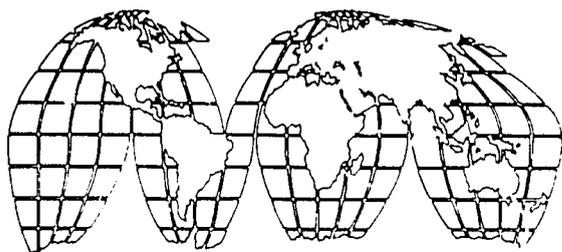


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The Sustainability of U.S. Funded  
Health Programs in Botswana 1972 -  
1989:

*Study Design and Preliminary  
Findings and Analyses*

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

D R A F T   W O R K I N G   P A P E R   \*

THE SUSTAINABILITY OF U.S. FUNDED HEALTH PROGRAMS IN  
BOTSWANA, 1972-1989

Study Design  
and  
Preliminary Findings and Analyses

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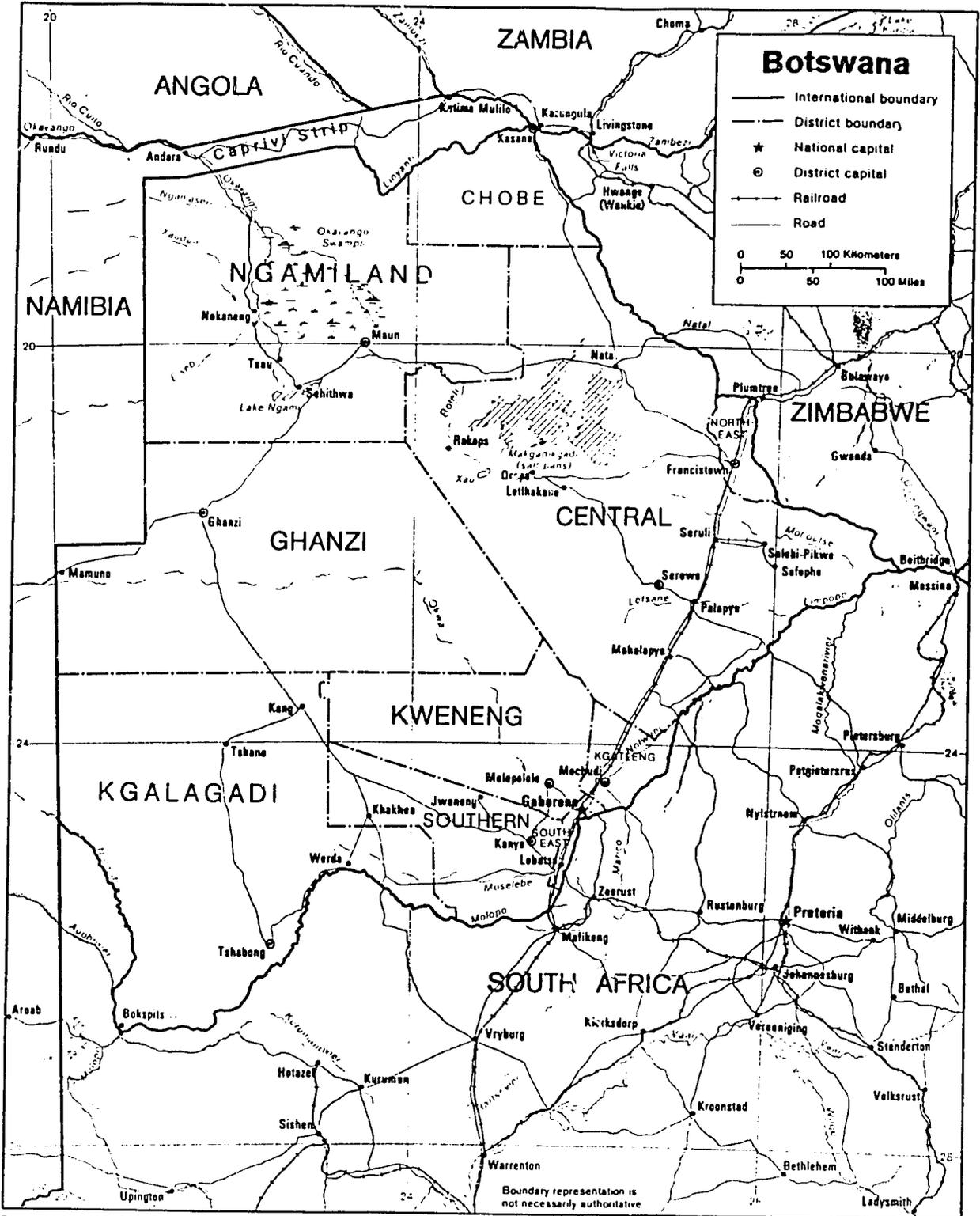
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\* This Working Paper presents the study design for fieldwork to be conducted in Botswana \_\_\_\_\_, 1989. The paper provides selected background, working hypotheses, and tentative findings and preliminary analyses to be amplified, tested and revised during the fieldwork.

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## EXECUTIVE SUMMARY

This working paper looks at U.S. government funded health projects in Botswana since the initiation of U.S. involvement in this sector in 1972. The study focuses on health project sustainability, i.e., the degree to which outputs and benefits (outcomes) of U.S. government-funded health projects were continued in the period three to five years after U.S. funding ceased.

The paper comprises phase one of a two-stage study. It consists of a desk review conducted in Washington based on documents and limited interviews. The second stage of the study will be a field review to expand, test and modify the desk findings and analysis.

The purpose of the working paper is to:

- present the study design, the framework and methodology
- describe the specific projects in health, population, nutrition and water and sanitation in which the USAID has been engaged since the beginning of U.S. assistance to Botswana
- identify those activities and benefits which appear to have been sustained 3 - 5 years after project completion,
- propose tentative analyses of the preliminary sustainability findings which will serve as orientation and hypotheses for the field phase of the study

Sustainability is a relative phenomenon. Projects were deemed to be sustained if a significant portion of the project activities and benefits continued to be relatively efficiently maintained three to five years after AID funding had ceased.

Our preliminary review suggests that all health, population, nutrition and environmental sanitation projects exhibited sustainability of at least some project components. We found that the nurse training programs have been the most sustained projects in Botswana. The training components in both the Maternal Child Health/Family Planning and the redesigned Health Services Development projects appear to have been highly sustained. The planning capability of the Ministry of Health has improved significantly over the years, and we would infer that the early project providing for participant training to increase the number of trained Botswana and improve their planning skills contributed to this situation. Field confirmation must be sought.

Maternal Child Health/Family Planning services also appear to have been well sustained. Health education and nutrition project components appear to be sustained at a much lower level, perhaps even minimally. They are very dependent on continued donor support. It seems likely that at least some immediate outputs of the Environmental Sanitation project--latrines--may be sustained to some degree. Health education campaigns and refusal disposal activities were most likely not sustained. The least sustained (unsustained) activity was health administration.

Of fifteen factors hypothesized to be related to sustainability, certain ones stood out. These included:

1. National Commitment: The highly sustained projects, or project components, were activities about which there was substantial national consensus about their importance.
2. Project Negotiation Process: The least sustained activities, or project components, were those which seemed to be most imposed by A.I.D. Conversely, projects that had been actively solicited by Botswana were more likely to be sustained.
3. Institutional and Managerial Characteristics: Projects that were more sustained were more integrated into existing national administrative structures designed to promote project goals and objectives.
4. Project Technical Requirements: Training and personnel incentives, especially improved employment opportunities, appeared significantly related to sustained activities. Technical assistance that was appropriate and improved host country knowledge and capability was welcomed. Technical assistance that was inappropriate or did not provide for this transfer was inversely related to sustainability. Similarly, the appropriateness of the technology supported by the project intervention was significant for sustainability.
5. Financing: National absorption of project costs was the only financing factor that showed significant relationship to sustainability.

The findings and analyses of this working paper will be tested through field work in Botswana. Following revision, the Botswana case will be compared with other countries for broader generalizations about sustainability and implications for project design, implementation and evaluation.

## 1. INTRODUCTION

Why are the activities and benefits of some health development assistance programs sustained while others are not? Which contextual factors seem most important for sustainability? Which project characteristics? Do some types of health programs seem inherently unsustainable? How should sustainability be defined and measured? What guidance can we offer policymakers and project and program designers and managers? What type of research is called for in this area?

In 1986, the Center for Development Information and Evaluation (CDIE) initiated a group of studies with special emphasis on assessing the sustainability of health project and program activities and benefits after A.I.D. funding ends. The decision to conduct these studies followed a prior set of evaluations carried out by A.I.D. in the early 1980s to try to understand more about the impact (the actual effects) of its projects and programs in the health sector. The impact evaluations show clearly that many of those activities had difficulty continuing after outside assistance was terminated. Sustainability has become an important development issue in health (as well as in other sectors) for both lender/donor countries and borrower/recipient countries.

The studies undertaken by CDIE in this area have taken several forms, including literature reviews, syntheses of existing A.I.D. evaluation reports, field studies of single completed health projects, and field studies taking a broad, historical, sectoral perspective in specific countries. It is into this last category that the present study of Botswana falls.

### 1.1 Background

This case study focuses on the sustainability of U.S. government funded health projects in Botswana since the initiation of U.S. involvement in this sector in 1972. It is one of a worldwide series of studies, two of which have been completed in Central America and five of which are currently underway in Africa (Tanzania, Zaire, Senegal, Botswana and Ghana).

The Botswana study is being carried out in two phases. The first phase consists of a desk review conducted in Washington based on: 1. documents available in Washington, and 2. limited interviews with professionals who have had experience in Botswana working on past projects, or who have knowledge concerning the recent or current status of past project activities or benefits.

The product of the first phase is a working report (the current paper) which: 1. presents the study design, the

framework and methodology, 2. provides important general, historical information on the context variables which will be drawn upon in subsequent analyses, 3. describes the specific projects in health, population, nutrition and water and sanitation in which the USAID has been engaged since the beginning of U.S. assistance to Botswana, 4. suggests specific areas for field investigation, 5. identifies in a preliminary way which activities and benefits appear to have been sustained 3 - 5 years subsequent to project completion, and which have not, and 6. proposes tentative analyses of the preliminary findings which will serve as orientation and hypotheses for the field phase of the study.

The second phase of the study will involve brief, in-country fieldwork by a three to four-person team comprising AID/W personnel and local Batswana. The objective of the field phase is three-fold: to research, explore, expand and verify the findings and analyses of the working paper, to provide an opportunity for discussion of issues of project sustainability, and to disseminate study findings and conclusions.

## 1.2 Purpose

This study focuses on health project sustainability: the degree to which outputs and benefits (outcomes) of U.S. Government-funded health projects were continued in the period up to 5 years after U.S. funding had ceased.

This study is pioneering in several ways. By examining the sustainability of projects, it focuses on an issue of current concern in the Agency, but one that has not necessarily been a major objective of past or current projects. It therefore does not assume that sustainability was an objective of the initial projects. Indeed, some earlier projects, e.g., malaria eradication projects conducted by A.I.D. in the 1960s, assumed that once they achieved their objectives, project activities could cease and the benefits would continue. It is also recognized that other objectives, such as achieving immediate short-term benefits, might be viewed as more important priorities than the long-term sustainability of project activities and benefits.

Furthermore, although the effectiveness of projects is examined as a factor that might contribute to sustainability, this analysis is not an impact evaluation. In a long-term historical perspective such as this one, we were not attempting to achieve the rigor and detail of an impact evaluation-- although we make extensive use of prior impact evaluations.

## 1.3 Definition of Sustainability

This study examines the concept of sustainability from the historical perspective of determining what was sustained after the U.S. government funding was terminated. Projects are

judged to be sustained if project activities and benefits continue after A.I.D. project funds have ceased. This definition is expanded and operationalized in section 2.3, The Sustainability of Projects, below.

## 2. STUDY DESIGN

This study employs the analytic framework and methodology for examining sustainability in a comparative historical perspective developed in earlier sustainability studies in this series.

### 2.1 Conceptual Framework and Methodology

The analytic framework is a systems analysis which examines a central system around each AID project. The system examines: 1) the conditions in the health sector before the project began; 2) the goals and objectives of the project; 3) the inputs in funds, materials and technical assistance provided by the project; 4) concurrent activities by the national government and other international donors; 5) the implementation process of the A.I.D. project; 6) project outputs in terms of human resources, physical constructions, and institution building; 7) project outcomes: the health benefits gained by the national population; 8) the status of outputs and outcomes at least 3 - 5 years after the project terminated; and 9) the longer-term and unintended consequences of the project.

The methodology used in previous studies identified fifteen major contextual factors and project characteristics that were hypothesized to influence sustainability. These factors were proposed following extensive review of the issue of sustainability, and on advice received in the field and in briefing sessions. The study in Botswana will modify the original methodology if this seems warranted during our research, but will retain the comparative facility inherent in the original project design. (Table \_\_\_\_)

For each project, we will make judgements about the relative degree of sustained activity after the life of the project. After identifying project outputs which were relatively more sustained we will compare the characteristics of these projects, and their context, to those of projects with outputs which were relatively unsustainable. These comparisons will be made with regard to both contextual factors and project characteristics which, based on previous studies and on the team's observations, were hypothesized to have an effect on project sustainability.

## SUSTAINABILITY FACTORS

### 1. Contextual Factors

- 1.1 Natural Disasters
- 1.2 Political
- 1.3 U.S. - Botswana Bilateral Relations
- 1.4 Socio-cultural
- 1.5 Economic
- 1.6 Private Sector
- 1.7 Implementing Institution
- 1.8 Donor Coordination
- 1.9 National Commitment

### 2. Project Characteristics

- 2.1 Project Negotiation Process
- 2.2 Institutional and Managerial Aspects
  - 2.2.1 Vertical vs. Integrated
  - 2.2.2 Administrative Leadership
  - 2.2.3 Administrative Component and Training
- 2.3 Financing
  - 2.3.1 National Absorption of Project Costs
  - 2.3.2 Foreign Exchange Demand
  - 2.3.3 Substitution Demand
  - 2.3.4 Cost Recovery
  - 2.3.5 Cost-Effectiveness
- 2.4 Content Aspects
  - 2.4.1 Project Design
  - 2.4.2 Training
  - 2.4.3 Technical Assistance
  - 2.4.4 Appropriate Technology
- 2.5 Community Participation
- 2.6 Project Effectiveness

## 2.2 Contextual Factors and Project Characteristics Affecting Sustainability

In the following section we will discuss each of the factors and present specific hypotheses to be examined in the current study. Subsequently, we will examine each hypothesis in case studies of the four major U.S. Government- supported health projects in Botswana over the last 20 years.

### 2.2.1 Contextual Factors

Several characteristics of the context in which projects are implemented may affect the sustainability of the project after the end of the project. These factors are not subject to the control of project designers or project managers but rather are factors which should be taken into account in project design and implementation. When faced with contextual factors which are likely to undermine the sustainability of a project, project designers and managers should modify projects so as to reduce the effect of these conditions on the project or should consider the implications of designing and implementing a project which is not likely to be sustained.

Some projects may be more influenced by these contextual factors than other projects. These characteristics may change over time within a nation and they may form a basis for comparison with other countries.

When we complete our series of five studies in Africa we will be able to compare national characteristics among them, and also relate these findings to those in Latin America.

#### 2.2.1.1 Natural Disasters

We hypothesized that natural disasters would have inhibiting effects on the continuation of project activities and benefits. The logic underlying this hypothesis was that disasters would divert both attention and resources from normal development activities. Most natural disasters tend to require immediate, urgent assistance to provide food, water and shelter, prevent disease outbreaks, or administer urgent medical care. At a minimum the effect might be to interrupt or dilute the activities; in extreme cases they may force the cancellation of activities which might not be reinitiated at a later time. This is particularly true of health, nutrition, and water resource development projects.

#### 2.2.1.2 Political Regime

Characteristics of political regimes which may influence the sustainability of specific projects are: the strength of the state and its capacity to redistribute national resources. We hypothesized that 1) a strong state is more likely to be able to assign and maintain higher levels of resources in social sectors

like health and therefore is more likely to be able to sustain health projects, 2) a progressive regime, i.e., one more committed to social reorganization, is more likely to sustain health programs than a status quo regime, 3) a more stable regime, which maintains regular and orderly changes in leadership in political and bureaucratic positions, provides a more conducive environment for sustainability, and 4) regimes characterized by nationalistic sensitivity will be less conducive to sustain foreign supported projects. (Bossert, "Can We Return to the Regime for Policy Analysis," Comparative Politics, 1983)

### 2.2.1.3 Bilateral Relations

Relations between the U.S. and the host country may also affect sustainability. Good relations facilitate communication and provide a more responsive environment which is likely to result in projects that are better adapted to the local situation. We hypothesized that projects implemented or completed during periods of good relations would be more likely to be sustained.

In this section we also consider the changes in US government development policies in the health sector. US policy in health shifted from an emphasis in the 1960s on infrastructure and water development, to an emphasis in the 1970s on primary health care and an attempt to reach the "poorest of the poor." In the 1980s policies shifted again to a focus on child survival activities. These policy changes may undermine the sustainability of other activities, especially if support is abruptly or radically shifted or withdrawn, with no transitioning or ameliorating plan.

### 2.2.1.4 Social and Cultural Context

Sociocultural factors may affect the implementation and sustainability of health projects in a variety of ways. Perhaps most important for this study are the potential barriers between the cultures of the implementers and the beneficiaries. These barriers can lead project designers to propose and attempt to implement activities that are unacceptable to the intended beneficiaries. Since some activities designed to improve health in a population must alter established social and cultural patterns, projects must be designed to be sensitive to the effective means of altering behavior within acceptable cultural boundaries. These factors may be particularly important for projects which expect significant levels of community participation.

We hypothesized that characteristics of sociocultural context which are likely to encourage sustainability of projects are: 1) cultural homogeneity, 2) egalitarian distribution, 3) equal access to power, and 4) sexual equality. Where there are particularly marked sociocultural distinctions between groups cultural conflict must be overcome.

#### 2.2.1.5 Economic Context

Changes in the economic well being of the nation are likely to influence the sustainability of most projects. Projects that require national resources will be more likely to be sustained in periods of growth than they would be during periods of economic decline. We will examine each project within the context of the national periods of economic growth and decline.

