$ 400/hour X 40 hrs/mo./expatriate X 2 years X 4 expatriates for approximately \$ 150,000). The total costs for two years would be in excess of U.S.\$ 1 million in hard currency.

In that there are so few reports of significant leakage with commodities, the Evaluation Team recommends the low cost-no cost use of other NGO's and UN agencies for spot-checks rather than the high cost of establishing an entirely new system. This is especially true if A.I.D. is interested in reducing its hard currency contribution and phasing out expatriate involvement. If LSU/CARE attains the accountability targets recommended for 1988, they should assess whether the system can be extended to centers and localities at that time.

4.1.2 Fleet Management. Tables 4 and 5 in Chapter 3.1 demonstrate the provincial level distribution of the DPCCN fleet and storage facilities. Given the continuing constraints of availability and accessibility, coupled with an inadequate needs assessment process, many Provinces thus have both surplus storage and transport facilities. The Team recognizes the irregular demand for vehicles due to shipping and convoy schedules, but there seems little case for increasing the DPCCN's fleet size as requested in the 1988 Appeal. The total DPCCN fleet of 431 trucks has a capacity of around 3700 tons, so even allowing for convoy waiting time, attacks, non-availability and so forth the actual tonnage per vehicle is low. The parastatal trucking entity Camionagem, not known for high productivity, carried 14 times more per vehicle/month during the same period. CARE International in Mozambique staff argue that this is an invalid comparison in that Camionagem runs in the cities and only safe rural routes, and does not open its trucks to the risk of the LSU fleet. The Evaluation Team believe that the significant difference cannot be explained by operational difficulties alone, and that DPCCN simply does not have enough work to do in many Provinces.

Use of other transport modes would decrease hard currency costs for truck maintenance and should be actively pursued. Provinces with coastlines should be encouraged to use cabotage and river transport where available. Many transport modes, including rail, are receiving substantial donor assistance and should be able to supply reliable and competitive transport services in the medium term. They could be particularly valuable in the first phase of the distribution channel, entry point to Province, and in other cases possess the attributes to deliver directly to local distribution points without risking attack on road links, e.g. Beira up river to two locations in Marromeu District.

The experience gained by DPCCN its fleet operations, together with the capital value of the vehicles--currently around 22 million dollars--need to be recognized as a valuable asset in any future DPCCN role. In the short term, emphasis should be placed on improving payload capacities of existing vehicles, as currently planned by Central Operations. All 6 X 4 vehicles

should pull a draw bar trailer on paved routes, giving an extra 6-10 tons payload. Given the difficulties of increasing annual kilometrage in the prevailing convoy conditions, emphasis on increasing kilometer productivity (like trailers) will be very beneficial.

Operating efficiency standards should be set to ensure that fleet capacities and commodity demand levels are not excessively imbalanced. Trucks should be transferred between Provinces, despite local administrative reluctance, to meet service needs as long as maintenance can be carried out, for example Leylands to Gaza or Tete. Costs should be closely monitored and reporting procedures used to improve efficiencies by targeting specific areas. The operating cost reports should consider separating tire consumption costs, since this item can exceed 20 percent of total costs for a large truck. Workshops are not an issue in the short to medium term, although their management is and staffing levels need to be kept as tight as possible. Inventory information can be channeled to form future budgets and orders, so that the particular operations of DPCCN vehicles and regional conditions are reflected.

The joint issues of service lives, depreciation and vehicle replacement are linked to the long term sustainability of DPCCN. Currently, planners are not fully costing spare parts, tire costs and vehicle depreciation/amortization, presumably because they are usually donated and are not a direct operating budget item like fuel. However, full vehicle costs should be a goal in planning terms, if only because the value of the donation could have been received in the form of additional food shipments. Nothing should be viewed as a free good.

In the short term, unit transport costs should be the acid test of efficiency and modal choice. DPCCN fleet management should aim to cut costs by tighter controls and driver discipline, and improving vehicle productivity. Modes other than road should be tried where appropriate to compare efficiencies. Annex F, Vehicle Operating Costs, demonstrates that private operators are almost always cheaper than state enterprises, even allowing for their need to earn a return on their capital invested and cover overheads.

Chapter 4.2 describes the long-term role of DPCCN as a disaster preparedness agency, with minimal internal logistical resources on stand-by. The implications of a this long-term role are profound on LSU/CARE's overall operations in general and own account trucking in particular. DPCCN own account transport operations are always going to be characterized by high costs, since periods of intense activity as followed by lengthy layovers. One policy to reduce this would be concentrate on providing smaller vehicles at District levels, serviced at Provincial workshops, and to use parastatal and private truckers, together

with other modes for long hauls. DPCCN therefore should consider reducing its number of large trucks--possibly through sale to the private sector--and make provision for replacement of with a different type. Chapter 4.2 which follows assesses the potential impact on the DPCCN budget for a range of options involving increased private sector use.

4.2 Privatization: Key Issues and Options

Since OFDA began funding the activities of the LSU/CARE in 1984, the primary modes of transportation used for the distribution of relief goods have been the LSU's vehicle fleet of over 400 trucks and tractors along with other government-controlled air and boat services. Except in a few cases, the use of private transportation has been considered either inappropriate or inadequate for the scope of the LSU's activities. After four years, however, A.I.D. has requested the Evaluation Team to explore expanding the participation of the private sector in the transportation and distribution of relief goods.

Within the context of this evaluation, A.I.D. considers the promotion of private sector participation in relief activities as "privatization". While not explicitly stated in the scope of work, the term "privatization" would seem to include any one or combination of options which reduce the range of LSU's operational activities including: contracting, sale or lease of assets, introduction of greater competition through policy reform, and specific assistance programs designed for increasing the efficiency and supply of private sector transportation.

This section presents the key issues and options associated with implementing a privatization program within the context of the emergency relief program. Specifically, the analysis focuses on privatization options concerning trucking, since more than 50 percent of the emergency food is distributed by road. As developed in greater detail in Annex E, privatization is desirable because of several reasons. First, it would allow the DPCCN to achieve greater levels of efficiency. Second, it would begin to establish the foundation for a more rational transportation sector which will be important during the recovery stages. Third, it would allow OFDA and FFP to decrease hard currency contributions to the DPCCN program. Finally, and equally important as the achievement of any one of the above program objectives, is the fact that there exists an overwhelming demand on the part of private transporters to participate in some type of privatization program. This latter is more fully explored in Annex E.

Chapter 4.2.1 below reviews the principal constraints restricting the growth of the private transportation sector and

the implementation of a privatization program. Chapter 4.2.2 and 4.2.3 then outline general options for resolving these constraints and the issues associated with implementing the options. Finally, Chapter 4.2.4 presents a detailed summary of the costs associated with various recommended options for the next two years.

4.2.1 Key Issues and Constraints to Privatization. In previous assessments of the Mozambican transport sector, the principal constraints to private transportation growth mentioned have included: the high risk associated with unsafe roadways, the lack of adequate repair and maintenance facilities, and a lack of credit (ref. Paul Holmes, "Stimulating Private Trucking Sector in Mozambique" and Bo Sedin, "Mozambique Transport Sector Review").

Based on Evaluation Team interviews in four provinces, these factors are not considered to be major impediments to the participation of private transporters in a privatization program in the next one to two years. Concerning the first point, although the insurgency has made transportation a high-risk business, there is plenty of demand and a willingness on the part of private transporters to travel the few "open" routes. Despite the fact that the "bandits" have reduced the number of transportation routes and destroyed or made inoperative close to 25 percent (average) of the private sector trucks, all of the private transporters indicated a desire to increase their trucking fleet even if the security situation remains the same. Regarding the second point, all of the larger truckers have established their own maintenance operations, and do not require any additional maintenance yards. Even in the case of the small, one-truck operations, it appeared that most truckers could carry out their own maintenance. Similarly, in the case of credit, almost all of the larger truckers either had loans, had access to loans, or had enough savings to purchase a new or used truck. In the case of the smaller operators, it was evident that while they may not be able to service a loan for the purchase of a new truck, they were willing and confident they could secure funds for the purchase of a used truck.

Two areas in which the provincial interviews supported previous evaluations findings, concerns the shortage of spare parts and trucks. Every one of the transporters interviewed claimed that the most serious constraints affecting the utilization of existing trucks and future growth of their businesses was the lack of spare parts and trucks (see Annex E for a more detailed discussion). As such any privatization program should, at a minimum, address these two constraints. Besides these constraints, the Evaluation Team identified additional existing and potential issues that will have to be addressed in the short-term (up to one year) and in the medium-term (up to two years).

Short-Term Issues

As stated in the Team's Scope of Work, an important objective for A.I.D. over the next year or two should be to try and increase the level of participation of the private sector in the transportation of relief goods. Towards this end, the two principal issues affecting initial implementation are the lack of an institutional mechanism and experience within the DPCCN for contracting with the private sector and the lack of appropriate incentives for attracting and maintaining contracts with the private sector. These are discussed in the following paragraphs.

o Lack of Institutional Mechanism and Experience for Contracting Private Sector

As discussed in Annex E, one of the largest impediments to the LSU/CARE using private transporters in the past has been the lack of an established "line item" in the DPCCN budget for contracting outside of the DPCCN fleet. In those cases where private transporters have been contracted (through other line items), especially in the case of Beira, there have often times been delays in final payments. In the case of the Beira private maritime transporters association, final payment was only facilitated after the association asked the Provincial Director for Transport to intervene on its behalf.

o Lack of Incentives for Attracting and Maintaining Private Transporters

Most likely, any initial attempts at establishing a link between the private transportation sector and the DPCCN emergency food relief program will require a series of incentives. Once the incentives are established (e.g. access to spare parts, new trucks, etc.) it will be necessary to determine how and for how long the limited supply of large transporters will be willing to sustain such a contract.

Short-to-Medium Term Issues

Once a privatization program were to be implemented, a second set of issues would focus on: preventing the displacement of the commercial trade sector; establishing an appropriate tariff structure; and institutionalizing an incentive program whereby the DPCCN and/or donor community support the selling-off or donation of trucks to the private sector. These are considered as follows.

o Avoiding the Displacement of the Commercial Sector

If LSU/CARE were to contract out a high percentage of the relief goods to private transporters, there is a possibility that the distribution of commercial cargo could be seriously undermined. At present, more than 80 percent (estimated) of the private transporters' cargo is for the commercial sector. Given the existing high utilization rates of these transporters and the fact that they are generally a distributor of "last resort", an increase in relief food distribution could displace the distribution of commercial food, and/or force wholesalers and retailers to pay higher prices for the private transporters' services. There are already a few instances in which the private transporters have carried cargo for a non-profit organization, but at a price that is higher than other commercial cargo rates. Ultimately, increases in cargo rates due to too much demand by the DPCCN on the private sector could place unsustainable strains on an already distorted, price controlled market.

o Establishment of an Appropriate Tariff Structure

The existing tariff structure established by the Government is openly acknowledged as untenable for private transporters. The tariffs were established in June 1987 and, since that time, the prices on fuel, spare parts, and other materials have increased. In addition, the local currency has been devalued once by 12 percent. In the face of these rising costs against a fixed official tariff, most of the transporters have had to charge between 25 and 100 percent above the official tariff. While unofficially the government passively accepts this "aberrant" behavior, all the government agencies are supposed to charge and pay the official tariff. As a result, if DPCCN were to contract some of its distribution to a private transporter, they would probably have to pay only the "official" tariff. Without some type of incentive package, however, it is doubtful whether the private transporters would be interested in working at officially designated but unprofitable rates.

o Establishment of a DPCCN and/or Donor Commitment to the Privatization of the DPCCN Fleet

In its most ambitious form, a privatization program would try to promote the selling off or leasing of part or all of the DPCCN fleet. In the short run, neither option appears to be feasible, especially if it means that the DPCCN would have to diminish the size of its fleet. In the latest United Nations appeal, there are requests to increase the size of the fleet so that the

GPRM can respond even more effectively to the ongoing crises. In cases like this, where national security issues are prominent, it is difficult to raise the banner of privatization in the name of increasing efficiency. Control and effectiveness, not lower operating costs and support of free market forces, are the top priorities.

Still, despite any reluctance on the part of DPCCN or other governmental officials to fully support the sale of vehicles to the private sector, it should be possible to encourage some limited privatization options. Specifically, one option would be to convince donors to donate new trucks, originally designated for the DPCCN, to the private sector. Another option would be to promote a sell-replace program in which the DPCCN would sell some of their older vehicles, with the promise that the donors would then provide them with new vehicles. In either case, it will be essential in the medium to long-term to develop the DPCCN and donor support for some type of privatization program. If any of these attempts fail, the private transportation sector will then continue to face the uncertain prospect of having to compete against unfairly subsidized, government-supported, and vertically integrated transportation systems.

Longer Term Issues

Underpinning all of the operational and market-related constraints, have been inappropriate economic policies that have focused on the regulation and the creation of an inefficient, centrally planned economy. The primary policy-related issues that have affected and could continue to hinder the growth of the private transportation sector are continued efforts on the part of the government to overregulate the transportation sector; and failed attempts to establish appropriate exchange rate, fiscal and monetary policies.

In terms of the former, it appears that the government would like to encourage the growth of the private transportation sector (and therefore support a privatization program); in the same breath, however, the government would also like to establish more comprehensive licensing and tariff programs. Already, the government has "encouraged" the development of nucleos dos transportadores which are associations intended to coordinate the distribution of new trucks, spare parts and fuel to private truckers. When asked whether the Ministry of Transportation would support the sale of new trucks or part of the DPCCN fleet to the private sector, the response by the Vice-Minister was affirmative as long as the government could establish criteria which would ensure that only top priority, socially desirable

truckers received the trucks. In the past, such a policy has restricted the sale of new imports to public sector agencies or food wholesalers located in the interior of the country. Under this policy, it is possible that the less-efficient but politically acceptable transporters will be the beneficiaries of a privatization program.

The need for an appropriate exchange rate and monetary policy is clear. As long as the metical remains overvalued, there will continue to be a severe shortage of spare parts and new trucks. At the same time, the government must maintain a restrictive fiscal and monetary policy in order to reduce the existing high government deficits and inflation rate. In the face of these macro-economic challenges, any privatization program designed to supply hard currency for the purchase of spare parts and new vehicles will have to be carefully monitored. A.I.D. and other donors must ensure that the provision of hard currency would only be a stop-gap response and not an institutionalized solution for the government's exchange rate policy. Finally, if A.I.D. were to use a CIP program for the above, it would need to ensure that the infusion of local currency into the economy does not become inflationary.

4.2.2 Privatization Options. During the past few years, numerous proposals and ideas for "rehabilitating", "privatizing", or just "improving" the private transportation sector have been put forth and, in some cases, implemented by development agencies and private companies. To date, most of these programs have focused on strengthening existing government transportation agencies, developing rehabilitation programs which primarily service the public sector fleet, and establishing new parastatal transportation companies. While all these programs could perhaps strengthen the transportation sector, they are not directly aimed at assisting private transporters. This analysis focuses exclusively on assisting the existing private transporters with the goal of transporting relief food more efficiently. Below is a list of general options, listed in their order of priority, for redressing the constraints presented in Chapter 4.2.1 above.

1. Substitute Private Sector services for DPCCN services

In the near future, DPCCN could contract out the transportation of relief goods to existing private transporters. In order to do so, LSU/CARE will have to :

- o Establish a line item in the budget for contracting to the private sector.
- o Develop experience and parameters for contracting with the private transporters.

- o Include the necessary incentives in the contract which will encourage existing private transporters to transport relief good.

Concerning the last two points, LS /CARF could consider two types of contracts. One type would be a Fixed Contract with which DPCCN would guarantee a fixed number of trips per month to specific destinations. The second would be a Flexible contract with which DPCCN would hire a private transporters as a transporter of last resort, in cases where the DPCCN fleet is unavailable. Judging from the conversations held with private transporters, the most attractive type of contract would be the fixed contract with one of the following incentives:

- o Inclusion of incentives to purchase new spare parts or new trucks in the contract.
- o Payment of the going market rates.
- o Payment in hard currency for services rendered.

2. Increase the Supply of Spare Parts

In order to increase the utilization rates of the existing supply of the private sector fleet, it will be essential to improve the availability of spare parts to private transporters. Some options for doing so include:

- o Develop a commodity import program similar to A.I.D.'s CIP through which participating transporters would have access to a specified amount of spare parts.
- o Increase support for the rehabilitation programs currently funded by the Germans and/or work with the German development agency to include in their rehabilitation program a project for delivering spare parts to those transporters that participate in food relief transportation but are not part of the existing rehabilitation program.
- o Use the DPCCN warehouse and spare parts facilities for stocking and distributing spare parts to private transporters.

3. Increase the Supply of Vehicles to the Private Sector

As mentioned in Annex E, the largest constraint to private sector growth and contracting is the limited supply of new trucks. Both in the short-term and long-term there is an overwhelming demand by private transporters to buy new or used trucks. There are various proposals for increasing the availability of either new or used vehicles including:

- o Selling-off part of the existing DPCCN fleet (perhaps those trucks that are 4 years or older) without replenishing the remaining fleet.
- o Selling-off part of the existing DPCCN fleet, while replenishing the fleet with new, smaller, four-wheel drive vehicles.
- o Developing a CIP/import program for the sale of new trucks to participating private transporters.
- o Establishment of a private leasing company which would develop a lease-purchase program for the private transportation sector.

4. Initiate and Support Policy Reform Initiatives in the Transportation Sector

Concerning some of the ongoing longer term issues, A.I.D., and other donors, in conjunction with the current IMF/World Bank initiatives, could begin to work with the Government in establishing appropriate transportation policies, particularly with regard to establishing appropriate tariff structure and reducing the amount of administrative control over private transporters.

4.2.3 Key Issues Associated with Selecting and Implementing the Options. In deciding which of the options presented in section 4.2.2 is most appropriate, there are four important questions that need to be addressed: i) who should be the primary target group; ii) where should the program be targeted; iii) what should the specific contractual agreements be (regarding liability, period of commitment, etc.); and iv) how much, how soon and to what extent should A.I.D. support a privatization program?

Insight on the first two questions are based primarily on information gathered from the field interviews. Regarding the third, it was not possible for the Team, given the scope and amount of time allocated to the evaluation effort, to begin negotiating specific contractual agreements with private transporters. Therefore, comments on that issue are limited primarily to general issues that will have to be addressed. Finally, in an effort to make the last issue more tangible, two tables are presented in section 4.2.4 which offer financing scenarios for several potential Phase 1 (first year) and Phase 2 (second year) options. It is hoped that in this way, policy makers will understand both the financial implications and effect that any limited privatization program would have on the transport of relief food.

i) Primary Target Group

A key issue is deciding on which people should be encouraged to participate in the program. For example, should the program be directed towards large transporters, small single-truck operators, and/or food wholesalers and traders located in the interior of the country? One school of thought is that in order to promote the distribution of commercial food, the interior "armezanistas" need trucks to "pull" the goods into the needy interior districts. Others believe that the growth of small operators, and in some cases, the encouragement of new entries into the transportation sector are needed.

Judging from the sample of interviews conducted, it appears that the most suitable target group, at least for the short to medium-term (up to two-three years), would be the large transporters with three or more trucks. First, this group more than the small truck operators, exhibited the largest demand for new vehicles. While many of the small operators thought it would be a "good" idea to have a new truck, the larger transporters seemed to have pre-determined trucking strategies for which they intended to utilize the new trucks. Specifically, a couple of transporters wanted to penetrate the international trucking market (Swaziland and Zimbabwe) while others merely wished to increase their existing commercial cargo client base.

Related to the issue of demand for new trucks is the general capability of the larger transporters to fulfill the obligations--both contractual and financial--that would be part of any privatization efforts. Entering a fixed contract requires that a transporter be able to consistently deliver a service. Obviously, the larger the fleet the greater the likelihood that one will be able to overcome any unexpected vehicle downtime. Even more important, however, is the larger transporters' higher cash flow. When small truckers were told how much a new or used truck would cost, many merely laughed and considered the price to be too high. While some of the larger transporters also considered some of the prices of new trucks to be too high, there were many that had already bought used trucks and borrowed significant amounts of money (35 million Mt) for rehabilitating trucks.

The past experience of many transporters in servicing a loan suggests that they could do so again. In fact, several of the transporters appeared willing to purchase a used-truck even without a loan. Judging from the estimated vehicle operating costs presented in Annex F, it is unlikely that under the current tariff structure, a single-truck operator could service a 35 million (Mt) loan. The large transporters, on the other hand, would be able to take the profits garnered from their other trucks (charging market rates which are 25 to 100 percent above the official tariff) to service any debt incurred by participating in the privatization program.

ii) Geographic Targets

The issue of where to target the program is directly related to the target group one selects. In general, the "large" transporters are located around the provincial capitals (particularly Maputo and Beira) and the single-truck operators are located both in the capitals and the districts. The larger truckers generally operate along the inter-provincial roadways while the smaller truckers either handle port-to-warehouse transportation or provincial-district, district-locality transportation. The larger transporters generally prefer the long-haul business and to travel in convoys along routes that are relatively speaking in better condition and less likely to be mined. The smaller operators in the capitals prefer to limit their routes to port-warehouse transport where there is relatively little risk of being attacked.

The composition of the transportation market and transport routes suggests two possible privatization strategies. One strategy would be to focus on those large truckers that have the resources (maintenance facilities, trucks, financial capability) to begin transporting relief goods along the long-haul routes. Under this strategy, neither the DPCCN nor the donor community would have to provide a significant amount of assistance during the initial stages. Further, this strategy would allow LSU/CARE to focus on contracting out distribution along the well-traveled inter-provincial routes, thereby freeing up the DPCCN fleet for the provincial-district routes.

A second strategy would seek to relieve the constraint on the transportation of goods at the district level. The objectives would be to contact and provide assistance to those single-truck operators that already operate in those areas. Given the road conditions and security situation in these areas, however, along with financial resources of the existing small truckers, such a plan of action would probably require a greater expenditure of resources and technical assistance by A.I.D.

Of the two strategies, the former appears to have the greatest likelihood of success over the next two years. It also would allow the DPCCN to begin concentrating its fleet in those areas where the distribution of food has been the most uncertain and expensive. While the objective of assisting the smaller transporters is laudable, it is felt that such an objective should be implemented after pilot efforts with privatization are tested on a with the larger transporters.

iii) Contracting Modes

In developing a contracting system for utilizing the private transporters, the LSU/CARE will have to negotiate with the truckers on numerous points including, but not limited to: the

length of service, the type of incentives that will be included, the extent to which the trucker will be held liable for damage to any foods and the specific payment schedule (i.e. how soon after a service is contracted will the transporter be paid, will the payments be tied to the purchase of a new truck, etc.).

A potential problem could be in maintaining a long-term commitment by the transporters. For example, if after a year of participating in the program the transporter finally is able to purchase new spare parts and or a new vehicle, it is possible that he will want to stop transporting any more relief goods. Such attrition could be a problem since there are only about fifteen transporters identified in the Maputo and Beira areas that appear capable of carrying out the long-haul business. Somehow the LSU/CARE must establish enough incentives for a period of time (preferably at least two years) that would allow them to maintain the services of the large transporters. After a couple of years, it may then be possible to begin diversifying by focusing on the port-warehouse operators and/or trying to develop new operators (e.g. establish an incentive for a current DPCCN driver to purchase a truck).

4.2.4 Financial Scope of Privatization Options. Related to the other issues, are the questions of to what extent, for how long, and with how much funding will be required. This Evaluation is primarily intended to provide the conceptual framework for justifying the privatization of any of DPCCN's activities as well as to identify the key issues associated with a variety of privatization options. Given time and other workload constraints, it was not possible to detail exactly what percentage of DPCCN's activities and what funding targets should be set for future privatization activities. These decisions ultimately depend on DPCCN and the donor community commitments to the efforts.

In order to assist these decision-makers, a series of options for a first two year period along with forecasted expenditures and impact are presented in Tables 14 and 15. Table 14 presents key assumptions concerning the number of transporters and estimated tons to be transported, and total estimated program cost (in meticalais). Table 15 then presents the impact that each option would have in terms of total dollar expenditures required, increase in the stock of private transportation vehicles, percentage of commodities shipped by the private sector, and overall decrease in the amount of hard currency funding that OFDA, FFP or AFR would have to provide. With regard to the estimated dollar expenditures, two scenarios are presented. The first assumes that the DPCCN will agree to sell-off some of its older vehicles to the private sector. The second scenario estimates the costs associated with the donor community es-

establishing a truck-purchase program (in place of the DPCCN "sell-off" option).

