

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT DATA SHEET

1. TRANSACTION CODE **PD ARP-480** DOCUMENT CODE **3**
 A = Add
 S = Change
 D = Delete
 Amendment Number **94957**

2. COUNTRY/ENTITY **MOZAMBIQUE**

3. PROJECT NUMBER **656-0215**

4. BUREAU/OFFICE **AFR** **06**

5. PROJECT TITLE (maximum 40 characters) **PROSTHETICS ASSISTANCE PROJECT**

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
 MM DD YY **92**

7. ESTIMATED DATE OF OBLIGATION (Under "B." below, enter 1, 2, 3, or 4)
 A. Initial FY **89** B. Quarter **1** C. Final FY **89**

8. COSTS (\$000 OR EQUIVALENT \$1 =)

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						2,530
(Grant)	()	()	()	()	()	()
(Loan)	()	()	()	()	()	()
Other U.S. 1.						
2.						
Host Country						
Other Donor(s)						
TOTALS						2,530

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) HE	520B	580						2,530	
(2)									
(3)									
(4)									
TOTALS								2,530	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)
 570 580 590 940

11. SECONDARY PURPOSE CODES

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	PVOU	PVON	TECH
B. Amount	1,300	820	325

13. PROJECT PURPOSE (maximum 480 characters)

To increase the capacity of governmental and nongovernmental entities in Mozambique to address the unmet and growing needs of men, women and children disabled from long-standing civil conflicts or suffering from other crippling mobility disorders.

14. SCHEDULED EVALUATIONS

Interim **12/90** Final **12/92**

15. SOURCE/ORIGIN OF GOODS AND SERVICES
 000 941 Local Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)

17. APPROVED BY **Julius P. Schlotthauer**
 Title **Director, USAID/MOZAMBIQUE**
 Date Signed **08/31/89**

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
 MM DD YY

Mozambique

PD 1001 420

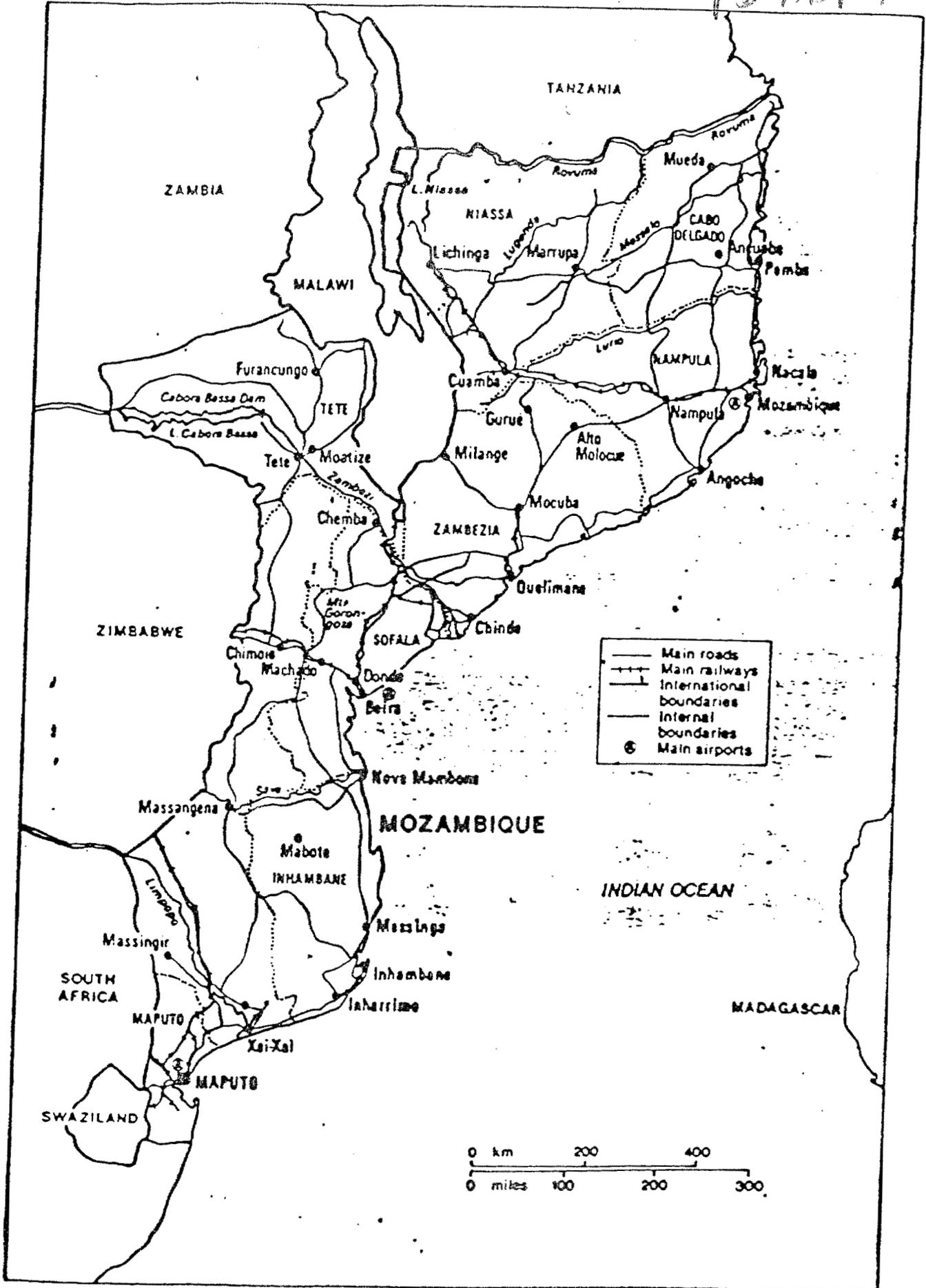


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ACRONYMS/ABBREVIATIONS

DAS:	The Department of Social Welfare in the Ministry of Health
GPRM:	The Government of the People's Republic of Mozambique
HCM:	The Central Hospital in Maputo
HVO:	Health Volunteers Overseas, an American NGO
ICRC:	International Committee of the Red Cross, the Swiss NGO
MAD:	Mozambican Association of Disabled, a new NGO
MOH:	The Ministry of Health
NAD:	Norwegian Assistance to the Disabled, an NGO
OHI:	Operation Handicap Internationale, a French NGO
SCF/US:	Save the Children Federation/US

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EXECUTIVE SUMMARY

In 1989 the U.S. Foreign Assistance Appropriations Act provided up to five million dollars for prostheses for civilians who had lost limbs or were otherwise maimed by civil strife and warfare in their homelands.

AID consultants in early 1989 estimated that there are from 15,000 to 20,000 amputees in Mozambique, that eighty percent of these are war-related, and that there are an estimated 1,500 to 2,000 new amputations each year. They also estimated that fewer than half of these new cases are fitted with a prosthesis, and overall only about one in thirty civilians in need of prosthetic assistance is now receiving it. In addition, thousands of children and adults suffer the residual effects of polio, diabetes, and injuries -- patients who became disabled during the last war-torn decade because immunizations and curative health services were generally not available. They are in need of orthotic appliances.

The existing prosthetic and orthotic workshop centers run by the International Committee for the Red Cross (ICRC) and Operation Handicap Internationale (OHI) are working hard but are apparently losing the battle of numbers to keep up even with new demand, if the above statistics are correct. In addition, the Mozambique institutional and human resource base to support a national rehabilitation program is weak to non-existent.

On the basis of these findings, USAID/Mozambique has developed a \$2,530,000 three-year assistance package with the Mozambican Ministry of Health (MOH).

The goal of the project is to establish the capacity for Mozambique to treat and physically rehabilitate all of the emergency-related civilian disabled and to assist them to lead normal lives.

The project purpose is to increase the capacity of governmental and non-governmental entities to address the unmet and growing needs of men, women, and children disabled by long-standing civil conflicts or suffering from other crippling mobility disorders.

The project will address five key program constraints:

1. The need to have more precise estimates of current need and a longer range national rehabilitation plan and strategy;
2. A shortage of capacity to manufacture and fit prostheses and orthoses;

3. Poor overall standards of orthopaedic surgery for amputees and other disabled, an inadequate follow-up program, and an inadequate prostheses maintenance program;
4. The critical shortage of trained orthopaedic surgeons, prosthetists, orthotists, and physical therapists; and
5. The need to provide better access for rural Mozambicans to prosthetic services.

The following interventions are planned in order to respond to the constraints identified above. Budgeted funds appear in parentheses.

1. **NEEDS ASSESSMENT AND LONG TERM STRATEGIC PLAN:** An accurate assessment of emergency-related physical rehabilitation needs agreed to by the Government of Mozambique (GPRM) and the donors that will serve as a basis for planning. A national physical rehabilitation plan will be developed from these findings. To be implemented by USAID technical assistance and the MOH (\$50,000);
2. **PROSTHESES/ORTHOSES PRODUCTION:** A 25 percent annual increase in the numbers of prostheses that are manufactured, fitted, and in use. In 1988, 675 new prostheses were fitted. By 1992, the new prostheses and orthoses fitted annually should total 1300. To be implemented by the ICRC and OHI (\$555,000);
3. **IMPROVED QUALITY OF CARE:** Measurable improvements in the quality of orthopaedic clinical case management. These include establishing professional consultation between surgeons and rehabilitation staff as a standard practice prior to surgery, establishing an effective clinical follow-up program for amputees, and a "client responsive" prostheses maintenance program. To be implemented by Health Volunteers Overseas (HVO) (\$1,300,000);
4. **TRAINING:** Increased numbers of trained and qualified Mozambicans in components of physical rehabilitation. Qualified orthopaedic surgeons will increase from zero to three. Qualified prosthetists/orthotists will increase from zero to 20. Qualified physical therapists will increase from 35 to 60. At least 50 percent of the newly trained prosthetists/orthotists and physical therapists will be assigned in the rural areas. To be implemented by ICRC, OHI, and HVO (\$225,000); and

5. BETTER ACCESS: A national network of hostels near the clinical rehabilitation centers for patients from the outlying rural areas. These hostels will accommodate up to 80 individuals awaiting or receiving treatment. In addition, better transport will be made available, both in-town shuttling between hostel and hospital, and inter- and intra-province air transport for patient candidates. To be implemented by Save the Children Federation/US (SCF) with the MOH and local partners (\$150,000).

It is USAID/Mozambique's intention to implement this project through an overall grant to the Mozambican Ministry of Health and through a series of sub-grants to or contracts with four established non-governmental organizations, three of which are currently operational in Mozambique. These organizations and their level of their grants are:

- o Save the Children Federation/US -- \$150,000
- o Operation Handicap Internationale (France) -- \$330,000
- o International Committee of the Red Cross (Switzerland) -- \$450,000
- o Health Volunteers Overseas (US) -- \$1,300,000.

Only the last group -- HVO -- does not have representation in Mozambique at present; SCF will assist in the administration of its activities. For the fifth component of the project -- the hostel and transport component -- local private sector assistance and service organizations will be active in the implementation of project activities. USAID will carry out the needs assessment and long term strategic plan itself with external technical assistance.

USAID's implementation approach also includes the constitution of a Project Coordination Steering Committee and the hiring of a half-time USAID Project Coordinator.

The Ministry of Health will provide policy leadership and dialogue national counterparts, will serve as coordinator of project components, and will provide a certain amount of local costs.

INTRODUCTION

The 1989 Foreign Assistance Appropriations Act provided up to five million dollars for prostheses for civilians who had lost limbs or were otherwise maimed by civil strife and warfare in their homelands.

A March 1989 AID/Washington-sponsored assessment team confirmed an urgent need for this assistance in Mozambique. On the basis of their findings, USAID/Mozambique has developed a three-year assistance package with the Ministry of Health. This activity will be implemented largely through US and non-US PVOs and the International Committee of the Red Cross (ICRC).

The AID Administrator approved the Mozambique draft program and an allocation of funding on May 1, 1989. AID has also secured Congressional agreement to include orthotics as well as prostheses as part of the assistance program.

BACKGROUND AND PROBLEM STATEMENT

A. The Setting

The large number of civilian war casualties is perhaps the single most tragic and visible consequence of the emergency. Thousands of non-combatants have been maimed or killed. The large numbers of war-related disabled in every major population center is a constant and visible reminder of the brutality of the conflict. While precise statistics are hard to come by, it is hard to find a Mozambican family that has not had a relative injured or killed in the war.

While there is general agreement on the severity of the problem, there is a wide range of estimates of the actual numbers of disabled war casualties needing physical rehabilitation. AID consultants have estimated that there are from 15,000 to 20,000 amputees in Mozambique, that eighty percent of these are war-related, and that there are an estimated 1,500 to 2,000 new amputations each year. If this is the case, less than half of these new cases are fitted with a prosthesis, and overall only about one in thirty in need of prosthetic assistance is now receiving it. The existing centers are working hard but are apparently losing the battle of numbers to keep up even with new demand. The amputees without prostheses that are seen daily in every city confirm the inability of the system to meet the country's rehabilitation needs.

Because of the security situation, the centers that are treating the disabled are all located in major cities and provincial towns. It is simply too dangerous for orthopaedic teams to work outside the relatively secure major population areas. Hence, large numbers of amputees outside the cities and towns are not reached at all, and for the most part the available services are limited to those individuals who can travel on their own to the Government hospitals.

For every amputee with injuries resulting from the war, there are perhaps another ten whose crippling injuries or diseases are indirectly caused by war conditions. Hundreds of clinics and health posts have been damaged or destroyed and most of their preventive and curative health services have been seriously curtailed. The results are thousands of children and adults suffering the residual effects of polio, diabetes, and injuries -- patients who became disabled because immunizations and curative health services were generally not available. These individuals are just as much victims of civil strife as the estimated 20,000 amputees in need of prostheses.

Mozambique's capacity to handle the growing numbers of injured and disabled is extremely limited. Existing curative health facilities are being utilized beyond their capacity and there is a serious shortage of trained medical and rehabilitation staff. Expatriate medical and rehabilitation specialists from more than 20 countries are helping to staff the system both to meet the short term needs of the current emergency, and for the longer term period during which Mozambicans can be trained to replace them. The shortage of trained Mozambicans is a major problem.

Hostels for incoming prosthesis/orthosis patients have been identified as a critical missing link in the country's medical care to date. At present, the wounded simply do the best they can in terms of lodging -- staying with relatives, creating make-shift quarters near the hospital, trying to gain entrance to the area's old folks' or homeless homes. Thefts and cases of confused identity between patients and others have been reported.

Attempts to address the hostel problem have been fragmented and frustrated by a lack of funds. The Ministry of Health's Department of Social Action, already overburdened with other welfare projects, has been hard-pressed to implement their plans for regional Transit Centers. One large (30-bed) Transit Center outside of Maputo (in Matola) is reportedly reserved exclusively for military cases; other military hospice centers are located in Cabo Delgado and Manica provinces, but do not serve civilian casualties.

Equally as important as the lack of shelter is the lack of adequate transportation for patients; many times the crippled or handicapped spend hours waiting at the airport for a ride into town. In other instances, they simply cannot physically relocate themselves to the provincial capitals from the rural areas in which they were wounded. And once in town, the need for daily rides to and from the hospital during surgery, treatment, fitting, and follow-up care, is crucial.

There are two principal international agencies now assisting the Mozambican Ministry of Health in the rehabilitation effort. These are the International Committee of the Red Cross (ICRC), and Operation Handicap Internationale (OHI), a French NGO.

INTERNATIONAL COMMITTEE OF THE RED CROSS (ICRC)

ICRC began rehabilitation operations in Mozambique five years ago (1984) and now supplies about 80 percent (in 1988, 537) of the fitted prostheses. ICRC maintains four workshops. The largest is in Maputo at the Central Hospital, while regional workshops are located in Beira (Mozambique's second largest city), Quelimane, and Nampula. ICRC maintains technical and administrative support for the workshops along with training programs that will prepare Mozambicans to take over management.

Patients are referred to the ICRC/MOH centers from the district health facilities and eventually to Maputo, if necessary. It takes between three and four months to receive a prosthesis from the Maputo Center. War-related prostheses are supplied free of charge. Non-war-related patients pay about \$US 50.

Manufacturing facilities have been established locally to produce components of each prosthesis. However, to meet ICRC's standards, 80 percent of the materials used in the workshop are imported.

Independent observers who have evaluated the ICRC program have been very favorably impressed with their manufacturing and treatment facilities. However, the program lacks:

- o Effective consultation between the orthopaedic surgeons and the rehabilitation staff in planning treatment -- a vital element in avoiding prosthetic failure;
- o Effective follow up of patients following treatment; and

- o A well-organized maintenance and repair facility for ICRC-fitted prostheses.

OPERATION HANDICAP INTERNATIONALE (OHI)

Operation Handicap Internationale, a French NGO, started working in Mozambique three years ago (1986). They began with a small workshop in Inhambane and now have programs and workshops in Inhambane, Vilankulo, and most recently in Nampula. A small workshop is also planned for Tete province. Currently, OHI is supplying about 20 percent of the prostheses that are fitted (in 1988, 115).

OHI's program differs from ICRC's in three important ways:

First, the scope of services OHI provides is broader -- they treat a wide range of disabled suffering from leprosy, the residuals of polio, etc., as well as war-related diseases.

Second, OHI emphasizes a community-based preventive approach to services and seeks to educate both citizens and public health officials about orthopaedic conditions that can be successfully treated if identified early.

Third, their prosthetics and orthotics workshops utilize 80 percent local materials to reduce costs and to enhance prospects for sustainability.

External observers who have evaluated OHI confirm the quality of their professional work, their highly dedicated field staff, and their low-cost sustainable approach to rehabilitation. Some critics suggest that OHI is expending too much of their time and effort with experimentation with local materials.

MOZAMBIQUE'S PROFESSIONAL REHABILITATION STAFF SITUATION

The Mozambique institutional and human resource base to support a national rehabilitation program is weak to non-existent. There are no trained Mozambican orthopaedic surgeons at all, and no formal training programs to teach these skills appropriately to medical school students. Orthopaedic surgery is mostly carried out by a mix of Mozambican and expatriate general practitioners and trauma physicians. The expatriates come from about 20 countries. In the rural areas, some orthopaedic surgery is performed by medical assistants. The medical school curriculum skims the subject.

The Maputo Central Hospital house staff, who are only marginally trained in orthopaedics themselves, are their teachers. As a result, formal orthopaedic training is weak and fragmented, and the quality and standards of practice are highly variable.

All of the ten prosthetists/orthotists in Mozambique are expatriates associated with either the ICRC (7) or the OHI (3) programs. The MOH and ICRC are planning a 3-year program to train 20 Mozambicans beginning in 1990.

The physical therapy situation is somewhat brighter. About 25 physical therapists, trained by the Dutch, are in Maputo and the field. An additional ten have been trained by OHI and recently certified by the MOH. The MOH plans also to launch a 3-year program for physical therapists beginning in 1990 and has asked OHI to assist in providing teaching staff.

There is no social rehabilitation program to meet the particular needs of the emergency-related disabled.

The following tables illustrate the current magnitude of the problem and the existing human resource base in the country.

TABLE 1
ESTIMATE OF MOZAMBIQUE'S EMERGENCY-
RELATED DISABLED IN NEED OF AND RECEIVING SERVICES

Estimated total number of amputees	20,000*
Estimated annual incidence	1,500*
Numbers of prostheses fitted in 1988	652
By ICRC	537
- Maputo	407
- Beira	130
By OHI	115
- Vilankulo	50
- Inhambane	65
Estimated number of disabled with crippling injuries or diseases, indirectly war-related (polio, etc.)	2,000,000*

* Estimates by AID consultants from March 1989 assessment visit to Mozambique.

TABLE 2
MOZAMBIQUE'S TRAINED HUMAN RESOURCES FOR
EMERGENCY-RELATED REHABILITATION

Orthopaedic surgeons	
- Mozambican	0
- Expatriate	0
Prosthetists/Orthotists	
- Mozambican	0
- Expatriate	10
Physical Therapists	
- Mozambican	35
- Expatriate	5

B. Problems to be Addressed

The USAID Prosthetics Assistance Project will address five key program constraints:

1. THE NEED TO HAVE MORE PRECISE ESTIMATES OF CURRENT NEED AND A LONGER RANGE NATIONAL REHABILITATION PLAN AND STRATEGY

Current estimates of need are soft with a wide divergence of opinion on this issue among the experts. Mozambique and the donors must arrive at better estimates of need to effectively plan

- o for short and long term operational programs;
- o for human resource needs; and
- o to develop for a realistic longer term rehabilitation strategy.

2. SHORTAGE OF CAPACITY TO MANUFACTURE AND FIT PROSTHESES

There is an apparent widening gap between the numbers of amputees in need of prostheses and the capacity of the system in place to serve them. Assuming the estimates by AID's consultants of the incidence of new amputees are fairly accurate, the delivery system is steadily losing ground. Of the estimated 1,500 new cases in 1988, about 650 were treated; this added 850 to the backlog of unmet needs.

3. POOR OVERALL STANDARDS OF ORTHOPAEDIC SURGERY FOR AMPUTEES AND OTHER DISABLED; AN INADEQUATE FOLLOW-UP PROGRAM; AN INADEQUATE PROSTHESIS MAINTENANCE PROGRAM

Poor technical standards of orthopaedic surgery for amputees and other disabled prevail in the country. For example, because of inadequate consultation between the surgeons and the prosthetists/orthotists, limbs are often amputated at an incorrect length; this risks infection, the need for additional surgery, and ultimate prosthetic failure.