A second economic factor is the portion of national economic resources available to the government. A Government with a large tax base may be able to devote more national resources to maintaining projects after foreign funding has been terminated. A larger government sector may even be able to weather brief periods of economic decline and provide resources for sustaining projects.

A third aspect of economic resources is confined to the health sector. Projects are implemented within an economic sector in which tradeoffs are implicit. If the health sector is devoting a large portion of its resources to urban based curative health systems, in particular costly hospitals, it may be less likely to shift resources to the AID supported rural primary care activities after the AID funding stops.

#### 2.2.1.6 Private Sector

We hypothesized that the private sector health providers and the existence of an effective network of PVOs to implement AID projects are contextual factors which might influence the sustainability of projects. In some cases, AID supported projects incorporate the private sector in relatively effective ways into health delivery system projects. For the most part, however, these services are competing for clients and funding with the public health services that receive most of AID funding.

Another portion of the private sector is the PVOs and other private sector institutions which act as implementing agencies for AID and other donors. Sometimes PVOs provide effective alternative implementing institutions for AID projects. However, sometimes they also compete with each other for clients. And they may have their own institutional routines that are not conducive to sustainability when funding ends. PVO projects may also be small and constitute a difficult project management problem.

#### 2.2.1.7 Implementing Institutions

Some AID projects can have major impact on the structure and capacity of implementing institutions. However, in most cases, at least initially, AID projects are implemented within the existing institutional structures. The projects may be implemented by a variety of governmental organizations, and by non-governmental organizations as well, although the most prominent organization is often the Ministry of Health.

Six characteristics of these institutions were hypothesized to undermine sustainability: 1) rapid turnover and low quality of top officials, 2) centralization of decision-making, 3) fragmentation of authority and responsibility, 4) low skill levels of personnel, 5) conflicting organizational goals, and 6) for PVOs, the existence of competition among them for funds or beneficiariaries.

#### 2.2.1.8 Donor Coordination

While AID may try to influence other donors and attempt to coordinate activities with them, in most cases, AID must work within a context in which other donors define their own objectives and activities. There are few instances of clear and explicit coordination among donors in the countries we have examined. We hypothesized that donor "bandwagons" would jeopardize sustainability, whereas donor coordination that provided for either explicit division of labor (with one agency providing support for one type of activity while another would support other programs) or sequential support (with one donor providing follow-on funds for the activities of another) was more likely to be conducive to the sustainability of project activities and benefits.

#### 2.2.1.9 National Commitment to Project Goals and Objectives

Previous studies have found that national commitment to project goals and objectives was one of the most important factors related to project sustainability. This factor is defined as the degree of national consensus on project goals and objectives and is conceptually distinct from commitment of national financial resources. Consensus is identified by the lack of conflict in the political and bureaucratic arenas. It is hypothesized that those projects which enjoy enduring national commitment are more likely to be sustained.

#### 2.2.2 Project Characteristics

The following factors are those project characteristics that can be altered and controlled by project designers and managers with much greater latitude for choice than is available for contextual factors.

##### 2.2.2.1 Project Negotiation Process

Related to national commitment is the degree to which a project is designed and implemented through a mutually respectful consensus building process. Projects which are seen as imposed by AID rather than as emerging through a process of mutually beneficial dialogue are hypothesized to be less likely to be sustained. Our studies will examine each project design phase with care to determine the extent of consensus gained in this process.

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#### 2.2.2.2 Institutional and Managerial Characteristics of the Project

This study will examine several managerial factors, as well as the administrative structure of projects and their institutional contexts.

##### a. Vertical vs. Integrated Project Design

We hypothesized that vertically organized projects which were not well integrated into the existing national administrative structure would be less likely to be sustained. PVO implementation of health projects may provide a special case of institutional organization characteristics. PVOs are alternative implementing agencies which usually are not expected to become integrated into the governmental structure. AID projects with PVOs therefore tend to be vertical projects.

##### b. Managerial Leadership

Other evaluations of sustainability have identified managerial leadership qualities as a significant aspect of sustainability. In this study we will explore the managerial capacity of the project and its implementing agencies. One factor of managerial leadership is the continuation of qualified personnel in key implementing positions. We hypothesized that rotation could undermine the potential for sustainability -- as well as effectiveness of projects.

On the other hand, projects which retain the same leadership, without periodic rotation, may make a project too closely identified with one person and undermine the sustainability of the project when or if that individual is replaced.

##### c. Administrative Systems and Training

We have hypothesized that projects which include effective reorganization and training in administrative capacity, will be more sustainable than projects with little managerial support.

#### 2.2.2.3 Financing

Within the context of the uncontrolled economic factors discussed above, several factors which project design and management can control may have an influence on sustainability.

##### a. National Absorption of Project Costs

We have hypothesized that projects which have an increasing share of project costs absorbed into the national budget during the life of the project will be more likely to be sustained than those which have not phased-in government funding. The logic of this hypothesis is that projects which have gained national budget lines are less likely to be cut off at the end of the

projects, than projects which would require major new national funding at the end of the project in order to absorb the costs previously covered by foreign funds. The effect of Economic Support Funds which often provide counterpart budgetary funding resources should be discounted here. In earlier studies in Honduras and Guatemala we found that the growth in ESF support of counterpart funding for health projects caused considerable concern.

b. Foreign Exchange Component

Since most AID recipient nations have on-going scarcity of foreign exchange, projects which require large and continuing foreign exchange expenditures for imported inputs were hypothesized to be less likely to be sustained than those which rely on nationally available resources.

c. Substitution Demand

Since resources devoted to the health sector generally are quite limited, any project which would demand the shifting of national resources in order to cover activities previously funded by foreign sources implies the withdrawal of resources from alternative uses of funding. We hypothesized that, given the generally static nature of health ministry budgets, projects which require greater substitution of resources will be less likely to be sustained.

d. Cost Recovery

It is assumed that if project activities can be supported by cost recovery mechanisms, including especially means of obtaining beneficiaries' payments, that these funds will provide a direct means of supporting the project activities after the AID funding has been terminated and thus contribute to sustainability.

2.2.2.4 Technical Requirements

Several factors of projects are related to the technical requirements of the type of project, such as the type and significance of the training component, the degree to which technical assistance is an essential component, and the appropriateness of the technology for the objectives and the context.

a. Training

Training projects and training components of projects with broader objectives are by reputation assumed to be more sustainable than other types of projects. Our central hypothesis is that projects with large training components are more likely to be sustained than those which do not train human resources. A corollary would be that even in large multi-purpose projects

which are not fully sustained, the training component, unless it depends directly on the continuation of the rest of the project activities, is likely to be maintained.

One central component of training projects that may be essential for sustainability, is the establishment of clear salaried positions within the MOH or private sector for all levels of workers except the voluntary community workers. Training projects that train workers with little prospect of obtaining steady employment are not likely to be sustained.

Appropriateness of the training program may also contribute to the sustainability of a project. Many training programs are designed to provide personnel for the broad objectives of providing service to the underserved populations. When training programs are evaluated, particular attention is paid to the curriculum and the location of training facilities. Training programs that provide curriculum designed for low cost, preventive-oriented service and are located in areas which encourage those trained to remain in underserved areas while performing their duties, are deemed likely to be more sustained than those programs which do not focus attention on the broad goals of most AID projects: providing for the needs of underserved populations.

Training in administration and management, as well as the effectiveness of training, will be discussed in the sections on project administration and effectiveness, respectively.

#### b. Technical Assistance

We hypothesized that projects which had large sized technical assistance and which did not provide for the increasing development of host country capability were least likely to be sustained. We also expected that technical assistance that was of long duration was more likely to provide for a transfer of knowledge and capability than were short term consultancies.

#### c. Appropriate Technology

In several cases, it appears that the technology supported by U.S. government projects may have been inappropriate for the objectives. For instance, the use of certain insecticides in the malaria projects, even after their effectiveness was questioned in the U.S. is an example of inappropriate technology. We hypothesized that projects which used demonstrably appropriate technology are likely to be sustained. Conversely, those that used demonstrably inappropriate technology are not likely to be sustained, nor should they be sustained.

#### 2.2.2.5 Community Participation and Acceptance

Many projects are designed to encourage community participation and require community acceptance in order to be effective. Both these factors may be necessary for project activities and benefits to be continued after the AID funding has ceased. We hypothesized that community participation and acceptance will generate demand for the project services by the beneficiaries and thus promote sustainability.

#### 2.2.2.6 Project Effectiveness

Many elements may have to be present in order for a project to be effective. We have suggested several elements, such as effective and appropriate training, acceptability by the community, etc. However, whatever contributes to effectiveness, we hypothesized that a project that is effective during its funding life is an important factor in determining sustainability.

Associated with effectiveness, is the appropriateness of project design and its clarity in defining objectives. We hypothesized that projects with clear and appropriate objectives, or with the flexibility to redefine objectives in order to apply project funds to changing needs or obstacles, will be more likely to be sustained.

### 2.3 The Sustainability of Projects

Projects are evaluated in terms of the degree of sustainability after the project funds have ceased. Sustainability is a relative phenomenon. Determining the degree of sustainability of a project is usually a complex and largely subjective process in which qualitative rather than quantitative data are examined, mainly because few sources for quantitative data for past projects exist. Projects are deemed to be sustained if a significant portion of the project activities and benefits continue to be relatively efficiently maintained after A.I.D. funding has ceased. Project activities can be identified as the entire project or separate sub-components of projects.

In previous studies we found it useful to define two different types of sustained outputs:

1. Those that were achieved during the life of the project and began to provide immediate benefits to the population--immediate outputs

2. Those that were designed to continue to produce immediate outputs--replicating outputs.

In other words, there is a difference between sustaining the auxiliary nurse who is trained by the project (immediate outputs) and sustaining the nursing school that will train new auxiliary nurses after the project ends (replicating outputs).

A second issue is the source of funding or financing for the continuation of activities. One aspect of this issue concerns national funding vis a vis other donor funding. Although it may be an objective of development projects to continue the stream of outputs and benefits with only national funds, governments have often been successful in obtaining funding from other donors in order to continue project activities initiated by U.S. Government funds. With many external donors providing funding for health projects, it is possible for national governments to continue health activities without having to allocate national funds to the programs.

A second aspect of the funding issue relates to the source of national funds. National funds may be either government sector funds or private sector funds. Increasingly, donors have set as a goal increases in private sector support.

The most sustainable projects would continue operation utilizing national funds, either public sector funds or private sector funds. However, we consider projects to be sustainable if alternative external financing is obtained for the continuation of project activities. We also differentiate levels of sustainability based on class of output, immediate or replicable. The most sustainable projects would sustain both immediate and replicable outputs, however, projects will be considered to have been sustained if only immediate outputs continue to be effective.

This evaluation will develop case studies of the four completed health projects in Botswana to analyze in depth these fifteen factors and the degree of sustainability of the projects. After identifying project outputs which were relatively more sustained we will compare the characteristics of these projects, and their context, to those projects with outputs which were relatively unsustained. Table \_\_\_\_\_, following, proposes a preliminary classification scheme for differentiating among levels of sustained activities and benefits, based on the dimensions of sustainability discussed below. The team will modify this classification to improve its usefulness to the study.

SUSTAINABILITY JUDGEMENTS:

DIMENSIONS OF SUSTAINABILITY

1. Type of Post-U.S. Funding:
  - a. National Funding/Central Level
  - b. National Funding/Local Level
  - c. Insufficient National Funding
  - d. Other Donor Funding
  
2. Type of Outputs/Outcomes:
  - a. Replicating Outputs
  - b. Immediate Outputs
  - c. No Outputs
  - d. Benefits (Outcomes) Continue

LEVEL AT WHICH SUSTAINED

- a. Exceeds Fully Sustained:  
National Funding/Replicating Outputs Continue  
No Funding Req'd/Benefits Continue
  
- b. Fully Sustained:  
National Funding/Immediate Outputs Continue  
Other Donor Funding/Replicating Outputs Continue
  
- c. Medium Sustained:  
Insufficient Nat'l Funding/Replic. Outputs Continue  
Other Donor Funding/Immediate Outputs Continue
  
- d. Low Sustained:  
Insufficient Nat'l Funding/Immediate Outputs Continue  
No Funding/Benefits Continue
  
- e. Unsustained:  
No Funding/No Outputs or Benefits Continue

### 3. THE BOTSWANA CONTEXT

3.1 The Land: Botswana is a landlocked country located in the center of Southern Africa plateau and bordered by Namibia, Zambia, Zimbabwe and the Republic of South Africa. It covers approximately 300,000 square miles of desert and savannah, an area roughly equivalent to the size of Texas. In climate and geography Botswana also shares characteristics with Texas. The southwest is dominated by the Kalahari Desert, while the Okavango and Chobe rivers lie in the northwest and north. Rainfall is seasonal, and erratic. Droughts occur regularly.

Botswana has abundant mineral wealth. From a modest and late start Botswana has in recent years moved into the position of world's foremost producer of diamonds. It also has copper, nickel, manganese, exceptionally large coal reserves, iron, chrome, platinum, asbestos, soda ash and potash.

3.2 Socioeconomic and Historical Background: The first European contact with Botswana was through missionaries in the early 19th century. The effective integration of Botswana (then Bechuanaland) into the South African economy began during the late nineteenth century mineral revolution in Africa, financed by British capital and facilitated by colonial administration. Prior to the establishment of formal apartheid in South Africa, it was assumed that Bechuanaland would ultimately become part of South Africa. In the eyes of the British government, Bechuanaland was never seen as a viable state. When it became obvious that neither political nor human considerations would permit Bechuanaland to become part of South Africa, a modest effort at development was made by Britain. This left Botswana with little infrastructure and few trained people at the time of independence in 1966.

3.3 The People: In 1984 the people of Botswana numbered approximately 1,051,000, 95% of whom belong to the Botswana ethnic group. Whites make up 1% of the population. The population is almost equally divided between christianity and indigenous beliefs. English and Setswana are the official languages. More than 83% of the population lives in rural areas and is dependent on subsistence farming and beef production.

3.4 Government: Botswana is a constitutional democracy and holds a general election to select a president and a National Assembly at least every five years. Voting is based on universal adult suffrage. Local government is carried out by 10 district councils and 4 town councils. Executive authority is vested in the district commissioner, who is appointed by the central government and

assisted by the elected and specially nominated district councilors and district development committees.

3.5 Political Conditions: Botswana has one of the the few flourishing, multiparty democracies in Africa. All minority groups, including whites, participate freely in the political process. The roots of Botswana's democracy go back to the Tswana traditions such as the kgotla, or village council, in which the powers of the traditional leaders were limited by custom and law.

The economic dependence of Botswana on South Africa does not extend to the political sphere. Botswana leaders look to black Africa for models of both foreign and domestic policy. Without actively supporting freedom fighters in South Africa or surrounding countries, Botswana territory has provided a friendly transit point for refugees. In addition, Botswana has established herself as a non-aligned country in the past by entering into diplomatic relations with the Soviet Union and the Peoples Republic of China.

3.6 Botswana Macro-Economic Environment and Changing Economic Structure 1966 - 1987: When Botswana became independent in 1966, it had a traditional economy and was then among the least developed countries in Africa. Per capita income was around \$50 per year, and the economy was highly dependent on the production and sale of cattle.

Botswana's economy underwent dramatic growth and structural change following independence. It moved rapidly to a very dualistic economy, where a small modern sector generates substantial resources through exports of beef, copper/nickel and, most importantly, diamonds--but with only a marginal impact on the lives of the majority rural Botswana. In 1986 the Bank reported that over the past ten years, Botswana had been the fastest growing economy in Africa (11 percent per annum). Per capita income was US\$910 in 1984, having risen from only US\$110 in 1970. By the end of 1986, reserves had reached 16 months of imports, and by mid-1987 Botswana's reserves equalled 18 months of imports of goods and services (27 months of merchandise imports). (IBRD, Country Briefs, Volume I, Africa Region, September 30, 1987) During this time, the country had achieved impressive progress in standards of health and education. (IBRD, June 1986, p. 9)

#### 3.6.1 Economic Shocks in Botswana's Growth

Botswana's rapid economic growth and budgetary balance of payments stability have been interrupted only twice since independence. First, world recession in the early 1980s

created a slump in the diamond market. The diamond crisis coincided with falling metal prices and with an outbreak of foot-and-mouth disease leading to a drop in meat exports.

Unlike many other countries in Africa, the government chose not to attempt to protect foreign reserves by massive overseas borrowing as it feared that the accumulation of a large foreign debt would lead to serious problems in the future if the diamond market did not recover. Rather, they minimized potential damage by adopting stringent adjustment measures while the economy was still healthy.

Secondly, the drought from 1982-1988 was one of the most severe in history. Rainfall is never more than marginal and the country experiences crop failures in two out of every five years. However, this was only the second drought in 65 years to have lasted more than five consecutive years. Production levels were drastically affected by the drought.

Botswana's response to the drought is noteworthy. Born of earlier drought relief experience, Botswana has established a permanent Drought Relief Program. The Early Warning Technical Committee (EWTC) is responsible for monitoring drought and its effects on the human population. Based on data inputs from the early warning system the most severely affected population groups are identified. A permanent Inter-Ministerial Drought Committee (IMDC) coordinates all drought relief, while the Food Resources Department acquires, processes and distributes food relief to the districts.

3.7 Goals and Development Strategies in Botswana: Botswana has had development plans since before independence. Pre-independence plans were basically a collection of public sector programs unrelated to each other or to any particular set of development goals. After independence, a planning unit was set up within the Ministry of Finance, followed in 1967 by a full-fledged Ministry of Development Planning. Besides drafting the Plan, the Ministry is responsible for obtaining development aid and for preparing and administering the development budget. (IBRD, The Economy of Botswana, Report No. AE-4a, October 10, 1969) Since that time, Botswana has followed the practice of devising a National Development Plan every five years and revising these plans every two to three years.

National development planning objectives, like all the Government's policies since independence are founded on four national principles or goals. These are "Democracy, Development, Self-Reliance and Unity." These principles are rooted in the traditional culture of Botswana. When applied in

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practice, they are designed to achieve kagisano--social harmony. (1)

The National Development Plan for the period 1973-1978 (NDP III) specified four basic objectives. These were: 1. rapid economic growth, 2. more equitable distribution of wealth and income, and access to services and opportunities, 3. economic independence, and 4. sustained production. Within the context of these goals and objectives two factors were constantly emphasized: economic independence and rural development.