For all of the options presented, it is assumed that during an initial two year period a pilot privatization program would accomplish the following objectives: a) develop DPCCN experience in working with the private transportation sector, b) begin to relieve the two principal constraints facing the private transporters--lack of spare parts and trucks and, c) transfer a significant percentage of the DPCCN main line transportation of relief goods to the private sector. In line with these objectives, it is that the program would be consist of two phases (or two years). During the first year the scope of the program would be modest and focus developing contractual agreements and appropriate incentives (objective "a" above) for those large transporters located in the Maputo and Chimoio-Beira areas. During the second year, the program would focus on achieving objective "b" and "c" by distributing a greater number of trucks and spare parts to the private transportation sector.

For both year 1 and year 2, there are three scenarios presented that correspond to low, medium and high levels of investment and potential impact. Option (A) assumes that private transporters could be attracted to the program with a guaranteed fixed contract. Option (B) and (C), on the other hand, assume that the transporters would require either access to spare parts (option B) or new trucks (options C). During year 1, it is assumed that approximately 5 transporters could be contracted. In the Maputo areas those transporters that would most likely be interested in participating would be Transporter Salema Chibique, Kassima and Lourenco. In the Beira area, the best candidates would be Carrelo (Beira) and Banoo (Chimoio). During this initial phase it would be possible to exclude from the package any new truck purchase incentive, since the existing stock of private sector vehicles would be sufficient to transport emergency foods on a limited basis.

The low option (A), would concentrate exclusively on establishing fixed, no incentive contracts. In these contracts, DPCCN would probably have to pay the market rate (25-100 percent above the official tariff). In order to avoid paying these rates, options (B) and (C) include a spare parts and/or new truck purchase incentive scheme. If the transporters were given access to spare parts (assumed U.S.\$ 15,000 per trucker in option B) or new trucks (assumed \$ 90,000 per truck in option C) the total cost of the initial phase of the program would be between \$ 150,000 and \$ 600,000, depending on whether the sale of trucks were done through the DPCCN (\$ 150,000) or a donor supported truck purchase program (\$ 600,000). In terms of impact, all three scenarios would seek to transport approximately 10 percent of the total tonnage of emergency food forecasted. As a result of contracting out to private transporters, it is estimated that

the hard currency funding by OFDA and FFP would decrease by about \$ 132,000, primarily due to savings accrued from not having to operate DPCCN vehicles along the routes contracted.

During the second year, the goal of the program would be to increase its scope. With this in mind, it is assumed that the existing fleet of private vehicles will have to be increased in order to avoid displacing the commercial sector. Additionally, it is felt that a spare parts program should be included as well. The low option would be to expand to the number of transporters to ten, thereby increasing the number of new trucks by five and the costs of the program to approximately \$ 360,000 (DPCCN sell-off program) or \$ 830,000 (donor truck purchase program). This option would result in a little less than 20 percent of the emergency foods being distributed by the private sector. The medium option would be to triple the number of transporters (to fifteen), which would cost either \$ 540,000 (DPCCN sell-off option) or about \$ 1.3 million (truck purchase program) and increase the share of private transporters in the distribution of relief goods to about 30 percent. Finally, a high growth option would be to increase the size of the private transportation fleet by thirty vehicles. In theory, such a program could result in about 50 percent of the relief goods being distributed by the private sector. Such a plan, however, would probably involve expanding the program to four or five provinces, and may be limited by the number of private transporters in other provinces that are capable of participating in a new program.

Of the three options presented for Year 1, option (C) appears to be the most desirable. First, it begins to respond to the biggest constraint affecting the growth of the private transportation sector--availability of new trucks. Second, it is easier for donors to develop a new truck purchase scheme rather than a spare parts import program. Most of the private transportation fleet is fifteen to twenty years old and consists of a variety of models, as such developing a spare parts program for such a heterogeneous fleet may be difficult to administer. Finally, option (C) provides the necessary incentives that will most likely attract the greatest number of transporters, and allow the LSU/CARE to avoid having to perhaps establish non-sanctioned, above-official-tariff pricing schemes.

During the second year of implementation, the most achievable options are most likely options (A) or (B). While in theory, the private sector fleet could be expanded by as much thirty to fifty trucks (the total number requested during Team interviews), it is highly unlikely that the transporters interviewed could handle the high debt load associated with such growth. Therefore, option (C) would require distributing thirty trucks among transporters in provinces outside of Maputo and Sofala. Such an expansion, however, could run the risk of placing too much administrative burden on the participating donor

and LSU/CARE. Therefore, it is felt that, if possible, the territorial scope of privatization efforts should be limited to two and perhaps three provinces (Maputo, Sofala and Manica). Both options (A) and (B) could maintain the provincial focus of the program established during Year 1, while increasing the overall percentage of emergency goods transported by the private sector to 20-30 percent. In terms of budgetary impact, the range of expenditures between options (A) and (B) would be between \$ 358,000 and \$ 540,000 (DPCCN sell-off option) or \$ 800,000 and \$ 1,430,000 (truck purchase program). These overall hard currency investments would decrease OFDA/FFP's specific hard currency outlay for operating expenses by \$ 260,000 to \$ 390,000.

For all the options presented it would be preferable to try to increase the availability of trucks by selling off some of the older DPCCN fleet. Such a strategy would allow the DPCCN to either reduce its overall scope of operational activities or allow it to replace these vehicles with smaller vehicles more suitable for back country transport. It also would limit the amount of investment required by the private transporters and the donor community. If this option is not possible, then A.I.D. should either consider lobbying the donors to donate directly to the private sector, or establishing a CIP-type import program.

Finally, regardless of the options pursued, A.I.D. along with the LSU/CARE should carefully monitor the initial phases of a privatization program. At some later stage (year 3), it may be possible to expand the scope of the program to cover small one-truck operators and/or new entries (perhaps ex-DPCCN truck drivers) into the program. Before such objectives are pursued, however, it will be important to evaluate the previous phases' track record regarding actual percentage of food distributed by the private sector, actual costs invested by the donors, defaults on any loans, transporters ability to fulfill a contract, and the continued availability of credit, fuel, and other materials (tires and batteries). Before expanding the scope of the privatization program, both A.I.D. and the LSU/CARE should analyze and review the trade-offs between developing greater efficiencies in the distribution of relief food and relieving the constraints currently affecting the private transportation sector. In the options presented for the first two years, these two goals are considered to be congruent. By the end of year 2 or year 3, however, the objectives and design of the privatization program may have to be reformulated to address possible shifts in the needs of the private transporters and goals of A.I.D. and/or the LSU/CARE.

	YEAR 1			YEAR 2		
	(A)	(B)	(C)	(A)	(B)	(C)
ASSUMPTIONS:						
1. NUMBER OF TRUCKERS:	5	5	5	10	15	30
A. LONG HAUL (>200KM):	3	3	3	7	10	20
B. SHORT HAUL (<200 KM):	2	2	2	3	5	10
2. AVG. SHIPMENT PER TRUCK (IN TONS):	22.5	22.5	22.5	22.5	22.5	22.5
3. AVG. TRIPS PER MONTH:						
A. LONG HAUL (>200KM):	12	12	12	28	40	60
B. SHORT HAUL (<200 KM):	24	24	24	36	60	120
4. TOTAL TONS SHIPPED PER MONTH:	810	810	810	1,440	2,250	4,500
A. LONG HAUL (>200KM):	270	270	270	630	900	1,800
B. SHORT HAUL (<200 KM):	540	540	540	810	1,350	2,700
5. TOTAL TONS SHIPPED FOR YEAR:	9,720	9,720	9,720	17,280	27,000	54,000
A. LONG HAUL (>200KM):	3,240	3,240	3,240	7,560	10,800	21,600
B. SHORT HAUL (<200 KM):	6,480	6,480	6,480	9,720	16,200	32,400
6. AVG. COST PER TON/KM:						
A. LONG HAUL (>200KM):	39	26	26	26	26	26
B. SHORT HAUL (<200 KM):	45	36	36	36	36	36

TOTAL COSTS (IN METICALS):

TOTAL CONTRACT COST:	94,284,000	68,688,000	68,688,000	93,960,000	142,560,000	285,120,000
A. LONG HAUL: AVG. 400 KM.	50,544,000	33,696,000	33,696,000	58,968,000	84,240,000	168,480,000
B. SHORT HAUL: AVG. 150 KM.	43,740,000	34,992,000	34,992,000	34,992,000	58,320,000	116,640,000
SPARE PARTS INCENTIVE PROGRAM: ESTIMATED AMOUNT/TRUCKER: ASSUME (M+): 6,750,000	0	33,750,000	0	67,500,000	101,250,000	202,500,000
TRUCK PURCHASE PROGRAM: ASSUME 1 TRUCK/TRUCKER: ASSUME (M+): 40,000,000	0	0	200,000,000	200,000,000	400,000,000	1,200,000,000
4. TOTAL PROGRAM COST:	94,284,000	102,438,000	268,688,000	293,960,000	576,310,000	1,687,620,000
A. LONG HAUL (>200KM):	50,544,000	53,946,000	153,696,000	138,968,000	317,990,000	1,103,480,000
B. SHORT HAUL (<200 KM):	43,740,000	48,492,000	114,992,000	154,992,000	258,320,000	584,140,000

PLANATIONS:

PHASE I: (A)-WITHOUT ANY INCENTIVES, (B) WITH SPARE PARTS INCENTIVES, (C)-WITH NEW TRUCKS INCENTIVES

PHASE II: (A)-WITH SPARE PARTS AND 5 NEW TRUCKS, (B)-WITH SPARE PARTS AND 10 NEW TRUCKS,

(C) WITH SPARE PARTS AND 25 NEW TRUCKS

TABLE 15: SUMMARY OF PRIVATIZATION IMPACT ON LSU/CARE COSTS

	YEAR 1			YEAR 2		
	(A)	(B)	(C)	(A)	(B)	(C)
BUDGET IMPACT						
TOTAL PROGRAM COST (IN DOLLARS) IF DPCCN SELLS PART OF FLBET	209,520	227,640	152,640	358,800	541,800	1,083,600
A. CONTRACTS:	209,520	152,640	152,640	208,800	316,800	633,600
B. SPARE PARTS:	0	75,000	0	150,000	225,000	450,000
C. NEW TRUCKS:	0	0	0	0	0	0
TOTAL PROGRAM COST (IN DOLLARS) WITH DONOR TRUCK PURCHASE PROGRAM	209,520	227,640	597,084	803,244	1,430,689	3,750,267
A. CONTRACTS:	209,520	152,640	152,640	208,800	316,800	633,600
B. SPARE PARTS:	0	75,000	0	150,000	225,000	450,000
C. NEW TRUCKS:	0	0	444,444	444,444	888,889	2,666,667
PRIVATE SECTOR IMPACT:						
TOTAL NUMBER OF NEW TRUCKS INCREASED:	0	0	5	5	10	30
PERCENTAGE OF NEW TRUCKS REQUESTED BY TRANSPORTERS INTERVIEWED			10%	10%	19%	58%
COMMODITIES IMPACT:						
TOTAL FORECASTED TONS TO BE DELIVERED BY DPCCN TRUCKS:	100,000					
PERCENTAGE CONTRACTED WITH PRIVATE SECTOR	10%	10%	10%	17%	27%	54%
BUDGET IMPACT (IN TERMS OF DECREASING OPDA/FPP FUNDING):						
TOTAL KILOMETRES CONTRACTED:	100,800	100,800	100,800	199,200	300,000	600,000
A. LONG-HAUL	57,600	57,600	57,600	134,400	192,000	384,000
B. SHORT-HAUL	43,200	43,200	43,200	64,800	108,000	216,000
TOTAL DOLLARS NOT EXPENDED FOR OPERATIONS	132,160	132,160	132,160	261,173	393,333	786,667

4.3 Hard Currency Funding

Over the past four years, A.I.D. has provided close to U.S. \$ 10 million for the development and expansion of the LSU/CARE. For FY 1989 A.I.D. is being asked for an additional \$ 2.26 million. In the face of future funding cuts, however, A.I.D. would like to consider substituting local currency funds for hard currency expenditures. Two options proposed in the Evaluation team's statement of work are the establishment of co-financing arrangements with the GPRM or other donor organizations, and/or the use of existing local currencies generated by other A.I.D. programs.

Concerning the first point, it appears that CARE is already beginning to diversify its funding sources. While in FY 1988 OFDA/FFP was asked to provide 65 percent of the total LSU/CARE budget, the total request for FY 1989 has dropped from \$ 3.0 million to \$ 2.3 million, or 55 percent of the total funding required. Regarding the second option, however, the use of local currencies will require a significant change in GPRM policy. Over the past few years, the GPRM has demanded that all expenses submitted by donor agencies be paid in hard currency. In the absence of any immediate policy changes, the best option that will allow the LSU/CARE to begin increasing its use of local currencies will be through the privatization program discussed in section 4.2. In both FY 1988 and Fy 1989 it is anticipated that a majority of A.I.D. hard currency funding will be spent on vehicle operations and maintenance. If more of these operations were handled by the private sector, then it might be possible to diminish OFDA/FFP's current hard currency allocations.

Below is a brief review of the current constraints which limit the LSU/CARE's level of local currency expenditures. This review is then followed by a summary (taken from section 4.2) on how and to what extent a privatization program could begin to decrease the level of OFDA/FFP's hard currency commitments.

4.3.1 Current Situation. Over the past two years, the local currency expenditures provided by OFDA/FFP have included a small percentage of spare parts, local office supplies, local household allowances, and some electricity, water and telephone bills. When all totaled, the amount of local currency expenditures accounts for less than 3 percent of total funding provided by OFDA and FFP. The most significant local currency expenditure is for spare parts and other materials needed for the operation of the trucking fleet. These expenditures only amount to approximately \$ 50,000 and are only required when some item is required on short notice. Otherwise, it is cheaper (by as much as 50 percent) for the LSU/CARE to plan on purchasing the spare parts from overseas or from Swaziland.

GPRM regulations and policy make it very difficult to expend in local meticaïs. The original contract between CARE and the GPRM required that the GPRM provide housing, or that CARE be allowed to pay for housing with local currency. Two and a half years ago, however, the GPRM required that all expatriate, including embassy personnel, pay rent in hard currency. In order to supplement the incomes of local staff, and thereby limit staff turnover, the LSU/CARE also pays a third of the local staff salaries in hard currency. In general, the overvalued meticaïs has created a huge shortage of hard currency. Consequently, the purchase of spare parts, fuel, tires and other vehicle related operating costs is generally done in dollars.

Also complicating the budgeting of local currency expenditures is the lack of a consistent and reliable budgeting process and government funds. The Evaluation Team had not received a copy of the DPCCN budget--requested at the beginning of the Team's visit--as of the time of this draft. Supposedly, last year the budget for its fiscal year 1988 (equivalent to calendar year 1988) was not approved by the GPRM until October. This year it is already expected that the DPCCN budget will be significantly underfinanced. In general, it is difficult for the LSU/CARE to rely on the GPRM to fulfill its local currency commitments. Regarding future co-financing arrangements, it would be almost impossible to expect the GPRM to increase its funding in order to facilitate a decrease in OFDA/FFP funding commitments, unless, as an option it were to draw upon Title II generated funds.

4.3.2 Future Options. Given the current allocation of hard currency expenditures, it is clear that the best area in which to try to substitute local currency for hard currency would be in the area of vehicle operations and maintenance. The best option for implementing this strategy would be the privatization program discussed in section 4.2.

Over the few years, OFDA/FFP has allocated most of its funding towards the salaries of the CARE staff and the running of the trucking fleet. Concerning the first area, it will never be possible to reduce hard currency expenditures unless the expatriates are replaced by local nationals. In the second area, the implementation of a privatization program could allow OFDA and FFP to begin reducing their hard currency outlays by 10 to 20 percent over the next two years. As forecasted in Table 14 in section 4.2, the total hard currency savings generated by the program could be between \$ 130,000 and \$ 800,000 depending on the scope of privatization activities.

The general assumption behind this program is that as more of the distribution of relief goods is contracted out to the private sector, the associated operating expenditures for fuel,

tires, lubricants, staff, and maintenance will pass from the LSU/CARE to the private transporter. For example, if LSU/CARE can manage to contract out 10 percent of its cargo, then the budget for vehicle operating costs could be reduced by about \$ 130,000 (year 1 goal). During the second year, the privatization program could possibly expand to cover 17 to 27 percent (options A and B) of total operations. These options could reduce OFDA/FFP commitments by as much as \$ 400,000. In the most optimistic case, it might even be possible to save up to \$ 800,000 by contracting out 50 percent of the distribution. Such a scenario, however, is considered highly unlikely given the limited supply of private transporters who would be able to purchase trucks in the targeted provinces.

While all of the above scenarios could potentially increase the expenditure of local currencies, two caveats should be kept in mind before initiating the proposed privatization efforts. First, even though the OFDA/FFP may be able to reduce its hard currency commitments, it is possible that a privatization program wholly supported by A.I.D. would result in a net increase in hard currency outlays by A.I.D. For example, if the DPCCN is reluctant to sell off any of its existing fleet, then A.I.D. might have to develop a CIP import program which could cost between \$ 444,000 and \$ 888,000 for the purchase of new trucks. Secondly, even if the LSU/CARE is able to contract out its main line distribution of relief goods, it may spend additional funds on developing the district-to-locality distribution channels. In both cases then, it will be important for A.I.D. to try to cultivate the support of other donors. In this way, the costs of either increasing the private sector trucking fleet or DPCCN's secondary distribution channels will not become the sole responsibility of A.I.D.

4.4 Future Role of the LSU

As stated in Chapter 3.1, in 1984, the DPCCN was a small, poorly organized central GPRM agency trying to cope with a drought and famine emergency. In 1988, it is the key executing agency of a multi-tiered multi-million dollar national emergency management structure involving the National Executive Commission for the Emergency (CENE), the Emergency Operations Committee (COE), Provincial Emergency Commissions (CPE) in 10 Provinces, and numerous sub-commissions and committees. This structure is presented at Figure 2 at page 9.

As reflected at the bottom of the Figure, the structure is concerned with both "emergency activities in strict sense" and "emergency generated activities", defined as rehabilitation of family life, reintegration of population, reconstruction of infrastructure, prevention, and development. The line agencies

outside of the structure carry out "normal" activities, including resettlement, reconstruction, prevention and development. It is stated GPRM policy that should the present emergency wind down, CENE and COE would disappear and the DPCCN would focus more on rehabilitation in the medium term and disaster preparedness and prevention in the long term. In sum, it is well-defined but with some expected ambiguities given the state of Mozambique's economy and infrastructure.

Of surprise to the Evaluation Team, which has reviewed many such ambitious diagrams in other countries only to discover that functions were carried out quite differently, this one seems to function well and approximately as indicated. CENE is very active and well respected. The donor community is in partnership with the GPRM and the COE meets regularly. In some provinces, DPCCN staff are doing double-duty with CPE's. The institutions to respond to the emergency, and to rehabilitation, are in place and functioning.

The LSU, formally renamed the Department of Operations of DPCCN, is but one piece of this structure. With reference to Annex C, the other three DPCCN departments are Administration and Finance (including Training); Projects, Information and Planning; and Audits and Supervision. A computer section is planned, serving all departments. The reorganization was developed through the assistance of a consultant provided through Swedish aid as part of an overall institutional assistance project to DPCCN. The Swedes and UNICEF have committed approximately U.S. \$ 3 million over 1988-89 to assist in its implementation.

This structure was only formally installed during the Team's visit and some are skeptical that certain sections will remain unstaffed. Team interviews indicated, however, that the GPRM believes it useful and wants to make it fully functional. The Team believes the structure generally sound and encourages its implementation. As this process occurs, it has a number of implications for the LSU and for CARE.

In the face of the widespread and unorganized emergency in 1984, the drastic state of the macroeconomic environment, and the then unorganized and much smaller donor response, the LSU was established as a vertically integrated disaster relief operation. It covered "Logistic Support" in the broadest sense, including undertaking needs assessment, developing baseline information on provinces, making contacts with donors, and a host of other activities that are not generally considered logistics. Given the unreliable nature of rail and sea transport it also built up its transport section to operate what is now the largest fleet in Mozambique (the parastatal Camionagem has less than 400 vehicles). Observers from the 1985-86 period suggest that in terms of emergency relief it was "the only game in town."

Simply stated, it is now time for the LSU to pursue more "horizontal" integration in a number of areas. Maintaining the vertical structure was effective in the short-term, given needs, but is increasingly inefficient and costly in the medium and longer-term context. If the DPCCN is to become a national emergency operations and disaster preparedness/prevention agency that can be sustained over time, it must be able to maximize resources--both internal and external--and avoid redundancies. With the increase in GPRM structure, the reorganization of the DPCCN, and the cautious confidence in the economy there now exist some LSU activities which have potential for costly duplication.

As suggested in Chapter 3.2.3, in its "NGO" role CARE may wish to consider providing assistance to the new Department of Projects, Information and Planning from the LSU's existing Information Section and possibly, for end-use monitoring, to the Department of Audits and Supervision from its Commodity Section. If CARE is not interested in pursuing these activities itself, it should certainly help the GPRM avoid redundancies. In the case of the Information Section, it should actively encourage the transfer of its trained Mozambican staff to the new Department and phase out the LSU Information Section. In the case of end-use monitoring, it should assist in defining DPCCN needs and possibly in training staff in the MPO system.

A point must be made about the reluctance of LSU staff to move to other departments of the DPCCN because they would lose their hard currency "food basket" allowance currently provided through the OFDA grant. The Team was told that DPCCN is discussing a similar provision under the Swedish project, but that it had not yet been decided. It is clear to all that the issue of salary supplements and perquisites goes beyond the CARE-DPCCN relationship and beyond the emergency situation itself. As in other countries that have grappled with the issue, so will Mozambique have to finally decide it at the highest levels.

As suggested in Chapters 4.1.2, 4.2 and 4.3, there also exist a number of ways to reduce cost and increase efficiencies of transport operations. This is an appropriate area of focus for a more "streamlined" LSU interested in promoting overall DPCCN development and sustainability over time. The increased use of other modes of transport and the active encouragement of private sector truck contracts through one of the options described in Chapter 4.2 are two key areas. Improved cost accounting and utilization of the existing fleet is another. This will be particularly important in the medium term, as competing needs for support to rehabilitation make claims on the fleet. In the very long term, LSU would theoretically be a very small unit, with warehoused trucks, blankets and other emergency supplies on hand to take the lead in emergency responses that would draw on other parts of government and the private sector.

4.5 Program Phase Over

The Evaluation Team's Scope of Work included a requirement for the Team to "...reevaluate, at this time, the extent and character of further A.I.D. participation in the evolution of the LSU." Chapters 4.1 through 4.4 above include numerous suggestions both for limiting and increasing funding levels, or in some cases switching from OFDA or FFP to CIP sources. These suggestions need to be reviewed by A.I.D. against numerous competing demands on funds unknown to the Team and decisions made accordingly.

It is clear, however, that the GPRM cannot support the LSU on its own and that the LSU cannot yet operate without sustained expatriate involvement, preferably that of CARE. Recommendations are included throughout this report and summarized in Chapter 5 with regard to short-term (1 year), medium-term (2-3 years) and longer term scenarios with regard to LSU activities. Although A.I.D. funding represents only approximately 50 percent of the CARE-managed portion of the LSU budget, it is the critical 50 percent that covers international staff salaries and support and a significant portion of fuel and spare parts. The Team recommends, subject to competing demands on OFDA funds, that OFDA plan to continue its support for the medium term and to reevaluate the situation at the end of two years (i.e. April, 1990). Given the still low skill levels of many Mozambican staff and the state of the insurgency, the Team can unfortunately not offer a more specific target.

