

FD-ABF-969
1 74335

***REGIONAL
TELECOMMUNICATIONS
RESTRUCTURING
PROGRAM
SARP
(690-0274)
COMBINED PID/PAIP***

MAY 1993

AID 1120-1

Agency for
International Development

PROGRAM ASSISTANCE
INITIAL PROPOSAL

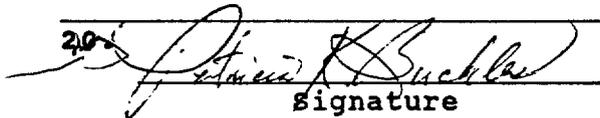
- | | |
|---|---|
| <p>5. TO: John Hicks Acting AA/AFRICA BUREAU</p> <p>7. FROM: Patricia K. Buckles Acting Mission Director USAID/Zimbabwe</p> <p>9. COMMITMENT APPROVAL REQUESTED: \$60.0 Million</p> <p>11. TYPE OF FUNDING: Grant</p> <p>13. ESTIMATED DELIVERY PERIOD: 3/31/94 - 9/30/98</p> <p>15. COMMODITIES FINANCED: N/A</p> <p>16. PERMITTED SOURCE: 000</p> | <p>1. PAIP NO. 690-0274</p> <p>2. COUNTRY: Southern Africa Regional Program</p> <p>3. CATEGORY: Sector Grant</p> <p>4. TITLE: Regional Telecommunications Restructuring Program</p> <p>6. OYB CHANGE NO: N/A</p> <p>8. OYB INCREASE: N/A TO BE TAKEN FROM: N/A</p> <p>10. APPROPRIATION-ALLOTMENT: FY94-FY98</p> <p>12. LOCAL CURRENCY ARRANGEMENT: Programmed</p> <p>14. TRANSACTION ELIGIBILITY DATE: Grant Authorization Date</p> <p>17. ESTIMATED SOURCE: 000</p> |
|---|---|

The goal of the RTR Program is broad based sustainable growth as measured by more jobs and income. The purpose of the RTR Program is to increase and broaden access within the SADC region to a more cost effective system for information transfer. The purpose will be achieved through (a) the established and functioning in a professional and transparent manner to ensure competition and (b) through ensuring adequate and appropriate levels of private investment and management.

19. PAAD DESIGN REQUIREMENTS:

- MISSION: Project Development Officer, Trade and Investment Advisor, Controller, Program Officer.
- REDSO/AID/W: Economist
- CONTRACT: Technical Analyst, Social Soundness Analyst, Political Analyst, Monitoring & Evaluation Expert.

20


Signature

24 MAY 1993
Date

**AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT IDENTIFICATION DOCUMENT
FACESHEET (PID)**

1. TRANSACTION CODE
A = Add
C = Change
D = Delete

Revision No. _____

DOCUMENT CODE
1

| 2. COUNTRY/ENTITY Southern Africa Regional Program | | 3. PROJECT NUMBER 690-0278 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----|---|--|----------------|--|-----------------|--|--------|--|--------|--|---------------|----|--|--|----|--|--|-----------------|--|------------------------|--|-------------------|--|----------------------|--|--------------|--|---------------|--|
| 4. BUREAU/OFFICE A. Symbol _____ B. Code _____ | | 5. PROJECT TITLE (maximum 40 characters) Regional Telecommunications Restructuring Program | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. ESTIMATED FY OF AUTHORIZATION/OBLIGATION/COMPLETION A. Initial FY 9 3 B. Final FY 9 8 C. PACD 9 8 | | 7. ESTIMATED COSTS (\$000 OR EQUIVALENT, \$1 =) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <tr> <th colspan="2">FUNDING SOURCE</th> <th colspan="2">LIFE OF PROJECT</th> </tr> <tr> <td colspan="2">A. AID</td> <td colspan="2">15,000</td> </tr> <tr> <td rowspan="2">B. Other U.S.</td> <td>1.</td> <td colspan="2"></td> </tr> <tr> <td>2.</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">C. Host Country</td> <td colspan="2">see PAIP facesheet for</td> </tr> <tr> <td colspan="2">D. Other Donor(s)</td> <td colspan="2">Program Contribution</td> </tr> <tr> <td colspan="2">TOTAL</td> <td colspan="2">15,000</td> </tr> </table> | | FUNDING SOURCE | | LIFE OF PROJECT | | A. AID | | 15,000 | | B. Other U.S. | 1. | | | 2. | | | C. Host Country | | see PAIP facesheet for | | D. Other Donor(s) | | Program Contribution | | TOTAL | | 15,000 | |
| FUNDING SOURCE | | LIFE OF PROJECT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. AID | | 15,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. Other U.S. | 1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C. Host Country | | see PAIP facesheet for | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D. Other Donor(s) | | Program Contribution | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | 15,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

8. PROPOSED BUDGET AID FUNDS (\$000)

| A. APPROPRIATION | B. PRIMARY PURPOSE CODE | C. PRIMARY TECH. CODE | | D. 1ST FY 93 | | E. LIFE OF PROJECT | |
|------------------|-------------------------|-----------------------|---------|--------------|---------|--------------------|---------|
| | | 1. Grant | 2. Loan | 1. Grant | 2. Loan | 1. Grant | 2. Loan |
| (1) DFA | | 15,000 | | 4,000 | | 15,000 | |
| (2) | | | | | | | |
| (3) | | | | | | | |
| (4) | | | | | | | |
| TOTALS | | | | 4,000 | | 15,000 | |

| | |
|---|-----------------------------------|
| 9. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) | 10. SECONDARY PURPOSE CODE |
| | |

| | |
|---|--|
| 11. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each) | |
| A. Code | |
| B. Amount | |

12. PROJECT PURPOSE (maximum 480 characters)

To increase and broaden access within the SADC region to a more cost effective system for information transfer.

13. RESOURCES REQUIRED FOR PROJECT DEVELOPMENT

Staff: Project Development Officers - 6 weeks
 Trade and Investment Advisor - 3 weeks
 Economist(s) - 3 weeks
 Technical Analysts - 4 weeks

Funds: Program Development and Support \$125,000

| | | |
|---|--|--|
| 14. ORIGINATING OFFICE CLEARANCE | Signature <i>Patricia K. Buckles</i> | 15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION MM DD YY 05 23 93 |
| | Title Patricia K. Buckles Acting Mission Director | |

| | |
|--|---------------------|
| 16. PROJECT DOCUMENT ACTION TAKEN <input type="checkbox"/> S = Suspended <input type="checkbox"/> A = Approved <input type="checkbox"/> D = Disapproved CA = Conditionally Approved DD = Decision Deferred | 17. COMMENTS |
|--|---------------------|

| | | | |
|-------------------------------|-----------------|-----------------------------|------------------------------------|
| 18. ACTION APPROVED BY | Signature _____ | 19. ACTION REFERENCE | 20. ACTION DATE MM DD YY |
| | Title _____ | | |

Regional Telecommunications Restructuring Program

(690-0274)

Program Funding Level: \$75 million SARP Funded

**(\$15 million Projectized)
(\$60 million Non-Project)**

**Project Identification Document
and
Program Assistance Initial Proposal**

May 25, 1993

-C-

DOC:A: PID5

Acronyms

| | | |
|-----------------|---|--|
| A.I.D. | - | Agency for International Development |
| AFDB | - | African Development Bank |
| ANC | - | African National Congress |
| AT&T | - | American Telephone and Telegraph |
| ATN | - | Atlantic Telephone Network |
| CCR | - | Call Completion Rate |
| CTA | - | Cellular Telephone Association |
| DAC | - | Development Assistance Committee |
| DEL | - | Direct Exchange Lines |
| DFA | - | Development Fund for Africa |
| ESOP | - | Employee Stock Ownership Program |
| GDP | - | Gross Domestic Product |
| GTT | - | Guyana Telephone and Telegraph |
| IFC | - | International Finance Corporation |
| ITU | - | International Telecommunications Union |
| MDB | - | Multilateral Development Bank |
| NPA | - | Non Project Assistance |
| NPV | - | Net Present Value |
| NTIA | - | National Telecommunications Industry Association |
| OECD | - | Organization for Economic Cooperation and Development |
| PAAD | - | Program Assistance Approval Document |
| PANAFTEL | - | Pan African Telecommunications Network |
| PP | - | Project Paper |
| PTC | - | Post and Telecommunications Corporation |
| PTT | - | Post Telephone and Telegraph |
| RBOC | - | Regional Bell Operating Companies |
| SADC | - | Southern Africa Development Community |
| SATA | - | Southern African Telecommunications Association |
| SATCC | - | Southern Africa Transport and Communications Commission |
| USAID | - | United States Agency for International Development |
| USPSC | - | U.S. Personal Service Contractor |
| VSAT | - | Very Small Aperture Satellite |

TABLE OF CONTENTS

PAIP Facesheet
 PID Facesheet
 Glossary

| | <u>Page</u> |
|---|-------------|
| 1. EXECUTIVE SUMMARY | |
| 1.1. Recommended Actions | 1 |
| 1.2. Program and Project Summary | 1 |
| 1.3. Response to A.I.D./W guidance | 7 |
| 2. PROBLEM STATEMENT | |
| 2.1. Telecommunications Services and Economic Growth | 9 |
| 2.2. Telecommunications in the SADC Region | 10 |
| 2.3. Telecommunications and the SADC Investment Environment | 12 |
| 3. PROGRAM RATIONALE | |
| 3.1. Choice of Sector | 14 |
| 3.2. Assistance Mode Selection | 16 |
| 3.3. Relation to SADC and Host Country Priorities | 18 |
| 3.4. Relation to Agency Priorities and USAID Program Strategies | 19 |
| 3.5. Relation to Other Donor Assistance | 21 |
| 4. SECTOR CONSTRAINTS ANALYSIS | |
| 4.1. Inadequate Investment | 23 |
| 4.2. Management Practices | 28 |
| 5. PROGRAM DESCRIPTION | |
| 5.1. Strategy: Addressing the Constraints | 29 |
| 5.2. Program Objectives: Goal and Purpose | 33 |
| 5.3. Impact: Expected End of Program Status | 33 |
| 5.4. Outputs: Expected Achievements: Results of Policy | 40 |
| Reform, Technical Assistance and Training Interventions | |
| 5.5. Implementation Arrangements | 46 |
| 5.6. Local Currency Arrangements | 54 |
| 5.7. Illustrative Financial Plan | 56 |
| 6. PROPOSED FEASIBILITY ANALYSES | |
| 6.1. Key Program Assumptions | 58 |
| 6.2. Economic Analysis | 64 |

E

| | <u>Page</u> |
|---|-------------|
| 6.3. Political Analysis | 65 |
| 6.4. Institutional and Administrative Analysis..... | 66 |
| 6.5. Social Analysis | 68 |
| 6.6. Technical Feasibility Issues..... | 68 |
| 6.7. Environmental Concerns and Recommendations | 68 |
| | |
| 7. DESIGN ISSUES | |
| 7.1. DFA issues | 69 |
| 7.2. SARP issues | 69 |
| 7.3. NPA Issues | 70 |
| | |
| 8. DESIGN STRATEGY | |
| 8.1. Design Activities Completed | 70 |
| 8.2. Strategy for Local Participation in the Program Design..... | 71 |
| 8.3. Final Design, Review, Approval, and Authorization Schedule | 71 |
| 8.4. Mission Design Team and Level of Outside Support | 72 |

Annexes

- A. SADC Request
- B. A.L.D./W Cable Guidance
- C. Preliminary Program Policy Matrix
- D. Initial Environmental Examination
- E. Related Activities of Other U.S. Government Agencies
- F. Link between Access to Telecommunications Services and Economic Growth
- G. Donor Activity in Telecommunications
- H. Technical Assistance to the U.S. Private Sector
- I. Bibliography
- J. SARP Mortgage Analysis
- K. SADC Mission Responses to Draft PID/PAIP
- L. Case Studies of Private Sector Participation in Jamaica and Venezuela

f

1. EXECUTIVE SUMMARY

1.1. Recommended Actions

USAID Zimbabwe requests approval to proceed with the development of a \$75 million Regional Telecommunications Restructuring Program (690-0274) and (690-0278) to assist the Southern Africa Development Community (SADC) in addressing a key constraint to investment and growth, a supportive policy enabling environment for the provision of reliable, cost effective telecommunications services. The proposed five year program has two components: (i) \$60 million in Non-Project Assistance (NPA) from the Development Fund for Africa (DFA); and (ii) \$15 million in Development Fund for Africa (DFA) grant resources for technical assistance.

The proposed program has a modular design. All Southern Africa Development Community member countries will be eligible to participate in the technical assistance component, and may participate to the degree that the USAID Mission in the country believes appropriate. Up to three countries meeting program criteria will be eligible to participate in the NPA policy reform assistance component, and participation will be justified with separate PAADs for each country. Countries will participate as they are ready to undertake policy change, thus PAAD authorizations will not necessarily be at the same point in time.

USAID Zimbabwe plans to obligate the projectized assistance at an initial level of \$4.0 million in FY 1993. Two PAADS for Non-Project Assistance resources would be developed, approved, and incrementally authorized and obligated over the FY 1994-97 period, with a third PAAD incrementally authorized and obligated in the FY 1995-97 period.

1.2. Program and Project Summary

1.2.1. Problem and Constraints to Addressing It

The development problem to be addressed under the proposed program is inadequate telecommunication services in the SADC region and its impact on expanded investment and long term sustainable economic growth. Access to dependable, efficient telecommunications services is increasingly recognized as a critical element and most often a binding constraint to attracting new investment in SADC countries currently engaged in comprehensive economic restructuring programs designed to encourage expanded investment and employment. Moreover, worldwide evidence suggests that all aspects of a business increase in productivity with improved telecommunications, but the greatest gains are shown in marketing, finance, and production control -- the areas most frequently identified as urgently needing improvement if businesses in the SADC region are to become competitive in external as well as intra-regional markets.

Telecommunications services in the SADC region are wholly inadequate to support increased

investment and economic growth. Expanding current production or investing in new business operations is impossible until significant measures are taken to address the problem. As of 1991, the entire SADC region (this excludes South Africa) had only 511,000 phone lines, less than the county of Fairfax, Virginia. Officially, unmet registered demand is 330,000 lines in the region, but unregistered demand has been estimated at closer to one million lines.

The sub-Saharan region has internal disparities in the distribution of existing lines; South Africa, with five percent of the region's population, has 40 percent of its phones. Potential telephone subscribers must wait an average of 10.9 years in Tanzania and 5.3 years in Zimbabwe to have telephones installed. Even those with phones often find that their lines may be effectively out of order for up to 50 percent of the time due to equipment malfunction. In sum, the impact of this major infrastructural weakness on business operations has been devastating, severely limiting possibilities of expansion and the development of new employment opportunities.

An extensive analysis of the SADC region's telecommunications systems identified two key constraints to addressing the poor services problem: (a) inadequate and inappropriate investment in the sector, and (b) unsustainable management practices, within an ineffective policy and regulatory framework. Although many Post, Telephone, and Telegraph (PTT) entities have been established as public corporations with a mandate to operate on commercial terms, the lack of flexibility to operate as a private sector firm and the lack of accountability to investors serve to undermine all incentives to produce dependable services at reasonable cost.

While poor management practices reduce the range and coverage of telecommunications services, inadequate investment in infrastructure has played the major role in inhibiting the expansion and improvement of services. Factors currently affecting sector investment include inadequate resources, insufficient knowledge of investment opportunities, and policies which restrict or impede private investment.

1.2.2. Objectives

The proposed program will address the constraints to broader investment in the SADC region caused by substandard telecommunications. The program will directly assist SADC countries to design and implement policy and regulatory reforms that will "level the playing field" by eliminating current monopolies, introducing competition, and allowing private sector participation -- management, investment, and competition -- in the telecommunications services sector. The impact of these reforms will be enhanced with technical assistance resources used to generate not only a demand for private telecommunications investment, but also an appropriate supply side response.

As set forth in the Program Objective Tree, the proposed program purpose is to increase and broaden access within the SADC region to a more cost effective system for information transfer. Achievement of the program purpose is expected to contribute to the sub-goal of increased investment in expanded business operations, which contributes to the over-arching goal of broad based sustainable growth in SADC countries, as measured by more jobs and higher real incomes.

The analysis indicates that there are two focus areas of activity required to achieve the program purpose: (1) attainment of adequate and appropriate levels of private investment and management; and (2) establishment of a regulatory structure that functions in a professional and transparent manner to govern entities and introduce competition in the telecommunications sector. Completion of program activity in these two "sub-purpose" focus areas should result in the necessary and sufficient conditions to achieve the project purpose. A key assumption is that the private sector is a superior source of new, appropriate technology; superior management; and cost-effective capital.

1.2.3. Expected Achievements and End of Program Status

The impact of the proposed program at the purpose level, i.e., increased and broadened access within the SADC region to a more cost effective system for information transfer, will be determined by monitoring a number of indicators for participating SADC countries, including:

- (1) Increased availability of telephone connections, with the number of direct exchange lines per hundred households and businesses increased by _____ percent.
- (2) Increased availability of telephone connections in rural areas with average time required to access service reduced by _____ percent and _____ hours in transit reduced from _____ to _____.
- (3) Increased price competitiveness of telephone service with international rates, with the price difference reduced by _____ percent.
- (4) Increased efficiency and reliability of the telephone system, with local, regional, and international call completion rate increased by _____ percent, and service time increased by _____ percent.
- (5) Increased effectiveness of telecommunications system as measured by an expansion in the variety of services available.

Levels for these indicators will be established in the course of PP/PAAD design. The impact of the proposed program at the sub-purpose level will be largely measured by the increased

amount of private sector investment in the telecommunications sector and the extent to which an appropriate regulatory structure circumscribes state intervention to essential non-operational areas. It is expected that the policy and regulatory reforms leveraged by the Non-Project Assistance, complemented with well targeted Project Assistance, will cause a net increase in foreign and local investment in the telecommunications sector....

In addition to the above, the program will encourage and support parallel "level the playing field" efforts of the Development Assistance Committee (DAC) of the Organization of Economic Cooperation and Development (OECD) and the multilateral and bilateral donor programs. The need for a coordinated donor approach has become increasingly evident in this highly competitive sector. Finally, it should be noted that the combined Project and Non-Project Assistance will, through creation of a "level playing field", give U.S. firms new opportunities to compete for expanded export and investment markets in the SADC region. Indeed, the project will dedicate significant resources to targeting U.S. firms with current and comprehensive information about the SADC regional telecommunications market and the new regulatory changes providing new opportunities in those markets, thereby reducing the cost and risk of investments in the region.

1.2.4. Program Implementation and Management Strategy

The rationale for a regional initiative to address the telecommunications problem is based upon factors which include:

- the existence of a ubiquitous problem of insufficient investment retarding economic growth;
- the unattractive physical enabling environment for investment throughout the region due to poor telecommunications services;
- the benefits related to economies of scale derived from accessing a single top-notch technical assistance resource, proficient in the technical as well as policy aspects of telecommunications services;
- the need for standardization of equipment and harmonization of licensing requirements in the sector to develop broader, more attractive investment opportunities; and
- the requirement for a flexible design that allows countries to move at their own pace in developing the required broad political consensus for policy reform in the sector prior to entering into a non-project assistance agreement that links disbursement with policy changes.

The proposed program uses a combination of projectized and non-project resources to address the policy and regulatory constraints affecting both management and investment in the telecommunications sector. To promote private investment in the sector, projectized

resources will be used to assist both potential investors and relevant SATCC and national government officials to overcome information shortcomings affecting management and investment in the sector.

On the investment demand side, appropriate technical assistance will be made available to adequately inform private and public officials on the need for and merits of policy and regulatory reforms and, subsequently, to assist officials in implementing the reforms. On the investment supply side, project resources will be used to stimulate investor interest by funding technical assistance and dissemination of information related to telecommunications investment possibilities, accurate information regarding the state of development of SADC member states, and assistance in the form of pre-feasibility studies.

Specifically, projectized resources will be used to support a major institutional contract which will provide the Southern Africa Transport and Communications Council (SATCC), participating SADC countries, and USAID missions with the technical assistance needed to research, analyze, and promote policy and regulatory changes that will introduce competition and private participation in the telecommunications sector. Seminars, workshops, site visits, and training opportunities will be coordinated by SATCC, drawing upon the institutional contractor's resources.

The program will use a "hub and spoke" approach to achieve these outcomes. The "hub" activity will consist of core institutional contractor staff located in Zimbabwe. This staff will provide technical backstopping and serve as the conduit for accessing required short term expert services throughout the region. On-site technical long term advisors, the "spokes" of the effort, will provide SATCC and selected host governments, interested private investors, and USAID missions with assistance in analyzing the impact of restructuring efforts in the sector and in implementing policy and regulatory changes. The projectized resources will fund "outreach" activities in the U.S. to educate and inform potential U.S. investors on the opportunities in the Southern Africa market for telecommunications equipment exports and investment.

Because policy and regulatory reforms in the sector, particularly where privatization is involved, are not without their short term costs to national governments, the program will make available non-project resources to encourage governments to adopt changes, providing a cushion for the cost involved. In countries requiring foreign exchange to support trade liberalization measures, such resources are a valuable asset that reduces the risks of policy changes. Moreover, the larger level of resources provided as Non-Project Assistance provides USAID with greater leverage in working with other bilateral and multilateral donors to coordinate policy positions on assistance to the telecommunications sector.

Non-project resources will be used not only to create the optimum enabling environment for investment in the telecommunications sector, but also to stimulate investment or resource transfers. Dollars will be made available to support imports for the private sector from the U.S. and will result in local currency generations which may be jointly programmed for

sectoral purposes such as expansion of services to the rural areas or providing seed capital for private sector rural telephone cooperatives.

As noted above, the proposed program design strategy is to combine project and non-project resources in a flexible design that will accommodate the different pace of reform in SADC countries, while allowing participating countries to benefit from the experience gained by others at different stages of the reform process. The proposed program's management flexibility will allow A.I.D. missions to participate in management and administration at a level consonant with existing program focus and management capacity. In essence, the program allows missions to address a critical investment inhibiting constraint in their national economies without using scarce bilateral funds and management resources that in most cases would not be sufficient to address the problem and could not be effectively used to accomplish important regional objectives on standardization of equipment and harmonization of procedures.

1.3. Response to A.I.D./W Guidance

The results of the Africa Bureau review of the Telecommunications Sector Development (690-0274) New Project Description were transmitted to USAID Zimbabwe in STATE 52086 on February 20, 1993 (Annex B). This section responds to guidance and issues set forth in that cable.

- A. Using SARP funds for Telecommunications and NPA - Section 3 of this PID/PAIP presents the rationale for the program and the selection of the sector. As stated in reftel STATE 52086 "FAA Sec. 496 (0), the SADC statutory provision does not explicitly include telecommunications as a sector for SADC activities. However, telecommunications presumably fits within the area of industrial development and trade (including private sector initiatives) which are explicitly referred to in Sec. 496 (0)." The cable further states that "GC/AFR concluded that, as a statutory matter, SADC funds may be used for NPA since Sec. 496 (0) is part of the general DFA statute, which expressly permits NPA, and SADC funds have been so used on one prior occasion." Telecommunications is clearly a binding constraint to further economic development of the SADC region. The linkages between telecommunications and industrial development and trade have been demonstrated throughout the world. Additional information on these linkages is in Annex F.**

- B. Ensuring adequate management oversight in the correct design, installation and operation of telecommunications equipment - The guidance cable raises issues regarding the technical specifications of telecommunications systems to be procured with program funds. It should be clarified at this point that this program is not intended to support parastatal structures which comprise the mainframe telecommunications network. Imports to be financed or attributed to dollars made available under the RTR Program will be directed toward the private sector and are expected to be general private sector goods. Telecommunications equipment, to the**

extent that it is imported, will consist of items of small value (personal computers, cellular handsets, VSAT systems) that will not require value engineering. In the event that core networks are privatized, it is anticipated that the private investor will provide any required equipment and engineering as part of its equity contribution.

- C. **Choice of NPA or Project Assistance** - The proposed program is fully consistent with NPA guidance and is based on policy reforms which are essential to restructure and rationalize telecommunications operations in up to three SADC countries. The policy approach will be complemented by requisite technical assistance and training for investors, host governments, and regional organizations. A more detailed discussion of the choice of assistance made is included in Section 3.2.
- D. **Number of Countries for Participation in the Program** - The program will be open to all SADC countries for technical assistance and training opportunities. At present, it is anticipated that up to three SADC countries will participate in the NPA program; likely candidates include Zimbabwe, Tanzania, and Zambia. Each of these countries is actively engaged in the sector, is eligible for additional SARP assistance, and the USAID mission in each country has indicated its interest. Other governments such as Namibia or Lesotho are also interested in restructuring their sectors, but Agency policy discourages any new SARP initiatives in those countries due to constrained management resources.
- E. **Relevance of the Program to the SARP Strategy** - As discussed in Section 3.4, the proposed program is consonant with the SARP strategy currently under development and set forth in a Concept Paper submitted to A.I.D./W in December 1992.
- F. **Relationship of the program to the DFA Earmark** - The proposed program will not contribute to the family planning, AIDS, child survival, basic education or natural resources management earmarks. During the preliminary discussions with A.I.D./W on the USAID Zimbabwe CPSP in February 1993, the Mission understood that the SARP program was not required to meet the earmark targets. The program's impact on buy-America interests should be significant. Most importantly, the program is consistent with Target 1-2 (Reduced government involvement in production and marketing of goods and services) of Strategic Objective One (Improving Management of African Economies by Redefining and Reducing the Role of the Public Sector and Increasing Its Efficiency) of the DFA Action Plan for FY 1989-91.
- G. **Mortgage Implications** - A mortgage analysis of the potential impact of the proposed program on the SARP portfolio is presented in Annex J. The modular approach allows for meeting NPA needs using the SARP earmark through FY 1997. Should the SARP earmark be deleted, the Bureau would have to consider the relative importance of continuing the proposed activity within the framework of other competing demands on resources and relative to the program's implementation "track record" at the time of such a decision.

2. PROBLEM STATEMENT

2.1. Telecommunications Services and Economic Growth

Linkages between access to dependable, efficient telecommunications services and economic growth are increasingly important in an information based, global market environment. In the private sector, reliable telecommunications are essential for competitiveness. Telecommunications has replaced transport and post as the most effective means for transmitting information quickly, inexpensively, and responsively. Evidence in developed markets shows that while all aspects of a business increase in productivity with improved telecommunications, the greatest gains are shown in marketing, finance, and production control -- areas that are often identified as the primary constraints to current competitiveness for businesses in Southern Africa.

Benefits from improved telecommunications are not contained to the currently developed urban sectors. Rural-based enterprises have been shown to benefit disproportionately from improvements in telephone service. For example, the best solution for a cattle farmer in a remote area who needs a quick diagnosis from a veterinarian is through telecommunications. The national impact of the lack of this type of service is reflected in Zimbabwe's foreign exchange losses in excess of US\$20 million due to the recent foot and mouth disease embargo which might have been avoided with an adequate rural telecommunications service. Similarly, in the horticultural sector, farmers need to know when a plane will be in before sending produce to the airport. Without phones, this is an uncertain proposition that can cause the loss of thousands of dollars when fresh flowers go limp waiting for a plane.

The conceptual linkage between adequate telecommunications services and economic development has been subject to exhaustive analysis. As part of program development, USAID Zimbabwe commissioned a review of the economic literature analyzing the relationship between telecommunications and economic growth (Telecommunications Sector Scoping Study for Southern Africa, May 1993, Unattached Annex to this PID/PAIP). The results are briefly summarized in Annex F, "The Link between Access to Telecommunication Services and Economic Growth".

The literature review revealed that three distinct research methodologies have been used to study the effects of telecommunications on economic development; macroeconomic modeling, input/output modeling, and microeconomic analyses. All have their advantages and disadvantages. Macroeconomic analyses, which are based on national aggregate statistical data, can only demonstrate, not prove, causal relationships. Input/output analyses require a level of data not found in most developing countries. Microeconomic analyses can substantiate the positive effects of telecommunications in a specific situation, industrial sector, or region, but are dependent on the small sample size analyzed and cannot be uncritically expanded to a larger universe. However, each of these types of analysis provides substantial findings that support the positive linkages between telecommunications improvement and economic development.

The body of research of the past 30 years uses a variety of methodologies and points to an unambiguous and strong linkage between the availability of telecommunications services and socio-economic development. The impact of telecommunications investment is particularly strong in developing countries with very poor infrastructure. These conclusions should be qualified with the following points:

- o There are decreasing marginal returns on telecommunications investment in developed countries. When telephone penetration itself is below 1 per 100 population, the impact of an increase of 1 phone per 100 will be dramatic; when penetration is 80 phones per 100, the impact will be reduced. (Average penetration in Southern Africa is currently 0.62 phone lines per 100 inhabitants).
- o The contribution of telecommunications to growth depends as much on the targeting of the investment as on the absolute level of the investment. This point has important implications for donor-financed telecommunications infrastructure.
- o The sustainable nature of telecommunications infrastructure to exert a strong influence on economic development requires that the investment be maintained once it is in place. A telephone cable that is effectively out of commission for the entire rainy season because of eroded insulation contributes little to economic development.
- o The availability of adequate, reliable telecommunications services greatly facilitates economic development but does not obviate the importance of an enabling macroeconomic climate, a well-educated and hard working labor force, political stability, and other factors.

Finally, the impact of adequate telecommunications in achieving social goals deserves special recognition. In a world-wide study undertaken by the International Telecommunications Union (ITU), it was found that rural based businesses benefitted disproportionately from improved telecommunications services, as noted above. Further analysis shows that at the macro level, increased telephone density produces a measurable macroeconomic shift in favor of the poorest segment of the population of less developed countries.

2.2. Telecommunications in the SADC Region

The region-wide analysis commissioned by USAID/Zimbabwe (Scoping Study, 1993) documents that the region's telecommunications services are inadequate by almost any indicator, ranging from the number of phone lines, reliability of existing phones, to the waiting period to receive a phone.