The establishment of an industrial sector, based largely on mineral development, has been at the core of Botswana's quest for economic independence. The strategy pursued has been one of maximizing growth from mining to underwrite other activities.

Early Government investment was minimal in Botswana following independence. Public investment was limited by both recurrent costs and the government's limited capacity to plan and implement projects. Most investment resources were of external origin.

Furthermore in the early years following independence there was little external donor assistance available to Botswana. The IBRD provided some assistance, and there was also a small amount from Scandinavian countries. For the most part, however, Botswana did not attract major donor support at that time. They lacked the resources to plan and manage, and they could not provide matching funds for most activities. (See early IBRD reports)

In general, Botswana's policies reflect an effort to develop a modern industrial sector through infusion, while underwriting the preliminary steps toward rural change with local resources and initiative. The basic strategy has been to establish local institutions to direct rural development and ease demands for services placed on the central government. District councils were established as "democratically elected (bodies) with important local government functions and a vested interest in local development, able to contribute towards the general progress of the country by their ability to mobilize self-help in its various forms and to administer local projects of economic and social betterment." (quoted from Ministry of Finance and Development Planning, NDP, p. 134 in Vengroff p. 169)

Strategically, the basic aim has been to establish local institutions capable of encouraging mass participation and popular control, while minimizing demands for the limited

development funds available to the central government. Representative district councils, village development committees, and traditional authorities are looked to in the hopes of building a rural infrastructure with local resources and responsive to local needs. The intent has been to institutionalize rural organizations designed to induce change to the point where future resources freed from the urban-industrial sector can be profitably redirected to meet the needs of the rural population. (p. 18)

3.8 U.S. Development Assistance to Botswana: Early U. S. interests in Sub-Saharan Africa, generally, were largely shaped by the British presence on the continent. U. S. assistance was viewed as a means of ensuring the peaceful transition of newly independent nations to governments oriented toward the Western point of view. (An Assessment of A.I.D. Activities to Promote Agricultural and Rural Development in Sub-Saharan Africa, A.I.D. Evaluation Special Study No. 54, April 1988.) Other U.S. foreign policy objectives included humanitarianism and opportunities for U.S. private investment.

Early U.S. assistance to Botswana was minimal and in the form of special "self-help" support. Use of funds was essentially a national discretionary matter. A.I.D.'s development strategy was supportive of Botswana's strategy of developing infrastructure, e.g., the BotZam road, a two-lane road running from the northeast corner (the Zambian border) to central Botswana), with some provision of technical assistance(?).

In 1973, the U.S. congress introduced New Directions legislation. The new legislation created a shift in A.I.D. assistance to Botswana away from infrastructure and toward more technical assistance. By the mid-seventies A.I.D. was supporting a number of technical assistance activities in addition to infrastructure. A key aspect of A.I.D.'s strategy in Botswana was to finance the service of U.S. specialists who serve in key GOB operation positions (operational experts, or OPEXers) while Botswana were being trained to assume those positions. Concurrently training funds were made available for the U.S. or third countries, and in-service courses were provided by the OPEXers. This approach was designed to make shortrun progress on current development activities while simultaneously laying the groundwork for "localization" of development programs.

As the political situation in southern Africa changed the U.S. began providing higher levels of support. Funding changed from Development Assistance Funds to Security Supporting Assistance. The proximity of Botswana to Zimbabwe (Rhodesia)

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gave it a special significance beyond the other southern African countries of Lesotho and Swaziland. Geopolitically, it provided a moderating political influence amidst five strife-torn countries--Angola and Zambia to the north, Namibia to the north and west, Zimbabwe (Rhodesia) to the east and South Africa to the south. It has provided transit and refuge to many thousands of people. Economically, its growth rate, favorable investment policies, and potential for profitable mining and cattle industries have made it extremely attractive.

Increases in U.S. foreign assistance were paralleled in the assistance programs of other foreign donors. From the modest funding received in the 1960s Botswana has become a major recipient of other external official donor assistance. Botswana has used these resources to balance their development approach. Because of the competitive aspects of its political economy, Botswana's governing class has been compelled to take into account the interests of non-elites via economic planning, policy implementation, and program development. From 1978 onward, the government dealt with these problems by incorporating a basic human needs approach supported via resources from official development assistance donors. Thus there was a basic convergence beginning in the late 1970s between donors' basic human needs approach and Botswana's development approach. This abundance of donor assistance provided Botswana with the opportunity of setting its own course of action. They can manage various development activities in a way that matches donor interests with the full range of Botswana-defined needs, while simultaneously pursuing development of the industrial sector as they had earlier.

The basic human needs component of the Botswana approach has been one that emphasizes employment and human resource development, not welfare. Although some subsidized basic services, food and money, are provided to the poor and other vulnerable groups, Botswana has always limited this assistance because they recognize that it is beyond their political, administrative and productive capacity to sustain.

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## 5. U.S. AID TO THE HEALTH SECTOR: WHAT WAS SUSTAINED?

This section provides a summary description of each of the four completed AID health projects in Botswana, followed by judgements about the relative degree of sustained activity after the life of the project. These summary descriptions are drawn from the draft case studies of the individual projects presented in Appendixes D through G. These case studies will be revised, elaborated and refined during the field phase of this study.

It must be emphasized that the judgements made here about sustainability can only be tentative. They are based on limited information and are not reflective of detailed and careful analysis which will be the objective of the field study period in Botswana in ( May ?). The chronogram displayed in Table \_\_\_\_ (below) shows the A.I.D. health sector projects in Botswana since the earliest HPN project in 1972.

### 5.1 Southern Africa Development: Personnel and Training Project

#### Background:

This project concentrated on increasing the numbers and improving the capability of nationals to plan, implement, and administer development programs and reducing dependency on expatriate personnel in a variety of areas, including health; developing functional capacity of government. The health component of this project was quite small.

#### Summary Description:

This project provided assistance to Lesotho and Swaziland as well as Botswana. The project financed American technicians, OPEX personnel, (footnote: OPEX personnel, an abbreviation for operational experts, is a type of technical assistance peculiar to southern African countries. It differs from other forms of technical assistance in that these personnel occupy established positions in the country, hold regular job titles and sign employment contracts with the national government. They report and are accountable directly to the national government.) to work on a temporary basis with host government personnel using pre-project planning as a mechanism for determining the feasibility of development projects. The training provided under this project included both out-of-country training and formal and on-the-job training by OPEX personnel of a number of nationals. A.I.D. assumed opex and training coists. Botswana paid basic local salaries, housing, and furnishing for U.S. personnel. Botswana was responsible for recruiting and financing local costs for in country trainees. Other donors included SCAAP, the United Nations, Germany, Canada, Denmark, Sweden, Norway, IVS, Mennonites and Ford Foundation.

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TABLE \_\_: CHRONOGRAM OF HEALTH/POPULATION/NUTRITION PROJECTS  
WITH U.S. SUPPORT IN BOTSWANA

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8
2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8

.....  
 .SO. AFRICA DEV PERSONNEL + TRAINING.  
 .....

.....  
 . BOTSWANA MATERNAL CHILD .  
 . HEALTH/FAMILY PLANNING .  
 .....

.....  
 . HEALTH SERVICES DEVELOPMENT .  
 .....

.....  
 . ENV SAN .  
 .....

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### What Was Sustained?

Project evaluation documents available in Washington did not always distinguish activities and outputs by country. Therefore, it is not possible to determine from these sources precisely how many people were trained in the health field. It is clear from the evaluations that there was less demand for OPEX personnel in the health ministries than others, e.g., agriculture, which seemed to have a somewhat better capacity to plan and effect utilization of OPEX technicians from the U.S. Nevertheless, some people were trained in health. Nor is it possible to suggest with confidence whether the project increased the government's functional capacity in health on a short- or long-term basis.

However, people interviewed to date suggest that there were lasting benefits from this project. This has been an on-going activity and has received support from a large number of donors, both in series and in parallel. In addition, it is an activity that the GOB has apparently also continued to support with its own resources. We feel confident, therefore, that we can talk about sustained activities and benefits, but a more detailed or precise account must await field investigation.

### 5.2 Maternal and Child Health/Family Planning

#### Background:

In the years preceding and immediately following independence, the GOB concentrated primarily on strengthening and expanding curative facilities in the health sector. In 1972, government policy took a new turn. It was decided that MCH/FP should be emphasized as part of the general health and preventive services. The strategy devised by the Government relied on a public sector approach, emphasizing the development and staffing of an existing institution. It was within this context that the A.I.D. assisted project, Maternal and Child Health/Family Planning (MCH/FP) was formulated.

#### Summary Description of Project:

The purpose of the project was to assist the development of a cadre of health personnel capable of staffing and providing preventive MCH/FP services in the urban and rural health facilities. The project was meant to contribute to the development of a decentralized, generalized health delivery system in Botswana supported by numerous donors, including NORAD, UNFPA, IPPF, UK and others. AID assistance was requested for in-service training, development of an integrated basic curriculum and development of the Health Education Unit.

Project Outputs were to include: 1. in service training plan and integrated health curriculum devised, 2. refresher course completed by in-service nurses, 3. integrated curriculum used in nursing schools, 4. field training resources developed and utilized, 5. tutorial staff trained, 6. health education unit established, 7. post-partum family planning program established, and 8. counterpart training conducted by US staff.

The following findings were presented in the final evaluation:

1. Training components: 501 RN and EN out of a target figure of 550 completed the in-service training course. Approximately 250 nurses remained to receive training in PH/MCH/FP. An appropriately qualified (B.Sc.N.) Motswana counterpart/successor had been appointed to the in-service training program. Although relatively inexperienced in teaching and curriculum development (and a planned ongoing curriculum for refresher courses had not yet been developed), she was expected to take over for the Meharry Senior PHN, i.e., A.I.D. technical assitant, in subsequent observing/teaching.
2. Preparation of integrated curriculum (including appropriate public health, maternal and child health and family planning programs) for use in the basic nurse training schools: Minimal achievement of this objective.
3. Develop field training facilities and field practice areas needed to support the health training programs: Nine rural field training facilities were developed in health centers and health clinics for use by the three in-service training programs (Gaborone, Lobatse, Francistown) and are fully utilized as field practice areas for students.
4. Train a selected tutorial staff to continue use of the integrated health curriculum: The original contract stipulation that approximately 35 Batswana would receive long and short-term training in health related programs in Africa or in the United States over the life of the project was modified during implementation to better reflect the needs of the GOB/MOH. Accordingly 22 participants received training. They were being assigned by the MOH to appropriate positions where it was anticipated that multiplier effects could best be achieved.
5. Health Education Unit: The Unit appeared to have a functioning capacity and a good potential for future programmatic activities.

6. Post-partum and family planning services: The development of the GOB program of post-natal care and family planning services clearly reached and exceeded the activity targets of the project workplan. New acceptors increased three-fold during the years of the project. The Chief of MCH/FP Services, MOH, attributed this increase to the presence of nursing personnel, trained under the project, at health installations throughout the country.

#### What Was Sustained?

While it appears to us at this time that most of these project components have been sustained at some level, our information also suggests that there was considerable variation in the degree of sustainability. For example, the health education Unit appeared to need very significant additional support.

Questions that need follow up in the field include:

Did the in-service training program for ENs and RNs continue?

Was the curriculum that was developed incorporated for use at the training schools?

Did all/most participant trainees return to posts in teaching and/or service institutions with suitable multiplier effect?

Is the Health Education Unit functioning as an integral part of the MOH?

Has MOH continued use of the field training facilities for practical field work as a regular part of its service training activities?

Are family planning and post-partum activities thoroughly institutionalized in the GOB health service system?

### 5.3 Health Services Development

#### Background:

This project was a follow-on to the earlier MCH/FP project, the beginning of an ambitious program to extend health services to the settled population of the country.

Summary Description of Project:

The project was designed to provide technical cooperation and training to strengthen the delivery of health services in Botswana. The project purpose was to increase the capacity of the GOB MOH to provide health services to the people of Botswana with an emphasis on the rural and peri urban populations. The project was designed with four functional components, each of which was perceived as a necessary link in the provision of basic health services through an effective and efficient health delivery system. The four components and their functions were:

1. Nursing Education--Nurse educators prepared in a university level, in-country training program to staff local training facilities. A diploma course developed to train nurse practitioners and public health nurses in-country. The graduates of the program to provide the staff for existing understaffed health facilities throughout Botswana. The Enrolled Nurse Curricula revised to prepare practical level nurses for rural services.

2. Health Administration--Health and hospital administrators trained at the Institute for Development Management in Botswana for positions in District Councils and hospitals. A health planner and statistical assistants trained in the U.S. for MOH positions.

3. Health Education --An in-country training program developed to prepare health educators for positions with regional health teams. Trained Batswana to fill all positions in the Health Education Unit of the MOH. Planning and training capabilities of the Unit improved. A facility for the Health Education Unit constructed in Gaborone.

4. Nutrition research conducted, and results incorporated into national nutrition program developed by project technicians and counterpart staff. Project-trained Batswana eventually filling all the positions in the Nutrition Unit of the MOH. Offices for the Nutrition Unit located in the same facility constructed for the Health Education Unit.

This project ran into many problems in the process of implementation. The mid-term evaluation reported good progress toward some objectives, but also difficulties. Shortly thereafter A.I.D. terminated the contract for the convenience of the government.

The project was revised in January 1983. Not all the original project components were incorporated into the revised project. (See Case Study E in Appendix for details.) For our purposes

in this section of our report, it is important to know what was accomplished--i.e., what existed at the end of the project that could be sustained three to five years following termination of funding?

The Training Component (NHI and UB): The final evaluation, conducted two months following the completion of the project, reported that solid, well-organized training programs had been established at NHI and UB. New curricula developed under the project were being carefully taught by the tutors who had gone to the U.S. for training. Some difficulties had been encountered, but apparently overcome, at the NHI because of the need to establish the FNP role better at the administration level. The program at UB--which was to prepare tutors to be placed in teaching positions in the UB program, at NHI, in the enrolled nursing schools, and in the training programs for FNPs and CHNs--surpassed this goal and has become a regional training program. The NHI and UB appeared to have sufficient institutional capacity to plan, run and evaluate appropriate training programs. The evaluator suggested that outside technical assistance and funds for training of tutors will be needed, but the training institutions are able, with decreasing assistance, to provide effective training programs. The GOB is able to recruit sufficient and qualified staff, train trainers, and design and develop curricula.

The Service Delivery Component (HEU and Nutrition Unit): The service delivery component of the project, the Health Education Unit and the Nutrition Unit, had progressed but were not as well established as the above training component. Since their inception earlier, these units had been strengthening their internal organization to cope with increased demand for their services at local, district and national levels. The project did assist in strengthening the Health Education Unit. However, the unit requires considerably more support. The project trained two Batswana at the Master's level in health education. The Nutrition Unit was "partially strengthened" with inputs (training and TA) from the project. However, the evaluation indicated that a general reorientation was required in the Unit.

The evaluator reported that both the Health Education Unit and the Nutrition Unit will require considerably more outside assistance in order to expand to full capacity, including long-term TA, Short-term TA, long-term participant training, short-term training, and commodities.

What Was Sustained:

Based on our information at this time it appears that the training component is sustained at a high level. The Health Education unit is less sustained, and the Nutrition Unit looks marginally sustained.

On the other hand, we believe it is also important to know which components were dropped and whether new ones were added in the redesign. An understanding of "terminated" or "redesigned" components, and the role of the various factors in our framework, may produce further insight into the impact of these factors on sustainability. The decision to terminate certain components may be interpreted as the extreme example of an unsustained activity. In this case, the Health Administration component seems to have disappeared entirely in the redesign.

5.4 Environmental Sanitation

Background:

In 1976, the National Conference of District Development Committees of Botswana resolved that a coordinated national effort was necessary to improve sanitation. As seen then, improvement of sanitation included (1) construction of toilet facilities, and (2) the disposal of refuse. Considerable efforts had been made by GOB health officers, in particular the Health Inspectors, Family Welfare Educators, nurses and Community Development Officers, to promote sanitation. However, success had been limited. It was believed that the majority of families did not have the technical ability or the financial means to construct sanitation facilities, even though in many instances they, in fact, wished to do so. On the other hand, opportunities for educating the public had also been limited.

Summary Project Description:

Prior to undertaking a nationwide "Environmental Sanitation and Protection Program," (ESPP), however, the GOB requested AID assistance in implementing a pilot, experimental project in two districts. Southern and Kgatleng. The pilot project would be village-based, with a high level of community involvement and focussed on sanitary options and a multi-media health education campaign. The project was to be implemented over a period of two years. Activities were planned in six villages, three in Southern District and three in Kgatleng District. Planned Project Outputs were: 1. Prototype

latrine system built and tested. 2. Refuse disposal alternatives tested. 3. Improved community/personal hygiene messages developed. 4. Extensive use of new latrines by six villages. 5. Increased use of existing latrines in six villages. 6. Printed technical and audio-visual materials produced on latrine building/maintenance. 7. Multi-media health education campaign developed and tested. 8. Multi-media network strengthened at central, district, and village levels. 9. Motswana trained in project management and media management. 10. Recommendations on replication of Environmental Sanitation project in other districts. 11. Procedures for administration of subsidies (e.g., selection, amounts).

The following conditions were proposed to indicate achievement of the project purpose: 1. affordable, acceptable and technically appropriate sanitation systems identified for replication in rural Botswana; 2. multi-media health education and training packages developed and tested; and 3. district and village institutions able to implement sanitation activities in six villages.

At the end of the second year an extensive and thorough interim, formative evaluation was undertaken to assess progress and improve implementation. It was a collaborative effort: The GOB project overseer, USAID project officer and ESPP project team traveled, attended meetings and held review discussions with the core evaluation team. It included extensive field visits, reviews of the project with district and village level officers and staff, inspecting facilities and interviewing beneficiaries and village leaders for their opinions. All project villages were visited.

As a result of this thoroughgoing collaborative evaluation, the project was fundamentally redesigned. The original basic concept that media is the key to implementing ESPP and any future program was challenged. A new direction was recommended. ESPP was reorganized and new management created. Other changes were equally far-reaching. Outputs were reestablished. It was recommended that household latrine construction be changed to 400 latrines rather than the 900 originally specified--because it is unlikely that this number could be produced because of the late start and because there are probably fewer than 650 households in the pilot villages which do not have latrines.