The Team also recommends, however, that A.I.D. take a more proactive response to grant management and view CARE's relationship with the DPCCN (and not only the LSU) as more that of a "technical assistance contractor" than as a traditional NGO. Specifically, the new OFDA grant should include verifiable indicators of CARE's performance level and A.I.D. should monitor their achievement through explicitly stating what types of reporting it requires. Areas where the team suggests quantitative targets include commodity distribution to the province and district level and quantities distributed through various transport modes, including private sector trucking contracts. Reporting formats should be mutually developed. A.I.D. is encouraged to provide feedback when it so chooses.

Given the DPCCN reorganization, it is also recommended that CARE periodically reevaluate expatriate staffing levels and locations and seek to reduce dependency on expatriates where feasible. The Team was not able to assess this on any objective or widespread basis given time and travel constraints, but areas for decreasing expatriate staff may arise and CARE should be prepared to respond to these opportunities. Decreasing coverage in well-functioning provinces, for example, by having one PLO

cover two provinces, should become a reality in the next two years.

5. RECOMMENDATIONS FOR FUTURE WORK IN MOZAMBIQUE

5.1 Short-Term Recommendations

A.I.D.

1. Subject to competing demands on OFDA funds, OFDA should plan to continue its support to the LSU and CARE for the medium term and to reevaluate the situation at the end of two years (i.e. April, 1990). The new OFDA grant should be based on recommendations for the short and medium term included herein and include verifiable indicators of CARE's performance level. OFDA, FFP and OAR/Maputo should monitor CARE's achievements through explicitly stating in the grant what types of reporting are required.
2. A.I.D. should support the "low cost-no cost" option of having cooperating NGO's and UN agencies spot-check food distribution in lieu of the very high cost thorough end-use verification option. It should further ensure that NGO consignees of Title II do not develop parallel or redundant systems to that of DPCCN at the donor-to-Province and Province-to-District level. The focus of consignees should be on end-use verification.
3. OAR/Maputo should work through the COE to develop improved strategies for GPRM needs assessment. Of particular interest are criteria for persons "affected" and "with income" in terms of A.I.D.'s contributions to both the free and commercialized food distribution systems. OFDA or FFP should be prepared to provide funding for consultant studies in this regard if other donors do not. A study of the current process with recommendations for improvement should be carried out prior to or in conjunction with the proposed "Food Management and Accountability Assessment Survey of Free and Commercial Food Aid to Mozambique" as it is a critical and cross-cutting problem in both sub-sectors.
4. A.I.D. should strongly consider funding a Transport Tariff Study in order to provide adequate incentives for private sector trucking. The Tariff Study would recommend procedures for establishing tariffs and provide the GPRM with useful methodology for adjusting tariffs as the PRE continues.
5. OFDA, FFP and OAR/Maputo should carefully study the options for a privatization program proposed in Chapter 4.2 in order to make food delivery more efficient and effective. OAR/Maputo should carefully review the issues, particularly in terms of target group and target area, in preparation for support to a

program in the medium term. OAR/Maputo should also initiate discussion in the COE towards having some of the pledged trucks provided to private sector truckers as identified in this paper. The DPCCN fleet should not be increased from its present levels.

6. A.I.D. should strongly consider funding a reconnaissance-level study of Population Dynamics and Voluntary Settlement in Mozambique. There are 219 deslocados centers in Zambezia Province alone, and numerous others in other Provinces. In addition, there are hundreds of thousands of afectados who have moved and spontaneously settled near friends, relatives and/or places of work, and over 900,000 refugees living outside of the country wanting to return. As the nation moves from the emergency to the recovery mode it will become extremely important to understand the temporary and/or permanent dynamics of population movement in the last decade, and to have strategies in place to deal with their effects.

DPCCN/LSU (with CARE participation as appropriate)

7. DPCCN/LSU should begin to rigorously report losses on commodity movement both at the ports and through inland transit points, and develop a Loss Report if indicated. In this regard, and following the 1985 Evaluation recommendation, DPCCN should contract with an internationally reputable ex-ship tackle survey company for all commodities entering through major ports. It should in addition add a code to its standard MPO forms to begin to report on commodities sold as opposed to freely distributed.

8. The Team recommends no growth in total DPCCN fleet size and the adoption of measures outlined in Chapter 4.1.2 aimed at increasing the truck productivity of what currently exists. LSU/CARE should develop efficiency levels based on cost histories. This will require the Transport Section to more rigorously collect cost utilization data. This Section should begin to furnish the Coordination Division with unit costs on truck Vehicle Operating Costs (ref. Annex F), including depreciation, to enable improved planning and budgeting in the future.

9. LSU/CARE should continue its good and difficult work of establishing workshop facilities throughout the country. Provincial staff should be trained and supervised to keep improved cost record, develop inventory controls, and continue training efforts. Where possible, it should move major repair work to the private sector.

10. LSU/CARE should diversify its transport modes where possible, especially use of cabotage and river links. It should also begin to consider a change of fleet composition from large line-haul to smaller units. It should move towards contracting line-haul routes in relatively secure areas to private truckers

and move its own fleet towards smaller, robust 7 ton 4 X 4 trucks suitable for district distributions.

11. DPCCN should establish a line item in its budget to pay for private transport contracts. LSU/CARE should develop experience with and parameters for contracting with private transporters. This should include necessary incentives which will encourage existing private transporters to contract with DPCCN. LSU/CARE should carefully monitor contracted shipments to determine if accountability and incentives are adequate. The initial contracts should focus on Maputo and Beira provinces as recommended in Chapter 4.2. This initial experience is not viewed as a major new sector of activity requiring additional staff.

12. LSU/CARE should thoroughly study the privatization options discussed in Chapter 4.2 and discuss them within the DPCCN and with A.I.D. and other donors. It should be prepared to implement one or more of the options if funding becomes available.

13. DPCCN should actively implement the new organization plan and staff positions which remain vacant. The GPRM, possibly within the Council of Ministers, should consider standardizing salary supplements paid under donor projects as staff prerequisites.

14. The DPCCN Projects, Information and Planning Department should undertake a careful review of all formal donor agreements in terms of reporting requirements and begin to honor those requirements. It should coordinate development of formats closely with the LSU/CARE Coordination Division and the Computer Specialist. LSU/CARE should provide information from its data system as required to the Projects, Information and Planning Department.

15. The LSU should not expand into new sectors of involvement during 1988 but should refocus its efforts on making Phase 1 and 2 of the MPO function. It should set a target of 95 percent accountability for Phase 1 and 50 percent accountability for Phase 2 of 1988 commodities. This refocussing should consist primarily of increased training and supervision at all levels.

16. The DPCCN Director or his designate should convene a meeting of NGO's and UN agency personnel willing to participate in the spot-check system proposed in Chapter 4.1. If enough are willing, standard reporting forms (suitable for coding in the LSU computer system) should be developed and participants trained in their use. The spot-check system should be implemented for a minimum of a 6 month pilot period to see if data generated are useful to donors and planners.

CARE

17. CARE should actively support the recommendations for the DPCCN and LSU at numbers 6 through 15 above. The period 1988-1989 should be viewed as a period of consolidation of gains made to date and not as a period of growth. In 1988 CARE's focus should be training and supervision of staff in improved implementation of Phases 1 and 2 of the MPC, with development of the MPC Manual a critical part of the work. It should share the 95-50 percent targets of accountability with the LSU.

18. CARE should immediately recruit a Training Consultant experienced in logistics operations for a 6-8 week period. The purpose of the consultancy should be to develop a detailed training plan for the LSU. CARE should ensure that LSU staff are fully briefed on the purpose of the consultant's visit and available to work with him/her as required. CARE should be prepared to use additional funds for subsequent visits of the same or more specialized consultant trainers, depending on the plan.

19. CARE management should review and revise all CARE International in Mozambique position descriptions and standardize those of the PLO's. It should also monitor achievements of national staff and be prepared to shift or withdraw expatriates if the opportunity arises.

20. CARE should carefully consider providing assistance to the Department of Projects, Information and Planning within the DPCCN. The external information collection, collation and dissemination functions are more appropriate to the broader organizational needs than to logistics alone and CARE should help the DPCCN avoid potentially costly redundancies.

5.2 Medium Term (2-3 years)

21. All concerned should monitor the progress of the new DPCCN organization and of LSU/CARE in achieving accountability and training targets over time. A reassessment of roles and responsibilities may be indicated, particularly with regard to end-use verification. The LSU should continue to focus efforts on efficiency in commodity distribution and transport through continuing staff training and improved cost accounting systems.

22. If the short-term efforts with DPCCN contracting to private truckers results in hard currency savings to the LSU (as monitored through improved VOC records in the Transport Division), the donor community should be encouraged to assist in the provision of 15 new trucks and spare parts to private truckers as outlined in Chapter 4.2. This would preferably be accomplished by convincing the DPCCN to sell off some of its fleet, but if it is reluctant to reduce absolute levels donors could contribute new, smaller vehicles to replace large ones sold off. A.I.D. should also consider provision of large trucks for private transporters as part of its CIP.

No long-term recommendations are provided. A.I.D. should evaluate the situation and the LSU/CARE relationship in April, 1990 and reassess needs at that time.

6. LESSONS LEARNED: IMPLICATIONS FOR OTHER OFDA EFFORTS OUTSIDE OF MOZAMBIQUE

In an emergency response to a crisis situation there are essentially four critical functions performed:

- o Assessment of the type and magnitude of needs of the beneficiaries, which may involve a variety of life-sustaining goods (food, clothing, shelter) and/or more

technical inputs (dam repair, air or water quality testing and monitoring, etc.);

- o Assuring availability of what is needed, by type and within the range of what is required;
- o Ascertaining accessibility of the beneficiaries by determining the type and range of potential channels of distribution to a their location(s); and
- o Planning and managing the logistics to deliver the needed and available goods/services through accessible channels of distribution.

Most of the emergency situations with which OFDA is involved are of 60-90 days, and these functions can be performed effectively by short-term and ad hoc arrangements. More recently it has become involved in longer-term emergencies with no defined resolution, as is the case in Mozambique. Within such cases, one additional function is involved:

- o Monitoring the situation in terms of changes in factors creating the emergency or changes in conditions affecting the emergency. The results of the monitoring are analyzed in regard to the other four functions and may result in changes in their status.

It is important at the outset to define which of the functions can be controlled, which are only partially controllable, and which are externally controlled (or uncontrollable), in order to establish reasonable expectations and objectives that can be met.

Assessment of the type and magnitude of needs is a controllable variable which for a longer term emergency should be rephrased into "assessment of the type and range of needs." That is, the quantity and/or type of goods required is apt to vary over the course of a long term emergency situation and establishment of minimum and maximum requirements becomes important to planning.

Assuring availability of goods and services required is only partially controllable, unless OFDA were to assume full responsibility in a given case (which is unlikely for long term situations). Thus OFDA and others involved in assuring availability must either themselves or through intermediaries (A.I.D. missions, international fora, host-country committees, etc.) try to be as flexible as possible and coordinate to assure availability within the range required. Again, in a short-term emergency the response would be towards the top of the range. In a longer-term situation, the magnitude will change--perhaps frequently--and flexibility is required.

Ascertaining accessibility and determining channels of distribution is also only partially controllable. In the Mozambique situation, whole regions of the country may open up or become inaccessible overnight due to the insurgency. Or, as happens, rains or floods may cut off areas for a period of time. Even in a situation without hostilities or floods, the vagaries of various donors (i.e. targeting food to specific areas with no flexibility) combined with international shipping schedules (or lack thereof) render this variable frequently more independent than not.

The function of planning and managing logistics to deliver the goods is controllable but dependent on the functions of needs assessment, availability and accessibility as described above. Accepting that availability and accessibility can be only partially controlled, the logistics function becomes more dependent on needs assessment to operate effectively. The two functions require vastly different skills.

An organization that is established to provide logistics services should have skills in transport and commodity planning, management and accountability, administration and finance, information management and mechanical and infrastructure fields. An organization that is established to undertake on-going needs assessment must be capable of multi-sectoral information collection, collation, interpretation and dissemination. In a famine situation, which is the most common type of long-term situation for OFDA, these skills include, but are not limited to, demographic monitoring and interpretation; nutritional surveillance; macroeconomic analysis; information management; and agronomic, hydrological and meteorological data collection and analysis in the case of drought-related emergencies.

In the absence of a system to provide adequate information on the type and magnitude of needs on a frequent basis, the logistics system will likely respond in two ways. First, it will attempt to undertake some of the needs assessment itself, whether or not it has the skills to do so. Based on self-acknowledged general plans, it will then minimize risk by establishing a capacity to respond to a "worst case" scenario, i.e. it will organize to respond to the top of the range of needs. Over the long term, this approach becomes increasingly difficult and very costly to sustain.

If a system exists that does provide adequate information on the type and magnitude of needs over time, it can assess probabilities of the frequency of different scales of magnitude and establish a more precise range of needs. Based on the probabilities, the logistics function can be organized to respond to the mid-range (or probabilistic "mean") of the needs spectrum. For example, if there is a 50 percent chance that the needs in a

given region will reach 50,000 tons and require 20 trucks and a 50 percent chance that the needs will be as low as 5,000 tons with a requirement of 2 trucks, then the overall logistical mid-range planning target could be considered to be 27,500 tons and 11 trucks. The costs associated with maintenance and management thus are reduced significantly and the response to the situation of greater magnitude lengthened by a few days.

In planning its response to an emergency that is apt to be long-term, then, OFDA and other donors need to carefully consider both controllable functions, i.e. logistics and a system for on-going needs assessment, if logistics is to operate effectively and be sustainable over time (i.e. operate with some degree of efficiency as well). It is likely that the types of skills required would not be located in the same structure in a host government nor in the same type of technical assistance organization. For this sort of long-term response, OFDA must thus either provide both types of assistance and/or coordinate closely with other donors and the host government to assure that both are provided.

The final function, monitoring the situation over time, is controllable, and should be handled "on the ground" through the needs assessment system but also by OFDA, either by itself or through intermediaries (again, U.S. Mission reporting, international fora, national committees). A change in conditions affecting the emergency will lead to changes in all other functions. The monitoring must assure that needs are being adequately represented (i.e., is the famine due to drought or to poorly developed marketing channels) and that logistics are responding to the changing needs.

As the status of the only partially controllable variables of availability and accessibility change, so the functions of needs assessment and logistics must respond. The needs assessment may focus more on agronomic data than on security, and logistics may be able to begin utilizing new resources or use resources that exist in new ways. The organizations carrying out the functions may not see the possibilities for transition themselves, or may not have the time or resources to undertake planning necessary to make the transition. Over the long term, then, the monitoring system may need to serve the critical function of initiating such transitions.

The emergency operations in Mozambique represent such a scenario. Given the slight upturn in the economy and prospects for a good harvest in many locations this year, the emergency management structure is beginning to move from a start up period characterized by high growth (especially in terms of logistical operations) and emphasis on effectiveness to the longer term emphasis of efficiently allocating donor and government resources. The transition from emergency to recovery is thus beginn-

ing. While the rapid development of a vertically integrated structure has enabled LSU/CARE to gain control in the one area it can control, it should now adapt to other types of needs if gains made are to be sustained. Beginning to "horizontally" integrate and in the process stimulate the private transport sector is a recommended start. Providing transport services for agricultural marketing may well be a second step. Because the needs assessment function is not being adequately carried out, however, this transition will require occasional pushes from the outside. OFDA and OAR/Maputo, either themselves or through intermediaries, need to provide this push through closer monitoring of the environment.

ANNEX A

SCOPE OF WORK FOR EVALUATION

SCOPE OF WORK

1. OBJECTIVE:

AID will evaluate the accomplishments and progress achieved to date in (a) creating a logistics unit in the Mozambican Disaster Relief Agency (DPCCN), and (b) carrying out emergency relief activities, both of which have been financed under two OFDA grants to the U.S. voluntary agency CARE. Activities financed under these grants are both institution building and operational. Thus, this evaluation is to (1) review the organizational structure of the emergency logistical support unit (LSU) of the DPCCN which has been created, and (2) examine the operational functions of the LSU and its effectiveness in carrying out these functions to achieve targeted relief Aid distribution goals. The CARE program to be evaluated is under the following three grants:

OFDA ASP-0000-G-SS-4108
OFDA OTR-0000-G-SS-6063
FFP 656-48-000-7731

2. BACKGROUND:

A. At the request of the Government of Mozambique (GPRM), CARE visited Mozambique in December, 1983 to explore the possibility of providing logistics assistance for relief activities carried out during a severe drought in Mozambique. By February, 1984, CARE had negotiated a basic agreement with the GPRM enabling CARE to work in Mozambique and had submitted a preliminary project proposal to USAID/OFDA. This proposal was approved for funding for one year commencing April, 1984. In October, 1984, CARE initiated in-country operations with the establishment of a logistical support unit (LSU) as a permanent disaster relief logistical unit within the DPCCN with sub-offices in the provinces of Gaza, Inhambane, Sofala, Manica, and Tete.

B. Since 1984, the nature of the disaster conditions in Mozambique has changed drastically along with the geographical area of operations and the magnitude of CARE's scope of work. By 1985, the LSU, originally, created to respond to a drought emergency, began to provide assistance to victims of civil strife as well. As the armed insurgency situation in Mozambique intensified, AID has continued to support CARE's developmental activities and to date, has provided dols 9,839,859 for the development and expansion of the LSU, and to pay costs associated with the internal distribution of Title II food commodities throughout Mozambique.

C. Subsequent to the initiation of grant activities, both the geographical area of CARE's assistance activities and the magnitude of the relief operations have increased drastically. For example, the LSU is now operating in all provinces and has a vehicle fleet of over 400 operational trucks and tractors.

D. The initial agreement between CARE and the GPRM called for the GPRM to assume responsibility for the operations of the LSU in four years, i.e., approximately October, 1988. Accordingly, AID needs to reevaluate, at this time, if this phase over concept is still valid, and, if further assistance is needed, determine an appropriate strategy for providing such assistance. AID was determined that the analysis should be done by an outside contractor selected to provide expertise in institution building; relief planning management; commodity handling and storage management; commodity logistics and transport management; and truck fleet management. AID believes that an outside contractor is needed to provide a level of expertise, objectivity and an appropriate perspective needed for examining the implementation progress under the grant activities.

3. THE TASKS:

In brief, the contractor would perform the following tasks:

TASK 1. Evaluate the institutional growth and development of the LSU especially in regard to the geographical areas covered and the magnitude of the operations carried out within these areas. This is to determine the progress achieved to date by CARE in fulfilling its operational responsibilities as outlined in the grant agreements to create and strengthen the institutional capabilities of the LSU. Specifically, this evaluation shall examine the adequacy and effectiveness of the following:

(A) The organizational structure created to manage and deliver relief assistance throughout the designated geographical areas of Mozambique.

(B) The management, planning, operational and control systems installed throughout the organization.

(C) The manpower development program to train GPRM personnel in all aspects of relief assistance operations and management.

(D) The technical assistance supplied by CARE.

(E) The acquisition of relief material and equipment from other donors.

TASK II. Examine the relief operations executed by the LSU and the effectiveness of these operations. This to determine the progress achieved to date by CARE in fulfilling its operational responsibilities as outlined in the grant agreements to assist the LSU carry out logistic operations to receive, handle, and deliver relief goods to needy persons in the target areas. Specifically, this evaluation shall examine the following areas:

(A) The assessments of the requirements for, and the allocation of relief goods, transport and support equipment, management personnel and financial resources.

(B) Food commodity management including call-forward planning; port clearance and reception; and distribution planning.

(C) Food commodity handling, warehousing, and security.

(D) Food commodity accountability, fiscal controls, inventories, and reporting.

(E) Management and coordination of food commodity delivery and transport capacity in the LSU.

(F) Operation, control and maintenance of the transport fleet and support equipment.

(G) Coordination of commodity distributions and end-use verification at the provincial and district levels.

TASK III. Determine to what extent the GPRM is able to assume full responsibility for the operations of the LSU based upon the technical and financial assistance provided by CARE. This is to evaluate if any elements of the CARE program were not able to achieve program objectives and if these program objectives can and should be achieved with further assistance to LSU operations in these same areas with special focus on staffing, equipment, materials, end-use verification, and training of the GPRM personnel.

Task IV. Determine what modifications would be necessary in the existing program to A) improve the delivery, distribution and end-use monitoring of relief commodities; B) expand the usage of local currencies and co-financing arrangements to offset hard currency costs; and C) promote an expanded role of the private sector in the transport of relief commodities.

4. THE ISSUES:

A. Operational capabilities: AID is concerned about the management and distribution of the Title II food commodities, including the end-use monitoring at both the provincial and district levels. Accordingly, AID believes that steps need to be taken to further extend the operational capabilities of the LSU and provide improved end-use monitoring capabilities. The evaluation team shall examine feasible means where by these difficult tasks could be improved.

B. Program phase over: The initial agreement between CARE and GPRM called for the GPRM to assume responsibility for the operation of the LSU in four years. Given the stagnation of the country's development progress, especially the loss of revenues and foreign exchange, caused by the droughts, continuing armed conflicts and deteriorating economic conditions, AID considers that the Mozambican Government can not assume responsibility for the LSU operations as now structured and at the present level of operations without large and sustained inputs of financial and technical assistance from foreign donors. Accordingly, AID needs to reevaluate, at this time, the extent and character of further AID participation in the evolution of the LSU.

C. Hard Currency Funding: The initial agreement between CARE and AID provided that AID funding would extend until 1986, after which time funding would be sought from other donors. Due to a variety of circumstances, AID has continued to fund a significant portion of the CARE activities for almost four years. This year AID faces severe budgetary constraints and believes that it is necessary to reevaluate its financial role in supporting grant activities under this program through the use of appropriated dollars. As one option, AID would like to investigate how local currencies and co-financing arrangements might offset some of the hard currency costs of the program. The team shall examine ways to incorporate local currency funding and co-financing arrangements into funding any continuation of grant activities.

D. **A future role of the LSU:** Now, in 1988, the LSU has been operational and generally successful for four years. Although AID would like to see improvement and fine tuning in its operation, we believe that it has perhaps evolved to the point that it can be considered both a disaster relief and a recovery program agency. Emergency disaster conditions are still present in Mozambique but the commonality of need for logistic support in both relief and recovery programs suggests that both functions might be housed in a single agency. Accordingly, the evaluation team shall define possible strategies for moving the LSU into the recovery mode without jeopardizing the operational capacity of the relief program.

E. **Privatization:** AID goals in Mozambique are aimed at promoting the growth of the private sector. Private transportation of relief goods may offer one means of encouraging the participation of the private sector and decreasing the functional role of the DPCCN/LSU in commercial activities. The team shall examine options for expanding the participation of the private sector in transporting and distributing relief goods in Mozambique.

5. REPORTS:

A. Ten (10) copies of the detailed draft report will be submitted to USAID/Maputo and OFDA representatives for review and discussion on/about June 6.

B. Ten (10) copies of the detailed revised final report will be submitted to USAID/Maputo and OFDA representatives on/about June 10 before the last team members depart Maputo.

ARTICLE V - TECHNICAL DIRECTIONS

Technical Directions during the performance of this delivery order will be provided by OFDA/APR, Lauren Landis pursuant to Section F.3 of the contract.

ANNEX B

OFDA-CARE GRANT = OFDA CTR-0000-G-SS-6063

STATEMENT OF WORK

A. OBJECTIVE

To continue to provide the logistical support for emergency relief assistance to the victims of drought, famine and civil strife, which aggravates the dislocation of populations and conditions of public need in Mozambique.

CARE will manage and coordinate all requests and receipt of emergency relief assistance, transport, distribution and reporting of relief materials, and will provide the operational material resources to carry out the function of delivering emergency food and supplies to the 5.7 million people in need of assistance.

B. SCOPE OF WORK

CARE will continue to assist the Mozambican Relief Agency, DPCCN, through the LSU, in facilitating the determination, coordination, and logistical movement of emergency relief food and supplies. Specifically, CARE will continue with the following activities:

1. Clear and receive emergency goods at the port,
2. maintain proper warehousing or intermediate storage with coordinated liaison with other government departments as necessary;
3. establish and maintain inventory accountability of assistance received, transported, warehoused and distributed;
4. participate with the DPCCN for the movement of relief supplies with the appropriate coordination of other donors;
5. manage or coordinate all available land, air and sea transport at the disposal of the DPCCN for the movement of relief supplies;
6. control internal management, administration and financial accountability by maintaining operational information pertaining to transport use, fuel consumption, including availability and needs, and inventory accountability of transport resources;
7. participate with the DPCCN and other donors in the assessment of provision of facilities, personnel, and material resources required for the service and maintenance of a vehicular transport under the DPCCN;

8. assist, design and manage a "commodity Management Plan." This shall require field verification to the extent that field visits do not become unsafe;
9. document the function of the LSU;
10. plan, schedule and direct the training of national staff in logistics by means of on-the-job training and other more formalized regimens.