Follow-up programs for treated amputees are also inadequate. These are needed because there are natural changes in stump size (from physical growth in children and shrinkage in adults) which necessitate periodic adjustment in the prostheses if they are to stay in effective use. A ready supply of spare parts for prostheses, a delivery system to ensure availability at reasonably convenient locations, and a client education program to teach amputees how to use the repair system are also crucial needs.

4. CRITICAL SHORTAGE OF TRAINED ORTHOPAEDIC SURGEONS,
PROSTHETISTS, ORTHOTISTS, AND PHYSICAL THERAPISTS

As Table 2 above revealed, there are no Mozambican orthopaedic surgeons. Three orthopaedic residents are in training without effective supervision. Mozambican prosthetists/orthotists are non-existent as well. There are about 25-30 Mozambican physical therapists. A cadre of Mozambicans must be trained to staff all levels of the physical rehabilitation program.

5. NEED TO PROVIDE BETTER ACCESS FOR RURAL MOZAMBICANS TO
PROSTHETIC SERVICES

Civilian access to prosthetics services is artificially restricted for rural Mozambicans. Adequate housing for rural patients at the centers where they are awaiting or receiving treatment does not exist at present. Transportation is irregular. A network of hostels and improved transport for these purposes could help to solve the problem.

PROJECT DESCRIPTION

A. Goal and Purpose

The goal of the USAID Prosthetics Assistance Project is to establish the capacity for Mozambique to treat and physically rehabilitate all of the emergency-related civilian disabled and to assist them to lead normal lives.

The project purpose is to increase the capacity of governmental and non-governmental entities to address the unmet and growing needs of men, women, and children disabled by long-standing civil conflicts or suffering from other crippling mobility disorders.

B. Proposed Project Assistance

The proposed project will provide assistance to Mozambique in five key areas:

- o Establishing a more precise definition of physical rehabilitation needs and preparing a realistic short and longer term rehabilitation plan;
- o Increasing the number of prosthetic devices that are produced and fitted;

- o Improving the overall quality of orthopaedic clinical treatment;
- o Building the cadre of skilled Mozambicans in key technical areas of physical rehabilitation; and
- o Improving the access to rehabilitation services for rural and urban disabled.

C. Program Outputs

The anticipated project outputs are:

1. An accurate assessment of emergency related physical rehabilitation needs agreed to by the GPRM and the donors that will serve as a basis for planning. A national physical rehabilitation plan will be developed from these findings;
2. A 25 percent annual increase in the numbers of prostheses that are manufactured, fitted, and in use. In 1988, 675 new prostheses were fitted. By 1992, the new prostheses fitted annually should total 1300;
3. Measurable improvements in the quality of orthopaedic clinical case management. These include establishing professional consultation between surgeons and rehabilitation staff as a standard practice prior to surgery, establishing an effective clinical follow-up program for amputees, and a "client responsive" prostheses maintenance program;
4. Increased numbers of trained and qualified Mozambicans in components of physical rehabilitation. Qualified orthopaedic surgeons will increase from zero to three. Qualified prosthetists/orthotists will increase from zero to 20. Qualified physical therapists will increase from 35 to 60. At least 50 percent of the newly trained prosthetists/orthotists and physical therapists will be assigned in the rural areas; and
5. A national network of hostels near the clinical rehabilitation centers for patients from the outlying rural areas. These hostels will accommodate up to 80 individuals awaiting or receiving treatment. In addition, better transport will be made available, both in-town shuttling between hostel and hospital, and inter- and intra-province air transport for patient candidates.

D. Program Inputs

To achieve the outputs listed above, USAID will finance the following:

Output 1: Needs Assessment and Strategic Planning (\$50,000)

- o Technical assistance and local cost support for a GFRM/USAID/other donor formal assessment of emergency related civilian rehabilitation needs.
- o Technical assistance and local cost support in developing a collaborative rehabilitation plan with the GFRM and the donors. USAID/Mozambique will administer these funds using staff or outside consultants as agreed to by the MOH and USAID.

Output 2: Increased Production and Use of Prosthetics (\$555,000)

- o A \$250,000 program grant to the International Committee of the Red Cross (ICRC) to support their ongoing prosthetic rehabilitation program. An additional \$125,000 for prosthesis production.
- o A \$180,000 grant to Operation Handicap Internationale (OHI) for 6 person/years of rehabilitation technical assistance at their established centers at Inhambane, Vilankulo, and Nampula.

Output 3: Improving the Quality of Orthopaedic Case Management (\$1,300,000)

- o One long term (36 person/months) orthopaedic surgeon; up to 22 person/months of short term technical assistance from orthopaedic surgeons, physicians, prosthetist/orthotists, and physical therapists through a grant to Health Volunteers Overseas (HVO), an American FVO.

Output 4: Enlarging the Cadre of Trained Mozambicans with Rehabilitation Skills (\$225,000)

- o A \$75,000 grant to ICRC for technical assistance to the certificate-level prosthetist/orthotist training course sponsored by the MOH and ICRC.
- o A \$150,000 grant to OHI for technical assistance to a 3-year pre-service physical therapist course.

Output 5: Enhancing Access to Rehabilitation Centers for Rural Mozambicans (\$150,000)

- o Securing, refurbishing, and provisioning four buildings/structures for conversion into hostels (probably \$120,000); and leasing transport at all hostels centers to/from hospitals, and any needed air transport for casualties (\$30,000). (To be implemented by local intermediary organizations through a sub-grant to Save the Children Federation/US -- SCF).

E. Project Management and Evaluation (\$120,000)

1. USAID will recruit a half-time locally-hired project monitor to oversee AID's contribution to the rehabilitation program, to facilitate coordination between the USAID-funded and other rehabilitation donors, and to serve as the point of contact between the MOH and USAID on this activity. Estimated cost @ \$20,000 per year for three years.
2. A Project Coordination Steering Committee will also be constituted (no cost item).
3. USAID will evaluate the project after the first year and at completion. Estimated cost of each evaluation (1.5 person/months each) is \$30,000.

F. Contingency Fund (\$55,000)

1. The project contingency fund of \$55,000 will be retained by USAID for emergencies.

IMPLEMENTATION PLAN AND SCHEDULE

A. Implementation Approach

It is USAID/Mozambique's intention to implement this project through an overall grant to the Mozambican Ministry of Health and through a series of sub-grants to or contracts with four established non-governmental organizations, three of which are currently operational in Mozambique. These organizations are: Save the Children Federation/US, Operation Handicap Internationale, International Committee of the Red Cross, and Health Volunteers Overseas. Only the last one - HVO - does not have representation in the country at present.

For the fifth component of the project -- the hostel and transport component -- local private sector assistance and service organizations will be active in the implementation of project activities (possibly CARITAS, local church groups, service groups such as the Rotary, the Mozambican Association for the Disabled), supervised by Save the Children Federation.

USAID's implementation approach also includes the constitution of a Project Coordination Steering Committee and the hiring of a half-time USAID Project Coordinator.

The Ministry of Health will provide policy leadership and dialogue national counterparts, will serve as coordinator of project components, and will provide a certain amount of local costs.

Specific implementation steps delineated by output follow. In parentheses, a target date for activity completion is suggested.

Initial Activities:

- o USAID Project Coordinator recruited and hired (mid-October 89).
- o MOH Project Coordinator is designated (end October 89).
- o Project Coordination Steering Committee is constituted (early November 89).

B. Implementation of Outputs

Output #1--Needs Assessment and Strategic Plan (Dec 89 thru May 90)

1. USAID/MOH draw up proposal of component objectives and goals and financial targets against 6-month component timeline (by mid-Nov 89).
2. USAID/MOH draws up terms of reference, SOW and budget for needs assessment, in collaboration with MOH Planning Office and the NGOs working in the physical rehabilitation area (by mid-Dec 89).
3. MOH and Steering Committee approve #2 (mid-Dec 89).

4. MOH and USAID implement the assessment by bringing together existing (fragmented) data, consulting with local experts on methodology of assessment, and carrying out enumeration exercises at the provincial level as agreed (Jan - Mar 90). May involve contracting of technical assistance.
5. Results are reviewed by MOH and Project Coordination Steering Committee (Mar 90).
6. Data is used to formulate a summary of a longer-range rehabilitation strategic plan; this plan is disseminated to donors, assistance organizations, and appropriate entities within the government (Mar - May 90).

Output #2--Prosthetic/Orthotic Production & Fitting (Oct 89-Sept 92)

1. USAID executes program grant between USAID and ICRC for existing programs (\$250,00) and prosthetic manufacture (\$125,000) (end Oct 89).
2. OHI prepares a proposal of component goals and objectives and financial targets against 3-year project timeline (early Oct 89).
3. USAID executes a similar program grant for OHI (\$180,000) (end Oct 89).
4. ICRC and OHI establish their annual and quarterly production and treatment goals as well as annual work plans (early Nov 89).
5. Work plans are implemented (from Nov 89 forward).
6. OHI recruits and fields three rehabilitation technicians for 2-year assignments each (Nov/Dec 89).
7. USAID Project Coordinator and Project Coordination Steering Committee monitor production output against stated targets on a regular basis (ongoing).
8. ICRC and OHI submit semi-annual progress and financial reports to USAID and Project Coordination Steering Committee (twice a year).

Output #3--Quality of Treatment (Oct 89 - Sept 92)

1. HVO submits a proposal of component goals and objectives and financial targets against the 3-year project timeline (early Oct 89).
2. USAID executes a program grant between USAID and HVO (\$1,300,000) for activities related to improved quality of treatment: a) teaching and training of physicians, house staff, medical students, medical assistants; b) follow-up care for treated patients; c) repair facilities; d) coordination/communication between surgeons and prosthetic rehabilitation staff; and e) continuing medical education (seminars and conferences) (Oct 89).
3. HVO recruits and fields a suitably qualified long-term orthopaedic surgeon (Oct/Nov 89).
4. HVO establishes annual and quarterly work plans to be submitted to USAID (Nov 89).
5. Work plans are implemented (from Nov 89 forward).
6. USAID Project Coordinator and Project Coordination Steering Committee monitor project progress against stated benchmarks (ongoing).
7. HVO recruits and fields short-term volunteer specialists on an as-needed basis (periodic 90/91/92).
8. HVO submits semi-annual reports to USAID and the Project Coordination Committee (twice a year).

Output #4--Training (Oct 89 - Sept 92)

ICRC, OHI, HVO all draw up proposals delineating their training goals and objectives as well as financial targets against 3-year timeline (early Oct 89).

Course #1: ICRC Certificate-level Prosthetics/Orthotics Course

1. Program grant to ICRC is executed (\$75,000) (end Oct 89).
2. ICRC finalizes plans with MOH (early Nov 89).
3. Developed curriculum and budget are approved by MOE/MOH (Nov/Dec 89).
4. MOH recruits and selects trainees and faculty (Dec 89).

5. Classrooms and materials/equipment are prepared (Dec 89 - Jan 90).
6. Course underway by February 1990, to last for 3 years (Feb 90 forward).
7. Semi-annual progress reports are submitted by ICRC to USAID and Project Coordination Steering Committee (twice a year).

Course #2: OHI Physical Therapist Course

1. OHI prepares course proposal with targets and benchmarks, goals and objectives (Oct 89).
2. Program grant to OHI is executed (contribution of \$150,000) (End Oct 89).
3. OHI mobilizes remainder of funding necessary to begin training program (Nov/Dec 89).
4. Final approval of MOE/MOH curriculum and budget is secured (Dec 89).
5. Faculty and trainees are recruited/selected by MOH (Dec 89).
6. Teaching facilities and equipment are prepared (Dec 89 - Jan 90).
7. Course is underway by February 1990, to last for 3 years (Feb 90 forward).
8. Semi-annual progress reports are submitted by OHI to USAID and Project Coordination Steering Committee (twice a year).

Other Training: HVD Continuing Education for Orthopaedic Resident Surgeons/House Staff/Medical Students

1. Trainees are recruited and selected by MOH (Nov 89).
2. Training plan is developed (Nov 89).
3. Facilities and educational materials are prepared (Nov/Dec 89).
4. Course is underway by January 1990 (Jan 90 forward).
5. Semi-annual progress reports are submitted (twice a year).

Goal #5--Access to Care

1. SCF draws up proposal delineating component goals and objectives as well as financial targets against the 3-year timeline (early Oct 89).
2. Program grant is executed between USAID and SCF for proposed program (\$150,000) (end Oct 89).
3. SCF, in conjunction with MOH's DAS prepares and submits quarterly and annual work and financial plans covering, a) hostel sub-component and b) transport sub-component (early Nov 89).
4. Work plans are implemented: a) appropriate intermediary assistance and service organizations are identified as support agencies in managing hostel and transport subcomponents; and b) four hostel facilities are prepared, staffed, and provisioned to accept transient incoming patients; and c) transport needs are assessed. As appropriate, vehicles are arranged (leased) by intermediary organizations. For intra- and inter-province air transport of patients, airplane tickets are purchased. (from Nov 89 forward).
5. DAS and USAID Project Coordinator and the Project Coordination Committee monitor implementation and operations of the component against stated targets (ongoing).
6. SCF submits semi-annual progress reports to USAID and Project Coordination Steering Committee (twice a year).

Other

- o Mid-term Evaluation takes place at the end of Year 1 (Oct 90).
- o Final Evaluation takes place at project completion (Aug/Sept 92).

C. Reporting Requirements

1) Project Progress

The project will be monitored by the USAID Project Coordinator and the MOH Project Coordinator in conjunction with the Project Coordination Steering Committee which, as described in this report, will meet at least quarterly to review ongoing progress, future work plans, and to address implementation problems. (The composition of the Committee is described elsewhere.)

2) Progress Reports

ICRC, SCF, HVO, and OHI will submit semi-annual progress reports to the Steering Committee and to the USAID Project Coordinator. These reports are to be submitted at the end of each six month period (end March, end September). The project reports are expected to cover, among other things:

- o The major activities and general progress against the work plan;
- o The problem areas requiring Committee or other intervention or assistance;
- o Issues and problems that impinge on the future implementation and direction of the project;
- o Proposed solutions to the problem;
- o Action to be taken during the next trimester; and
- o Information on any matter which the Committee and/or USAID may reasonably request.

3) Financial Reports

ICRC, SCF, OHI, and HVO will submit semi-annual reports detailing expenditures for the technical assistance effort to the Project Steering Committee and to the Project Coordinator at USAID. Expenditures and disbursements will be shown in each report by line item for the previous six month period and cumulatively. Line items covered should be consistent with those shown in the project budget in each of the grant agreements. Any current and anticipated financial problems should be clearly noted and explained in the report. Financial problems requiring resolution by the Steering Committee and/or USAID will be highlighted. The required format for each financial report will be determined by the Controller.

FINANCIAL PLAN

A. Project Budget

AID's life-of-project (LOP) contribution to this project totals \$2,530,000. Of this amount, \$2,280,000 will be allocated for project activities. An additional \$60,000 will be needed to employ a half-time locally-hired USAID project coordinator for three years. Sixty thousand dollars will be needed to fund the two project evaluations. For project design, \$75,000 has already been allocated. The remaining \$55,000 will be held by USAID as a project contingency fund.

The following two Tables show a breakdown of the use of funds:

TABLE 3
USE OF FUNDS
PROSTHETICS ASSISTANCE PROJECT

Prosthetics/Orthotics Project Activities	\$2,280,000
Technical Assistance	250,000
-USAID Half-time Project Coordinator	60,000
-Project Evaluations (2 @ \$30,000 each - 1.5 p/m)	60,000
-Project Design	75,000
-Contingency Fund	55,000
TOTAL	<u>\$2,530,000</u>

TABLE 4
USE OF FUNDS BY PROJECT COMPONENT
PROSTHETICS ASSISTANCE PROJECT

1. Needs Assessment and Strategy Plan Development	\$ 50,000
2. Increasing Prosthetic Production	555,000
3. Improving Quality Orthopaedic Case Management	1,300,000
4. Enlarging Number of Trained Mozambicans	225,000
5. Improving Access to Care	150,000
6. Technical Assistance	250,000
TOTAL	<u>\$2,530,000</u>

The budget for institutions receiving sub-grants to implement these activities is as follows:

TABLE 5
PROJECT BUDGET BY COLLABORATING INSTITUTION

1.	International Committee of the Red Cross (ICRC)	\$ 450,000
	- Existing Programs	\$250,000
	- Prostheses Production	\$125,000
	- Prosthetics/Orthotics Certificate Training	\$ 75,000
2.	Health Volunteers Overseas (HVO)	\$1,300,000
	- 1 Long term Orthopaedic Surgeon for 3 years	
	- Short term volunteer orthopaedics experts (up to 22)	
3.	Operation Handicap Internationale (OHI)	\$ 330,000
	- 6 person/years prosthetics/ orthotics and rehabilitation specialists for field programs @ \$30,000/year	\$180,000
	- 3-year physical therapy training program	\$150,000
4.	Save the Children Federation/US (SCF)	\$ 150,000
	- Hostel and Transport Component	\$150,000
5.	USAID Technical Assistance for Project Coordinator, Needs Assessment, Strategic Planning, Project Coordination, Evaluations, Design	\$ 300,000
	TOTALS	\$2,530,000

B. Local Contributions

The Host Country contribution will be the equivalent of \$242,400 (in Mozambican meticalais: 183,250,000 MT), or 10.12 percent of the total cost of the project. Government of Mozambique contributions will be primarily in-kind, representing salaries of staff (hostel social workers, prosthetics workshop laborers etc.); per diem and airfare of physicians attending seminars in Maputo; similar maintenance, upkeep, and student stipends of orthotist/prosthetist and physical therapy course trainees; water and electricity of existing workshop facilities; water and electricity costs for existing or newly-acquired Transit Centers in four cities; and finally hospital or other office space and related support for the USAID-funded technical assistance experts.

Tables 6 and 7 depict an breakdown of estimated illustrative expenses related to GPRM obligations, the first by existing non-additive expenses, the second by additive, incremental adjustments.

TABLE 6
ILLUSTRATIVE GPRM CONTRIBUTIONS
NON-ADDITIVE EXPENSES (in dollars)

Item	Year 1	Year 2	Year 3
Salaries:			
Workshop laborers/admin (100 @ 30,000 MT/mo)	48,000	48,200	48,400
Hostel social workers (4 @ 34,000 MT/mo)	2,160	2,180	2,200
Hostel phys therapists (2 @ 34,000 MT/mo)	1,080	1,100	1,110
Workshop upkeep (H2O, elec) (6 x 12,000 MT/mo)	1,150	1,200	1,250
HCM office space/support HVO	-	-	-
SUBTOTALS	\$ 52,390	52,680	52,960
TOTAL:		\$158,030	
		or	
		119,470,000 Meticalais (\$1 = 756 MT, 8/89)	

TABLE 7
ILLUSTRATIVE GPRM CONTRIBUTIONS
ADDITIVE EXPENSES (in dollars)

Item	Year 1	Year 2	Year 3
Stipends			
Orth/Prosth trainees (30 studs @ 6,000 MT/mo)	2,880	3,000	3,200
Phys Therapy trainees (30 studs @ 6,000 MT/mo)	-	3,000	3,200
Per diem/etc. students (60 studs @ 3,000 MT/mo)	1,440	3,000	3,200
Per diem upcountry docs (20 x 6 wks/yr @ 12,000 MT/night)	12,600	13,000	13,500
Airfare upcountry docs/confern (60 RTs @ 88,000)	6,900	7,200	7,500
Transit Ctrs upkeep (H2O, elec) (4 @ 3,000 MT/mo)	200	250	300
SUBTOTALS	\$ 24,020	29,450	30,900
TOTAL:		\$84,370	
		or	
		63,784,000 Meticais (\$1 = 756 MT, 8/89)	

Cumulative Totals:	\$242,400	US dollars
	183,250,000 MT	Meticais
	10.12%	% of project total

C. Recurrent Costs

The project design team currently estimates that the donors are spending about \$2.0 million annually for the prosthetics program. The MOH cannot sustain a prosthetics program at this level without continued donor assistance. Also, given the MOH's other priority needs, it is debatable how much of their own resources they would elect to spend for this program. If the emergency needs exist at current levels three years from now, then donor financial assistance will be essential to a continued program.

On the other hand, if the emergency subsides, the overall resources needs will be significantly less. ICRC believes that it may take five years or more to phase out their program. When the emergency is over, they plan to ask of their national chapters to replace them.

PROJECT COORDINATION

A. National and Donor Involvement in Prosthetics

Several groups have already developed programs or projects involving either prosthetics, orthotics, or both. They are described below. (Note that a fuller institutional profile of the first -- ICRC -- is provided in Annex 7.)

1. International Committee of the Red Cross (ICRC)

The ICRC has been active since the early 1980s. It maintains technical and administrative support and training programs for the Central Orthopaedic Workshop in Maputo, and for the regional workshops in Beira, Quelimane, and Nampula. Its aims are to enable the Mozambican authorities to eventually take charge of these Centers. The ICRC workshops produce prostheses and other assistive devices; they have the most advanced technology and are developing a system for the mass production of the component parts for artificial limbs, braces, and other mobility aids.

2. Operation Handicap International (OHI)

OHI has been active in Mozambique since March 1986. Their project is entitled "Establishing of Apparatus and Functional Re-Training Services for Motor-Impaired in the Provinces of Inhambane, Nampula, and Tete." To date, their activities have included the training of technicians in kinesitherapy and the manufacture of locally (technologically) appropriate orthopaedic appliances primarily in Inhambane province; a new OHI program is starting in Nampula but so far only fits orthoses and makes wheelchairs and shoes.

Funding is provided for the most part by the EEC. Beneficiaries include both civilian war wounded, and leprosy and polio victims. Special attention is given to children, and to mothers as heads of family in their rehabilitation efforts. OHI works with and through the Ministry of Health and certain mass organizations. The OHI staff includes seven expatriates and 33 local assistants (including 11 kinesiotherapists).