On the other hand, an additional indicator was recommended for project purpose, i.e., "Delivery system tested and optimal systems identified." "...Delivery systems for community mobilization and health education focused on environmental sanitation and protection training, and installation of

sanitary facilities need to be more carefully tested and optional system identified. It is not enough to have district and village level institutions able to implement sanitation activities in only six villages, if the project goal is to be reached. Low cost, effective delivery systems which can be replicated on a larger scale are required." "An issues paper discussing replication should be prepared by the ESPP team by July 1982 for discussion with GOB and be followed in October with proposals for replication of the program." (p.27) Cost components were specified, and the whole issue of subsidies was reconsidered. Much more emphasis was placed on keeping the costs down.

As a result of the recommendations of the mid-term evaluation, the second phase of the project concentrated almost entirely on household latrine construction. Health education was dropped together with the development of multi-media packages. The project was to concentrate on delivering the necessary goods and services for village latrine construction, on replication and developing capabilities within the districts and villages to enable such replication. (Final Evaluation)  
(institutionalization ?)

#### What Was Sustained:

The project succeeded in developing a latrine which was both acceptable and affordable. People were encouraged to build superstructures using traditional building methods and materials to keep latrine costs at a minimum. Over 1/3 of all households in pilot villages participated in the project and 69% of these were among poorest people in the villages--indicating affordability.

At end of the project 78% of households in pilot villages had refuse pits (up from pre-project 62%) vs. 63% in control villages. ESPP resulted in 245 latrines being constructed: 20% complete, 6 - 10 % near completion, 29% under construction and remaining 41% planning to finish their latrines next winter.

Information on Demonstration Latrines in the two districts was very specific, and straightforward to follow up.

#### Southern District

Ranaka--7 Demonstration Latrines: 2 Kgotla latrines; 3 ward latrines; 2 household latrines.

Selokolela: 3 Demonstration Latrines: 1 Kgotla latrine; 1 clinic football latrine; 1 Destitutes latrine

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Keng: (2 almost complete; 2 incomplete demonstration latrines): 1 Ex-headman's latrine; 1 household latrine; 1 clinic latrine; 1 new kgotla "Freedom Square"

Kgatlang District

Artesia (Mosomane): 4 Demonstration Latrines: 1 Post Office latrine; 2 Destitutes latrine; 1 ward latrine

Mabalane: 5 Demonstration Latrines: 1 Kgotla latrine; 1 church latrine; 1 primary school latrine; 2 annex to primary school latrine

Olifant Drift: 2 Demonstration Latrines and 1 Pit : 1 court clerk & tribal policeman's latrine; 1 Destitutes latrine; 1 school-pit excavated

Available information does not allow us to conclude whether this project may have resulted in replicating outputs. Replication was a project objective. At the time, the project was completed, however, the system capabilities within the Districts and villages to enable replication had not been well developed and institutionalized. This was a District Council project. Replication depended upon community based delivery systems in which village leaders, local institutions and organizations participate fully. Key people needed to be trained and fully involved. These included the village coordinators and extension workers, the Sanitary foremen and Sanitary Assistants. (During the project the ESPP Team appeared to be classified outside of both Government (Central) and District Council --they were referred to a "Lekogao" (white men) or "Americans.") Information on replication must be sought during the field phase of this study.

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## 6. Contribution of Project and Contextual Factors in Sustained Benefits and Activities

### 6.1 Introduction

In this section we present a summary of our tentative assessments of what was sustained based on a review of documents available in Washington. This is followed by a preliminary analysis of the most important factors differentiating more sustained projects from less sustained projects in Botswana.

This section does not attempt to systematically address each factor hypothesized to affect sustainability, although each factor will be addressed in the final report. In Botswana, as in other countries, a number of contextual factors have been relatively constant and are likely to have had similar impact on all projects. The impact on sustainability of these constant and universal factors can only be determined through comparative analysis with other countries.

We must reiterate here the highly conjectural nature of this section of the report pending field investigation. The conclusions presented here should be taken as tentative hypotheses to be tested in Botswana, and then against findings from other country studies.

### 6.2 Summary of Tentative Assessment of What Was Sustained

A summary of the tentative findings presented in the preceding section suggests that all projects exhibited sustainability of at least some project components. The original Health Services Development project was terminated, but the project was redesigned to incorporate many of the original project activities. We can draw conclusions about project sustainability from examining and comparing the original and the redesigned Health Services Development project. To the extent contextual factors did not change between the original and the redesigned project, we may feel particularly confident that project characteristics played the dominant role in differentiating levels at which activities were sustained. For analytical purposes it is useful to view the original and the redesigned project as two separate projects, providing a quasiexperimental situation where contextual factors are held constant.

This preliminary review suggests that the nurse training programs have been the most sustained projects in Botswana. The training components in both the MCH/FP and the redesigned HSD projects appear to have been highly sustained. The trained

personnel appear to be continuing to receive support from national funds in the form of salaries. They may also be receiving other kinds of national support from the central or local government, or from community sources of which we are not yet aware.

The nurse education training programs that were strengthened in these projects are continuing to produce trained personnel, a replicable output. To what extent this is dependent upon other donors as opposed to national support is not clear as yet. Irregardless, they appear highly sustained.

The MCH/FP services also appear to have been well sustained. Interviewees stress the continuing growth in family planning services delivery.

Health education and nutrition project components appear to be sustained at a much lower level, perhaps even minimally. They are very dependent on continued donor support.

It is not clear from the information available in Washington how much may have been sustained from the environmental sanitation project. We feel fairly certain that the health education/campaigns were not sustained. It seems likely that at least some immediate outputs of the sanitation component --latrines--may be sustained to some degree. Whether any replicability, a project objective, occurred subsequent to the end of A.I.D. project funding is not now known. The final evaluation cast doubt here, but the outcome will have to be determined by the field investigations. Nor do we know whether the refuse disposal activities of the sanitation component have been sustained, although the final evaluation suggests that they would continue.

The planning capability of the Ministry of Health has improved significantly over the years, and we would infer that the early project that provided for participant training to increase the number of trained Batswana and improve their planning skills has contributed to this situation. This suggests that this project has also been sustained, although, here again we need field confirmation for firm conclusions.

It seems clear that the least sustained activity was the health administration component of the HSD project. Project documents recorded initial lack of interest and subsequent continuing conflict surrounding this component in the initial HSD project, and it seems to have been dropped entirely from the redesigned project.

Initially, then, it appears that nurse training projects and nurse education development were the most sustained; MCH/FP delivery was highly sustained, as was participant training in health planning; latrine construction and refuse disposal were sustained at a medium level; the health education and nutrition components were minimally sustained; and, the health administration project component was unsustainable.

### 6.3 Preliminary Analysis of Factors Affecting Sustainability of Projects

If the ~~se~~ conclusions presented above are themselves sustained following field investigation, then the fifteen factors which we hypothesized are related to sustainability offer some suggestions for the Botswana cases. Certain factors appear to stand out at this preliminary level of investigation.

National Commitment: The highly sustained training projects, including the nurse training projects, the nurse tutor education and the early training in health planning (?), were all projects where there was substantial national commitment, both in terms of organizations and in funding. Trainees returned to established positions, or there were positions established subsequently that provided them with the opportunity to utilize their training.

There was commitment at the community(?) and district levels for the latrine construction project, an activity sustained at a lower level, but the project documents suggest that there was not commitment at the national level to replicate these activities on a national scale.

Finally, the minimally sustained health education and nutrition components did not receive strong commitment from Botswana. And in the case of health administration there was strong opposition from key elements in the health sector.

Project Negotiation Process: The project activity, or project component, which seemed to be the most imposed by A.I.D. was the health administration effort. This was also the least sustained activity. The most highly sustained activities, the nurse training and nurse educator projects, were activities that were solicited by Botswana. The Environmental Sanitation project, although identified as an area in which action needed to be taken by the District Development committees, did not appear to be strongly supported at the national level in its specific design.

Institutional and Managerial Characteristics: Projects that were more sustained were well integrated into the existing national administrative structures designed to promote project goals and objectives. In the case of the Environmental Sanitation project, which was less well sustained, project activities were not integrated into an existing institutional structure. The implementing bodies were the districts and villages. It appears that the project was not fully successful in institutionalizing this capability to carry out continuing sanitation activities within this framework.

Project Technical Requirements: Training and personnel incentives appeared significantly related to sustained activities. The more highly sustained projects or project components included very substantial professional and paraprofessional training, i.e., the MCH/FP and HSD projects. The components that were relatively poorly sustained, the health education and nutrition components, either did not provide for significant training, or there were not provisions for improved employment opportunities. In the case of the health administration component--which was not only unsustainable, but was terminated early--, the MOH had not developed continuing positions into which the personnel would be absorbed. The final evaluation of the Environmental Sanitation project, which appeared moderately sustained, identified the lack of training as a problem for continuation and replication.

A related technical aspect which appeared important to sustainability was the appropriateness of technical assistance. Appropriate technical assistance that improved host country knowledge and capability was welcomed. Technical assistance that did not provide for this transfer was rejected and activities terminated.

Similarly, the appropriateness of the technology supported by the project intervention was related to sustainability. Nurse training was demonstrably appropriate for objectives in the health sector, whereas early latrine construction technology was judged inappropriate and was reassessed and abandoned.

Financing: National absorption of project costs was the only financing factor that showed significant relationship to sustainability. Sustained projects or project components were increasingly absorbed into the national budget during, or at the end of the project. Those that received no national funding, or insufficient funding, were least sustained.

APPENDIX #

A.I.D. PROJECT HISTORY LIST  
(THROUGH FISCAL YEAR 1986)  
SORTED BY COUNTRY NAME  
BOTSWANA

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PROJECT NUMBER	OLD PROJECT NUMBER	PROJECT TITLE	DATE STARTED	DATE COMPLETED	OLD TECH CODE	PROJECT STATUS	OBLIGATED TO DATE	EXPENDED TO DATE
6330001	6331195001	INDEPENDENCE GIFT	66	67	995	C	62	62
6330001		SPECIAL SELF-HELP DEVELOPMENT (C)	67	80		C	690	690
6330006		BOTSWANA-ZAMBIA ROAD	72	79		C	16600	16600
6330015		RANGE MANAGEMENT AND LIVESTOCK DEV.	73	82		C	2441	2441
6330030		S AFR DEV-PERSONNEL AND TRAINING	72	80		C	2087	2087
6330032		BOTSWANA MATERNAL/CHILD HEALTH F.P. TRNG	72	80		C	1612	1612
6330036		BOTSWANA CROP PRODUCTION	76	82		C	1587	1587
6330038		BOTSWANA RURAL MANPOWER DEVELOPMENT	75	78		C	146	146
6330037		AGRICULTURAL PLANNING	78	84		T	4474	4474
6330039		SOUTHERN AFRICA MANPOWER DEVELOPMENT	78	83		T	8703	8703
6330072		BOTS-ZAM ROAD DESIGN AND SUPERVISION	77	84		C	2008	2008
6330073		TRANSPORT SECTOR SUPPORT PHASE I	79	84		C	5814	5814
6330074		AGRICULTURAL COLLEGE EXPANSION	78	87		A	8035	7585
6330077		RURAL DEVELOPMENT	80	88		A	6472	4512
6330078		HEALTH SERVICES DEVELOPMENT	78	86		A	3882	3923
6330064		ENVIRONMENTAL SANITATION	79	82		C	348	348
6330092		SELF-HELP HOUSING DEVELOPMENT	77	83		C	1118	1118
6330093		NATIONAL MIGRATION STUDY	77	82		C	614	614
6330102		GRANT TO UNHCR FOR STUDENT REFUGEES	77	81		C	6000	6000
6330203		RENEWABLE ENERGY TECHNOLOGY	80	85		T	3241	3240
6330212		RURAL ENTERPRISE EXTENSION SERVICE (OPG)	78	82		C	499	499

## REPORT NOTES

OLD TECH CODE  
PROJECT STATUS  
OBLIGATED TO DATE  
EXPENDED TO DATE

:OLD TECHNICAL ACTIVITY CODE - SEE AID HANDBOOK 16  
:PROJECT FINANCIAL STATUS(A=ACTIVE, C=COMPLETED, T=TERMINATED)  
:OBLIGATIONS SHOWN ARE THRU FY86(THOUSANDS OF DOLLARS)  
:EXPENDITURES SHOWN ARE THRU FY86(THOUSANDS OF DOLLARS)

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A.I.D. PROJECT HISTORY LIST  
 (THROUGH FISCAL YEAR 1986)  
 SORTED BY COUNTRY NAME  
 BOTSWANA

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PROJECT NUMBER	OLD PROJECT NUMBER	PROJECT TITLE	DATE STARTED	DATE COMPLETED	OLD TECH CODE	PROJECT STATUS	OBLIGATED TO DATE	EXPENDED TO DATE
6330215		HORTICULTURAL DEVELOPMENT (OPG) (PVO)	78	83		C	339	339
6330221		AGRICULTURAL TECHNOLOGY IMPROVEMENT	81	87		A	8980	3666
6330222		PRIMARY EDUCATION IMPROVEMENT	81	86		A	5993	5259
6330228		SMALL ENTERPRISE DEVELOPMENT OPG	82	86		A	452	389
6330229		JR. SECONDARY EDUC. IMPROVEMENT	85	88		A	6527	1039
6330231		BOTSWANA WORKFORCE-SKILLS TRAINING	82	89		A	14558	9038
6330238		GABORONE WEST HOUSING AND FACILITIES	83	86		A	650	493
6330240		PRIMARY EDUC IMPROVEMENT, PHASE II	86	92		A	2567	28
6330241		WORKFORCE & SKILLS TRAINING II	86	94		A	4220	0
6339801		HUMAN RIGHTS FUND-BOTSWANA	82	83		A	37	13
6339901		SPECIAL SELF-HELP DEVELOPMENT BOTSWANA	81	84		A	389	292

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REPORT NOTES

OLD TECH CODE  
 PROJECT STATUS  
 OBLIGATED TO DATE  
 EXPENDED TO DATE

:OLD TECHNICAL ACTIVITY CODE - SEE AID HANDBOOK 18  
 :PROJECT FINANCIAL STATUS(A=ACTIVE, C=COMPLETED, T=TERMINATED)  
 :OBLIGATIONS SHOWN ARE THRU FY86(THOUSANDS OF DOLLARS)  
 :EXPENDITURES SHOWN ARE THRU FY86(THOUSANDS OF DOLLARS)

Official Assistance By Donor

Year	U.K.	Sweden	Sov Bloc	China	Other
1976	8.8	10.2	0	3	15.9
1977	8	10.7	0	0	16.4
1978	10.37	18.97	0	0	52.79
1979	16.9	14.8	0	0	43.4
1980	20.6	13.2	0	0	41.4
1981	16.6	15.2	0	0	33.5
1982	13.2	13.2	0	0	40.7
1983	15.1	11.6	0	14	37.3

SUMMARY OF ACTIVE AND PROPOSED PROJECTS  
(IN THOUSANDS OF DOLLARS)

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PROGRAM: BOTSWANA	PROJECT TITLE	* L PROJECT / NUMBER G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	TOTAL PROJECT COST AUTHD PLANNED	-THROUGH OBLIG ATIONS	FY85- EXPENDI TURES	-ESTIMATED OBLIG ATIONS	FY96- EXPENDI TURES	-PROPOSED OBLIG ATIONS	FY87- EXPENDI TURES
<b>AGRICULTURE, RURAL DEV. AND NUTRITION</b>											
	RURAL SECTOR GRANT	G 633-0077	80	88	2,473	2,473	2,473	---	1,347	---	1,000
	AGRICULTURAL TECHNOLOGY IMPROVEMENT	G 633-0221	81	89	3,060	3,060	---	---	1,000	---	1,060
	<b>TOTAL FOR ACCOUNT GRANTS</b>				5,533	5,533	5,533	---	2,347	---	2,060
	<b>LOANS</b>				5,533	5,533	5,533	---	126	---	2,060
	<b>EDUCATION AND HUMAN RESOURCES</b>				---	---	---	---	---	---	---
	PRIMARY EDUCATION IMPROVEMENT	G 633-0222	81	88	1,650	1,650	1,650	---	557	---	---
	BOTSWANA WORKFORCE AND SKILLS TRAINING	G 633-0231	82	90	2,817	2,817	2,817	---	1,341	---	---
	<b>TOTAL FOR ACCOUNT GRANTS</b>				4,467	4,467	4,467	---	1,898	---	---
	<b>LOANS</b>				4,467	4,467	4,467	---	1,298	---	---
	<b>ECONOMIC SUPPORT FUND</b>				---	---	---	---	---	---	---
	AGRICULTURE COLLEGE EXPANSION	G 633-0074	78	82	9,149	7,903	7,930	---	6,770	---	---
	RURAL SECTOR GRANT	G 633-0077	80	88	6,876	5,349	5,349	---	3,393	---	700
	HEALTH SERVICES DEVELOPMENT	G 633-0078	78	80	4,305	4,305	4,305	---	2,694	---	---
	AGRICULTURAL TECHNOLOGY IMPROVEMENT	G 633-0221	81	89	5,108	12,335	5,108	---	2,563	---	1,000
	PRIMARY EDUCATION IMPROVEMENT	G 633-0222	81	85	5,643	5,643	5,643	---	3,470	---	1,073
	SMALL ENTERPRISE DEVELOPMENT (PVO)	G 633-0228	82	82	904	904	452	---	283	---	---
	SECONDARY EDUCATION IMPROVEMENT	G 633-0229	85	89	16,318	16,318	4,527	3,356	1,500	---	1,500
	BOTSWANA WORKFORCE AND SKILLS TRAINING	G 633-0231	82	86	11,741	11,741	9,685	2,056	1,700	---	2,800

\* Refer to the planned project summary sheet  
 \* Level of effort activity  
 FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1988 are based on the authorized date.  
 For all projects with an initial obligation date after December 31, 1988 the FY of final obligation is based on a planned date.