Care will be responsible for all procurement actions related to this grant. CARE will also be responsible for overall monitoring and problem-solving of its program through oversight by senior staff located in other African countries or the United States.

C. REPORTS REQUIRED

1. Financial Reporting

The original and two copies of all financial reports shall be submitted to AID, Office of Financial Management, Program Accounting Division (M/FM/PAFD), Washington, D.C. 20523. In addition, two copies of all financial reports shall be submitted to OFDA, Room 1262A, SA-1, Washington, DC 20523. Of the two copies sent to OFDA, one copy should be sent to the Project Officer (attention: Lauren Landis) and the other copy should be sent to the Operations Division (attention: Carole Siegel).

2. Grant Performance Reporting

A. CARE will prepare monthly progress reports, and a final report. These reports should document progress vis-a-vis program objectives and timeframe, problems encountered, corrective procedures to be followed, significant program development during the period, and projected accomplishments for the coming month. Analysis and explanation of actual unit costs versus budgeted costs should also be included here. Two copies of each program performance report should be submitted to OFDA and one copy to AID/Maputo.

B. The Grantee shall inform AID of events which may occur between the required performance reporting dates that significantly affect the program. For example, problems, delays, or adverse conditions may materially affect the ability to attain program objectives, prevent the meeting of time schedules and goals, or preclude the attainment of project work. This type of report should be received by both OFDA in Washington and AID/Maputo.

ANNEX C

DPCCN ORGANIZATIONAL STRUCTURE

DIRECTOR NACIONAL

GAB. REL. PUB.

SECRETARIA

COMPUTADOR

DEPARTAMENTO ADMIN. E FINANÇAS

SECC. DE ADMIN.	SECC. DE CONTAB. E FINANÇAS	SECC. DE RECURSOS HUMANOS
SECRETARIA	CONTABILIDADE	FINANÇAS
	PESSOAL	FORMAÇÃO

DEPARTAMENTO DE PRO-JECTOS, INFORMAÇÃO E PLANIFICAÇÃO

SECC. DE INFORMAÇÃO	GAB. DE PRO-JECTOS	GAB. DE PRE-VENÇÃO
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DEPARTAMENTO OPERAÇÃO

SECC. DE COORDENAÇÃO	SECC. DE ADM E FINANÇAS	SECC. DE FORMAÇÃO
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INFORMAÇÃO	COMPUTADOR	MERCADORIAS	TRANSPORTES
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DEPARTAMENTO AUDITAS E SUPERVISAO

GABINETE DE RELAÇÕES PÚBLICAS

CHEFE (1)

- * OF. PROTOCOL (2)
- * OF.- ADM. (1)
- * MOTORISTA (1)

* PUBLIC RELATION SERVICES

- DONORS - MEDIAS
- VISITORS - PROTOCOL

SECRETARIA
DIR. NACIONAL

Secretaria	(1)
Servente	(1)

COMPUTADOR

Of. Adm.	(2)
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DEPARTAMENTO DE ADMINISTRAÇÃO E FINANÇAS

DIRECTOR (1)

EXP. ASS. TEC. (1)

SECÇÃO DE ADMINISTRAÇÃO CHEFE (1)		SECÇÃO DE CONTABILIDADE E FINANÇAS CHEFE (1)		SECÇÃO DE RECURSOS HUMANOS CHEFE (1) EXP. ASS. TEC. (1)	
<u>PATRIMONIO</u>	<u>SECRETARIA</u>	<u>CONTABILIDADE</u>	<u>FINANÇAS</u>	<u>PESSOAL</u>	<u>FORMAÇÃO</u>
* Of. Adm. (2)	* Motoristas (2) * Dactilografas (2) * Telefonista (1) * Of. Adm. (1) * Op. Radio (1) * Contínuos (2) * Servents (4)	* Aux. Tec. (3)	* Of. Adm (2)	* Of Adm. (3)	* Of. Adm (3)
* Office mtrl * Stocks * Procurements * Maintenance - service - repair	* Secretariat - typing - mail - register * Teleservice * Transport	* Accounts * Records * Payments * Money handling	* Economic planning * Budget * Money flow	* Personnel Management * Records * Recruitment * Welfare	* Coordination * National Programmes * Training mtrl + equipment * Training programmes * Archives * Inspection * Technical assistance

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EXP. ASS. TEC. (1)

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<u>PATRIMONIO</u> Of. Adm. (2)	<u>SECRETARIA</u> * Motoristas (2) * Dactilografas (2) * Telefonista (1) * Of. Adm. (1) * Op. Radio (1) * Continuos (2) * Servents (4)	<u>CONTABILIDADE</u> * Aux. Tec. (3)	<u>FINANCAS</u> * Of. Adm (2)	<u>PESSOAL</u> * Of Adm. (3)	<u>FORMAÇÃO</u> * Of. Adm (3)
Office mtrl Stocks Procurements Maintenance - service - repair	* Secretariat - typing - mail - register * Teleservice * Transport	* Accounts * Records * Payments * Money handling	* Economic planning * Budget * Money flow	* Personnel Management * Records * Recruitment * Welfare	* Coordination * National Programmes * Training mtrl + equipment * Training programmes * Archives * Inspection * Technical assistance

DEPARTAMENTO DE PROJECTOS,
INFORMAÇÃO E PLANIFICAÇÃO

Director (1)
Exp. Ass. Tec. (1)

SECÇÃO DE INFORMAÇÃO	GABINETE DE PROJECTOS	GABINETE DE PREVENÇÃO
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* Of. Adm. (2) * Tradutor (1) * Dactilografafa (1)	* Of. Adm. (2) * Secretaria (1)	* Of. Adm. (3)
* Receive information * Process information * Forward processed info * Monthly and speical reports * Appeals	* Inventory ongoing projects * Follow up * Coordination * Management assistance * Liason * Progress report * Identify new projects * Project descriptions	* Definition of prevention in Mocambique * National prevention plan * Implementation of national plan

DEPARTAMENTO DE OPERACOES

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Exp. Ass. Tec. (1)

SECCAO DE COORDENACAO				SECCAO DE ADMINISTRACAO E FINANÇAS		SECCAO DE FORMACAO	
Chefe (1) Exp. Ass. Tec. (1) Tec. Med. (2) E. Adm. (2)				Chefe (1) Exp. Ass. Tec. (1)			
Transportes	Merca- dorias	Computa- dor	Infor- mação	Of. Adm (3) Secretaria (5) Serventes (3) Guardas (3) Telefonista (1)	Está sendo organizado		
1 Adm 4 Tec 3	2 Chefe Of. 8 Adm. 8 Exp Tec Ass. 1	1 Procr Of. Adm 1 Exp Tec Ass. 1	1 Chefe Of. Adm 3 Op. Radio 1 Exp tec Ass. 1				
				* Administração * Finanças * Secretaria	* Formação logística		

DEPARTAMENTO DE AUDITORIA
E SUPERVISAÇÃO

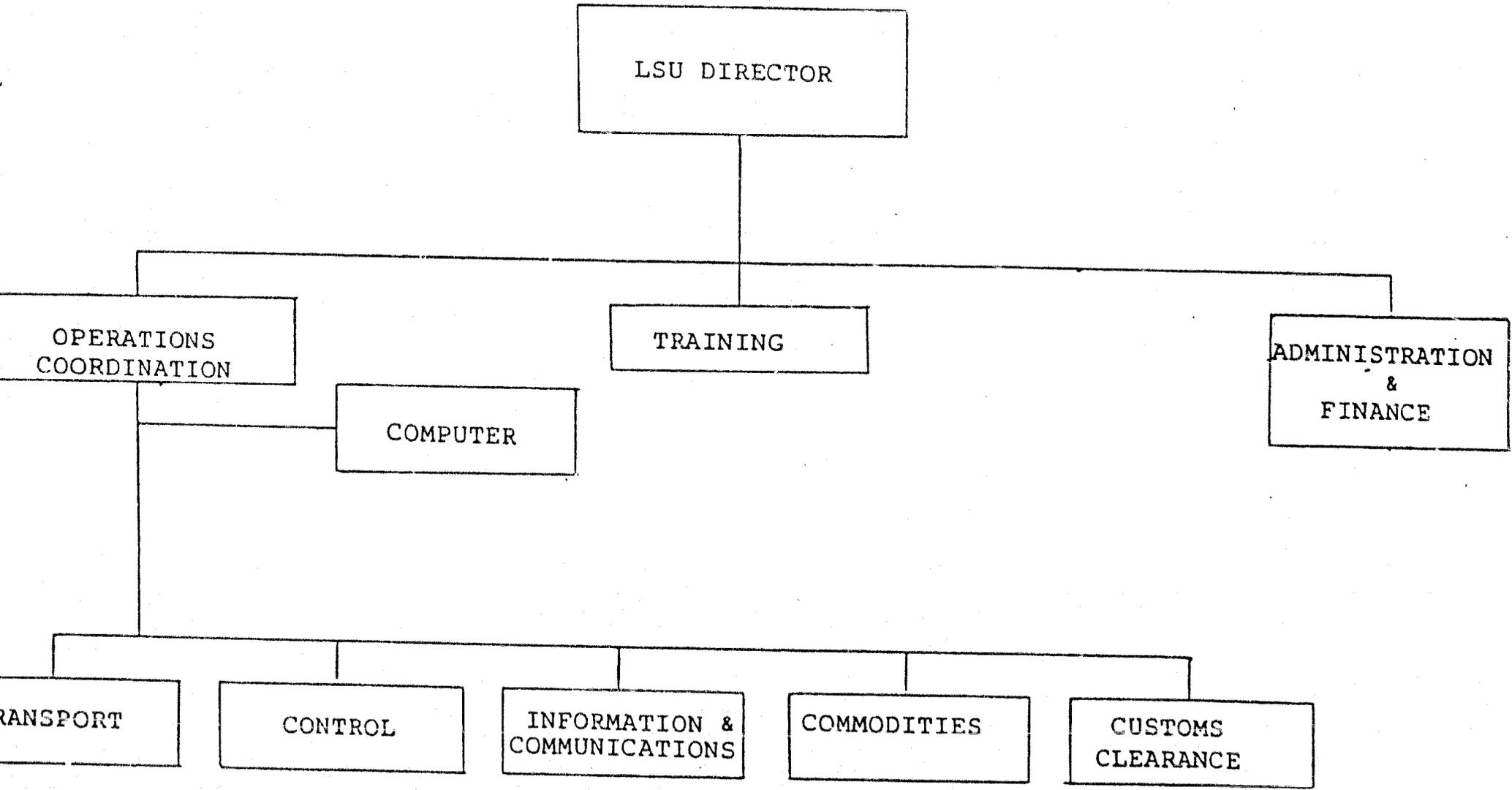
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* AUX. TECNICO (3)
* LOGISTICA (2)
* DACTILOGRAFA (1)

* SUPERVISION
* INSPECTION
* INTERNAL AUDIT
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David/Joao Jose

LSU DIRECTOR



DAVID / JOAO JOSE

LSU DIRECTOR

MIKE / AFONSO

OPERATION
COORDINATION

CARLO

TRAINING

ADMINISTRATION
& FINANCE

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PHIL / JOAQUINA

DATA
SYSTEMS

M^{rs}. CHOI

SECRETARY

CELESTE

ASSISTANT

PAULA

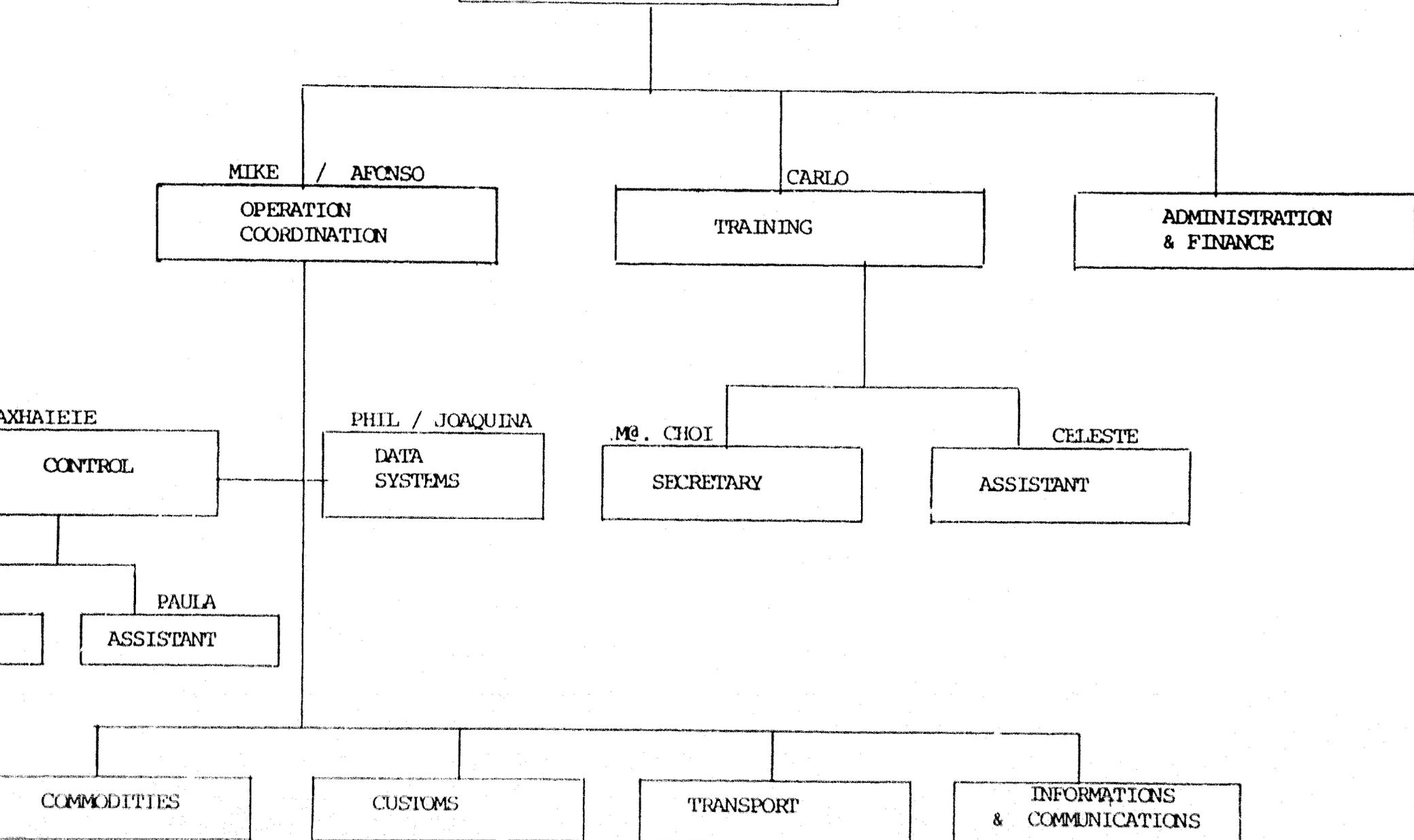
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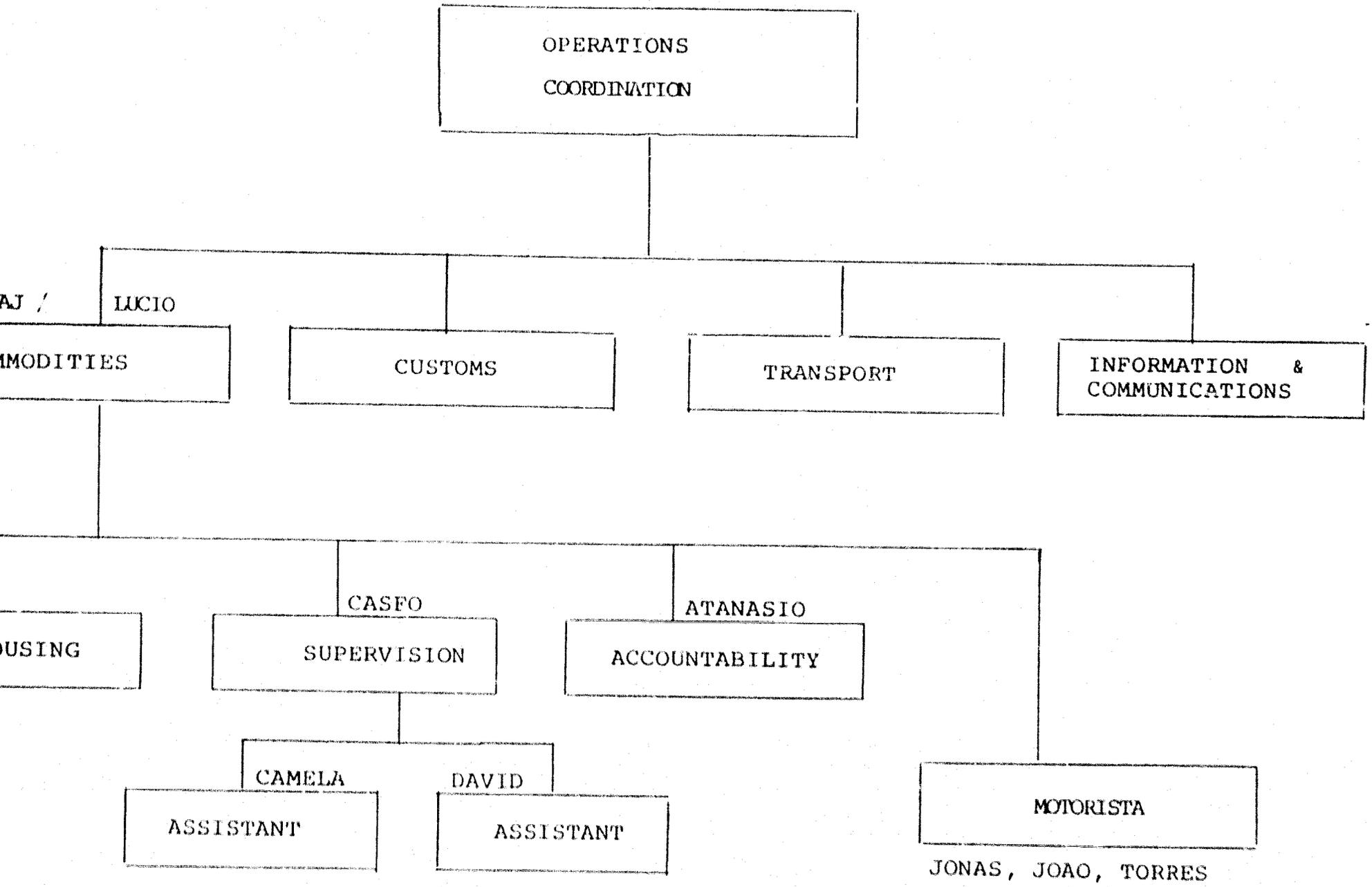
CUSTOMS

TRANSPORT

INFORMATIONS
& COMMUNICATIONS



MIKE / AFONSO



MIKE / AFONSO

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COMMODITIES

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TRANSPORT

INFORMATION &
COMMUNICATIONS

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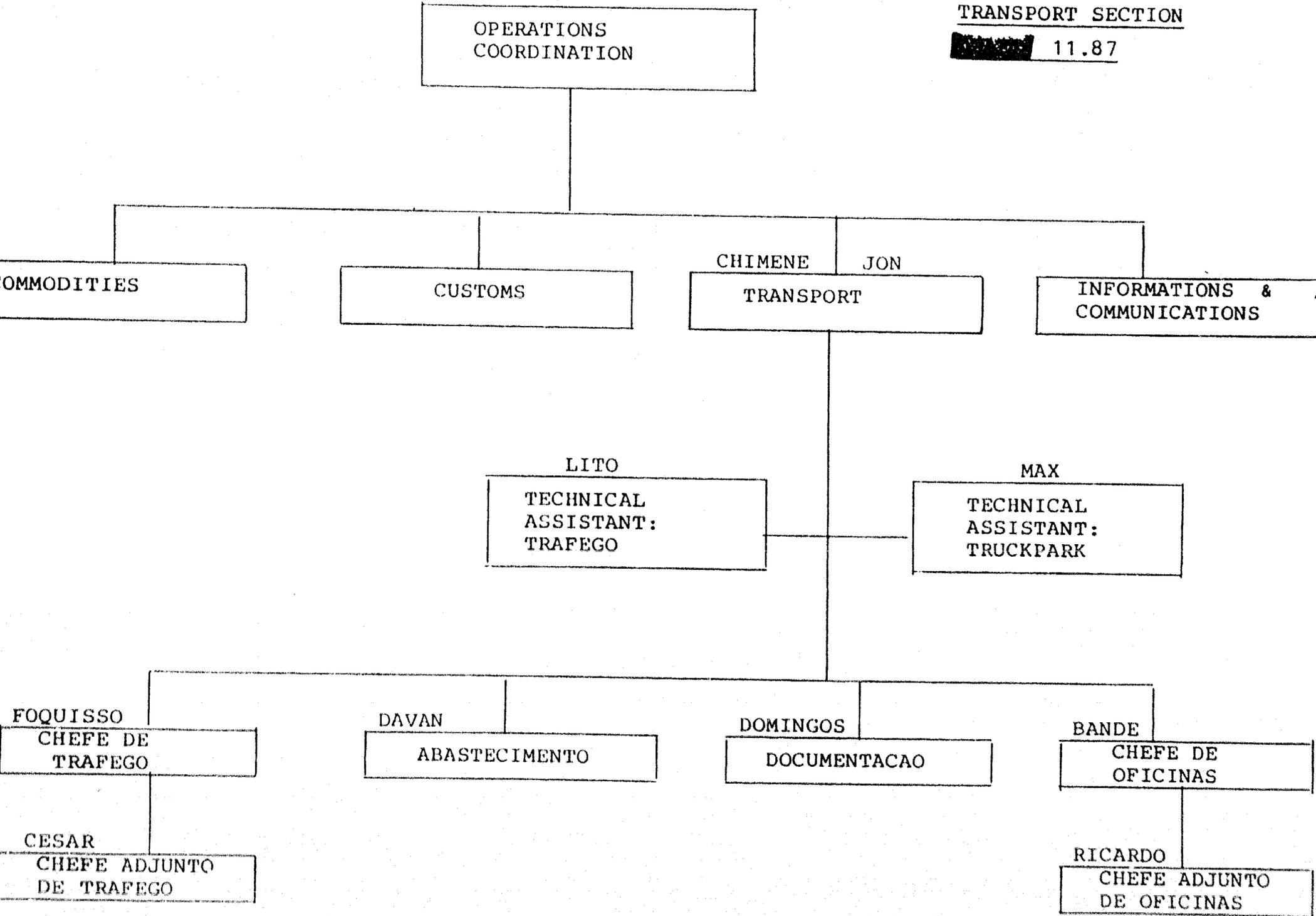
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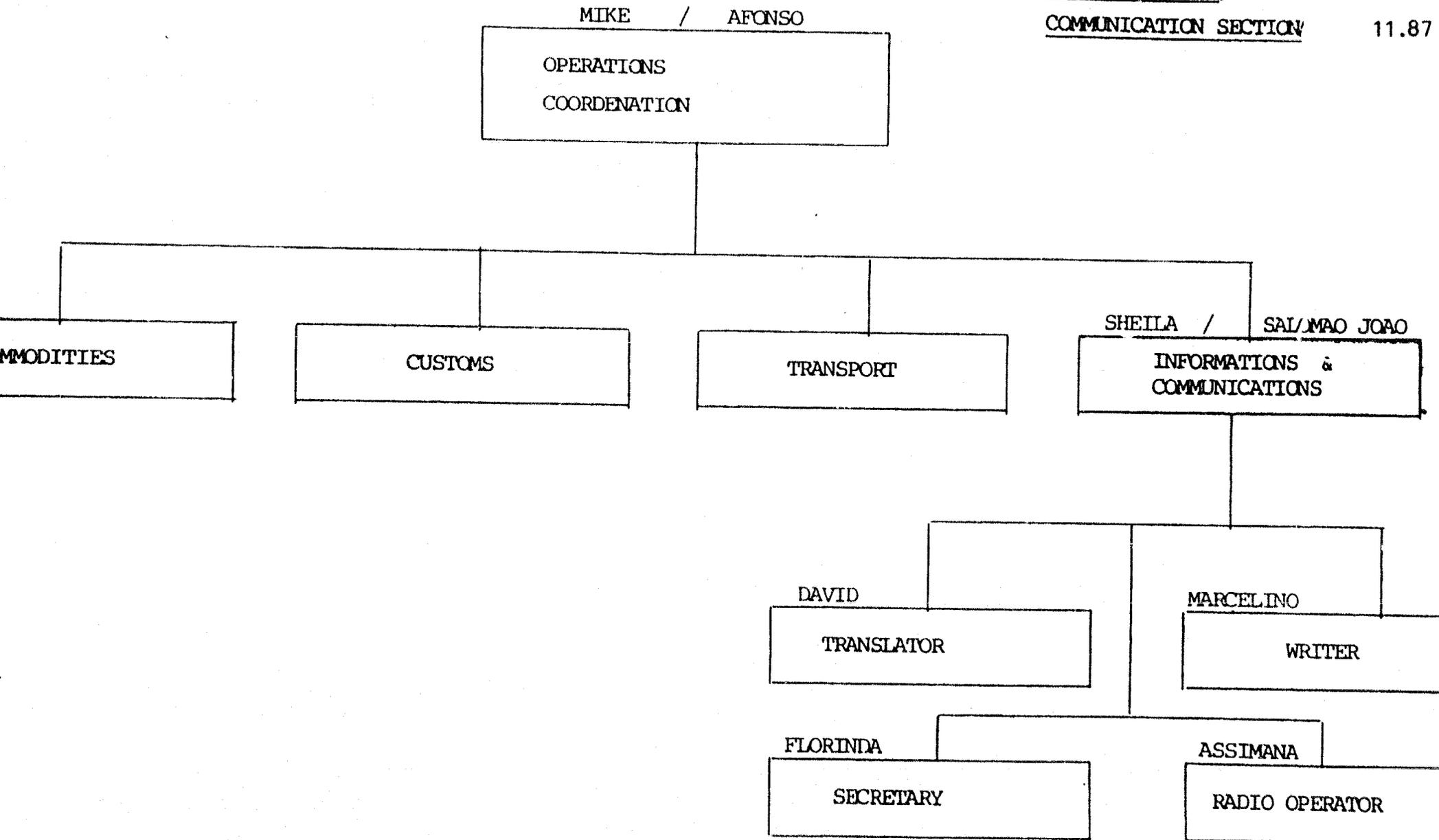
MATUSSE