OHI is aiming to expand to two more provinces, consolidate and expand their existing infrastructure, and perhaps assist with several transit hostels to lodge incoming patients.

3. Ministry of Health

The Ministry of Health provides policy leadership for donor activities. The MOH's Directorate for Health Services provides the plant facilities for the workshops and pays the salaries of the Mozambican technicians employed in the workshops. The Department of Social Action (DAS) is responsible for providing transportation and temporary lodging for incoming prosthetics/orthotics patients who will be fitted with artificial limbs and braces, among other responsibilities. The Ministry of course has oversight over the national and provincial hospitals within which many project interventions are already taking place.

4. CARE

CARE/France recently prepared a pilot project proposal to assist the country's disabled; however, anticipated funding did not materialize and the plans have been shelved. Specifically, CARE envisioned a two-pronged effort for Nampula province: 1) vocational training for social rehabilitation (particularly sewing and carpentry), and 2) credit/loans for small income-generating projects to the newly-rehabilitated (to buy sewing machines, tools). Emphasis was not on emergency treatment (ICRC would provide that) but on the social and vocational aspects of rehabilitating victims.

5. Save the Children Federation/US (SCF/US)

While not yet directly involved in prosthetics or orthotics, SCF/US does have a working relationship established with the Department of Social Action in the Ministry of Health and provided support to the Lhanguene Orphanage outside of Maputo, a shelter for traumatized children who had escaped war-torn areas or had been abandoned or lost in the strife. A SCF-sponsored psychologist specializing in traumatized children treated many of the children and activities now center around a family tracing project whereby the children can be reunited with their families and re-education of the children. Training of para-social workers is also ongoing.

6. Norwegian Aid to the Disabled (NAD)

NAD runs the 24 of July Center in Maputo, a project that for the moment is reportedly stalled. Norwegian funding is plentiful, but the project has yet to take off. They are attempting to fabricate wheelchairs, orthopaedic shoes, and other orthotic appliances in support of the war-wounded and diseased. A financial analysis is currently being carried out of the center.

7. Mozambican Association for the Disabled (MAD)

This support and advocacy group is just now being organized. It was initiated by a Professor of Sociology at the University, himself handicapped. Its constitution and by-laws are now being framed; it is anticipated that it will be accorded non-governmental status (as opposed to a strictly "mass" organization) as early as October 1989. MAD has already begun initial assessment of potential members and is interested in lobbying and social welfare efforts.

B. Coordination

Special care will be given to the coordination of the inputs of each of the Prosthetics Assistance Project's participants. Coordination and collaboration between all parties will be facilitated by 1) a MOH Project Coordinator; 2) a USAID-appointed Project Monitor/Coordinator; and 3) a Project Coordination Steering Committee. Responsibilities of these are described below.

MOH Project Coordinator

The MOH Project Coordinator will be responsible for coordinating all project activities and for providing active leadership in policy conversations and technical issues. This person shall be designated by the Director of National Health Services, but will probably be a staff member of either the Department of Social Action or the Department of Physical Medicine and Rehabilitation.

USAID Project Monitor/Coordinator

USAID/Mozambique will contract for a half-time Project Coordinator for this project. This person will be expected to provide the equivalent of approximately three days per week to project monitoring and coordination duties. A short job description is provided in Annex 5. Qualifications should include: project management experience; communicative competence in Portuguese; ability to network and liaise easily with several nationalities of actors; good writing skills; detail-oriented; ability to travel upcountry (Vilankulo, Inhambane, Nampula,⁶ Quelimane, and Beira) on a quarterly basis.

Responsibilities of the USAID Project Coordinator will be to:

- o Sit on the Project Coordination Steering Committee (below) and contribute input to project activities;
- o Provide managerial and administrative oversight to all four project components, backstopping and troubleshooting difficulties as needed;
- o Centralize all project-related reports;
- o Undertake managerial visits to the various component activities (training sessions, workshops, upcountry staff, hostels) to provide backstopping as necessary;
- o Assist with limited commodity procurement, in conjunction with other project implementors;
- o Assist with identifying needs and drafting of terms of reference for short-term technical assistance (occasional medical volunteers to be provided by HVO);
- o Prepare disbursement vouchers; and
- o Backstop project evaluation efforts.

Project Coordination Steering Committee

This group will be comprised of:

- o Ministry of Health representative;
- o Maputo Central Hospital representatives, and preferably the Acting Director of the Hospital Dr. Vieira, or the Director, Dr. Joao Alexandre Santos;
- o USAID Project Coordinator;
- o OHI representative, preferably field technician;
- o ICRC representative, preferably Maputo workshop staff;

- o SCF representative (coordinator);
- o HVO Long-Term Orthopaedic Surgeon; and
- o Member of the Mozambican Association for the Disabled.

The purpose of this group will be to coordinate and collaborate in the implementation of project activities. It will review ongoing progress, future work plans, and it will address implementation problems. The Committee should meet on a quarterly basis at a minimum, or as otherwise determined by the members of the Committee itself.

MONITORING AND EVALUATION PLAN

A. Monitoring Plan

The grantees (ICRC, OHI, HVO, SCF) will prepare a project work plan for USAID approval which will then serve as the basis for project monitoring and evaluation. They will also prepare trimesterly progress and financial reports which will be used to monitor implementation of the overall work plan.

Project monitoring will be carried out by the Project Coordination Steering Committee, which as described, will meet on at least a quarterly basis. Project progress, future work plans, and implementation difficulties will be monitored in this way. The USAID-appointed Project Monitor/Coordinator will oversee the implementation of project activities and will also monitor overall project performance. The Project Coordinator will report to mission management on all project matters. She/he will also undertake regular site visits for the purposes of monitoring project activities (Maputo Central Hospital, ICRC workshops, OHI project sites, Transit Centers, etc.)

B. Evaluation Plan

This is a three-year project. It will undergo both a mid-term (formative) and final (summative) evaluation.

The 3-week mid-term evaluation should take place 12 months after project initiation (roughly, last quarter of 1990); it will assess the initial implementation of project activities and will suggest any necessary mid-course corrections. An external team composed of a program development specialist and a physical rehabilitation expert, supplemented by the services of a USAID/Mozambique and a GPRM/MOH representative, should carry out this evaluation. (Estimated cost: \$30,000.)

The final evaluation (final quarter of 1992) will document the impact of project activities on the achievement of goals and purpose, and will provide recommendations for activities to be incorporated into any proposed follow-on project. Once again, an external team of experts (program specialist, physical rehabilitation expert, USAID and GPRM representatives) should be engaged for 3 weeks near project completion. (Estimated cost: \$30,000.)

In both instances, the teams will examine implementation matters such as the timeliness of delivery of project commodities, the quality of the technical assistance and training courses, the progress of the workshop and transit centers rehabilitation and refurbishment efforts, the progress made in improving quality care of patients, and so forth. In addition to repeating assessments and using similar information sources as for the interim evaluation, the final evaluation will document project impact by measuring prosthetics/orthotics production output, numbers of trained course graduates, financial performance, sustainability issues, and so forth.

Both reports should be organized into the team's findings, conclusions, and recommendations.

As it is anticipated that the national needs assessment and long-range strategic plan will have been completed by the end of Year 1 (and thus in time for the first interim evaluation), the newly researched data as well as the new benchmarks and targets in the strategic plan will be invaluable toward evaluating the viability of project goals and objectives; corrections of course may well be warranted.

Both evaluations will also focus on the performance of the grantees in terms of achieving stated objectives and producing intended outputs. The Project Coordination Steering Committee and USAID/Mozambique, the grantees themselves, and the GPRM will provide all necessary documentation and data required by the evaluation teams.

The findings, conclusions, and recommendations of both the mid-term and the final evaluations will be incorporated into AID's evaluation system in order to share relevant lessons learned. It will be particularly valuable to share final reports with the ongoing sister project being implemented concurrently in Uganda.

SUMMARY OF PROJECT ANALYSES

The full technical and institutional/administrative analysis is contained in the AID consultant assessment report in Annex 1. The discussion of technical, institutional, and administrative issues in this section of the Project Paper synthesizes the analysis contained in the March, 1989 assessment report and presents additional information from later technical discussions and negotiations with the MOH and with NGOs.

The following highlights the project's most important technical, institutional, and management issues, and describes how they are being addressed by the project.

A. Technical Issues

Several technical issues related to the Prosthetics Assistance Project merit special attention:

- o The relative role of prosthetics versus orthotics;
- o Emergency needs versus institutional development;
- o Standards of orthopaedic surgery;
- o Inclusion of foreign physicians;
- o The effectiveness of American orthopaedic personnel;
- o The need for a needs assessment of the country's disabled;
- o Prosthetics maintenance and follow-up care;
- o Equipment needs; and
- o Planning the hostel and transport components.

1). Relative Role of Prosthetics versus Orthotics

The USAID assessment team determined in early 1989 that the estimated need for orthotic appliances exceeded that for prostheses in Mozambique by a factor of ten to one. Nevertheless, the current production of orthotic devices is very limited.

At Maputo Central Hospital, the ICRC workshop produces only prostheses for amputees. A minimal number of orthotic devices are produced by a small group of technicians working within the same Maputo workshop, but under the direction of NAD (Norwegian Aid to the Disabled). There is little interaction or cooperation between the ICRC and NAD.

Since ICRC will be instituting an advanced 3-year course for orthotic/prosthetic technicians leading to I.S.P.O. (International Society of Prosthetists/Orthotists), accreditation will be necessary to include orthotic design and manufacture in the teaching program. Therefore, a capacity to produce orthoses will be developed within this framework. At this time, it is uncertain whether the ICRC course will be held in Beira (as desired by ICRC) or in Maputo. Regardless of the location, ICRC should be encouraged to expand all their workshops to include orthotic production as soon as possible.

OHI, on the other hand, with its various workshops around the country, produces only an estimated 20 percent of the prostheses in Mozambique, but almost all of the orthoses. They have developed unique and cost-effective orthotic devices which have enhanced their volume of production and speed of manufacture.

The MOH, together with the various NGO donors, needs to coordinate their efforts to more effectively provide care to the crippled victims of civil strife by providing an adequate supply of orthoses as well as prostheses in the various workshops.

There is a need for a coordinating committee for the mobility disabled under the auspices of the MOH together with the representatives of the various donor agencies and the long-term orthopaedic surgeon to help resolve this problem.

2). Emergency Needs versus Institutional Development?

The question of the orthopaedic/prosthetic project's role in meeting the emergency needs of the crippled people of Mozambique as opposed to the project's effect upon the institutional development of the Mozambican orthopaedic surgery capability has to be considered. The thrust of the 1989 Foreign Assistance Appropriations Act was directed toward meeting the emergency needs of the large numbers of victims of civil strife suffering from amputation. The USAID assessment team broadened this to include other crippled or disabled victims requiring orthopaedic treatment.

Because there are no orthopaedic surgeons in Mozambique to adequately treat these victims, the recommendation was made to bring American orthopaedic surgeons to the country on both long-term and short-term assignments, to treat these victims and to teach orthopaedic surgery techniques to their Mozambican counterparts.

The teaching component was thought necessary to ensure sustainability of the Mozambican orthopaedic capability after the USAID project was concluded. It is considered a necessary complement to the improvement in quantity and quality of orthopaedic care in Mozambique and for the emergency and the future. The institutional development of an orthopaedic surgery capability in Mozambique is considered an important and necessary end-product of the overall project to assist the crippled and disabled people of Mozambique.

3). Standards of Orthopaedic Surgery

Another aspect of the teaching component of the project addresses the need to raise the standards of orthopaedic and trauma amputation surgery in Mozambique. Most of this surgery is performed by general physicians and medical technician personnel in the provinces who have had little training and experience in orthopaedic and trauma surgery. The need to upgrade their knowledge and skills in such surgery to improve the quality of care and the effectiveness of treatment of the victims of the emergency is readily apparent. The design of the project meets this need by developing a three-year continuing medical education (CME) program aimed at these medical personnel.

The program is to hold two-week didactic seminars on orthopaedic surgery in Maputo three times a year for the provincial and regional doctors and medical technicians throughout the country. It is projected that 20 Mozambican physicians/technicians would participate in each seminar for a total of 60 annually. The seminar participants would come to Maputo for the 2-week seminars by arrangement with the MOH. At the end of the three-year USAID project, 180 Mozambican physicians and technicians would have received significant enhancement of their knowledge and skills in orthopaedic surgery. This component of the project would vastly improve the quality of care for the crippled victims of Mozambique's insurgency.

4). Inclusion of Foreign Physicians?

The role of foreign and expatriate physicians and surgeons in Mozambique insofar as their proximity to the USAID Prosthetics Assistance Project is involved has been considered. Foreign doctors outnumber their Mozambican counterparts by about three to one. The Faculty of Medicine of the Eduardo Mondlane University graduates 20 new physicians annually, but far more are needed now and in the future to meet the medical needs of the country.

Approximately 20 countries, including the Eastern bloc of countries, have sent physicians to Mozambique for varying periods of time. Most tours for these foreign physicians are short term (three months or less), but others are longer -- up to two years.

None of the foreign physicians are involved in teaching or training Mozambican counterparts. The level of medical expertise and skills of these expatriate physicians is at the general practitioner to the low-level specialist practitioner. All are concerned with direct patient care and few have Mozambican counterparts working with them. Few speak or understand more than rudimentary English. Since these foreign physicians will not be participating directly in the orthopaedic teaching component of the project, their contact with the USAID project will be minimal and indirect. Essentially, the foreign doctor exposure and involvement with the teaching component will be insignificant.

5). Effectiveness of American Orthopaedic Personnel?

The roles of the long term and short term American orthopaedic surgeons have to be considered in relationship to current medical and physical conditions in Mozambique. Can they have a significant impact under the constraints imposed by the emergency conditions?

The LT and ST staff will be working primarily in Maputo, which at present is relatively secure and free from war dangers. Occasionally, the long term adviser might travel by air to one or more provincial capital cities to consult about complex orthopaedic problem cases and to hold teaching seminars.

Portuguese is the official language of Mozambique; however, the Director of the Maputo Central Hospital and the Dean of the Faculty of Medicine have confirmed to the team that English is understood by most physicians and medical students, and that English medical texts and journals are widely used. ("Besides, English will be easy! Especially when we are used to Chinese...") When necessary, translators would be available, according to these officials.

The physical facilities for orthopaedic surgery are divided between the trauma/emergency room center and the elective or "cold" surgery performed at the main hospital operating rooms. The orthopaedic operation room of the central building of the hospital is one of five operating rooms. The others are used for general and specialist surgery. The orthopaedic O.R. is clean but only marginal in orthopaedic equipment. Additional orthopaedic instruments and supplies are needed to improve the facility.

The operating rooms in the emergency room center are adequately equipped for their purpose.

6). Maintenance and Follow-up Care

The ICRC prosthetics workshop in Maputo estimates that 50 percent of their new prostheses will go for replacement purposes; however, upcountry workshops such as the OHI/Nampula center fit only 15 percent replacement prostheses. This implied that amputees have better access to workshops in the capital than they do in the provinces. Rural areas would show an even lower figure.

Amputees require periodic maintenance and follow-up care for their prostheses to remain ambulatory and functional.

Adult amputees require refitting, repair, and/or replacement of their limbs every three to four years because of stump changes and physical deterioration of the artificial limbs. Children up to age 16, on the other hand, require refitting and replacement every one to two years because of their rapid growth.

A successful prosthetic treatment effort must encompass periodic and scheduled repair and replacement clinics for amputees. Patients can be educated to provide routine maintenance but should have ready access to spare parts and to repair services.

The project, through its various training components, should emphasize proper client education and communication.

7). Equipment Needed for Orthopaedic Surgery

a). The main operating rooms at the Maputo Central Hospital are marginally equipped for orthopaedic surgery. Most of the equipment is old and needs repair and replacement. Items needed are: complete large bone sets; complete small bone sets; hand/plastic bone sets; manual bone drills; nitrogen-powered bone drills, saws, and reamers; hand saws; bone retractors and clamps; large and small osteotomes; large and small bone chisels; mallets and compression plates, internal fixation sets (large and small, Zimmer Biomet type), and screws; intramedullary rod sets, drivers, extractors (Kuntschner and Rush types); assorted bone cutters; regular and vise grip pliers; Mayo, Hagar, tendon, bandage and plaster scissors; external fixation sets of all sizes; bone mill; Bier block tourniquets; Esmarch bandages; surgical gloves; Hibclens surgical soap; and assorted miscellaneous items.

b). The orthopaedic hospital unit serves both orthopaedic outpatients and inpatients. The outpatient clinic is on the ground floor and consists of several examination and treatment rooms off a long waiting room corridor. There is no x-ray unit in the entire building for examination and treatment of these patients.

A mobile or heavy-duty portable X-ray machine and developing unit is sorely needed for the orthopaedic unit.

8). Disabled Needs Assessment

The question of developing and initiating a countrywide assessment of the numbers of amputees, crippled, and mobility-disabled Mozambicans should fall within the purview of the Planning and Statistical Division of the Ministry of Health. However, this division is struggling to assess and collect the vital health statistics and is unlikely to be capable of assuming additional responsibilities.

The Division of Social Welfare (DAS) is the MOH department most able to conduct such a countrywide assessment. Under the auspices of the DAS, the Association of Disabled Mozambicans -- a new mass support organization for the crippled with non-governmental status -- could make a significant and useful contribution to such a national assessment. It is essential to have accurate estimates of the numbers of the country's amputees and of the mobility-impaired for overall planning purposes and for effective evaluation of the progress of the USAID Prosthetics Assistance Project.

9). Planning the Hostel and Transport Component

The project will provide \$150,000 to fund these two components, through a sub-grant to Save the Children Federation/US. As regards administration of the component, the team urges SCF to work through local institutions such as CARITAS, other religious organizations, service groups such as the Rotary, the Mozambican Association for the Disabled, and other private sector groups to assist with local implementation.

The design team favors the following approach to implementation of this program component:

o Hostels: An initial needs assessment in conjunction with provincial health authorities is the first step. Then, existing houses should be secured and refurbished, if at all possible. However, given the country's extreme housing constraints, OHI experience, and MOH wishes, construction of rudimentary mud and wattle structures may be necessary. Prefab housing units now sold by a furniture company in Manica Province (as on display at FACIM 89) are another option. Centers in Nampula, Quelimane, Beira, and Maputo should be set up as close to existing ICRC prosthetic workshops as possible. Priority should be given to Nampula, according to MOH wishes. (A rustic Transit Center built of local materials in Inhambane is already being set up by OHI, and might serve as a model for SCF/MOH centers.)

Approximately \$45,000 should be made available for the Maputo Center, and \$25,000 for each of the other three, totalling \$120,000 over the three-year project. These funds should be used to pay for work on (or construction of) the houses, beds and covers for 15 temporary patients (20 in Maputo), bathrooms and showers, kitchen work and provisioning, and food. Salaries of a social worker and 1-2 househelp, including a cook, will be borne by the MOH.

Lodging conditions should remain spartan and simple if only to discourage long-term residency by patients. The MOH is insistent that patients should return to their homes within 2 - 3 months of arrival, after completion of treatment.

o Transport: The team recommends that at a later date approximately \$30,000 be expended as a contribution toward local transport costs (renting/leasing of buses/trucks for in-town shuttling of patients between airport, hostel, and hospital; and airfare for inter-province transport). The team does not favor the purchase of small vans or pick-ups for this purpose; the funds would be better used for local solutions. Note that this aspect is considered lower priority by the MOH; it will only be required when the hostels are fully functional.

B. Institutional and Administrative Issues

1). MOH Policy Leadership

Because the Ministry of Health is badly overextended, they have not to date been able to exercise an appropriate policy leadership role in prosthetics/orthotics and rehabilitation. They are only now beginning to collect the information upon which sound planning and policy decisions can be based. In the interim, donors have been developing plans and setting targets to meet what they believe are appropriate program goals. The Ministry of Health can assume this policy and program leadership in two ways: with access to better data, and by assignment of a qualified Mozambican to coordinate the program and the donor inputs. The USAID project will assist the MOH to collect planning data. In the program negotiations, MOH should be requested to designate a suitably qualified rehabilitation program leader.

2). Treatment of Military Casualties

The MOH's hospitals and physical rehabilitation centers where casualties are treated serve both civilian and military patients. The ICRC and OHI projects treat both categories of wounded and each organization, from a policy perspective, is unwilling to limit their programs to civilians. We informally estimate that the military comprise no more than 30 percent of the emergency casualties that are now treated. The GPRM has no dedicated health facilities for the military and lacks the capacity to create one. AID/W has agreed (State 267841) that there is no practical way to implement this project as a purely civilian program. However, USAID has been enjoined to stress to the MOH both orally and in our formal agreements that treatment and rehabilitation of civilian casualties is the USAID priority and the focus of project activities. To the extent practicable, staff working on this project should give assistance to civilian casualties top priority.

3). Program Sustainability

Given Mozambique's precarious and donor-dependent economic situation, it is unrealistic to expect when this project is completed that the present emergency treatment and rehabilitation for war casualties can be financially sustained with country resources. If an emergency need still exists three years from now, donor financial assistance will be required to meet it.

The prospects for technical and institutional sustainability are much better. Within six months after completion, Mozambique will have at least four well-trained orthopaedic surgeons, 20 prosthetists/orthotists, and 20 additional physical therapists. The continuing medical education program will have reached all general service and trauma physicians, and medical assistants in the field with training in better orthopaedic surgery practices.

The institutional base for training for physical therapists and prosthetists/orthotists (approved curricula, faculty, physical facilities), will be established.