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**SUMMARY OF ACTIVE AND PROPOSED PROJECTS  
(IN THOUSANDS OF DOLLARS)**

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**PROGRAMS: BOTSWANA**

PROJECT TITLE	* L PROJECT / NUMBER G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	TOTAL PROJECT COST AUTHD PLANNED	-THROUGH OBLIG ATIONS	FY85- EXPENDI TURES	-ESTIMATED OBLIG ATIONS	FY86- EXPENDI TURES	-PROPOSED OBLIG ATIONS	FY87- EXPENDI TURES	
GABORONE WEST HOUSING AND FACILITIES	G 633-0238	83	83	650	650	340	---	310	---	---	
PRIMARY EDUCATION IMPROVEMENT II	G 633-0240	86	91	---	---	---	1,100	500	2,988	1,000	
WORKFORCE & SKILLS TRAINING	G 633-0241	86	90	---	---	---	1,144	1,000	4,000	3,000	
<b>TOTAL FOR ACCOUNT</b>											
<b>GRANTS</b>				60,694	100,361	43,649	23,951	7,656	10,350	8,000	11,073
<b>LOANS</b>				60,694	100,361	43,649	23,951	7,656	10,350	8,000	11,073
<b>TOTAL FOR COUNTRY</b>											
<b>GRANTS</b>				70,694	110,361	53,649	25,975	7,656	15,266	8,000	13,133
<b>LOANS</b>				70,694	110,361	53,649	25,975	7,656	15,266	8,000	13,133

**BEST AVAILABLE DOCUMENT**

Report to the planned project inventory sheet

Level of effort indicator

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1986 are based on the authorized date. For all projects with an initial obligation date after December 31, 1986 the FY of final obligation is based on a planned date.

COUNTRY: BOTSWANA @

(U.S. FISCAL YEARS - MILLIONS OF DOLLARS)

U.S. OVERSEAS LOANS AND GRANTS-OBLIGATIONS AND LOAN AUTHORIZATIONS

PROGRAM	POST-WAR RELIEF PERIOD	MARSHALL PLAN PERIOD	MUTUAL SECURITY ACT PERIOD	FOREIGN ASSISTANCE ACT PERIOD				TOTAL FAA PERIOD	TOTAL LOANS AND GRANTS	REPAYMENTS AND INTEREST	TOTAL LESS REPAYMENTS AND INTEREST	
	1946-48	1949-52	1953-61	1962-82	1983	1984	1985	1986	1962-86	1946-86	1946-86	1946-86
<div style="background-color: black; color: white; padding: 5px;">           ECON. ASSIST. - TOTAL            LOANS            GRANTS         </div>												
A. AID AND PREDECESSOR..	-	-	-	81.8	10.0	10.8	10.1	13.7	126.4	120.7	7.5	113.2
LOANS***	-	-	-	16.6	-	-	-	-	16.6	16.7	7.5	9.2
GRANTS	-	-	-	65.2	10.0	10.8	10.1	13.7	109.8	104.0	-	104.0
(SEC. SUPP. ASSIST.)...	-)(	-)(	-)(	61.1)(	10.0)(	0.8)(	10.1)(	10.7)(	92.7)(	88.4)		
B. FOOD FOR PEACE.....	-	-	-	56.7	1.8	8.0	11.7	5.9	84.2	84.1	-	84.1
LOANS.....	-	-	-	-	-	-	-	-	-	-	-	-
GRANTS.....	-	-	-	56.7	1.8	8.0	11.7	5.9	84.2	84.1	-	84.1
TITLE I-TOTAL.....	-	-	-	-	-	-	-	-	-	-	-	-
REPAY. IN \$-LOANS.....	-	-	-	-	-	-	-	-	-	-	-	-
PAY. IN FOR. CURR.....	-	-	-	-	-	-	-	-	-	-	-	-
TITLE II-TOTAL.....	-	-	-	56.7	1.8	8.0	11.7	5.9	84.2	84.1	-	84.1
E. RELIEF, EC. DEV & WFP.	-	-	-	56.7	1.8	8.0	11.7	5.9	84.2	84.1	-	84.1
VOL. RELIEF AGENCY.....	-	-	-	-	-	-	-	-	-	-	-	-
C. OTHER ECON. ASSIST....	-	-	-	14.0	1.5	1.5	1.9	2.8	21.8	21.6	-	21.6
LOANS.....	-	-	-	-	-	-	-	-	-	-	-	-
GRANTS.....	-	-	-	14.0	1.5	1.5	1.9	2.8	21.8	21.6	-	21.6
PEACE CORPS.....	-	-	-	14.0	1.5	1.5	1.9	2.8	21.8	21.6	-	21.6
NARCOTICS.....	-	-	-	-	-	-	-	-	-	-	-	-
OTHER.....	-	-	-	-	-	-	-	-	-	-	-	-
II. MIL. ASSIST.-TOTAL...	-	-	-	1.2	5.2	9.2	9.3	3.7	28.6	28.6	5.2	23.4
LOANS.....	-	-	-	1.0	5.0	7.0	5.0	-	18.0	18.0	5.2	12.8
GRANTS.....	-	-	-	0.2	0.2	2.2	4.3	3.7	10.6	10.6	-	10.6
A. MAP GRANTS.....	-	-	-	-	-	7.0	4.0	3.4	9.4	9.4	-	9.4
B. CREDIT FINANCING....	-	-	-	1.0	5.0	7.0	5.0	-	18.0	18.0	5.2	12.8
C. INTL MIL. ED. TRNG....	-	-	-	0.2	0.2	0.2	0.3	0.3	1.2	1.2	-	1.2
D. TRAN-EXCESS STOCK...	-	-	-	-	-	-	-	-	-	-	-	-
E. OTHER GRANTS.....	-	-	-	-	-	-	-	-	-	-	-	-
III. TOTAL ECON. & MIL. ...	-	-	-	153.7	18.5	29.5	33.0	26.1	261.0	255.0	12.7	242.3
LOANS.....	-	-	-	17.6	5.0	7.0	5.0	-	34.6	34.7	12.7	22.0
GRANTS.....	-	-	-	136.1	13.5	22.5	28.0	26.1	226.4	220.3	-	220.3
OTHER US LOANS.....	-	-	-	-	-	-	-	-	-	-	-	-
EX-IM BANK LOANS.....	-	-	-	-	-	-	-	-	-	-	-	-
ALL OTHER.....	-	-	-	-	-	-	-	-	-	-	-	-

@ SEE COMMENTS IN COUNTRY NOTES SECTION

\* LESS THAN \$50,000.

\*\* VALUES IN THESE COLUMNS ARE NET OF DEOBLIGATIONS. SEE GENERAL NOTES-REPORTING CONCEPTS

\*\*\* INCLUDES CAPITALIZED INTEREST ON PRIOR YEAR LOANS.

**Botswana**  
(U.S. Fiscal Years - Millions of Dollars)

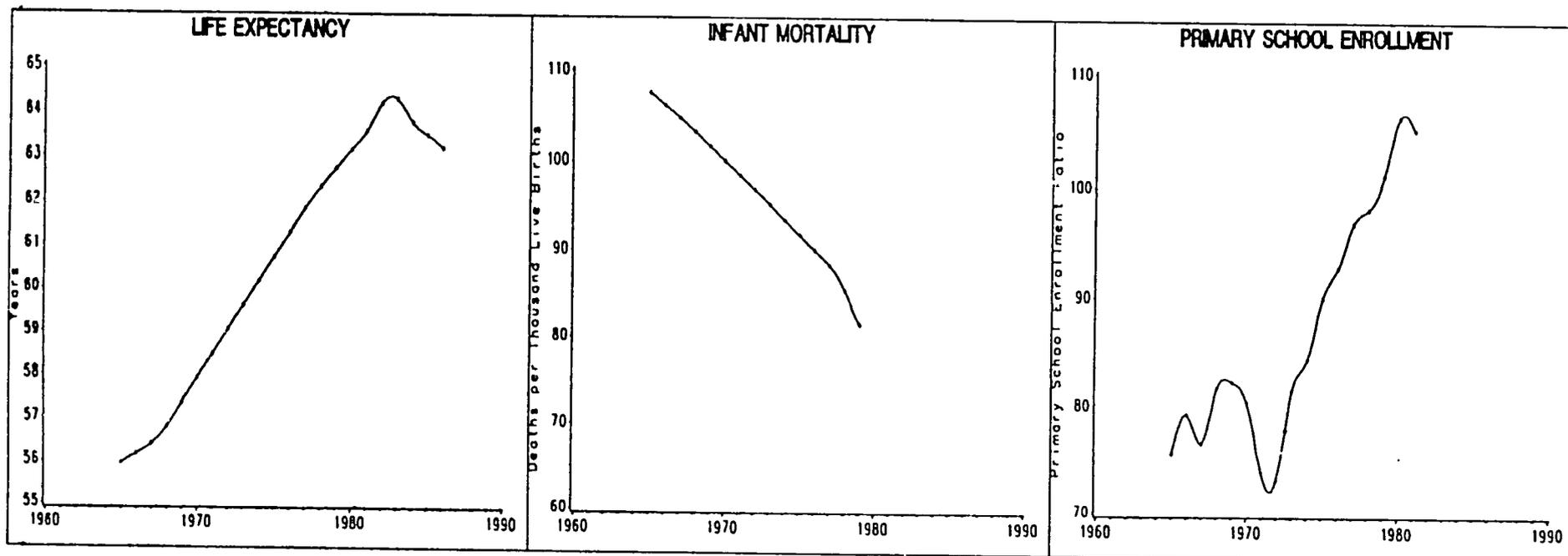
SECRET

PROGRAM	U.S. OVERSEAS LOANS AND GRANTS OBLIGATIONS AND LOAN AUTHORIZATIONS																		
	POST WAR RELIEF PERIOD	MARSHALL PLAN PERIOD	MUTUAL SECURITY ACT PERIOD	FOREIGN ASSISTANCE ACT PERIOD												TOTAL FAA PERIOD 1952-1975	TOTAL LOANS AND GRANTS 1946-1975	REPAY MENTS AND INTEREST 1946-1975	TOTAL 1975 REPAY MENTS AND INTEREST
				1946-1948	1948-1952	1952-1961	1962-1965	1966	1967	1968	1969	1970	1971	1972	1973				
<b>I. ECONOMIC ASSISTANCE - TOTAL</b>				1.8	4.6	7.0	1.2	0.5	1.8	3.0	10.5	0.8	3.0	3.6	37.8	37.4	-	37.4	
Loans																-0.1	-	-0.1	
Grants				1.8	4.6	7.0	1.2	0.5	1.8	3.0	10.5	0.8	3.0	3.6	37.8	37.5	-	37.5	
<b>A. AID and Professional Expenses</b>					0.1	*	0.1	0.1	*	0.1	0.1	0.1	0.1	*	0.7	0.4	-	0.4	
Loans																-0.1	-	-0.1	
Grants					0.1	*	0.1	0.1	*	0.1	0.1	0.1	0.1	*	0.7	0.5	-	0.5	
(Grants Excluding Assistance)					(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	-	(-)	
<b>B. Food for Peace (PL 480)</b>				1.8	4.2	6.7	0.7	-	1.5	2.5	9.8	0.2	2.3	2.6	32.3	32.2	-	32.2	
Loans																	-		
Grants				1.8	4.2	6.7	0.7	-	1.5	2.5	9.8	0.2	2.3	2.6	32.3	32.2	-	32.2	
Direct Total																	-		
Reimbursable U.S. Dollars - Loans																	-		
Private Foreign Currency - Planned for Country Use																	-		
Technical and Other Grants				1.8	4.2	6.7	0.7	-	1.5	2.5	9.8	0.2	2.3	2.6	32.3	32.2	-	32.2	
Emergency Relief for Development																	-		
8-Band Food Program				1.8	4.2	6.7	0.7	-	1.5	2.5	9.8	0.2	2.3	2.6	32.3	32.2	-	32.2	
Voluntary Contributions																	-		
<b>C. Other Technical Assistance</b>					0.3	0.3	0.4	0.4	0.3	0.4	0.6	0.5	0.6	1.0	4.8	4.8	-	4.8	
Loans																	-		
Grants					0.3	0.3	0.4	0.4	0.3	0.4	0.6	0.5	0.6	1.0	4.8	4.8	-	4.8	
Peace Corps					0.3	0.3	0.4	0.4	0.3	0.4	0.6	0.5	0.6	1.0	4.8	4.8	-	4.8	
Other																	-		
<b>II. MILITARY ASSISTANCE - TOTAL</b>																			
Grants or Loans																			
Grants																			
<b>A. MAP Grants</b>																			
<b>B. Grant Sales under PAB</b>																			
<b>C. Military Assistance Service Funded (MASF) Grants</b>																			
<b>D. Transfers from Foreign Stocks</b>																			
<b>E. Other Grants</b>																			
<b>III. TOTAL ECONOMIC AND MILITARY ASSISTANCE</b>																			
Loans																			
Grants																			
<b>IV. U.S. Guaranteed Loans and Grants</b>																			
<b>A. Export-Import Bank Loans</b>																			
<b>B. All Other Loans</b>																			

\*Less than \$50,000.

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## BOTSWANA -- Social Indicators

**POPULATION**

Total Population... (Thousands, Mid 1987) 1,149  
 Population Growth Rate... (1970) 2.1% (1978) 5.1% (1987) 3.5%  
 Population (1987) By Age Group:  
 (0-14yrs) 48.9% (15-64yrs) 47.5% (65+ yrs) 3.6%  
 Married Women Aged 15-49 yrs. Using Contraception... (1984) 27.8%  
 Total Fertility Rate... (1970) 6.8 (1987) 6.8

**HOUSEHOLD INCOME AND EMPLOYMENT**

National Income Received by Low 20% of Population... ( ) %  
 % of Population Living Below Absolute Poverty Level  
 (1979) Total . % Urban 40.0% Rural 55.0%  
 Labor Force Participation as % of Working Age Population  
 ( ) %  
 Proportion of Labor Force in Agriculture... (1980) 78%

**NUTRITION AND HEALTH**

Per Capita Calorie Supply as a % of Requirements... (1983) 93%

Life Expectancy at Birth, in Years  
 (1986) Total 63.2 Male 61.4 Female 65.1  
 (1970) Total 57.9 Male 56.2 Female 59.8

Infant Deaths in First Yr of Life per 1000 Live Births (1987) 66

% of Children 12-23 Months Old Fully Immunized Against  
 Tuberculosis (BCG3) 81% (1984) Measles 75% (1984)  
 Diphtheria (DPT) 82% (1984) Polio (3) 77% (1984)

Population with Reasonable Access to Safe Water Supply  
 ( ) %

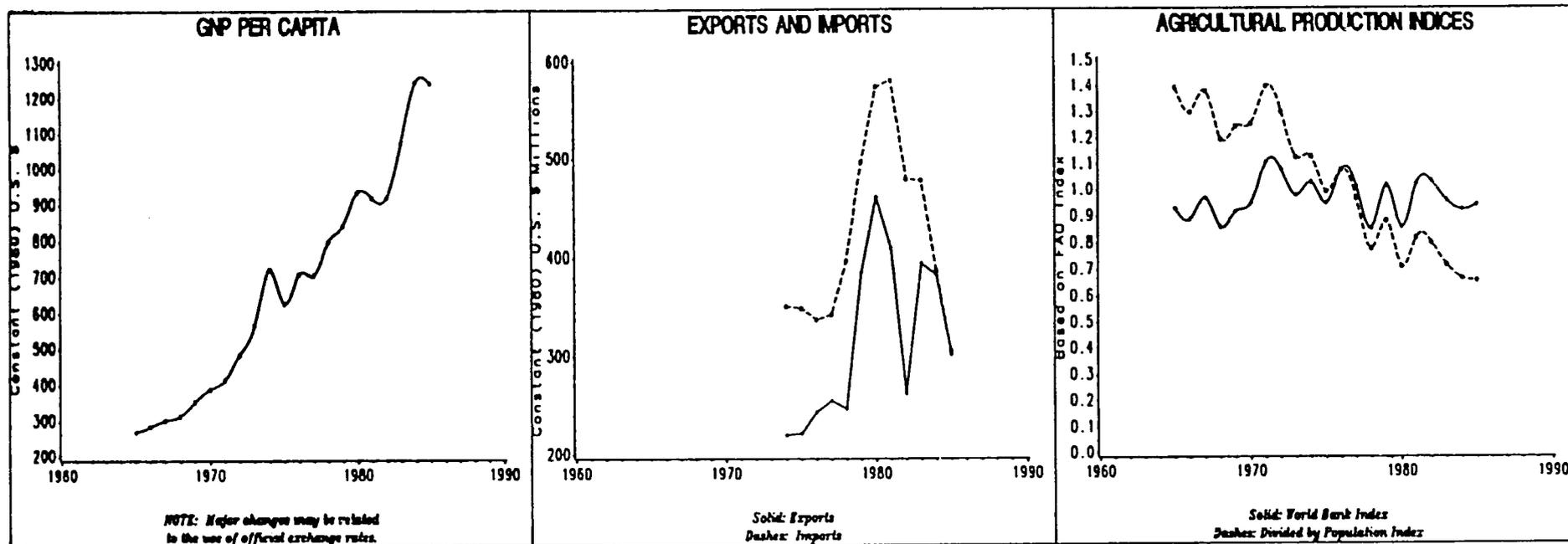
**EDUCATION AND LITERACY**

Total School Enrollment as Ratio of Population in Age Group:  
 Primary (1981) Total 105.3 Male 97.2 Female 113.3  
 Secondary (1981) Total 17.9 Male 16.4 Female 18.3  
 Post Secondary (1980) Total 1.4 Male 1.6 Female 0.8

Adult Literacy Rate ( ) Total . % Male . % Female . %

BOTSWANA -- Economic Indicators

Total U.S. Aid \$ 232 Million (1965-86)  
 Ratio of U.S. Aid To Total ODA 16.3% (1982-85)  
 Yearly U.S. Aid Per Capita \$ 17.99 (1982-85)



**NATIONAL INCOME AND EXPENDITURES**

Per Capita GNP .....	(1985)	840
Average Annual Real Per Capita GNP Growth Rate (1965-85)		8.3%
Government Budgetary Expenditures as a % of GNP...	( )	%
Total Expenditures and Net Lending (\$ Millions, US):	( )	( )
Budgetary Deficit or Surplus (\$ Millions, US):	( )	( )