LISCENCING

M^o. DA LUZ

ASSISTANT
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ASHRAF

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MACHAVA

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CUSTODIO

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DRIVERS

GUARDS

JULIO
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ANNEX D

THE TRANSPORT SECTOR IN MOZAMBIQUE:
IMPLICATIONS FOR LSU OPERATIONS

ANNEX D

THE TRANSPORT SECTOR IN MOZAMBIQUE: IMPLICATIONS FOR LSU OPERATIONS

Mozambique at Independence had a distinctive infrastructure comprising:

- i) three main ports, Maputo (south), Beira (center) and Nacala (north);
- ii) three east-west rail corridors based on these ports and linking the neighboring countries of South Africa, Swaziland, Zimbabwe and Malawi to the Indian Ocean;
- iii) cabotage links between the corridor terminals and smaller ports like Quelimane;
- iv) an excellent Provincial network of airports; and
- v) a network of 27,000 km of roads, of which around 17 percent was paved, mostly north-south Provincial links and within the rail corridors.

This system was not developed or modified in the post-1975 period to meet the needs of the economic planning policies adopted by the new Government and therefore received little investment for about a decade. A variety of modal links are still operating, however, and LSU staff are to select a number of transport options when designing the appropriate means of food distribution to local centers.

The 1988 capacity of this infrastructure is highly restricted compared with its pre-1975 levels, as detailed by World Bank (1985), Louis Berger International (1985, 1988) and others. Much of the network is damaged from acts of sabotage and years of neglect. The railway is virtually paralysed over much of its 3,000 km of track. Ports, both corridor termini and regional facilities have not been maintained and productivity rates are low. The road system has not received either regular or periodic maintenance and strategic points, like bridges, have been targets for sabotage. Large provincial airfields are an exception to this dismal catalog, however, and remain in good shape.

The stock of transport vehicles and equipment has been adversely affected by a lack of foreign exchange to purchase replacement units and to facilitate a regular supply of spare parts to reach good levels of maintenance. War damage to rail units and road vehicles has substantially reduced availability and constrained utilization levels.

Government policy has led to the neglect of private road and cabotage operations, and the channeling of scarce resources into an inefficient public sector. The model of Ministerial and State enterprise operations has been one emphasizing vertical integration where all services necessary to effective functioning are controlled from within the enterprise. It is therefore understandable that LSU adopted a similar structure in late 1984 given that the public sector was incapable of offering a reliable service, the private sector was too small and fragmented, and donors were coming forward to offer vehicles, spares and equipment in addition to direct food aid.

What rapidly developed in the LSU was a commodity distribution system that uses multiple entry points and employed road transport as the main mode through the entire distribution system. This road transport fleet is entirely controlled by DPCCN through its central operations and Provincial centers. In under 4 years it now controls the largest fleet of operational vehicles in Mozambique.

Government strategy in the transport sector has been to focus on the rehabilitation on port-rail corridors to land locked neighbors and to recapture the pre-Independence traffic levels. This national objective is strongly supported by AfDB and SADCC who favor a reduction in dependence on South Africa for export and import links. Such large investment programs as the Beira corridor and Maputo port rehabilitation scheme fit the Government policy of addressing the 15 years of deferred maintenance for port and rail infrastructure and to train national staff as part of the rehabilitation process. Cabotage operations and road improvement schemes have been targeted but little evidence of implementation could be determined by the Evaluation Team.

Improving the condition of existing vehicles, particularly trucks, has been another declared focus but, with the exception of the Entreposto rebuilding program in Maputo, there is little evidence that spares or vehicle availability has improved. In 1985, the World Bank estimated that less than 25 percent of spare parts requirements was being met by Government and the data collected by the mission suggests that the 1988 situation is no better, with spares to the private sector extremely restricted.

The current status of transport modes available to LSU for food distribution, which forms a background to any evaluation of their transit operations, comprises:

- i) a lack of security in all Provinces which has severely limited rail operations (bridge, track, locomotive and rolling stock damage), restricted road transit in many areas to convoys which often take days to organize, and directed scarce resources like infrastructure maintenance funds to the war effort;

- ii) restricted rail movements to relatively short stretches of the network where armed protection can be mounted;
- iii) limited availability of coastal and river transport due to a failure to renew elderly vessels or obtain spare parts for existing craft;
- iv) poor port transshipment and storage facilities, especially at minor regional sites;
- v) lack of highway maintenance which has lead to severe unpaved road roughness and critical failures on paved road sections due to drainage problems and untreated surface distress;
- vi) the Government deliberately assigning low priorities to investment or financial support to the private transport sector, both road and cabotage;
- vii) scarcity of small capacity trucks at the district level to provide distribution services of all types;
- viii) a lack of trained local management and technical staff in all modes (including air);
- ix) limited LAM cargo capacity and models either unsuitable for large food shipments (737 Combi) or obsolescent (DC 3/6); and finally,
- x) no coherent regional or national transport planning policy.

This forces the logistics staff at LSU to be opportunistic in getting food from entry point to local distribution points. In their efforts to be effective in this task, they frequently have to abandon any attempts to be financially efficient (in effect, cost-minimizers), and while such behavior is acceptable in the emergency mode of food aid distribution, it is not appropriate to a recovery role. The implications of this are discussed in more detail in Chapter 4 of the main text.

Road transport operations are the responsibility of the State Secretariat of Road Transport which has two Directorates, one for transport (SRT) and another for maintenance (UDAT). The former manages the parastatal bus and truck companies in each of the ten provinces, while the latter is responsible for the public and private dealers and repair centers for road vehicles. Both are ineffective. The total parastatal truck fleet theoretically available for LSU use only just exceeds 100 vehicles which transported around 250,000 tonnes in 1987. Channeling these services to LSU operations use by Government edict (which is an

option) would be very damaging to existing parastatal clients, particularly since supply of services--both public and private--cannot meet existing demand at the prevailing regulated tariffs.

These tariffs are part of a whole regulatory system administered by the National Road Transport Directorate (DNTR) within the Ministry of Transport and Communications (MINTEC). Though from time to time complaints are voiced about private truckers operating outside the law ("piratas") but the private sector has more than enough work to keep all its vehicles in work and the licensing serves no controlling influence. Regulation is presently of no benefit to the private operator, since his registration puts him under some government control and he receives little or no support to improve his operations, especially in the areas of spare parts availability in local currency and the replacement of obsolete vehicles. Again, with these regulations in force and no radical changes planned over the first phase of the LSU operations, it made more sense for LSU to plan an "own account" type operation, where the fleet was selected and operated with food commodity shipping in mind.

The benefits of such an operation are clearly attractive, especially in terms of directing commodity shipments along quite complex channels of distribution (see Chapter 3.2.2 of main report). However, such a policy is costly and time-consuming given LSU's position within DPCCN. It had to first decide how many vehicles and of what type to try to obtain from donors and then how to allocate them to the Provincial centers. This is no easy task. It then had to convince potential donors of the specific needs of such an operation, which in the case of Mozambique meant building from the ground up within a new Ministry lacking trained staff, equipment, workshops, spares, operating systems, communications and stock. By the end of 1987, 17 donors had sent either trucks or tractors comprising at least 7 different makes and as many models. This composition demands different spares, maintenance and service routines and driver techniques. The implications for workshops and operations are discussed in Chapter 4 of the main report.

The point of including these details is to document the enormous effort that has gone into giving DPCCN the largest operational trucking fleet in the sector with over 360 units (AGRICOM has 305 trucks currently operational). This has important implications beyond the question of food aid distribution which are explored in Chapter 4 of the main report.

The recent ERP policies are beginning to have desirable macroeconomic effects but the benefits have yet to have an impact on the transport sector. By four key tests of financial efficiency, the sector--including DPCCN--has a long struggle ahead to reduce costs. These tests comprise:

i) Utilization rates. These are uniformly bad throughout the sector although LAM is making efforts to improve regional flights. Shipping is subject to port delays, trucking to convoy arrangements (scheduled to fit army procedures) and bad road surfaces, rail to security, maintenance and rehabilitation constraints and river transport to transshipment difficulties and elderly boats. AGRICOM vehicles in 1986 travelled about 16,000 km while Camionagens de Mozambique reached 20,600 in 1987. The private sector would normally be expected to operate at much higher levels: a 1985 study reported figures between 55,000 to 70,000 km but the attacks on vehicles in the last two years (together with fuel shortages in some Provinces) have drastically reduced the figures. The Team estimated that the current average private utilization outside Maputo is around 20-30,000 km per annum. Reductions in utilization levels can be financially costly, as shown in Annex F, Vehicle Operating Costs.

ii) Staffing levels. These are high in most public enterprises, with the exception of LAM where staffing has been drastically reduced over the last few years. In the trucking sector, public staffing levels are around 2-3 times greater than in the private sector. DPCCN staffing levels could be reduced with a corresponding rise in productivity. What is unclear is the training role of LSU within DPCCN which could allow for overmanning--more trainees and apprentices etc.--on the payroll. The need to carry a large workforce limits the ability to reward those who perform above average and the bureaucracy of the public sector restricts punishment or disciplinary action for those under-performing or causing trouble. Overmanning and low salaries are prime ingredients of low productivity.

iii) Fleet composition. This is directed primarily at the highway sector but the rail and cabotage units display similar characteristics though not to the same degree. The vehicle fleet is remarkably heterogeneous. Ten major truck manufacturers share about 85 percent of registrations in 1986 and only 3--IFA, Mercedes Benz and Renault/Berliot--hold more than 10 percent of the market. The resulting diversity of models dramatically increases the problems of obtaining spare parts and technical assistance, especially given that inter-regional truck movements are slow and expensive. The Government has attempted to locate regional parts centers for some makes but spares availability is very limited and the operation cannot be judged successful. This particularly affects the private sector which is unfortunately positioned on the lowest level of the

Government's hierarchy of transport needs which suggests that improvements are unlikely to occur in the short to medium term.

Recent Vehicle Operating Cost (VOC) studies have measured the effect of vehicle age on spare parts consumption and quantified the dramatic rise in spare parts costs given constant utilization and increasing age in kilometers. This has implications for the private sector who have been forced to operate with extremely elderly vehicles. A 1985 Maputo study showed that the private: hire sector had 56 percent of its fleet aged between 10-15 years and 37 percent greater than 15 years. The public: hire sector then operated 75 percent vehicles under 5 years of age. The Team was told that few new vehicles had been allocated the public sector since 1985 so the age distribution has shifted outward, in part due to DPCCN's fleet which is currently 100 percent under 5 years of age. In terms of social equity and sectoral efficiency, the allocation of spares should actually favor the private sector who operate the older vehicles.

The final point to make in this section is the average service lives of vehicles which seems in the private sector to be twice that of the public sector, again suggesting that these operators are more efficient.

iv) Unit Costs. Each transport mode has its own merits to the logistics staff of LSU. The plane is fast, generally least affected by security issues and easy to schedule. However, they are expensive to operate and carry restricted loads. Against all the different trade-offs between modes (it is unnecessary to list them here) the final modal mix reflects available budgets. The table below gives some typical benchmark costs calculated by LSU staff, at February 1988 prices. It should be added that the Team calculated that the private sector is currently operating at around 5 US cents per tn.km, that is about the same as the cheapest sea mode. This is not meant to indicate that LSU should switch more work to the private sector, since there may be severe capacity constraints but rather to argue that improvements to levels of efficiency are possible. The modal use issues are fairly clear: try to improve DPCCN's fleet efficiency and lower tn.km costs, use sea and river wherever possible and employ air transport only in cases of extreme urgency where transit by any other mode or route is impossible.

Table D.1: Typical Modal Cost Data
(Tn.km, US cents)

Mode	Tn.km Rates	Mode Rate:Road Rate Ratio
Sea - Navique	5	.45
Sea - WFP	8	.73
Road - DPCCN	11	1
LAM - Long Haul	140	13
LAM - Short Haul	0	21

Source: LSU/CARE June 1988

The key elements governing future transport policy as they affect operations are the security situation and the Government's determination to pursue large high profile inter-related corridor and port transshipment schemes. If, as seems likely, the security problems remain over large parts of Mozambique during the next five years and the Government transport investment policies do not alter significantly, DPCCN will have to stay with its fleet of vehicles if it wishes to maintain a distribution capability. However, it should not develop its fleet further until a more accurate picture of the food distribution program--quantities, locations and forecasts--becomes available. The fleet as presently operated is very inefficient. Opportunities for employing private operators are explored in Chapter 4.2 of the main report.

Road will remain the dominant mode, increasingly supported by sea and cabotage operations as port efficiency levels improve. This is likely to be the short-to-medium term scenario. As corridor schemes are completed and security problems are addressed, rail can provide transit over selected main port to Provincial warehouse links in the distribution system. Finally, ad-hoc costly but effective operations like the LSU are likely to remain without the development of a central transport strategy unit to ensure better coordination between Government Ministries and organizations, donors and NGO relief agencies within a coherent national transport strategy.

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ANNEX E

CONSTRAINTS AND OPPORTUNITIES IN
THE PRIVATE TRANSPORTATION SECTOR

ANNEX E

CONSTRAINTS AND OPPORTUNITIES IN THE PRIVATE TRANSPORTATION SECTOR

INTRODUCTION:

During the period May 15-May 27 the evaluation team interviewed people in both public and private transportation companies in four provinces: Maputo, Manica, Sofala, and Zambezia. In total, the team spoke with 8 private transporters, 2 private transportation associations, the staff at 4 DPCCN and 2 CAMIONAGEM truck yards, the Vice-Minister of Transportation and staff at the Direccao Nacional dos Transportes Rodoviaros. The primary goal of the interviews was to identify constraints and opportunities for promoting the participation of private transporters, particularly private truckers, in the distribution of relief goods.

Specifically, this annex analyzes the constraints and opportunities associated with: a) the supply of private vehicles, and demand by private transporters for participating in the relief program, b) general characteristics of the transportation market (level of competition, pricing, supply of inputs and credit), c) operational and policy issues concerning the DPCCN and government role in a privatization program and d) a summary of the principal reasons for supporting a privatization program.

A. SUPPLY AND DEMAND CHARACTERISTICS

1. CONSTRAINTS

As pointed out in previous reports (see Paul Holmes', "Stimulating Private Sector Trucking in Mozambique"), the private sector's percentage share of trucks in the country has decreased from 70-80 percent before independence to about 25 percent today. In the four provinces visited these percentages translate into the following numbers of trucks: 123 (Maputo), 38 (Manica) 30 (Sofala), and 70 (Zambezia). In each of the provinces, except Zambezia, about 40-60% of the total trucking fleet is dominated by firms that have three or more trucks. Specific, transporters interviewed along with the size of their fleets were:

<u>TRANSPORTER</u>	<u># OF TRUCKS</u>
A. Maputo	
1. Kassima	16
2. Simoes Leite	3
3. Guedes	7
4. Lourenco	11

5. Salema Chibique	32
B. Manica	
1. Banoo	11
2. Ismael	5
C. Sofala	
1. Carrelo	15
D. Zambezia (Small Truckers' Assoc.)	38

In terms of tonnage hauling capacity, the larger operators generally operate 20-25 ton trucks, while the remainder of the private sector market consists of single-truck operators with 2-10 ton trucks.

As shown in Table E.1, about 90 percent of the private trucking fleet is fifteen years or older. The most popular brand of truck (or perhaps the most durable, given the age of the fleet) is Mercedes, although there are also significant numbers of Scania and Volvos. The distribution of new trucks is controlled by the government and, except in a few cases, the preferred recipients of these trucks are state-owned transportation companies and food wholesalers who use their own trucks to distribute food. Similar to the DPCCN fleet, the private transporters' operations have been affected by the insurgency and general insecurity along the roadways. Out of the transporters interviewed, nearly one out of four trucks has been debilitated or destroyed by "bandido" attacks. Because of the high risks associated with trucking, most of the truckers are unable to get insurance or are generally skeptical about any insurance plan. Supposedly, two of the transporters had some insurance in the early 1980's, but were never reimbursed.

The two most significant constraints on the short-term growth and utilization of private trucks is the lack of available trucks and spare parts. The overvalued currency and shortage of hard currency has resulted in these large shortages. In the case of supplying new trucks, the transporters must put in a request to the GPRM and Bank of Mozambique for hard currency to purchase a new truck. As already stated, these allocations are normally restricted to public sector companies and the larger food wholesalers. In the case of spare parts, the transporters have easier access to them since they can pay in meticals, but again, the availability is limited due to the lack of hard currency to buy the parts. As a result, often times the private transporter must wait two to three months for a spare part.

Besides the lack of new trucks and spare parts, a couple of the transporters, particularly in Manica, complained about the inconsistent supply of tires, and in the past, of gasoline. In

several cases, the transporters are able to increase their monthly quotas of gasoline by claiming all trucks in the operators' truck yard, both those operating and those that are dismantled and used for spare parts, as part of their fleet. Even when the monthly quota is used, most of the truckers were able to put in a request for and receive more fuel within a few days. Still, if the scope of the private trucking operations were to increase, it is possible that both the supply of tires and fuel could be serious constraints especially outside of Maputo.

2. OPPORTUNITIES

Given the age of the private sector fleet and the risks associated with operating trucks, it would appear that the private transporters would be bordering on the edge of bankruptcy. Based on the interviews, however, the larger transporters have, in fact, demonstrated a tremendous amount of resourcefulness and resiliency--both traits which could lay the foundation for future strengthening of the private transportation sector.

Contrary to expectations, the utilization rates (estimated as a the percentage of operating trucks in utilization during a month) are very high ranging between 80 and 90 percent. The majority of cargo hauled is commercial cargo (between 80 and 90 percent), with the remainder consisting of government and donor-related contracts. Most of the larger transporters commented, that in general, they do not have problems in finding clients. In fact, over the past five years three out of the eight transporters interviewed have been able to increase the size of their fleet. In terms of future expansion plans, all of the private transporters indicated an interest in purchasing more trucks. The growth forecasts ranged from a minimum of one truck to a maximum of between 20 and thirty trucks. Even if one were to discount these figures, there appears to be an overwhelming optimism about future demand trends, particularly on the part of the larger truckers in Maputo and Chimoio-Beira area about the future.

B. MARKET ANALYSIS

1. CONSTRAINTS:

Since independence the market position of private transportation sector has been threatened by parastatal transportation companies and government policy due to the following factors: a) government and donor desire to establish vertically integrated transportation systems, b) unprofitable tariff structure and c) government control of the allocation of new trucks.

Over the past few years, the fleet of DPCCN has grown tremendously from a total of 30 trucks to over 400 trucks. During this same time, the fleets of CAMIONAGEM (the parastatal transportation agency), AGRICOM (the commercial food distribution agency), and private wholesalers and transporters has been a fraction of the DPCCN's growth. While much of the DPCCN's growth is attributed to the need to respond to a crisis, it is in general representative of both the government's and donors' short-term objective to develop transportation systems over which they have direct control. In all of the four provinces visited, the DPCCN along with other government-owned fleets control between 65 and 85% of the transportation market. As shown in Table E.2, approximately three-quarters of the total number of vehicles in the four provinces are in the public sector. In terms of total tonnage capacity, it is estimated that the public transportation fleet represents about 70 percent of total tonnage capacity. Only in the case of the Maputo area does it appear that the private sector has a larger share of the market--with 35% of the total number of trucks and 40% of total tonnage capacity.

Besides the disproportionate percentage of public sector vehicles, the private transportation sector could be (and in some cases is) squeezed by an unprofitable tariff structure and burdensome tax policies. As shown in Table E.3 the official tariff for long-haul trucking is 26 MT (over 200 km.) and 36 MT (under 200 km.). Both these rates were established in June 1987. Since that time the meticaís has been devalued by 12 percent and the prices of fuel and other transportation inputs have increased. If the government were to rigorously enforce these tariff policies, most of the private transporters would be out of business. The vehicle operating cost for a long-haul (more than 200 km) private transporter is around 27 MT/T/KM (see Annex F), which after including 20-25% for overhead and profit would mean that they would have to charge 34 meticaís. If the risk of losing a vehicle to insurgency attack is factored in, the overall rate charged by transporters could be as high as 40-50 meticaís. Compounding this unprofitable tax structure is an equally burdensome tax policy. Approximately 50 to 60% of the transporters net profit is taxed. In those cases in which the government does not receive sufficient documentation, a pre-determined tax formula is used which can tax up to 68% of a transporters theoretical profit.

In the face of this tariff and tax policy, the public sector vehicles enjoy a tremendous comparative advantage since in most cases they are financed by either a donor or the government and traditionally do not have to pay as much attention to the "bottom line". The private transporters, on the otherhand, have to constantly pay attention to their costs and profits. In order to stay in business, the private transporters, with the assistance of government neglect, have established cargo rates that on

average are 25 to 100% above the official tariff. As a result of this pricing policy, the private transporters have become transporters of "last resort". That is, they capture that portion of the market that the public transporters, with their official rates, cannot supply.