To the extent feasible, the USAID Prosthetics Assistance Project concentrates on building toward technical and institutional sustainability. However, we cannot realistically foresee the availability of Mozambican financial resources for funding an emergency activity of this size three years from now.

4). ICRC Block Grant

ICRC does not normally accept earmarked funds. In this case, they have agreed to earmark USAID's contribution for the prosthetics program in Mozambique.

AID consultants have discussed ICRC's prosthetic program content and goals for the next three years, and are satisfied that a broadly based program contribution will be effectively used. A more detailed explanation of the ICRC program objectives is found in Annex 7.

Because of ICRC's donor leadership in prosthetics in Mozambique and outstanding program performance here with their existing workshops, USAID has agreed to a general program grant to ICRC for the Mozambique prosthetics program.

5). OHI and HVO -- "Unregistered" NGOs

USAID is proposing to grant \$330,000 to OHI to implement field-based rehabilitation programs in four provinces and to staff a teaching program for physical therapists; and \$1,300,000 to HVO to provide long-term and short-term orthopaedic technical assistance. OHI is a French NGO with activities in 19 countries. The MOH strongly supports this initiative. AID's technical experts have examined and highly commended OHI's technical operations. HVO -- a successor to CARE MEDICO -- is established with programs in ten countries, including Uganda where they are implementing a prosthetics/orthotics program under an AID grant.

USAID will encourage OHI and HVO to start the FVA registration process now, which they have agreed to do. Since formal AID registration is unlikely to be completed at the time USAID/Mozambique is ready to execute sub-grants, USAID plans to exercise the flexibility in the legislation and execute sub-grants with these two institutions without having the formal registration in hand.

6). OHI -- Physical Therapy Training

USAID plans to fund a component (about 50 percent) of the Mozambique physical therapy training program beginning in 1990 through a grant to OHI. OHI has agreed to raise the remaining funds. Before releasing funds to OHI for this program component, USAID will have in hand adequate evidence that the remaining funds are available.

7). Program Extension Beyond Three Years

Two components of the project (prosthetist/orthotist and physical therapy training courses) will probably not be completed until mid-1993, or six months beyond the anticipated project completion date. If this new timing is correct, USAID will extend the project completion date by six months and use contingency funds to monitor activities during this period.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>PROGRAM SECTOR GOAL</u></p> <p>o establish capacity to treat and rehabilitate all emergency-related civilian disabled and o assist them to lead normal lives</p>	<p><u>MEASURES OF GOAL ACHIEVEMENT</u></p> <ul style="list-style-type: none"> - 100% treatment and rehabilitation 	<p><u>MEANS OF VERIFICATION</u></p> <ul style="list-style-type: none"> - National and regional statistics on emergency-related disabled from MOH and donors 	<p><u>ASSUMPTIONS FOR GOAL</u></p> <ul style="list-style-type: none"> - To increase in casualty rate - No worsening of security - Donor support for prosthetics and rehabilitation will continue
<p><u>PROJECT PURPOSE</u></p> <p>o increase the capacity of governmental and non-governmental entities to address the unmet and growing needs of civilian disabled by longstanding civil conflicts or suffering from other crippling mobility disorders</p>	<p><u>CONDITIONS INDICATING ACHIEVEMENT</u></p> <ul style="list-style-type: none"> - GPRM/Donor agreed rehabilitation plan completed and in use - Increased numbers of prostheses produced and fitted and in use - Improved quality of orthopaedic case - Increased numbers (25% per year) of civilian disabled treated and rehabilitated - More qualified Mozambican rehabilitation staff on the job in Maputo and provinces - More rural patients treated and rehabilitated 	<p><u>MEANS OF VERIFICATION</u></p> <ul style="list-style-type: none"> - Examination plan and minutes of donor meetings - NGO and MOH records; follow-up surveys - Expert review of practices - MOH NGO clinic records - Hostel records - MOH records; field visits 	<p><u>ASSUMPTIONS FOR PURPOSE</u></p> <ul style="list-style-type: none"> - MOH can retain trained staff - Production of prostheses not impaired by lack of access to raw materials due to security - Access to casualties not reduced by security
<p><u>OUTPUTS</u></p> <p>Rehabilitation plan with: 1) Agreed estimate of need, and 2) Realistic strategy Cadre of trained Moz treatment and rehabilitation staff on job 25% annual increase in number of prostheses produced and fitted Quality of orthopaedic improved in measurable ways National network of hostels and transport for amputees awaiting treatment in operation</p>	<p><u>MAGNITUDE OF OUTPUTS</u></p> <ul style="list-style-type: none"> - 1 strategic plan - 3 orthopaedic surgeons qualified - 20 prosthetists/Orthotists - 25 Physical Therapists - Complete training and on job in Maputo and field - 675 prostheses fitted in 1988; 1300 by 1992 - 75% amputations follow technical consultation between surgeons and rehabilitation staff - Patient follow-up program reaches 50% amputees 1990 and 1991 - Repair facilities serve 500 amputees by 1992 - 100% of medical staff in field get continuing education in orthopaedics - 80 bed hostels capacity; 80% in use 	<p><u>MEANS OF VERIFICATION</u></p> <ul style="list-style-type: none"> - Review of documents - Field examination - Expert evaluation of clinical practices 	<p><u>ASSUMPTIONS IN ACHIEVING OUTPUTS</u></p> <ul style="list-style-type: none"> - MOH can hire and retain staff in current economic climate - Promised donor funds to supplement AID contributions will be available - Security does not preclude implementation of continuing education program in provinces - Established hostels are secure from attack
<p><u>INPUTS</u></p> <p>HVO program grant (1,300) ICRC program grant (450) OHI program grant (330) SCF program grant (150) USAID technical assistance (50) USAID project coordinator Program evaluations (60)</p>	<p><u>FUNDING TARGETS</u></p> <ul style="list-style-type: none"> - 1 LT 36 PM US Orthopaedic Surgeon - 22 volunteer short-term experts - \$250,000 - ongoing programs - \$125,000 - prosthetics - \$ 75,000 - training - \$180,000 - field staff - Inhambane, Nampula, Vilanculos - \$150,000 - Physical Therapy T.A. - \$150,000 - sub-grants to Moz NGOs rehabilitation and manage hostels - \$50,000 experts local costs for assessment and strategy - 1 half time expat locally-hired - 1 mid term - 1 end of project 	<p><u>MEANS OF VERIFICATION</u></p> <ul style="list-style-type: none"> - Progress reports - Evaluation reports - On-site visits 	<p><u>ASSUMPTIONS FOR INPUTS</u></p> <ul style="list-style-type: none"> - Qualified expats can be hired and housed

ANNEX 1

TECHNICAL AND INSTITUTIONAL ANALYSES
(from June 1989 A.I.D.'s Assessment Team)

PLANNING FOR IMPROVED
ORTHOPAEDIC AND PROSTHETIC-ORTHOTIC
PROGRAMS
IN
MOZAMBIQUE

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This planning conducted under the Resources Support Services Agreement (RSSA), between the S&T/Office of Health and the PHS/Office of International Health. Report prepared by Devres, Inc. and submitted to the Office of International Health, under Contract No. 282-88-0009.

EXECUTIVE SUMMARY

The agency for International Development (A.I.D.) assembled a three-person team of rehabilitation experts¹ to assess Prosthetic-Orthotic (P&O) needs and resources in Uganda and Mozambique. A.I.D. wished to determine whether these countries might qualify for assistance, and, if so in what ways, under the 1989 foreign Assistance Appropriation Act which appropriated up to \$5,000,000 for prostheses for civilians who have lost limbs or otherwise been maimed by civil strife and warfare in their homelands.

The Assessment Team visited Uganda the week of February 27, 1989 and Mozambique the following week. Among other things, the Team evaluated the appropriateness and quality of orthopedic surgery and medical care in relation to the fabrication and fitting of prostheses and orthoses; the State of the Art in prosthetics and orthotics; the numbers and characteristics of the disabled people who require assistive devices; the present and prospective capacity of existing programs to meet their needs; and the involvement and commitment of the governments of Uganda and Mozambique to the ongoing prosthetic-orthotic programs and their plans for the future.

Three things became immediately apparent. First, Uganda and Mozambique have many thousands of men, women and children disabled by the long-standing civil conflicts who require prostheses, braces and other assistive devices and services, and whose needs are unmet. Second, there is a dearth of qualified orthopedic surgeons in Uganda, and none in Mozambique, the result being that medical and surgical treatment is poor, makeshift and inadequate for the tens of thousands of children and adults suffering from crippling mobility disorders. Third, the prolonged civil disturbances in both countries have disrupted the immunization programs so that, for every civilian amputee whose disability resulted directly from war wounds, there are ten or more children and adults crippled from the residuals of polio, measles, tuberculosis and other preventable diseases. These people were deemed to be just as much victims of the civil strife as those who lost limbs by exploding land mines and bullet wounds. Accordingly, they were included in the Team's assessment of needs.

As a result of the assessment study, the following areas of activity in Uganda and Mozambique were identified as falling within A.I.D.'s Funding Guidelines. All will require further detailed planning with the involved agencies and concerted effort for successful implementation.

- Initiating a program for the assignment, on a long-term basis, of salaried American orthopedic surgeons to Uganda and Mozambique to teach and train medical students, physicians

¹ Rodney L. Belcher, M.D., Orthopedic Surgeon
Joseph M. LaRocca, Rehabilitation Consultant
Michael J. Quigley, Certified Prosthetist-Orthotist

II. MOZAMBIQUE

A. Background

Mozambique, while having a smaller population than Uganda, (15 vs. 16.4 million) is much larger country. It is almost twice the size of California, with a coastline on the Indian Ocean of over 1,000 miles.

As in Uganda, a large proportion of the population is under five years of age which, with the interruption of immunization programs due to the civil strife, is of special significance in relation to disability.

At present, the lives of millions of Mozambicans--men, women, children and infants are in jeopardy as a result of the savage, brutal, inhumane and recurrent attacks, throughout Mozambique by the RENAMO¹ guerillas.

One million Mozambicans have sought safety in bordering and neighboring countries. Another two million have been displaced from their farms and homes within Mozambique and are living in army-protected villages, situated outside the provincial capitals. Another two million have been seriously affected by the disruption of essential public services, especially health services.

The Ministry of Health reports that the deliberate destruction of health facilities has caused immeasurable suffering to hundreds of thousands of people. "The targeting of health facilities by the bandits has resulted in destruction of many peripheral health units. Thus, by the end of 1986, 213 peripheral health posts and health centers had been destroyed and another 382 had been looted, and/or forced to close. The provinces of Tete and Zambezia bordering Malawi lost 48% and 59% of the primary health care network respectively."²

The report continues: "Vaccination against the common, preventable disease of childhood has been disrupted, and as a result, children are unprotected against tetanus, tuberculosis, measles, diphtheria, whooping cough and polio."

¹ Renamo: The Khmer Rouge of Africa: Mozambique, Its Killing Field. Bill Frelick, U.S. Committee for Refugees. Testimony Before the House Subcommittee on Foreign Operations. February 8, 1987.

² The Impact on Health in Mozambique of South African Destabilization. Second Edition, December 1987. Ministry of Health People's Republic of Mozambique.

Further, the report states: "The war has also directly killed and maimed thousands of people. Accurate figures are difficult to calculate, but it is hard to find a Mozambican family which has not had a relative killed or injured in the war."

"The large numbers of wounded have put a big strain on the capacity of the provincial and district hospitals. Large numbers will pour in after an attack on a bus or a village, needing the mobilization of all staff. Patients with serious wounds take a long time to recover, and thus take up precious hospital beds. Over half the hospital beds in Tete are now occupied by longstay patients, causing serious overcrowding. Once they are cured it is difficult to find transport home. Quelimane hospital had to stop sending patients home by road after incidents which they had to return to the hospital after being wounded in attacks. The corridors of the hospital are now full of patients awaiting air transport.

"The number of wounded have overextended the capacity of the rehabilitation services. Until the end of 1986, the only artificial limb service in the country operated from Maputo, which made it difficult to serve the whole country. The number of patients fitted with artificial limbs by this service has risen from 53 in 1981 to 319 in 1986. Most of the patients are civilian war victims. In 1987, centres in Beira and Quelimane became operational, and in the first semester of 1987, a total of 247 patients were attended to in the three centres."

(While the number of civilians provided with artificial limbs has increased significantly since 1986, as discussed later in this report, that number is still woefully short of the number of disabled people in need of such appliances.)

B. Organizations Serving Amputees and Other Disabled Civilians

In Mozambique, there are three organizations principally involved in the provision of artificial limbs, braces and other assistive devices to civilians injured and maimed as a result of the brutal attacks by the RENAMO guerilla forces. They are:

International Committee of Red Cross (ICRC)
Handicap International (HI)
Ministry of Health (MOH)

The International Committee of the Red Cross maintains technical and administrative support and training programs for the Central Orthopedic Workshop in Maputo, the capital of Mozambique, and for the regional workshops in Beira (Mozambique's second largest city), Quelimane and Nampula, with a view of enabling the Mozambican authorities to take charge of these Centers. A fifth workshop is planned for the Tete Province in the northwestern part of the country where rebel action is intense.

and surgeons in orthopedic surgery to enable them to treat amputees and crippled patients properly;

- Initiating a program for the assignment to Uganda and Mozambique on a short-term basis of volunteer American orthopedic surgeons, prosthetist-orthotists, and physical therapists. These volunteer professionals would assist in the training programs in their respective disciplines in the capital cities (Kampala and Maputo) and in the outlying regions and provinces;
- Equipping, renovating and otherwise refurbishing existing prosthetic-orthotic workshops to improve the quality of their products and to increase significantly the quantity of their products and services;
- Augmenting the stockpile of supplies available to the existing prosthetic-orthotic workshops so as to increase prosthetic-orthotic services to the increasing numbers of Ugandans and Mozambicans who are disabled;
- Establishing satellite prosthetic-orthotic workshops in regions outside Kampala, Maputo and other major cities to reach and serve disabled Ugandans and Mozambicans as closely as possible to their home communities. Distances are great and internal transportation is non-existent or unsafe. Moreover, most disabled Ugandans and Mozambicans do not have the financial means for travel to distant centers and for personal support while being served in these centers;
- Establishing three-year training programs in prosthetics-orthotics and in physical therapy. Qualified prosthetist-orthotists and physical therapists are practically non-existent in Uganda and Mozambique. These training programs are essential so that qualified Ugandans and Mozambicans can replace the expatriates who are now working and teaching in these disciplines; and
- The development of a simple, well-illustrated pamphlet which explains to amputees and others how to position the amputated leg, massage, wrap and otherwise take care of the stump and the appliance.

The governments of Uganda and Mozambique, through their Ministries of Health (MOH), are deeply involved and interested in expansion of their prosthetic-orthotic programs so that more of their disabled people can receive services they so desperately require.

Not only do they wish to have more disabled people served, but they also desire improvement in the quality of the service provided. To this end, their Health Ministries have expressed great interest in having American orthopedic surgeons, prosthetist-orthotists and physical therapists assigned to Mozambique and Uganda for teaching and instructional purposes in the universities, in national, regional and

district hospitals, in the prosthetic-orthotic workshops and in special seminars and training courses

The question of sustainability of an expanded P&O program in Uganda and Mozambique after out-of-country funding ends was explored by the Assessment Team in all of its interviews with government and voluntary agency officials. In both Uganda and Mozambique, the Ministries of Health regard the provision of prostheses and orthoses as an integral part of their national health service programs and will continue to pay the salary and allowances of the prosthetic workshop technicians who are currently government employees, as well as continuing the salaries of the physical therapists and assistants who are not expatriates. Further, clients are expected to contribute toward the cost of appliances to the extent that they are able to do so. Finally, there is the possibility of receiving contributions to the prosthetics revolving fund from in-country business groups, social organizations, philanthropic agencies and interested individuals. Any A.I.D. contributions to expand the prosthetic-orthotic programs in Uganda and Mozambique will add only a few potential new employees to the government payroll, since over half of the recommended A.I.D. contributions would be for educational purposes--principally, to improve the skills of physicians, surgeons and medical students in orthopedic surgery practices. Rather than adding to government costs, this may serve to reduce costs. With better surgical skills, there would be a reduction in the number of amputees and other patients readmitted to the hospital for remedial surgery. Also, appropriate and proper surgery might obviate the need for prostheses and braces.

Decisions on funding priorities in Uganda and Mozambique, and on the steps to take to achieve improvements in and expansion of the prosthetic-orthotic efforts in those countries, must be made in close consultation with all of the involved local agencies, especially the Ministries of Health. They alone, and not the outside technical assistance and funding agencies, have ultimate responsibility for the future of the programs.

The Central Orthopedic Workshop is the largest producer of prostheses and other assistive devices in Mozambique. It has the most advanced technology and is developing a system for the mass production of the component parts for artificial limbs, braces and other mobility aids. When its mass production system is fully operational, it and the ICRC regional workshops will continue, even more effectively, to be the principal service agency for the handicapped people in Mozambique.

Handicap International operates workshops in Vilanculos and Imhambane Provinces, and a recently opened third workshop in Nampula for the fabrication and fitting of braces and for the manufacture of wheelchairs and orthopedic shoes. HI is a much smaller organization than the International Committee of Red Cross. Its workshops employ simpler technologies and utilize locally available material to the maximum extent.

The Ministry of Health provides the plant facilities for the workshops and pays the salaries of the Mozambican technicians employed in the workshops. Also, through its Department of Social Welfare, the Ministry of Health provides transportation and temporary housing for patients awaiting services and being fitted for artificial limbs and braces.

The International Committee of Red Cross and Handicap International have independent agreements with the Ministry of Health and meet independently, rather than jointly with officials of the Ministry of Health--both for future planning and operational purposes.

In Uganda, as reported in that section of the report, the various international and national agencies, engaged in serving handicapped people, operate under one overall agreement with the Ministry of Health. All are signators to that agreement (including the Ministry of Health) which delineates the responsibilities of each agency, including future plans, and provides for a review committee that meets monthly to assess progress, needs, etc., in attaining short and long-term goals. A copy of the Uganda Agreement was left with the Director or ICRC and the Director or Medical Services in the Ministry of Health for review and possible use in Mozambique.

C. Medical Conditions and Practices ³

1. Undergraduate Medical Education:

After Independence, in 1975, there were 90 doctors left in Mozambique. In 1985, there were 400 registered physicians, all of whom had received their education abroad. The Faculty of Medicine of

³ This report and assessment of Medical Conditions and Practices in Mozambique was prepared by Rodney L. Belcher, M.D., Orthopedic Surgeon.

surgeons and the therapists/prosthetists about the rehabilitation of their patients.

3. Conditions of Patients at Handicap International Orthopedic Workshop in Vilanculos

The Team visited Handicap International Orthopedic Workshop in Vilanculos, a Provincial Capital city on the coast about two hours north of Maputo by air. Their workshop in Vilanculos is adjacent to the 50-bed Provincial Hospital, recently rebuilt after destruction by the rebel forces about a year ago.

Handicap International has a "village technology" philosophy towards the production of prosthetic and orthotic devices: that, whenever possible, local materials and supplies be utilized instead of more expensive, (usually) imported materials. Their Director in Mozambique, Mr. Norbert Ricoud, told us that HI uses only 20% imported supplies in its workshops. At the Vilanculos workshop, the Team met Mr. Otto Rungby, the orthopedic technician in charge. There were about 20 patients being fitted with prostheses or orthoses. While the ICRC workshops limit themselves to producing only prostheses for lower limb amputees, the HI program includes the fitting and manufacture of braces, shoes and whatever other devices are needed by the crippled and mobility disabled.

The patients seen in the Vilanculos workshop included several with shortened or deformed legs from polio residuals, a child whose entire tibia or leg bone was destroyed by osteomyelitis, or septic bone infection, and a teen-aged girl with leprosy amputations and deformities of the toes and both forefeet. The child with osteomyelitis was in serious need of corrective and curative orthopedic surgery. She was being helped temporarily by the orthotist with the use of a long-leg double caliper brace to support the affected leg, since the infected tibia bone was crumbling and unable to support her weight. The girl with the deformed feet from leprosy was being fitted with specially made leather shoes to prevent further damage to her feet which lacked sensation.

Again, observed, were the amputation stumps and healing wounds of the patients who were there for fitting and therapy. Most of the amputees had lost their lower legs from stepping on mines or from bullet wounds and their stumps showed almost every degree of amputation level possible, most of which were less than desirable. The local surgeon was a young physician from Medicins Sans Frontiers, who was helping the local staff for about one year. He had no formal orthopedic training prior to this assignment and he was doing a good job under severe conditions. He said that there was no orthopedic surgeon in the country as far as he knew and that there was no one to whom he could refer complicated or difficult surgical cases. Mr. Ricoud of HI said that several times a year an orthopedic surgeon from the Island of Reunion visited HI and its workshops to consult with the

prosthetic/orthotic team. No teaching program or seminars with other surgeons or physicians were arranged during this time.

The Team visited the Vilanculos Hospital surgical ward and saw the operating room. There were several adult male patients suffering from gunshot wounds of the back, abdomen and lower extremities, two with open fractures of the femur and pelvis. They were not in traction nor were they splinted to prevent their broken limbs from moving.

It was apparent in Mozambique, as in Uganda, that for every amputee resulting directly from war wounds there were ten or more adults and children suffering from crippling injuries or diseases indirectly caused by the war conditions. These are the crippled children and adults suffering from the residuals of polio, measles, tuberculosis, leprosy, osteomyelitis, diabetes and injuries--patients who became disabled because no immunizations or adequate medical or surgical treatment was available. These unfortunate victims were just as much a result of the civil strife as the estimated 20,000 amputees in need of prostheses. HI included these people in their rehabilitation program by fitting them with orthoses, shoes or wheelchairs and crutches as needed. The weaknesses in the program were an overemphasis on experiment and "village technology" and the lack of physician guidance, especially the lack of orthopedic surgical skills and methods. Such skills and knowledge would have avoided delays in treatment and restored many patients to mobility without requiring fitting with prostheses or orthoses.