Number of phone lines - As of 1991, the 10 nations in the SADC region had 511,000 phone lines, less than the county of Fairfax, Virginia. In SADC, there are 0.62 phone lines for every 100 inhabitants, which is slightly below the Africa average of 0.7 per 100 inhabitants, and far below the 50-80 per 100 in developed countries. While this average is

poor, its impact is exacerbated by the internal disparities within the region. Malawi has only 0.27 phones per 100 inhabitants while Namibia boasts 3.34 per 100. The entire Southern Africa region is distorted by South Africa which has 10 phones per 100 inhabitants. In fact, South Africa, with 5 percent of Africa's population, has 40 percent of its phones.

Urban/rural disparities show a similar pattern of distorted service. The average telephone density for rural areas in the SADC region, where 73 percent of the population lives, is 0.03 per hundred. Of the estimated 151,000 villages in Africa, more than 121,000 have no phone. For example, in Tanzania, rural dwellers can be over 100 miles from the nearest phone, a walk of 10-12 days. In general, all rural residents are disadvantaged in terms of telecommunications services. In Zimbabwe this extends to wealthy but phoneless commercial farmers who habitually drive several hours to an international hotel in the capital and check into a room for the day to make and receive calls.

Although almost all SADC countries are experiencing per capita growth in their telecommunications sectors, the slow growth and weak base of operations means that under current patterns of development, telephone penetration will not reach South Africa's present level for at least another 50 years. The unfortunate exception to per capita growth in telephone density is Zimbabwe, where phone density has actually dropped from 3.1 per 100 in 1980 to about 1.3 per 100 inhabitants today. This projected lag in telecommunications services will continue to be an impediment to business growth and investment.

Waiting for a phone - Potential telephone subscribers must wait years, up to 10.9 years in Tanzania and 5.3 years in Zimbabwe, to have telephones installed. Anecdotal evidence indicates that the prospect of being without a phone for such an extensive period of time has created unsanctioned alternatives, with large unofficial payments of up to US\$ 20,000, which lead to quick installment.

Throughout the SADC region, the official waiting list for phones exceeds 350,000. Given the futility of placing one's name on a waiting list in most countries, it is estimated that unregistered, or "unexpressed" demand is more than twice as high as expressed demand and has been estimated at one million lines for the region. With only 511,000 lines in operation this means that the demand for telephones is over twice the existing supply. Many subscribers, even in urban areas, have to settle for party lines with up to 16 different households or businesses on the line.

Waiting for a dial tone - Even those with phones often find that their lines may be effectively out of order for up to 50 percent of the time due to equipment malfunction. In Zimbabwe, each phone line has on average 3.0 faults per year, each of which could take up to a week to fix. In addition, congestion at the local, national, or international exchanges makes it difficult to complete or receive a call. Call completion ratios for local and long distance calls in SADC average about 30 percent, but dip far lower at peak calling periods. This contrasts with a 70 percent ratio for the United States. The use of outdated manual or semi-automatic equipment at these exchanges is one factor contributing to the congestion.

Quality of Service - Those with a working phone still face significant problems. Static, crossed lines, and crossed numbers are a frequent occurrence, although difficult to measure quantitatively in the SADC region. In many areas, the infrastructure is so degraded that telex messages are the only reliable means of telecommunication. The enhanced services that many businesses take for granted in other countries, such as reliable medium- and high-speed data communications, are not possible over much of the antiquated regional and local networks.

The Regional and International Networks - At independence, many of the countries in the SADC region routed their intra-SADC traffic through South Africa or Europe. This routing was non-optimal -- calls were more expensive and quality was poorer, and substantial foreign exchange drains occurred. The efforts of SATCC and the ITU (through the PANAFTTEL program) in completing the regional network have borne fruit. Most intra-SADC traffic is now routed through the PANAFTTEL microwave network, or through the Intelsat, without going through Europe or South Africa. While progress is still necessary in countries like Tanzania and especially Angola, the physical state of regional connections is not a binding constraint to intra-regional communication. Investments in international access (earth stations, lease of space on satellite transponders) have also been successful. As in many developing countries, overseas calls are often easier to make and receive than local or regional calls.

Although the regional and international linkages are adequate, making a call from one SADC country to another is usually more difficult than calling overseas. Access to the regional network is only as good as access to the local exchange; and as discussed above, the national networks are antiquated and congested. Because a regional call must originate through a congested local exchange, and terminate on another congested local exchange, call completion rates are lower for regional calls than for international calls (which only have to originate on an inadequate local exchange). In other words, the dilapidated state of the phone networks at the local exchange level is a binding constraint to intraregional trade.

2.3. Telecommunications and the SADC Investment Environment

The development problem to be addressed in the proposed program is the negative effect of inadequate telecommunication services on the SADC region's investment enabling environment and long term sustainable economic growth. The critical telecommunications aspect of the investment climate problem has become abundantly clear from recent experiences with investment inquiries in the region. The trip report on the OPIC Investment Mission to Zimbabwe in April 1991, stated:

"The economy of Zimbabwe is the more sophisticated of the three [Botswana and Namibia were also on the mission itinerary], highlighted by an educated and well-trained work force. The U.S. investors expressed discouragement, however, by the adverse regulatory environment and by the absence or very long wait, two years or more, for telephone connections to suitable commercial and industrial sites."

A recent survey of business people in seven SADC countries -- Botswana, Lesotho, Swaziland, Namibia, Malawi, Zambia, and Zimbabwe -- revealed deep concern with telecommunications (BMI TechKnowledge, Telecommunications in Southern Africa, June 1992). To quote:

"Communications in the business environment have to be reliable, efficient, and fast, according to almost every one of the senior executives polled in this study. The collection of business information from dispersed sources required that reliable connections be available as and when needed. The issues below were common amongst businessmen in all of the countries covered:

- o Communications have to be reliable and functional all of the time;
- o Available without long delays or lead times for connection;
- o The PTCs have to be responsive to customer needs and to complaints;
- o The quality of the services, voice or data, must be good.

These major issues were top-of-the-mind for these executives, which indicates that these same issues are problem areas more often than not."

Conversations with a range of business enterprise owners in Zimbabwe have further substantiated the importance of telecommunications to business expansion. The indigenous owner of one of the largest electrical contracting firms in Zimbabwe purchased an industrial plot to establish a factory for equipment manufacture, employing 190 people. Due to congestion on the telephone network, the PTC has not been able to provide a telephone connection to the site. The owner reports that because profitable operations are dependent on telephone communications to suppliers and customers, the site has been idle for two years, tying up the company's capital and foregoing the creation of 190 jobs.

Similarly, the manager of an offshore data processing operation established in Harare in 1990 and currently employing 120 people, indicated that with reliable international data communications capabilities he could capture more business from clients in Great Britain, effectively doubling his current business and creating an additional 80 employment opportunities.

The Chairman of the Zimbabwe Association of Tour and Safari Operators (ZATSO) also reports that improved telecommunications would have a significant impact on safari business expansion in Zimbabwe. Rough estimates of the impact are 15-25 percent increase in gross revenues (for an industry of about US\$ 20 million per year turnover and growing rapidly).

3. PROGRAM RATIONALE

3.1. Choice of Sector

A constellation of factors have emerged to make an intervention in the telecommunications sector in the SADC region appropriate and timely for the 1990s. Some of these factors are a result of changes exogenous to the region, but many are a result of the work of donors such as A.I.D., together with initiatives of the SADC member governments. In summary, the underlying conditions for change in the sector are present in the SADC region; this is coupled with an increased, albeit incomplete, awareness on the part of host governments, private sector entities, and donors of the need to restructure the sector; and it is further enhanced by world wide experience and changes in U.S. and other markets.

3.1.1. Underlying Conditions for Change

Restructuring of the telecommunications sector in the SADC region depends on political will of member states, the perceived need and understanding of the linkages of the sector, affordable technology, and a basic framework which facilitates further investment. The SADC region has reached a stage in which these conditions have been or are being met.

Most of the countries in the SADC region are undertaking structural adjustment programs or have achieved reasonable macroeconomic balance, and they have embraced the concept that the private sector needs to play a leading role in economic development. While progress on implementation of reforms has not been uniform or consistently rapid, none of the countries undergoing structural adjustment in the region has fallen seriously short of program objectives. With this strategic foundation, there is a fundamental need for a "supply side" investment response to bolster the progress of structural reform and to transform policy action into improved trade opportunities, jobs, and incomes. A binding constraint to such an investment response is now telecommunications.

In no small part as a result of the improved macroeconomic climate and transport infrastructure, better telecommunications services for residential and business consumers is increasingly a primary binding constraint to the development of trade in the region. The investments that A.I.D. and others have made in the transportation sector in the SADC region in the 1980s have borne fruit. Except in isolated instances, either the infrastructure for transportation has been upgraded or sufficient funding has been secured. Improvements in the efficiency of utilizing that infrastructure are still needed and continue to be addressed by A.I.D. and other donors. With basic transport infrastructure concerns addressed, SADC governments are increasingly able to focus on other key factors affecting investment and contributing to economic development, including telecommunications.

Technological breakthroughs in the past five years, by shattering the natural monopoly argument and making rural service increasingly profitable, have further reduced the rationale for state domination. It is evident that technology has lowered the barriers to entry and increased the viability of competition in three principal ways: first, by lowering the costs of infrastructure and operation; second, by introducing new ways of service delivery such as

cellular radio to the traditional cable network in the urban centers; and third, by making costs less distance-sensitive. For example, due to advances in satellite and radio technology, many rural areas no longer need to be subsidized by the state.

3.1.2. Demand for Change

Accompanying the transformation of the economic structures of SADC countries and the diminution of the physical barrier to trade of poor transport connections for moving goods, there is an increased awareness of the limitations of existing telecommunications capabilities and a resulting demand for change from businesses, donors, and host governments. Frustrated with poor national government response, business and residential users are increasingly vocal about the necessity of private sector participation and investment for the telecommunications sector to improve. In Tanzania, Zambia, Zimbabwe, and elsewhere in the SADC region this has been evidenced in business organizations which have passed resolutions calling for the restructuring of the telecommunications parastatals.

SADC governments are also beginning to understand the magnitude of the problems facing the sector and appreciate the importance of restructuring, private sector participation, and competition, if not outright privatization. This was clearly evident in the overwhelming response to the A.I.D.-funded and SATCC-sponsored SADC Telecommunications Sector Restructuring workshop in Windhoek in February 1993, where senior government policy makers were actively engaged in far reaching discussions on private sector participation and ownership. Their candor and level of involvement in the discussions reflected a fundamental change from the environment of less than two years ago. The sector's inadequacies have increased significantly in priority as politicians have watched potential foreign investment plans abandoned and heard from their constituents of the problems of doing business without adequate telecommunications. Furthermore, with the move in SADC member countries towards democracy and transparent governance systems, the need for complete control over the telecommunications network has been reduced, but the requirement for a reliable telecommunications system has increased.

Having reached many of the same conclusions as the private sector and host governments, donors are now starting to insist on restructuring and private sector participation as conditions of assistance. For the major bilateral donors in the sector, Sweden, Germany, and Japan, major steps towards full private sector participation in their own national telecommunications systems are being increasingly reflected in their approach to sector assistance in developing countries. In addition, together with the United States, they are supporting and strengthening the multilateral development bank (MDB) telecommunications restructuring efforts underway. This change in donor philosophy is an important indication of the universal agreement on the need to improve telecommunications services using private sector channels.

3.1.3. Market Changes

Privatization and competition experienced elsewhere in the past 10 years have proven almost universally successful and provide an important role model for the SADC region. The history of private sector ownership and operation of the U.S. telecommunications system is unusual in global terms. However, over the past ten years, the introduction of private sector competition and investment throughout Latin America, Europe, and Asia has provided ample demonstration of the benefits of change to consumers as well as other stakeholders.

The 1990s have seen not only a change in the demand side of the equation related to improved telecommunication services, changes have also occurred on the supply side. Specifically, changes in the way the U.S. telecommunications industry is structured and financed has made overseas private sector investment more attractive. Prior to the 1980s, there was only one major telephone company in the United States. After the AT&T divestiture, the Regional Bell Operating Companies (RBOCs) faced a mature market, increased competition, and shrinking margins. The limited domestic opportunities spurred an interest in overseas investment. The U.S. financial markets in general have seen tremendous financial gains from overseas investment in the sector, and new investment companies and funds have sprung up to exploit these new opportunities (e.g., ATN and the Emerging Telecommunications Market Fund).

3.2. Assistance Mode Selection

The nature of the constraints to the telecommunication sector's development calls for a dual approach which combines both project and non-project assistance. Project financed technical assistance will be used to support policy analyses for host governments to develop an understanding of the implications of policy changes, and to gain the political support required to implement such changes. As discussed in Section 5.4, the proposed program will include support through conditionality and Non Project Assistance for a policy agenda which promotes private sector participation in the sector. Assistance will be tranching with the release of dollars timed with policy changes. The non-project assistance will help cushion the anticipated significant costs to governments associated with implementing many of the proposed policy and regulatory changes.

The program design anticipates that there will be substantial adjustment costs which could slow or even prevent political decisions to restructure the telecommunications sector. The exact amount of these short term adjustment costs will depend on a complex mix of factors, including: the type and degree of sector reform, the nature of private sector participation, the financial structure and source (i.e., foreign or local) of the private sector investment, and the socio-political climate in the reforming country.

Adjustment costs can be categorized according to the type of policy action on the proposed program Policy Matrix (Annex C). It is important not to confuse short term adjustment costs with the overall cost/benefit equation of policy reform. Although the economic rate of return to sector restructuring may be very high, governments often have difficulty financing the up-front lump sum costs of adjustments. In the longer term, the beneficial impact of private

sector investment, competition, and utility restructuring on telecommunications services and then on consumer and producer welfare will more than compensate for these short term impacts.

A rough and first order itemization of the short term adjustment costs of sector restructuring was calculated, using Tanzania as an illustrative example. The total of these short term costs over a three-year period of adjustment would be over US\$90 million .

POLICY ACTION #1 **Restructuring the Monopoly Telecommunications Entity:**

Severance Package for Employees. The Tanzania Post and Telecommunications Corporation (TPTC) plans to cut approximately 1,000 staff, moving from 75 employees per 100 lines to 25 employees per 100 lines, still several times higher than international standards. Substantial employee resistance can be expected if no attempts is made at compensation. Given average staff salaries, a severance package of two years salary would cost approximately US\$2 million.

Tariff Rebalancing. Currently, foreign exchange starved countries discourage outgoing calls (where they lose foreign exchange) by unrealistically high tariffs, often several times higher than the equivalent incoming call. In addition, countries have been known to physically block outgoing calls to reduce outflows of foreign exchange. Of course, the damage done to the economy by this short sighted technique, in particular the ability to generate exports, is considerable.

The TPTC will have to rebalance tariffs so that the cost of international calls will be less, and the costs of local calls will be more. As a consequence, international settlements of calls to and from developing countries will move from strongly favorable to the developing country into a rough balance. The one-year impact of tariff rebalancing on foreign exchange is approximately US\$5 million.

Write-Off of Government Debts to TPTC. In order to allow a commercialized entity to begin operations not overburdened with debt, governments often have to write off some or all of their loans. In the case of TPTC, the GOT will have to forgive (or convert into equity) up to US\$34 million in outstanding loans.

Costs of Separating Posts and Telecommunications. The costs of separating posts and telecommunications operations in TPTC is estimated by the World Bank to be approximately US\$1 million.

Subsidy of Postal Service. The subsidy to the postal service, now buried off-budget in the accounts of TPTC, will be transferred to the budget, and will be approximately US\$4 million annually.

POLICY ACTION #2 **Introduction of Competition**

Loss of Business. The introduction of certain types of competition will have an impact on the main utility. In Tanzania, the likely introduction of a private VSAT based data communication services, for example, will reduce the demand for TPTC data communication lines. The impact of one proposed VSAT data communication system would replace the lease line data network for 20 major branches of the National Bank of Commerce, and would result in a loss of revenue to TPTC of approximately US\$0.5 million per year.

POLICY ACTION #3

Introduction of Private Sector Investment

Creation of an ESOP. The creation of an Employee Stock Ownership Plan would give remaining employees of TPTC more of a stake in the restructuring process, but will require short term financing before the cash flow from the privatized firm can pay back the investment. Providing a 10 percent stake in TPTC, with an effective subsidization of 50 percent, would require approximately US\$10 million.

Profit Repatriation from Foreign Investor. Most of a telecommunications operator's revenues are in local currency, but dividend repayments are made in foreign currency. Hence, introduction of private foreign ownership would have a short term adverse impact on the balance of payments. The annual impact of a US\$ 100 million dollar foreign investment in Tanzania, assuming a 15 percent return on investment and a 50 percent dividend payout ratio, would be approximately US\$7.5 million.

3.3. Relation to SADC Priorities

SADC has identified inadequate telecommunications services as a binding constraint to its goals of regional economic cooperation and eventually integration. This view was elaborated in the SATCC Executive Director's opening statement to the SADC Telecommunications Restructuring Seminar in Windhoek. The SATCC view is shared by virtually all regional organizations, governments, and observers. A succinct statement of the problem was recently included in the "Report of the South Africa Technical Working Group" (composed of the African National Congress (ANC) and the Development Bank of Southern Africa) to the Second Workshop on Regional Integration in Eastern and Southern Africa, November 1992, Harare:

"Considerable problems are experienced in telephone and fax links with neighboring countries. South African traders frequently find the quickest way to communicate with their customers is to visit them. Poor communication results in delays in the acceptances and execution of orders as well as in the granting of permits, the settlement of payments, and the tracing and locating of consignments."

The SADC strategy towards development of the telecommunications sector is still evolving, and is still being elaborated by SATCC. The strategy will reflect the Community's new focus on regional integration and cooperation in the context of a majority ruled South Africa. As a starting point, SATCC has adopted the following objectives identified in the ITU

African Telecommunication Development Conference held in Harare in 1990:

- o Split Post and Telecommunications Entities
- o Separate Regulatory and Operating Functions
- o Increase Autonomy of Operators -- financing, foreign exchange retention, tariff setting

At the SADC Telecommunications workshop held in Namibia, this was elaborated by resolutions taken by the participants and endorsed by SATCC. The resolutions call for:

- o Encouraging the participation of the private sector for value added and cellular telephone services,
- o Encouraging private ownership of the stock of the main telecommunications entity,
- o Developing and distributing information on the costs and benefits of private sector participation in the sector, and,
- o Developing reliable information about the telecommunications network infrastructure and finances for use by management and potential investors.

In addition, it is important to recognize the key need for the sector's development, i.e., harmonization of tariffs, which is an important element in SADC's vision of regional economic integration.

In a more complete and coherent form, these resolutions will be presented for discussion and formal endorsement by the SADC Ministers at the Transport and Telecommunications sessions in Arusha in June 1993.

3.4. Relation to A.I.D.'s Priorities and SARP Strategy

A. Agency Telecommunications Involvement

A.I.D. has been involved in developing the telecommunications sector throughout the life of the Agency. This assistance has been delivered in primarily three phases over time.

The first phase of A.I.D. projects included public sector infrastructure projects in countries such as Liberia, Egypt, and the Philippines. Such projects focused on the provision of hardware rather than institutional reform, or involvement of the private sector as investor or manager. The second, more recent phase of A.I.D. involvement focuses on providing assistance to countries that appear ready to initiate privatization of the telecommunications sector, such as Honduras or Pakistan. These projects generally form part of an overall

privatization initiative that includes all sectors of the economy.

The third phase of A.I.D. involvement is characterized by the work currently underway in Eastern Europe. It recognizes telecommunications as a strategic sector with special problems and issues that need to be addressed, and it also recognizes the sector as an area where U.S. firms have a very strong competitive advantage if the playing field is leveled. The cited activities show a willingness by A.I.D. to work in countries that are not yet ready for immediate privatization transactions to assist in the process of preparing the way for private sector competition and investment. A similar but regional approach, is to be followed under the proposed project.

Outside of the pre-project activities undertaken by USAID Zimbabwe, A.I.D. has had no significant involvement in the telecommunications sector to date in the SADC region. At the periphery, A.I.D. has indicated some interest in the sector through the co-sponsorship of AFCOM '92, a trade association event organized to: develop U.S. African private/public sector partnerships; disseminate information on resource requirements for improving Africa's communications industry; facilitate opportunities for trade, investment and technology transfer; and to provide participants with an update on future communications projects and procurement opportunities. Among the Southern Africa representatives were those from Zimbabwe, Botswana, Mozambique, Namibia, Zambia, Swaziland, Tanzania, and the Southern Africa Transport and Communication Commission (SATCC).

B. Southern Africa Regional Program

The Southern Africa Regional Program (SARP) is designed to implement the Congressional earmark requiring A.I.D. to support activities and initiatives of the Southern African Development Community (SADC). A revised strategy for the SARP funding will be undertaken when A.I.D./W, the State Department, and Congress believe the changed political context is right. However, basic precepts and approaches were set forth in the draft "Concept Paper for the Southern Africa Regional Program during the Transition to Majority Rule in South Africa" submitted to A.I.D./W in December 1992.

The draft Concept Paper presents a strategy for economic development in Southern Africa which supports SADC's increasing emphasis on regional integration. The proposed SARP goal for regional interdependence is "to support regional development solutions by free societies pursuing free-market led economic growth." Implementation of this goal and the accompanying change in SADC focus on regional integration will be a challenge for the community to implement. SADC must assume leadership as an economic institution rather than just a political one. In addition, while 74 percent of SARP funds made available to SADC countries has been targeted on the transport sector, further direct capital investment in physical infrastructure may not be justified. The SARP program will change the emphasis of its investment in physical infrastructure to rationalizing costs and improving reliability of systems through increased efficiencies. The proposed telecommunications program is an essential element in the process of overall infrastructure development, but is based on

sustainable private sector investment rather than sporadic national budget or donor allocations.

Criteria for future SARP activities will call for a change from a project-driven portfolio to a policy and procedural reform agenda. Specifically the strategy promotes "development of the enabling environment which will encourage more efficient private sector involvement in the provision of the region's telecommunications, energy, and water requirements".

Of the ten SADC countries, nine are served by bilateral missions in addition to the Southern Africa Regional Program (SARP) based in Harare. These missions have developed specific programs which address key constraints determined to be within the Mission's manageable interests. These efforts are complemented by centrally funded programs which have mandates in similar areas. In addition, as members of the Southern Africa Development Community, these countries benefit from initiatives designed to address regional constraints to development. The following table developed with information from the FY 93 Congressional Presentation summarizes the key areas in which SADC missions are working with bilateral and regional resources at present.

| COUNTRY Sector | Health | AIDS/ Family Planning | Natural Resources | Agriculture | Private Sector | Education | Food Aid | Transport |
|----------------|--------|-----------------------|-------------------|-------------|----------------|-----------|----------|-----------|
| Botswana | | | X | X | X | X | | |
| Lesotho | | | | X | | X | | |
| Malawi | | X | | X | X | | X | |
| Mozambique | X | | | X | | | X | X |
| Namibia | | | X | | | X | | |
| Swaziland | | X | | X | X | X | | X |
| Tanzania | | X | | | X | | | X |
| Zambia | | X | X | X | X | | | X |
| Zimbabwe | | X | X | X | X | | | X |

Note: The table excludes drought-related food aid.

This table indicates the coverage of development issues at present in the SADC region. The proposed telecommunications sector reform will improve the environment for general investment and will complement the implementation of efforts to address other constraints in the transport, agriculture, health and education fields.

3.5 Complementarity with Other Donor Activities

Telecommunications is a sector in which donors have long been active, although in almost all

cases assistance has been to a parastatal entity. Recent efforts have included assistance for restructuring and commercialization of the parastatals, but without a focus on increasing private sector participation such efforts have generally failed to create either the fundamental changes in operations required for improved service and efficiency or the level of resources needed to sufficiently upgrade the existing networks through public institutions. Annex G provides a more in depth analysis of the track record and relative benefits and pitfalls of donor financing in the telecommunications sector.

Specific donor activities with which the proposed program will be coordinated and serve to enhance include World Bank-led program efforts in Tanzania and Zimbabwe. These programs will help lay the foundation for initial restructuring through promotion of institutional and sectoral reforms, most notably the separation of postal and telecommunications services and the separation of operating and regulatory functions. A crucial distinction, however, is that the multi-lateral programs at present provide resources for public sector investment, while the proposed A.I.D. program will use the public sector only as a means to improve the conditions for private sector investment and management. Total funding for the Tanzanian and Zimbabwean telecommunications infrastructure development projects from all participating donors is US\$220 million and US\$190 , respectively.

The Africa Development Bank (AFDB) is a very active player in the telecommunications sector in the SADC region, and in fact, is often the single largest donor (mostly for equipment purchases) in the World Bank organized financing packages to the public sector PTTs. However, the AFDB tends to take a passive position on sector reform, letting the World Bank set the agenda. In most instances, it has little or no policy related conditionalities in its own loan packages, which USAID Zimbabwe has observed can inadvertently undermine reform efforts. The AFDB plans to be or currently is active in Mozambique, Zimbabwe, Angola, Lesotho, Malawi, Swaziland, and Tanzania, providing over US\$100 million in financing for telecommunications in the SADC region.

Several bilateral donors are also active in the telecommunications sector in the SADC region, especially those countries which manufacture telecommunications equipment. Japan has been the most involved, with Sweden, Norway, Germany, the EEC, Canada, Belgium, France, Denmark, Australia, Portugal, and Spain also highly active. Until very recently, only the Swedes, and to a limited extent the Norwegians, have indicated interest in sector reform, private sector participation, or competition. Specifically in the SADC region, the Swedes have been very active in Mozambique, supporting regulatory innovations, bringing in private sector investment in partnership with the parastatal, and in general sector reform. They have also been active in assisting in institutional reforms in Namibia and Tanzania.

Other potential donors with which the program will work include the International Finance Corporation (IFC), the private sector division of the World Bank group. IFC is very interested in leveraging private sector participation and reorganized itself in 1992 to be more effective in the telecommunications sector. The IFC can offer both advisory services and

finance, the latter for private sector entities only; and it is interested in creative ways to bring indigenous investment into the sector. In countries with constrained capital markets, for example, the IFC is willing to "warehouse" equity holdings in a privatized PTT, to be reserved for later sale to indigenous private sector investors when they are able to raise capital. IFC has no telecommunications experience to date in SADC countries, but it was involved in financing the cellular telephone system in Zaire.

4. SECTOR CONSTRAINTS ANALYSIS

The inferior state of the telecommunications sector in the SADC region is the result of inadequate and inappropriate investment and unsustainable management practices, within an unsuitable regulatory framework and structure.

4.1. Inadequate Investment

Limited access to modern and appropriate technology and inefficient management practices reduce the range, coverage, and competitiveness of telecommunications services. However, inadequate investment is the key constraint to improving telecommunication services in the SADC region. In rapidly developing regions such as Latin America, countries invest 0.93 percent of their GDP in telecommunications, while Asian countries invest 0.61 percent of GDP in the sector. However, sub-Saharan Africa invests only 0.25 percent of GDP in the sector. The SADC region is only slightly better than the African average, with 0.27 percent of GDP going to telecommunications. More mature economies such as Japan or the United States invest 0.5 percent of GDP in telecommunications.

Without increased investment the sector will continue to stagnate and act as a brake rather than an accelerator on economic development. Factors which affect investment in the sector can be classified in three primary areas: the high level of resources required for improved efficiency; insufficient knowledge on the part of both potential investors and host governments regarding telecommunications investment opportunities in the SADC region; and existing policies which restrict or impede private sector investment in the sector. Each investment constraint is addressed below.

4.1.1. Resource Constraint

Obsolete equipment, increasing demand, and the need to diversify operations together create staggering investment needs in the region. With the exception of Botswana, Mozambique, and -- to a certain extent -- Namibia, Lesotho, and Malawi, most networks in the region consist of old analogue equipment that frequently breaks down and provides a poor quality of service. The World Bank has recently estimated that for the SADC region to approximate a level of telephone service sufficient to support business operations on a scale similar to South Africa would require approximately US\$14 billion in investment. This is roughly equivalent to half of the entire annual GDP of the SADC region. This level of investment is not

possible to achieve through the current cash flows of the telecommunications business nor through government-guaranteed public sector borrowing. At present rates of efficiency, it would be the middle of the next century before the SADC region will be in a position to generate sufficient capital through normal operations to reach South African levels of telephone penetration.

Investable funds for public sector operations, particularly foreign exchange, perennially fall short of the investment requirements of the sector due to other public sector needs which are more pressing. Immediate problems such as war, drought, disease, and human resources development assume a higher priority in the national budget. In the face of these competing demands, decision makers find it difficult to devote adequate public sector resources to the telecommunications sector, even though the longer term returns from such investment would be significant, as it would help to attract the business investment required for national development, economic growth and job generation.

While donor financing has traditionally been used as an alternative form of investment financing, it is insufficient to meet demand for needed investment. Not only is donor finance insufficient for growth or improvements in the network, it also has had an inadvertent deleterious effect; by preventing the total collapse of the telecommunications system it has allowed the status quo to continue. The analysis for the PP and PAAD will review donor involvement in detail.

4.1.2. Information Constraints

A. Investor Knowledge Constraints

The SADC region is not well known to most potential investors. Information on the region specifically relevant to the telecommunications sector is spotty, of very poor quality, and is usually out of date. This type of information is expensive and difficult to collect, particularly for a foreign-based firm. Such a lack of information means that the private investor cannot accurately assess the risks and rewards of investments or knowledgeably propose or negotiate transactions with governments. The information gaps serve to heighten the perceived risk/return profile of a project in the SADC region, making it unattractive. Few firms are willing to invest substantial resources to gather adequate information for any single investment transaction.

Lack of country specific, accurate information is reflected in the perceptions that potential investors, particularly U.S. investors, have about the region. Africa is often perceived as a risky monolith which is unstable, distant, ridden with AIDS, and with no commercial potential. The limited information that is known about Africa and its changing environment for investment is poorly disseminated through the U.S. or other foreign investment communities.

Discussions with the U.S. private sector actors and a review of the work of others on this

issue, indicate that the great majority of firms presently have little interest in Africa beyond a quick and easy sale of equipment. Specifically, many firms have expressed a desire for A.I.D. to fund or subsidize equipment sales to make them competitive against other OECD suppliers. At present, only a few U.S. firms appreciate that they could benefit from work which: develops the sector so that the market is bigger, levels the playing field so that the natural competitiveness of the U.S. firms is not undermined, and reduces the risk and increases the returns of longer term involvement in the sector.