**INTERNATIONAL RESERVES AND EXTERNAL DEBT**

Official International Reserves Equivalent to 17.6 Months of Imports (1986)	
External Public Debt as % of GNP...	(1985) 45.6%
Service Payments on External Public Debt, (\$ Millions, US).....	(1985) 48
As % of Total Export Earnings.....	(1985) 9.6%

**EXTERNAL TRADE (IN 1980 CONSTANT \$US)**

Trade Balance (\$ Millions, US) (1983)	-84(84)	-4(85)	-4
Total Imports (\$ Millions, US) (1983)	478(84)	387(85)	305
Of Which % From U.S. ....	(1986)	5%	
Major Imports (1985) FOODSTUFFS; VEHICLES; TEXTILES			
Total Exports (\$ Millions, US) (1983)	394(84)	383(85)	302
Of Which % to U.S. ....	(1986)	0%	
Major Exports (1985) DIAMONDS; CATTLE; ANIMAL PRODUCTS			
Trading Partners: UNITED STATES; ZIMBABWE; UNITED KINGDOM			

**AGRICULTURE**

Agricultural Production as % of GDP... (1985)	6%
Major Crop(s)	As % of Arable Land
Subsistence: SORGHUM; LIVESTOCK; MILLET	11% (1986)
Cash: CATTLE; SORGHUM; CORN	13% (1986)
Ag. Exports: (1986) MEATS; HIDES AND SKINS; OILSEEDS	
Ag. Imports: (1986) CORN; WHEAT; RAW SUGAR	

-----  
\*BASIC DATA\*  
-----

TOTAL POPULATION.. (THOUSANDS, MID 1985) 1,068  
 PER CAPITA GNP..... (DOLLARS, 1983) 920  
 ANNUAL PER CAPITA REAL GNP GROWTH RATE.. (1965-83) 8.5%  
 ANNUAL RATE OF INFLATION (1973-83) 9.8%  
 NATIONAL INCOME RECEIVED BY LOW 20% OF POPULATION.. (1971) 1.6%  
 LIFE EXPECTANCY AT BIRTH, IN YEARS  
 (1985) TOTAL 63.5 MALE 61.6 FEMALE 65.4  
 (1970) TOTAL 57.9 MALE 56.2 FEMALE 59.8  
 ADULT LITERACY RATE (1971) TOTAL 41% MALE 37% FEMALE 44%

-----  
\*AGRICULTURE\*  
-----

ANNUAL PER CAPITA AGRICULTURAL PRODUCTION GROWTH RATE  
 ( ) . %  
 AGRICULTURAL PRODUCTION AS % OF GDP.....(1983) 10%  
 POPULATION DENSITY / SQ KM OF AGRICULTURAL LAND (1982) 2

MAJOR CROP(S) ARABLE LAND YEAR  
 SUBSISTENCE: SOYBEANS ,LIVESTOCK ,CORN 9% (1984)  
 CASH: CATTLE ,CORN ,PULSES 5% (1984)

MAJOR AGRICULTURAL EXPORTS:(1984) BEEF AND VEAL ,HIDES AND SKINS  
 MAJOR AGRICULTURAL IMPORTS:(1984) CORN ,WHEAT ,RAW SUGAR  
 PROPORTION OF LABOR FORCE IN AGRICULTURE.....(1980) 78%

-----  
\*CENTRAL GOVERNMENT FINANCES\*  
-----

TOTAL REVENUES AND GRANTS (\$ MILLIONS, U.S.)  
 (1980) 388 (81) 378 (82) 379  
 TOTAL EXPENDITURES AND NET LENDING (\$ MILLIONS, U.S.)  
 (1980) 390 (81) 400 (82) 399  
 DEFICIT(-) OR SURPLUS (\$ MILLIONS, U.S.)  
 (1980) -2 (81) -22 (82) -20  
 DEFENSE EXPENDITURES,  
 AS % OF TOTAL EXPENDITURES.. (1980) 8.5% (81) 7.8% (82) 5.8%  
 AS % OF GNP..... (1980) 4.0% (81) 4.0% (82) 3.4%  
 OFFICIAL INTERNATIONAL RESERVES, GROSS HOLDINGS END OF PERIOD,  
 (\$MILLIONS, U.S.) (1982) 293 (83) 396 (84) 474  
 EQUIVALENT TO 7.1 MONTHS OF IMPORTS (1984)

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\*FOREIGN TRADE\*  
-----

MAJOR EXPORTS(1983)DIAMONDS ,CATTLE ,ANIMAL PROD.  
 EXPORTS TO U.S.  
 (\$ MILLIONS, US, FOB) (1982) 17 (1983) 40 (1984) 69  
 AS % OF TOTAL EXPORTS (1982) 4% (1983) 7% (1984) 8%  
 MAJOR IMPORTS(1983)FOODSTUFFS ,VEHICLES ,TEXTILES  
 IMPORTS FROM U.S.  
 (\$ MILLIONS, US, CIF) (1982) 6 (1983) 4 (1984) 7  
 AS % OF TOTAL IMPORTS (1982) 1% (1983) 1% (1984) 1%  
 TRADE BALANCE(\$ MILLIONS, U.S.)(1982) -111(83) 31(84) 99  
 TRADING PARTNERS: UNITED STATES ,UNITED KINGDOM ,ZIMBABWE  
 EXTERNAL PUBLIC DEBT AS % OF GNP (1983) 59.3%  
 SERVICE PAYMENTS ON EXTERNAL PUBLIC DEBT,  
 (\$ MILLIONS, U.S.)..... (1983) 24  
 AS % OF EXPORT EARNINGS (DEBT SERVICE RATIO).... (1983) 2.7%

-----  
\*SOCIAL DATA\*  
-----

POPULATION GROWTH RATE...(1970) 2.6% (1978) 4.6% (1983) 7.2%  
 POPULATION IN URBAN AREAS.....(1970) 10% (1983) 37%  
 LIVE BIRTHS PER 1,000 POPULATION....(1970) (1983) 24  
 MARRIED WOMEN AGED 15-44 YRS. USING CONTRACEPTION, (1978) 2.2%  
 POPULATION (1985) IN AGE GROUP:  
 (0-14YRS) 47.9% (15-64YRS) 48.2% (65+ YRS) 4.9%  
 INFANT DEATHS IN FIRST YR OF LIFE PER 1000 LIVE BIRTHS (1983) 23  
 PEOPLE PER PHYSICIAN..... (1975) 9,878  
 MAJOR CAUSES OF  
 DISEASE (1975) GASTROINTESTINAL, ACUTE RESP. INFE, UNKNOWN AILMENTS  
 DEATH.. (1978) PERINATAL DIS. ,MEASLES ,TUBERCULOSIS  
 PER CAPITA CALORIE SUPPLY AS A % OF REQUIREMENTS... (1977) 82%  
 POPULATION WITH REASONABLE ACCESS TO SAFE WATER SUPPLY(1978) 40%  
 TOTAL SCHOOL ENROLLMENT AS RATIO OF POPULATION IN AGE GROUP:  
 PRIMARY..... (1981) TOTAL 105 MALE 97.2 FEMALE 112  
 SECONDARY..... (1981) TOTAL 17.9 MALE 16.4 FEMALE 18.8  
 POST SECONDARY.. (1980) TOTAL 1.4 MALE 1.6 FEMALE 0.8  
 ENERGY PRODUCTION AS % OF CONSUMPTION.....(1982) 7%

Table 4 Botswana  
 Population; Measures of Real Gross Domestic Product Per Capita;  
 Gross Domestic Product in Current International Prices;  
 Percentage Shares of Consumption, Investment and Government;  
 Price Level Measures and Exchange Rates; 1960-1985

YEAR	Measures of Real Gross Domestic Product						Gross Domestic Product						Price Level Measures				Exchange Rate
	Popula- tion	Per Capita					in Current International Prices						(US = 100)				
		RGDP in Intl. Prices	Percentage Shares			RGDP Chain Prices	RGDP Trade Ad- justed	CGDP Per Capita US=100	CGDP Curr. Intl. Prices	Percentage Shares			Gross Dom- estic Prod.	Con- sump- tion PC	In- vest- ment PI	Gov- ern- ment PG	
			RGDP1	Con- sump- tion c	In- vest- ment i					Gov- ern- ment g	RGDP2	RGDP3					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1960	445	493	83.61	6.61	19.68	546	511	7.61	215	91.83	3.03	9.38	36.53	43.89	55.73	33.13	0.714
1961	457	517	81.69	8.07	20.86	566	534	7.80	224	90.20	3.72	10.99	36.97	44.02	57.16	33.09	0.715
1962	469	541	79.74	9.85	22.15	584	559	7.86	240	89.46	4.12	11.77	36.45	43.78	54.92	32.82	0.715
1963	482	551	78.50	10.93	23.74	590	575	7.72	245	87.45	5.18	13.31	37.31	44.20	56.68	32.63	0.714
1964	495	569	75.80	13.54	25.23	597	598	7.54	252	85.08	6.78	14.77	38.68	44.97	57.29	32.88	0.714
1965	508	530	80.30	4.69	30.51	579	557	6.90	246	85.90	2.44	18.59	36.69	45.48	58.88	33.02	0.715
1966	521	553	67.83	17.25	32.36	561	580	6.45	249	75.68	10.21	22.72	39.65	46.10	58.58	32.49	0.715
1967	535	655	69.44	19.38	32.14	667	684	7.57	306	76.61	11.33	22.84	37.45	44.79	56.25	31.94	0.715
1968	549	706	74.49	27.38	27.30	732	737	8.09	353	78.64	16.32	19.73	37.03	46.08	54.38	31.49	0.714
1969	563	698	90.21	16.19	27.88	779	741	8.47	394	86.93	9.38	19.02	33.80	45.91	53.73	31.07	0.715
1970	577	881	71.27	33.67	24.28	907	941	10.02	483	72.16	21.68	19.07	38.54	45.93	53.32	29.86	0.714
1971	592	1016	60.28	44.77	20.76	1013	1094	10.91	564	62.80	30.43	17.63	42.97	42.85	60.38	30.51	0.715
1972	620	1028	58.87	49.35	21.64	1033	1153	11.19	629	56.18	35.76	17.84	48.00	55.65	55.21	32.71	0.768
1973	649	1080	55.32	51.86	22.90	1081	1180	11.13	691	50.79	43.60	20.22	59.53	68.85	75.21	37.13	0.693
1974	679	1010	61.46	45.85	23.67	1021	1110	10.82	719	54.78	40.74	20.70	62.90	70.08	82.66	44.72	0.679
1975	711	1107	58.94	39.42	24.56	1113	1186	11.85	844	52.74	36.29	22.88	61.42	68.10	80.92	43.25	0.732
1976	744	1093	62.18	28.10	29.21	1090	1158	11.16	873	56.03	25.54	27.89	54.98	61.90	75.20	39.26	0.870
1977	779	1212	56.99	33.21	27.08	1202	1159	11.05	955	55.40	32.36	27.89	56.54	65.79	76.27	41.34	0.842
1978	815	1283	61.87	36.65	22.94	1280	1394	12.23	1176	55.45	32.90	21.73	63.55	67.31	81.57	46.78	0.828
1979	853	1431	56.57	41.49	23.22	1413	1598	13.73	1453	49.62	37.46	21.67	68.23	70.89	85.53	50.04	0.815
1980	893	1477	52.16	38.95	25.25	1477	1477	12.95	1477	52.16	38.95	25.25	74.38	77.49	94.90	55.40	0.777
1981	935	1450	53.57	41.40	27.45	1450	1461	12.31	1567	52.97	41.03	29.67	62.31	74.57	78.66	50.29	0.833
1982	966	1555	50.53	39.37	27.23	1564	1577	14.18	1859	47.81	36.82	28.83	52.30	63.30	65.07	42.40	1.022
1983	998	1512	51.83	34.36	26.99	1517	1542	13.32	1863	49.29	31.07	29.06	54.16	61.20	71.68	40.22	1.096
1984	1036	1666	46.40	21.30	29.78	1658	1501	12.54	1911	49.45	21.06	35.45	50.66	59.09	67.31	35.54	1.284
1985	1072	1762	48.31	24.51	31.87	1783	1712	13.86	2225	47.76	21.10	35.38	33.80	30.68	49.57	25.13	1.888

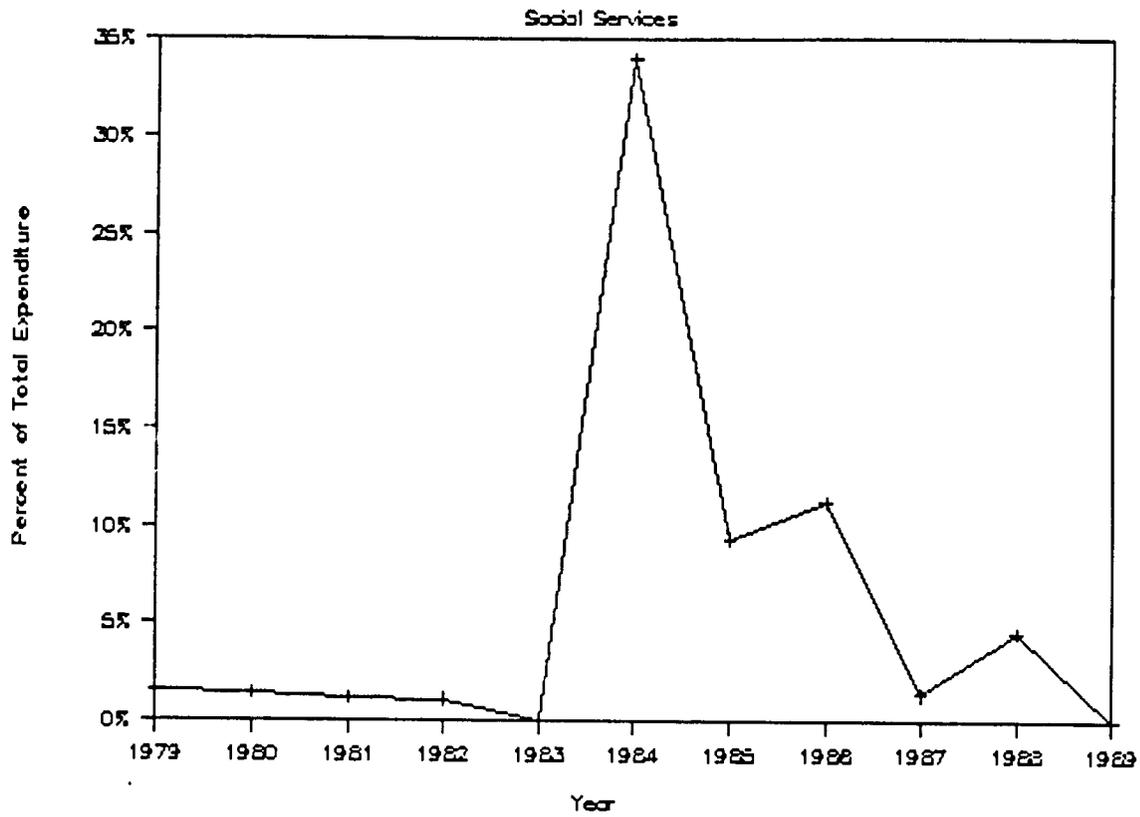
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Botswana -- Tables

	Expenditures											
	Total Revenue	Deficit/Surplus	Deficit %	Total Expenditure	Gen Pub	G/P %	Educa	Educa %	S/S	S/S %	Housing/Comm.	Housing%
1972	28.45	-21.37	75.11%	49.82	8.19	16.44%	2.96	5.94%	0.14	0.28%	6.3	12.65%
1973	46.65	-13.38	28.68%	60.03	9.84	16.39%	5.35	8.91%	0.18	0.30%	9.3	15.49%
1974	66.99	-5.84	8.72%	72.83	13.54	18.59%	11.04	15.16%	0.2	0.27%	7.71	10.59%
1975	86.95	-2.01	2.31%	88.96	16.31	18.33%	12.59	14.15%	0.27	0.30%	8.53	9.59%
1976	86.47	-21.56	24.93%	108.03	18.8	17.40%	18.6	17.22%	0.27	0.25%	7.95	7.36%
1977	115.48	-4.58	3.97%	120.06	26.27	21.88%	24.66	20.54%	0.28	0.23%	5.8	4.83%
1978	160.82	-6.91	4.30%	167.73	32.12	19.15%	32.11	19.14%	1.26	0.75%	10.16	6.06%
1979	243.17	21.38	-8.79%	221.79	42.11	18.99%	44.24	19.95%	2.05	0.92%	13.13	5.92%
1980	301.69	-1.27	0.42%	302.96	52.23	17.24%	58.08	19.17%	1.85	0.61%	18.74	6.19%
1981	315.06	-18.34	5.82%	333.4	61.12	18.33%	63.5	19.05%	0.82	0.25%	19.92	5.97%
1982	387.6	-20.09	5.18%	407.69	66.61	16.34%	65.61	16.09%	6.65	1.63%	33.77	8.28%
1983	556.17	103.22	-18.56%	452.95	83.17	18.36%	77.87	17.19%	10.98	2.42%	25.52	5.63%
1984	791.15	188.32	-23.80%	602.83	107.46	17.83%	91.83	15.23%	22.64	3.76%	24.96	4.14%
1985	1120.68	413.83	-36.93%	706.85	139.4	19.72%	113.73	16.09%	17.95	2.54%	29.14	4.12%