4. Medical Care and Condition of Patients at the ICRC Workshop and in the Provincial Hospital in Beira

The Team visited the ICRC prosthetic workshop in Beira. It was sited on the grounds of the Beira Provincial Hospital, a 250-bed facility. It was similar to the Maputo shop in that the ICRC manager and his Mozambican counterpart oversee about six other technicians in providing prostheses for amputees from the area and three surrounding provinces. They fit only below-knee and uncomplicated above-knee amputees, with about ten per month as their goal. They do not fit braces, nor do they make wheel chairs or crutches. These (except for orthoses) are shipped from the Maputo workshop as needed. About a dozen patients were seen walking around the porch of the workshop trying out their newly fitted limbs, while others sat waiting patiently. Again, they were of all ages, but mostly young males predominated. One young man had fashioned a home-made below-knee prostheses made from a tree trunk with a right angled branch at the bottom for a foot. It was too short because he had grown in the many months since he had made it, but it served him well during that long period.

There was no formal physical therapy or gait-training at the workshop and the Team was told that new amputees were given crutches and instruction at the hospital. Again, there was no coordination

between the surgeons treating the amputees and the prosthetic program at the workshop.

The Team arranged to visit the surgical wards of the Beira Hospital where a Russian general surgeon, most graciously showed the many patients she was treating. She has been working in the hospital about a year in charge of the adult male surgical ward. Her husband, also a surgeon, treats women and children. Her associate on the ward is a Mozambican junior surgeon who speaks good English. They were very busy with many wounded patients. We saw about 20 young men with multiple and varied war wounds. There were about ten with recent amputations. These were mostly foot and lower leg traumatic amputations caused by mine explosions, but some were gunshot wounds and included other extremities, like the other leg or the femur and thigh above the knee. Many were messy and septic wounds, which were being treated by surgical dressings and cleansing. Others were early postoperative amputations. The varying levels of amputations that were seen appeared to be randomly chosen rather than with a later prosthesis in mind. Many, about half, had to be revised because of the poor level chosen, or because of sepsis because of the many open wounds and their conditions. However the hospital was as clean as possible under the severe conditions.

The surgeons stated that she had performed 31 amputations in December 1988 alone, and that that number was about average for the ward. Patients required three weeks to two months of acute hospitalization for their wounds to heal and to learn to walk on one leg with crutches. They would have to wait 18 months or longer before they could expect to be fitted for a prosthesis at the Beira ICRC workshop. Again, there was no communication or contact between the surgeons and doctors treating the patients in the hospital and the prosthetists at the workshop.

There is no orthopedic surgeon at this or other hospital in Mozambique and there is no teaching program in orthopedic surgery or trauma surgery for the doctors in the country.

5. Medical Issues Discussed with the Director of Medical Services, Ministry of Health

The Team returned to Maputo where it met with the Director of Medical Services of Mozambique, Dr. Antonio Cabral, on a Saturday afternoon during his little free time. Dr. Cabral expressed great interest in the prosthetic and rehabilitation programs and was concerned over the plight of the crippled and disabled in the country. He said that the country was woefully short of doctors and that they depended upon the expatriate physicians from many countries for the functioning of their medical services. These expatriates comprised over half of the doctors in the country, or about 200, (most from Russia, Cuba and Eastern Bloc countries). The Ministry of Health is experimenting with Assistant Doctors or some equivalents, these being

high school graduates trained in rudimentary medicine for one or more years and then sent to rural areas as primary health care doctors. These Assistant Doctors helped fill the void in medical care, but he said that they were no substitute nor replacements for fully trained physicians. The Ministry of Health is looking forward to the first graduating class from the Medical School in another two years.

Dr. Cabral stated that the Ministry of Health would welcome American orthopedic surgeons as teachers at the Medical School and in the hospitals since Mozambique has no orthopedic surgeons as such in the country. They would be glad to have such surgeons on a long-term basis, (several years) and/or on a short-term basis. He asked to be kept informed of progress and developments in the initiation of such a program.

The Team met the American Ambassador, the Honorable Melissa Wells at the end of its visit to discuss its findings and recommendations. She was very interested in the possibility of having American orthopedic surgeons, prosthetists/orthotists, and other rehabilitation consultants establish an orthopedic rehabilitation and teaching program in the country. She said that this would be a high priority in the Mission. Her interest in the disabled and disadvantaged was great, and she had initiated and sponsored a separate program to restore war traumatized children to their families with the aid of an American psychologist.

6. Medical Needs in Relation to the Ongoing and Future Prosthetics-Orthotics Programs

Mozambique has an estimated 20,000 amputees, and ten times that number of other crippled and mobility-disabled children and adults resulting from prolonged civil war and disturbances. And more will continue to become disabled as this civil strife continues. The prosthetic services of the country are currently unable to cope with the large numbers of victims. Nor can the medical services adequately handle the medical and surgical needs of these disabled people.

Efforts are being made by ICRC to expand production of prostheses in its main workshop in Maputo and in its satellites in Beira, Quelimane and Nampula and to train more Mozambican technicians so that additional amputees can be fitted with prostheses. They are fitting 675 amputees annually at all their workshops. There is a backlog of 20,00 amputees needing prostheses and an annual increment of 2,000 amputees needing such devices.

Handicap International treats amputees and also fits orthoses to other crippled and mobility disabled persons at its centers in Vilanculos, Inhambane and Nampula. They treated 200 patients at Vilanculos in 1988, of whom 50 were amputees. The other centres will gradually treat a like number.

Both programs suffer seriously from a lack of physician guidance and cooperation. Fitting a prosthesis or an orthosis to an amputee or a crippled person is far more complex than it might seem. Consultation and cooperation between the prosthetist/orthotist and a surgeon familiar with trauma and orthopedic surgery is vital to success in any prosthetic-orthotic rehabilitation program. At the prosthetic centers and hospitals in Mozambique, amputees whose stumps were too short or too long, or poorly covered by healthy skin or muscle were observed repeatedly; while others suffered from infection caused by too early wound closure and failure to recognize sepsis. This would lead to prosthetic failure and, in many, further surgery and higher levels of amputation.

The lack of orthopedic surgery, training and experience results in medical and surgical treatment which is poor, makeshift and inadequate for tens of thousands of patients suffering from war injuries and crippling diseases. There is obviously a strong need both today and in the future, for orthopedic surgeons in Mozambique and a program to teach orthopedic surgery to the medical students, and to the physicians who are treating amputees and other mobility disabled children and adults.

D. The Prosthetic Delivery System in Mozambique ⁴

1. Description of Problem

It is estimated that there are between 15,000 to 20,000 amputees in Mozambique with 80% of new amputations attributable to the war. About 675 amputees are fitted with prostheses yearly in the existing centers. The estimated annual rate of new amputations is between 1,500 and 2,000. Amputees without prosthesis are seen up and down every street in every city visited. The existing centers are working very hard, but they are losing the battle against the ever-growing numbers of amputees. Transportation in the country is extremely dangerous and difficult due to the rebel factions, so that large numbers of amputees do not receive treatment because there is no way to get them to a center. It is too dangerous for orthopedic teams to leave the major cities and to go into the interior of the country without having a convoy for protection.

2. ICRC Workshops

The major ICRC workshop is located in the central hospital in Maputo. It is directed by Carlos De Santis, a physical therapist from France. Mr. De Santis is an ICRC employee. He has established a very

⁴ This report on and assessment of the Prosthetic Delivery System in Mozambique was prepared by Michael J. Quigley, Certified Prosthetist-Orthotist.

impressive manufacturing and treatment facility in his five years in Maputo. Mr. De Santis stated that the war is the cause of 80% of the amputations in the country. To obtain a prosthesis, the patients first go to a local medical center in their province, then get referred to larger centers, and eventually to Maputo if necessary. If the amputation is war related, ICRC will pay for the prosthesis, if it is work related, the company will pay for the prosthesis; if the amputation is from sickness, the patients must pay or see the social worker and pay whatever they can afford. The cost of a below-knee prosthesis in Maputo is 33,000 metacals, which is the equivalent of \$51.48.

It takes approximately three to four months to receive a prosthesis from the center in Maputo. A support center with thirty beds exists in Maputo for people coming from great distances. The support center is run by the Ministry of Health.

There is no organized clinic team approach in the ICRC centers; the prosthetists work independently from the orthopedic surgeons. A Dutch team trained twenty five physical therapy assistants, and the quality of physical therapy is considered to be very good compared to other areas in Africa. Mr. De Santis felt that a priority is training of physicians in orthopedics and establishment of an improved line of communication between the physicians and prosthetists so that corrective surgery and follow-up treatment can be carried out more effectively. Plans for a training course in prosthetics and orthotics have already been formulated. The courses will use expatriate instructors. Each province in Mozambique will be allowed to send two people with ten years' experience to the courses. These students will receive further testing and training before they are allowed to take the course, and they will be on a three-month's probation upon start of the course.

The ICRC currently spends approximately one million US dollars per year to support its four centers in Mozambique.

In order to reduce dependence upon imported goods, a manufacturing facility has been established to produce artificial knees and artificial feet. A wood copying lathe is utilized to cut out five foot planks at a time from rough wooden blocks. All 52 employees in the workshop have specific production schedules posted at each work station with food basket bonuses provided if their production reaches higher levels. The average production for artificial feet is 140 feet per month. These feet are used to supply all four ICRC centers in Mozambique. Approximately the same number of artificial knees are also produced.

Eighty percent of the materials used in the workshops are imported, including rubber, leather, buckles, steel, and plastics. In addition to prostheses, the center makes approximately five wheelchairs per month and 120 prosthetic socks per month.

Since 1984, the center has seen 2,000 patients. In 1988 it fit 407 patients with prostheses.

3. ICRC - Beira Workshop

The Beira workshops was visited by the Prosthetic Survey Team on March 9, 1989. Air transport was chartered by the USAID Mission in Maputo. Mr. David Mutchler and Herbert Bedolfe of USAID accompanied the team. Timothy Reiser, who is on the staff of the Senate Foreign Relations Appropriations Committee also joined the Team.

Claude Felix, M.D., Medical Director for ICRC in Mozambique, met the group and conducted the tour through the workshop. The manager of the work shop is Mr. Carlos Bacar.

The workshop was started in 1986. It treated 49 patients in 1987 and 130 patients in 1988. The Beira satellite facility covers the provinces of Tete, Sofala and Manica. If the patients require anything besides partial foot, below-knee or simple above-knee prostheses, they are referred to Maputo. The production goal for the center is ten prostheses a month. They presently have thirty patients waiting for a prostheses, and an additional thirteen patients who are still healing before they can receive prostheses. The needs for the Beira center are the same as those for the Maputo center, but they are also in very short supply of shoes which patients require when receiving a prosthesis. Seventy percent of the patient load in the center are men, and thirty percent are women.

4. Handicap International Workshops

Handicap International has a different philosophy from ICRC regarding their workshops. Whereas 80% of the materials used by ICRC in their workshops are imported, HI imports only 20%. HI feels that **the only way a program can be sustained after HI leaves the country is workers learning to use local materials and not being dependent upon foreign imports which are expensive and hard to secure.**

Handicap International started in Mozambique in 1986 with the workshop in Inhambane, which was the province affected most by the war. Presently they have a second workshop in Vilanculos. Each workshop has a prosthetist and nine workers. They also have four physical therapy assistants with each workshop. The purpose of the workshop is to teach Mozambicans to make prostheses for two years and then to send them out to their villages, spread throughout the country.

Handicap International holds seminars with medical and maternal and child health workers to help them identify orthopedic conditions that can be treated easily if found early. They also hold seminars for politicians and local office-holders to teach them where and how to

refer patients. They provide them with posters which describe different disabilities and the treatment for the disabilities in graphic and easy to understand form. Leprosy is also rampant in the area, and there is a monthly leprosy clinic. A small research laboratory has been established to identify and test local materials for use in prosthetic fabrication. For example, PVC tubing which can be bought locally can be used to fabricate splints and prostheses.

5. Vilanculos and other workshops

On March 8, 1989, the Assessment Team visited Vilanculos. The chartered aircraft was met at a small air strip by Otto Rungby, the orthopedic technician in charge of the HI program in Vilanculos. Mr. Rungby lives in a thatched roof and reed house in a very small compound near the beach. Also living in the compound is a French architect on temporary duty with HI to design a hostel for visiting patients. Forty percent of the people seen by HI were disabled by Renamo mines. The Vilanculos satellite treated 200 patients in 1988; of these, 45 to 50 were for prostheses. They also made fifteen wheelchairs using local wood in a rather unique design that displayed excellent craftsmanship. The HI satellite in Inhambane fit 65 prostheses during the last year.

There are nine employees in Vilanculos workshop, all considered to be carpenters and shoemakers. All employees are paid by Handicap International. The total Handicap International budget for Mozambique is \$350,000; of this, \$100,000 is for Vilanculos. Mr. Rungby stated that the average education of workers is the sixth grade; they have not been trained to be motivated or imaginative. In addition to the prosthetic technicians, there are three physical therapy assistants in Vilanculos and eight physical therapy assistants in Inhambane. Each therapist sees approximately twenty patients per day.

The future goal of the center in Vilanculos is to provide ten prostheses a month, twenty orthoses, four wheelchairs, ten pairs of orthopedic shoes, and twenty pairs of crutches. They are presently making sixty pairs of crutches per month in Inhambane.

Mr. Rungby stated that they can deal with the patient demand now because most prospective patients cannot get to the center due to the transportation problems caused by the war. One of the needs is to mass produce wheelchair frames in Maputo since they must be made individually at this point. The HI wheelchair now costs about \$55 to produce. In Maputo, wheelchairs retail for \$300.

A new HI program is starting in Nampula with two orthopedic technicians. HI has received \$10,000 for tools and equipment from UNDP. HI will only fit orthoses and make wheelchairs and shoes since ICRC is just starting a prosthetics program in Nampula. HI estimates that 40,000 untreated orthopedic patients are in the Nampula area alone.

A fourth workshop in the Tete province is also being planned. HI needs money for salaries for the expatriates in its program.

E. Recommendations

The needs in Mozambique are great. There are an estimated 20,000 amputees throughout the country, with an additional 1,500 to 2,000 added to that number each year. Eighty percent of the new amputations are attributable to the guerilla warfare, which is probably the same percentage in the 20,000 backlog. Under present conditions and with the present facilities, only 675 amputees are fitted with prostheses each year--one out of every thirty persons needing such services.

Because of the war, thousands of children are crippled by polio and other diseases. Thousands of adults are also crippled by injuries and disease resulting from the lack of medical and surgical treatment. Bracing services which would help many of these children and adults are not available. Qualified orthopedic surgeons are non-existent, with the result that amputations and other surgical care is improper relative to the fitting of artificial limbs and braces. There is a dearth of qualified Mozambican prosthetist-orthotists and physical therapist; hence, there is no base for building an indigenous self-sufficient prosthetics-orthotics program in Mozambique. There is little or no collaboration between the medical services and the prosthetic services so that there is no assurance that the few prostheses that are provided will be of full benefit to the users.

There is need for a broad, comprehensive approach to all of these problems, obstacles and deficiencies. Not only will a comprehensive approach assure that greater numbers of Mozambique's disabled citizens are served, but it will also enable Mozambique to build a truly indigenous rehabilitation program as an integral part of its health care system, manned and operated by qualified Mozambican surgeons, prosthetist-orthotists, physical therapists, orthopedic technician and social workers.

To this end, it is recommended that the Agency for International Development help extend and expand the fledging rehabilitation effort in Mozambique in the following ways:

1. International Committee of Red Cross and Handicap International

Augment the external support now received by the International Committee of Red Cross and Handicap International.

The International Committee of Red Cross receives its outside support from its headquarters in Geneva. The Director of ICRC in Maputo indicated that the plans and budget for ICRC operations for the next year had been submitted to the headquarters office and that office

would know what, if any, the shortfall might be. ⁵ In any event, it is recommended that a grant of \$250,000 be made to ICRC for a period of three years for expansion and acceleration of its planned activities in Mozambique.

Handicap International indicated that it is receiving from various agencies, including the specialized agencies of UN, the support it needs for equipment, supplies, etc. Its great need is for payment of salaries and expenses of its expatriate staff in Mozambique who are specialists in prosthetics and orthotics. It is recommended that funds be provided to IH to support two of these specialists over a three year period of time at a total cost of \$180,000.

2. Assignment of American Orthopedic Surgeons, Prosthetist-Orthotists and Physical Therapists on Long and Short-Term Bases

Initiate a program for the stationing of a full-time American orthopedic surgeon in Mozambique assisted by part-time volunteer orthopedic surgeons to work and teach medical students, physicians and surgeons the methods and techniques of trauma and orthopedic surgery and to assist in bringing about coordination between the medical-surgical services and the prosthetic-orthotic services.

The need in Mozambique for American orthopedic surgeons who can teach these skills and techniques to Mozambican surgeons, physicians and medical students is urgent, and is crucial to an improved and expanded prosthetic-orthotic program in that country. The number of such American surgeons stationed in Mozambique should increase each year from at least six to three times that number as conditions permit and as the availability of American orthopedic surgeons allows.

Initiate a program for bringing to Mozambique American prosthetist-orthotists and physical therapists who volunteer their services to teach qualified Mozambicans to become specialists in prosthetics, orthotics and physical therapy.

At least \$1,000,000 should be made available for a three-year period for bringing the full time orthopedic surgeon and the volunteer orthopedic surgeons, as well as the volunteer prosthetist-orthotists and physical therapist, to Mozambique.

⁵ The International Committee of Red Cross is now involved in the prosthetic-orthotic programs of both Uganda and Mozambique. Its Missions in those countries have leadership roles in the improvement and expansion of the prosthetic-orthotic programs in Uganda and Mozambique. Since funding of ICRC country missions comes from ICRC headquarters, A.I.D. personnel, who may be visiting Uganda and Mozambique in relation to an expanded prosthetic-orthotics program, may wish to confer with ICRC staff in Geneva enroute to Kampala and Maputo.

The same PVO that administers this phase of the A.I.D.-funded program in Uganda should locate, assign and handle travel and other logistical matters for these specialists to be assigned to Mozambique.

Housing and internal transportation for these specialists will be a very serious problem. It may be necessary to purchase, lease, rent and possibly renovate suitable accommodations as well as purchase cars and/or contract for local and in-country transportation. Estimated cost is \$300,000 for three years.

3. Prosthetic-Orthotic Training Program

Provide funds to the International Committee of Red Cross for initiating, as soon as possible, its planned three-year prosthetics and orthotics training program. This would entail securing class rooms and laboratories, setting up ten work stations, the purchase of equipment and hand tools, and the purchase of training supplies. Estimated cost \$75,000.

4. ICRC Program for Production of Orthoses

Assist the ICRC to develop a program for the production and fitting of braces and other assistive devices in the central workshop and in the regional workshops. Equipment and supplies for this will cost \$125,000 over the next three years.

5. Establishment of Orthopedic Workshop in Tete Province

Assist the ICRC and the Ministry of Health establish a comprehensive regional orthopedic workshop in Tete Province as security conditions permit. There is a great need for services in this Province which has been under constant guerilla attacks. The cost of equipping and supplying fully this workshop is estimated to be \$200,000.

6. Expansion of Hostel and Transportation Programs

Assist the Ministry of Health expand its hostel and transportation program so that more disabled people from outlying areas can be served in the expanded prosthetic-orthotic program. Estimated cost: \$150,000.

7. Total Cost

The estimated total cost of an expanded prosthetic-orthotic program in Mozambique over a three year period is \$2,280,000.

The estimated cost for each of the activities and programs described in items 1-6 is the bare minimum, especially the estimated cost for assigning American orthopedic surgeons to Mozambique. Mozambique could use as many American orthopedic surgeons as volunteer for assignment to Mozambique. In the event that additional funds are appropriated for the war-injured civilian prosthetic-orthotic program, the suggested allocations for all items, especially item 2 should be reexamined and as need is demonstrated and as volunteers become available to meet these needs, adequate financial provision and program support should be made to supply the numbers of orthopedic surgeons, other medical specialists, prosthetist-orthotist and physical therapists that are required.

Rec'd AFR/AD/SA
12-05-89

547/H

AVD
AR

Mozambique Prosthetics

APR 28 1989

SENIOR ASSISTANT ADMINISTRATOR

I have approval, but
did anyone look at the
budgets of Malta program.

Ref No: 0503-03
Action: STT/H
Info Memo
Required
Due Date: 5/05/89
Copies To: NCB

ACTION MEMORANDUM FOR THE ADMINISTRATOR

FROM: J. C. Brady *Richard*

SUBJECT: Plan for FY 1989 Prosthetics Program

Problem: Your approval is needed to proceed with implementation of a \$5.4 million prosthetics program for civilians injured in civil strife. A budget summary of the program is included as an attachment to this memorandum.

BZ
ERC
Chow

Background: The FY 1989 Foreign Assistance Appropriations Act provides that up to \$5 million may be made available, notwithstanding any other provision of law, for assistance for the provision of prostheses for civilians who have been injured as a result of civil strife and warfare. You have indicated to Senator Leahy that A.I.D. will obligate \$5 million for this purpose in FY 1989. In fact, to fully fund all activities described herein will require \$5.4 million.