Finally, in terms of the availability of spare parts and new trucks, the private sector is placed at a tremendous disadvantage. As already mentioned, the allocation of hard currency for the purchase of new trucks is almost completely directed towards parastatals and government ministry fleets. In the case of spare parts, both the parastatals and private fleets suffer from a general shortage. Only DPCCN is less constricted by these shortages, since they can develop their own stock of donor appeal spare parts. As shown in Table E.4, there are eleven spare parts and vehicle distributors in Mozambique, each of which services specific brands. Over the last few years, several agents have developed, with the assistance of donors, rehabilitation and repair programs which include large purchase schemes for spare parts. Unfortunately, most of these spare parts stocks are tied to the rehabilitation program, and not available to the general public for purchase. In general, the private transporters do not want to pay, nor do they need to pay, for a complete rehabilitation program. All the transporters interviewed have developed their own maintenance and rehabilitation facilities. Therefore, while there exist a number of spare parts distributors and programs, most of them are directed more towards those parastatals and ministry fleets that lack appropriate maintenance and repair facilities.

2. OPPORTUNITIES

Despite the overall distortions in the transportation market that favor the public sector, the private transportation segment still has developed a niche and level of efficiency that would allow it to prosper under a privatization program.

As already mentioned in section A, the private transporters, even as transporters of last resort, are in large demand. On average, the private transportation fleet is being utilized 80 to 90% of the time, primarily to move commercial cargo. This indicates that the existing availability of public transportation is insufficient. Indeed, based on the sample of public sector fleets examined in the four provinces visited (see Table E.2), the average availability percentage of operating trucks is around 50% for the public sector compared to 80% for the private sector (that is, of the total fleet assigned to a specific ministry or parastatal, only half are operational and available for transporting goods).

Since an equal or even higher percentage of private transporters'

fleet have been attacked by "bandidos", these availability percentages suggest that the private transporters are more efficient at maintaining, repairing and rehabilitating their fleets than the public sector. Again, based on first-hand observations in the field, it appears that the average repair time for a private sector vehicle takes less than three months compared to three to twelve months for a public sector vehicle. The average salary of a private sector driver is two to three times that of the public sector employee. Consequently, the amount of staff turnover and downtime of the vehicles due to driver incompetence is lower. Only one of the private transporters interviewed claimed that a truck had been made inoperative due to driver negligence. Conversely, last year, more than thirty of the DPCCN fleet was made unavailable due to accidents and "other" factors. The final, and perhaps most persuasive, litmus test for comparing the efficiency of the private sector to that of the public sector is in terms of vehicle operating cost. In Annex F the estimated operating cost per ton/kilometer of the DPCCN fleet was 59 MT compared to 27 for the private sector. Even if one were to adjust the private sector payload and costs by 50-75%, the overall operating cost would still be 20-30% of the DPCCN's operating cost.

A final note of optimism concerning the utilization of the private sector fleet concerns the availability of credit. In all of the interviews, with the exception of the small one-truck operators in Zambezia, the availability of credit to purchase either a new or used truck did not appear to be a big issue. All of the large operators believed that they either had sufficient capital, or had access to credit, for the purchase of a new vehicle. Concerning the transporters ability to service any debt, it appears that the cash flow of the larger transporters is sufficient to repay a loan--particularly when the annual interest rate is 26% and the annual inflation rate is about 60%. Already, two out of the eight transporters interviewed have taken out loans for 35 million MT which they are currently repaying.

C. OPERATIONAL AND POLICY ISSUES

1. CONSTRAINTS

In theory, the key institutions that would have to be involved in any privatization program would be the following: DPCCN (for coordinating implementation), Ministry of Transport (for establishing tariffs, licensing) and Ministry of Finances (for allocating the distribution of imports and establishing tax policy). While the DPCCN would focus more on operational issues, the collaboration of the Ministries would involve more policy reform.

In terms of the DPCCN, the biggest short-term obstacles to its

being able to utilize more the private sector are: a) the lack of line item in its budget for contracting private transporters, b) general lack of sufficient and timely funding by the GPRM for logistics operations outside of Maputo and the budgetary control of the LSU/CARE. Both the LSU/CARE staff and private transporters in Manica and Sofala provinces expressed a frustration of having to operate under the DPCCN budget. From the CARE perspective there were several instances where they could have contracted with a private transporter but did not have a specific budget allocated to such a line item. In other instances, DPCCN has signed for the services of private boaters and truckers but then been unable to pay for the services because of allocation delays and general shortages in the DPCCN provincial budgets. In the case of the private boaters' association, the President of the association eventually had to ask the Director Nacional dos Transportes to intervene on the association's behalf.

Even if both these constraints are resolved, it is still possible that any privatization program would be delayed by the DPCCN's general lack of experience in contracting, and perhaps the requirement that DPCCN pay only "official tariff" rates. Particularly, on the last point, it is likely that most of the transporters will require some kind of incentive to work with the DPCCN. The possible incentives mentioned include: a) establishing a fixed contract, b) charging the market rates normally charged by the private transporters (25 to 100% above the tariff rate), c) charging official rates but receiving access to spare parts and/or new trucks. While the first option would probably require the least amount of bureaucratic or donor intervention, the other two contracting arrangements would require a change in policy or the development of a special incentives program.

In the long-term, a full scale privatization program, in the strictest sense, would probably involve the selling off of some of the DPCCN fleet and major policy reforms concerning tariff, exchange rate, and importing. Such a move, however, could threaten the power base established by the DPCCN and would require the full support of both the DPCCN, the donors and other government ministries. It is uncertain to what extent either the DPCCN or the government ministries would be willing to pursue such a program. To date, the DPCCN has developed a constituency of donor support that focuses primarily on the appeal and direct control over trucks. This fleet build-up has transformed the DPCCN into a powerful governmental body--one that has the ear of donors and a mandate to commandeer any resources in order to respond to crises. Any attempts to diminish this resource base, may be looked upon unfavorably by donors who will question whether their trucks are being used to respond to a crisis; and by DPCCN itself which may or may not wish to see their power base eroded.

In terms of general government policy, it appears that the government would like to encourage the growth of the private transportation sector. But this tentative support is liable to be subject to heavy government intervention. Articles in local magazines along with conversations with government officials point out a government desire to continue regulating the transportation sector in terms of licensing, establishing tariff rates and allocating the distribution of commercial cargo.

2. OPPORTUNITIES:

In spite of the problems associated in redirecting the focus of DPCCN, it appears that most of the key players involved in such a scheme--LSU/CARE, the DPCCN Director, the Ministry of Transport directors and some of the Donors--are supportive of the idea. There is enough flexibility in the budgeting process to include in it support for private contracting. Also, if need be, part of the LSU/CARE Maputo budget could be used for back-stopping (in case of DPCCN shortages) in other provinces. Finally, both the DPCCN and Government ministries acknowledge the fact that the DPCCN can not continue to exponentially increase the size of its fleet. Aside from the distortions this would place on the economy, it could also result in in-fighting and jealousies between the DPCCN and those ministries that are without large fleets. Also, with the assistance of the IMF, the government is beginning to take steps towards rationalizing the transport sector through tariff and exchange rate reform. Finally, A.I.D. has already developed some experience in promoting the private sector in the agricultural sector through the use of the C.I.P. program. Unlike in other countries, it appears that A.I.D. has both the resources and will to finance a privatization program directed towards the transport sector.

D. SUMMARY: REASONS FOR PROMOTING PRIVATIZATION

Perhaps one of the most simple reasons for advocating a privatization program, is the mere fact that there is an overwhelming demand by the private transporters to develop a larger share of what has been recently a government-controlled market. Aside from this motive, the argument for promoting privatization of LSU's activities can be developed at three levels: policy, economic and institutional. Below is a brief description of each:

1. Establishes a more Cost-Effective and Manageable DPCCN: From an institutional perspective, the privatization of the DPCCN's operational activities could result in three substantial benefits: i) use of vehicles which have lower operating costs, ii) reduction in the institution's overhead costs presently applied towards the maintenance and administration of the LSU

fleet and, iii) overall establishment of a smaller, more manageable DPCCN which can focus on emergency planning and coordination rather than actual distribution.

2. Promotes a more Rational and Balanced Economy: As pointed out in Annex D the massive build up of the DPCCN fleet and other vertically integrated public sector transportation fleets has led to the inefficient allocation of resources. While the short-term objectives of distributing food relief have been largely achieved, the long term development of a rational and efficient market mechanism has been jeopardized. The majority of investments in transportation (new trucks, spare parts, the establishment of maintenance facilities) have been in less efficient and centrally planned enterprises which are considered top priorities of the government. Despite these investments, the utilization rate and longevity of public sector trucks is much less than the private sector transporters.

Eventually, the favoritism accorded the public transportation sector could completely displace the private transporters at a cost that the Mozambican government may or may not be able to sustain. Any privatization program, therefore, would be a first attempt by relief donors to achieve both short-term objectives (distribution of relief food) and long-term objectives which correspond to the Economic Recovery Program supported by the IMF (enhanced efficiency and the establishment of a transport sector ready to respond to increased commercial activity once the emergency subsidies).

3. Dovetails with A.I.D. Interests and Goals: As mentioned in the statement of work, the overall goals of any A.I.D. assistance in Mozambique is to promote the growth of the private sector. Given this mandate, it is clear that, where possible, any opportunity for developing private sector initiatives, even in relief assistance, should be encouraged. A privatization program could also decreased the hard currency funding requirements of OFDA and FFP, a goal mentioned in the scope of work for this evaluation. Finally, A.I.D. has already developed a small portfolio of experience in promoting private sector growth in agriculture through the CIP program. The experience gained from these efforts could therefore be transferred to the development of a DPCCN privatization program.

TABLE B.1

KEY INFORMATION ABOUT PRIVATE TRUCKERS INTERVIEWED

CATEGORY	MAPUTO	MANICA	SOPALA	ZAMBEZIA
1. FLEET CHARACTERISTICS:				
A. TOTAL NUMBERS:				
--OPERATING	53	13	11	38
--DESTROYED/DAMAGED	16	3	4	0
B. AGE:				
--LESS THAN 10 YEARS	5	2		
--10-15 YEARS	7	1		
--MORE THAN 15 YEARS	57	13	15	38
C. PERCENTAGE OF TOTAL PRIVATE SECTOR FLEET IN THE PROVINCE:	50-60%	40-50%	40-50%	50-60%
D. BRANDS:	MERCEDES (53) SCANIA (7) HEINSCHEL (2) VOLVO (5) GLM (1)	MERCEDES (16)	MERCEDES (15)	N.A.
E. UTILIZATION RATES: (EST. FOR OPERATING FLEET ONLY)	80-90%	80-90%	80-90%	40-50%
2. MAJOR CUSTOMERS: (WITH ESTIMATED TOTAL PERCENTAGES)	COMMERC. (80%) GOVMT. (10%) DONOR (10%)	COMMERC. (95%) DONOR (5%)	COMMERC. (90%) DONOR (10%)	COMMERC. (90%) OTHER (10%)
3. MAJOR ROUTES:	MAPUTO-VILLAN.	MANICA-BBIRA BBIRA-TETE	BBIRA-CHIMOIO BBIRA-NIASSA BBIRA-TETE	POST-WAREHOUSE < 20 KM.
4. GROWTH POTENTIAL:				
A. # OF TRANSPORTERS THAT HAVE INCREASED FLEET SIZE OVER THE PAST 5 YEARS:	3	2	0	0
B. FUTURE EXPANSION PLANS (# OF TRUCKS REQUESTED BY TRANSPORTER)	2 2-3 10 20-30 2	8 3	5	N.A.

NOTES:

N.A.: NOT AVAILABLE

TABLE E.2

PRIVATE VS. PUBLIC FLEET INDICATORS

INDICATOR	PUBLIC		PRIVATE	
	SECTOR (1)	%	SECTOR (2)	%
TOTAL FLEET SIZE:	703	73%	261	27%
A. MAPUTO	229	65%	123	35%
B. MANICA	102	73%	38	27%
C. SOFALA	168	85%	30	15%
D. ZAMBEZIA	204	74%	70	26%
TOTAL TONNAGE CAPACITY:	9,860	71%	3,941	29%
A. MAPUTO	3,253	59%	2,288	41%
B. MANICA	1,295	67%	640	33%
C. SOFALA	3,113	86%	488	14%
D. ZAMBEZIA	2,200	81%	525	19%
ESTIMATED AVAILABILITY PERCENTAGE (PERCENTAGE OF TOTAL FLEET OPERATING/ TOTAL FLEET IN STOCK)	51%		80%	
A. DPCCN	60%			
B. CAMIONAGEM	33%			
C. AGRICOM	55%			
D. PRIVATE SECTOR			80%	
AVERAGE REPAIR TIME:	3-12 MONTHS		< 3 MONTHS	
AVERAGE VEHICLE OPERATING COST:	(3) 50-60 MT/T/KM		20-30 M/T/KM	

FOOTNOTES:

- 1) BASED ON INFORMATION GATHERED FROM THE DIRECCAO NACIONAL DOS TRANSPORTES RODOVIARIOS, DPCCN/LSU FILES AND CONVERSATIONS WITH CAMIONAGEM MANAGERS IN THE FOUR PROVINCES.
- 2) THE TRUCKS INCLUDED HERE ARE ONLY "FOR HIRE" TRUCKS. INFORMATION IS BASED ON INTERVIEWS WITH NINE OF THE LARGEST TRANSPORTERS OR ASSOCIATIONS IN THE PROVINCES OF MAPUTO (5), MANICA (2), SOFALA (1), AND ZAMBEZIA (1). BESIDES THESE TRANSPORTERS, IT WAS ESTIMATED THAT IN EACH PROVINCE THERE WERE 15-30 (60 IN THE CASE OF MAPUTO) SMALL HAUL CARRIERS (LESS THAN 10 TONS). THESE WERE INCLUDED IN THE ESTIMATES.
- 3) AS ESTIMATED BY THE LSU/CARE

TABLE E.3
INFORMATION ON TARIFFS AND TAXES

A. TARIFFS AND PRICING:	OFFICIAL -----	ACTUAL RATES CHARGED -----
1. BELOW 30 KM (IN MT./HR.):		
a. < 4.5 TON:	2,300	APPROXIMATELY TWICE THE OFFICIAL
b. 5-7.5 TON:	2,680	
c. 7.5-10 TON:	2,805	
d. 10-16 TON:	3,315	
e. > 16 TON:	4,335	
2. 30-200 KM (MT/TON/KM.):	36	45-55
3. > 200 KM (MT/TON/KM.):	26	39-52

B. TAXES:

1. IMPOSTO DE CIRCULACAO: (ROAD TAX)	10% OF VALUE OF SHIPMENT (PAID BY CUSTOMER)
2. CONTRIBUCAO INDUSTRIAL: (INCOME TAX)	
a. FOR THOSE WITH "ORGANIZED" ACCOUNTS:	50% OF PROFITS
b. FOR ALL OTHERS (BASED ON PRE-DETERMINED FORMULAS):	68% OF PROFITS
3. CONTRIBUCAO COMPLEMENTAR: (ADDITIONAL TAXES OWED)	5-70% OF PROFITS NOT INCLUDED IN CONTRIBUCAO INDUSTRIAL

SOURCE: DIRECCAO NACIONAL DOS TRANSPORTES RODOVIARIOS
INTERVIEWS WITH PRIVATE TRANSPORTERS

TABLE E.4

LIST OF AGENCTS/DISTRIBUTORS FOR:
SPARE PARTS, TRUCKS AND TECHNICAL ASSISTANCE

DISTRIBUTOR/AGENT -----	BRANDS OF VEHICLES SERVICED: -----
1. MORELA	A. RENAULT B. LAND ROVER
2. EMOCAT	A. IFA B. BEDFORD C. ISUZU
3. F. BRIDLER	A. VOLVO B. TATRA
4. TECNICA INDUSTRIAL	A. FORD B. MISTUBISHI
5. FONSECAS	A. SUZUKI B. BAJAJ
6. TOYOTA	A. TOYOTA
7. SOVITAL	A. FIAT B. LADA C. NIVA D. WAZ
8. SCANMO	A. SCANIA B. VOLKSWAGEN
9. ENTREPOSTO COMERCIAL	A. MERCEDES BENZ B. PEUGEUT C. UNM
10. SETEC	A. LEYLAND B. DAF C. MAZDA D. AUM
11. RONIL	A. AUSTIM B. NISSAN

ANNEX F

VEHICLE OPERATING COST PREDICTIONS IN MOZAMBIQUE

ANNEX F

VEHICLE OPERATING COST PREDICTIONS IN MOZAMBIQUE

The calculation of vehicle operating costs (VOC) for typical highway conditions in Mozambique provides a series of important benchmarks for evaluating the economic efficiency of both the DPCCN truck fleet and the use of alternative modes. These benchmarks comprise fuel consumption data, spares parts costs and inventory needs, utilization levels and average tonne.kilometer rates. VOC material can be obtained in a variety of ways, from building up from the disaggregated LSU records, through constructing simple breakdowns from available trucking sector data, to employing relatively complex VOC models. The CARE evaluation uses figures from all three sources, both to corroborate principal source data and to cross-check predicted values used in the report.

The mission used the VOC module from the World Bank Highway Design and Maintenance model - HDM version III to determine a detailed operating cost breakdown, LSU data for a second estimate of vehicle operating costs, and private trucking data for a third operating cost breakdown. The World Bank model is based on extensive research in Brazil, where relationships between operating costs, vehicle characteristics and highway design variables were estimated. These were then modelled by the World Bank Transportation Department into a mechanistic format for easier transferrability between economic environments. The prime function of the HDM model is to predict total cost differentials between alternative highway investment strategies, rather than specific cost levels like tonne.km rates. Nevertheless, if properly calibrated it can provide such data and the mission collected calibration material from LSU records, professional operators, dealers and maintenance facilities. The highway inputs were developed after making field visits where DPCCN route characteristics could be assessed.

Table F.1 gives details of a VOC breakdown for a typical heavy truck currently operated by DPCCN, such as a DAF 1800 or Volvo N10. Two costs are reported, one for loaded conditions and a second for empty running. This allows an estimate to be made of the most expensive dead heading operation DPCCN faces which results in a cost of 49 MT per ton/kilometer. At current exchange rates this is equivalent to 11 US cents. If a full return load is found, the predicted tn.km cost falls to around 27 MT, or 6 US cents. The HDM III VOC model first predicts speed from kinematic principles, that is it compensates for vehicle mass, air and rolling resistance and engine power. Fuel, tires, depreciation, interest, and crew time are all sensitive to predicted speed. This can be seen in Table F.1 where the vehicle

travels 20 percent faster unladen and brings down these related costs. Fuel consumption is also highly sensitive to load carried and this is seen in the fuel cost item. The model does not predict overhead or profit allocation, which does not concern DPCCN but would be an issue if private transport were used. As an illustration, 20 percent is used and a figure of 59 MT per tn.km is derived. It should be stressed that the choice of vehicle may affect these figures and a separate study should be conducted if it is considered desirable to develop private tariffs.

Table F.1. Vehicle Operating Costs (MT), per 1000 Km.
Heavy, 3 axle 22/24 ton GVM truck. May 1988 Prices

<u>Item</u>	<u>Loaded</u>	<u>% Total Cost</u>	<u>Unloaded</u>	<u>% Total Cost</u>
Fuel	46,400	(11)	23,500	(6)
Lubricants	3,100	(1)	3,100	(1)
Tires	38,600	(9)	33,600	(9)
Crew Time	18,000	(5)	15,100	(4)
Maintenance Labor	6,300	(2)	6,300	(2)
Maintenance Parts	87,000	(21)	87,000	(24)
Depreciation	140,000	(33)	128,300	(35)
Interest	75,600	(18)	69,300	(19)
TOTAL	415,000	(100)	366,200	(100)

Predicted Trip Speed (kph) 45 54

Predicted Round Trip Cost, 16 ton one way load, empty backhaul, per ton/kilometer is 49 MT, which after allowing 20% for overhead/profit gives 59 MT.

Notes:-

1. Paved road in reasonable surface condition (4 IRI), not sinuous or hilly (100 degrees.km, 1 % grade), single lane.

2. Vehicle 3 axle diesel truck, grossing around 22/24 ton and carrying 16 ton load one way. Returning empty.

3. Driver constrained speed is 80 kph.

4. Unit cost inputs. Diesel 115 MT/liter, lubes 850 MT/liter, 1100*20 tire 154,400 MT, Crew 150 MT/hr, Mechanic 500 MT/hr (reflecting overmanning), New Vehicle Price 40 million MT, Service Life 6 years, Annual Utilization 20,000 (LSU data), Interest rate 18 % p.a.

Source: HDM-III, VOC module, Mission data.

The model gives some useful insight into the effect of deteriorating highway conditions and to operational features like utilization rates. The most important road characteristic for Mozambique is surface condition, indicative of both highway distress (Agency costs) and vehicle damage (User costs). If the same vehicle in Table F.1 is made to operate over a severely deteriorated and rough paved surface, the total predicted costs rise by almost 65 percent. This reflects the joint impact of escalating spare parts costs and lower operating speeds. This has implications for a recovery mode for DPCCN and strongly argues for close planning with the Provincial Maintenance Departments of the Ministry of Construction and with its central planning unit in Maputo. Another feature is vehicle utilization data and the low figures presently reported by LSU are again cause for concern if a recovery mode is considered desirable for DPCCN. As a rule, heavy vehicles are intensely utilized, sometimes by using two shifts of drivers. While not advocating such measures for DPCCN, it emphasizes the case for lowering annual fixed costs by increasing vehicle use. Vehicles such as the Vovo N10 or DAF 1800 are designed to operated over 100,000 km per year and the cost penalties for low utilization are severe. If the vehicle in Table A' is given an annual utilization rate of 35,000 km instead of 20,000 km, its predicted operating costs fall by around 12 percent. The mission recognizes the restrictions placed on vehicle use by the security problem but wishes to emphasize the need for more intensive use in any recovery mode.

LSU staff supplied aggregated data which had been used earlier to develop modal cost comparisons for planning purposes. This information is shown in Table F.2 below and covers a two axle truck carrying a ten ton load. This is smaller than the vehicle type in Table F.1 which was selected by an LSU transport staff member as being typical of their operations. Comparisons should not be made directly between Tables F.1 and F.2 since they refer to different vehicle types and loads. Nevertheless, some observations can be made. First the fuel consumption in Table F.2 looks high and it is doubtful that a current fuel prices and typical consumption levels for this vehicle type would produce such an estimate. Second, tires are not isolated for specific costing which is undesirable. Thirdly, the Repairs item is a catch-all which looks low and finally an interest component-representing the opportunity costs of capital in the vehicle stock - is not calculated. While this may be acceptable for internal

DPCCN accounting, it should be remembered that the private sector (and in theory the parastatal as well) must include such an item in their costings. The predicted LSU cost is 11.8 US cents per ton/kilometer and further comments are made on this estimate in the main text, Section 4.1. The figure is not startlingly different from the predicted VOC in Table F.1 and is higher, as expected, when all items are compared. An objective of the transport MIS in the next 12 months should be to predict and update regular estimates of ton/kilometer costs for logistical planning purposes.

Table F.2 LSU Estimated VOC: Two Axle, 10 ton payload Vehicle.
February 1988 Prices, US cents/km.

<u>Item</u>	<u>Cost/Km</u>	<u>Percent of Total Cost</u>
Fuel	17	29
Lubes	1	2
Driver	3	5
Repairs	16	27
Depreciation	22	37
TOTAL	59	100

Notes:

1. The vehicle is assumed to run loaded in one direction and return empty so the average costs given above are doubled then divided by ten tonnes to give the average cost per ton/kilometer.

Source: LSU, 1988.

Finally, estimates of private sector trucking costs are presented in Table F.3. The tabulated costs were based on information gathered from interviews with five different private transporters in Maputo. All of the assumptions made for the vehicle operating costs are aggregate averages of the costs for the route Maputo-Vilanculos as estimated by the transporters. This route was selected as the baseline since many of the private transporters distributed goods between those two cities.