At present, the three larger U.S. long distance carriers, AT&T, MCI, and Sprint, appear to want to maximize short term revenues by preserving the status quo. (Although MCI is involved with negotiations for a privatization in the Sudan.) International settlements procedures are such that these companies benefit from developing countries' inflated charges for international service. In the longer term, of course, their revenues would dramatically increase with a larger and more efficient telecommunications infrastructure. Similarly, many potential investors do not recognize the benefits to be gained from sector restructuring and a leveling of the playing field for investors. Moreover, some industry groups are wary of any international involvement. For example, at the Cellular Telephone Association (CTA) all international enquiries are directed to the U.S. Department of Commerce, demonstrating that the CTA perceives that such enquiries are not recognized as attractive marketing or expansion opportunities. Clearly, there is much to be gained from targeting business groups with sector specific, timely information related to the investment opportunities and environment in developing countries in the throes of adoption of market oriented policies and a positive attitude toward private investment.

B. Host Country Information Constraints

Host governments have a myriad of objections to private sector investment in the telecommunications sector. Concerns range from national security and secure communications, to loss of revenue, to fears of inadequate service for rural areas. In addition, governments are concerned about ensuring adequate indigenous participation in any private sector investment and of the dangers of creating a private sector monopoly. In response to the latter apprehension, USAID Zimbabwe has included a Strategic Objective directly related to increased indigenous ownership of the economy in its Country Program Strategic Plan.

The majority of these apprehensions stem from inadequate information on the potential benefits of private sector participation in the sector. An insufficient understanding of the benefits and linkages to economic development of efficient telecommunications operations helps to set the stage for opposition to change. At present, information is not readily available at either the regional or bilateral level to assist government leaders in evaluating the potential costs and benefits of private sector investment in telecommunications.

Currently, key decision makers outside the operating companies have little opportunity to meet, discuss current issues, and share concerns and experiences. Because policy level

personnel, particularly those from planning or finance ministries, may not be versed in telecommunications technology, they are often unaware of the rapid technological changes which undermine historical views of telecommunications as a strategic industry or a natural monopoly. Without sufficient information regarding the various iterations that are possible with private sector ownership and without benefit of knowledge of the experience of other countries which have invited private sector participation, policy makers are not prepared to make decisions which change the fundamental structure of the sector. The chart on the following page summarizes key government concerns related to private participation in the Telecommunications Sector.

SADC Government Concerns in Telecommunications

| |
|--|
| <p>Telecommunications as a source of revenues. Many government leaders are afraid of losing control of what they perceive as a "cash cow" which has been a source of revenue for a long time. They do not appreciate that private sector participation can bring even more revenues, indirectly, through private sector taxes.</p> |
| <p>Unions. Unions and workers view private participation and competition as bringing layoffs, not opportunities for higher salaries and advancements. Experience elsewhere indicates that workers can be protected from adverse impacts. In the 1991 telecommunication privatization in Guyana, for example, no layoffs occurred and workers salaries increased on average over 400 percent within the first year of private sector control.</p> |
| <p>National Security. One concern often voiced by SADC governments is the national security implications of private sector control, especially foreign private sector control. This can be broken down into three areas:</p> <ul style="list-style-type: none"> o Domestic surveillance. Governments have a law enforcement interest in being able to monitor the telecommunications network, and fear this may not be possible in a private competitive environment. Although digital communications can be encrypted so that surveillance is difficult, this can be handled through appropriate regulation. o Secure government communication. Governments are concerned with the security of certain communication channels, and fear that this would not be possible in a private competitive environment. These concerns are easily addressed; governments can continue to have their own networks and private operators of a secure government network can be screened and classified. o Foreign interest control of strategic infrastructure. The national security concern over foreign control of the telecommunications network has legitimacy. For example, in the U.S., no major communications provider can have over 25% foreign shareholding. Nonetheless, this has been solved satisfactorily through a variety of mechanisms throughout the world, such as the "golden share" that the U.K. has in the privatized British Telecom. |
| <p>Indigenous Participation. Government and business leaders in many SADC regions have expressed a concern that if private sector management and investment were allowed immediately, the indigenous population may not have an opportunity to participate, due to a lack of capital and skills. Creative financial techniques such as Employee Stock Ownership Plans (ESOP), management buy-outs, and "warehousing" equity can address these concerns.</p> |
| <p>Local Manufacturing Base. Only Zambia, Zimbabwe, and to a lesser extent Tanzania have any industrial capacity at present to supply the telecommunications sector. Many governments, however, have viewed the PTT procurement budget as an opportunity to build up the local manufacturing base, and fear that a private or even independent PTT would ignore this social goal, and source from more competitive outside suppliers.</p> |
| <p>Ideology. Many governments in the region are relatively recent converts to a free market, private sector oriented economic system. There are still many uncomfortable with private sector involvement in a "strategic sector".</p> |

Rural Service. Governments express the belief that private sector firms could not be induced to provide service to less profitable rural/low income customers. The PTTs in the region have not been able to provide an ideal level of rural services due to lack of funds and competing priorities. As privatized entities it is likely that the PTTs would have the financial and managerial resources to better serve the rural areas. This stipulation can be included as a covenant of the sale, recognizing that some cross-subsidization of rural by urban areas will be necessary, as it is in every country. Other potential alternatives are to support independent rural telephone cooperatives, as the U.S. did through the Rural Electrification Act, and as is being done at present in Eastern Europe.

Reluctance to Reduce Control. Governments and civil servants are often unwilling to reduce the role of the state in providing services due to a belief that the private sector will not respond to the needs of the entire population. This natural reluctance is further strengthened by the self-interests of parastatal managers whose role would necessarily be diminished in a private sector oriented and competitive market.

4.1.3. Policy Constraints

Investment in the telecommunications sector in the SADC region is curtailed by restrictive policies that prohibit or impede private sector participation. Effective regulatory frameworks require a telecommunications sector policy which starts with the setting of objectives. A review of the policies and practices currently in effect in the SADC region indicates that governments currently do not have the technical capacity to define the optimum policy and regulatory framework required for the sector.

For example, in many countries telecommunications and postal services operate under the same umbrella corporation or ministry. This joint operation fails to recognize the dynamic nature of the telecommunications sector and the substantial differences that have evolved over time which have eliminated the original economies of scale and scope realized by combining the two operations. In the SADC region, the joint operation of telecommunications with the postal service has been the norm in all countries except Namibia, Botswana, and Lesotho. Most PTTs operate as public companies with some degree of autonomy, but in at least one country, Malawi, post and telecommunications services are treated as a line function of the relevant government ministry. While initially providing benefits, in later years this joint operation has been detrimental to the development of the telecommunications sector. Over the past 20 years the world wide trend has been to separate the two services and create separate postal and telecommunication operating entities, regulated separately.

In addition to the separation of postal and telecommunication operations, SADC governments must ensure that independent and transparent regulatory systems are in place to monitor sector operations in order to attract investment and to implement sector policy. At present, most of the PTTs in the SADC region have effective control of entry into the telecommunications sector. PTTs are often self-regulated and seek to ensure that they maintain competitive advantages through their pricing, licensing, and direct supply operations.

Regulation and operations need to be separated to ensure transparency. Currently, the SADC

structures tend to reflect the political priorities of each government rather than the economic realities of the market. The key regulatory frameworks for a modern private competitive telecommunications sector have not been established in the SADC region. For example, depending on the country, there are no legal or regulatory structures that would allow:

- incorporation of the PTT as a commercial company;
- sale of some or all of the equity of the PTT to the private sector;
- granting of licenses for private sector competition;
- tariff setting mechanisms to ensure that market power is not abused, and that the regulated or monopoly sub-sectors do not cross-subsidize the competitive sectors;
- frequency allocation for private sector competitors, or new services such as mobile cellular telephony, or to monitor unauthorized transmissions;
- interconnection standards that would allow competing operators providing services through a network owned by a different entity.

SADC member state policies further restrict private sector participation in the sector through legislation which grants the monopoly on telecommunications services to the parastatal PTT. This trend is slowly changing as, increasingly, SADC countries are looking at options which include private sector participation in subsectors in which the PTT does not currently operate, such as cellular or data communications. However, progress toward increased private sector participation requires a broad-based review which looks at the commercial code, banking/investment law, labor law, corporate law, real property law, courts/arbitration procedures, and international agreements, as well as specific telecommunications policies.

4.2. Management Practices

Although telecommunications is inherently a very profitable business, PTTs in the SADC region have often been managed so inefficiently that many lose money. Many PTTs have been established as public corporations and with a mandate to operate on commercial terms; however, the lack of flexibility to operate as a private sector firm and the lack of accountability to investors undermine all incentives to produce dependable services at reasonable cost. Without a "bottom-line" perspective, for example, bills are not sent out, nor are vigorous attempts made at collection. Political interference means that charges for telephone are set below cost recovery, investment decisions are made outside the operating company, and often government ministries do not feel obligated to pay their bills. Even when profitable, the PTTs are not allowed to retain their earnings or foreign exchange for investment, further limiting their ability to provide services efficiently. Only Botswana currently has private sector management of the core network, and even this is limited. In

other SADC countries legislation, policy and regulation restrict management to the public sector.

In general in the SADC region, current PTT management practices and government ownership tend to:

- o dilute autonomy necessary for efficient and customer oriented operation of the system;
- o place investment authority with civil servants unfamiliar with and disinterested in the needs of the system;
- o change senior management for political purpose;
- o limit salary levels which cause a drain of badly needed skills from the organization;
- o set tariff (service fees) levels based on political rather than economic or financial considerations; and
- o use the PTTs as an employment creating strategy and/or patronage reward system.

State control and management has not ensured wide-spread, affordable services. The state owned PTTs in the region have failed to improve access and services, and in some countries have failed to even maintain existing levels of services. Despite the advantages of allowing mixed ownership (by which the government still shares the benefits of a profitable operations, but can ensure business-like management), in the SADC region private sector participation is usually limited to being a contractor to the state owned PTT, primarily for equipment sales and installation.

5. PROGRAM DESCRIPTION

5.1. Strategy: Addressing the Constraints

5.1.1. Approach

The proposed program will address the telecommunications constraint to broader investment in the SADC region by directly assisting SADC countries to design and implement policy and regulatory reforms that will allow private sector participation -- management, investment, and competition -- in the telecommunications services sector. The impact of these reforms will be enhanced and quickened by providing vital information to potential private sector investors, particularly to U.S. firms, and assisting SADC member countries to structure and promote private sector investment in the telecommunications services sector.

The proposed program strategy is to combine Project and Non-Project resources in a flexible design that will accommodate the different pace of reform in SADC countries, while allowing participating countries to benefit from the experience gained by others at different stages of the reform process. The management strategy is to use a "hub-and-spoke" approach which provides broad technical assistance coverage that is customized to individual country needs but minimizes the administrative management burden for A.I.D. missions in the participating countries.

The program design is derived from: the commonality among countries of the problem of insufficient investment retarding economic growth; the benefits related to economies of scale to be derived from a regional approach to the problem; and the requirement for a flexible approach that allows countries to move at their own pace in developing the required broad political consensus for policy reform in the sector prior to entering into a Non-Project Assistance agreement that makes disbursement contingent on policy changes.

With respect to insufficient investment, SADC member states are demonstrating stronger commitment to implementing structural adjustment programs to bring inflated economies and public sectors in to equilibrium. All countries are taking steps (some faster than others) to shift their economies from a public sector, social equity approach to greater receptivity to private sector-led growth through market efficiencies. In carrying out the structural adjustment process, policy makers have come to realize that private investors (with the much needed capital that the structural adjustment programs are developed to attract) seek out the most advantageous investment climate that offers substantial market access as well as cost effective factors of production.

The small size of the region's national economies is a constraint to increased foreign investment which may be addressed in part with the new regional initiative in economic integration. Under the terms of the new treaty for the SADC countries there is a shift from a timid or fearful approach of delay to active recommendations for the favorable treatment of investors and companies across national borders. The ultimate goal of this process will be the free flow of regional goods and capital across borders within the region leading to increased national competitiveness within member countries as well as increased trade and economic growth throughout the region.

The lack of adequate infrastructure is both a cause and result of insufficient investment. SADC governments have long acknowledged that transport is an infrastructure element that can make or break a product's price competitiveness with respect to both intra-regional and extra-regional trade. Similarly, it has become evident that investors are very much concerned about the timeliness of information transfer, as it can directly affect the profitability of an investment. In sum, analyses indicate that the region's infrastructure and related investment policies must be improved if the investment climate is to be attractive.

With respect to economies of scale, the proposed program takes advantage of the reduced cost and administrative burden of coordinating and managing region-wide technical assistance

from a single location in the region. The program also recognizes, as was evident from the A.I.D.-funded Telecommunications Workshop held in February in Namibia, that there is considerable synergy from countries participating as a group in seminars, workshops, and as beneficiaries of technical assistance when issues of region-wide interest such as policy regarding to privatization and restructuring of state-owned and managed enterprises are the topic of discussion.

Finally, in certain important policy matters, such as frequency management, satellite positioning or cellular telephone standards, regional coordination is essential. SATCC has taken a leadership role in all of these areas and is now particularly concerned with the standardization and harmonization needs as part of an amended regional economic integration strategy.

To allow for the different pace of telecommunications sector reform in the SADC countries, the program design is flexible and will permit for countries to benefit from the technical assistance and training and to participate as they are ready in the policy based Non-Project Assistance component of the program. The program design recognizes that the pace of reform will vary, depending on competing priorities. However, it also recognizes that due to unpredictable results of such factors as highly effective technical assistance and the synergy phenomenon cited above, a government's historical attitude may not be a good predictor of future interest in reforming the sector. Moreover, there is a need to be responsive on a timely basis if the reform process is to move aggressively and at an accelerated pace throughout the region. The region's dynamics and emphasis on economic integration to achieve improved trade and economic growth objectives is a highly favorable environment in which to introduce this new intervention. This will be analyzed further in the Project Paper.

The proposed program's management flexibility will allow A.I.D. missions to participate in program management and administration in line with bilateral strategies and management capacity. In essence, the program allows missions to address a critical investment inhibiting constraint in their national economies without using scarce bilateral management, financial resources, and staff that, in most cases, would not be sufficient to address the problem.

5.1.2. U.S. Competitiveness in the Telecommunications Sector

In most sub-sectors of the telecommunications service and products industry, U.S. suppliers are world-class competitors. This is particularly true in the high-tech, high-end, more lucrative areas such as switching, satellites, and radio; this competitive advantage is less true in such low-tech areas such as copper cable manufacture. U.S. suppliers are not a major force in the Southern African region at present, however, compared with the Swedish, German, French, and Japanese. Part of the reason is generic to U.S. industry; the home market is so large and lucrative that there is less motivation to look overseas, particularly in niche markets far from home, like Southern Africa.

The more important reason for the relatively poor performance of U.S. firms, however, has

to do with the nature of procurement and investment in the region. Virtually all procurement of telecommunications goods and services are undertaken by state owned and managed companies, most of whom are not creditworthy and depend on donor financing, backed up by recipient government guarantees. Bilateral (and European Community) donor financing is usually tied to national or regional suppliers. A.I.D. does not provide concessional financing for telecommunications exports, and the U.S. EXIM Bank terms are usually not competitive with their European and Japanese counterparts.

The proposed program will address these problems and "level the playing field" for U.S. suppliers in Southern Africa in two major ways:

- o Move the investment and purchasing decision from the public to private sector, outside the realm of government guarantee and donor finance, so that decisions are made solely on the basis of price, service, quality.
- o Provide the U.S. industry with information on trade and investment opportunities, regulatory regimes, and financing opportunities in the region, to counteract the entrenched position of traditional suppliers.

Despite the established position of traditional suppliers, a few of the more aggressive U.S. firms, (those willing to make investments as well as sales), are in a strong competitive position to make major inroads into Southern Africa, provided that the regulatory climate changes. Motorola, for example, is the strongest contender for major cellular telephone systems in Zimbabwe and Zambia because of superior product, but also because of an adroit choice of local partners in both countries.

There is an alternative means to "level the playing field" that the Mission considered and explicitly rejected. Instead of working to change the way business is done in the telecommunications sector, one could accept the status quo. The U.S. could match or beat the Japanese or French with even more concessional export financing through EXIM Bank. This would be a second best solution for the following reasons:

- o Although the playing field would be level, the potential stakes in the game would be far less. It has been proven throughout the developing world that a privately owned and managed telecommunications system grows much faster, and purchases far more equipment, than public sector systems.
- o This would provoke an ever-escalating battle competition between the world's supplier countries, based on whose government will spend the most tax-payer's money on subsidies for its sale of telecommunications equipment, but not based on innovation-inducing features such as quality, price, or service.
- o This would violate the spirit and letter of our commitments to GATT and the OECD to reduce government interference with the trade and investment.

- o Perpetuating the status quo would work against the best interests of the people of the SADC region. As demonstrated elsewhere in this paper, with continued state intervention in the sector, development in the telecommunications sector and in the overall economy would be stifled.

5.2. Program Objectives: Goal and Purpose

Goal - As shown in the objective tree, the goal to which a successful program will contribute is, "broad based sustainable growth in SADC countries, as measured by more jobs and higher real incomes." Achieving this goal will require increased investment for expanding business operations, a sub-goal of the program. A key assumption linking the sub-goal and goal is that the increased investment in the region will be accompanied by other factors which are necessary and sufficient to achieve sustainable growth, e.g., political stability, continued movement toward market oriented policies under structural adjustment programs, and the avoidance of man-made and natural disasters such as civil disturbance and drought.

Purpose - The program purpose is "Increased and broadened access within the SADC to a more cost effective system for information transfer." A program assumption linking the purpose with the sub-goal of increased investment is that telecommunications infrastructure improvement will be accompanied by other factors influencing investment, e.g., a favorable investment climate for all investment (not just for telecommunications investment), the existence of profitable business opportunities, availability of financing at rates that allow for profitability of a business venture, and adequate transport infrastructure.

Sub-Purposes - The analysis indicates that there are two key achievements which are necessary to achieve the project purpose of increased and broadened access to a more cost effective telecommunications system: (1) establishment of a regulatory structure that functions in a professional and transparent manner to govern entities and ensures competition in the telecommunications sector, and (2) higher levels of private investment and management in the telecommunications sector. The program hypothesis is that achievement of these two sub-purposes will result in the necessary and sufficient conditions to achieve the project purpose. A key assumption is that the private sector is a superior source of new, appropriate technology; superior management; and cost-effective capital.

5.3. Impact: Expected End of Program Status

5.3.1. Southern Africa Region

A. Sub-Purpose Level

The impact of the proposed program at the sub-purpose level will be largely measured by the increased amount of private sector investment in the telecommunications sector and the extent to which state intervention is circumscribed by an appropriate regulatory structure that focusses on regulation, leaving operations to the private sector. Experience indicates that the

provision of telecommunications services is a very lucrative business, even in developing countries, under an enabling policy and regulatory environment. It is expected that the policy and regulatory reforms leveraged by the proposed Program's Non Project resources, complemented with targeted Project assistance, will cause a net increase in foreign and indigenous investment in the telecommunications sector. A detailed estimate of net investment flows will be undertaken in the PP/PAAD economic analyses, which are described in Section 6.2.

A rough order of magnitude of the foreign investment impact, based on a hypothetical example of Zimbabwe selling 60 percent of the Post and Telecommunications Corporation to a U.S. investor, shows that the direct impact on foreign investment from a partial privatization would be dramatic. In 1992, total gross foreign investment flows into Zimbabwe from all sources in all sectors was less than US\$ 50 million. The hypothetical privatization of the PTC, based on conservative assumptions, would result in net inflows of US\$210 million in foreign investment in telecommunications, or over five times the total amount in Zimbabwe in 1992. If the new privatized company earned a return on equity of 15 percent, and 50 percent of profits were reinvested, then the Net Present Value of Annual foreign exchange dividend stream out of Zimbabwe would be approximately US\$210 million, matched by an additional US\$210 million reinvestment in the network.

**Foreign Investment Impact of a Partial Privatization
of the Telecommunications Sector in Zimbabwe**

Sales Price The GOZ agrees to sell a 60 percent share of the PTC to a U.S. investor, with the price established at the net book value of PTC assets. 60 percent of net book value, according to the 1992 audited financial statements, would be approximately US\$ 60 million.

Additional Investment The U.S. investor agrees to triple network penetration from 1.25 lines per hundred to 3.75 lines per hundred or a total increase of 250 thousand lines. The investment cost per line in developing countries ranges anywhere from US\$ 1 to 5 thousand, but taking the lower number, this would be approximately US\$ 250 million. At 60 percent, the foreign investment share of this expansion would be US\$150 million.

Total Investment The net foreign exchange investment flow would be approximately US\$ 210 million, as shown in the calculation below.

| | |
|------------------|--------------------------------------|
| US\$ 60 | million sales price |
| <u>US\$ 150</u> | <u>million additional investment</u> |
| US\$ 210 million | Total net foreign investment |

Dividend Stream. Assuming a 15 percent ROE, 50 percent reinvestment of dividends, then US\$ 18.75 million would be remitted overseas per annum. The NPV of this dividend stream would be US\$ 210 million assuming a discount rate of 10 percent.

Note: 100 percent equity financing is assumed.

Moreover, the proposed program reforms and project assistance are expected to result in a

diversion of domestic investment from less productive or remunerative areas into telecommunications. The flows of domestic investment into the telecommunications sector will be relatively easy to track or estimate. Taking the above hypothetical example of Zimbabwe, but now assuming that local a group of investors takes a 20 percent share, an additional US\$ 70 million of domestic private investment would flow into the telecommunications services sector. This equals approximately 5 percent of total private gross domestic investment in Zimbabwe in 1991.

The impact of domestic investment flows will be much harder to track or estimate, because it will be difficult to assess where such flows would have otherwise been utilized. If the economy is reasonably in balance, and market signals of financial return are roughly in synch with economic return, then it is assumed that the net flow has a positive impact. Certainly, if potential flight capital is retained in country, the impact is almost completely positive.

B. Purpose Level

The program purpose has been defined as "increased and broadened access within the SADC region to a more cost effective system for information transfer". The purpose was selected because all SADC countries suffer at the business and household level from very poor access to telecommunication services. The impact of the proposed program at the purpose level, will be determined by monitoring a number of indicators which have been derived from a review of the literature on the economic impact of telecommunications services focuses on the impact of greater access. Specifically, under the proposed program, achievement of increased and broadened access will be measured by the indicators below:

- (1) **Increased availability of phone connections with the number of direct exchange lines per hundred businesses and households increased by percent.**

Access is generally measured by telephones per hundred, disaggregated when possible into urban and village. This level of disaggregation, will require considerable research to obtain for most countries in the SADC region. Rural access, in fact, in much of Africa, is probably better measured by the number of hours or walk to the nearest phone (see Indicator #2).

On a macro-economic level, the impact of one additional phone line per hundred population has been correlated, on both a time-series and cross-sectional basis, with increase in annual GNP per capita. The correlation is greater the lower the GNP per capita and the lower the initial penetration levels. The following example of potential cost/benefit results is based on Zimbabwe:

**Macro-Economic Impact of Increased Access to Telecommunications
Zimbabwe**

| | |
|---|--|
| Investment: | US\$ 250 thousand lines, tripling capacity |
| Costs/Line: | US\$ 1,000 - 5,000 per line |
| Total Costs: | US\$ 250 million - US\$ 1.25 billion |
| Increase in Annual GNP from one additional line: | US\$ 2,100 |
| Total Increase in Annual GDP from all new lines: | US\$ 516 million |
| Payback period: | 0.5 - 2.5 years |
| NPV of investment: | > US\$ 10 billion |

Note: Methodology used for this calculation was based on Telecommunications and the National Economy, adapted by Teleconsult.

If telephone penetration in Zimbabwe were tripled from 1.25 to 3.75 per hundred inhabitants, the total one time investment cost would range from US\$ 250 million to 1.3 billion. But according to the telecommunications/ economic growth correlation analysis, one would associate this investment with an increase in annual GNP of approximately US\$ 0.5 billion. Even with the most expensive capital expansion assumptions, this is a payback in less than three years. The Net Present Value (NPV) of this annual increase of US\$ 0.5 billion is over US\$ 10 billion.

On a micro-economic level, there are many approaches to estimating impact. For example, micro-economic analysis will be used to measure the economic gains realized by a Harare-based manufacturer who is able to correspond reliably with customers and financial institutions in New York and London on a daily basis. Other analysis throughout the life of the program will quantify the impact of the ability of a commercial farmer to telephone the airport to verify cargo flight schedules, to ensure maximum freshness of perishable cargo.

Better telecommunications also improves the efficiency and effectiveness of other support and infrastructural services. When a railway knows on a real time basis where its rail wagons are located, the utilization of rolling stock is maximized and the savings passed on to the consumer or invested in infrastructure. In a similar manner, if the national power utility is able to know on a real time basis load factors throughout the electrical grid, then operators can fine tune boiler burn rates or turbine flow rates, generating savings that can be passed on to the consumer or retained as investment.

- (2) **Increased availability of telephone connections in rural areas with average time required to access service reduced by percent from hours walked to hours.**

It should be noted that the poorest people in developing countries do not normally own telephones. The economic and social quality of life of a remote village is totally transformed, however, by the availability of a phone where there was none before, through improved access to social services and business opportunities.

With increased availability of telephone service, it will be feasible to start a wide array of businesses more remote from traditional business centers. Existing businesses will be more profitable with less risk. This will result in increased geographic dispersion of job creation and entrepreneurial benefits -- in addition to the ability of the rural consumer to purchase goods and services closer to home and the transport savings derived thereof. Particularly in more remote areas, access to a telephone can mean far better and more efficient access to social services. For example, a telephone call to a doctor in a regional hospital could save a painful trek of two days and reduce congestion at the regional hospital's emergency room at the same time.

Rural Telecommunications

**** The Role for the Private Sector ****

Telecommunications service to rural areas, particularly in developing countries, is traditionally thought of as inherently unprofitable, and requiring state intervention and/or subsidy. Paradoxically, developing country PTTs, almost universally, cannot afford to provide service to rural areas.

While it may be true that rural service may require a degree of subsidy, it certainly is not true that state intervention is required.

In the U.S., for example, there was fairly poor coverage of the more remote rural areas as recently as the 1950s and 1960s. The relevant utilities could not justify the expense of providing service to these areas, especially given the fact that they were borrowing at commercial rates. Instead of burdening the more urbanized rate payers in adjoining areas, the USG made a national policy decision to modify the Rural Electrification Act (REA) to include telephone cooperatives. In essence, properly organized, privately owned co-operatives could qualify for low interest loans through the REA mechanism. Sensing opportunity, American industry innovated and developed special low-capacity equipment particularly appropriate for remote areas. These telephone co-operatives were highly successful, and have organized themselves into the National Telecommunications Co-operative Association, who are now active introducing co-operatives in rural Poland, and are considering Southern Africa as well, even in advance of the RTR program

Other countries have experimented with other private sector solutions. Australia, for example, has introduced a "Universal Access Fund", financed by a fee on all competitors in the telecommunications service business. This Fund goes to cover some of the costs of providing service -- by the private sector -- to the more remote areas of Australia. Again, government is involved only as an intermediary.

Even more exciting than the regulatory innovations, however, is the breakthrough in radio technology in the past few years that has greatly reduced the costs of providing service to remote regions. Fixed cellular radio, for example, can provide service for US\$ 600 a telephone connection, compared to copper-line service at US\$ 5000 per connection. The ultimate solution, however, may come through the Iridium low orbit satellite project, which the promoters claim can provide service anywhere on earth for the same cost as service in central cities.

Sources: Austel, National Telephone Co-operative Association, Hughes Telecommunications.

- (3) **Increased price competitiveness of telephone service with international rates, with the price difference reduced by percent.**

The economic impact of the cost of telecommunications services is a complex area because telephone tariffs in the region are usually not based on cost or market considerations. Local calls are usually priced far below cost or market levels for political reasons. Other calls, usually international, are priced far above reasonable market determined levels. When local calls are too inexpensive, the network becomes overly congested, and unable to transmit the demand of local traffic. In New Delhi, for example, local calls are so inexpensive and so difficult to make, that once a connection is made it is often kept open indefinitely, making other calls even more difficult to place. In contrast, to cross-subsidize the nearly free cost of a local telephone call international calls are made so expensive that overseas marketing and financing costs become prohibitive.

- (4) **Increased efficiency and reliability of the telephone system with local, regional, and international call completion rate increased by percent, and service time**

increased by percent.

A telephone line only contributes to the economy if it is working. Reliability is measured by faults per line per year, and the duration of these faults; and more generally, by Call Completion Rates (CCR). A reliable system will reduce the volume of lost business opportunities due to faulty lines.

(5) Increased usefulness and flexibility of telecommunications system as measured by an increase in the variety of services available.

Historical experience suggests that a private owner/manager is more interested in providing services that the market demands because profitability depends on it. This is often not the case with public sector management. Many PTTs, for example, are still planning for expansion of the telex network rather than improving the availability of fax services. Businesses prefer fax because faxes are less time consuming to process and can transmit virtual facsimiles of documents (including images and graphics). A wider variety of telecommunications systems will permit increased international trade as SADC businesses are able to fax brochures or contracts to overseas customers.

New technologies will be especially important in reaching rural populations on a cost-effective basis. Technical assistance from the program will be used to undertake objective analyses of the potential for new technologies to deliver services to the rural areas. This information will be a valuable input for both government policy makers deciding on regulatory constructs and local investors making profit-oriented decisions.

5.3.2. U.S. Interests

It is anticipated that NPA funds will be disbursed using a cash transfer mechanism; however, participating host governments will be required to present evidence of private sector importation of U.S. goods and services in amounts equivalent to the proposed disbursement. The project technical assistance and training services valued at US\$15 million will be sourced from U.S. firms.