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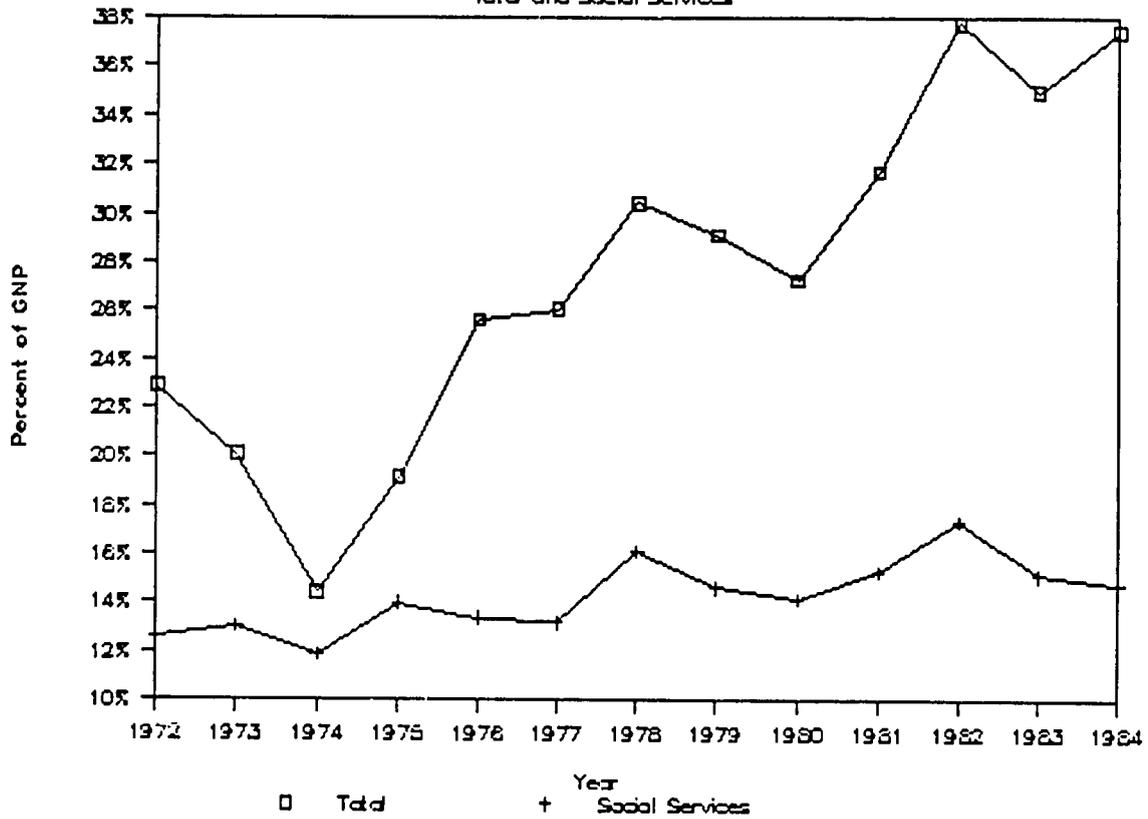
# Botswana A.I.D. Expenditures



Year	Soc Serv as % Expend
1979	1.55%
1980	1.46%
1981	1.22%
1982	1.12%
1983	0.00%
1984	33.96%
1985	9.39%
1986	11.29%
1987	1.42%
1988	4.55%
1989	0.00%

# Botswana Government Expenditures

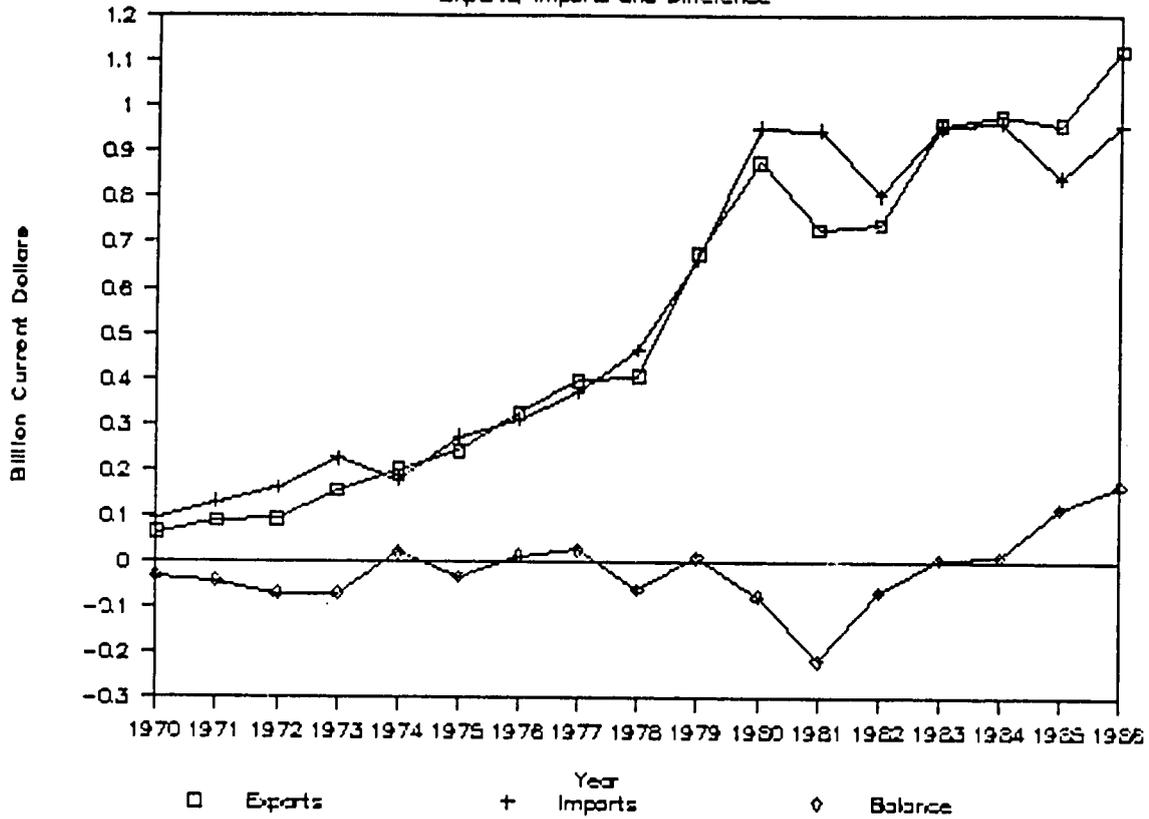
Total and Social Services



Year	Govt Exp. as % of GNP	Soc Services as % of GNP
1972	22.88%	12.65%
1973	20.08%	13.00%
1974	14.42%	11.87%
1975	19.14%	13.99%
1976	25.60%	13.37%
1977	26.07%	13.21%
1978	30.45%	16.10%
1979	29.13%	14.64%
1980	27.27%	14.16%
1981	31.72%	15.28%
1982	37.77%	17.39%
1983	34.96%	15.15%
1984	37.43%	14.80%

# Botswana Trade Balance

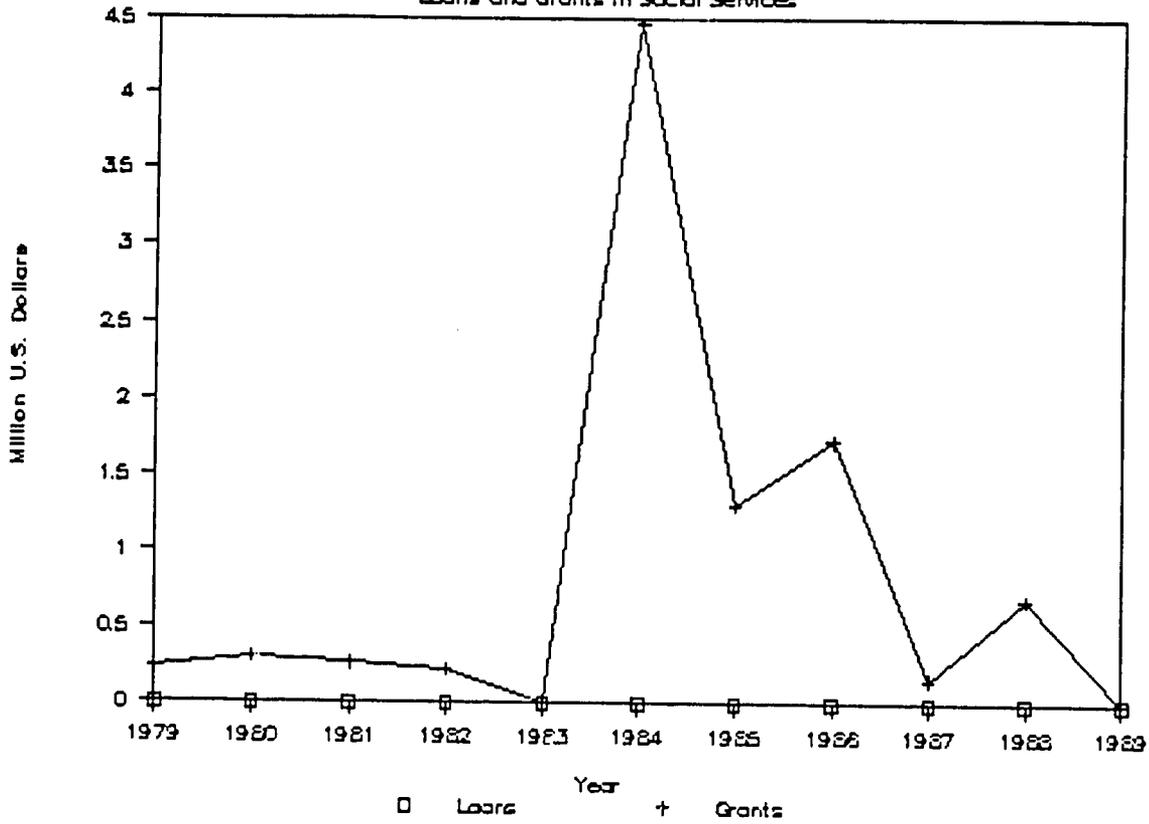
Exports, Imports and Difference



Year	Exports	Imports	Export/Im Balance	Percent Change
1970	63	94	-31	
1971	89	130	-41	32.3%
1972	92	161	-69	68.3%
1973	156	225	-69	0.0%
1974	201	179.64	21.36	-131.0%
1975	240.64	273.67	-33.03	-254.6%
1976	324.07	310.68	13.39	-140.5%
1977	395.79	370.69	25.1	87.5%
1978	405.02	465.24	-60.22	-339.9%
1979	676.62	666.8	9.82	-116.3%
1980	878.4	953.37	-74.97	-863.4%
1981	730.84	948.52	-217.68	190.4%
1982	740.79	806.48	-65.69	-69.8%
1983	959.64	954.62	5.02	-107.6%
1984	976.43	964.43	12	139.0%
1985	960.16	843.88	116.28	869.0%
1986	1123.9	955.07	168.83	45.2%

# Botswana A.I.D. Expenditures

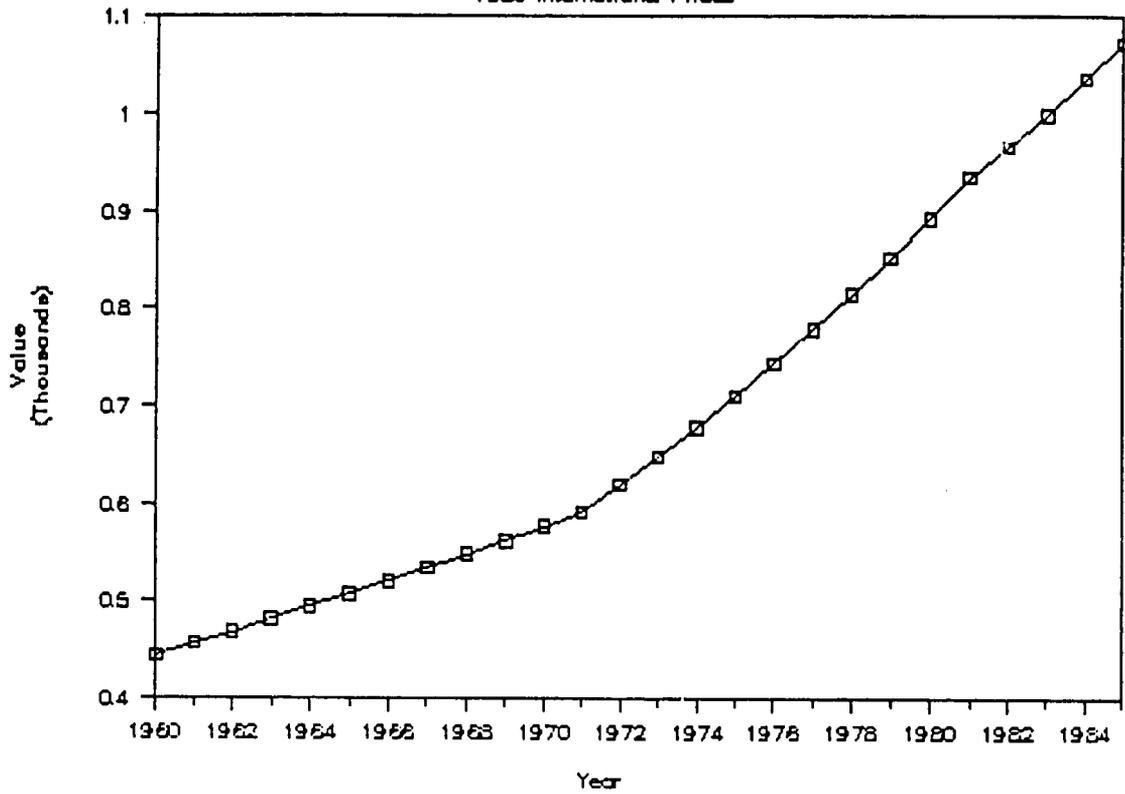
Loans and Grants in Social Services



Year	Soc Serv Loans	Soc Serv Grants
1979	0	0.244
1980	0	0.3
1981	0	0.266
1982	0	0.223
1983	0	0
1984	0	4.467
1985	0	1.3
1986	0	1.724
1987	0	0.162
1988	0	0.683
1989	0	0

# Botswana Real GDP per Capita

1980 International Prices

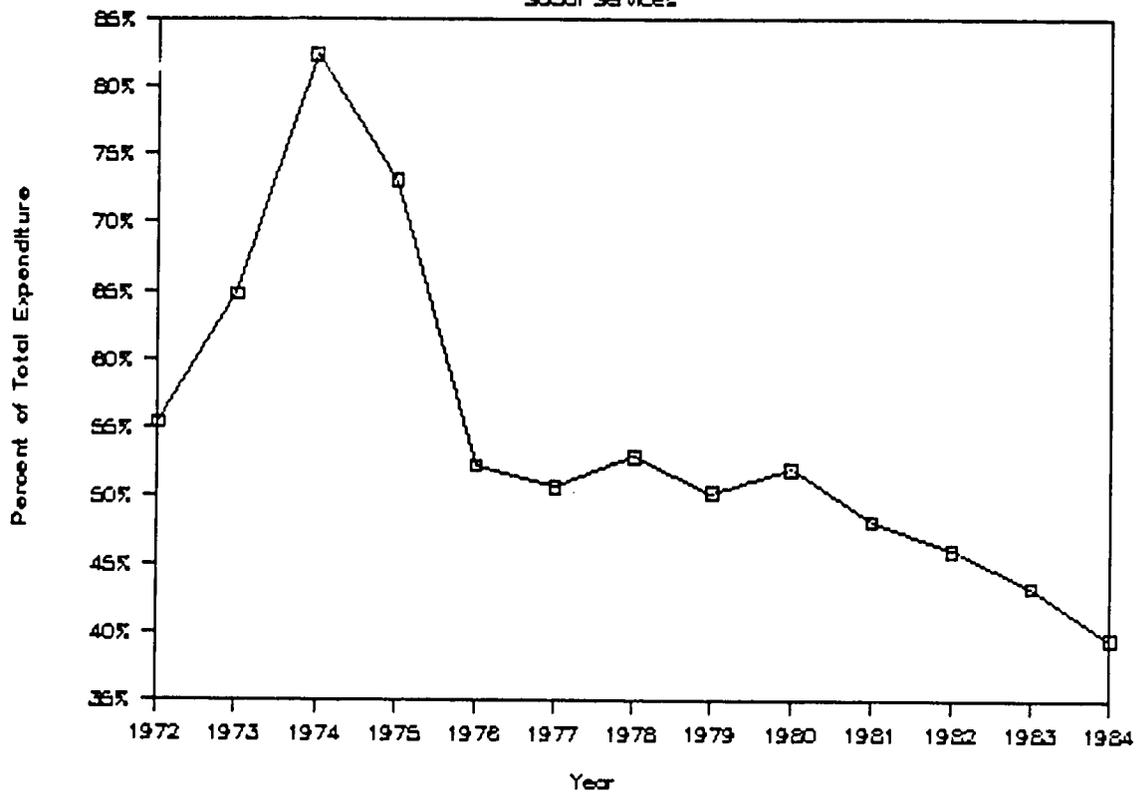


Year	RGDP per capita	Percent Change
1960	445	
1961	457	2.7%
1962	469	2.6%
1963	482	2.8%
1964	495	2.7%
1965	508	2.6%
1966	521	2.6%
1967	535	2.7%
1968	549	2.6%
1969	563	2.6%
1970	577	2.5%
1971	592	2.6%
1972	620	4.7%
1973	649	4.7%
1974	679	4.6%
1975	711	4.7%
1976	744	4.6%
1977	779	4.7%
1978	815	4.6%
1979	853	4.7%
1980	893	4.7%
1981	935	4.7%
1982	966	3.3%
1983	998	3.3%
1984	1036	3.8%
1985	1072	3.5%

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# Botswana Government Expenditures