Table F.3. Estimated Private Transportation Vehicle Operating Costs (MT), for the route: Maputo-Vilanculos=780 km., 40 ton Heavy, . May 1988 Prices (In Meticais)

<u>Item</u>	<u>Loaded</u>	<u>% Total Cost</u>	<u>Unloaded</u>	<u>Total Cost</u>
Fuel	45,084	(20)	30,056	(15)
Lubricants	4,387	(2)	4,387.5	(2)
Tires	51,429	(20)	51,429	(22)
Labor (drivers, mechanics)	19,156	(8)	19,156	(8)
Maintenance Parts	31,250	(16)	31,250	(18)
Depreciation	27,778	(11)	27,778	(12)
Interest	63,194	(25)	63,194	(27)
TOTAL	252,695	(100)	237,667	(100)

TOTAL UNIT COST (MT/T/KM): 27.9 (WITH INTEREST)

20.1 (WITHOUT INTEREST)

NOTES:

1. UNIT PRICES: Fuel= 115.6/liter, Lubricants=750/liter,
Tires=150,000/tire, Labor= a) Driver=52,000/month,
b) Assistant=22,000/month (includes food), c) Mechanics=35,000/month

2. ASSUMPTIONS: a) Average Fully Loaded Cargo= 22.5 tons. Truck
can make about two round trips to Vilanculos every month b) Fuel
Consumption: Fully Loaded= 2km/liter, Return Trip= 3km/liter, c)
Change 22.5 liters of oil every 3,000 km, d) Change Tires about
every 36,400 km., e) Spare Parts: 2,000,000 per year/truck, f)
Depreciation= 8,000,000 (20% of new truck value)/6 years,
g) Interest=35,000,000 x 26% interest rate divided by 3 trucks
(since the loans that a trucker has normally covers
rehabilitation work on 3 trucks).

As shown in the table, the operating costs for the private
transporters appear to be a little less than half those incurred
by the DPCCN, and a third less than the World Bank model. If one
were to deduct interest expenses from the total (a legitimate
assumption for three of the truckers interviewed that have never
borrowed any money), the unit cost would be 33 to 50% of the
DPCCN and World Bank model estimates. Even if one were to assume
that the private truck only transported 10 tons (the same as the
DPCCN load), the unit cost, excluding interest, for the 780 km.
route, would be 46 meticaís compared to the DPCCN 59 mt. average.

The private transporters are able to achieve a higher level of efficiency primarily because of their ability to maintain, repair and rehabilitate their trucks in a timely and cost-effective manner. Most of the private sector drivers have been with the interviewed companies for several years and are paid two to three times more than the average DPCCN driver. As a result, the private trucks are rarely made inoperative due to accidents or mishandling of the trucks. Conversely, last year more than 30 of the DPCCN fleet was unavailable due to incidents other than insurgency attacks. The average repair time for a private sector truck takes less than three months, while in the case of the DPCCN, truck repairs can take 3-12 months. If a truck needs to be completely rehabilitated (e.g. in those cases where the truck is burned by the "bandidos"), it costs the private transporter approximately 15-20,000,000 meticaís. The DPCCN, on the otherhand, would probably have to send the truck to ENTREPOSTO (a rehabilitation shop), where the average rehabilitation costs about 30,000,000.

Despite the fact that the private sector fleet is ten to fifteen years older than the DPCCN fleet; that there is a chronic shortage of appropriate spare parts affecting private transporters; and that just as high a percentage of private trucks have been destroyed or debilitated by the insurgency; the overall percentage availability of the private sector fleet sampled is about 20% higher than that of DPCCN's sampled fleet. All these figures suggest that the DPCCN should consider utilizing more of the private transportation sector for the distribution of relief goods. Some possible alternatives for doing so would include: a) contracting, b) leasing or selling part of the DPCCN fleet to the private sector and c) directing donors' contribution of trucks to the private sector.

ANNEX G

SELECTED LSU/CARE INTERNAL MANAGEMENT
INFORMATION INSTRUMENTS

ANNEX G

SELECTED LSU/CARE INTERNAL MANAGEMENT INFORMATION INSTRUMENTS

This Annex contains examples of information instruments discussed in Chapter 3 of the main report. They are found in the following order:

1. "Ficha de Controlo", or Control File. Two examples are provided, one for Shipment 446H (Master Shipment File Number) of USAID beans, and a second for Shipment 498 of tires from Japan. On the second, the overall "Plano de Distribuicao" (Distribution Plan) is noted in the upper right quarter. Each of these reflects Date, Entry, Issue, Balance, the Waybill Number (to cross-check) and Destination. Control Files such as these are maintained at Central Operations for each shipment. Each Province and each District also maintains Control Files for those parts of shipments that they manage.

2. "Guia de Saida e Entrega", or Waybills. These come in multiple copy, color coded sets of four. Generally the Warehouse Manager initiates one when he issues a shipment, filling out the top of the form. He sends the original white copy to the DPCCN office, and gives two--pink and blue--to the driver of the shipment. He retains the fourth copy--yellow--for himself. When the driver delivers the shipment he gets it signed by the relevant DPCCN official, who notes the quantities received and any comments on the bottom half of the form. The receiving official keeps one completed copy (blue) and returns the pink one with the driver, who turns it in to headquarters. These are cross-checked each month against the Control File mentioned above at the relevant level.

3. A three page Provincial Monthly Report, from Tete Province, for April 1988, including:

- "Relatoria Mensal dos Recebimentos" (Monthly Receiving Report) listing all quantities received by MSF number, donor, type of commodity, number of units, type of unit (sac, can, box, etc), weight per unit, total weight, day of entry into his control, and date entered into one of the warehouses.

- "Ual Inventario Mensal-Entradas/Saidas" (Monthly Inventory Report) noting per shipment (by MSF number) the balance from the preceding month (#1), new quantities entered (#2), sub-total (#3), issues (#4), losses (#5), sub-total (#6), remaining balance (#7) and end-of-month inventory (#8). Line #9 requires a justification of any difference between lines 7 and 8. In this example there are none. This example is only one page of a longer report.

- "Detalhes Das Distribuicoes-Distritos" (District Distributions) which keys back to the Monthly Inventory by detailing where each issue was distributed. Items 1 is the city of Tete itself; items 2-9 are localities and/or Districts where the specified quantities have been distributed.

District Monthly Inventory Reports are of the same format.

4. "Mapa de Recebimento dos Relatorios Distritais", or a District Report Monitoring Form. This is maintained at the Provincial DPCCN office, and logs per District per Month receipt of each of the following reports: A) District Profile; B) Monthly Receiving Report; C) Detailed Distribution Report; and D) Monthly Inventory Report. The example given is from Manica Province. The reader should note that Machaze District was overtaken by bandits in September and has not reported since that time. The others, as can be seen, are relatively up-to-date. These reports are maintained at the Provincial DPCCN office with information synthesized and delivered to Central Operations as required. (Most Provinces do not have functioning photocopy machines.)

6. A listing of all Districts with DPCCN Delegates.

7. "Diario do Motorista", or Driver's Log, noting data, location, and kilometrage at departure and arrival, with cargo, weight and comments given.

Nº 4464

FICHA DE CONTROLO

Mercadoria Feijão Mantinha

PLANO DE DISTRIBUIÇÃO

Doador: USAID

Destino

Quantidade

Nº (B/L, Contendor, Memo)

Quantidade

23 avariados
1x50

DATE	ENTRY	ISSUE	BALANCE	WAYBILL	DESTINATION	Saldo por Enviar
Data	Entrada	Saída	Saldo	Guia	Destino	
11-12-87	4101	-	4.101	220		
30-12-87	7870	-	11.971	.		
17-3-88	-	15	11.956	16037/16502	Trans. Anangola	
30-3-88	-	770	11.186	223	WAZA	
5-4-88	-	210	10.976	220	WAZA	
5-4-88	-	330	10.646	224	WAZA	
11-4-88	-	5	10.641	16588	Trans. Anangola	
13-4-88	-	200	10.441	234	WAZA	
22-4-88	-	8	10.433	16620	DRPCCN	
11/6/88	-	220	10.213	373	WAZA	

GUIA DE SAIDA E ENTREGA

ARMAZEM Reunidos - Matata
 FAZ-SE ENTREGA A D.P.P.C.C.N.
Luanda

No 132188
 Data 25/2/88

MERCADORIA ENVIADA

NUMERO DE CONTROLE	DOADOR	MERCADORIA	TIPO DE EMBALAGEM	NUMERO DE EMBALAGENS	PESO DE CADA EMBALAGEM	PESO TOTAL	OBSERVAÇÕES
4466	WAFD	OLEO VEG.	CX	450	22,71	10219,8115	

ESTES PRODUTOS FORAM TRANSPORTADOS NOS SEGUINTE VEICULOS PARA ENTREGA AO BENEFICIARIO:

CAMIAO/BARCO/AVIAO MATRICULA H1037-84

DATA 25-2-88

NOME DO MOTORISTA

ASSINATURA DO MOTORISTA

NOME DO ESCRITURARIO

ASSINATURA DO ESCRITURARIO



MERCADORIA RECEBIDA

RECEBEU OS SEGUINTE PRODUTOS:

NUMERO DE CONTROLE	DOADOR	MERCADORIA	TIPO DE EMBALAGEM	NUMERO DE EMBALAGENS	PESO DE CADA EMBALAGEM	PESO TOTAL	OBSERVAÇÕES
4466	WAFD	OLEO VEG.	CX	450	-	450 CX	

D.P.P.C.C.N

Silva
Andrade
8651 NCR '61
A TETE

DEPARTAMENTO DE PREVENÇÃO E COMBATE AS CALAMIDADES NATURAIS

RELATÓRIO MENSAL DOS RECEBIMENTOS

RECEBIMOS
17 MAY 1988
RECEBIMOS

MES: ABRIL 788

PROVINCIA	DOADOR	MERCADORIA	NUMERO DE EMBALAGENS	TIPO DE EMBALAGEM	PESO UNITARIO	PESO TOTAL	DATA ENTRADA NO PAIS	DATA ENTRADA NOS ARMAZENS DO DPCCN
	Itálio	Arroz	249	Sacos	1x50	12.450	1 a 30.4.88	1 a 30.4.88
	CEE	Milho	8382	"-	1x90	754.380	"-	"-
	V.M.	Óleo	1212	Tambores	1x210	254.520	"-	"-
	V.M.	Feijão	4400	Sacos	1x50	220.000	"-	"-
	Austrália	Milho	15462	"-	1x90	1.391.580	"-	"-
	Portugal	Leite	300	"-	1x25	7.500	"-	"-
	Noruega	Peixe	135	Fardos	1x45	6.075	"-	"-
	USAID	Feijão	1984	Sacos	1x50	99.200	"-	"-

- As Províncias devem submeter a UAL este relatório no fim de cada mês.

- Em Maputo a Sub-Secção da Supervisão de Carga deve submeter o mesmo, a UAL no fim de cada mês.

Certifico que os dados em cima estão correctos:

Assinatura *[Signature]*

Título Mercadorias

Data 05.05.88

DEPARTAMENTO DE PREVENÇÃO E COMBATE AS CALAMIDADES NATURAIS

UAL INVENTÁRIO MENSAL-ENTRADAS/SAIDAS

CIA: TETE

450

4630

MES: ABRIL/88

CAO	1x210	1x70	1x40	1x25	Unid	Unid	1x12	Unid	Unid	1x48	1x12	Unid	1x50	1x20
CONTROLE	371H	381F	425G	428G	428I	428J	428K	428N	444E	462C	463D	463E	472F	516E
DORIA	Óleo	Sabão	Amendo	Sabão	Prato	Copo	Panela	Tig.	Tesou	Prato	Panela	Balde	Arroz	Sal
R	V.M.	Carita	BEA/	CEE/	CEE/	CEE/	CEE/	CEE/	ZIMOF	REDD	REDD	REDD	Itelic	CCM
ERTURA DO BALANÇO	1½	14	12	366	192	477	120	1320	300	13	28	492	1705	34
RADAS	-	-	-	-	-	-	-	-	-	-	-	-	249	-
TOTAL (1+2)	1½	14	12	366	192	477	120	1320	300	13	28	492	1954	34
DAS	-	-	4	93	144	576	-	-	-	-	-	-	1639	-
ERIORADOS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL (4+5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DO SEGUNDO O (3-6)	1½	14	8	273	48	∅	120	1320	300	13	28	492	315	34
ENTARIO FISICO	1½	14	8	273	48	∅	120	1320	300	13	28	492	-	34
NTIFICAÇÃO DA RENÇA ENTRE 7 E 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CERTIFICA-SE QUE O BALANÇO FOI CONFERIDO E QUE ESTA CERTO

por *Logística*

Assinatura

[Handwritten Signature]

Data

09 - 04 - 88

DEPARTAMENTO DE PREVENÇÃO E COMBATE AS CALAMIDADES NATURAIS

DETALHES DAS DISTRIBUIÇÕES — DISTRITOS

CIA: TETE

MES: ABRIL/88

DESCRIÇÃO	1x40	1x25	Unid	Unid	1x50	1x25	1x4	1x90	1x100	1x210	1x50	1x90
N.º DE CONTROLE	425G	428G	428I	428J	472F	516F	559	565	541G	571A	571B	677
MERCADORIA	Amendo.	Sabão	Pratos	Copos	Arroz	Sabão	Panelas	Milho	Sard.	Óleo	Feijão	Milho
DOADOR	RFA/GAA	CEE/FFH	CEE/FFH	CEE/FFH	Itália	CCM	UNICEF	CEE	Port.	V.M.	V.M.	Aust.
Quantidade	4	53	-	432	1275	136	72	2314	11+14	96	890	8992
Quantidade	-	-	-	-	54	1	1	836	2	4	230	3060
Quantidade	-	40	-	-	-	-	40	-	-	27	100	340
Quantidade	-	-	-	-	60	-	-	-	-	40	575	1360
Quantidade	-	-	144	144	200	-	10	-	-	-	1340	-
Quantidade	-	-	-	-	-	-	10	100	-	10	60	-
Quantidade	-	-	-	-	-	-	-	-	-	10	146	-
Quantidade	-	-	-	-	-	-	-	34	-	-	-	-
Quantidade	-	-	-	-	50	-	-	-	-	-	-	-
TOTAL*	4	93	144	576	1639	137	133	3284	13+14	187	3341	13752

* que estar de acordo com os dados da linha 4 do Inventário Mensal.

MAPA DE RECEBIMENTO DOS RELATÓRIOS DISTRITAIS

DISTRITOS	AGOSTO				SETEMBRO			
	A	C	D	E	A	C	D	E
CIDADE		✓	✓	✓		✓	✓	✓
GONDOLA	✓	✓	✓	✓	✓	✓	✓	✓
MOSSURIZE	✓	✓	✓	✓		✓	✓	
SUSSUNDENGA		✓		✓				✓
MANICA						✓	✓	✓
BARUE					✓		✓	✓
MACHAZE	✓		✓					
MACOSSA					✓	✓	✓	✓
TAMBARA	✓		✓					
GORO	✓	✓	✓	✓	✓		✓	✓

A - PERFIL DO DISTRITO
 C - RELATÓRIO MENSAL DOS RECEBIMENTOS
 D - DETALHES DAS DISTRIBUIÇÕES
 E - INVENTÁRIO MENSAL

PROVINCIA DE MANICA - RECEBIMENTO DE RELATORIO

DISTRITOS	OUTUBRO				NOVEMBRO				DEZEMBRO				JANEIRO			
	A	F	I	J	A	F	I	J	A	F	I	J	A	F	I	J
CIDADE		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GONDOLA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
MOSSURIZE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SUSSUNDENGA	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MANICA		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓
BARUE	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓
MACHAZE																
MACOSSA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TAMBARA	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GURO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

A- PERFIL DO DISTRITO

F- RELATÓRIO MENSAL DOS RECEBIMENTOS

I- DETALHES DAS DISTRIBUIÇÕES

J- INVENTÁRIO MENSAL

M A P A D E R E C E B E N T O D O S R E L A T O R I O S D I S T R I T A I S

DISTRITOS	FEVEREIRO				MARCO				ABRIL				MAIO			
	A	F	I	J	A	F	I	J	A	F	I	J	A	F	I	J
CIDADE	✓	✓	✓	✓						✓	✓	✓				
GONDOLA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
MOSSURIZE	✓	✓														
SUSSUNDENGA	✓	✓	✓	✓					✓	✓	✓	✓				
MANICA			✓	✓		✓	✓	✓	✓	✓	✓	✓				
BARUE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
MA CHAZE																
MACOSSA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
TAMBARA	✓								✓	✓	✓	✓				
GURO	✓	✓	✓	✓					✓	✓	✓	✓				

A PERFEIL DO DISTRITO
E RELATORIO GERAL DOS RECEPTORES

I - RESULTADOS DOS DISTRIBUTOES
II - DISTRIBUTOES GERAIS

DISTRICTS WITH INDCON REPRESENTATIVES

PROVINCE DISTRICT

Boane (2), Marracuene (2),
 Namacha (2), Nanhica (2),
 Magude (2), Moamba (2),
 Matutuine (2) [Changalane-1]

Chokwe, Guija, Chicualacuala,
 Massingir, Manjacaze, Mabalane,
 Chibuto

Govuro, Inhassoro, Nabote,
 Vilankulo, Massinga,
 Funhalouro, Morrumbene,
 Homoine, Panda, Jangamo,
 Inharrimo, Zavaia

Cidade de Beira, Vain, Dondo,
 VilaMandya, Gorongosa (2),
 Cheringoma, Marrimou, Manza,
 Inyanga, Chitabava

Cidade de Vilimoio, Machaze,
 Mossurito, Susundenga, Manica,
 Gondola, Paruro, Moocosa, Turf

Changara (2), Moatize, Angonia,
 Cahora Bassa, Magoé

Best Available Copy

AMBEIA

Mocuba, Gurue, Namarroi,
Lugela, Morrumbala, Mopeia,
Maganja da Costa, Nicoadala,
Inhassunge, Chinde, Pebane,
Alto Molocue

AMBEIA

Ambeia

Memba, Erati, Muccate, Meconta,
Mogovolas, Murrupula, Ribaue,
Malema (Palma--is on radio
message but does not exist--am
confirming with provinçe)

AMBEIA

Ambeia

Narrupa, Mandimba, Cuamba,
Mecanhelas

AMBEIA

DIÁRIO DO MOTORISTA

RICULA MW 4620

MOTORISTA Proyca

MES Maio

PARTIDA			GASO-LEO	ÓLEO	CHEGADA			KMS percorrido	CARGA	KGS	OBSERVAÇÃO
Lugar	Horas	Kilome-tragem			Lugar	Horas	Kilome-tragem				
Porto		38755									
Zennis		38720		Porto	38720	38720		milho	17000		escamento
Parque		38740		Parque		38740					
Porto		38750		Porto		38750					
Zennis		38775		Zennis		38775		milho	17000		escamento
Porto		38797		Porto		38797					
Zennis		38808		Zennis		38808		milho	17000		esc. operacão
Parque		38855		Parque/Parque		38855		Pessoal	9000		
Escritório		38853		Escritório		38853					
Porto		38873		Porto		38873					
Porto		38883		Zennis		38883		milho	17000		escamento
Zennis		38888		Armazem		38891					
Armazem		38897		Porto		38909					
Porto		38899		Zennis		38918		milho	17000		
Zennis		38918		Inhagar		38930		Pessoal			
Inhagar		38930		Parque		38942					
Parque		38942		Bridler		38956		Jazir			
Bridler		38956		Parque		38960		Jazir			Perbuzicacão
Parque		38960	150	Porto		38973		..			
Porto		38973		Zennis		38997		milho	17000		
Zennis		38997		Pessoal		39027		Pessoal	9000		
Porto		39027		Zennis		39043					
Zennis		39043		Porto		39075					

ANNEX H

SELECTED LSU/CARE EXTERNAL REPORTING INSTRUMENTS

ANNEX H

SELECTED LSU/CARE EXTERNAL REPORTING INSTRUMENTS

Selected LSU/CARE reporting instruments discussed in Chapter 3 are presented herein.

1. "Availability/Utilization/Stock Balance" Reports from July, 1987 through April, 1988 by province by the three key commodities. These are compiled based on the information in the Provincial Monthly Inventories discussed in Annex H. This report is not yet computerized.

2. Two examples of the new "Donor Shipment Report" which is still in preparation. The first is for Master Shipment File Number 267, World Vision maize. This example notes arrival of parts of the shipment in Tete province from Malawi via truck ("ca") over a 5 month period. The first page notes balance on hand, entries, issues, losses and balance. The second page provides a listing of quantities issued to districts by month. The remaining balance of 17017 "distributed" includes 16988 to the districts and the 26 lost on the first page.

The second Donor Shipment Report example provides pieces of a large USAID shipment of oil, number 446. It was shipped on different vessels and at different times and was broken into several sub-shipments, 446A through 446I. Reports for A, B, C and I are presented herein in the interests of brevity. Each first page notes which province it arrived at, by entry, issues, losses, and remaining balance. Second sheets (and more) provide information on issue by province by district by quantity over time.

D P C C N

AVAILABILITY / UTILIZATION / STOCK BALANCE
IN M. TONS

MONTH: AUGUST '87

PROVINCE	CEREALS			LEGUMES			OIL		
	AVAILABLE	DISTRIBUTED	BALANCE	AVAILABLE	DISTRI -	BALANCE	AVAILA -	DISTRI -	BALANCE
MAPUTO	7.1	not available							
GAZA	1080	501	579	941	467	474	4	1	3
INHAMBANE	783	764	19	752	536	216	384	212	172
SOFALA	6223	943	5280	874	195	679	692	128	564
MANICA	1		1	1					
TETE	2089	1594	495	913	230	683	485	178	307
ZAMBEZIA	6092	2869	3823	5	3	2	642	177	465
NIASSA									
MAPUTO									

Best Available Copy

H-3

Prepared By: B.G. Raj

D P C C N

AVAILABILITY / UTILIZATION / STOCK BALANCE
IN M. TONS

MONTH: OCTOBER '87

PROVINCE	CEREALS			LEGUMES			OIL		
	AVAILABLE	DISTRIBUTED	BALANCE	AVAILABLE	DISTRIB -	BALANCE	AVAILA -	DISTRIB -	BALANCE
MAPUTO	784	325	459	206	172	34	205	41	164
GAZA	554	530	24	693	366	327	309	1	308
INHAMBANE	29	9	20	9	9	-	131	11	120
SOFALA									
MANICA									
TETE	208	117	91	302	42	260	274	124	150
ZAMBEZIA	4991	1723	3268	837	301	536	1229	233	996
NIASSA	9	9	-	-	-	-	1	-	1
NAMPOLA	98	5	93	-	-	-	-	-	-

H-5

Best Available Copy

PREPARED BY: R. G. Raj

DPCCN

MIKE

AVAILABILITY / UTILIZATION / STOCK BALANCE
IN M.TONS

MONTH: NOV '87

PROVINCE	CEREALS			LEGUMES			OIL		
	AVAILABLE	DISTRIBUTED	BALANCE	AVAILABLE	DISTRIB -	BALANCE	AVAILA -	DISTRIB -	BALANCE
MAPUTO	1154	881	273	79	33	46	388	137	251
GAZA	34	12	22	349	121	228	317	29	288
INHAMBANE	737	635	102	84	73	6	120	31	89
SOPALA	2166	914	1252	1769	102	1667	463	56	407
MANICA	1018	678	340	483	130	353	65	6	59
TETE	2046	1614	432	566	221	345	155	58	97
ZAMBEZIA	5878	1430	4448	1555	262	1293	853	208	645
NIASSA	25	12	13	79	78	1	1	-	1
NAMPULA	35	16	77	24	-	24	-	-	-

Best Available Copy

PREPARED BY: R. G. Ruy

D P C C N

AVAILABILITY / UTILIZATION / STOCK BALANCE

MONTH: Dec '87

IN M. TONS

PROVINCE	CEREALS			LEGUMES			OIL		
	AVAILABLE	DISTRIBUTED	BALANCE	AVAILABLE	DISTRIBUTED	BALANCE	AVAILABLE	DISTRIBUTED	BALANCE
MAPUTO	374	238	136	949	572	377	577	303	274
GAZA	70	7	63	814	243	571	980	202	201
INHAMBANE	799	541	258	245	9	236	119	35	84
SOFALA									
MANICA									
TETE	1267	924	343	380	247	113	116	60	56
ZAMBEZIA	3893	1028	2865	1507	510	997	1304	155	1149
NIASSA	13	13	0	39	35	4	1	1	-

H-7

Prepared by P. G. R. G.