The significance of the short term impacts notwithstanding, the proposed program offers even more long term opportunities for U.S. businesses as equity or management partners in telecommunication services in the SADC region. The combined Project and Non-Project Assistance provided under the proposed program will give U.S. firms a "foot in the door" in SADC markets. More importantly, businesses will have better information about the SADC region market; regulatory changes will create new opportunities in those markets and will make investments in these markets more profitable and less risky. The program will encourage and support parallel efforts, such as through the Development Assistance Committee (DAC) at OECD, to level the playing field for U.S. businesses in the sector.

The impact on U.S. jobs is highly favorable. U.S. telecommunications service providers

invest overseas for new markets for their services, not for sources of cheap labor to displace American workers. Lusaka based workers, for example, cannot run a phone company in Atlanta. When U.S. firms invest overseas, they hire additional U.S. workers to work overseas, and to manage the investments from the home office, as was the case when Bell Atlantic bought into Venezuela and when ATN bought into Guyana.

5.4. Outputs: Expected Achievements: Results of Policy Reform, Technical Assistance and Training Interventions

There are four primary "outputs" of the program. The first output is required to provide a framework for effective government and private sector coordination. The other three outputs are required to achieve adequate and appropriate levels of private investment and management in the telecommunications sector. Each output and indicative program-supported activities required to produce it is discussed below.

5.4.1. Regulatory structure established and functioning in professional and transparent manner to oversee sector activity and ensure competition.

Conditionality:

Non-Project Assistance will be conditioned on a number of policy and regulatory changes needed to establish an appropriate regulatory structure for the telecommunications sector. The conditions may include, but not be limited to the following:

- o The Government issues a sector policy paper which forms the basis for new legislation and regulation which will set limits for public participation as well as competition and establishes a transparent regulatory structure for public oversight of the sector.
- o Based on a Government adopted policy that sets forth the state's interests and responsibilities in regulating the sector, the Government passes legislation creating an independent regulatory body.
- o The Government authorizes an adequate budget for the regulatory authority to operate independently and pay competitive staff salaries.

Technical Assistance:

The program will support country-specific technical assistance and exposure visits to other countries addressing similar problems. Specific areas in which technical assistance related to regulation may be provided include:

- o Separation of operational and regulatory functions.

- o Design of a regulatory apparatus equipped to regulate a dynamic private sector. This assistance will encompass fields related to interconnection, equal access, frequency management.
- o Tariff rebalancing and restructuring options, including analysis of rate of return versus price cap mechanisms.
- o Institutional support for regulatory body. Initial implementation support for an independent regulator which may require advisory services.

In addition, a key input to convincing government officials of the need for change will be through the increased information flows and knowledge of the most appropriate role of the state in a restructured enterprise. The project shall use technical assistance, regional and national training, and focus group interventions to improve government knowledge. In addressing specific issues such as national security, the experience of other countries will be shared with regard to methodologies that can ensure state interests in surveillance, classification, and spectrum allocation for government usage.

5.4.2. Legislation/regulations allow competition, private investment and use of most appropriate cost effective technology.

Conditionality:

- o Government adopts a policy that permits and does not discourage or inhibit private sector investment in telecommunications.
- o Based on the policy, Government passes legislation and regulations necessary to permit private sector investment in the telecommunications sector.
- o Government grants licenses for parallel carriers for international service.
- o Government grants licenses or deregulates private provision of subscriber equipment.
- o Government grants licenses or franchises for core services, if appropriate.
- o Government establishes an Employee Stock Ownership Program to enable employees to take a minority share in telecommunications parastatal.
- o The Government completes full privatization of the telecommunications entity through a combination of local/foreign majority control.

Technical Assistance and Training

The program will provide additional information on the telecommunications sector for host

governments to increase their familiarity with private sector participation.

Specific program activities will target countries that have not completely embraced the need for private sector participation and competition. These activities will directly address the concerns that government officials have expressed. An important part of the outreach will be to policy and decision makers in parent ministries of the PTTs as well as the Finance or Planning Ministries because of their broader interest in economic development. The anticipated result of these activities is an informed body of decision makers who recognize the benefits of improved telecommunications and are able to take steps to rationally structure the sector using options that include private sector investment and competition.

Because many in SADC governments at this state of development incorrectly believe that bilateral donors are excessively promoting a privatization agenda, it is anticipated that most familiarization and information dissemination assistance will be coordinated and provided jointly with SATCC. Many of these activities can be more efficiently and effectively coordinated at the regional or sub-regional level. Workshops, seminars, and other information dissemination efforts will form an important part of these activities, which will be open to all SADC member countries. Criteria for participation in specific event will be developed and will revolve around the current policy environment, prospects for private sector participation, and the state of the national network. An indicative list of activities includes:

- o Financial Analysis of the PTTs in the Region. The financial performance and prospects for future profits to expand services of many of the PTTs in the region is not known, largely due to inadequate record keeping and planning. Some PTTs, such as Zimbabwe's PTC, have no idea how much foreign exchange they generate. Others have no idea of what assets they own and their value. Better insight into the financial condition of the PTTs is essential for decisions by government policy makers as well as potential investors.
- o Increasing Awareness of the Benefits of Private Sector Investment in Telecommunications Services. Senior policy makers have very little appreciation of the changes in technology and management efficiencies that result from capital provided by the private sector. Program-financed seminars and workshops have been proven to be valuable instruments for countries to share experiences of other countries such as Ghana, Guyana, and Chile, which have permitted private sector participation.
- o Private Investment and Competition Stakeholders Awareness. Policy makers need to be aware of the potential impact of increased private sector participation on all stakeholders -- management, postal service, workers/unions, residential consumers, business users, and public finance institutions. Technical assistance will help countries develop tools to mitigate negative aspects, enhance positive outcomes, and plan for corresponding public information activities to ensure wide spread acceptance.

- o Analysis of Non-Telecommunications Legislation and Regulation and its Impact on Private Sector Investment and Competition. The rules on institutional investment, tax incentives for Employee Stock Ownership Plans, incorporation under local laws, and the use of negative pledges on international settlements revenues to finance non-telecommunications public sector investment are but a few of the legislative and regulatory issues that have important implications for the introduction of private sector participation. Technical assistance will be used to improve host government and investor understanding of these factors.
- o SADC as a Regional Market for Telecommunications Services. Through the proposed program, SATCC and national governments will explore the necessary steps in regional cooperation which can be taken to increase the effective size of the SADC market and to attract more private investment in telecommunications. Standards harmonization, revised methods of settlement of international payments, and introduction of regional licensing are but a few areas that need further exploration.
- o Analysis of Policies to Promote Local Manufacturing. Program resources will be used to examine the costs and benefits of policies which encourage local assembly. Potential cost of local assembly include lower quality, older technology, and higher costs of goods.

In addition to the above, technical assistance will be funded to help SADC governments to analyze options for sequencing competition in telecommunications sub-sectors to ensure an optimal mix of revenue and service. Governments also can be assisted in structuring privatization offerings, and in structuring offerings for licenses for competitive services. It is further anticipated that the program will provide advisory services to SADC governments to undertake due diligence on potential partners or investors using experts in the legal, accounting, and financial fields.

Assistance to SATCC

SATCC has the potential to play a key role in producing, gathering, and disseminating information to both investors and host governments. It is also in a unique position to shape the regional agenda on telecommunications policy and to ensure that national policies complement regional development strategies. For example, the SADC Regulatory Working Group, made up of representatives from selected parent Ministries and PTTs, will begin work in June 1993 on outlining the various regional and country specific needs and how to meet them as expeditiously as possible. During intensive review, USAID Zimbabwe will work directly with this Regulatory Working Group to ensure private sector input, and to help define specific and cross-cutting areas in which support will be needed during the life of the program.

Current dialogue with SATCC has identified the following preliminary areas for assistance:

- o Short term expert advisory assistance to the Regulatory Working Group.
- o Analysis of options for immediate private sector participation and regional standardization of mobile cellular telephone.
- o Mobilization of a regional users group, with possible input from established South African user groups, to ensure private sector participation in policy/regulatory decisions.
- o Regional standards research planning focusing on parameters for setting specifications for private sector procurement appropriate for Southern African conditions.
- o Regional tariff harmonization in anticipation of a regional telecommunications sector with private participation and competition.

5.4.3. Adequate Levels of Financing for Private Sector Investment are Available.

Conditionality:

Government resources and direct flows from telecommunications operations cannot meet the tremendous investment needs in the telecommunications sector in the SADC region in the near term. Additional flows must come from non-governmental investors. By granting equitable treatment to the telecommunications sector, the prospects for attracting sufficient capital investment are increased. In order to facilitate private investment in the sector, program conditionality may include the following:

- o Government covenants that telecommunications remains a priority sector for private sector investment by ensuring that sector inputs (commodities, services, etc.) receive treatment at least as favorable as other priority sectors in terms of investment incentives, tax exemptions, import licenses, foreign exchange allocation, etc.

Technical Assistance and Training:

While investors do not need to be convinced of the merits of private sector participation in the sector, they may need to be better informed on investment opportunities in the SADC region. Technical assistance to the private sector under the proposed program will be limited to developing and providing information for potential investors, particularly from the United States. This information will include general conditions of a particular country, the current and planned regulatory framework, as well as specific conditions relating to investments in the telecommunications industry. The information will serve three primary functions:

- o Present opportunities for investment (and trade) of which businesses may not have been aware.

- o Reduce risk of investments made in telecommunications services in the region, at all steps from pre-feasibility to finalizing negotiations.
- o Increase returns of investments in the region.

The following types of information will be collected, analyzed, and distributed to U.S. private sector businesses:

- o General conditions on a country basis and for the SADC region, relevant to telecommunications investors.
- o Information on telecommunications sector regulatory and policy environment.
- o Information on telecommunications sector investment opportunities.

Information will also be developed on incentives to promote indigenous investment in the telecommunications industry, whether through ESOPs, joint venture or other mechanisms. In addition, to improve information available on the region and at the regional level, the program will support the development of a telecommunications data base at SATCC. This activity would include a needs assessment, design of appropriate data base, collection and verification of telecommunications statistics, and maintenance of a computerized data base that will be accessible to SATCC staff, donors, other SADC countries, and private sector investors.

The PP/PAAD analysis will look closely at the ability of other USG agencies and U.S. private trade associations to participate in the supply and dissemination of this information, and identify the relevant gaps the program should address. Annexes E and H provide further information on USG Agencies and proposed Technical Assistance to the Private Sector.

5.4.4. Private sector management techniques adopted/implemented.

Conditionality:

Even with increased technological options, current management of telecommunications systems must be changed from a static mass to a dynamic force. It is anticipated that there may be progressive states of private sector management, starting with non-traditional services such as cellular systems or data communications networks or private management of secondary services such as equipment provision, maintenance, phone book publication, etc., and ranging to private sector management of the primary network. In order to accomplish the changes in management and adoption of private sector management practices, policy conditionality for participating countries may include but would not be limited to the following:

- o Government adopts policies which permit private participation in management.

- o Based on policies, Government passes legislation that permits private sector management of telecommunications operations.
- o Government indicates that it is willing to grant license to a private sector entity to run the telecommunications network on a performance incentive basis.

Technical Assistance and Training:

Under the proposed program, the policy agenda will be complemented with separate technical assistance and training activities that sensitize decision makers to the need for private sector management. If required, program resource may be used to assist SADC governments in structuring a performance contract with private sector management.

While training of telephone staff will not be a significant activity under this program, projectized resources will be used to analyze options to increase cooperation between the private sector and existing training institutions. NORAD has taken leadership among the donors in this area, and has worked with two major training institutions serving the Southern Africa region (AFRALTI in Nairobi, and the Advanced Training Center in Blantyre) both of which have suffered from virtually no private sector input in course design and presentation.

5.5. Implementation Arrangements

5.5.1. Interventions Overview

As discussed above, the proposed program addresses the policy and regulatory constraints affecting both management and investment in the telecommunications sector through a combination of project and program resources. Specifically, the program uses non-project resources to accelerate the pace of movement in policy and regulatory reform in the sector, particularly where the coordination of action on the part of several ministries is required. Appropriate technical assistance is made available to adequately inform officials on the need for and merits of policy and regulatory reforms and, subsequently, to assist officials in implementing the reforms.

For example, in establishing an investor-friendly policy and regulatory environment, program resources may be disbursed based on agreement that an independent regulatory body is established and functioning to promote transparency and competition in the sector's management. However, prior to agreement on such conditionality it is likely that program-funded technical assistance will be required to help governments recognize the need for establishing the independent regulatory entities, followed by additional technical assistance to help them actually legally establish the regulatory bodies. Additional technical assistance may then be required to assist the newly established regulatory bodies in such areas as subsidy policy, spectrum allocation, means by which to review tariff structures, and the setting up of guidelines for interconnect standards.

Similarly, specific conditions related to changes in legislation, granting of operating licenses, allocation of frequencies, etc., will be the benchmarks for the individual countries participating in the non-project assistance element of the program. Progress on meeting the benchmarks will form the basis for program resource disbursements. At the same time, project resources will fund the technical assistance and training required to draft the appropriate legislation.

To ensure that the various stakeholders are in a position to make decisions or take action based on full knowledge, the project will fund information dissemination on creative structuring and options for private sector involvement in management and investment through various channels to policy makers, union leaders, and local investors. Project resources will also be used to improve SATCC's ability to function as a policy reform activist and as a regional clearinghouse on the state of telecommunications in the SADC region, and investment possibilities arising from changes in country or regional perspectives.

5.5.2. Non-Project Resource Management

Responsibilities for negotiating country-specific conditionality will be determined with each bilateral mission participating in the NPA program and USAID Zimbabwe. USAID Zimbabwe will stand ready to assist and to provide technical leadership where desired by the relevant bilateral missions. NPA resources will be made available to support telecommunications restructuring activities in up to three SADC countries providing they meet the selection criteria. The proposed selection criteria for NPA are as follows:

The country must:

- o Qualify for significant assistance through SARP. At present this excludes Botswana, Lesotho, Namibia, Swaziland, and Angola.
- o Be in macro-economic balance, or be on track with a macro-economic structural adjustment program.
- o Have a serious commitment to telecommunications restructuring program, demonstrated through a private sector oriented telecommunications policy statement.

At this time, it is anticipated that the three countries will be Tanzania, Zambia and Zimbabwe. Each of the USAID Missions in these countries has on-going NPA programs. The proposed program will complement and use the current programs and their structures for the management and monitoring of dollar and local currency to the greatest extent possible. The combined use of existing mechanisms and attribution for U.S. imports will allow the program to meet buy-America concerns, ensure accountability of resources, and at the same time avoid creating distortions in the existing foreign exchange allocation systems of the subject countries.

Each of the three countries likely to receive NPA assistance, has dramatically modified its foreign exchange allocation system in recent years. The end result of these reforms are country-specific systems that are able to provide foreign exchange at market prices for imported goods. Given these changes, and the method of disbursement criteria set forth in the November 1992 Non Project Assistance Guidance, it is proposed that a modified cash transfer mechanism be used to implement the program. A specific mechanism will be developed for each NPA country, but will be based on a cash transfer into the general foreign exchange allocation system. However, a key program conditionality will be documentation of the importation of goods and services from the U.S. in an amount at least equivalent to the disbursement.

5.5.3. Projectized Resource Management

USAID Zimbabwe will be responsible for overall Program management, including accounting, monitoring, and reporting. As stated above, the program will use a "hub and spoke" approach for both the institutional contractor and for USPSC Program Managers in specific countries. The "hub" of program activity will be in Zimbabwe. The physical co-location of the head office of the institutional contract and the SARP program management unit is required to ensure sufficient coordination and liaison. However, much of the action of the project will occur at the various primary "spokes," which will include SATCC in Maputo and those bilateral missions participating in the NPA policy effort. Secondary "spokes" will be used in SADC countries which have substantial technical assistance needs, but are not anticipated to participate in the NPA activity. The organizational chart on the following page illustrates this concept.

A USDH in the Trade and Private Enterprise Division of USAID Zimbabwe will have overall responsibility for program management and supervision. The program will fund a USPSC telecommunications specialist Program Manager who will oversee daily operations, liaise with bilateral USAID missions involved in the program, and will supervise the institutional contractor. In addition, through the institutional contractor, USAID Zimbabwe will have responsibility for developing and maintaining a telecommunications data base to help track the changes in the telecommunications environment in the region and the impact of these changes on economic and social indicators.

| MISSION PARTICIPATION | MANAGEMENT OPTIONS | REPORTING RELATIONSHIPS |
|---|--|---|
| 1. Full Participation - This is anticipated for bilateral missions with an NPA program. | 1. USPSC in Mission; TA Advisor in country. | 1. USPSC reports to bilateral mission; TA Advisor reports to "hub" for operational purposes, and USPSC for information purposes. |

| | | |
|--|---|--|
| 2. Partial - For missions without NPA, which have high Technical Assistance Needs. | 2. TA Advisor in country; USPSC if required. | 2. TA Advisor reports to "hub" for operational purposes, and bilateral mission for information purposes; USPSC reports to bilateral mission. |
| 3. Arms Length - For missions without NPA or major TA. Participation in regional events and limited short term TA only | 3. Short term TA arranged by Institutional Contractor | 3. Short Term TA briefs and debriefs mission as requested; Short Term TA reports to "hub". |

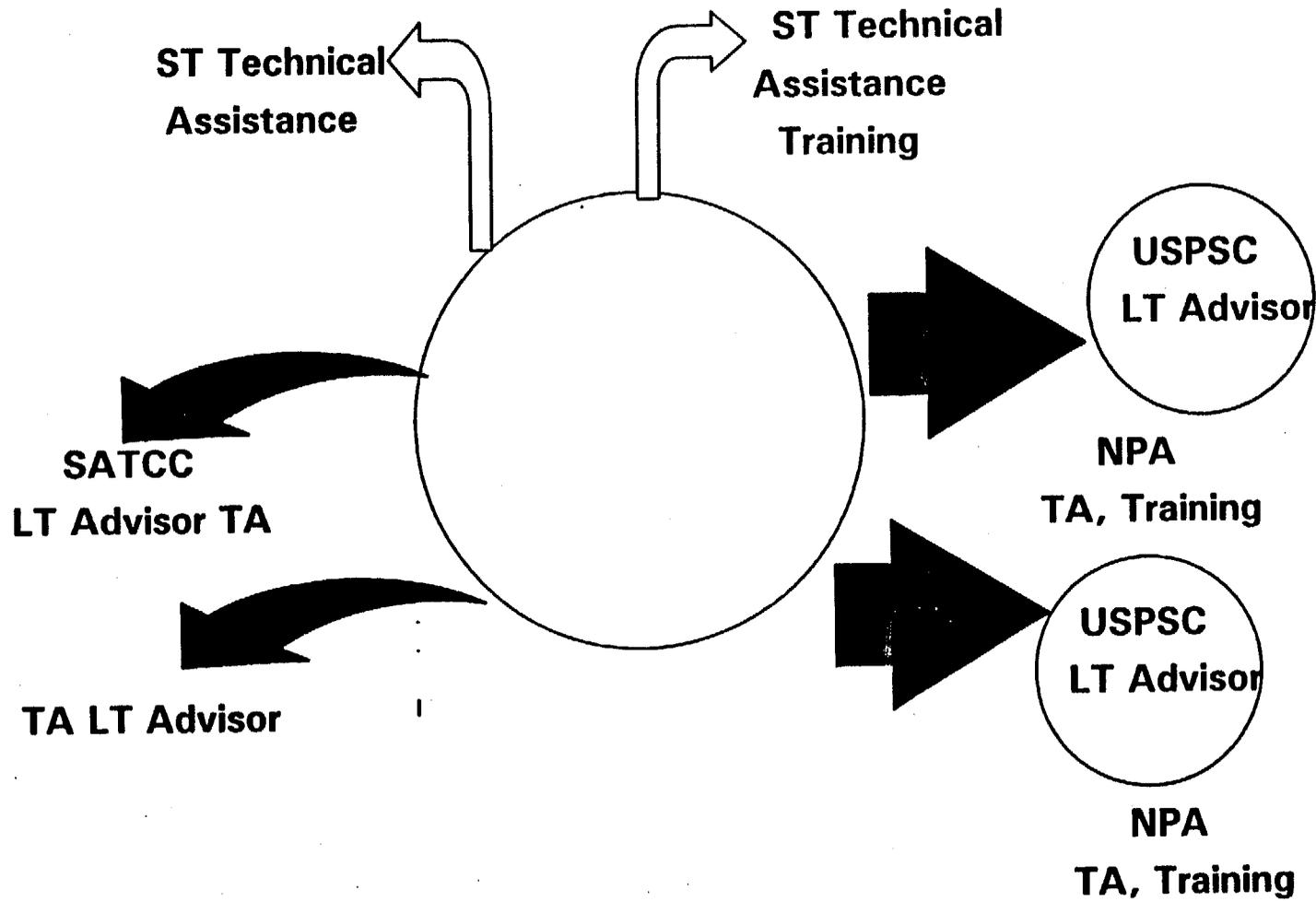
A. Project and Non-Project Design

As stated above, all SADC countries will be eligible to participate in the technical assistance, training and related activities which will be financed with projectized resources. The PID/PAID was distributed to all SARP missions with an overall positive response. Mission comments and issues have been incorporated into this document, and responses received are included in Annex K. During PP and PAAD development bilateral USAID missions will be canvassed to determine the level at which they would like to participate in development of the Project Paper, country specific PAADs, and in further program implementation. For example, USAID Tanzania has indicated its preference for a USAID Tanzania PDO to co-lead the development of the PAAD and development and negotiation of specific conditionality. At present USAID Zimbabwe is working in tandem with USAID Zambia to provide initial assistance to the Zambian Ministry of Transport and Communications in developing a sector policy. It is anticipated that these close relationships will continue during program implementation with those missions exhibiting a strong interest in the sector.

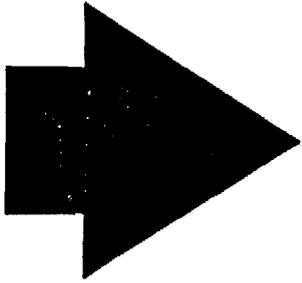
B. Implementation

Participation in Non Project Assistance elements: USAID Zimbabwe will work with countries participating in the Non Project Assistance policy reform to develop the appropriate justification documentation and assist in putting management structures in place. Based on the current configuration of SADC countries and progress in the telecommunication sector, at this time it appears that the three countries most likely to undertake policy reforms leading to private sector participation and competition in the telecommunications sector are Tanzania, Zambia, and Zimbabwe. It is anticipated that NPA programs in these countries would be initiated on a phased basis as each country has developed the necessary underlying policy and orientation to support forward movement on telecommunications policy.

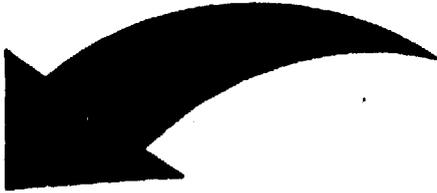
HUB AND SPOKE IMPLEMENTATION SUPPORT



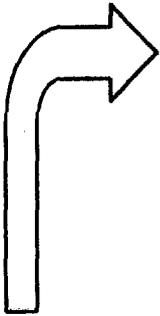
References



= Full Participation



= Partial



= Arms Length

Participation in Project Activities: In order to facilitate progress on the conditionality agenda, projectized resources will be available to finance technical assistance for each NPA country. This technical assistance will be provided through a technically competent USPSC Project Manager and through an institutional contractor advisor. The USPSC would be a principle liaison with technical host country counterparts and would serve as the coordinator and monitor for expert long term or short term assistance provided through the institutional contractor. As part of the overall "hub and spoke" orientation of the project, the USPSC would be supervised and receive administrative support by the relevant mission, but would also have information reporting relationships to the USDH and USPSC Program Manager in Zimbabwe. Detailed understandings of relationships will be set forth in memoranda between USAID Zimbabwe and the relevant bilateral mission at the time that such personnel are put in place. Expanded technical assistance needs for implementation of the policy reforms would be provided through an institutional contractor using one of the options set forth below.

USAID missions not receiving NPA funds will participate in program activities to the degree that the program is consonant with their overall program goals and strategic objectives, and commensurate with their absorptive capacity for implementation. The program and the technical assistance structure are designed in a flexible manner such that missions may choose an active or "arms length" approach to project participation. The types of activities in which missions may choose to participate include: review of scopes of work for technical assistance, review of annual work plans for countries with major technical assistance activities, nomination or selection of participants for training and observational tour activities, involvement with U.S. investor missions.

Institutional Contractor Arrangements: The majority of projectized resources will be channeled through an institutional contractor who will provide a broad range of technical assistance, training, and informational services. In this instance the "hub and spoke" implementation strategy which will facilitate broad regional coverage while also providing the basis for a more intensive concentration of resources in specific countries. The institutional contractor will be selected through a full and open competitive process in order to attract the broadest range of approaches. It is anticipated that the winning proposer will demonstrate not only a clear understanding of the problem, but will incorporate innovative methods and techniques in its approach which will address the varying needs of SADC countries and USAID missions. At this time it is anticipated that the following scenarios represent possible options for delivery of technical assistance based on varying levels of Mission involvement.

- a. **Host Country Based TA** - The Institutional Contractor provides a "spoke" through an expert Technical Advisor to the host government in a country with an NPA program. This Advisor would work on a full time basis with the relevant technical ministry or independent regulatory body to ensure that program conditionality is implemented and to monitor the impacts of change. The Advisor would also function as a mini Chief of Party for additional short term institutional contractor technical assistance accessed

through the "hub" in Harare which is required to implement the program. In addition, this individual would ensure that information regarding SADC wide training or informational activities financed through the institutional contract are widely publicized and that appropriate candidates are nominated for participation. Through direct contact and through its institutional counterpart, the advisor will liaise with SATCC and ensure coordination of activities involving a regional agenda or policy. The advisor would not independently initiate policy dialogue or conditionality discussions without involvement on the part of the bilateral mission.

While the Technical Advisor would be an employee of the institutional contractor with reporting relationships to the "hub" office in Harare, the USPSC Project Manager in the country would be the principle Mission contact with the advisor and would establish an information and monitoring reporting relationship to ensure that the bilateral mission is adequately involved and informed of advisor activities. Based on bilateral mission preferences, regular periodic briefings would be established with the advisor and relevant mission personnel.

- b. **Separate Office Facility** - The services provided under this scenario are similar to those described above, except that the Advisor would not be located in one specific ministry or regulatory body. The Advisor would continue to provide expert services and to function as a Chief of Party for short term assistance. Other functions regarding AID liaison, reporting, and relationships with the "hub" remain the same. Advantages of this approach include a more independent assessment of host country progress on the policy agenda, increased flexibility to respond to policy impediments outside one specific agency or ministry, for example business licensing issues with a ministry of local government, or issues with the information and broadcast ministry. Disadvantages would include the loss of the opportunity to institutionalize change by working from within and the increased financial costs of maintaining a separate office operation.
- c. **Separate Office Facility with No NPA Program** - There may exist an isolated case, such as Botswana or Namibia, in which no NPA resources would be required to move the policy agenda forward, but in which the critical element to improved telecommunications would be expert advisory services. In this instance, it may be necessary to have a long term advisor in country to provide the expertise required for policy implementation. This could occur in a country in which there would be no corresponding USPSC Project Manager for bilateral activities. In this case, based on discussions and mutual agreement with the bilateral mission, the institutional contractor employee may report back to the "hub," while keeping the mission informed on progress of technical assistance without creating an additional supervisory or management burden. The advantage to this scenario would be achievement of increased private sector participation and competition at a reduced cost and would ensure a wider regional impact of policy activities as well as informational and educational activities. Disadvantages may be evident in a reduced USAID role in the policy discussions and the potential for reduced control over advisor actions.

- d. **No In-Country Presence** - In several SADC countries it is anticipated that needs can be met through short term technical assistance coordinated and monitored through the "hub". Specific studies or assessments as described above in Section 5.4 can be carried out through short term experts and still meet the needs of the host government. It is anticipated that the institutional contractor would are an annual work plan which would outline anticipated short term assistance needs throughout the region which would be reviewed and approved by USAID Zimbabwe at the "hub" level, and by missions at the "spoke" level. Mission concurrence and country clearance would be requested for short term activities as well as mission reporting and briefing requirements.

Training, workshops, conferences and other information dissemination activities will be carried out under the project with orientation toward two audiences - 1) SADC government officials, policy makers, and regulators; and 2) potential telecommunication sector investors, particularly U.S. investors.

For the first audience it is anticipated that activities will include a range of thematic meetings which will familiarize key individuals with concepts and set the stage for policy action and change. The method for selecting participants is anticipated to combine recommendations of bilateral missions as well as identification of individuals through the institutional contractor and SATCC. Specific training in policy analysis methods, regulatory issues, etc. may be offered to technical personnel once appropriate structures are established as well as the preliminary educational activities required to inform policy makers. Working with the SATCC "spoke" and through the "hub", the institutional contractor will coordinate and implement all training, workshops and other informational activities for SADC member countries.

As noted earlier in the paper, potential investors in the telecommunications sector are poorly informed regarding the current state of development, policy and attitude toward private sector investment, management and competition. This is especially true of U.S. investors. Through the SATCC "spoke" the project will provide additional information for potential investors. SATCC will be provided with resources to promote and publicize developments in the sector, and to disseminate information throughout the region, and to interested foreign investors. It is anticipated that this material will be available through brochures, publications, and information sheets developed with regional technical assistance.

In addition, the program will target U.S. investors with information on the SADC region, its investment potential, and demand and current supply of telecommunications services. At this time, it is anticipated that this type of information could be disseminated through a sub-grant under the contract to a non-profit trade association such as the National Telecommunications Industry Association (NTIA). The NTIA, or other group, would work with the U.S. office of the institutional contractor to respond to needs of U.S. investors for regional and country specific information. Linkages with field "hub" and "spoke" staff would ensure that up-to-date, accurate information flows to U.S. investors.