A.I.D. currently has on-going prosthetics program in El Salvador, West Bank, Gaza and Thailand, with total projected FY 1989 obligations of approximately \$982,000. We decided, in consultation with Senate Appropriations Committee staff, that new prosthetics programs this year should focus on a limited number of countries in order to maximize impact and gain experience. Based on cable responses and discussions with regional bureaus, we selected Uganda and Mozambique for priority attention this year. In February and March, 1989, a team composed of a rehabilitation planner, a prosthetics expert and an orthopedic surgeon visited Uganda and Mozambique. Tim Rieser, Senator Leahy's point person on this program, joined the team in Mozambique.

The team has discussed its recommendations with mission staff in the field as well as with relevant A.I.D. offices in Washington. The program outlined below reflects the team's recommendations for a 3-year prosthetics program in Uganda and Mozambique for a total cost of \$4,422,000, which includes the \$85,000 needed to field the team which prepared this plan. With your approval, PPC will add reserved funds to the Uganda and Mozambique missions' OYBs to enable them to proceed with obligation this year.

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ADMINISTRATIVE

Discussion: The three-year program of activities proposed for Uganda and Mozambique includes several elements:

- training for surgeons
- training for prosthetic/orthotic technicians
- equipment and supplies
- hostel accommodations for patients and families during treatment
- support for management staff

UGANDA

In Uganda, the Ugandan Ministry of Health is already working with five other organizations in developing an integrated prosthetic/orthotic program. These groups will shortly be signing a Memorandum of Understanding which outlines the responsibilities of each group and designates the British Red Cross as the implementing agency. The assessment team believes that this program can be substantially improved if A.I.D. provides \$1,807,000 for a three-year program as follows:

1. Grant to Orthopedics Overseas (a U.S. PVO not registered with A.I.D.) for long-term assignment of an American orthopedic surgeon plus short-term volunteer prosthetists, orthotists and physical therapists to assist with training programs. \$ 750,000
2. Grant to the British Red Cross for:
 - equipping an operating room adjacent to the orthopedic workshop (\$175,000)
 - renovation of hostel for patients and families during treatment (\$100,000)
 - Salary for prosthetics workshop manager (\$20,000)
 - Equipment for main workshop at Mulago Hospital (\$60,000) and three years supplies for workshop (\$75,000)
 - Funding for training program in prosthetics and orthotics for technicians (\$50,000)
 - Establishment of a revolving fund to provide 500-800 artificial limbs for those who cannot afford to pay the fees required for prosthetic services (\$75,000)

- Establishment of a routine clinic schedule (\$2,000)	
- Equipment needed to begin an orthotics program in the central workshop (\$75,000)	
- Equipment and supplies for prosthetic-orthotic program in three satellite centers (\$125,000)	
- Administrative costs, including housing and Transportation of volunteers (\$300,000)	\$1,057,000
	<hr/>
TOTAL (UGANDA)	\$1,807,000

MOZAMBIQUE

In Mozambique, the need for prosthetic services is great, existing programs are inadequate, and government and international efforts are not well coordinated. As a result the mission has indicated the need for additional funds (above the amount proposed for program activities) to develop and coordinate this new program. The team recommends a three-year program involving four grants plus mission support for a total cost of \$2,530,000 as follows:

1. Grant to Orthopedics Overseas (a U.S. PVO not registered with A.I.D.) for long-term assignment of an American orthopedic surgeon plus short-term volunteer prosthetists, orthotists and physical therapists to assist with training programs, including local housing and transport	\$1,300,000
2. Grant to Handicap Internationale (a French PVO) to support four specialists to provide prosthetic services in Inhambane Province	\$ 330,000
3. Grant to the International Red Cross	\$ 450,000
- Support of existing programs (4250,000)	
- A technician training program (\$75,000)	
- Equipment and supplies for production of orthoses (\$125,000)	

4. Grant to the Ministry of Health to improve its transport and hostel program.	\$ 150,000
5. Mission support: additional project development and coordination	<u>\$ 250,000</u>
TOTAL (Mozambique)	\$2,530,000*

* Because many of the details of this program must still be worked out, there must be flexibility among these line items.

If you approve proceeding as outlined above, A.I.D. will be committing approximately \$5.4 million in FY 1989 funds for prosthetics programs for civilian casualties of civil strife (see attached table). The programs in Uganda and Mozambique will be fully funded "up front." PPC will transfer funds to the missions, which will be responsible for negotiating, awarding and monitoring the grants, and for reporting on the progress of the programs, as is the case in the El Salvador program.

Issues:

The programs in Uganda and Mozambique will involve grants to several PVOs not registered (and unlikely to be registered) with A.I.D. This is not a problem, but you should be aware that many of the implementing agencies are not U.S. organizations.

With the exception of the proposed grants to Orthopedics Overseas, all activities proposed are with organizations already working in country on similar activities. Rather than contracting with Orthopedics Overseas, missions may prefer to ask established U.S. PVOs already working in country to submit proposals for providing expatriate orthopedic surgeons and short-term prosthetists and physical therapists. This is a decision we will leave to the missions.

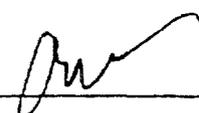
The Uganda and Mozambique missions may need assistance from REDSO/EA in drawing up the grant agreements. The Mozambique mission has already signalled its need for on-going program coordination assistance, and an estimate of these costs have been incorporated in the above plan for Mozambique.

While principal responsibility for monitoring and reporting on the programs will rest with the missions, we will need a point of coordination in A.I.D./W, and especially if the program expands to include other countries in 1990.

The legislation refers to injuries from land mines and bullets. The team found, however, that there is just as great a need for braces for children who had polio as a result of disrupted immunization programs during periods of strife. Since individuals trained in prosthetics are also trained in orthotics, expanding a prosthetics project to include bracing is relatively straightforward. Tim Rieser of Senator Leahy's staff appears to agree that a broader definition of civil strife-related injuries is warranted. The programs proposed by the team include braces for polio victims.

Recommendations:

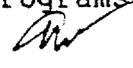
1. That you approve this plan to proceed with three-year prosthetics programs in Uganda and Mozambique.

Approved: 

Disapproved: _____

Date: 5/1/89

2. That you direct LEG to coordinate consultations with appropriate Congressional staff on the broad outlines of this program for FY 1989, including our expectation that braces for polio victims will be included in the programs.

Approved: 

Disapproved: _____

Date: 5/1/89

3. That you direct PPC to make funds available to the missions in Uganda and Mozambique to fund fully the three-year programs recommended above.

Approved: 

Disapproved: _____

Date: 5/1/89

Attachment:

FY 1989 A.I.D. Funding for Prosthetics

ANNEX 4

Report of Project Development Team
June 13 - 17, 1989

Mozambique, unlike Uganda which has achieved a high degree of stability with only a few isolated pockets of rebel activity, continues to be terrorized in many areas of the country by the brutal and inhuman activities of the Renamo guerillas.

The number of children and adults maimed and disabled continues to grow, sometimes in alarming numbers. Handicap International, one of the two organizations in Mozambique serving amputees, paralyzed children and other disabled people, reports that its prosthetic workshop in Inhambane is so swamped by people disabled by the guerilla activity that it has had to cut off intake of new cases. No one knows how many such people there are in Tete province, where Renamo activity is also intense and where there is no prosthetic-orthotic workshop or service.

Upon arrival in Maputo on Monday, June 12th, the Project Development Team met with the Director, Deputy Director and Program Officer of AID/Maputo to review the Assessment Team's findings and recommendations, to discuss how the AID Mission/Maputo wished to develop a project(s) to implement the recommendations in the Assessment Team's report, and the manner in which the Project Development Team would go about its activities in Maputo in support of the AID Mission's plans. The written materials developed in Uganda were made available to the Mission for review and such use as they might have in Mozambique.

In the development of its implementing project, the Mission's approach is different from that of AID Mission/Kampala.

In Mozambique the AID Mission prefers to develop one overall project grant agreement with the Ministry of Health and sub-grant agreements with the International Committee of Red Cross, Handicap International, Orthopaedics Overseas and with Save the Children to handle coordination, local logistics for the American orthopaedic surgeons, transportation and hostelling of amputees and other disabled people needing prostheses, braces and other assistive devices.

This approach is set forth in the June 8 letter from the Director of the AID Mission/Maputo to the Minister of Health, a copy of which constitutes ANNEX 5.

In keeping with the Mission's approach, the Project Development Team visited and discussed with the agency heads and other key people their roles and responsibilities in the prospective orthopaedic-prosthetic-orthotic program in Mozambique. In most cases, the Deputy Director of the Mission (and in some instances both the Director and Deputy Director) accompanied the Project Development Team in its visits.

The persons contacted, interviewed, and with whom discussions were held by the Project Development Team during the week of June 11, 1989, are listed in ANNEX 3.

The substance and gist of the meetings and discussions are as follows:

In the meeting with the Dean of the Medical School and his Director of Education, the Dean reiterated his need for and interest in having American orthopaedic surgeons teach and train in the methods and techniques of trauma and orthopaedic surgery. Specifically, he wished to have these surgeons used in the following ways:

- (a) Teaching medical students who are in the third and fourth year of their undergraduate study.
- (b) Teaching and training interns and staff physicians at the Maputo Central Hospital in the principles and practices of orthopaedic surgery.
- (c) Helping to establish a continuing education program for the four hundred Mozambican physicians who are working in the district and regional hospitals. The Dean of the Medical School is most eager to establish such a program and contemplates doing this through a series of seminars held in Maputo at the Central Hospital or at such other hospitals as can be affiliated with the Medical School as additional teaching hospitals.
- (d) Helping to establish some of the other four general hospitals in Maputo as affiliated teaching hospitals. These hospitals are Mashava, Mavalane, Jose Macamo and Chemanculo.

The Dean pointed out that none of the operating theatres was equipped properly and that optimum benefit and use of the American orthopaedic surgeons depended upon proper equipping of these rooms. The need for equipment becomes even more acute if additional hospitals are established as affiliated teaching institutions. Possible ways of addressing these needs are discussed later.

The Director of Handicap International/Mozambique indicated that the HI workshops continue to increase their production of assistive devices, but that production cannot keep pace with need and demand. In the last two-month period, 254 patients were fitted with or provided some type of assistive device, including 19 below and above knee prostheses, 122 pairs of crutches and 6 pairs of braces. Since HI began its operation in Mozambique in 1986, eleven persons have been trained in physical therapy techniques and methods. It is expected that they will become full-time employees of the Ministry of Health by the end of next year.

In Mozambique, by the end of this year, Handicap International will have nine expatriates in teaching and administrative posts. It costs approximately \$30,000 per year to field one expatriate including travel, home leave, stipends and living expenses.

The Director of HI would welcome financial assistance from AID to help support its expatriate personnel. The Director will submit a formal request to AID/Maputo for financial assistance, indicating how the funds will be used in enhancing HI's program.

ANNEX 6 contains Handicap International's agreement with the Government of Mozambique, a description of its programs in Mozambique and its budget for the Mozambican program.

Save the Children (USA) is interested in serving as one of the participating and service agencies in the proposed orthopaedic-prosthetic-orthotic programs for Mozambique. The Project Development Team feels that Save the Children is uniquely equipped to carry out the significant functions previously described and would help assure, in a large measure, attainment of the program's objectives.

Additionally, with Save the Children's current involvement in the Lhanquene Traumatized Orphan's Project, it could serve as a natural link to the orthopaedic surgeons' service so that orphaned children needing reconstructive surgery and/or prostheses or bracing receive the required service. Further, it was indicated that the hostel used in the orphan project might also be used to hostel children and adults from outside the Maputo area being fitted with appliances at the Maputo Prosthetics Center.

The Chief of the Department of the Handicapped and the Aged of the Ministry of Health reaffirmed the urgent need for additional hostel accommodations for patients outside the Maputo area who are in need of the prosthetic and orthotic services provided by the workshop of the International Committee of Red Cross. She also indicated need for transportation of these disabled people from the airport to the hostel and from the hostel to the workshop. Because of the limited transportation resources of the Ministry of Health, some arriving patients wait for hours at the airport before being picked up and delivered to a hostel. These needs were conveyed to the Director of Save the Children.

The Director of the International Committee of the Red Cross/Mozambique and its Director of the Maputo workshop gave the Project Development Team a most cordial welcome and discussed in an open and frank manner certain problems relating to program and fiscal reporting that AID might encounter in negotiating a project agreement with its Headquarters Office in Geneva. In any event, ICRC/Mozambique is most interested in participating in an expanded prosthetic/orthotic program in Mozambique and will prepare a letter to the AID

Mission/Maputo requesting AID financial assistance for that purpose. Another concern of ICRC was that the Assessment Team's report recommended establishment of a prosthetics shop in Tete Province.

ICRC would want a feasibility study to determine where best to establish a new center, if any. The project Development Team assured ICRC that it concurred in ICRC's view and that a portion of AID funds granted to ICRC could be used for that purpose.

The meeting with the Deputy Minister of Health was attended by the AID Mission Director, Deputy Director and the Project Development Team. The basis for discussion was the Mission Director's letter of June 8, 1989 to the Minister of Health (ANNEX 5). Each element of the proposed program for Mozambique was carefully explained. The Deputy Minister reacted most positively and indicated that he would prepare a letter for the Minister responding to the proposals advanced by the Mission Director.

The meeting of the Project Development Team with the Director of the Maputo Central Hospital was also most positive. He stressed the importance of advance planning to insure optimum use of American orthopaedic surgeons and the need for assignment of the resident surgeon, as soon as possible, to take part in this advance planning. He also pointed out the urgent need for operating room equipment. The Project Development Team called to the Director's attention the urgent need for physician screening of patients entering the prosthetic workshop for the fitting of artificial legs and braces to insure that such patients are medically and surgically ready for such fittings. This he agreed was an essential part of the total training need.

Late Friday afternoon, June 16, 1989, the Ambassador was able to meet with the Project Development Team, the Director, Deputy Director and Program officer of the AID Mission/Maputo to review plans, developments and findings. Among other things, it was pointed out to the Ambassador a) that operating room equipment was an urgent need, especially to support the work of the resident and short-term orthopaedic surgeons, and b) this equipment would probably need to come from private sources, as it was doubtful that there were sufficient funds in the prosthetic project to purchase even a small portion of the required equipment. The Ambassador suggested one possible source, USAID for Africa under the direction of Dr. Irwin Redlemer. This lead should be pursued, as well as possible donations of surgical equipment declared surplus by the Armed Forces Medical Services and the Veteran's Administration.

The Ambassador continues to have great interest in the program and her insight and enthusiasm give immeasurable impetus toward implementation of the program in Mozambique.

As soon as project plans are finalized with Orthopaedics Overseas, it is recommended that the resident orthopaedic surgeon for Uganda visit

Mozambique to ascertain, among other things, equipment needs and to initiate planning for use of the resident orthopaedic surgeon and short-term orthopaedic surgeons -- e.g., their teaching and training slots, where, when etc. Further, it is recommended that one project be developed with Orthopaedics Overseas covering both Uganda and Mozambique. It is recommended also that Orthopaedics Overseas be permitted maximum flexibility in its operations so that it is in a position to respond to the needs and opportunities in each country as they occur and in the degree to which they occur.

The Project Development Team wishes to thank the AID Mission/Maputo staff for its most able and competent support and assistance, and for its many courtesies.

June 8, 1989
Ref: 89/367

H.E. Dr. Leonardo Simao
Minister of Health
Ministry of Health
Maputo

Excellency,

You will recall that in March of this year several visiting prosthetics experts from the United States met with you and members of your staff to discuss the possibility of U.S. assistance for prosthetics programs in Mozambique. I have just been advised by Washington that they have programmed up to \$2,280,000 for disbursement over three years for this purpose.

Because these funds will be provided through a special legislative appropriation, there is a timing constraint on reaching a written agreement for their use. USAID would have to sign an agreement with your Government by September 30, 1989, and before then if possible. As a result, Washington has offered to field a team of experts to visit Mozambique to discuss with you and your staff several ideas as to what would be included in the project. We have been advised that an advance team may be able to arrive as early as Monday, June 12. Based on the prosthetics team's previous visit to Mozambique and the advice they received from local professionals, they have made some preliminary recommendations as indicated below:

1. Grant to the International Committee of the Red Cross to finance (a) existing programs (\$250,000), (b) a technician training program (\$75,000), (c) equipment and supplies for producing prostheses (\$125,000); and (d) establishment of a new prosthetics workshop (\$200,000). The total grant to ICRC would be \$650,000.

2. Grant to Operation Handicap Internationale to support four specialists to provide prosthetic services in Inhambane Province (\$180,000).

3. Grant to finance the long-term assignment of an American orthopedic surgeon plus short-term volunteer prosthetists, orthotists and physical therapists to assist with training programs, including housing and transport (\$1.3 million).

4. Grant to help finance transport and hostel programs for amputees to be fit with prostheses (\$150,000).

I want to make sure that implementation of the program does not impose an unreasonable administrative burden on your Ministry. Our office also has very limited staff to devote to day-to-day management of this type of an activity. One suggestion may be to utilize an NGO which is already based in Mozambique to help administer the third and fourth items. Save the Children (USA) may be an attractive option as they have already developed a close working relationship with your Ministry through the Lhanguene Traumatized Orphans project and are familiar with USAID's financial and administrative regulations.

These are only the team's initial suggestions. Any plan that is eventually agreed upon must have your full endorsement.

I hope that the team which comes to follow up on these suggestions will have an opportunity to meet with you and members of your staff next week. In the past, we have discussed these issues with Dr. Cabral and Mrs. Manguera of your Ministry. Please confirm if we should continue our dialogue with them.

Your suggestions and guidance on this matter are greatly appreciated. USAID is pleased to provide support to help meet an important and growing health need in your country.

Accept, Excellency, the assurances of our highest consideration.

Julius Schlotthauer
Director

CC: Dr. Jorge Cabral, National Director, Ministry of Health
Mrs. Joana Manguera, National Director, Social Welfare

:PO:C.Pascual

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OBLIGATING THE ENTIRE PACKAGE TO THE GPRM. THE MISSION WOULD SUBSEQUENTLY EXECUTE GRANTS WITH ICFC OPERATING HANDICAP INTERNATIONALE AND, AS SUGGESTED ABOVE, SAVE THE CHILDREN. WE WOULD ALSO EXECUTE A CONTRACT FOR A PROJECT COORDINATOR. THE PP WOULD BE WRITTEN SO THAT THE BACKGROUND AND TECHNICAL ANALYSIS COULD BE EXTRACTED AND USED IN THE NGO GRANTS.

B. THIS APPROACH HAS SEVERAL ADVANTAGES: (1) THE GPRM WOULD CONCUR ON ALL PROJECT ACTIVITIES IN THE GRANT AGREEMENT; (2) BUDGET LINE ITEMS COULD BE SHIFTED AFTER OBLIGATION IF IT PROVES NECESSARY TO ADJUST THE LEVELS FOR EACH ORGANIZATION AFTER MORE EXTENSIVE TECHNICAL AND FINANCIAL PLANNING; (3) SAVE THE CHILDREN WOULD HAVE TIME TO WORK OUT OPERATIONAL DETAILS WITH OPT-OPED CS OVERSEAS AND THE MINISTRY OF HEALTH BEFORE FUNDS ARE OBLIGATED TO THEM; AND (4) A CONTRACT COULD BE EXECUTED WITH A PROJECT COORDINATOR WHEN A SUITABLE CANDIDATE BECOMES AVAILABLE.

C. THE PRINCIPAL DISADVANTAGES ARE: (1) THERE WOULD BE SOME ADDITIONAL PAPERWORK INVOLVED IN FIRST COMPLETING THE PP AND THEN DOING THE SUBGRANTS; AND (2) THERE WOULD BE SOME DELAY IN GETTING FUNDS TO THE END RECIPIENTS. HOWEVER, NEITHER OF THESE CONCERNS ARE SERIOUS SINCE THE ADDITIONAL DESIGN WORK IS OBTAINED BY THE CONSOLIDATED REPORTING REQUIREMENTS AND ADDED FLEXIBILITY OF AN UMBRELLA PROJECT AND, FURTHERMORE, NONE OF THE IMPLEMENTING ENTITIES IS PRESENTLY READY TO MOVE. A MINOR DELAY WILL NOT HAVE A PROGRAMMATIC IMPACT. IN ANY EVENT, OBLIGATION OF ANY MAJOR PART OF THE ACTIVITY BY AUGUST 31 IS OUT OF THE QUESTION.

4. IMPLICATIONS FOR CONTRACTING.

A. IF AID/W CONCURS WITH THE ABOVE APPROACH, THE SCOPE OF WORK FOR THE DESIGN TEAM WOULD HAVE TO BE REVISED. IT SHOULD CLEARLY SPECIFY THAT THE PGO AND THE TECHNICAL SPECIALIST MUST COMPLETE A FULL PP, INCLUDING ALL RELEVANT TECHNICAL ANALYSES, AND THAT THEY SHOULD ALSO DRAFT AN ACT ON MEMORANDUM, GRANT AGREEMENT AND ABRIDGED PROJECT DESCRIPTION. TO THE EXTENT POSSIBLE, THE TEAM SHOULD ALSO COMPLETE PRELIMINARY DRAFTS OF GRANTS WITH THE RELEVANT NGOs AND SPECIFY WHAT ADDITIONAL INFORMATION IS NECESSARY TO BRING THE GRANTS TO CONCLUSION. THE MISSION STILL BELIEVES THAT OUR ORIGINAL ESTIMATE OF TWO MONTHS WORK FOR BOTH THE TECHNICAL ADVISOR AND PGO IS ACCURATE. HOWEVER, THERE IS AN OBVIOUS URGENCY TO GETTING THE WORK COMPLETED AND WE WILL BE FLEXIBLE ABOUT THE ARRANGEMENTS WHICH STAFF AND AFR/PD/SA CAN MAKE.