DPCCN

AVAILABILITY / UTILIZATION / STOCK BALANCE

MONTH: Jan '88

IN M.TONS

PROVINCE	CEREALS			LEGUMES			OIL		
	AVAILABLE	DISTRIBUTED	BALANCE	AVAILABLE	DISTRIB	BALANCE	AVAILA -	DISTRIB -	BALANCE
MAPUTO	930	511	419	187	88	99	512	230	282
GAZA	625	148	477	571	81	490	261	15	246
INHAMBANE	1649	372	1277	777	211	566	499	53	446
	253	262	127	236	158	78	16	1	15
SOFALA	2254	1208	1046	1503	155	1348	552	130	422
MANICA	482	214	268	164	58	106	185	12	173
TETE	1384	601	723	149	59	90	329	19	310
ZAMBEZIA	6112	2428	3684	956	250	706	1882	147	1635
NIASSA	100	25	401	5	3	2	25	5	20
NAMPULA			3						1

PREPARED BY: P. G. Raj

D P C C N

AVAILABILITY / UTILIZATION / STOCK BALANCE

MONTH: FEVEREIRO

IN M. TONS

PROVINCE	CEREALS			LEGUMES			OIL		
	AVAILABLE	DISTRIBUTED	BALANCE	AVAILABLE	DISTRIB -	BALANCE	AVAILA -	DISTRIB -	BALANCE
MAPUTO	812	546	266	101	31	70	410	193	217
GAZA	2572	996	1.576	445	190	255	429	37	392
INHAMBANE	1.653	758	895	526	301	225	448	219	229
SOPALA	624	653	35	1224	262	962	604	77	607
MANICA	1.37	205	872	122	68	70	227	81	146
TETE	1552	822	682	154	63	91	579	173	402
ZAMBEZIA	3.637	3.637	3.659	1.570	322	1.224	1.632	142	1.685
NIASSA									
BELOVED									1

E-10

PREPARED By: R. G. Day

D P C C N

AVAILABILITY / UTILIZATION / STOCK BALANCE MONTH: marco
IN M.TONS

PROVINCE	CEREALS			LEGUMES			OIL		
	AVAILABLE	DISTRICTS	BALANCE	AVAILABLE	DISTRICTS	BALANCE	AVAILABLE	DISTRICTS	BALANCE
MAPUTO	1275	600	22	21	69	27	250	111	155
GAZA	2	224	22	25	28	22	250	2	22
INHAMBANE	11	264	12	11	22	25	220	22	22
SOCUZA	1	200	12	1	22	12	220	1	22

Best Available Document

Tele

Trocas

Cereais

Boatize	235	12	227	76	209	101	773	184	64	—	69	144
Abcados (tele)	227	101	526	337	516	618	202	211	82	—	90	40
Haugara	115	852	—	90	156	103	118	84	29	—	308	87
e. Bassa	228	17	—	393	311	—	78	86	165	—	562	9
e. Tele	1203	979	1217	2014	1230	1120	611	998	381	76	110	563
Maravira	—	—	—	—	—	—	—	—	—	—	—	—
Itanhangá	15	8	—	—	50	—	—	—	—	4	9	—
Atacuda	10	2	—	—	—	—	20	—	—	—	11	—
Curuba	5	7	—	—	25	—	7	—	3	4	5	—
Angônia	24	31	47	—	12	134	—	—	9	—	9	—
Itaó	—	—	—	—	—	—	—	—	—	17	434	20

Zambezia

Cereals

Tons

Freeliciaue	—	7	25	60	13	16	10	35	35	259	40	87
ETHIODE	442	79	649	353	44	—	452	—	662	150	—	600
INHASSUNGE	75	—	88	—	238	161	31	285	230	85	183	422
NICCADALA	148	95	148	86	302	278	111	495	196	221	420	245
NAMACURRA	74	64	115	310	—	—	12	209	172	202	331	88
MOCUBA	297	23	10	42	10	20	—	67	67	27	42	27
GURUÉ	148	—	—	—	—	—	1	—	—	—	7	—
M. DA COSTA	156	25	—	27	—	—	—	—	4	35	160	17
PEBANE	212	94	—	—	—	—	364	792	—	507	—	—
EG ZAMBEZIA	—	—	—	—	—	—	—	—	—	—	—	—
ALTO MOCUE	—	—	—	—	—	3	—	—	—	14	20	5
NAMAKROI	222	—	—	—	—	—	28	45	—	—	—	—
MOPETA	—	—	1	54	—	—	34	117	113	128	105	—
ILE	297	5	—	—	—	—	—	23	—	—	—	—
GILE	—	—	—	—	—	—	—	—	—	—	—	—
MURRUMBALA	—	—	—	27	7	—	43	58	51	48	—	—

No. DOADDE MERCADERIA TRANS NAVIO MERCADA QUANT EMBALAJEM PESO UNITARIO TOTAL MT
 WUSA Saldo ca Malawi 08/00/87 33300 SACS 91.00 3000.00

PROVINCIA	ABERT/BAL	ENTRADAS	SAIDAS	DETERIOR	SALDO
TET 01/87	3000	11678	7353	0	7353
TET 02/87	7353	1418	3792	0	5979
TET 03/87	6068	800	5344	0	1054
TET 04/87	1054	0	829	26	199
TET 05/87	199	0	199	0	0
*** Total ***		13924	17017	26	

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** TET 01/87	
MOATIZE	1527
DESLOCADOS	1510
C. BASSA	893
CIDADE	3301
CHIUTA	92
** Subtotal **	7323
** TET 02/87	
DESLOCADOS	967
CIDADE	1492
ANGONIA	212
MOATIZE	128
C. BASSA	199
CHIUTA	21
TSANGANO	84
** Subtotal **	2793
** TET 03/87	
DESLOCADOS	1168
MOATIZE	984
CIDADE	3167
ANGONIA	525
** Subtotal **	5844
** TET 04/87	
CIDADE	829
** Subtotal **	829
** TET 05/87	
CIDADE	199
** Subtotal **	199
*** Total ***	16989

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DOADOR	MERCADORIA	TRANS	NAVIO	CHEGADA	QUANT	EMBALAGEM	PESO UNITARIO	TOTAL	MT
USAID	oleo	vegetal	nv	Tompson Lykes	15/07/87	50000 sacos		20.0	1000.00

PROVINCIA	ABERT/BAL	ENTRADAS	SAIDAS	DETERIOR	SALDO
SOF 07/87	0	6040	1291	0	4749
SOF 08/87	4749	4699	834	0	8135
SOF 10/87	0	8003	0	0	8003
SOF 11/87	8003	0	2269	0	5734
SOF 12/87	5734	0	398	0	5336
TET 10/87	0	487	0	0	487
TET 11/87	427	72	0	0	559
TET 12/87	559	929	0	0	1489
*** Total ***		20230	5190	0	

** SOF 07/87	
GORONGOSA	250
MACHANGA	23
NHAMATANDA	418
MUANZA	200
DONDO	400
** Subtotal **	1291
** SOF 08/87	
MACHANGA	834
** Subtotal **	834
** SOF 11/87	
DONDO	625
BUZI	224
MUANZA	752
NHAMATANDA	416
GORONGOSA	252
** Subtotal **	2269
** SOF 12/87	
BEIRA	1
BUZI	125
MUANZA	40
MACHANGA	232
CIDADE BEIRA	1
BUZI	125
MUANZA	40
MACHANGA	232
** Subtotal **	796
*** Total ***	5190

50000 sacos oleo vegeta. de USAID 5190 DISTRIBUIDO

CN No.	DOADOR	RECADORIA	TRANS	NAVIO	CHGADA	QUANT	EMBALAGEN	PESO UNITARIO	TOTAL	MT
B	USAID	fejao	nv	Brights Kies	01/07/87	39800	sacos	50.0	1990.00	

PROVINCIA	ABERT/BAL	ENTRADAS	SAIDAS	DETERIOR	SALDO	
GAZ	08/87	1699	6578	3518	0	4759
INH	07/87	0	6701	1418	0	5283
INH	08/87	5283	0	3933	0	1350
INH	09/87	7840	1253	3135	0	5958
INH	10/87	5958	0	482	0	5476
INH	11/87	5476	0	1431	0	4045
INH	12/87	4045	0	4045	1594	1594
SOF	07/87	0	4981	0	0	4981
SOF	08/87	4981	0	1550	0	3431
SOF	10/87	10184	0	3072	0	7112
SOF	11/87	7112	0	1761	0	5351

PROVINCIA DISTRITO

QUAN

** GAZ 08/87

MANJACAZE	1203
CHIBUTO	569
GUIJA	1146
MASSINGIR	400
MASSANGENA	200

** Subtotal **

3518

** INH 07/87

MASSINGA	1404
MORRUMBENE	1148
HOMOINE	779
PANDA	560
JANGAMO	1214
ZAVALA	270
MAXIXE	987
MAXIXE	10
MASSINGA	230
MORRUMBENE	234
HOMOINE	260
PANDA	310
ZAVALA	324
CIDADE DE INHAMBANE	50

** Subtotal **

7780

** INH 08/87

CIDADE DE INHAMBANE	287
FUNHALOURO	423
MASSINGA	627
MORRUMBENE	536
HOMOINE	210
PANDA	563
JANGAMO	570
INHARRIME	240
MAXIXE	477
CIDADE DE INHAMBANE	1108
MASSINGA	1966
MORRUMBENE	1972
HOMOINE	1390
PANDA	1222
JANGAMO	521
INHARRIME	782
ZAVALA	660

** Subtotal **

13554

** INH 09/87

CIDADE	57
C. MAXIXE	1901
JANGAMO	50
INHARRIME	194

FUNHALOURO		428
** Subtotal **		3135
** INH 10/87		
	PANDA	162
	CIDADE	30
	C.MAXIXE	20
	ZAVALA	170
** Subtotal **		382
** INH 11/87		
	VILANKULO	2
	CIDADE	149
	C.MAXIXE	394
	JANGAMO	266
	ZAVALA	35
	INHARRIME	35
	PANDA	335
	HOMOINE	70
	MORRUMBENE	40
	MASSINGA	35
	FUNHALOURO	70
** Subtotal **		1431
** INH 12/87		
	CIDADE DE INHAMBANE	946
	MABOTE	234
	MAXIXE	4
	JANGAMO	100
	HOMOINE	305
	MASSINGA	5
** Subtotal **		1594
** SOF 08/87		
	MACHANGA	800
	MARROMEU	750
** Subtotal **		1550
** SOF 10/87		
	CIDADE BEIRA	270
	BUZI	1570
	MACHANGA	720
	MUANZA	1
** Subtotal **		2561
** SOF 11/87		
	CIDADE BEIRA	465
	NHAMATANDA	390
	GORONGOSA	905

1700
** SOF 12/87

BEIRA	725
MACHANGA	265
CHIBABAVA	140
GORONGOSA	150
CIDADE BEIRA	725
BUZI	150
MACHANGA	265
CHIBABAVA	140
GORONGOSA	150

** Subtotal **

2710

*** Total ***

39975

SOMOS 39800 sacos feijao

de USAID

36826 DISTRIBUIDO

06/88
 DCN No. DOADOR MERCADORIA TRANS NAVIO CHEGADA QUANT. EMBALAGEM PESO UNITARIO TOTAL MT
 50 USAID oleo vegetal nv Good Faith 05/08/87 69100 cartoes 20.0 1382.00

PROVINCIA	ABERT/BAL	ENTRADAS	SAIDAS	DETERIOR	SALDO
GAZ 09/87	0	2522	0	0	2522
GAZ 11/88	15341	443	1407	0	14377
GAZ 12/88	14377	0	10106	0	4271
INH 07/87	0	11255	3278	0	7978
INH 08/87	7978	0	5112	0	2866
INH 09/87	2866	0	2710	0	156
INH 10/87	156	0	156	0	0
MAN 08/87	0	3289	1517	0	1772
MAN 09/87	1772	5020	1852	0	4940
MAN 11/87	2942	0	255	0	2692
MAN 12/87	2660	0	1007	17	1641
*** Total ***		22529	28750	17	

PROVINCIA DISTRITO

QUAN

** GAZ 11/87		
	CHIBUTO	252
	CHICUALACUALA	4
	CHOKWE	250
	GUIJA	650
	MASSINGIR	250
	XAI-XAI	1
** Subtotal **		1407
** GAZ 12/87		
	CHIBUTO	657
	CHICUALACUALA	672
	CHOKWE	1336
	GUIJA	630
	MABALANE	845
	MANJACAZE	3502
	MASSANGENA	1401
	MASSINGIR	910
	MACIA	153
** Subtotal **		10106
** INH 07/87		
	CIDADE DE INHAMBANE	17
	VILANCULOS	344
	MASSINGA	117
	MORRUMBENE	586
	HOMOINE	379
	JANGAMO	1834
** Subtotal **		3277
** INH 08/87		
	MAXIXE	542
	FUNHALOURO	306
	MASSINGA	1174
	MORRUMBENE	875
	HOMOINE	961
	PANDA	829
	JANGAMO	321
	ZAVALA	84
	CIDADE DE INHAMBANE	20
** Subtotal **		5112
** INH 09/87		
	CIDADE	566
	JANGAMO	273
	ZAVALA	11
	INHARRIME	140
	MASSINGA	30
	MORRUMBENE	330

	FUNHALOURO	100
	HOMOINE	52
	PANDA	500
	INHARRIME	174
	ZAVALA	258
	C.MAXIXE	1372
	CIDADE	128
**	Subtotal **	4060
**	INH 10/87	
	CIDADE	95
	C.MAXIXE	5
	ZAVALA	56
**	Subtotal **	156
**	MAN 08/87	
	MOCOSSA	100
	GURO	690
	MANICA	40
	GONDOLA	680
	CIDADE	7
**	Subtotal **	1517
**	MAN 09/87	
	SUSSUNDONGA	237
	MACOSSA	375
	TAMBARA	30
	MACHAZE	510
	MANICA	340
	CIDADE	360
**	Subtotal **	1852
**	MAN 10/87	
	TRABALHADORS DPCCN	15
	GURO	84
	TAMHARA	108
	MACHAZE	217
	BARUE	192
	MANICA	608
	MOSSURIZE	63
	GONDOLA	605
	CIDADE	107
**	Subtotal **	1999
**	MAN 11/87	
	CHIMOIO	10
	GONDOLA	60
	BARUE	100
	MACOSSA	10
	GURO	40
	TRAB. DPPCCN	35

** MAN 12/87

TRAB. DPPCCN	107
CHIMOIO	103
GONDOLA	20
SUSSUNDENGA	200
MANICA	187
BARUE	100
MACHAZE	100
MACOSSA	120
MACOSSA	120
TAMBARA	60
GURO	70
TRAB. DPPCCN	49

** Subtotal **

1236

*** Total ***

30977

69100 cartoes elec vegetal

de USAID

28750 DISTRIBUIDO

8/06/88

PCCN No.	DOADOR	MERCADORIA	TRANS	NAVIO	CHEGADA	QUANT	EMBALAGEM	PESO UNITARIO	TOTAL	MT
461	USAID	oleo	nv	James Lykes/Anitra	12/08/87	12000	cartoes	0.0	240.00	

PROVINCIA	ABERT/BAL	ENTRADAS	SAIDAS	DETERIOR	SALDO
MAN 12/87	0	2458	22	5	2435
*** Total ***		2458	22	5	

*** Nao record de Distrito distribucao ***
 RESUMO: 12000 cartoes oleo de USAID

CO DISTRIBUIDO

ANNEX I

LIST OF PERSONS CONTACTED
AND
EVALUATION TEAM SCHEDULE

ANNEX I

LIST OF PERSONS CONTACTED

Washington, D.C.

Ms. Julia Taft, Director, A.I.D./OFDA
Ms. Lauren R. Landis, Disaster Operations Assistant,
A.I.D./OFDA
Mr. Dennis J. King, Evaluation Technologies, Inc. research
specialist assigned to OFDA
Mr. Richard Loudis, A.I.D./FFP
Mr. James Pagano, A.I.D./AFR Mozambique Desk Officer
Mr. Kevin Lothar, Africare Southern Africa Regional Director

Maputo City, Mozambique

Ambassador of the United States of America Melissa Wells

OAR/Maputo

Mr. Julius Schlotthauer, A.I.D. Representative
Mr. James Purcell, Program Officer
Ms. Judi Shane, Executive and Commodity Management Officer
Mr. Buddy Dodson, Food For Peace Officer
Mr. Herb Bedolfe, Emergency Operations Officer (Personal
Services Contractor to OFDA)
Mr. Jose Careira, Program Operations Officer
Mr. Ross Coggins, A.I.D./Washington Director of African
Emergency Task Force (on TDY to Maputo)

CARE International in Mozambique

Mr. David Neff, Director and LSU Co-Director
Mr. Mike Mispelaar, LSU Operations Coordinator
Mr. R.G. Raj, LSU Commodities Coordinator
Ms. Sheila Gothmann, LSU Information Coordinator
Mr. Tim Gothmann, CARE Program Officer
Mr. Jon Newman, LSU Transport Coordinator
Mr. Lito Nuguid, LSU Transport Officer
Mr. Phil Gray, LSU Computer Specialist
Mr. Stephan Redding, LSU Administrative Officer
Mr. Ashraf Ahmed, LSU Financial Officer
Mr. Harlan Hale, LSU Provincial Logistics Officer (Transit),
Sofala Province

CENE

Mr. Prakash Ratilal, Chairman

DPCCN

Mr. Salomao Mambo, National Director
Mr. Joao Jose Macaringue, LSU Co-Director
Mr. Afonso Monjane, LSU Coordinator
Ms. Joaquina Basilio, LSU Computer Operator
Mr. Sven Lampell, InDevelop (Swedish Consulting Firm) Senior
Advisor/Disaster Relief, DPCCN
Mr. C. Faramico, Transport Section/Truck Park

United Nations System

Mr. Arturo Hein, UNDP Resident Representative
Mr. Lucielo Ramirez, WFP Advisor
Mr. Martinez, WFP Advisor
Mr. Richard Morgan, UNICEF
Mr. Enrique Madueno-Ucar, UNICEF Program Officer (Emergency)

World Vision International

Mr. Stefan Carlos Toma, Deputy Director
Mr. Reinaldo Rutter, Commodities Officer
Mr. Walter Middleton, Commodities Manager
Mr. William Hagelman, Consultant assigned to WV by Marine
Overseas Services

Other

Mr. Isaias de Abreu David Muhate, Vice Minister, Ministry of
Transportation and Communications
Mr. Dezanove, Director, National Office of Internal Market-
ing, Ministry of Commerce
Mr. Carlos Morgado, Assistant Director General, LAM
Mr. F. O. Da Silva, Chief, Central Operations LAM
Mr. J.D. Mabomba, Engineer, National Roads and Bridges
Authority
Mr. Manuel Monteiro, Louis Berger International, Inc.
Agronomist Advisor to Ministry of Agriculture
Mr. Augustin Ruface, Statistics Officer, Ministry of
Transportation and Communications

Maputo Province

Mr. Domingos Mondlane, DPCCN Provincial Director
Mr. Zicuela, DPCCN Director of Commodities
Mr. K.P. Belliappa, CARE/LSU Provincial Logistics Officer
Boane District Administrator
Boane District DPCCN Delegate

Maputo Province continued

Private Transporters

Mr. Victor Calera, Assistant Manager, Transportes Lourenco
Mr. Antonio Ameril Guedes, Owner, Transportes Guedes
Mr. Simoes Leite, Owner, Transportes Simoes Leite
Mr. Abdul Kamissa, Owner, Transportes Kamissa
Mr. Salema Mufundisse Chibique, Owner, Transportes Chibique
Mr. Hermari Dores Da Mata, Services Inspector, Entrepoto
Comercial de Mocambique, S.A.R.L.

Manica Province

DPCCN

Mr. Elisio Lamarques, Planning & Information Officer
Mr. Henrique Darar, Administrative Chief
Mr. Pascual, Planning Section
Mr. Antonio Penicera, Commodities Section
Mr. Henrique Jose Samuel, Deputy Chief of Transport
Mr. Antonio Sarmento, Warehouse
Mr. Domingos Mahoque, Warehouse
Mr. Eduardo Tembo Portugal, Commodities Section
Mr. Patanaik, UNICEF Trainer Mechanic
Mr. Bernie Fortes, CARE/LSU Provincial Logistics Officer
Mr. Lourenco Massembe, Gondola District Delegate
Gondola District Mozambican Red Cross Representative

Other

Mr. Banoo, Owner, Transportes Banoo
Mr. Adam Ismail, Owner, Lusolatas Company and Transportes
Ismail

Sofala Province

DPCCN

Mr. Manuel Nogueira, Provincial Director
Mr. Daniel Moambo, Director of Logistics
Mr. M.W. Khan, CARE/LSU Provincial Logistics Officer
Mr. Firmino Pintarrexo Junior, Truck Park

Other emergency-related

Mr. David Jackson, AFRICARE Country Representative
Mr. Fernando Jose Jiani Sardinha, Chief of Program Mobiliza-
tion and Training, Dondo District, Muanza deslocado
center
Mr. Victor Gonzola, Chief Nurse, Health Post, Casa Banana
deslocado center

Sofala Province continued

Beira Corridor Authority

Mr. Goncalvo Ferrao, Assistant Director
Mr. Carlos Alberto Fortes Mesquita, Engineer
Mr. Erik Sjoberg, Consultant

Private/Parastatal Transport

Mr. Edmundo Carrelo, Owner, Transportes Edmundo Careelo
Mr. Carlos Reis, Financial Controller, CAMIONAGEM
Mr. Jose Pereira Americano, Vice President, Association of
Private Shipowners
Mr. Taibo Carimo, President, Association of Private Ship
owners
Mr. Allan Unstrand, Consultant, TRANSCARGA

Zambezia Province

Mr. Alvaro Mahumane, DPCCN Provincial Director
Mr. Zacarias, DPCCN Planning & Information Officer
Ms. Carol Cheu, CARE/LSU Provincial Logistics Officer
Mr. Carlos, Nicoadala DPCCN District Delegate
Mr. Nelson Sithole, World Vision International Commodity
Officer
Mr. Armand Hussein Kassimo Kadri, President, Nucleo de
Associacao dos Transportadores Privados

ANNEX I

EVALUATION TEAM SCHEDULE & TRAVEL

The Evaluation was undertaken by the following Louis Berger International, Inc. professionals: Laura McPherson, Team Leader/Development Management Analyst; Charles Bell, Private Sector Specialist; and Rob Harrison, Transport and Trucking Specialist. Their summary schedule follows:

Wed. 11 May: McPherson briefing A.I.D./Washington
Thurs. 12 May: McPherson & Bell depart Washington
Fri. 13 May: McPherson & Bell travel status
Sat. 14 May: McPherson & Bell arrive Maputo;
Harrison departs Austin, Texas

Mon. 16 May: Harrison arrives Maputo; entire team reports to
OAR/Maputo for briefings
Tue. 17 May -
Sat. 21 May: Team literature review, interviews Maputo; visit
to Maputo Province DPCCN offices and Boune
District (Maputo Province)

Mon. 23 May: Maputo to Chimoió, Manica Province via AIRSERV
Interviews in Chimoió
Tue. 24 May: Interviews Chimoió and Gondola District Center
(Manica Province); Chimoió to Beira, Sofala
Province via road (e.g. the Beira Corridor)
Wed. 25 May: Interviews in Beira
Thurs. 26 May: Visit to Dondo District Center (Sofala Province
via road; visit to Casa Banana deslocado center
via AIRSERV; final interviews Beira
Fri. 27 May: Beira to Quelimane (Zambezia Province; via
AIRSERV; interviews Quelimane, Nicodala District
Center, and new deslocado center in Nicodala
Sat. 28 May: Quelimane to Maputo via AIRSERV

Mon. 30 May -
Fri. 3 June: Literature review, interviews, analysis, drafting
Maputo
Sat. 4 June: L. Landis of OFDA arrives Maputo; Harrison departs
Maputo

Mon. 6 June: 10 copies DRAFT report delivered to OAR/Maputo
Tue. 7 June: Bell departs Maputo
Wed. 8 June -
Fri. 10 June: Reviews, revision DRAFT report
Sat. 11 June: FINAL REPORT SUBMITTED; McPherson departs Maputo

ANNEX J
SELECTED BIBLIOGRAPHY

ANNEX J

SELECTED BIBLIOGRAPHY

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