Role of SATCC

The SADC Transportation and Communications Commission will be the lead SADC institution involved in carrying out the project and will be one of the key "spokes" in the implementation strategy. SATCC will play a lead role in coordinating sector policy on a regional level, identifying issues of regional concern such as tariff and standards harmonization. In addition, as was evident in the AID funded seminar in Windhoek, SATCC is an important force in stimulating regional discussion on issues, and is an accepted vehicle for the spread of information on technical considerations as well. A long term advisor to SATCC who will be part of the institutional contractor team will be the primary input for this "spoke" and will be supplemented with short term assistance to undertake seminars, workshops, and analyses of issues of regional interest and to meet the informational needs of investors as outlined above. The project will also furnish the necessary hardware, software, and limited technical support for development of a regional data base which will, in part, supply the information necessary for decisions by policy makers and investors.

5.6. Local Currency Arrangements

Local currency generations will be programmed or attributed jointly with the participating countries to help support private sector participation in telecommunications. The exact nature of local currency generation and use will depend on the circumstances of the participating country as well as relevant mission policies and capabilities. It is anticipated that in Zambia, for example, the program would continue to adhere to SPA guidelines which call for attribution and sterilization of local currencies. Detailed plans will be developed and negotiated during the course of each PAAD's development. Three possibilities to be further explored in particular countries include:

Employee Stock Ownership Trust. Local currency generations could be used to finance the acquisition by employees of stock in the parastatal communications firms with a result of improving worker morale and increasing indigenous participation in the economy.

Severance Payment/Training. Severance payments or training programs for employees that will be laid off during the course of restructuring and privatization of the parastatal could be financed by program local currency. This intervention could be instrumental in overcoming employee resistance which is often a major hurdle to privatization.

Extension of the Rural Network. Much of the costs of extending the rural network, traditionally, have been low technology inputs such as labor, cable, structural steel, civil engineering, much of which can be obtained in-country with local currency. While this option may be viewed favorably by PTT management in desperate need of resources for expansion, there are two potential problems with this option:

- o A.I.D. involvement and assistance are likely to be required in the engineering of these public sector projects. If this option is chosen, then PRE/CAP input in the form of

advice and assistance in undertaking value engineering studies will be solicited.

- o Changes in technology and economics are leading towards higher technology and more foreign exchange intensive, private sector oriented solutions. Thus, this may not be the best use of government controlled local currency generations, unless it could be channelled to private sector investors, e.g. as seed capital for rural telephone cooperatives.

5.7. Illustrative Financial Plan

The attached tables present preliminary budgets for projectized and non-project resources. Table 5.7.A. is a summary of all project resources from U.S. government and SADC member states. Table 5.7.B. indicates the anticipated disbursement of NPA resources, while Table 5.7.C. is a breakdown of technical assistance, training, and management costs of the program.

Table 5.7.A
PROJECT ASSISTANCE
REGIONAL TELECOMMUNICATIONS RESTRUCTURING PROGRAM
(\$000s)

| | AID (DFA) | HOST COUNTRIES | TOTAL |
|--|--------------|-------------------|---------|
| PROJECT RESOURCES ===== | | | |
| I. CONTRACTOR LONG TERM T.A. | 3,590 | 0 | 3,590 |
| II. SHORT TERM TECHNICAL ASSISTANCE | | | |
| A. COUNTRY SHORT TERM T.A. | 3,850 | 0 | 3,850 |
| B. SATCC SHORT TERM T.A. | 2,250 | 0 | 2,250 |
| C. PRIVATE SECTOR SHORT TERM T.A. | 1,600 | 0 | 1,600 |
| TOTAL SHORT TERM T.A. | 7,700 | 0 | 7,700 |
| III. PROJECT COMMODITIES | 650 | 0 | 650 |
| IV. PROGRAM MANAGEMENT | 3,060 | 0 | 3,060 |
| TOTAL PROJECT RESOURCES | 15,000 | 0 | 15,000 |
| NON PROJECT RESOURCES ===== | | | |
| ZAMBIA | 20,000 | 20,000 | 40,000 |
| TANZANIA | 20,000 | 20,000 | 40,000 |
| ZIMBABWE | 20,000 | 20,000 | 40,000 |
| TOTAL | 60,000 | 60,000 | 120,000 |

Table 5.7.B
NON PROJECT ASSISTANCE
REGIONAL TELECOMMUNICATIONS RESTRUCTURING PROGRAM
(\$000s)

| NON PROJECT ASSISTANCE | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | TOTAL |
|------------------------|--------|--------|--------|--------|--------|--------|
| ZAMBIA | 0 | 5,000 | 10,000 | 5,000 | 0 | 20,000 |
| TANZANIA | | 5,000 | 10,000 | 5,000 | 0 | 20,000 |
| ZIMBABWE | | 0 | 5,000 | 5,000 | 10,000 | 20,000 |
| TOTAL | | 10,000 | 25,000 | 15,000 | 10,000 | 60,000 |

Table 5.7.C

REGIONAL TELECOMMUNICATIONS RESTRUCTURING PROGRAM

PROJECTIZED ASSISTANCE BUDGET (IN US\$ 000S)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | TOTAL |
|--|------------|--------------|--------------|--------------|--------------|---------------|
| I. CONTRACTOR LONG TERM T.A. | | | | | | |
| U.S. BASED CHIEF | 25 | 125 | 125 | 125 | 125 | 525 |
| U.S. BASED ADMIN. OFFICER | 10 | 35 | 40 | 40 | 40 | 165 |
| SATCC TELECOM ADVISOR (REG'L) | 0 | 125 | 125 | 125 | 125 | 500 |
| SATCC DATA BASE EXPT | 0 | 75 | 75 | 75 | 75 | 300 |
| COUNTRY LONG TERM ADVISORS | 100 | 250 | 500 | 750 | 500 | 2,100 |
| TOTAL | 135 | 610 | 865 | 1,115 | 865 | 3,590 |
| II. SHORT TERM TECHNICAL ASSISTANCE | | | | | | |
| A. COUNTRY SHORT TERM T.A. | | | | | | |
| | 150 | 750 | 1,200 | 1,000 | 750 | 3,850 |
| B. SATCC SHORT TERM T.A. | | | | | | |
| REGULATORY WORKING GROUP | 0 | 50 | 50 | 50 | 50 | 200 |
| DATA BASE DEVELOPMENT | 0 | 100 | 50 | 50 | 50 | 250 |
| REG'L SPECIFICATIONS | 0 | 100 | 100 | 100 | 100 | 400 |
| REG'L MOBILE CELLULAR STANDARD | 0 | 100 | 100 | 0 | 0 | 200 |
| REG'L FINANCIAL ASSESSMENT | 0 | 250 | 200 | 100 | 100 | 650 |
| TARIFF HARMONIZATION ANALYSIS | 0 | 150 | 0 | 0 | 0 | 150 |
| REG'L USERS GROUP DEVELOPMENT | 0 | 100 | 100 | 100 | 100 | 400 |
| TOTAL | 0 | 850 | 600 | 400 | 400 | 2,250 |
| C. PRIVATE SECTOR SHORT TERM T.A. | | | | | | |
| NEEDS ASSESSMENT | 0 | 100 | 0 | 0 | 0 | 100 |
| GENERAL INFORMATION | 0 | 100 | 100 | 50 | 50 | 300 |
| REGULATORY/POLICY | 0 | 150 | 150 | 100 | 100 | 500 |
| OPPORTUNITIES | 0 | 250 | 200 | 150 | 100 | 700 |
| TOTAL | 0 | 600 | 450 | 300 | 250 | 1,600 |
| III. PROJECT COMMODITIES | | | | | | |
| SATCC DATA BASE COMP & TELECOMMS | 0 | 100 | 100 | 50 | 0 | 250 |
| OTHERS | 0 | 100 | 100 | 100 | 100 | 400 |
| TOTAL | 0 | 200 | 200 | 150 | 100 | 650 |
| IV. PROGRAM MANAGEMENT | | | | | | |
| SARP PROGRAM USPSC | 100 | 200 | 200 | 200 | 200 | 900 |
| ZIM/ZAM PROG. USPSC | 0 | 250 | 250 | 250 | 250 | 1,000 |
| TAN PROG. USPSC | 0 | 200 | 200 | 200 | 200 | 800 |
| ZIM LOCAL PSC | 0 | 30 | 30 | 30 | 30 | 120 |
| ZAM LOCAL PSC | 0 | 30 | 30 | 30 | 30 | 120 |
| TAN LOCAL PSC | 0 | 30 | 30 | 30 | 30 | 120 |
| TOTAL | 100 | 740 | 740 | 740 | 740 | 3,060 |
| TOTAL PROJECTIZED ASSISTANCE | 385 | 3,750 | 4,055 | 3,705 | 3,105 | 15,000 |

6. PROPOSED FEASIBILITY ANALYSIS

6.1. Key Program Assumptions

The sections above set forth the rationale, strategy, and implementation modes for program success. These approaches and interventions were chosen based on a thorough analysis of the telecommunications sector in the SADC region. In determining the best tactic to improve telecommunications operations, USAID Zimbabwe also examined factors related to the macroeconomic, political, social, and institutional environments of the SADC region. Critical assumptions related to these factors are described below.

A. Behavioral Assumptions

Key actors in implementing the program include host government officials; private sector investors; other donors; and country-specific stakeholders, including PTT management, PTT employees and labor groups, and local equipment manufacturers. As described above, the program will work with each of these groups in different fora, from seminars and workshops to technical assistance activities to public information campaigns. In addition to these activities, program design is based on assumptions which are detailed below regarding the behavior and response of these players.

SADC governments - The program assumes that host government officials will respond positively to increased information and improved understanding of the role of telecommunications and benefits of private sector participation in the sector.

All SADC governments have displayed strong interest in telecommunications restructuring, as evidenced from their high level participation and engagement at the Windhoek SADC Restructuring Seminar in February 1993. Successful implementation of the program assumes that SADC country interest remains high in the telecommunication sector and that the pace of telecommunications reforms will be sustained throughout the five year period. USAID Zimbabwe believes that this is a valid assumption given that all of the SADC countries have expressed the recognition that sector restructuring is necessary for the development of a modern telecommunications sector. As noted previously, two of the SADC countries, Tanzania and Zimbabwe, are undergoing World Bank-led telecommunications restructuring exercises. Namibia and Mozambique are attempting to implement fairly advanced sector reforms that involve introduction of private sector participation and competition.

U.S. Private Sector - One of the major premises of this project is that a key impediment to improved telecommunications is the inadequate level of investment in the sector. In addition, the program assumes that private sector investment and management is the most efficient manner in which to improve telecommunications operations. Specifically, program design assumes that:

- Global capital markets function adequately to provide investable resources;
- U.S. investors have the resources to invest overseas;
- Investors will respond positively to improved information on the SADC region;
- Development of a data base at SATCC will improve the quality of information used for investment decisions; and
- U.S. manufacturers and investors will respond to increased opportunities and market knowledge with cost efficient, appropriate technology products for the SADC region.

These assumptions are supported by evidence and research to date, which indicate an increasing level of interest in international investment. Potential investors in the telecommunications services market in the SADC region have distinct characteristics and different appetites for the balance between risk and reward. These potential investors include the following U.S. firms:

- o **Regional Bell Operating Companies (RBOCs)** who are facing increased competition in their operating areas, and who have not traditionally been allowed to invest overseas. With the relaxation of investment restrictions some of the biggest U.S. investments overseas have been through RBOCs such as Bell Atlantic's US\$3 billion investment in Venezuela.
- o **Industry suppliers** that recognize that taking an equity position in a project can ensure sales of equipment. Motorola, for example, has invested hundreds of millions of U.S. dollars in the Iridium worldwide personal communications system as a sound financial investment, as a means to lock in the use of Motorola equipment for this new service.
- o **Long Distance carriers** looking to expand to new markets. The three big U.S. long distance carriers, AT&T, Sprint, and MCI, have expressed interest in international investment. Sprint, in Africa, has been involved in serious discussions with the Government of Sudan concerning investment in telecommunications services.
- o **Small independent telecommunications carriers.** Some of the most aggressive and creative investors in developing countries are relatively new companies that see profitable market niches that are too small for larger firms to exploit. The Atlantic Telephone Network (ATN), for example, spent over two years researching and negotiating their investment in Guyana Telephone and Telegraph (GTT) despite the minute size of the market; only 14 thousand lines. ATN is now looking at opportunities in East and Southern Africa.

Value added service providers. Cellular and data communication service providers, such as Millicom, are active investors in overseas markets.

- o **Specialized Investment Funds** have come into being such as the Emerging Telecommunications Markets Fund managed by a prominent New York investment company. These funds have been set for portfolio investors that wish to take a position in developing country telecommunications markets.

Much of the technical assistance under this program is meant to influence the investment behavior of firms, by providing information on risks and rewards, decreasing risk, and increasing reward.

B. Donor Assumptions

An important part of program preparation has been an intensive dialogue with the World Bank, the AFDB, and other donors. The Bank, in particular, has shown encouraging steps to modify the structure of its loan programs to leverage, not discourage, private sector participation. It is assumed that this progress will accelerate with the higher level of dialogue that will be possible under this program.

The dialogue with bilateral donors is more complex and politically charged, and we are depending to a significant degree on the activities of the U.S. representative to the DAC at OECD, and the U.S. Directors of the World Bank and the African Development Bank. Some encouraging moves to untie loan aid and to convert loan aid to grant aid have happened since the 1992 DAC "Helsinki Accords". The program assumes progress will continue and will support the U.S. representative as practical and possible.

C. Macroeconomic Assumptions

SADC countries are, for the most part, implementing structural adjustment programs which provide the enabling environment to undertake a sectoral telecommunications program. It is assumed that SADC countries will continue to implement structural adjustment programs. This is a critically important assumption for those countries planning to participate in the NPA portion of the program, and it will be one of the factors analyzed in detail during PAAD development to make the final selection on participating countries.

In addition, program design assumes that regional governments remain stable and that no extraneous events (coup attempts, etc.) occur to reinstate government opposition to change or to heighten risk perceptions for investors.

D. Assumptions about Social Impact

One area which the program will attempt to address is the spread of benefits throughout society. Based on experiences worldwide, it is assumed that the dispersion of benefits from

program activities will reach rural households and businesses. At the same time, the program recognizes that the costs of local calls may increase in unit prices, but assumes that the overall costs of information transfer to businesses and households will decline. While substantial worldwide analysis and evidence from other regions of the world suggest that these assumptions are valid, they will be further examined during development of the PAAD and they will be tested in program implementation.

The program further assumes that an important secondary impact of private sector participation in the telecommunications sector will be increased government revenues through increased efficiencies and/or taxation of expanded private sector operations. Such revenues are then available for expanding social services.

E. Assumptions about Environmental Impact

There are no significant negative environmental impacts associated with the NPA or project assistance under the program. The construction of external plant (wires, towers, poles) may have a slight aesthetic impact, but will not hinder animal migration. With the introduction of wireless technology, this aesthetic impact will be even less significant.

The health impact of electromagnetic radiation from wireless technology, particularly from high-powered cellular telephone handsets, is under intense scrutiny, although there is no substantial evidence at present that there are adverse health impacts. If significant health impacts are found, then program design will be modified to ensure that such technology would not be introduced into the SADC region.

In fact, the program can be expected to have important secondary environmental benefits. The increased access to "clean" telecommunications will reduce fossil fuel consumption and pollution from transportation.

F. Political Assumptions

It is possible for special interests such as unions, PTT management, and local manufacturers, if powerful enough, to derail the nature and pace of private sector participation. To mitigate such a response, much of the technical assistance under the program is designed to educate all special interests that their personal benefits/costs ratio is more favorable than anticipated. For example, in Chile, Mexico, and Great Britain, the World Bank estimated that the privatization had a positive impact on worker economic welfare, with much of this impact derived from their share ownership in the newly privatized company.

Regional political stability will be directly enhanced by better communications. Relationships among SADC countries are generally strong. As the transition toward democratic majority rule in South Africa progresses, the need for regional communications and for strengthened ties with the Republic of South Africa will escalate. The political analysis for the PAAD will look at possible outcomes on investment in the region as a result of anticipated changes

in South Africa, and the possible reactions by regional governments at large investment by South Africans. In addition, the greater regional economic cohesion induced by improved telecommunications will enhance stability in the region, reducing the risk of fragmentation as in Somalia, Ethiopia, or Yugoslavia.

To further the objective of a smooth transition to private sector participation in the sector, seminars in which all stakeholders will be invited to ask questions and share concerns will be an integral part of the project assistance. It is expected that the non-project assistance for policy reform will provide an additional incentive for private sector advocates to champion the cause, and a disincentive for opponents.

G. Technology Assumptions

The proposed program will not provide resources for technology development or dissemination of technology. This approach is based on the assumption that technology advances are adequately disseminated in world markets and that private sector firms will respond with the necessary innovation if markets are opened. Furthermore, project objectives of increasing access to telecommunications in rural areas is based on the assumption that technology continues to lower costs of expanding rural services. Given the diversified nature of the SADC region, it is a logical assumption that investors will use an appropriate mix of technology to meet regional needs. These assumptions are based on historical trends of information dissemination and the existing level of methods used in the SADC region at present. However, specific analysis will be undertaken during PAAD development to ensure that these assumptions continue to be valid.

H. Regional Assumptions

The program will also address regional issues related to telecommunications development. The proposed activities are supportive of the SADC region's articulated goal of regional economic integration and will contribute to that goal by introducing appropriate sector policies and structures that could become the standard for the region. The program will have the capacity for providing any requested technical assistance for maximizing such policies and regulatory structures.

Due to the importance of regional institutions and initiatives in sustaining movement on the agenda, the program assumes that SATCC continues to take a leadership role in regional fora for policy and technical issues.

6.2. Economic Analysis

The Economic Analysis for the PAAD will focus on a detailed identification and analysis of the costs and benefits of designing and implementing the telecommunications sector reforms, which are reiterated below. The economic impact of specific NPA-induced reforms will be estimated in conjunction with the development of conditionality for each country participating

in the NPA program.

Costs of Telecommunications Sector Reforms - The economic analysis will look at specific financial and non-financial costs associated with reform. These include:

- **One-time compensatory costs.** SADC member governments may incur direct financial costs through compensation to disadvantaged stakeholders, including workers of PTTs who may lose their jobs in restructuring or privatization.
- **Loss of Revenue Stream.** With private sector control of the telecommunications entity, governments will lose direct revenue. This must be weighed against increased income from taxes, license fees, and increased dividend flows from reduced shareholding.
- **Establishment of an Appropriate Regulatory Mechanism for Private Sector Participation.** This will require both short term and long term costs, and require outside advisors and donor financing. Regulators in a specialized sector such as telecommunications need extensive experience and special expertise, which will require competitive salaries. Appropriate compensation for the regulator, in fact, may be a condition precedent for NPA.
- **Analysis of sector issues leading to a decision to introduce reforms.** Most SADC governments do not have slack analytical capacity in key ministries. There is an opportunity cost of the time spent on analyzing, discussing, and implementing policy change in the telecommunications sector.

Benefits of Telecommunications Sector Reforms - The benefits of telecommunications sector reforms derive from a greater access to a wider variety of market-determined, higher-quality, and market-based services. The qualitative description of the impacts of these changes, discussed above in section 5.3 will be quantified in the PAAD Economic Analysis. The economic analysis will use micro-economic tools to review the anticipated benefits from fulfillment of specific conditionality such as the granting of a license for a data communications network, or the economic spread of benefits through franchising services.

6.3. Political Analysis

The political sustainability of telecommunications sector reforms is an important issue. Where the design and implementation of these reforms has not been properly undertaken, reversal can occur, particularly in the instance of outright privatization. In Uruguay, for example, a nationwide referendum initiated by the powerful labor unions in January 1993 stopped the privatization process of the telecommunications company and other parastatals. The additional transparency of cross-subsidization of non-urban telephone users may cause difficulties.

One of the primary objectives of the program is to improve the political sustainability of telecommunications sector reforms. In light of this priority the program will devote substantial resources to information dissemination and consensus building with interested parties. As part of PAAD development for each country participating, a detailed stakeholders analysis of the potential champions and detractors of sectoral reform for the participating countries will be carried out. For each NPA participating country's specific analyses related to depth of political will, the current and anticipated roles of various political parties, and a review of the government's commitment to transparency in decision making will be carried out.

The program's involvement of SATCC as a neutral advocate of structural change will obviate many of the political concerns with direct USG advocacy of private sector participation, particularly at the initial stages of program involvement.

6.4. Issues for the Institutional Analysis

The key institutional players in the program will be SADC institutions, host government ministries, and the PTTs. These are discussed briefly below.

6.4.1. SADC Institutions

SADC operates in a decentralized fashion. SATCC, based in Maputo, has operating responsibility for transport and telecommunications. The steps for incorporation of a telecommunications project on the SADC program of action are as follows. First, the project is proposed by one of the SADC member countries or by SATCC staff, and is cleared by SATCC officials. Next, the project is reviewed and approved by the Southern African Telecommunications Association (SATA), made up of the heads of the SADC member PTTs. SATA meets twice a year, and reviewed and approved the Program concept paper in March 1993. After SATA approval, the project must be approved by the SADC Council of Ministers, who meet twice a year, generally three months after the SATA meetings.

The Director of SATCC has a strong interest in telecommunications restructuring, and very strong leadership skills in this area, as evidenced by his role as the chairman of the SADC Telecommunications Restructuring Seminar held in Windhoek in February 1993. The technical expertise in telecommunications at SATCC, however, is limited to two highly experienced regional ITU advisors, and a newly hired SATCC direct hire with less experience. Funding for the two ITU-financed advisors had been supplied by CIDA, but this will expire by mid-1993. AFDB may pick up one or both of the advisors, with some support from ITU core funds, but this is not definite. Given the vital contribution these regional advisors have to make to the success of many program activities, and if other funding sources are not available, program funds will be used to finance their activities until SATCC direct hire staff are capable of similar performance.

Because SATA is made up of the heads of the PTTs, they as a body may resist a significant

involvement by SATCC in telecommunications restructuring exercises. To date, this has not been a problem, but as private sector oriented solutions become increasingly discussed, resistance may develop. The strength and depth of this potential resistance will need to be explored. Note, however, that SADC has no authority to implement any reforms at the telecommunications with national level impact. Therefore, SADC institutions will not be directly involved in administering or implementing the NPA activities in the program.

6.4.2. Host Government Ministries

Two key ministries at the national level will play a major role in shaping and implementing telecommunications sector reforms, parent ministries of telecommunications, and the ministries of finance/economic development. Parent ministries of telecommunications are often relatively weak, or distracted by other more pressing responsibilities, or both of the above. In a third of the SADC member countries, the ministry responsible for telecommunications also has the mandate for transport. The pressing demands from massive losses in the railways and airlines sectors, and the logistical strains caused by the recent drought, have meant these ministries have not been able to devote sufficient attention to telecommunications. In several of the SADC member countries, the ministry responsible for telecommunications also has the brief for information and communication (broadcasting), and often these ministries place a very high value on control, rather than facilitation, of information flows. In either case, the staff of these ministries do not have sufficient technical expertise to design and implement reform programs. Hence, the need for this program to provide short and long term assistance and training during a transitional period.

The ministries of finance/economic development are usually relatively strong. The ministry staff have strong analytical skills, but usually lack the specific expertise to evaluate telecommunications restructuring proposals. Thus, the need for the program to provide short term assistance and training. The PAADs for each of the three countries that will participate in the NPA activities will undertake an extensive analysis of the strengths and weaknesses of these ministries, and recommend programmatic actions to mitigate problems.

6.4.3. PTTs

The management and staff of PTTs in the region typically have strong engineering capabilities, although emigration and isolation have taken a severe toll, especially in countries outside the CMA zone (i.e., all of SADC except Botswana, Lesotho, Swaziland, and Namibia). The PTT management and staff generally lack expertise or interest in business and policy, which hinders their ability to understand or appreciate the arguments for restructuring, and equally as importantly, their ability to lead restructuring efforts within the organization. This weakness, in fact, is one of the many reasons why private sector, commercially-oriented management is so necessary.

The boards of directors of PTTs in the SADC region are weak, both because many directors are selected for political considerations, and because the powers of the board are usually

highly circumscribed. The ability of the PTT boards, as currently structured, to act as change agents is limited.

PTTs of the region have been analyzed in depth for World Bank, AFDB and other programs. The PAAD analyses will draw on existing documentation as well as original assessments to analyze the potential issues of PTT involvement in the program.

6.5. Proposed Social Analysis

Little or no adverse social impact is anticipated from private sector participation in the telecommunications sector. Based on world wide experience there will be substantial positive social impacts from improved access to telecommunications in economically depressed and rural areas. The social analysis will focus on anticipated outputs in terms of increased employment opportunities, increased ownership and investment opportunities for indigenous investors and the potential for increased household income. In addition, the analysis will recommend mechanisms through which to ameliorate the possible downside effects of private sector participation in the sector such as retrenchment of workers, increased costs of local calls, and others. The analysis will specifically determine the potential winners and losers of recommended policy changes, and will address issues including attitudes to foreign investment, race, and ethnicity.

6.6. Technical Feasibility Issues

The technical feasibility analysis will review the proposed program conditionalities and interventions to assess the probability of achieving desired outcomes. In addition, the technical analysis will build on the sector scoping study to develop a detailed agenda for issues which can be best addressed in a regional fora.

Using information generated by the World Bank, the AFDB, and other donors, as well as other material, the technical analyses will review current sector structures in each of the participating SADC countries. Based on this in-depth review, the technical analyses will propose modifications to the PAIP illustrative conditionality and timing of disbursements.

The technical analysis will also review the current mix of telecommunications technology in use throughout the SADC region to provide input for structuring technical assistance and training activities. These activities may be carried out on a regional or sub-regional basis depending on the level of interest in areas to be addressed and the appropriateness of technology for each SADC country. The technical analysis will examine key programmatic assumptions related to technology and to links of policy reform to investment.

6.7. Identified Environmental Concerns and Recommendations

An Initial Environmental Evaluation recommending a negative determination is attached as Annex D. It is not anticipated that a separate environmental analysis will be required for

PAAD development.

7. IDENTIFICATION OF MAJOR POLICY ISSUES

7.1. DFA Issues

A. People Level Impact

The Development Fund for Africa legislation and guidance dictates that activities funded with DFA must have demonstrable impact at the household level. Section 5.3 above, "Impact: Expected End of Program Status" clearly outlines the anticipated impact on businesses and households to improved access to telecommunications which are manifested in reduced costs, increased business opportunities, and improved access to social services.

B. Buy America impact - NPA vs. CIP

The Telecommunications Sector Development Program will support the Agency's preference for Buy America. As set forth in Section 5.5, the program proposes to use a hybrid mechanism which supports liberalized foreign exchange allocation systems, but creates links to U.S. goods and services. Further development of mechanisms which ensure U.S. procurement to the extent feasible will be an area of specific study during PAAD/PP design.

7.2. Southern Africa Regional Program Issues

A. Consistency with SARP/SADC Earmark Legislation

As discussed in the New Project Description review in Washington and reported in STATE 52086 Section 496 (0) of the Foreign Assistance Act of 1961, as amended the SADC statutory provision, does not explicitly include telecommunications as a sector for SADC activities. This program, however, is focussed on increasing private sector participation in the telecommunications sector, and will greatly facilitate intraregional trade. Hence, the program falls under the are of industrial development and trade, including private sector initiatives.

B. Regional Strategy

The proposed program supports objectives for regional economic integration described in the "Concept Paper for the Southern Africa Regional Program During the Transition to Majority Rule in South Africa" submitted to AFR/SA in December 1992.

C. SARP Mortgage

In the event that the SARP earmark is eliminated from FAA legislation it is possible that there will be a significant outstanding mortgage in the program which may be too great a

burden for participating missions to fund. Annex J analyzes the mortgage from the program on an on-going SARP earmark.

7.3. NPA Issues

- A. GC/AFR has concluded that, as a statutory matter, SARP funds may be used for NPA since FAA Section 496 (0) is part of the general DFA statute, which expressly permits NPA. See Program concurrence cable, State 52086, attached as Annex B.

8. DESIGN STRATEGY

8.1. Design Activities Undertaken to Date

On 10 November 1991, the Southern African Mission Directors met in Nairobi to discuss priorities under the Southern Africa Regional Program for FY 1992-1993. One of the conclusions of this meeting was that USAID Zimbabwe was tasked to manage a scoping study of the telecommunications sector in the Southern African region. The objective of this scoping study was to determine the nature and scope of A.I.D.'s involvement in telecommunications in the Southern African region, with a special emphasis on how to leverage the participation of the U.S. private sector. The Gray Amendment firm Teleconsult was contracted to undertake the scoping study. The draft final version of the scoping study, submitted in October 1992, strongly recommended that A.I.D. provide assistance in promoting private sector participation in the telecommunications sector. Much of the data and analysis of this PID/PAIP are derived from the Scoping Study.

Initial discussions with the SADC Transport and Telecommunications Center (SATCC) in January 1992 revealed a very strong interest in A.I.D. assistance in the region to assist SADC member countries to pursue sector restructuring, commercialization, and privatization options. As a consequence, A.I.D. agreed to sponsor a SADC workshop on telecommunications restructuring, commercialization, and privatization options in the Southern African. Preparation for the SADC workshop was undertaken by Price Waterhouse and the Gray Amendment firm Intrados, part of the Privatization and Development Project consortium managed by PRE/EM.

The workshop was an unqualified success, attracting high level participants from all 10 SADC countries, and resulting in significant breakthroughs in attitudes in many of the SADC participants. The USAID Zimbabwe Mission Director and Private Sector Advisor, the USAID Tanzania Mission Director, and representatives from PRE/CAP and AFR/ONI participated in the workshop. Much of the constraints analysis presented and Program interventions proposed in this PID/PAIP are based on the preparation and proceedings of this workshop.

In addition to the analysis undertaken by the above-mentioned contractor teams, extensive field work by the USAID Zimbabwe PID/PAIP team was undertaken in Zimbabwe, Zambia,

and Tanzania during late 1992 and early 1993.

The Program concept paper has been reviewed by SATCC, and relevant sections of an early draft of the PAIP/PAAD was reviewed and approved at the Southern African Telecommunications Association meeting in March 1993, held in Blantyre, Malawi. Through PD&S funding, the Government of Zambia is being assisted to develop a private sector oriented telecommunications policy statement.