B. PARTICIPATION OF A CONTRACTS OFFICER CAN BE DEFERRED UNTIL AFTER THE UMBRELLA GRANT IS COMPLETED. IN FACT, WE MAY FIND THAT A CONTRACTS OFFICER IS NOT NEEDED AND THAT THE REGIONAL CONTRACTS OFFICER COULD HANDLE THE THREE NGO GRANTS GIVEN A BIT MORE TIME.

5. REQUESTED ACTIONS

A. FOR KAMPALA. PLEASE CONFIRM COLEMAN AND LAROCCA TODAY AND ETA. UPON CONFIRMATION MISSION WILL ADVISE ACCOMMODATIONS AND PROVIDE OTHER TRAVEL INFORMATION.

B. FOR AFR/PD/SA AND CT/W. PLEASE ADVISE CONCURRENCE WITH ABOVE DESIGN APPROACH AND PROVIDE UPDATE ON CONTRACTING PROCESS.

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C. FOR AFR/PD/SA AND REDSO. GIVEN THE TIME CONSTRAINTS ON THIS ACTIVITY, AND THE EXTRA ASSISTANCE BEING PROVIDED BY A D/W, THE MISSION WOULD APPRECIATE YOUR CONSIDERATION OF WAIVING THE NORMAL REQUIREMENT FOR REDSO APPROVAL OF DESIGN DOCUMENTS.

D. FOR MBABANE. REQUEST RCO TO CONFIRM WHETHER HE WILL HAVE TIME TO COMPLETE THE THREE NGO GRANTS INDICATED ABOVE IF THE DEADLINE IS EXTENDED TO END OCTOBER OR MID-NOVEMBER. WELLS

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ACTION OFFICE STHE-23

INFO AFMG-03 AFEA-23 AFSA-02 AFPO-24 AFCC-02 AFTR-05 AAFB-23
AFPE-07 OL-01 EAST-01 PPR-01 GC-01 GCAF-01 FYA-01 ES-01
AAFF-01 FPA-01 FM-01 RELO-01 AMAD-01 TELE-01 248 ABINFO LOG-00 AF-00 CIAE-00 EE-00 DODE-00 AMAD-01 4221 W
-----055702 051651Z 740 43 38O 051427Z JUN 85
FM AMEMBASSY MAPUTO
TO SECSTATE WASHDC IMMEDIATE 7337
AMEMBASSY NAIROBI IMMEDIATE
AMEMBASSY MBABANE IMMEDIATE
AMEMBASSY KAMPALA IMMEDIATE

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A-DAC

A/D/W FOR ST/M, RANDOLPH AND AFR/PCS/A, BLISS
NAIROBI FOR REDO/ES-
MEABANE FOR SELVAGGIO, ROO HENSON AND RLAS
KAMPALA FOR LAROCCA AND COLEMAN

E O 12354: N/A

TAGS: ---

SUBJECT: MOZAMBIQUE -- PROSTHETICS PROJECTS

REFS: (A) STATE 174120; (B) STATE 168962; (C) STATE
149584; (D) MAPUTO 1970

1. SUMMARY. USAID/MOZAMBIQUE CONCURS WITH LAROCCA AND COLEMAN TDY FROM JUNE (2-17) WHICH ALSO CONCURS WITH GENERAL PLAN TO OBTAIN DESIGN AND TECHNICAL SUPPORT THROUGH AN IGC. HOWEVER, RATHER THAN MOVE DIRECTLY INTO 3 OPGS AND ONE GRANT TO THE GOVERNMENT WHICH WOULD ENTAIL FOUR SEPARATE PROJECTS AS SUGGESTED REF A, WE SUGGEST FIRST DESIGNING AN UMBRELLA PP AND OBLIGATING THE ENTIRE PACKAGE TO THE GOVERNMENT, WITH SUBGRANTS SUBSEQUENTLY MADE TO THE RELEVANT AGOS. BASED ON CONSULTATIONS WITH THE RLAS, MISSION BELIEVES THAT REQUIREMENT FOR A "P/D EQUIVALENT" HAS BEEN MET THROUGH THE LAROCCA, GUNGLEY BELCHER REPORT DATED APRIL 24, 1985 AND PPC'S ACTION MEMO TO THE ADMINISTRATOR (REF C). CREATING AN UMBRELLA PROJECT HAS A NUMBER OF BUDGETARY AND IMPLEMENTATION ADVANTAGES WITHOUT SIGNIFICANTLY INCREASING THE DESIGN WORKLOAD AS DISCUSSED BELOW. HOWEVER, THE SCOPE OF WORK FOR THE DESIGN TEAM WOULD HAVE TO BE REVISED TO REFLECT THE NEW APPROACH. END SUMMARY.

2. MISSION CONCERNS. USAID HAS CONSIDERED A NUMBER OF DESIGN AND IMPLEMENTATION ALTERNATIVES IN ORDER TO ENSURE THAT THE ENTIRE PROSTHETIC CS PACKAGE IS COHERENT AND AS EASY TO IMPLEMENT AS POSSIBLE. WE ALSO MET WITH ICRC TO OBTAIN A SENSE OF THE DESIGN REQUIREMENTS FOR THEIR COMPONENT OF THE PROGRAM AND THEIR IMPRESSIONS OF THE MANAGEMENT BURDEN THAT THE OTHER COMPONENTS WOULD ENTAIL. THESE PRELIMINARY DELIBERATIONS HAVE RAISED THE FOLLOWING CONCERNS:

A. ICRC HAS A PLAN FOR A TRAINING PROGRAM, BUT THE PROPOSED NEW WORKSHOP IN TETE IS ONLY AN IDEA. THEY AGREE THAT A NEW WORKSHOP IS NEEDED AND ARE WILLING TO COMMIT THEMSELVES TO ESTABLISHING ONE SOMEWHERE IN THE COUNTRY, BUT CANNOT COMMIT THEMSELVES TO TETE UNTIL PRE-FEASIBILITY STUDIES ARE DONE. GIVEN THAT THE CONGRESSIONAL APPROPRIATION FOR THE PROSTHETICS PROGRAM MAY BE IMPLEMENTED NOTWITHSTANDING ANY OTHER PROVISION

OF THE LAW, THIS UNCERTAINTY CAN BE ACCOMMODATED IN AN UMBRELLA PP. HOWEVER, WE ARE CONCERNED THAT THERE IS NOT ENOUGH TIME TO PUT TOGETHER THE NECESSARY DETAILS TO GO DIRECTLY INTO A HANDBOOK I3 GRANT. MOREOVER, IF EXTENSIVE PLANNING IS REQUIRED ON THE ICRC GRANT, WE ARE PARTICULARLY WORRIED ABOUT THE AMOUNT OF WORK REQUIRED TO PUT TOGETHER GRANTS FOR THE OTHER, LESS ESTABLISHED, ORGANIZATIONS.

B. THE OPTHOPED CS OVERSEAS COMPONENT OF THE PROGRAM IS GOING TO REQUIRE EXTENSIVE COORDINATION, BOTH TO ARRANGE LOGISTICS AND TO ENSURE PROPER INTEGRATION OF TRAINING PROGRAMS WITH MOZAMBIQUE COUNTERPARTS. WE HAVE BEEN ADVISED BY SAVE THE CHILDREN THAT THEY HAVE ALREADY BEEN CONTACTED BY A/D/W TO DETERMINE THEIR INTEREST IN ACTING AS A FACILITATING AGENT FOR ORTHOPEDICS OVERSEAS AND ACTUALLY BE THE RECIPIENT OF FUNDS. THE SAVE OFFICE IN MAPUTO IS EXTREMELY INTERESTED. WE ALSO THINK IT IS A GOOD IDEA. AS NOTED BELOW, WE SUGGEST THAT SAVE THE CHILDREN ALSO SERVE AS THE RECIPIENT FOR THE TRANSPORT AND HOTEL PROGRAM.

C. WE CONCUR THAT THE POSTEL AND TRANSPORT PROGRAM IS BADLY NEEDED, BUT ARE CONCERNED WITH THE MINISTRY OF HEALTH'S CAPACITY TO IMPLEMENT IT WITHOUT OUTSIDE ASSISTANCE. LAST YEAR ICRC PROVIDED THE RELEVANT ASSISTANCE WITH EQUIPMENT AND MATERIALS FOR A SMALL CONSTRUCTION PROJECT AND FOUND THAT NOTHING WAS DONE FOR MONTHS AND THAT THE MATERIALS WERE EVENTUALLY DIVERTED FOR OTHER PURPOSES. ICRC SUGGESTED TO USAID THAT THE PROPOSED GRANT TO THE MOH BE LIMITED TO RELOCATION AND TRANSPORT FOR ONE SPECIFIC HOSTEL AND THAT WE NOT ATTEMPT TO IMPLEMENT THE REST. AS YOU KNOW, WE DO NOT HAVE THE CAPACITY FOR THE LATTER, BUT ICRC'S SUGGESTION INDICATES A CRITICAL NEED FOR ASSISTANCE. WE THINK SAVE THE CHILDREN COULD EFFECTIVELY PLAY THIS ROLE AS THEY HAVE ALREADY DEVELOPED A CLOSE RELATIONSHIP WITH THE IMPLEMENTING AGENT UNDER THE RE-TRAUMATIZED CHILDREN PROJECT. THIS WOULD ALSO ALLOW US TO COMBINE THE ORTHOPEDICS OVERSEAS AND TRANSPORT/HOTEL ACTIVITIES UNDER ONE GRANT. (NOTE: WE HAVE NOT DISCUSSED THIS WITH SAVE THE CHILDREN).

D. GOVERNMENT CONCURRENCE WITH ALL DIMENSIONS OF THIS PROGRAM IS CRITICAL. WHILE AGOS WILL PLAY A CENTRAL ROLE IN PLANNING AND IMPLEMENTING PROJECT ACTIVITIES, THE PROJECT CANNOT WORK UNLESS THE GOVERNMENT PROVIDES THE NECESSARY COUNTERPARTS FOR TRAINING, SUPPORTS THE PARTICIPATION OF U.S. TECHNICAL ADVISORS IN PROJECT ACTIVITIES, AND ASSUMES THE RECURRENT COSTS OF PROJECT ACTIVITIES IN THE MINISTRY OF HEALTH BUDGET. THIS ARGUES FOR A FORMAL AGREEMENT WITH THE GOVERNMENT ON THE FULL SCOPE OF THE PROGRAM. EVEN IF FUNDS WILL GO DIRECTLY FROM USAID TO VARIOUS NGOS.

E. ALL OF THE ABOVE CONCERNS ON PROJECT IMPLEMENTATION REINFORCE OUR EARLIER CONCERN (REF D) ABOUT SECURING FUNDS FOR A FULL TIME PROJECT COORDINATOR. WE HAVE IDENTIFIED A POTENTIAL CANDIDATE WHO HAS BEEN WORKING WITH THE UN IN MAPUTO AND IS ABOUT TO COMPLETE A CONTRACT, BUT SOME MECHANISM IS NEEDED TO HOLD THE FUNDS FOR A CONTRACT IN CASE EITHER (A) THE CANDIDATE CANNOT SIGN A LONG-TERM CONTRACT BEFORE SEPTEMBER 30, OR (B) THE CANDIDATE FALLS THROUGH AND WE NEED TO LOOK ELSEWHERE.

3. DESIGN IMPLICATIONS.

A. WE THINK THAT THE ABOVE CONCERNS COULD BE ADDRESSED MOST EFFECTIVELY BY DEVELOPING AN UMBRELLA PP AND

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ANNEX 2

BENEFICIARY/SOCIAL ANALYSIS

A. Social-Cultural Context

Demographic data for Mozambique (1980 census) report that Mozambique's population doubled in size from six to twelve million between 1950 and 1980. The current population growth rate is reportedly close to 3 percent, which, assuming growth rates continue at current levels, would increase Mozambique's population by more than 50 percent to over 23 million during the remainder of this century. According to the 1980 census, only 13 percent of the country's population was urban in 1980; however, urban growth since then has been rapid due to drought and insecurity. Another countrywide census is to take place in 1990.

Massive internal displacements have occurred as a result of drought, famine, and insurgency. The Government estimates the internal displaced population at around 1.7 million. At present, the international refugee population is estimated at nearly 1 million persons, primarily in Malawi, Zimbabwe, and Zambia. Most observers believe that both internal and international displacements are likely to reverse whenever normal conditions return. The constant movement of large numbers of people contributes to an extremely unstable social structure throughout the project area. William Finnegan writing in the May 22, 1989 issue of the New Yorker magazine observed that "For refugees, and especially for peasants driven off their land, ...the world is decidedly not on its axis. Their homes and all that accompanies that fundamental notion -- kin, society, sustenance, identity itself -- have been torn from them by terrifying forces."

Health services are inadequate the farther one gets from main provincial towns. Hospitals, as it is, are overcrowded, understaffed, and underequipped, with the result that few children have access to the benefits of an adequate medical vaccination regime, and few war-wounded civilians are able to receive proper medical attention and follow-up care. The country's medical school graduates only 20 new doctors a year; allied and paraprofessional health personnel are presently staffing the country's hospitals and clinics. In addition, several dozen medical personnel -- from surgeons to radiologists -- from an array of countries are filling in the gaps at present.

B. Project Beneficiaries

The direct beneficiaries of this project are:

- o War-wounded civilians who will have better access to medical attention and who will receive treatment, prostheses or orthoses, and follow-up care; (estimated 1,000 to 1,300 per year)
- o Civilian children and adults suffering from impairments from polio, leprosy, spinal lesions, other crippling diseases, and from accidents, who will benefit from improved access to care as well as from better quality of orthotic treatment, follow-up care, and repair of appliances; (estimated 300-400 per year)
- o Course trainees in several categories:
 - Medical and health technicians who will receive new skills (technical, communication, other) during specialized Continuing Medical Education seminars and clinics; (estimated 3 orthopaedic surgeons by project end, others)
 - 30 new recruits for the ICRC I.P.S.O-certified 3-year prosthesis/orthosis course yearly who will acquire new technical skills; (estimated 20 graduates) and
 - 30 new recruits for the new 3-year physiotherapy course who will be the pioneers in acquiring these skills (estimated 20 graduates).

Secondary beneficiaries are institutional in nature: the staffs of the non-governmental organizations, secondary level Maputo Central Hospital staff, the Ministry of Health staff, provincial health facility staffs, and others who will acquire better information on prosthetic/orthotic needs and care problems.

Institutionally, project benefits will be widespread. Programs will be expanded and reinforced. Additional equipment, consumables, and other supplies will be procured. Staffs, as mentioned, will receive training. Relationships between the cooperating agencies will be strengthened.

The Ministry of Health will have an improved capacity to cope with the numbers of war-wounded and diseased/crippled patients and will have an improved information base upon which to base its continued longer-term strategic planning efforts and policy dialogues. Mozambique's provincial hospitals will see improved orthopaedic facilities and staffs; tangential transit centers will relieve their burden of patients-in-waiting. Newly trained and retrained technicians (orthopaedic surgeons, prosthetists, orthotists, physical therapists, adjunct medical assistants) will be contributing their technical expertise throughout the country.

Viewed from the perspective of these various service providers, this project will also serve to raise the morale of these professionals, by reducing the frustration for having to turn clients away due to a lack of appliances, medicines, supplies, technical know-how, or food and shelter and follow-up care.

C. Issues

1. Gender Issues

Victims: Rough figures outlined by the AID consultant assessment team indicate that of all amputees requiring prosthetic care, approximately 70 percent of these are men and 30 percent women. This figure may reflect the higher percentage of military (male) casualties. Many of the female victims of land mines and other wounds to limbs are simply civilians caught in the crossfire or walking on rural farm-to-market roads at the time of injury.

In this project, the direct beneficiaries served with prosthetic or orthotic appliances ultimately will include a number of women; no discrimination in treatment and fitting of prosthetics/orthotics by sex among the civilian population is reported. DHI pays particular attention to serving the treatment needs of female heads of family; this precedent should be followed by the USAID project.

Trainees: In the health care system, it is not known at this time the percentage of female health care workers in the provincial hospitals and prosthetic production workshops. A visual appraisal in Maputo revealed a few women holding positions as physical therapist assistants, but not often as prosthetists or as carpenters or other production staff. Quite a few of the hospitals' physicians are female. Fully half of the country's medical students are women -- one of the highest percentages in southern/eastern Africa.

For the training segment of the project, every effort should be made to recruit and include at least a 35 percentage of women trainees in both the physical therapy and the prosthetist/orthotist courses as well as for the HVO-sponsored continuing medical education initiatives. These should include doctors, physical therapists, nurses, medical technicians, recent school graduates, as available and interested. Initial searches by government and non-governmental staff must seek out qualified women candidates as well as men.

Data collection: In the initial needs assessment, every attempt should be made to collect gender-disaggregated data.

2. Participation

The full participation of the Ministry of Health at the national and provincial levels will assure in the execution and implementation of project activities. They will be looked to as leaders in policy dialogue and technical assistance.

The participation of four non-governmental agencies, three of which (ICRC, OHI, SCF) are already fully operational in the country is encouraging to the importance of the project. The fourth FVO - Health Volunteers Overseas - is anxious to begin its presence in this country; its long term adviser and short-term volunteers are crucial to the success of the project.

Other private sector assistance intermediaries (such as CARITAS, service organizations, other religious organizations, MAD) will also be sought out by Save the Children as participants in the hostel/transport component of the project. As an indication of willingness, OHI reports that the Catholic nuns in Inhambane have expressed their interest in assisting with the Transit Hostels.

All assistance/donor groups mentioned have been consulted several times during project identification and design; all appear committed to the importance of this project and to their full participation in it.

3. Financial Participation

Concerning financial participation, it has been GPRM policy that victims of war activities requiring surgical treatment and prosthetic appliances should incur no financial burden. However, if a patient has been injured in a domestic, traffic, or other accident, or is crippled by disease, then a \$50 charge is levied for treatment. The Prosthetics Assistance Project should follow this policy precedent.

4. Reintegration into Society

The Government of Mozambique recently requested CARE/France to assist disabled persons in the three northern provinces. They developed a proposal for a pilot project for a center in Nampula to provide social and occupational rehabilitation services to handicapped clients. Project components included vocational training and a small business enterprise component. It was not funded; and at present, no other project within Mozambique addresses the future of the substantial numbers of war casualties.

While the USAID Prosthetics Assistance Project will help Mozambicans to receive good treatment, education, and follow-up attention, and in general to resume a more normal life, it does not address questions of social, economic, or vocational aftercare and rehabilitation. Certainly this need has been identified, by the MOH, by CARE, and others, and is justifiable in light the country's dilemmas. However, this project by design has no provisions of serving the many needs -- training, counseling, job placement -- of the war wounded. It is a physical rehabilitation project only.

The project design team suggests that questions of social and economic aftercare and reintegration would fall within the purview of the newly established Association for Mozambican Disabled in conjunction with the Ministry of Health.

ANNEX 3

FINANCIAL ANALYSIS

A. PVO Registration

The Prosthetics Assistance Project will be implemented through four non-governmental organizations:

- o Save the Children Federation/US (SCF) is a registered US PVO with a well-established record with AID.
- o Health Volunteers Overseas (HVO) is also a US PVO but it is neither registered or established with AID. HVO has started the AID registration process. HVO has also just negotiated a \$1.8 million grant with AID to undertake a similar program in Uganda.
- o Operation Handicap Internationale (OHI) is a France-based PVO with substantial worldwide activities. It is not as yet registered with AID but has agreed to apply.
- o International Committee of the Red Cross (ICRC) has traditionally resisted AID's efforts to secure precise programming, fiscal, and reporting data. AID has reluctantly agreed to support some ICRC programs despite their unwillingness to accept our programming and administrative system.

Under the flexibility accorded this activity in the Foreign Assistance legislation, USAID/Mozambique can enter into agreement with all of the above entities without reference to AID's registration or other administrative requirements. Of the two PVOs in question, HVO will probably secure AID registration easily. OHI may be more difficult since French regulatory standards for PVOs are said to be less rigorous than the American ones. If this turns out to be the case, USAID/Mozambique may consider entering into a contractual relationship (instead of grant) with OHI.

B. Sustainability

As indicated in the Recurrent Costs section of this document, and in the analysis of sustainability, this project cannot be sustained at this level without continued donor help. The donors are spending about \$2 million annually on prosthetic and orthotic care. Given the Ministry of Health's other pressing needs, it is doubtful that prosthetics/orthotics would receive the present level of priority and funding should more Mozambican resources become available for health programs.

ANNEX 4

SECURITY ANALYSIS

A. Nature and Source of Insecurity

Security in Mozambique, the major problem facing the government, remains serious, with little indication of improvement. Many of Mozambique's rural areas are in a condition of virtual anarchy as armed insurgency or "banditry" (the RENAMO resistance) affects all of the country's ten provinces. The insurgent group has armed camps throughout the country, and although it periodically occupies district capitals or large towns, it has questionable support among the local population; opinion is divided on the issue.

Violence has displaced some two million people out of a population of 15 million and is the main cause of hunger, which is said to affect about 5 million. It has caused more than a hundred thousand famine-related deaths. According to AID consultants, it causes up to 1,500 cases of war-wounded civilians a year; land mines planted indiscriminately often ravage the limbs of passing civilians, thereby necessitating amputations and subsequent false limbs or assistive devices. The 14-year old war has also limited adequate preventive medical care in the form of vaccinations, thereby escalating the incidence of such crippling diseases as polio, TB, spinal lesions, meningitis, leprosy and so forth.