8.2. Strategy for Local Participation in the Program Design

8.2.1. Local Participation

The draft PAIP/PID will be presented by USAID Zimbabwe SARP staff at the SADC Telecommunications and Transport Sector meetings scheduled to be held in June 1993 in Arusha, Tanzania. The SATCC Regulatory Working Group, comprising of selected members of the private sector, PTTs and Ministries in the region, will be the principal point of contact for the PP and PAAD design team.

Substantial input as to the nature of the program activities will continue to be sought from other players in the public and private sectors of the SADC region. To the extent necessary and practical, local consultant expertise will be recruited to participate on the PP and PAAD development.

8.2.2. Donor Coordination

Telecommunications attracts a significant level of interest from the donor community, but as we have shown earlier that interest may not always be in the best interests of the recipient country. USAID Zimbabwe has worked very closely with the World Bank concerning their sector loan programs in Tanzania and Zimbabwe, to ensure that the Bank's involvement is leveraging, not discouraging, private sector investment. The mission has also entered into a dialogue with the AFDB and the OECD Development Assistance Committee and will continue to liaise closely with donor community, to ensure that donor funds are used to leverage, not crowd out, private sector investment.

8.3. Final Design, Review, Approval, and Authorization Schedule and Venue

A draft PID/PAIP will be completed by USAID Zimbabwe in May 1993.

Project Paper. A project paper team will be assembled upon approval of the PID/PAIP to develop a project paper for review and approval in the field by USAID Zimbabwe in late FY 93.

One of the major resolutions of the 1993 A.I.D.-funded SADC Telecommunications Restructuring Workshop was the paramount importance of establishing the regulatory

structures for private sector participation and competition. A SADC Regulatory Working Group, made up of representatives from selected parent Ministries and PTTs, was to begin work on outlining the needs in the various countries and how to meet them as expeditiously as possible.

The Project Paper development team will work directly with this Regulatory Working Group to help them define what is needed overall, and where the Program will be needed to provide assistance. The Project Paper will specify the technical assistance, limited commodities, and project specific management associated with the telecommunications sector.

PAAD. A PAAD team will be assembled late in FY 93 to begin work on developing a generic PAAD for NPA. Given the modular approach to the NPA activity, additional teams will be required to help develop and negotiate individual country PAADs. Submission of the PAAD with one or more country face sheets to A.I.D./W for authorization will occur in the second quarter of FY 94.

8.4. Mission Design Team and Level of Outside Support

| | | |
|------------------------------|---|---|
| Project Development Officer | : | Melissa Stephens |
| Trade and Investment Advisor | : | Don Greenberg |
| Economic Analysis | : | REDSO, A.I.D./W assistance |
| Technical Feasibility | : | Privatization and Development Project (PRE/EM) |
| Social Soundness | : | Local and Regional Contractors |
| Monitoring and Impact | : | IQC |



SOUTHERN AFRICAN DEVELOPMENT COMMUNITY

SOUTHERN AFRICA TRANSPORT AND COMMUNICATIONS COMMISSION (SATCC)

CP 2677, MAPUTO MOZAMBIQUE

TELEPHONE: 420214/420248 FAX: 420213 T1/FX: 6606/6597 SATCC MO

RECEIVED FAX MESSAGE

| | | |
|---------------|--------|------|
| RECEIVED | | |
| 8661 p d 1993 | | |
| DATE | ACTION | INFO |
| DIB | | |
| DD | | |
| FRM | | |
| CONT | | |
| GDO | | |
| EDIS | | |
| EXO | | |
| LIB | | |
| CHRON | | |
| RF | | |
| DUE DATE | | |
| ACTION TAKEN | | |
| INITIALS/DATE | | |
| CRM | | |
| | | DATE |

Mr. Ted D. Morse, Director, USAID/Zimbabwe, One Pascoe Avenue, Belgravia, Harare, Zimbabwe

72 24 18 TU/F408/93 07.05.93

Dear Mr. Morse,

Since early 1992, we have been working with yourselves in identifying the telecommunications sector needs in Southern Africa. The initial result of this joint effort is the first SADC Telecommunications Sector Policy Workshop in Windhoek, which you kindly sponsored.

As indicated in our presentation at the SATCC Programme Review or Sectoral Working Group meeting in Harare in January 1993, sectoral restructuring involving policy and organisational reform, commercialisation and private sector participation is now given highest priority in our endeavour to promote and attain improvement in sector performance. We are delighted to hear, therefore, of your progress in developing the A.I.D concept paper for the Southern African Telecommunications Sector Development Programme. We endorse this Programme and look forward to participating with you in developing the final version.

Yours Sincerely,

P M Mangoela Director

Handwritten mark

UNCLAS AIDAC SECSTATE 52086

ACTION: AID-1
INFO: ECON-1 DCM-1 AMB-1

DISTRIBUTION: AID
CHARGE: AID

VZCZCSBO477
PP RUEHSB
DE RUEHC #2086/01 0510616
ZNR UUUUU ZZH
P 200615Z FEB 93
FM SECSTATE WASHDC
TO RUEHSB/AMEMBASSY HARARE PRIORITY 1611
INFO RUEHWD/AMEMBASSY WINDHOEK PRIORITY 8224
RUEHTO/AMEMBASSY MAPUTO PRIORITY 1611
RUEHOR/AMEMBASSY GABORONE PRIORITY 0472
RUEHMB/AMEMBASSY MBABANE PRIORITY 5797
RUFHDR/AMEMBASSY DAR ES SALAAM PRIORITY 4188
RUEHLS/AMEMBASSY LUSAKA PRIORITY 3929
RUEHSA/AMEMBASSY PRETORIA 0135
BT
UNCLAS SECTION 01 OF 02 STATE 052086

| DATE | ACTION | INFO |
|--------------|--------|------|
| DIR | | |
| DD | | |
| FRM | | |
| CONT | | |
| GDO | | |
| FDIS | | |
| EXO | | |
| LJB | | |
| CHRON | | |
| RF | | |
| DUE DATE | | |
| ACTION TAKEN | | |
| INITIALS | | |
| DATE | | |

AIDAC, PRETORIA FOR RLA

E.O. 12356: N/A

TAGS:

SUBJECT: SARP--TELECOMMUNICATIONS SECTOR DEVELOPMENT PROGRAM (690-0274), PROGRAM CONCURRENCE

1. ACTING AA/AFR HICKS HAS GRANTED USAID/ZIMBABWE PROGRAM CONCURRENCE TO PROCEED WITH THE DESIGN OF THE SUBJECT PROGRAM. DOA IS BEING WITHHELD PENDING THE AID/WASHINGTON REVIEW OF THE PID/PAIP FOR THE SUBJECT PROGRAM. PLEASE FORWARD TO AFR/SA YOUR SCHEDULE FOR SUBMITTING THE PAIP/PID DOCUMENTS TO AID/W FOR REVIEW.

2. AFR/SA CHAIRED A NPD REVIEW MEETING FOR THE TELECOMMUNICATIONS SECTOR DEVELOPMENT PROGRAM ON FEBRUARY 2, 1992. ATTENDEES AT THIS MEETING REPRESENTED AFR/DP, GC/AFR, PRE/CAP, AND FA/OP/CC. AFR/ONI WAS REQUESTED TO PARTICIPATE BUT DID NOT ATTEND. THE FOLLOWING ARE THE ISSUES DISCUSSED AND COMMENTS OFFERED BY THE COMMITTEE FOR THE DESIGN OF THE PROGRAM.

1. APPROPRIATENESS OF USING SARP FUNDS FOR TELECOMMUNICATIONS AND NPA.

FAA SEC. 496 (0), THE SADC STATUTORY PROVISION, DOES NOT EXPLICITLY INCLUDE TELECOMMUNICATIONS AS A SECTOR FOR SADC

ACTIVITIES. HOWEVER, TELECOMMUNICATIONS PRESUMABLY FITS WITHIN THE AREA OF INDUSTRIAL DEVELOPMENT AND TRADE

UNCLAS AIDAC SECSTATE 52086

72

UNCLAS AIDAC SECSTATE 52086

(INCLUDING PRIVATE SECTOR INITIATIVES) WHICH ARE EXPLICITLY REFERRED TO IN SEC. 496 (0). THIS WOULD BE USEFUL FOR THE PID/PAIP TO EXPAND UPON. ALSO, GC/AFR CONCLUDED THAT, AS A STATUTORY MATTER, SADC FUNDS MAY BE USED FOR NPA SINCE SEC. 496 (0) IS PART OF THE GENERAL DFA STATUTE, WHICH EXPRESSLY PERMITS NPA, AND SADC FUNDS HAVE BEEN SO USED ON ONE PRIOR OCCASION.

2. ENSURING ADEQUATE MANAGEMENT OVERSIGHT IN THE CORRECT DESIGN, INSTALLATION AND OPERATION OF TELECOMMUNICATIONS EQUIPMENT. THE REVIEW COMMITTEE NOTED THE EXPERIENCE OF TELECOMMUNICATIONS PROJECT IN OTHER COUNTRIES WHERE THE CORRECT DESIGN INSTALLATION AND OPERATION OF THE TELECOMMUNICATIONS SYSTEM PROCURED WITH AID FUNDS WERE NOT ALWAYS GIVEN ADEQUATE ATTENTION. THE SUBSTANTIAL DOLLAR AMOUNT, THE NATURE OF THE COMMODITIES, AND THE AGENCY'S VULNERABILITY IF THE TELECOMMUNICATIONS COMMODITIES ARE NOT PROPERLY SELECTED OR INSTALLED REQUIRE THAT AID BE ASSURED THAT THE PROPER COMMODITY SPECIFICATIONS ARE USED AND THAT THE COMMODITIES ARE PROPERLY INSTALLED. THIS MEANS GREATER AID INVOLVEMENT IN THESE ACTIVITIES THAN TYPICALLY DONE WITH A CIP, EVEN IF A CIP MODE IS FOLLOWED HERE. THE COMMITTEE THEREFORE RECOMMENDS THAT THE MISSION, IN DESIGNING THE PROGRAM, INCLUDE ACCESS TO ADEQUATE AMOUNTS OF ONGOING TECHNICAL ASSISTANCE THROUGHOUT THE PROGRAM. THE COMMITTEE RECOMMENDS THAT THE MISSION BUILD IN THE PROGRAM, FROM THE BEGINNING, ANALYSIS OF THE TELECOMMUNICATIONS SYSTEMS WHICH MAY BE RECIPIENTS OF COMMODITY SUPPORT IN ORDER TO DESIGN SYSTEMS WHICH HAVE ADEQUATE DESIGN SPECIFICATIONS, ARE COMPATIBLE WITH THE CURRENT TELECOMMUNICATIONS SYSTEMS AND WILL BE INSTALLED CORRECTLY. AS ONE MEANS, PRE/CAP SUGGESTS THAT IT CAN PROVIDE THIS TYPE OF ANALYSIS AND ASSISTANCE THROUGH A VALUE ENGINEERING STUDY WHICH SHOULD BE A COMPONENT OF PROJECT ASSISTANCE.

3. CHOICE OF NPA OR PROJECT ASSISTANCE.

THE PID/PAIP SHOULD FULLY JUSTIFY THE CHOICE OF PA OR NPA (WITH DISBURSEMENT AS A CIP, NOT CASHY FOR THIS ACTIVITY. IF NPA IS CHOSEN, THE ACTIVITY NEEDS TO FULLY COMPLY WITH THE DFA NPA GUIDANCE, INCLUDING RELIANCE ON THE IMPACT OF POLICY REFORM FOR SUFFICIENT DEVELOPMENT IMPACT.

IF NPA IS CHOSEN, THE ACTIVITY (AID) NEEDS TO BE INVOLVED IN THE SPECIFICATIONS AND ASSURING PROPER PLANNING AND ARRANGEMENTS FOR INSTALLATION OF THE COMMODITIES, AS INDICATED ABOVE, BEYOND WHAT NORMALLY OCCURS WITH A CIP

DISBURSEMENT. SINCE THIS ADDITIONAL INVOLVEMENT GOES BEYOND NORMAL NPA, IT IS A STRONG ARGUMENT FOR USING THE PROJECT ASSISTANCE MODE. POLICY REFORM (CONDITIONS PRECEDENT) CAN BE INCLUDED IN PROJECT ASSISTANCE TO THE

UNCLAS AIDAC SECSTATE 52086

UNCLAS AIDAC SECSTATE 52086

SAME EXTENT THAT THEY ARE INCLUDED IN NPA; NPA IS CLEARLY NOT THE ONLY MODE FOR ACHIEVING SIGNIFICANT POLICY REFORMS. SIMILARLY, UNDER AN NPA MODE THERE CAN BE AID INVOLVEMENT IN THE SPECIFICATION AND PLANNING FOR INSTALLATION/INSTALLATION ELEMENTS; IT NEED NOT BE LIMITED UNCLAS SECTION 02 OF 02 STATE 052086

AIDAC, PRETORIA FOR RLA

TO ARRIVAL OF THE COMMODITIES IN COUNTRY. A CIP COULD BE USED UNDER EITHER MODE, SO LONG AS IT IS SUPPLEMENTED WITH THE ADDITIONAL AID INVOLVEMENT.

1. THE NUMBER OF COUNTRIES FOR PARTICIPATION IN THE PROGRAM.

THE NPD INDICATES THAT CIP FUNDS WILL BE AVAILABLE TO UP TO THREE COUNTRIES WHICH IMPLEMENT IRREVERSIBLE POLICY REFORMS ENABLING PRIVATE SECTOR PARTICIPATION IN THE TELECOMMUNICATIONS SECTOR. THE COMMITTEE SUGGESTS THAT THE MISSION CONSIDER NARROWING THE LIST OF COUNTRIES TO WHICH IT INTENDS TO PROVIDE CIP FUNDS DURING THE DESIGN PROCESS. THIS WOULD FACILITATE THE MISSION'S EFFORTS TO CARRY OUT THE SUGGESTED VALUE ENGINEERING STUDIES IN ORDER TO IDENTIFY THE APPROPRIATE SYSTEMS AND EQUIPMENT FOR THE PARTICIPATING COUNTRIES.

5. RELEVANCE OF THE PROGRAM TO THE SARP STRATEGY.

SINCE THE MISSION WILL BE DESIGNING THIS PROGRAM OUTSIDE OF AN APPROVED NEW SARP STRATEGY, THE COMMITTEE RECOMMENDS THAT THE MISSION PRESENT A STRONG RATIONALE FOR THE PROGRAM AND HOW THE PROGRAM WILL FIT INTO ITS FUTURE STRATEGY. PRESUMABLY, THE RATIONALE WOULD ALSO INCLUDE A PIECE ON HOW THE PROGRAM COULD ASSIST IN THE CONVERSION OF SADC TO AN ECONOMIC COMMUNITY.

6. RELATIONSHIP OF THE PROGRAM TO THE DFA EARMARKS.

AFR/DP EXPRESSED A CONCERN ABOUT HOW THE PROGRAM WILL IMPACT ON THE REST OF THE SARP PORTFOLIO IN CONTRIBUTING TO THE DFA EARMARKS. THE COMMITTEE SUGGESTS THAT THIS ISSUE BE ADDRESSED BY THE MISSION IN THE PAIP/PID.

7. MORTGAGE IMPLICATIONS.

GIVEN THE PROPOSED LOP, THIS PROJECT WILL HAVE SIGNIFICANT MORTGAGE IMPLICATIONS. IN THE PID/PAIP, THE MISSION SHOULD INCLUDE A MORTGAGE ANALYSIS FOR THE SARP PORTFOLIO AND AN ASSESSMENT OF THE IMPLICATION FOR OUT-YEAR

PROGRAMMING IF THE SADC EARMARK WERE TO BE ELIMINATED.
WHARTON

UNCLAS AIDAC SECSTATE 52086

14

INDICATIVE POLICY MATRIX FOR TSDP

| | <u>AS A CONDITION FOR NEGOTIATING NPA</u> | <u>TRANCHE ONE</u> | <u>TRANCHE TWO</u> | <u>TRANCHE THREE</u> |
|--|---|--|--|---|
| <i>Policy Cluster One:</i> | | | | |
| Restructure Monopoly Telecommunications Entity | Develop appropriate restructuring plan | 1) Establish appropriate structures and procedures (Independent board, split post and telecommunications) 2) Hive off peripheral services or sub-contract where appropriate | Meet targets established in performance contract | Introduce Private Sector Management under contract |
| <i>Policy Cluster Two:</i> | | | | |
| Introduce Competition | 1) Develop plan to allow and encourage competition where appropriate 2) Change laws as necessary | 1) Establish appropriate regulatory structures 2) Issue license for cellular services 3) Allow competition in sale of customer equipment 4) Laws adopted | 1) Issue license for data comms or other Non-Basic Services 2) Allow private sector, private networks (urban and rural) | Allow competition or resale by private networks (e.g. railway, power) |
| <i>Policy Cluster Three:</i> | | | | |
| Allow private sector investment and control of telecommunications basic services | 1) Develop a plan for private investment and control 2) Change laws as necessary | 1) Introduce domestic investment (ESOPS, E.G.) 2) Package PT&T for privatization, or sale of strategic interest 3) Adopt laws to allow private sector investment and control | Undertake offering of a controlling interest in PT&T | Sell controlling interest in PT&T |

INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM LOCATION: SOUTHERN AFRICA

PROGRAM TITLE: SARP TELECOMMUNICATIONS SECTOR DEVELOPMENT PROGRAM

PROGRAM NUMBER: 690-0274

PROJECT NUMBER: 690-0278

FUNDING: US\$ 60,000,000 (NON PROJECT ASSISTANCE)
US\$ 15,000,000 (PROJECT ASSISTANCE)

INITIAL YEAR OF OBLIGATION - FISCAL YEAR 1994
5 YEAR LIFE OF PROJECT

IEE PREPARED BY: Melissa Stephens, Project Development Officer

ENVIRONMENTAL ACTION

RECOMMENDED: Positive Determination _____
Negative Determination _____
Categorical Exclusion XX _____
Deferral _____

Summary of Findings:

Program Goal and Purpose: The goal of the Telecommunications Sector Development Program is broad based sustainable growth as measured by more jobs and income. The purpose of the TSP program is to increase and broaden access within the SADC region to a more cost effective system for information transfer.

Program Outputs: To achieve the program purpose, the TSD program seeks to firstly, ensure that effective regulatory structures are established and functioning in a professional and transparent manner that provides for appropriate government oversight and competition in the telecommunications sector. Additional outputs related to appropriate and adequate investment and management practices include: a) legislation/regulations that allow competition, private investment and use of most appropriate cost effective technology; b) adequate levels of financing for private sector investment are available; and c) the implementation and adoption of private sector management techniques.

16

Program Inputs: To accomplish these ends the program provides the following inputs: (a) Non Project Assistance disbursed as a cash transfer of \$60 million, (b) local currencies in an amount equivalent to the Non Project Assistance, and (c) technical assistance, training, and very limited commodities for development of a data base totalling \$15 million.

Discussion of Possible Environmental Impacts: The project elements of the TSD which provide technical assistance, training, and limited commodity support will have no foreseeable environmental impacts. The program resources will be transferred to a maximum of three SADC governments to support imports by the private sector. As a condition for this support, host governments must present evidence that an equivalent amount of U.S. goods and services have been imported by the private sector; however, there will be no specific review of applications for funds disbursed under this program. The types of goods which may be if restricted to the telecommunications sector will be cellular phone hand sets, imported personal computers, micro and mini computers, and perhaps VSAT technology systems. None of these systems is anticipated to have a detrimental effect on the environment. In addition, the policy changes supported by the project will encourage "clean" technology, such as wireless transmission that improve efficiency and preserve the environment. Local currency resources generated under the project will be programmed jointly with host governments at the national budget or sectoral level, but will not be programmed for specific activities which AID must approve.

RECOMMENDED ENVIRONMENTAL DETERMINATION:

Based upon 22 CFR 216.2(c)(2)(i), (iii) and (ix), a **Categorical Exclusion** is recommended for the policy-based assistance, technical assistance, training and related commodities provided by the TSD program.

Concurrence:

Charles Scheibal, Mission Environmental Officer Draft Date: 5/18/93

Patricia K. Buckles, Acting Mission Director  Date: 24 MAY '93

John J. Gaudet, AFR/ARTS, Bureau Environmental Officer _____ Date: _____

Clearance:

Don Keene, RLA/Southern Africa Draft Date 5/24/93

11

Annex E

USG Agencies involvement in Telecommunications

United States Telecommunications Training Institute (USTTI)

The USTTI is a unique joint venture of U.S. Government organizations and a broad spectrum of the U.S. communications industry. USTTI provides telecommunications training to less developed countries, as well as others, in a wide variety of telecommunications topics; policy, managerial, and technical. USTTI seems to be placing an increased emphasis on restructuring and private sector participation; this interest could be encouraged through sending additional participants as part of this program.

Instruction is provided by specialists from U.S. telecommunications industry and consultants, and various USG agencies. The goal of this partnership is to share U.S. communications technology through tuition-free training courses for qualified telecommunications and broadcast professionals from developing countries. USTTI has over 30 private sector sponsors. In addition, the following U.S. Government agencies are represented on the USTTI Board of Directors: Federal Communications Commission (FCC), Department of State, National Telecommunication Information Administration (NTIA) and the U.S. Information Agency. USTTI has offered over 160 diverse courses free of charge to attendees from developing countries.

State Department

The State Department is the USG agency responsible for international treaties and is the government's signatory. As such, it is responsible for U.S. international telecommunications policy. The State Department has established the Bureau of International Communications and Information Policy (CIP). CIP's statutory role is to represent the United States in the International Telecommunications Union (ITU). Its role in the ITU includes formulating and leading delegations of interested government and private sector representatives. CIP supports the International Telegraph and Telephone Consultative Committee (CCITT), an organ of ITU. This committee develops telecommunications standards, known as CCITT Recommendations. Another committee is the International Radio Consultative Committee (CCIR). The State Department has established a Federal Advisory Committee to assist and advise the Department on matters concerning U.S. participation in the activities of the CCIR and its various study groups.

The State Department also recommends funding allocations to the ITU and the United Nations Development Program (UNDP). These funds enable the ITU and the UNDP to provide consultants, training and support of telecommunications programs in the developing

countries. The UNDP and the ITU have and are currently providing telecommunications assistance to the SADC Governments. This funding, however, will be substantially diminished by the end of 1992.

The CIP Bureau of the State Department manages a telecommunications development fund to support international institutional development and other activities which promote international communications and information development. Funds in the initial funding years (1988 and 1989) provided support grants to two organizations: the International Telecommunication Union's Center for Telecommunication Development (CTD), and the United States Telecommunications Training Institute. Since 1990, the CIP Bureau has encouraged diversification of its grant recipients. Types of activities funded under the program: Telecommunication Training, Information Management, Conferences and Seminars. The Training Institute has trained 793 participants from Africa.

Trade Development Agency

The U.S. Trade and Development Agency (TDA) (previously Trade and Development Program) promotes economic development by underwriting investment surveys in developing countries which helps U.S. firms to get involved in projects offering significant export opportunities. It is an independent U.S. Government Agency which enhances U.S. exports to major infrastructure and industrial projects in the developing world by providing grants to enable U.S. firms to conduct feasibility studies of the projects. Experience has shown that U.S. participation in the planning stage of a major project can swing significant exports of goods and services to U.S. suppliers during subsequent project implementation. TDA will consider both public and private sector projects. TDA can provide funding on a grant basis for studies and consultancies that determine the technical, economic, and financial feasibility of a project. TDA can also provide definitional studies and planning services for major projects in developing countries.

When TDA receives a request from a host country government, it normally commissions a preliminary Definitional Mission to visit the project site. The visit will include discussions of the project in depth with project sponsors and technicians, with U.S. Embassy officials, with potential sources of financing and with other relevant experts to develop detailed information on the project. This will enable TDA officials to make a determination as to the eligibility of the project for TDA support.

Telecommunications is a sector in which TDA participates. TDA projects have assisted the international marketing efforts of U.S. telecommunications.

Telecommunications projects have traditionally accounted for between 10 and 15% of TDA's projects and program budget. TDA has initiated 84 telecommunications projects. Fifty-three

projects have gone beyond the definition mission stage and have led to a feasibility study, an orientation visit, etc. In all, TDA has allocated just over \$20 million to the telecommunications sector. Telecommunications projects rank on about the same priority as manufacturing, transportation, water and the environment. The only sector allocated significantly more priority at TDA is energy. TDA has done telecommunications projects in Africa (5 countries), Asia (9 countries), Latin America (14 countries), Eastern Europe (6 countries) and Southern Europe (2 countries). They have included satellite and earth station technology, telephone switching and carrier equipment, radio and TV broadcasting, data communications, cellular radio technology, and telecommunications system privatization and regulation. TDA's Africa effort has been in Mali, Ivory Coast, Morocco, Togo and for SADC. In 1991, TDA financed a feasibility study undertaken by the U.S. firm GTE for Earth Station inter-connectivity between Lesotho, Zimbabwe, Swaziland, and Zambia.

Overseas Private Investment Corporation (OPIC)

OPIC is a self-sustaining U.S. Government agency that promotes economic growth in developing countries by encouraging U.S. private investment. OPIC operates in approximately 100 developing countries, providing financing and political risk insurance to a number of U.S. investors for telecommunications and other projects.

OPIC assists U.S. investors in this effort through two principle programs:

- (1) Insurance of investments against certain political risks,
- (2) Financing of enterprises through direct loans and/or loan guarantees. OPIC can provide medium and long-term funds for financing in countries where conventional financial institutions are reluctant or unable to lend on such a basis.
- (3) Providing access to investment opportunities through trade missions, and sponsoring of investment policy reforms. OPIC has recently sponsored investment missions to Tanzania and Zambia, that included several U.S. telecommunications firms.

Department of Commerce

The Department of Commerce (DOC) encourages, serves and promotes the nation's international trade. The DOC offers assistance and information to increase the U.S. competitiveness in the world economy. It develops policies and conducts research on telecommunications and assists in the growth of minority businesses. Its International Trade Administration promotes world trade and strengthens international trade and investment

possibilities of the U.S. It manages trade fairs and exhibitions emphasizing telecommunications and promotes U.S. telecommunications products and services throughout the world market. It also assists private sector organizations on export financing.

The National Telecommunications and Information Administration (NTIA) was formed in 1978 from the Office of Telecommunications in the Commerce Department and the Office of Telecommunications Policy (OTP) of the Executive Office of the President. It has a broad role in telecommunications and information issues for the DOC. Included among its broad goals is the formulating of policies to support the development and growth of telecommunications, information and related industries and furthering the efficient development and use of telecommunications and information services. NTIA provides policy management for the federal use of the electromagnetic spectrum. It has conducted seminars and training in spectrum management, both overseas and in the U.S. Telecommunications Institute. U.S.A.I.D. Missions can submit requests to NTIA for consideration of specific needs. Unfortunately, NTIA's international outreach program appears to have been dormant in the past several years.

NTIA works closely with the U.S. Government agencies in support of telecommunications development activities. It also funds pre-feasibility and feasibility studies for capital projects, participates in and sponsors seminars and conferences on communications development and provides policy advice to developing nations. NTIA and other organizations including Department of State and A.I.D. have jointly financed projects in Jamaica (privatization, 1986), Guatemala (private sector participation), Ghana (survey of telecommunications sector), Costa Rica (privatization), ASEAN (Telecommunications Conference), and Thailand (spectrum planning and frequency management).

The USDOC Office of Telecommunications is producing a Telecommunications Marketing Guide for Africa, that promises to contain information highly useful for potential U.S. exporters and investors.

Export Import Bank (Eximbank)

Eximbank is the independent U.S. Government agency that facilitates the export financing of U.S. goods and services through a variety of grant, loan, and guarantee programs. It supplements, encourages, and does not compete with commercial financing. By neutralizing the effect of export credit risk that the private sector will not accept, Eximbank helps U.S. exporters compete in overseas markets on the basis of price, performance, delivery and service. Eximbank concessional flows for telecommunications projects, from 1986 to 1988, totalled USD 262 million for direct loans, USD 166 million in guarantees, and USD 4 million in grants. The largest of these was a \$112 million direct loan to the Indonesian Ministry of Finance on behalf of PERUMTEL, the Indonesian Telecommunications

Authority, for the purchase, launch and insurance of the PALAPA B-2R satellite.

Eximbank has country agreements with all of the SADC nations with the exception of Angola, Mozambique, and Zambia. In the case of Tanzania, Eximbank will work with the private sector only. Eximbank has had discussions with GTE concerning the earth station in Lesotho and has had discussions concerning the expansion of the earth station in Zimbabwe.

82

Annex F

The Linkage Between Telecommunications Services
and
Economic Growth

Macroeconomic Findings

Extensive macroeconomic studies from the 1960's to the present have documented a strong correlation between GDP per capita and telephone density indicators. A study by Andrew Hardy¹ was one of the first to attempt to test for causality. Hardy analyzed the correlation between GDP and number of telephones per capita using data from 45 countries for the period 1960-1973. Time-lagged offsets of one year were used in order to see whether increases in telephone penetration predicted GDP growth, or whether GDP growth predicted telephone penetration. His study found that "causality" ran in both directions at statistically significant levels. That is, telephone penetration was both a cause and a consequence of GDP growth. Hardy's evidence, however, showed diminishing returns. The size of the effect of telephone penetration was inversely related to the prior level of telephone development. The strongest two-way correlation occurred in the least-developed economies, and the weakest effects occurred in the economies which already had a high level of telephone development.

A subsequent study by DRI/McGraw-Hill (1991) conducted a more detailed test of the causal relationship between telecommunications and GNP. The study was limited to data from the United States during the years 1958 to 1988. The DRI/McGraw-Hill study departed from earlier research by taking as its relevant variable telecommunications investment rather than telephone penetration levels (DEL). The investment variable was derived from total domestic consumption of telecommunications equipment as reported by the Bureau of Economic Affairs. The use of an "investment" variable is an important difference, because in developed countries such as the U.S.A., changes in telephone penetration are minimal; the telephone has already saturated the consumer market. Furthermore, a significant part of a developed country's telecommunications investment growth is in areas that would not be reflected in telephone penetration statistics (for example, computer networks, advanced PABXs or video conferencing). This may also be true of developing countries. For example, investing in additional trunk lines and central office equipment may make the existing telephone system more efficient and reliable without necessarily increasing penetration. Using investment as a variable is thus a more thorough approach to the study of telecommunications and development, but difficult to undertake in developing countries with a poorer statistical data base.

¹ Hardy, 1980

93'

The DRI/McGraw-Hill study used a two-year lag to offset the two variables. Two standard statistical tests for the direction of causality were used: the Granger test and the modified Sims test.

The results were positive in both directions. The inclusion of GNP or total industrial output variables in a specification for telecommunications improved the prediction for the time process of telecommunications investment. Conversely, the inclusion of telecommunications investment variables in a specification for GNP or output improved the prediction for the time process of GNP or output. The authors concluded that the results "suggest a feedback process in which telecommunications investment enhances economic activity and growth while economic activity and growth stimulated demands for telecommunications infrastructure investment."²

The most recent published evidence by Norton (October, 1992) shows that, statistically, telecommunications investments cause growth in the financial sector and, hence, GDP growth.³ He assumes transactions costs play a significant role in the economy and applies a model developed by Hirshleifer in which the transaction costs are considered explicitly. Based on this model, Norton developed a theoretical framework to estimate telecommunications role in financial markets and growth.

Input/Output Modeling

In a report commissioned by the U.S. firm BellCore, DRI/McGraw-Hill (1991) used input-output modeling to measure efficiency gains attributable to telecommunications. The study used data from the U.S. during the period 1962-1983. It showed that telecommunications represents a fairly small portion of a U.S. business's total inputs (an average of 3 percent) but it nevertheless results in large efficiency gains. DRI/McGraw-Hill's calculations show that the 1982 U.S. economy experienced \$34.8 billion in net savings due to other industries' substitution of telecommunications for other inputs. The report also measured \$46.5 billion in resource savings due to increased efficiency in the supply of telecommunications service and equipment.

The largest efficiency gains were in telecommunications-intensive service industries such as wholesale and retail trade, miscellaneous and personal services, finance and insurance. The average industry increased its telecommunications consumption by 167 percent between 1962 and 1983. The service sector accounted for 75 percent of the increase in consumption.

² 1991, p.533.

³ Whether telecommunications "cause" growth, however, is a controversial point. See the critique of the DRI/McGraw-Hill study in Appendix C of NTIA and the references cited therein.

The level of discreet data required for an I-O model is substantial, and only advanced developing countries contain a database sufficiently segmented to use the input-output model approach. The data available for the SADC region does not permit an I-O approach to economic impact analysis.

Micro-economic findings

There is a rich literature that attempts to analyze the impact of adequate telecommunications services on a micro-economic level. A few examples are cited here.

- 0 - In Tanzania, interviews with a wide variety of businesses confirmed that the time and cost of marketing, distribution, inventory management, receivables collection, etc. were greatly reduced or could greatly be reduced by better telecommunications. Opportunities with limited time horizon -- such as exports of perishable horticultural produce -- could be captured.
- 0 - In a world-wide survey of the impact of telecommunications on the farming sector, the telephone proved to be a highly cost effective direct substitute for transport as it enabled farmers to have a more efficient marketing system, lowered the cost of essential social services, and saved production costs.

One analysis in Egypt attempted to measure benefit cost ratios on the village and individual level. In this study, the benefits from telephone usage were divided into four major components:

1. The difference between the cost of a telephone call and the cost of an alternative means of communication,
2. The time saved by using a telephone as measured by the number of working hours saved,
3. An indirect measurement of monetary losses avoided in emergencies as a result of the use of telephone service, and
4. An indirect benefit using wages of operators to measure increases in the efficiency of capital and capital equipment.

The benefit/cost ratios for the villages in the study averaged 185 to 1. It was 69 to 1 for the trade sector, 85 to 1 for the service sector, and 126 to 1 for owners of capital equipment.

The benefit/cost ratio approach was undertaken in studies of the magnitude of benefits obtainable from telecommunications investment in the Philippines and Costa Rica. These studies involved sample sizes of 200 and 300 businesses, respectively. The measurement of benefits essentially was the same as that used in the study of Kenya. Costs were obtained by amortizing the investment requirements of the telephone network over twenty years and adding the cost of operation, maintenance and debt servicing.⁴

The results of the studies showed high benefit/cost ratios for business users. In the Philippines, the benefit/cost ratios ranged from 20 to 1 to 25 to 1 for business users. In Costa Rica, the benefit/cost ratio was 48 to 1 for business users.

The Costa Rican study also undertook to measure the benefit/cost ratio for residential users. At 5 to 1, it was significantly less than for business users but the study claimed it was amply high to justify the investment made. Of particular note, the benefits exceeded costs for all social classes including unskilled labor. The study implied that residential telephone service could increase commercial activity in the home, thereby increasing the benefits to residential users.

One final and seemingly important conclusion of the Costa Rican study relating to business use is that the absence of telephone service made the establishment of modern business with more than 50 employees impossible.

⁴Jonscher.

Annex G

Other Donor Involvement in the Telecommunications Sector

Donor involvement to date, unfortunately, has often served to perpetuate or even worsen the problems of the telecommunications sector. Although many donors have begun sectoral programs, these restructuring programs do not go far enough. Such program may provide funds for a modest modernization and extension of the phone network, and take some critical and fundamental steps in preparing for private sector participation (separating posts and telecommunications functions, separating regulatory from operating functions), but they are fundamentally flawed for the following reasons:

- o Donor money crowds out private sector investment that would build the network far more rapidly and efficiently than the PTTs.
- o The PTTs (and the countries) are burdened with hard currency debt with a substantial devaluation risk, instead of letting the private sector take the risks. The PTTs are often leveraged far beyond what a private sector board of directors or financiers would tolerate; this high degree of leverage makes the PTTs vulnerable to short term cash flow problems.
- o Donor-imposed performance indicators and contracts are used in an attempt to obtain efficiency and has proven to be a poor substitute for private sector management responsible to private sector shareholders.
- o Tied loans burden the PTTs with a plethora of different national supplier's equipment. The variety of different equipment is difficult to integrate and maintain in a cost-effective manner. In addition, the equipment mix may make the PTT a less attractive candidate for outside investment.
- o The costs of equipment acquired through loans are 20 percent higher than if full international competition were allowed, often negating the concessionality of the loan. These inflated prices increase the book value of the PTT so that eventual privatization will be less palatable, and achieving return on asset targets will be more difficult.
- o Donors tend to channel money into high-technology, lucrative (for their national suppliers) areas such as transmission and switching, which may not be what is required by the host country, thus reducing the impact of the investments.

Important donors in the sector include:

International Telecommunications Union (ITU)

The ITU, the oldest agency in the UN system, has long been an advocate of the role of telecommunications in promoting economic development. Until recently, however, the ITU has been extremely cautious in the adoption of sector reform policies that include competition and private sector participation.

In December 1992, the ITU plenipotentiary agreed to a major re-organization and change in mandate of the organization. A much greater emphasis is placed on raising awareness in developing countries of the range of policy and structural options available to lead to greater resources for telecommunications development. In particular, the ITU Telecommunications Development Bureau has been tasked with attracting and gaining trust from the private sector to invest and contribute to telecommunications in developing countries.

The ITU suffers from the same problems that afflict most of the UN system agencies (crippling bureaucracy, budget squeeze). ITU proclamations, nonetheless, have some measure of moral authority, particularly in developing countries. If ITU carries the banner of private sector participation at the numerous conferences, seminars, and information events it sponsors through the world, an important contribution will have been made.

The Arab Bank for Economic Development in Africa (BADEA)

BADEA was created by the Arab League summit in Algiers in November 1973. It supplies African countries with technical assistance. All members of the Organization of African Unity (OAU) are eligible as recipients except those African countries belonging to the Arab League. Objectives of BADEA are two-fold; to assist African countries with large balance of payments deficit by providing aid, and to sponsor Arab investments in Africa through investment guarantees. The headquarters of BADEA is located in Khartoum, Sudan. BADEA is providing a loan of \$8.1 million toward the National Telecommunications project in Mozambique.

The European Economic Community (EEC)

The EEC is an organization of the European Community (EC) consisting of 12 full European members. Under the Lomé Convention, 60 nations in Africa, the Caribbean and the Pacific are affiliated with special trading and economic privileges. EEC contributed toward the SADC Rural Telecommunications Study.

EEC had planned to fund a massive, two-year analysis of the transport and telecommunications sector in Southern Africa, taking into consideration the impacts of a post-

apartheid South Africa. The implementation of this has been subject to considerable delays, and as of mid-1993 had not begun. The attention given to the telecommunications sector was relatively slight. In sum, the EEC study is not expected to be timely or substantive enough for use during the first half of program life.

- 89

Annex H

**Technical Assistance to U.S. Private Sector
** Outline of Information Needs ****

I. General Conditions on a Country Basis and for the SADC Region

In general, private sector investors have similar types of concerns which do not depend on the type of industry under consideration. Relating to telecommunications, these include:

- **Low Direct Labor Costs** - Investors in the SADC Region will require knowledge of the labor costs in the telecommunications field. In the case of privatization, the inefficiencies relating to the high number of employees in the telephone companies in the region will be a concern when investment decisions are required. The issue of labor contracts will be an important action item for any potential investor.
- **Well Educated Pool of Labor** - Investors will want to have an appreciation of the skilled labor pool available in a given SADC country and in the Region. Traditionally U.S. investors have difficulties in relocating human resources to developing countries for long periods of time. It is expected that this will be the case for the SADC Region. In contrast, that Europeans firms do not have the same level of difficulty in relocating employees to developing countries, especially to Africa and the SADC region.
- **Country risk** - Inadequate information on general political, economic and industry specific risks is a major main reason why the SADC region is viewed as a high risk area. U.S. investors view country risks as one of the most important indicators in making investment decisions in developing countries.
- **Market Size and Characteristics** - Another important consideration for private sector investors is the size and characteristics of the market. Most investors are aware of the large market potentials in the Republic of South Africa (RSA). However, the SADC region is not generally known as a particularly large market. Accurate and reliable information regarding the market potentials in all areas of the telecommunications industry is vital information for potential investors.
- **Levels of Foreign Investment** - The level of foreign investment in the region is viewed as an indicator on how "friendly" a host country is to foreign private investors ("success breeds success"). This is especially true for U.S. investors. When a U.S. investor arrives in the region, the level of U.S. investment versus European, Japanese, or local investors is the first impression he or she will obtain and will be a factor in determining investment decisions in the region. For U.S. investors, it is

90

expensive to visit the area before any significant opportunity becomes available. Therefore, it will be important to provide these potential investors as much information on this and other characteristics of the region.

- **Quality of Infrastructure** - For most private sector investors, the quality of infrastructure is very important. U.S. investors are used to reliable communications, widely available air, road, and marine transportation as well as comfortable hotel accommodations. For example, when Poland became attractive for U.S. investors, the Warsaw Marriott became the "business center" for most investors in all industries, including telecommunications. Daily flights to Warsaw have become common from several U.S. cities. U.S. investment, including telecommunications, in Poland has increased significantly since 1990 (over US\$1 billion in telecommunications). Although it is difficult to determine to what extent the quality of infrastructure influenced U.S. investors, it can be concluded that it was a principal facilitator in closing business agreements.
- **Political and Labor Union Opposition** - When contemplating private sector participation in telecommunications, most developing countries face opposition from political fronts as well as from labor unions. This will probably be the case for the SADC Region. In the RSA, the African National Congress ANC has made statements in opposition to private sector ownership of the main telecommunications infrastructure. This alone has repelled potential U.S. investors in telecommunications from the RSA.

II. Information on Telecommunications Sector Regulation

Information on laws and regulation is one of the first items private sector investors seek when contemplating investment in a developing country. This is the case in the SADC region. The basic information required includes:

- **Telecommunications Law and Regulation** - Most countries have an existing law that designates the state as the only entity allowed to own and operate telecommunications infrastructure and services. In some countries, the laws are currently under modification to allow for privatization or some sort of private sector participation. Investors will need the latest copy of the telecommunications laws and other related regulations, a copy of the proposed changes, and an assessment of probable outcomes to these proposed changes.
- **Frequency Allocation** - Private sector investors require information on existing frequency allocations and plans for modifications. New services require new frequency allocation and sometimes reallocation of existing frequencies. Investors also seek information on frequency monitoring

capabilities where they are contemplating investment in specific countries.

- **Technical Standards** - Local technical standards are very important to private sector investors. The SADC region has traditionally adopted technical standards utilized by vendors from donor countries. Fortunately, the world has formalized and established telecommunications standards which are applicable to all nations. The U.S. has its own standards but complies with international standards when crossing borders to other nations. However, for new services, such as cellular and PCN technology, technical and operating standards have not yet been fully established. The U.S. industry currently is in competition with a cellular standard proposed by the European Community. It is important to provide information regarding proposed standards for new services in the region who sets the standards; how the standards setting process is managed; how is certification and type approval carried out.
- **Government Policies** - The current and expected government policies for the countries in the region and in the RSA are important to potential investors. In light of the changing dynamics of the in region and the RSA, this issue becomes very important factor in making an initial assessment to invest in the telecommunications sector. For example, in the RSA, investors need to assess the policies promoted by the ANC. Any changes to current policies will affect the country's investment risk either up or down.
- **Sector and Institutional Structure** - An inventory and analysis of the operating, regulating, and policy entities in the telecommunications sector is required to interest investors. They need to know names of key contacts in telecommunications sectors and will be particularly interested in understanding how decisions are made.

III. Information on Opportunities

In addition to general and regulatory information, private sector investors require information on market opportunities and other constraints that may affect potential investment results. Information should be provided to private investors, including those from the U.S., and should be matched to their primary industry objectives. Examples of the type of information required include:

- **Market Size and Potential** - Characteristics of the demand for telecommunications services in the SADC region. This includes telephone density, disaggregated geographically and other ways of interest to marketing specialists. Characteristics of market and geographic niches for service provision. In most countries in the region, the large but poorly quantified

unsatisfied demand for telephone services represent a large revenue growth potential for the 1990s and beyond.

- **State of Current Infrastructure and Management** - Investors seek to introduce new qualified management, improved operations methodologies, and rapid deployment of new technology and services that can improve efficiencies significantly to the point that a privatized phone company or service can become more profitable even before any new network expansion is materialized. Condition of external plant, transmission, and switching infrastructure in the region. Characteristics of the workforce and management. Percentage of the overall system that is digital. Future plans for digitalization. Proposed role fiber optics.
- **Investment Opportunities** - Information on opportunities in privatization of state owned telephone networks as well as other basic and enhanced services are of interest to investors. A short term, medium and long term assessment of investment opportunities will help the private sector in evaluating its commitment to participation in the region. Opportunities in basic services such as cellular as well as other enhanced services (i.e. VSATs, teleports, data communications) or specialized areas such as rural telephone are of special interest to small and medium size U.S. business and entrepreneurs.
- **Availability of Financing** - Insufficient availability of financing for telecommunications projects around the world creates an additional constraint to potential investors. Although debt and equity financing is possible for the region, other regions of the world may present more attractive returns for investors and financial institutions. Information on available financing for telecommunications projects in the SADC region is of great importance to U.S. and other private sector investors.
- **Competition** The number, size, and nationality of firms supplying equipment and services to the region is an important consideration for investors. More specifically, information on who supplies switches, CPE, microwave transmission, earth stations, etc. is required.
- **Procurement** Investors need information on procurement regulations including:- tariff and non-tariff barriers for imported equipment. In addition supplemented information on waivers on tariffs for major investors, local agent requirements and government approach to local assembly are important factors for investors.

Annex I

Bibliography of Key Sources

Hardy, Andrew P. "The Role of the Telephone in Economic Development", Institute for Communication Research, Stanford University, 1980.

Hotvedt, A.A. et al "The Potential for Privatizing Telecommunications Systems in Africa: The Cases of Cameroon, Senegal, Cote d'Ivoire, and Kenya", Center for Privatization/AID/PRE, 1987.

Koyani, Rogati; "Financing Telecommunications in the SADC Region", paper delivered at SADC Telecommunications Restructuring Seminar, February 1993.

Nortelcon, "SATCC Telecommunications Manpower and Training Needs Survey", ITU/NORAD/SATCC, 1992.

Raynauld, Andre "Financing Exports to Developing Countries", Development Centre of the OECD, 1992.

"Telecommunications in Southern Africa", BMI TechKnowledge, Johannesburg, 1992.

"Telecommunications Scoping Study for Southern Africa" Teleconsult/AID, 1992.

99

PROPOSED
SOUTHERN AFRICA REGIONAL PROGRAM
BUDGET ESTIMATES FY 91-96
(\$000)

| TITLE PROJECT | AUTH | LOP (PLANNED) | OBLIG. THROUGH FY 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---------------|---|---------------|------------------------|----------|---------|------------|----------|---------|---------|
| 6900215 | SADCC Technical Support | 7,624 | 7,374 | 7,624 | - | - | - | - | - |
| 6900224 | Sorghum & Millet Research & Training (ICRISAT) | 31,110 | 42,110 | 29,950 | - | 1,160 | 7,000 | 4,000 | - |
| 6900225 | Reg'l Agr Research Coordination Phase II | 3,300 | 3,300 | 1,500 | - | 1,800 | - | - | - |
| 6900231 | Regional Transport Dev. | 15,765 | 15,765 | 15,765 | - | - | - | - | - |
| 6900237 | Malawi Northern Corridor | 19,807 | 19,807 | 19,128 | 679 1/ | - | - | - | - |
| 6900238 | Regional Transport Dev. II(TA) | 1,500 | 1,500 | 1,500 | - | - | - | - | - |
| 6900240 | TAZARA | 45,950 | 45,950 | 45,950 | - | - | - | - | - |
| 6900247 | Regional Rail System Support (0247.12 Malawi) | 98,932 | 88,932 | 63,917 | 5,915 | 19,100 | - | - | - |
| | (0247.56 Mozam) | (11,390) | (11,390) | (7,290) | - | (4,100) 5/ | - | - | - |
| | (0247.45 Swazi) | (80,500) | (70,500) | (49,585) | (5,915) | (15,000) | - | - | - |
| 6900248 | Reg. Trans. Dev. II (Zim Rail) | (7,042) | (7,042) | (7,042) | - | - | - | - | - |
| 6900251 | Reg. Trans. Dev. II (Zim Rail) | 39,400 | 39,400 | 9,373 | 30,027 | - | - | - | - |
| 6900251 | Natural Resources Management | 37,030 | 45,030 | 19,530 | - | 6,900 | 3,100 | 9,500 | 4,000 |
| 0251.11 | Zambia | (5,000) | (6,000) | (3,000) | - | - | (1,000) | (2,000) | - |
| 0251.12 | Malawi | (1,530) | (1,530) | (1,530) | - | - | - | - | - |
| 0251.13 | Zimbabwe | (7,800) | (12,800) | (7,600) | - | - | (4,500) | (500) | - |
| 0251.33 | Botswana | (14,400) | (14,400) | (7,400) | - | (5,900) 2/ | (1,100) | - | - |
| 0251.73 | Namibia | (10,500) | (10,500) | - | - | (3,000) | (1,000) | (3,000) | (3,500) |
| 6900253 | Kafue Rail Bridge | - | 2,300 | - | - | - | - | - | - |
| 6900254 | Reg. Trans. II Kafue-Lusaka | 23,340 | 28,840 | 12,000 | 10,840 | 500 | 5,500 | - | - |
| 6900245 | Enhanced Export Competitiveness | - | 15,000 | - | - | - | - | - | - |
| 6900255 | Nacala Corridor Operations | - | 10,000 | - | - | - | 5,000 | 5,000 | - |
| 6900256 | SADCC Transport Efficiency Program (STEP) | - | 16,560 | - | - | - | - | - | - |
| 6900258 | Trade Facilitation - UNCTAD Grant | 1,440 | 1,440 | 800 | 640 | 5,000 | 4,000 | 4,900 | 2,660 |
| 6900260 | Namibia Road | - | 20,000 | - | - | - | - | - | - |
| 6900261 | Railway Restructuring Seminar World Bank Grant | 300 | 300 | 300 | - | - | - | - | - |
| 690ADSP | Africa Development Support | - | NA | 492 | 456 | - | - | - | - |
| 690APEF | Trade Develop. Specialist | - | NA | 518 | - | - | - | - | - |
| 6980510 | Prog. Dev. & Support | - | NA | 143 | 983 | 2,089 3/ | 350 | - | - |
| 6900260 | Project Development and Support | - | - | - | - | - | 2,181 6/ | 1,400 | 2,000 |
| 6900262 | Signalling Improvement-Zambia Rail | - | 2,300 | - | - | - | - | - | 2,000 |
| 6900263 | Emergency Power - Beira Port | - | 10,000 | - | - | - | - | - | - |
| 6900268 | S. Africa Root Crops Research Network (SARRNET) | - | 7,000 | - | - | 3,000 | 2,000 | 2,000 | - |
| 6900269 | S. Africa Agr. Research Mgmt Training - Phase II (SAARFA II) | - | - | - | - | - | - | - | - |
| 6900270 | Reg'l Drought Emer Relief & Recovery | 15,020 | 30,520 | - | - | 15,020 4/ | 15,500 | - | - |
| 6900271 | Regional Business Advisory Services | - | 5,000 | - | - | - | 1,500 | 1,500 | 2,000 |
| 6900272 | Lobito Corridor Transport Recovery I & II | - | 10,000 | - | - | - | - | - | - |
| 6900273 | CIMMYT Maize & Wheat Improvement Network | - | 5,000 | - | - | - | - | - | - |
| 6900274 | Regional Telecomm Restructuring - NPA | - | 60,000 | - | - | - | 10,000 | 10,000 | 20,000 |
| 6900276 | Regional Telecomm Restructuring - TA | - | 15,000 | - | - | - | 4,000 | 4,000 | 3,000 |
| 6900275 | Regional Economic Integration | - | 10,000 | - | - | - | - | 2,000 | 3,000 |
| 6900276 | Rail Restructuring (Zambia, Malawi, NRZ) | - | 50,000 | - | - | - | 8,300 | 14,260 | 16,740 |
| 690APEF | OYB Transfer to Africa Pvt Enterprise Fund to fund WB Reg'l Integration Seminar | 53 | 53 | - | - | 53 | - | - | - |
| 690SAAR | OYB Transfer to Heartwater Proj (698-0435) | NA | NA | 2,600 | - | - | 281 7/ | - | - |
| 9361328 | OYB Transfer to CRSP Ruminants | - | - | - | - | 5,500 | - | - | - |
| 690EAGE | OYB transfer to EAGER to fund Transport Advisor | NA | - | - | - | 500 | - | - | - |
| 6900279 | Regional Technical Support Project | - | - | - | - | - | 300 | 340 | 80 |
| Grand Total | | | | 49,980 | 50,762 | 51,912 | 50,000 | 50,000 | 50,000 |

1/ Includes \$246,141 of funds re-obligated from the Regional Fisheries Project (690-0215.12)

2/ Includes \$2.0 million cost overrun & \$3.9 million of \$5.0 million requested for NRMP training (additional \$1.1 million budgeted in FY93).

3/ Includes \$266,098 of FY91 funds de-allowed and re-allowed for FY92.

4/ Includes \$13.11M of OYB and \$1.9 of Africa Bureau de-ob funds (Includes \$6.9M grant to WPF, \$7,866,580 contract with Spoornet and \$252,937 for project mgmt).

5/ Includes \$800,000 of Malawi bilateral funds to purchase dredger.

6/ Includes \$1281,000 of FY92 funds rolled over to FY93.

7/ \$281,000 rolled over from FY92.

8ARPPP4:05/24/93
MBE:lls:nm

BEST AVAILABLE COPY

Handwritten signature or initials.

FAX TRANSMISSION
USAID/Zambia

Fax No. 260-1-225741

Telephone No. 260-1-221314 or 229326 or 229327 or 223146

Date: May 17, 1993

To: Melissa Stephens
USAID/Zimbabwe
Fax No.: 00-263-4-722418

From: Fred E. Winch, Director, USAID/Zambia

Subject: Review of SARP Telecom Sector PID/PAIP

No. of pages: 17 1993

| DATE | ACTION | INFO |
|---------------|--------|------|
| DIR | | |
| DD | | |
| FFM | | |
| CONT | | |
| GDO | | |
| PPIS | | |
| EXG | | |
| LIB | | |
| CHRON | | |
| RF | | |
| DUE DATE | | |
| ACTION TAKEN | | |
| INITIALS/DATE | | |

Given how little time we had to review the document and our own extraordinary workload, we have done the best we could in reviewing the subject document. Unfortunately we have not had time to do more than enumerate the comments here of various staff members. Hope our points are useful just the same.

- 1) Difficult to assess from country-specific point of view. There is no specificity on the Zambia situation. Recommend PP be composed of three country-specific programs, individually justified, tied together under the SATCC umbrella of system compatibilities. The generality of the current presentation, particularly in regard to NPA resource delivery and conditionality, confuses the presentation.
- 2) What is the rationale for a CIP under a fully liberalized foreign exchange regime such as that of Zambia? Balance of Payments support is desperately needed, and the Mission has supplied this in the past two years by buying down country debt to the multilaterals, i.e. a form of cash transfer. The subject program is, however, based upon US export promotion secured through a CIP approach which is to provide financial incentives. The basis for that rationale doesn't fit a free foreign exchange market.
- 3) Disregarding issue two, will commodity demand justify \$20 million of NPA? The text of page 38 suggests otherwise. The final paragraph of the page obfuscates the issue, though. Does it imply that conditions on privatization will lead to sale to American interests, in violation of DAC and OECD accords on subsidies?
- 4) Mission policy is to abide by SPA guidelines on local currency generation. In this environment that means attribution and sterilization.
- 5) The document seems to accommodate, as best as possible, Mission-expressed concerns on management burden. Nevertheless, we know the new project will add a burden at the upper management level of the Mission which further stretches capability

BEST AVAILABLE COPY

DDIS

96

limits. The USG country team will recognize this as a USAID project as they do the KL road and the NRM project. The GRZ will, despite present assurances, do likewise. Further, it is not in the interests of the upper management to not be cognizant and fully informed of an active AID project in the country. This requires time and attention.

6) Technical assistance in support of PTC privatization is appropriate; and, compatible with bilateral program support to the Zambia Privatization Agency's mandate of parastatal divestiture.

7) Purpose statement: The purpose statement and use of sub-purpose statements is confusing. As stated, to increase and broaden access within the SADC region to a more cost effective system for information transfer, does not preclude assistance to for technological improvements in parastatal operations which are temporarily more cost effective. The PID/PAIP stresses the need for private sector service delivery so USAID/Zambia suggests USAID/Zimbabwe consider bolder and more focussed statements such as:

- To assist in the design and implementation of policy and regulatory reforms that allow private sector participation in telecommunications; or
- To privatize telecommunication service delivery in the region; or
- To introduce and promote private sector telecommunication service delivery in SADC.

The Executive summary and page cites two sub-purposes, and then re-presents the two sub-purposes with some subtle changes as outputs (see 5.4.1, 5.4.3., and 5.4.4). Is there a need for the two subpurposes?

8) Project Assistance: Funding technical assistance to help governments recognize the need for regulatory reform and privatization assumes that with good information, policy-makers will make the right choices. This assumption is not necessarily valid. USAID/Zambia's experience is that AID assistance is most successful after the host country has decided on its own to pursue a private sector policy. Helping the host country to build up a commitment for change is quite frustrating. USAID/Zimbabwe may wish to carefully examine the liklihood that support seminars, workshops, and exposure tours will bring about the expected results.

9. NPA Resources: USAID/Zambia misses the link between the import of U.S. equipment and the policy matrix conditions. We believe that a government has to meet a policy matrix condition and import a minimum level of U.S. equipment to receive an NPA transfer. If this is so, the PID/PAIP should state it.

Related to this, there is no guarantee after a transparent privatization that a newly privatized telecommunication company will decide to use American equipment. After

AM

3

all, the private sector operates in cost effective environments which may or may not benefit American suppliers of equipment. Just exactly how will the NPA work? We suggest the PID/PAIP include a country-specific policy matrix that includes amounts for meeting tranche targets and incorporates the U.S. procurement condition.

10. Observation: USAID/Zambia experience with World Bank discipline in holding the GRZ to privatization goals has been less than encouraging. This has not helped our bilateral program. In Section 3.5 you indicate that the World Bank has over \$400 million to restructure the parastatals telecommunication companies in Zimbabwe and Tanzania. Why should these countries be interested in SARP funding directed at privatization when the World Bank has a much larger incentive to merely improve the status quo and has no conditionality to privatize operations?

B

UNCLAS AIDAC DAR ES SALAAM 02581

ACTION: AID-1
INFO: ECON-1 DCM-1 AMB-1

DISTRIBUTION: AID
CHARGE: AID

VZCZCSBO578
OO RUEHSB
DE RUFHDR #2581/01 1371309
ZNR UUUUU ZZH
O 171309Z MAY 93
FM AMEMBASSY DAR ES SALAAM
TO AMEMBASSY HARARE IMMEDIATE 5793
BT
UNCLAS SECTION 01 OF 02 DAR ES SALAAM 02581

AIDAC

FOR MELISSA STEPHENS, PDO, USAID/ZIMBABWE

E.O. 12356: N/A
SUBJECT: SARP TELECOMMUNICATIONS SECTOR DEVELOPMENT
PROGRAM (690-0274)

REFERENCE: HARARE 005219

THE SARP PROGRAM PID/PAIP IS AN EXCELLENT DOCUMENT OVERALL, AND USAID/ZIMBABWE IS TO BE CONGRATULATED FOR THE RESULTS OF THIS COMPREHENSIVE DESIGN EFFORT. WE WOULD LIKE TO OFFER SOME ADDITIONAL CONSIDERATIONS, TO REFLECT THE EVOLVING TANZANIAN SITUATION. THE SUGGESTED MODIFICATIONS ARE DISCUSSED BELOW, PER THE FOLLOWING CATEGORIZATION: I. COMPOSITION OF THE DESIGN TEAM, II. BUDGET, III. OTHER DESIGN ISSUES, IV. QUESTIONS/CLARIFICATIONS.