Transportation corridors are major targets of insurgent actions with only the Beira corridor functioning without major interruptions despite frequent RENAMO attempts to sabotage the line. Large parts of the country are accessible only by air because the highways and rail lines have been destroyed or are often attacked. Destruction and looting between 1980 and 1989 have rendered inoperative almost 2,000 primary schools, about 800 health units, over 900 shops, and more than a thousand trucks, buses, and tractors. The GPRM estimates its cost at over \$6 billion between 1975 and December 1988.

Outside the main towns, most country areas are prey to attacks. There are frequent ambushes on the same stretches of road, sometimes within the space of a few days. In the face of this, the government armed forces are largely impotent. As William Finnegan reported in his article of the May 22, 1989 issue of the New Yorker magazine, "Although people are dying in all of Mozambique's ten provinces, there is no front, and few pitched battles."

Mozambique receives substantial military assistance from neighboring countries. Zimbabwe and Malawi have thousands of troops stationed in Mozambique. While government forces periodically conduct operations in various parts of the country, there are no indications that they bring any significant military results. While the presence of Zimbabwean troops has been a deterrent to insurgent attacks, the conflict continues at as high a level as it ever has in all ten provinces.

(Note: At the time of this writing -- August 1989 -- RENAMO and FRELIMO are talking about talking about peace. Kenyan President Daniel Arap Moi recently hosted a meeting in Kenya of RENAMO representatives and the Anglican bishop envoys of the GPRM to begin conversations. Zimbabwean President Mugabe will also serve as broker in any upcoming talks. There appears to be a new breeze of hope wafting in the southern African air, especially following the winds of change recently in Angola.)

The Department of State maintains a travel advisory for Mozambique, warning American travelers that the insurgent guerrilla war against the Mozambique government continues apace. The advisory states:

"Due to activities of RENAMO forces, road and rail travel outside provincial capitals can be very hazardous. RENAMO has publicly stated that it will not hold itself responsible for the safety of anyone traveling in the country, and there have been numerous attacks against civilian and economic targets. Travelers are obliged to use extreme caution when traveling by land, especially on the national highways."

A troubling dimension of the conflict is the increasing threat to aircraft. Several airplanes used to haul relief supplies have been hit by ground fire, but so far without serious results.

B. Security Implications for Project Progress

Many of the project's activities take place in the relatively secure capital of Maputo. Other components -- the hostels, the prosthetic workshops, some of the training events, the national assessment, transport of victims -- will require staff and associates to travel to or live in less secure zones of the country -- Inhambane, Vilanculos, Beira, Quelimane, Nampula. Each of these areas has in past years suffered from sporadic and random RENAMO attacks. The hospital in Inhambane in the past year, in fact, was a military insurgency target of intense brutality; patients were bayoneted in their beds. The hospital in Vilanculos was also recently ransacked.

For all intents and purposes, these five provincial or district capitals are accessible only by air. While the Government reportedly continues to occupy all these cities, small-scale and at times large unit insurgency activities continue around them. Attacks on the roads outside of these towns continue.

With the RENAMO capability of striking at will, emergency relief and development aid workers in these areas take special precautions to ensure security. Workers rarely spend an overnight outside of these principal towns. When the security situation deteriorates, personnel are pulled back to safe areas. It is not envisioned that USAID, ICRC, OHI, HVO, or SCF project personnel would stay overnight outside of these five cities.

ICRC and other organizations monitor the security situation constantly and communicate changes immediately by radio. Through regular contacts with provincial and district authorities, missionaries, and other non-governmental organizations and private individuals, ICRC (and OHI and SCF) are able to assess when it is safe to enter one of the outlying areas.

The established policy of the U.S. Embassy in Maputo requires all official and direct contract employees of the United States to obtain written approval of the Ambassador for travel outside Maputo. The Embassy is able to consult Mozambican security authorities and other informed sources in appraising the risk of travel to insecure areas. In accordance with this policy, all personnel from HVO and SCF as well as direct hire and contract AID employees will obtain Embassy approval before traveling to and within the provinces concerned.

C. Conclusion

Despite its ineffectiveness in dealing with the violence, the Government of Mozambique is not in danger of military defeat. President Chissano is continuing to press ahead with his domestic and foreign policy initiatives aimed at bringing peace, as mentioned above. In the meantime, the prospects remain for a high level of internal conflict. There is good reason to believe, however, that by continuing to take prudent preventive measures and by avoiding unnecessary risks, project personnel will be able to implement the project safely.

ANNEX 5

ILLUSTRATIVE TERMS OF REFERENCE

1). USAID Project Coordinator

Qualifications should include: some project management experience; communicative competence in Portuguese; ability to network and liaise easily with several nationalities of actors; good writing and analytic skills; detail-oriented; ability to travel upcountry (Vilankulo, Inhambane, Nampula, Quelimane, and Beira) on an occasional basis.

Responsibilities of the Project Coordinator will be to:

- o Sit on the Project Coordination Steering Committee and contribute input to project activities;
- o Provide managerial and administrative oversight to all five project components, backstopping and troubleshooting difficulties as needed;
- o Centralize all project-related reports;
- o Undertake managerial visits to the various component activities (training sessions, workshops, upcountry staff, hostels) to provide backstopping as necessary;
- o Assist with limited commodity procurement, in conjunction with other project implementors;
- o Assist with identifying needs and drafting of terms of reference for short-term technical assistance (occasional medical volunteers to be provided by HVO);
- o Prepare disbursement vouchers; and
- o Backstop project evaluation efforts.

2). Health Volunteers Overseas Long Term Orthopaedic Surgeon

The general task of the orthopaedic surgeon will be to organize and develop an orthopaedic surgery program in Mozambique in cooperation with the Ministry of Health. Specific responsibilities might include the following:

- o To raise the quality of orthopaedic and trauma surgery to a higher standard in Mozambique in order to more effectively treat and rehabilitate the crippled, disabled, and amputee victims of the war;
- o To provide technical assistance and expertise in orthopaedic surgery to the Ministry of Health;

- o To serve on the Project Coordination Steering Committee and other national coordinating or liaison committees for orthopaedic and rehabilitation services;
- o To provide leadership and guidance to establish a comprehensive treatment program for amputees and mobility impaired to include follow-up and repair services for patients with prostheses and orthoses;
- o To develop and expand the Department of Orthopaedic Surgery at the Maputo Central Hospital into a national referral center for orthopaedic and rehabilitation clinical services and to build an effective orthopaedic teaching program for residents, house staff physicians, medical students, and medical technicians;
- o To train/teach orthopaedic surgery to 3 Mozambican orthopaedic residents, 40 fourth-year medical students, and to selected house staff physicians at the hospital;
- o To conduct postgraduate continuing medical education seminars in orthopaedic surgery for approximately 120 upcountry physicians; and
- o To providing consulting services and to hold brief seminars at provincial hospitals.

Logistics and administration of this component will be undertaken by Save the Children/US; therefore, close collaboration between the long term surgeon and SCF will be mandatory.

3). Short term Orthopaedic Surgeons and other Medical Specialists

The Ministry of Health prefers that the details concerning the short term specialists be worked out two to three months after the arrival of the long term surgeon. At that time, specifics of length of assignment, type of volunteers needed, and specific terms of reference can be drawn up. However, illustrative examples of responsibilities can be given here:

- o To teach and demonstrate techniques and skills of orthopaedic surgery to residents, house staff physicians, and medical technicians at the Maputo Central Hospital;
- o To carry out similar work to fourth-year medical students at the Faculty of Medicine; and
- o To provide consulting services to upcountry physicians and surgeons as possible.

ANNEX 6

MINISTRY OF HEALTH
REQUEST FOR ASSISTANCE

(in Portuguese and in English)

LC/Jfs



REPÚBLICA POPULAR DE MOÇAMBIQUE
MINISTÉRIO DA SAÚDE
DIRECCÃO NACIONAL DE SAÚDE

Hector Mutchler
cc. Aldem
Pascual
RF

Nº. 1510/ERS-5/DNS/89
Maputo, 8 de Agosto de 1989

- 9 AVE 1989

Exmº. Senhor
Julius Schlotthauer
Representante USAID MISSION TO MOZAMBIQUE
Rua Faria de Sousa nº.107

Vossa Referência: 89/367, de 8.06.89

Exmº. Senhor,

Visto o interesse demonstrado pela USAID em apoiar a área da assistência e reabilitação dos traumatismos de guerra, é de nosso interesse que a ajuda prevista seja aplicada para contribuir à criação de uma rede de serviços destinados a minimizar o grave problema das deficiências físicas e mutilações que hoje o País enfrenta.

Este programa prevê como necessidades prioritárias a prevenção e tratamento precoce das deficiências, através de um melhoramento e potenciamento dos serviços de Ortopedia e Traumatologia, de Fisioterapia e das Oficinas Ortoprotésicas, e a formação de pessoal especializado nessas diferentes áreas.

Já operam neste programa algumas Organizações Internacionais e projectos de cooperação bilateral: é premisse indispensável a coordenação das actividades de cada um, para atingir o objectivo global pretendido.

Para isso, alguns objectivos específicos do apoio da USAID deverão ser definidos e concordados ao longo do programa, de acordo com as necessidades e prioridades que foram surgindo. Desde já, baseando-nos na vossa proposta preliminar de 8 de Junho 1989, ref.89/367, podemos propor:

1) - APOIO FINANCEIRO AO I.C.R.C.

De acordo com esta proposta e com o I.C.R.C. remarcamos os itens b) e d):

b) "programa de formação de técnicos de ortoprótese"

→ O budget previsto será utilizado para o curso de formação de técnicos superiores de ortoprótese, já concordado com o I.C.R.C.. Os detalhes serão discutidos com a Comissão de Preparação do Curso - que

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Ministério da Saúde

esperamos para breve - mas grosso modo as necessidades já apontadas são a contratação de docentes e o apoio logístico aos alunos (ajuda de alojamento, material didáctico, listas de ferramentas etc..).

Visto haver uma vontade de coordenar o trabalho de formação nessa área, entre as organizações actualmente operantes em Moçambique (I.C.R.C., NAD, OHI...), o financiamento destinado pela USAID à formação de técnicos ortoprotésicos, deveria ser alargado para beneficiar também os cursos de reciclagem e formação de técnicos médios e elementares, previstos para um próximo futuro.

d) "criação de uma nova oficina de prótese".

Esta proposta já foi rejeitada seja pelo Ministério da Saúde, seja pelo I.C.R.C.. De momento são suficientes as 4 oficinas criadas pelo I.C.R.C.: é nessa preocupação melhorar a rentabilidade dessas oficinas, e não aumentar o seu número.

Porém, o budget previsto pode ser em parte utilizado para realizar obras de ampliação e remodelação da oficina ortopedica do Hospital Central de Maputo.

Trata-se de uma obra de pequeno empenho, mas bastante importante pela reorganização interna dessa oficina - cuja produção não protésico, destinar-se-ia ao serviço do Departamento de Ortopedia/Traumatologia, com a produção de aparelhos de fixação externa, gessos articulados, aparelhos de descarga e de tracção, muletas etc.... Será importante também para criar um espaço didáctico completo e apropriado para a formação dos técnicos de ortopróteses.

Outra parte do budget poderá ser transferida do ICRC para o Hospital Central de Maputo, e eventualmente ser aumentada, para permitir o começo das obras de reabilitação das Urgências de Traumatologia, já previstas com o apoio do Governo Italiano num projecto que ainda está em fase de estudo.

Trata-se de uma obra de grande urgência para o melhoramento da assistência traumatologica e ortopedica do Hospital Central de Maputo. O H.C.M. é o único hospital de nível quaternário do País, e aqui deve ser sistematizada, para ter recaída no resto do País, uma conduta terapeutica e assistencial adequada as necessidades de um país em guerra e com alta percentagem de deficientes entre a população. O H.C.M. É também o único hospital vocacionado para formação pratica dos estudantes de Medicina, e especialização de médicos nas várias áreas.

Ministério da Saúde

Por todo quanto exposto, este investimento por parte da USAID criará também melhores condições de trabalho para a assistência técnica prevista no ponto 3 da vossa proposta preliminar.

2) APOIO À O.H.I.

A justificação preliminar desse financiamento é o suporte aos técnicos da OHI empenhados na Província de Inhambane (2 fisioterapeutas e 2 técnicos ortoprotésicos).

Recentemente, alcançamos um acordo com a OHI, segundo o qual esta Organização vai-se empenhar, a partir de 1990, na formação de técnicos médios de fisioterapia.

Trata-se de um curso de 3 anos, durante os quais a OHI deverá garantir a presença de docentes (fisioterapeutas, terapeutas ocupacionais e logopedistas), e o apoio logístico aos alunos (material didáctico, incluindo de novos aparelhos e apetrechamento para consentir o ensino práctico, ajuda de alojamento etc..).

A O.H.I. tem colaborado conesco na área da fisioterapia e reabilitação, demonstrando boa vontade e capacidade de concretizar os programas que lhe são confiados.

Porém, sendo uma Organização de voluntários sem apoios governamentais, tem dificuldades financeira, especialmente quando envolvidos em programas de certo empenho económico, como é o caso desse curso trienal.

Por isto, solicitamos que o apoio proposto pela USAID à esta Organização, seja garantido e eventualmente ampliado para sustentar as suas actividades de formação de técnicos de fisioterapia durante o triénio 1990-93.

3) "ENVIO DE ESPECIALISTAS EM LONGAS E CURTAS MISSÕES"

Em relação a este ponto, concordamos de imediato com a vinda do cirurgião ortopédico por longo prazo.

Quanto aos especialistas por curto prazo, preferimos que sejam definidos após a chegada do cirurgião ortopédico, e em áreas de assistência médica ou de formação que serão definidas por acordo entre o cirurgião ortopédico, o director do Hospital Central de Maputo e o Ministério da Saúde.

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Ministério da Saúde

4) " APOIO AO TRANSPORTE E ALOJAMENTO DE AMPUTADOS"

Este ponto foca uma das necessidades cuja solução permitirá a melhor rentabilidade do trabalho das oficinas de próteses e de ortotéses existentes no País.

O apoio previsto será utilizado para construção de "Centros de Transito" para deficientes que aguardam a atribuição de um dispositivo ortopédico junto das oficinas existentes. Tais Centros dependem da Direcção de Acção Social deste Ministério.

Por fim, não vemos nenhum inconveniente em que a Save The Children (U.S.A.) seja encarregue da administração das componentes 3 e 4 da vossa proposta.

Sem outro assunto de momento, queira aceitar as minhas mais cordiais saudações.

O DIRECTOR NACIONAL DE SAÚDE,

Dr. António J. Rodrigues Cabral

C.C.: S. Ex.^{ta}. Ministro
Sr.^a. Dir.^a. INAS.
INS/Sr.^a. L. Comin
DCI/RCB.

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PEOPLE'S REPUBLIC OF MOZAMBIQUE
MINISTRY OF HEALTH
NATIONAL DEPARTMENT OF HEALTH

NO. 1510/CIS-5/DNS/89
Maputo, August 8, 1989

Mr. Julius Schlotthauer
Director of USAID MISSION TO MOZAMBIQUE
Rua Faria de Sousa, No. 107

Sub: Your Reference: 89/367, of 06.08.1989

Dear Sir,

Due to the interest shown by USAID to support the assistance and rehabilitation area of war traumatism, it is of our interest that the aid forseen be applied to contribute to the creation of a net of services to solve the difficult problem of physical deficiency and mutilations that the country faces.

This program forseees as priority needs, the prevention and early treatment of deficiencies through the improvement and potentiality of the orthopedic and traumatology physiotheraphy and Orthoprothesis workshop, and training of specialized personnel in those different areas.

Some International Organizations and Projects of Bilateral Cooperation are already involved in this program, therefore one's activities, to achieve the desired global aim. Therefore, some specific aims of aid from USAID should be dtermined and agreed along the program, according to the needs and priorities that will arise. Since now, based on your preliminary proposal of June 8, 1989, Ref. 89/367, we may propose:

1) - According to this proposal and with I.C.R.C. we re-mark items b) and d):

b) "Training Program for Orthoprothesis Experts"

The budget forseen shall be used in a course for training high level orthoprothesis experts already agreed with I.C.R.C. Details shall be discussed with the Course Preparation Commission - which we hope, shall be soon - the needs have already been pointed out, which are the contract of lecturers and logistic support to pupils (accommodation, pedagogical equipment, list of instruments, etc).

Since, there is will of coordinating training in that area, between the Organizations presently operating in Mozambique (I.C.R.C., NAD, OHI...) for the training of orthoprothesis, should be extended to benefit also pedagogical updating and elementary experts, forseen for a near future.

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d) "Creation of a new prosthetics workshop"

This proposal has already been rejected by the Ministry of Health and I.C.R.C. The four workshops created by I.C.R.C. are enough, we are now worried to improve those workshops, and not to increase its number.

However, the budget foreseen could be used to enlarge and remodel the Maputo Central Hospital Orthopedic Workshop.

It is a small brickwork, but very important for the internal re-organization of the workshop - whose production non-prosthetic, would be used by the Orthopedic/Traumatology Department, for the making of apparatus for external fixing, plaster cast, evacuation and tension apparatus, crutches, etc. It will be important to create a complete and adequate pedagogical space for the training of orthoprothesis experts.

Another part of the budget could be transferred from I.C.R.C. to the Maputo Central Hospital to be extended, to enable the starting of rehabilitation of traumatology urgency, already foreseen with support from the Italian Government in a project which is still in the study phase.

It is a brickwork of extreme urgency for the improvement of traumatology and orthopedic assistance of Maputo Central Hospital. H.C. M. is the only quaternary level in the country, it has to be furnished, to be able to assist the rest of the country with a therapeutic management, adequate assistance to face the needs of the country in war and high percentage of disabled among the population. H.C.M. is the only hospital for practical training of medicine students, and specialization of doctors in various areas.

This investment by USAID will create also better working conditions for technical assistance foreseen in Point 3 of your preliminary proposal.

2) - SUPPORT TO O.H.I

The preliminary aim of this financing is to support O.H.I. experts working in Inhambane Province (2 physiotherapists and 2 orthophotesics experts).

Recently, we reached an agreement with O.H.I., so that from 1990, this Organization gets involved in the training of mid-level physioteraphist experts.

It is a 3-year course, during which O.H.I. shall guarantee lecturers (physiotherapists, occupational therapists and) and logistic support to pupils (pedagogical equipment, including new apparatus and instruments for practical teaching, accommodation, etc.).

O.H.I. has been collaborating with us in phisioteraphy and rehabilitation areas, showing good will and wish to carry out programs trusted to them.

Nevertheless, being a Volunteer Organization without governmental aid, has financial embarrassment, specially when involved in economic programs, such as the triennial course.

Therefore, we request that the aid proposed by USAID to this organization, be guaranteed and extended to support its activities of training phisioteraphy experts during the triennial 1990-93.

3) - "SENDING EXPERTS ON LONG AND SHORT TERMS

In relation to this point, we agree with the coming of an orthopedic surgeon for a time.

Experts for a short time, we prefer this issue to be tackled upon the arrival of the orthopedic surgeon, and on areas of medical assistance or training shall be decided by the orthopedic surgeon, the Director of Maputo Central Hospital and the Ministry of Health.

4) TRANSPORT AND ACCOMMODATION FOR AMPUTEES SUPPORT"

This point tackles one of the needs whose solution will enable better rentability of prosthetic and orthothetis workshops existing in the country.

The forseen support shall be used to build a "Transit Centre" for disabled waiting for the attribution of an orthopedic connector from the existing workshops. Such centres depend on the Department of Social Welfare of this Ministry.

Finally, we do not seen any incovenience for the management of parts 3 and 4 of your proposal.

Please accept assurances of my highest consideration.

The Director of National Health

Dr. Antonio J. Rodrigues Cabral

cc: H. E. the Minister
The Director of Social Welfare
DNS/Ms. L. Comin
DCI/RCB

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ANNEX 7

INSTITUTIONAL PROFILE: International Committee of the Red Cross

The ICRC Program

ICRC's Mozambique prosthetics program has three components:

1) To produce crutches, wheelchairs, and protheses. In 1988, ICRC workshops produced 180 pair of crutches a month. By 1990, they expect to expand production to 500 pair. In 1988, their workshops produced about 60 wheelchairs. They do not plan to increase wheelchair production since they believe present amounts are meeting the amputees' needs and the costs of imported components are overly expensive. About 80 percent of the protheses produced and fitted in Mozambique are made at ICRC workshops. ICRC maintains workshops at four locations: Maputo, Beira, Quelimane, and Nampula. By far the largest one is in Maputo; it produces over 50 percent of the total protheses. In 1988, ICRC produced 650 protheses; by 1990 they will have the capacity to produce about 1400 units. Based on some current estimates of need for new fittings and replacements, this amount may be about adequate to meet Mozambique's total requirements. However, in the absence of better data on need, all such estimates are very speculative.

2) To train qualified prosthetists/orthotists and to upgrade existing workshop staff. ICRC has two training objectives. First, there is an ongoing on-the-job (OJT) program for the wood and metal workers who staff their workshops. The second objective is to launch a 3-year prosthetist/orthotist course to train approximately 30 Mozambicans to international standards. Whether a program at this level can in fact be implemented will depend on the MOH's capacity to recruit enough qualified trainees with an eleventh grade education. This course is expected to begin in February of 1990.

3) To improve the rehabilitation infrastructure. ICRC will construct or renovate a building in Beira or Maputo for the ICRC prosthetist/orthotist training course. They are also planning to modestly expand their existing workshop space in Maputo with the addition of a small wing. ICRC also intends to contribute to the hostel program which is designed to provide accommodation close to the medical facilities for rural patients being treated and rehabilitated. ICRC will also cover some costs for transport to and from these hostels.