I. COMPOSITION OF THE DESIGN TEAM

1. ADD A UNITED STATES PRIVATE SECTOR TELECOMMUNICATIONS REPRESENTATIVE ON THE DESIGN TEAM.

WITH THE RECENT APPROVAL OF THE 180 MILLION DOLLAR IDA TELECOMMUNICATIONS SECTOR LOAN TO TANZANIA, THE TELECOMMUNICATIONS MARKET IS FAST BECOMING FEVERISHLY COMPETITIVE. THE TELECOMMUNICATIONS CONSTITUENCIES OF RESPECTIVE DONORS ACTIVE IN TANZANIA ARE AGGRESSIVELY SEEKING REPRESENTATION, TRYING TO GAIN AN INITIAL FOOTHOLD IN THE MARKET AS IT OPENS UP. IT IS ESSENTIAL TO SOLIDIFY U.S. INVOLVEMENT NOW AT THE GROUND LEVEL, IN ORDER TO ASSURE THAT A VARIETY OF U.S. COMPANIES ARE FULLY COGNIZANT OF THE NEEDS OF THE ACCELERATING PACE OF PRIVATIZATION IN TANZANIA, AND ARE WELL POSITIONED TO MEET THOSE NEEDS. THEREFORE, WE SUGGEST THAT A U.S.

UNCLAS AIDAC DAR ES SALAAM 02581

99

UNCLAS AIDAC DAR ES SALAAM 02581

PRIVATE SECTOR TELECOMMUNICATIONS REPRESENTATIVE BE PART OF THE DESIGN TEAM. THE TELECOMMUNICATIONS REPRESENTATIVE COULD FOR EXAMPLE, BE FROM A BROADLY BASED U.S. TELECOMMUNICATIONS TRADE ASSOCIATION, WHO WOULD GAIN IN DEPTH KNOWLEDGE OF THE TANZANIAN SITUATION, DEVELOP APPROPRIATE CONTACTS, AND BE ABLE TO TAKE ON AN ACTIVE ADVOCACY ROLE WITH PROSPECTIVE US COMPANIES.

2. ADD A GOVERNMENT TELECOMMUNICATIONS REPRESENTATIVE FROM EACH OF THE PARTICIPATING COUNTRIES.

FOR EXAMPLE, A REPRESENTATIVE FROM TPTC IS ESSENTIAL TO ENSURE THAT THE DESIGN ADEQUATELY ADDRESSES THE ISSUES AND CONCERNS OF TPTC IN ITS MOVE TOWARD PRIVATIZATION.

3. KEEP THE TANZANIAN EXPATRIATE PSC, BUT CONSIDER DROPPING THE LOCAL PSC IN TANZANIA.

THE ADVANTAGE OF A LOCAL PSC IN TANZANIA IS NOT ENTIRELY CLEAR. IN FACT, GIVEN THE BUDGET CONSTRAINT DISCUSSED BELOW, IT SEEMS THAT DROPPING THE LOCAL PSC AND INCORPORATING THE SALARY INTO THE EXPATRIATE PSC'S SALARY IN TANZANIA WOULD BE NECESSARY GIVEN THE RELATIVELY HIGH LOCAL LIVING COSTS HERE. A MINIMUM TOTAL PER ANNUM ON AVERAGE FOR AN EXPATRIATE IN TANZANIA IS 300,000 DOLLARS. (THIS AVERAGES THE HIGHER INITIAL COSTS WITH SUBSEQUENT LOWER LEVELS.)

II. BUDGET.

1. BUDGET A TOTAL OF 1,200,000 FOR THE EXPATRIATE PSC FOR TANZANIA.

THE AVERAGE OF 300,000 DOLLARS PER ANNUM FOR AN EXPATRIATE PSC INCLUDES A 60,000 ANNUAL SALARY, A FAMILY OF FOUR, SCHOOLING, AND OFFICE SPACE AND SECRETARIAL SERVICES, AND SHOULD BE EXPLICITLY STATED. A FOUR YEAR CONTRACT WOULD TOTAL 1,200,000 FOR THE EXPATRIATE PSC IN TANZANIA. THIS FIGURE DOES NOT INCLUDE ANY OVERHEAD ASSOCIATED WITH A FIRM, WHICH WOULD CONSIDERABLY RAISE THE OVERALL AMOUNT. THE HIGH COST OF LONG TERM TECHNICAL ASSISTANCE NEEDS TO BE BALANCED WITH THE OVERALL PROGRAM OBJECTIVES.

2. MOVE THE EXPATRIATE PSC FOR TANZANIA BUDGET UP TO YEAR ONE THROUGH YEAR FOUR.

GIVEN THE RAPID PACE OF TELECOMMUNICATIONS PRIVATIZATION IN TANZANIA, IT IS IMPORTANT TO HAVE THE PSC ON BOARD AS SOON AS POSSIBLE.

III. OTHER DESIGN ISSUES.

UNCLAS AIDAC DAR ES SALAAM 02581

100

1. LINK U.S. EQUITY AND U.S. EQUIPMENT PURCHASES

ACKNOWLEDGE THE FACT THAT WHO BUYS THE TELECOMMUNICATIONS EQUIPMENT IS OFTEN WHO OWNS THE TELECOMMUNICATIONS SYSTEM. INCORPORATE THE IDEA THAT AMERICAN MID-LEVEL TELEPHONE COMPANIES CAN BECOME OWNERS OF EQUITY, FOLLOWING THE ATN EXAMPLE IN GUYANA. UNLESS THERE IS AMERICAN OWNERSHIP IN EQUITY, THERE WILL BE LITTLE ROOM FOR THE PURCHASE OF AMERICAN TELECOMMUNICATIONS EQUIPMENT.

2. ADD DATA LINKAGES INTO DISCUSSION.

THE PID/PAIP LARGELY CENTERS DISCUSSION ON THE USE OF PHONES. IT IS IMPORTANT TO ALSO INCLUDE IN THE DISCUSSION THE ROLE AND USE OF DATA LINKAGES IN TELECOMMUNICATIONS. EMPHASIZE THE ROLE OF INFORMATION TRANSFER. AS AN EXAMPLE, UNISYS COULD LINK-UP THE BRANCHES OF THE NATIONAL BANK OF COMMERCE IN TANZANIA.

3. ADD TRIPS.

IT WOULD BE USEFUL TO HAVE A TRIP TO THE U.S. FOR TPTC ORIENTATION. ALSO USEFUL WOULD BE AN OPIC STYLE TRIP TO TANZANIA FOR AMERICAN COMPANIES INTERESTED IN PURCHASING EQUITY, AND, TO A LESSER EXTENT, SELLING EQUIPMENT. COULD THE U.S. TELECOMMUNICATIONS TRADE ASSOCIATION FIELD THE TEAM VISIT?

4. NPA FUNDING AND SEPARATE CONDITIONALITY FOR TANZANIA.

USAID/TANZANIA WOULD NEED TO DEVELOP ITS OWN CONDITIONALITY FOR ITS PORTION OF THE NPA FUNDING. FOR DESIGN OF THE TANZANIAN PAAD, A USAID/TANZANIA PDO WOULD BE CO-TEAM LEADER.

5. ADD A PRELIMINARY LOG-FRAME

A PRELIMINARY LOG-FRAME ANALYSIS IS REQUIRED FOR THE PID/PAIP, AND WILL HELP TO COMMUNICATE THE PROGRAM AT A GLANCE.

6. MATCH NPA FUNDS TO LOCAL CURRENCY

THE DISCUSSION REGARDING MATCHING NPA FUNDS IS NOT ENTIRELY CLEAR. AS IT IS NOT FEASIBLE TO MATCH NPA FUNDS WITH DOLLAR DEPOSITS IN THE TANZANIAN CONTEXT, WE SUGGEST THAT THE IMPORTER DEPOSIT THE 100 PERCENT LOCAL CURRENCY EQUIVALENT BEFORE ACCESSING THE NPA FUNDS. DE
VOS
BT

Agency for International Development U.S.A.I.D. Mission to Botswana

Barclays House, Khama Crescent, Gaborone



USAID
P.O. Box 2427
Gaborone, Botswana
Tel: (267) 313062 Fax: (267) 313072

(U.S. Mailing Address)
USAID/Gaborone
Department of State
Washington, D.C. 20521-3170

FAX TRANSMISSION FROM BOTSWANA (267) 313072

| | |
|---------------------------------------|--|
| TO: PATRICIA BUCKLES, ACTING DIRECTOR | FROM: HOWARD R. HANDLER, DIRECTOR |
| COUNTRY: ZIMBABWE | OFFICE: DIRECTOR'S OFFICE |
| OFFICE: DIRECTOR'S OFFICE | DATE: May 18, 1993 |
| FAX NO: 00 2634 722418 | SUBJECT: SARP TELECOMMUNICATIONS PID/PAIP |

PROJ NO. XX O.B: PERSONAL: //CHARGE P
TOTAL PAGES IN THIS TRANSMISSION, INCLUDING COVER SHEET 4

Attached please find a copy of an immediate cable we sent today providing you with our comments on the SARP Telecommunications PID/PAIP.

Sorry for the delay, but we are currently very short on staff and are under a rather heavy workload.

Regards,
Howard
Howard

| | | | |
|---------------------------------|---------------|--|---------|
| R E C E I V E | DATE | | |
| | DIR | | |
| | DD | | |
| | FRM | | |
| | CONT | | |
| | GDO | | |
| | FDIS | | |
| | EXO | | |
| | LIB | | |
| | CHRON | | |
| | RF | | |
| | DUE DATE | | 5/18/93 |
| | ACTION TAKEN | | |
| | INITIALS/DATE | | |

BEST AVAILABLE COPY

1993
P.O.S.

107

Optional Form 10-77
DEPARTMENT OF STATE
5010-102

OUTGOING TELEGRAM

TEL. NO.

PAGE

UNCLASSIFIED
AID 05/18/93
DIR:HRHANDLER
AD:DRMANDEL:JS
NONE
CHG AID RF

ORIGINATOR
AMEMBASSY GABORONE
AMEMBASSY HARARE, IMMEDIATE

AIDAC

E.O. 1256:N/A
SUBJ: SARP TELECOMMUNICATIONS SECTOR DEVELOPMENT
PROGRAM (690-0274) PID/PAIP

REF: HARARE 005219

1. USAID/BOTSWANA APPRECIATES THE OPPORTUNITY TO
COMMENT ON THE SUBJECT PID.

~~2. BOTSWANA TELECOMMUNICATIONS IN BRIEF~~

A. ON THE PLUS SIDE, BOTSWANA HAS DEVELOPED A RELIABLE
AND EFFECTIVE TELECOMMUNICATIONS NETWORK WHICH IS
PROBABLY AMONG THE BEST IN SUB-SAHARA AFRICA.
IMPLEMENTATION OF THE GOB'S PLAN TO PROVIDE 90 PERCENT
OF THE POPULATION OF THE COUNTRY WITH ACCESS TO TELECOM
SERVICES THROUGH A FIBEROPTIC NETWORK IS UNDERWAY. THE
PARASTATAL BOTSWANA TELECOMMUNICATIONS COMPANY IS
MANAGED BY BRITISH CABLE AND WIRELESS UNDER A CONTRACT
WITH THE GOB. THE COMPANY OPERATES IN THE BLACK. GOB
REGULATORY POLICIES ARE ESSENTIALLY SOUND.

B. ON THE NEGATIVE SIDE, BOTSWANA HAS ONE OF THE MOST
EXPENSIVE TARIFF STRUCTURES IN AFRICA. RECENTLY, THE
GOVERNMENT OF BOTSWANA RENEWED BRITISH CABLE AND
WIRELESS'S CABLE AFTER NEGOTIATION WHICH AMOUNTED TO
BOTH SIDES PLAYING CHICKEN. AT ONE POINT, WITH ONLY A
FEW DAYS LEFT BEFORE BRITISH WIRELESS SAID IT WOULD
PULL ITS PEOPLE OFF THE JOB, MEMBERS OF THE GOVERNMENT
WERE SCURRYING AROUND TO SEE IF OTHER DONORS COULD HELP
RUSH IN QUALIFIED EXPATS TO FILL THE GAP. APPARENTLY
THE GOB FINALLY CONVINCED THEIR CONTRACTOR THAT THEY
WOULD NOT CAVE IN, AND AN ACCEPTABLE DEAL WAS STRUCK.

UNCLASSIFIED

CLASSIFICATION

3. WE RECOGNIZE THAT BOTSWANA IS NOT AN APPROPRIATE

103

PLACE FOR MOST OF THE ACTIVITIES PLANNED UNDER THE SUBJECT PROJECT. HOWEVER, THE GOB HAS BEEN RECEPTIVE TO PRIVATIZATION IN OTHER PUBLIC SERVICE AREAS (E.G. SOLID WASTE COLLECTION AND DISPOSAL) AND IS STRONGLY PRIVATE SECTOR ORIENTED. GIVEN ITS RECENT EXPERIENCE, THE GOB OFFICERS CHARGED WITH REGULATING BOTSWANA TELECOMMS WOULD ALMOST CERTAINLY WELCOME THE OPPORTUNITY TO EXPLORE ALTERNATIVE MODES OF MANAGING THE COUNTRY'S TELECOMMUNICATIONS NETWORK INCLUDING OTHER APPROACHES TO PRIVATIZATION. THE GOB WOULD TAKE ADVANTAGE OF EVERY TRAINING OPPORTUNITY OFFERED. FINALLY, THE GOB WOULD BE AN ACTIVE PARTICIPANT IN DISCUSSIONS REVOLVING AROUND REGIONAL COOPERATION.

4. BOTSWANA TELECOMMUNICATIONS SYSTEM OFFERS A MODEL OF ONE APPROACH TO PRIVATIZATION. AS SUCH IT COULD OFFER A LABORATORY FOR LEARNING BOTH POSITIVE AND NEGATIVE LESSONS ABOUT THIS APPROACH. ALSO, WITH A WELL-DESIGNED TELECOMMUNICATIONS NETWORK WHICH FUNCTIONS VERY WELL INDEED, THERE COULD BE AN OPPORTUNITY TO USE BOTSWANA TELECOMMS AS A REGIONAL TRAINING SITE.

5. IN LIGHT OF THE ABOVE, WE HOPE THE PROPOSED PROJECT WILL INCLUDE BOTSWANA IN TRAINING AND SHORT TERM CONSULTANCIES AS WELL AS THE REGIONAL ASPECTS OF THE PROJECT. WE ALSO HOPE THE DESIGN TEAM WILL TAKE A CLOSE LOOK AT BOTSWANA'S SYSTEM TO SEE WHAT BOTSWANA CAN TEACH ITS NEIGHBORS AND TO DETERMINE WHETHER IT CAN BE USED AS A TRAINING SITE.

6. WE DO NOT BELIEVE THAT ABOVE DESCRIBED LEVEL OF PARTICIPATION IN A REGIONAL PROJECT IN ANY WAY CONTRAVENES CURRENT AID GUIDELINES ON NEW ACTIVITIES IN BOTSWANA. WE ALSO SUGGEST THAT BOTSWANA, WITH ITS ABILITY TO SELF-FINANCE THE EXPANSION OF TELECOMMUNICATIONS SYSTEM, IS A POTENTIALLY MORE FERTILE FIELD FOR THE MARKETING OF AMERICAN TELECOMMUNICATIONS EQUIPMENT AND SERVICES. A RELATIVELY SMALL EXPENDITURE ON TECHNICAL ASSISTANCE AND TRAINING WOULD INCREASE BOTSWANA'S EXPOSURE TO THE AMERICAN TELECOMMUNICATIONS SECTOR COULD PLAY AN IMPORTANT ROLE IN THIS EFFORT.

UNCLASSIFIED

104

PROJECT NAME IS ST-10

7. WE WOULD BE DELIGHTED TO ARRANGE MEETINGS WITH APPROPRIATE OFFICIALS FOR MEMBERS OF THE PROJECT DESIGN TEAM SHOULD THEY WISH TO EXPLORE BOTSWANA'S INVOLVEMENT IN THE PROJECT. KOLKER##

UNCLASSIFIED

105

I think that the PAIP/PID provides a good indepth series of analyses justifying the program from a policy, program and economics point of view. I would have, however, liked to have seen more information about how the program was going to be implemented, the types of technical assistance and the policy reform agenda in the three countries selected. I realize that this is an unfair criticism, since this is really what the PP/PAAD will do. This criticism simply comes from someone whose appetite was whetted and was anxious to learn more about the project.

Thanks again for sharing it with us and good luck with Washington. I hope that you get good participation in the review process in Washington. I have not been impressed of late with the quality of Washington reviews and issues.

Best regards to everyone,

Richard

If you did not receive all pages please phone (264) 61-225-935 as soon as possible

FOR USAID USE ONLY

Message is: Official: _____
 Personal: _____
 Project No: _____

Fax Log No: _____

Authorized By: _____

107

Fourth Quarter 1992

SWAPS

After full commercialization has been realized, the relationship between the government and NITEL will be regulated by a performance agreement. Under this legally enforceable agreement, NITEL's management board will guarantee that the company will attain agreed-upon levels of financial and operating performance in return for increased operational autonomy. The agreement will be valid for three years, during which time no material modification of its clauses and performance targets will be allowed.

In addition to the performance agreement, a monitoring arrangement will be established to ensure the effectiveness of the agreement. The Directorate of Finance and Investment in the TCPC Secretariat will be responsible for carrying out this arrangement, which will entail participation in negotiation, arbitration, and monitoring of expenditures as well as periodic and annual reports.

Although the institution of commercial principles has been slower than expected, some commentators are looking beyond commercialization and calling for privatization. Long-term plans do not rule out this possibility. Observers also look to see the ultimate independence of local telecommunications agencies, although the TCPC reform package did not recommend any change in NITEL's current geographic organization. Corporate headquarters, zonal offices and territorial offices are expected to remain in place. Long-term plans, however, do call for the zones to become self-sustaining, independent telecommunications companies.

Regional Cooperation

The Nigerian government recognizes the importance of regional cooperation and is talking with neighboring governments about harmonizing technical standards and collaborating on joint research and development projects. Such cooperation would help defray costs and encourage technical advances. In addition, it may help Nigeria and its neighbors to avoid some of the pitfalls that other, more advanced countries have experienced when they have invested large sums in systems with only limited application.

Jamaica Opens Telecom Ownership to the Public: The privatization of Telecommunications of Jamaica (TOJ) in 1988 was a highlight of the privatization program that Prime Minister Edward Seaga began in 1985. The TOJ privatization, like other elements of his privatization plan, was characterized by share offerings, which not only financed the program's implementation but also encouraged broad-based ownership of national assets among the general public, stimulating the growth of the local capital markets and stock exchange. The Jamaican privatization program is noteworthy for the efficiency and effectiveness with which it mobilized domestic capital and brought thousands of small investors into the market for the first time.

Fourth Quarter 1992

SWAPS**Telecom in
Jamaica before
Privatization**

The significance of the TOJ privatization can best be understood in the context of the history of telecommunications in Jamaica. In 1966, JATELCO obtained an exclusive license to provide telephone and telex service in Jamaica and, with funding from the World Bank, initiated a five-year development program. The company was owned by Telephone and General Trust Limited of London until 1967 when Continental Telephone, a U.S. company, acquired 50.2 percent of its common stock. In 1973, U.S. ownership of the company increased to 68 percent. At the same time, JATELCO issued 4,500,000 shares to the Jamaican government, giving the government a 10 percent state. Just two years later, Continental sold its entire holdings to the government, making JATELCO 78 percent state owned. Subsequent stock purchases increased the Jamaica's holdings in the company to 90.25 percent.

The government's role in providing international service was not as prominent, but it was significant. Cable and Wireless (C&W) established international service from Jamaica in 1938. In 1970, an agreement between the Jamaica and C&W created JAMINTEL, with share capital of \$J15 million. The Jamaican government held 51 percent share of JAMINTEL.

**On the Brink
of Change**

As a preliminary to partial privatization, the Jamaican government formed TOJ in 1987 as a holding company for JATELCO and JAMINTEL, which each retained their separate identities. Both C&W and the government transferred their holdings in the domestic and international carriers for shares in TOJ. After some negotiation between the Jamaican government and C&W, the Jamaican government held a 53.1 percent share, C&W held 39 percent, and other shareholders held 7.9 percent.

As of December 1987, Jamaica had 167,857 telephones and in 1988, at the time of privatization, line density was 3.55 per 100 inhabitants, which met just 63 percent of expressed demand. TOJ provided telex and telegraph services as well as data services through a packet switching network and handled over 1,000,000 local and international outgoing calls annually.

Eighty percent of the total volume of international traffic was with the U.S. while Canada and U.K. accounted for 8 percent and 6 percent respectively. As of March 31 1988, the average net payment to JAMINTEL for telephone traffic from the U.S. was US\$2.333 million per month, which made the company a major foreign exchange earner for the Jamaica.

**Strategies for a
Successful Share
Offering**

In privatizing TOJ in 1988, Jamaican planners hoped to increase this inflow of hard currency. The Jamaican economy was severely weakened during the 1980s, pulled down by its high debt burden and the resulting fiscal deficit. These problems prevented the government from allocating the funds needed to modernize the system and to meet growing demand. Privatization represented the only viable option but it could not lead to an interruption in service.

Fourth Quarter 1992

SWAPS

The Jamaican government decided on a share offering as a way of defusing opposition to privatization. In structuring the offering, which was designed to reduce its holdings to 40 percent, it set two priorities. One was to sell shares to individuals who already had an interest in the phone company. It reserved 1,750 shares for every existing residential phone line.

The other objective was to involve employees in the ownership of the company. The government reserved some 21,100,000 shares, about 2 percent of TOJ's share capital for permanent, full-time employees regardless of seniority or years of service. Employees were allowed to apply for up to 8,000 shares.

Under the plan, the first 80 shares were made available free of charge. The next 1,400 were matching shares, one free for each share purchased at the offering price. And the next 3,320 were discounted 10 percent. Another 3,200 priority shares were made available to employees at the offering price. Employees were not permitted to transfer free shares for two years and could transfer matching and discounted shares during the two-year period only to other eligible employees.

In order to assist employees even further in the purchase of the shares, TOJ, JATELCO and JAMINTEL provided interest-free loans to employees which could be repaid through salary reductions over five years.

A Supportive Environment

The TOJ shares have proven to be a good buy. The TOJ stock has risen from J\$.88 to J\$8.00, a 900 percent gain, in the 4½ years since listing, while the Jamaican dollar has declined some 400 percent in value against the U.S. dollar. This resulting price rise appears to correlate with the real growth and substantial of TOJ.

An important reason for the success of the TOJ is that Jamaican government created a favorable regulatory and business environment. The regulation of this sector is contained in the shareholder agreement between the government and licenses granted to JATELCO and JAMINTEL. Applications for rate adjustments are made to the Ministry of Public Utilities and Transport which may approve new rates or refer applications to arbitration. JATELCO and JAMINTEL are entitled to charge rates which are sufficient to yield a return of at least 17.5 percent and at least 20 percent of shareholders' equity.

Another reason for the TOJ's success is that there are virtually no competitors in its market. In 1988, TOJ was granted a 25-year exclusive license which was assigned to JATELCO. This license is renewable for another 25 years unless the government chooses to acquire JATELCO. The licenses require that the company maintain a modern, integrated telephone network and authorize the Minister of Public Utilities and Transport to monitor the standard of service the company delivers and to work with the company officials to develop investment programs. The government awarded the monopoly in exchange for C&W's commitment to expand the network.

The only exception to TOJ's dominance is the Digiport, a joint venture of

Fourth Quarter 1992

SWAPS

TOJ, C&W, and AT&T that services international traffic in the Jamaica Free Trade Zone, and AT&T direct service, which is available to anyone in Jamaica.

Harnessing Private Initiative

C&W has been true to its word, and expansion and improvement to the Jamaican telecommunications system are underway. In the meantime, the privatization of TOJ has become a textbook case for countries around the world seeking to bring their system into the twenty-first century.

Privatization Through Direct Investment: Venezuela has had the reputation of having one of the least efficient telecommunications systems in the world. The country's telecommunications provider, Compania Anonima Nacional Telefonos de Venezuela (CANTV) was known for its rule-bound, bureaucratic management style, its outdated and often inoperable equipment, and its dismal customer response time. But the moribund company was revitalized with the introduction of a new partner, a GTE-led consortium that paid \$1.89 billion dollars for a 40 percent ownership and management control of the company. The GTE- players have a majority on the nine-member board and guaranteed management responsibility until 2000.

Finding the Right Partner

The GTE- led consortium bought its 40 percent interest in CANTV from the government at the end of 1991. As part of the arrangement, the government turned over 11 percent of CANTV to its approximately 20,000 employees in an effort to ease labor's fears about the privatization, and retained 49 percent. Within the five-member GTE consortium, GTE has a 51 percent share and overall operating control of CANTV, and AT&T has a 5 percent share and control of international business. GTE was careful to bring local companies into the group. Telefonica and Electronicad Caracas each have a 16 percent share each, while Caracas-based Banco Mercantil (CIMA) holds the remaining 12 percent share. All three of the smaller shareholders are involved with this project for investment opportunities, although Electronicad Caracas is also seeking an opportunity to utilize its extensive rights of way throughout Venezuela.

The privatization agreement gives GTE and its associates breathing space to modernize the company and earn a profit if they're successful. Competition is limited during a period of exclusivity set forth in the concession agreement with GTE. The consortium will enjoy 9-year exclusivity for switched services. Private-line competition will be permitted, although the competitor's rates must be equal to those of CANTV for the first five years. Cellular competition will also be permitted. The government negotiated its pricing agreement with GTE with the idea of protecting the consumer, while allowing CANTV the freedom to rationalize its pricing structure. The government established a price cap that is indexed to

Fourth Quarter 1992

SWAPS

inflation and allowed controlled rebalancing to reduce rate cross-subsidies.

**There's No
Escaping Change**

GTE's investment in CANTV is part of the privatization program initiated by President Carlos Andres Perez. Perez's program has generated strong opposition and has been seized on by opposition groups as a rallying point. Nonetheless most observers agree that reform of CANTV is essential.

Presently, CANTV provides all telecommunications services including voice, data, video, and new services in the country. It operates 1.6 million access lines for Venezuela's 20 million people, giving it a telephone density of 8 per 100 inhabitants.

Call Waiting

At the moment, CANTV is concentrating on improving its service. Only one-third of the system's international calls are completed and less than half of the local calls connect on the first attempt. More than 18,000 of the country's 31,000 public phones are broken, and approximately 15 percent of the main cables do not work. In addition, there is a long waiting period for connection and an expressed demand of over 1 million telephones, with real demand expected to be much higher.

In order to meet this crush of orders, CANTV has set itself the goal of having over 4 million lines in place by the year 2000 and has initiated an investment program of \$700 million a year until the turn of the century.

CANTV's other main objectives include constructing central offices and rationalizing its billing and collections procedures, revamping its rate structure so that long-distance calls no longer subsidize local calls, and trimming staff. GTE is approaching the issue of reducing CANTV's top-heavy bureaucratic staff carefully, because layoffs are politically sensitive. It is attempting to reduce staff by attrition and is transferring and retraining workers to increase their productivity.

**Taking the
First Steps**

Despite these challenges, service was greatly expanded in 1992. The company repaired half the out-of-service trunk lines, installed 413,000 new lines, connected 210,000 new subscribers, and installed 45,000 new public telephones. To mobilize financial resources for this expansion, CANTV issued commercial paper totalling 551 million Bolivars. In 1993, the company hopes to install 450,000 new digital lines, connect 250,000 new subscribers, and install 5,000 new public telephones, for a total investment of 650 million Bolivars.

Under GTE's leadership, CANTV is expected to become a more forward-looking company and a more active participant in CITEL, the telecommunications arm of the Organization of American States. CITEL meets regularly on a regional basis to discuss telecommunications issues such as the harmonization of technical standards and research and development. CITEL held its latest round of talks at the end of January.

The government has announced its intent to sell off its remaining 49 percent share, worth an estimated \$2.3 billion. Despite the considerable progress achieved

e/12

Fourth Quarter 1992

SWAPS

A New Vision

in just a year, many inside the country still feel that by privatizing CANTV completely, the Venezuelan government would be selling off one of its most valuable resources and potentially compromising national security. The government's Venezuelan Investment Fund (which oversees the privatization effort) and the Venezuelan congress must approve plans for complete government divestment, so that additional privatization is by no means assured. The strongest case the government can make for privatization would be to point to continued improvements in service. Hopefully, with GTE at the helm, it will be just a matter of time before business sense overcomes ideological scruples.

New Zealand Plan Combines Privatization Strategies: The privatization of New Zealand's telecommunications industry is a striking success story that illustrates the use of a variety of modalities to create an efficient, modern telecommunications industry.

In 1987, policy makers successfully commercialized the government-run, Telecom Corporation of New Zealand (TCNZ) and in three years transformed it into a profitable, marketable institution capable of being privatized. Prior to commercialization, TCNZ was under the auspices of the Post Office, which did little to improve its service, upgrade its information systems, or trim its bureaucracy. During commercialization, the company overhauled equipment, improved service, lowered rates and trimmed staffing by a third.

In 1990, a consortium led by Bell Atlantic and Ameritech purchased the company for \$2.4 billion. As part of the purchase agreement, they agreed to sell 50.1 percent of TCNZ. Bell Atlantic and Ameritech each reduced their holdings to 24.95 percent by selling 5 percent stakes to two New Zealand companies and by offering approximately 40 percent on the open market in June of 1991. Approximately 33,000 New Zealanders and other investors purchased shares, and in the process, TCNZ became the only New Zealand company listed on the New York Stock Exchange.

The Importance of Deregulation

The unique feature of the government's efforts to revitalize its telecommunications sector was the complete deregulation, an approach that has produced one of the most open telecommunications markets in the world. Deregulation proceeded in three stages. In October 1987, competition was allowed for the installation of residential wiring and the provision of telex machines. In March 1988, commercial wiring and sale of telephone was deregulated. And in April 1989, the government lifted control over the sale of key systems and PBXs.

As a result of deregulation, TCNZ does not have the New Zealand market to itself, although it is the dominant force. CLEAR Communications is TCNZ's