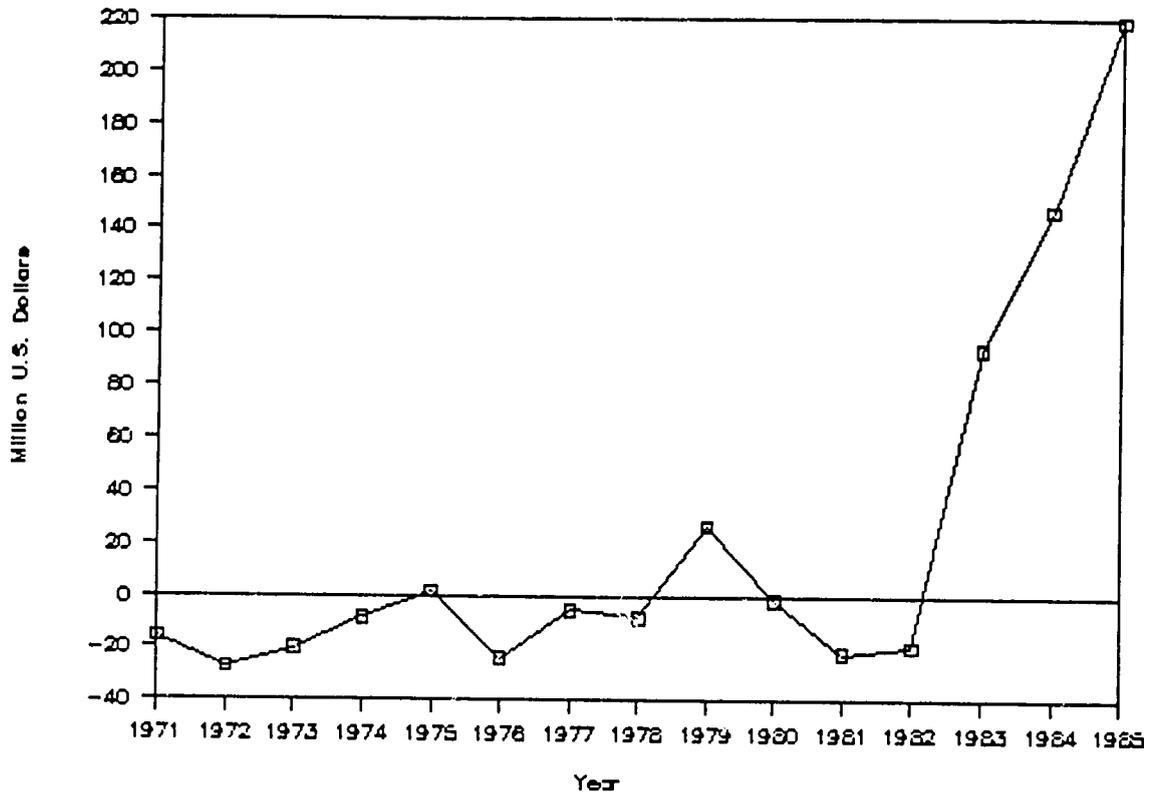
Social Services



Soc Services  
Year as % of Total

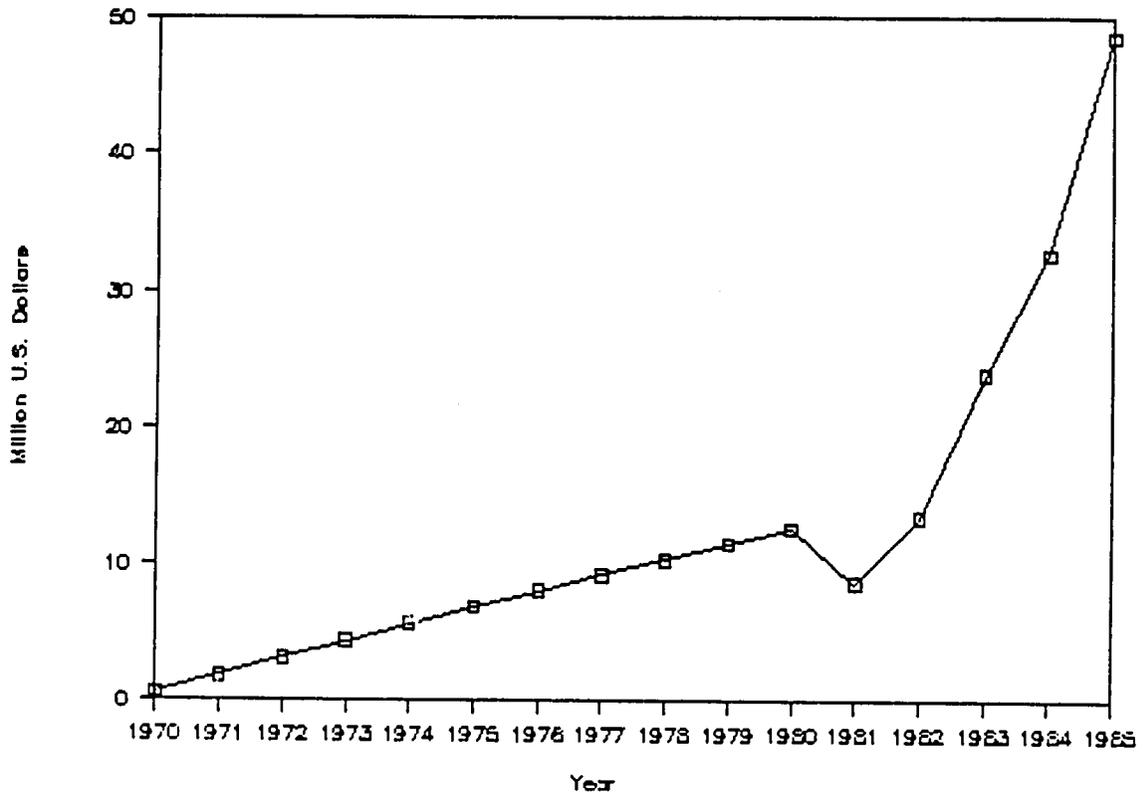
1972	55.30%
1973	64.77%
1974	82.35%
1975	73.08%
1976	52.22%
1977	50.65%
1978	52.88%
1979	50.25%
1980	51.94%
1981	48.18%
1982	46.03%
1983	43.34%
1984	39.53%

## Botswana Budget Surplus



Year	Budget Deficit
1971	-15.6
1972	-27.3
1973	-20.3
1974	-8.4
1975	1.6
1976	-23.9
1977	-5.5
1978	-8.3
1979	26.4
1980	-1.7
1981	-22.0
1982	-19.7
1983	93.8
1984	147.1
1985	218.9

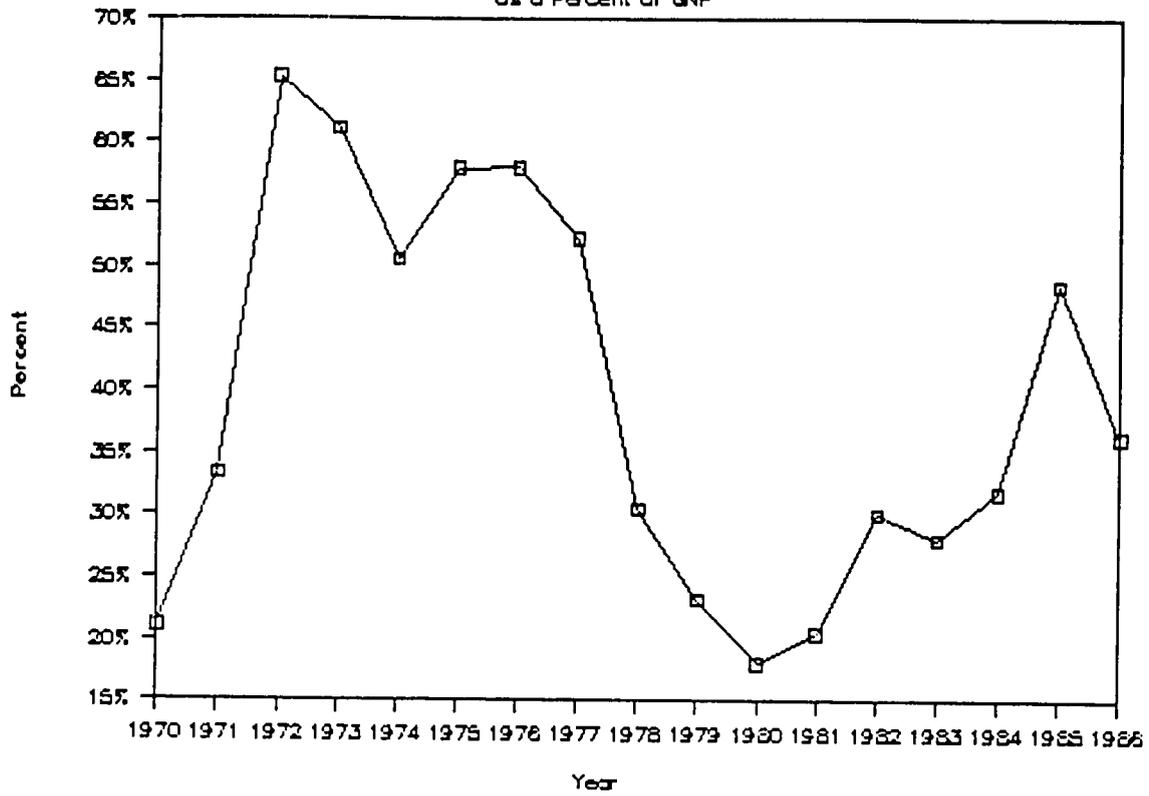
# Botswana Debt Service



Year	Debt Service
1970	0.6
1971	1.86
1972	3.12
1973	4.38
1974	5.64
1975	6.9
1976	8.04
1977	9.18
1978	10.32
1979	11.46
1980	12.6
1981	8.6
1982	13.4
1983	23.9
1984	32.7
1985	48.5

# Botswana External Debt

as a Percent of GNP



Debt as  
Year % of GNP

1970	21.08%
1971	33.35%
1972	65.23%
1973	61.11%
1974	50.54%
1975	57.95%
1976	57.99%
1977	52.24%
1978	30.46%
1979	23.15%
1980	18.04%
1981	20.44%
1982	30.05%
1983	28.03%
1984	31.83%
1985	48.52%
1986	36.23%

## APPENDIX C

### INTERVIEW QUESTION GUIDE Sustainability Study: Botswana

#### 1. CONTEXTUAL FACTORS

##### 1.1 Natural Disasters

1. Were there any major events, such as droughts or famines that influenced project activities and benefits during and after the life of the project?

##### 1.2 Political Factors

1. What effect, if any, did changes in the Presidency or in Ministers of Health (or Finance) have on the project with which you were associated and its prospects for continuation after A.I.D. funding ended? Please give me concrete examples of how changes in the government affected your project.

2. Did you find significant differences in the way different governments or leaders treated the project? To what would you attribute variations in treatment?

3. Did you find that various organizations, groups or important individuals influenced the initiation, implementation and continuation of the project? Which were the most important ones and how did they exercise their influence?

##### 1.3 Bilateral Factors

1. Were you aware of any way in which the general state of relations between the U.S. and Botswana influenced the evolution and prospects for sustaining the project activities or outcomes.

2. Were there any significant changes in the project that were explained in terms of shifts in A.I.D. policy or funding? Did they affect prospects for continuation of the project after A.I.D. funding ended?

3. Did changes of mission director or project officer or other mission level factors affect the program and its possible continuation?

##### 1.4 Socio-Cultural

1. Did social or cultural characteristics of the target population, e.g., class, sex, ethnicity, influence the effectiveness and continuation of the project activities and benefits?

2. Did economic or regional differences influence the project?

3. Were there any major social or demographic changes that had significant influence on the project.

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1.5 Economic

1. Describe the general economic environment that existed before, during and after the project.

2. Were there any ways in which these factors influenced the design and execution of the project?

3. Was the project modified in any way as a result of these conditions?

4. Was the public sector in general, and the MOH in particular, expanding, holding their own, or declining during this period?

5. Were budgetary priorities within the MOH favorable to project activities?

1.6 Private Sector

1. Did activities in the private sector in health (doctors, pharmacies, traditional practitioners, etc.) affect project activities and benefits? Could the project have taken the private sector into account more effectively?

2. Were PVO's available for the project activities?

1.7 Implementing Institution

1. In your opinion did policy, personnel or organizational changes at the top levels of the Ministry of Health affect the initiation, implementation and continuation of projects supported by A.I.D.? Would you give me some examples?

2. What are the effects of changes in the levels of ministry funding on the project and its continuation?

3. Who is more important to the success and continuation of a project, the minister or the administrator directly responsible?

4. Did the centralization (or decentralization) of decision-making in the Ministry influence project effectiveness during and after the life of the project?

5. Did lack of communication and coordination among units within the MOH influence project effectiveness during and after the life of the project?

6. Did the implementing agency have access to sufficiently trained personnel to support activities on which the project depends?

7. Were other goals and objectives of the implementing agency (MOH or PVO) in conflict with the goals and objectives of the project?

8. Do you know if there are many PVO's competing for the same sources of funds and for the same beneficiaries? With what consequences?

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### 1.8 International Donors

1. Did the policies and activities of other donors in health affect this project and its sustainability, either directly or indirectly?

### 1.9 National Commitment

1. Who in Botswana supported the goals and objectives of the project and who opposed?

2. Were there major conflicts, debates, etc.? 3. How widespread was project support opposition?

## 2. PROJECT CHARACTERISTICS

### 2.1 Project Negotiation Process

1. Describe the process by which the project was negotiated.

2. Who participated in the process?

3. Was the project a Botswana initiative, or was it brought in by A.I.D.?

4. What was the tone of the discussions during negotiation? Was there mutual respect and give-and-take?

5. Are there people who view the process differently than you do?

### 2.2 Institutional and Managerial Characteristics

#### 2.2.1 Vertical vs. Horizontal Design

1. How was the project administered? Did it have its own chain of authority or was it integrated into the existing ministerial hierarchy?

2. Could the project have been better integrated into the MOH?

3. Were communication linkages open between project officials and (other) officials in the MOH?

4. Did the project generate jealousies within the MOH, or between the MOH and other ministries/ sectors?

5. Did the project receive special attention or resources for nurses and physicians (or other equivalent personnel)?

#### 2.2.2 Managerial Leadership

1. Who headed (or who were the counterparts for) the project during the life of the project?

2. Were project leaders effective managers and promoters of their projects?

3. Did changes of leadership affect the project?

2.2.3 Administrative Systems and Training

1. Did the project contribute to administrative improvements in the MOH (or other agency)?
2. What happened to people who were trained overseas?
3. Was training effective?

2.3 Financing

2.3.1 National Absorbtion of Project Costs

1. What percentage of total recurrent costs had the MOH absorbed by the end of the project?
2. Were there any differences in the absorbtion rate for different kinds of cost categories (salaried positions, materials, equipment, training)?
3. Were alternate sources of funding, such as other donors, beneficiaries, other levels of government, or PVO's anticipated as sources of continuing funding after the end of the project?

2.3.2 Foreign Exchange Component

1. Did the project depend on continuing importation of major materials and supplies?
2. Were there no local or regional sources for these imports or is importation an institutional requirement?

2.3.3 Substitution Demand

1. Would the project reduce the funding available for other MOH programs, such as curative care?
2. Were financing requirements and mechanisms at the end of the project adequate to cover costs? Had they increased or decreased during the project?

2.3.4 Cost Recovery

1. Did the project include means of recovering costs through quotas or other charges?

2.3.5 Cost Effectiveness

1. Was the project able to achieve its goals without waste and corruption?

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## 2.4 Content Aspects

### 2.4.1 Project Design

1. How clearly defined were project goals and activities?
2. Were there a large number of beneficiaries and did they see the benefits as important enough to demand continuation of the project?
3. Was the project designed to accomodate ethnic and gender factors?

### 2.4.2 Training

1. What type of training program (curriculum, DJT, ling or short courses, and size) was included in the project? Was it continued after the project funds ceased? How has it changed over time?
2. Were there sufficient salaried positions for the newly trained workers to assume after their courses?
3. Were beneficiaries trained in project activities?

### 2.4.3 Personnel Incentives

1. Did the project provide for salary and mobility incentives for those working in the project activities after the project- was terminated?

### 2.4.4 Supplies and Logistics

1. Did the project strengthen the supplies and logistic system necessary to support project activities?

### 2.4.5 Technical Assistance

1. What was the role, size and duration of the technical assistance element o the project? Was it appropriate?
2. Were counterparts trained to take over project activities after the TA team left?
3. Was technical assistance acceptable to the national government during project negotiation and implementation, or was it imposed by A.I.D.?

### 2.4.6 Appropriate Technology

1. Was the technology used (specify) appropriate for achieving project goals in Botswana?

2.5 Community Participation

1. Was the project successful in developing a high level of community participation? Did the community provide labor and materials? Was a Health Committee formed? Did the community participate in establishing village level priorities?

2.6 Project Effectiveness

1. Was this project able to achieve its goals and objectives? What was its reputation in this regard?

2. What were the major achievements and major failures of the project?

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APPENDIX D

SOUTHERN AFRICA DEVELOPMENT: PERSONNEL AND TRAINING

Southern Africa Development Personnel & Training Project  
(SADPT) (6330030) FY 72-80 \$2,087

This project was part of A.I.D.'s Southern African Development Personnel and Training Program, and included assistance to Lesotho and Swaziland as well as Botswana. The health component of this project was quite small. It was conceived in response to manpower requests made by the Governments of Botswana, Lesotho and Swaziland to the Assistant Administrator, Bureau of Africa, during a visit he made to southern Africa in Autumn 1971. (Siffin) A primary goal of the GOB since independence has been "localization," i.e., the replacement of expatriates by local personnel. The development problem addressed by this project was the shortage of qualified middle and high level technical and management personnel within the government ministries.

The project consisted of technical assistance (OPEX personnel\*) (\*Footnote: OPEX personnel, an abbreviation for operational experts, is a type of technical assistance peculiar to southern African countries. It differs from other forms of technical assistance in that these personnel occupy established positions in the country, hold regular job titles and sign employment contracts with the national government. They report and are accountable directly to the national government.) and participant training programs to develop qualified mid- and high-level technical and general management personnel for government in Botswana. The project concentrated on: increasing the numbers and improving the capability of nationals to plan, implement, and administer development programs and reducing dependency on expatriate personnel, developing functional capacity of government in agriculture, rural development, education, planning, management, finance, public administration and health by financing temporary American technicians to work with host government personnel using pre-project planning as a mechanism for determining the feasibility of development projects. Original plans called for 27 man years of services to nine senior level positions in agriculture, education, and income tax fields; out-of-country training to 16 nationals and formal and on-the-job training to 30 nationals. A.I.D. assumed opex and training costs. Host country paid basic local salaries, housing, and furnishing for

U.S. personnel, host country responsible for recruiting and financing local costs for in country trainees. Other donors included SCAAP, The United Nations, Germany, Canada, Denmark, Sweden, Norway, IVS, Mennonites and Ford Foundation.

The PROP as finally approved emphasized A.I.D.'s intention to help the BLS states plan and implement "selective" programs aimed at "key" development problems. Specifically identified were (1) low agricultural productivity, (2) inefficient management of resources, and (3) inadequate educational facilities and manpower programs.

According to a project evaluation carried out in 1978 OPEX technicians were provided in several sectors: Agriculture (10), health (4) and tax administration (4). In addition, a total of 14 Batswana were trained overseas with 10 receiving degree training and 4 receiving non-degree training. (Southern African Development Personnel and Training-SADPT Gant, Jon A., et. al. USAID, Bureau for Africa. Botswana, Gaborone, 2 Feb 1979 --PD-AAG-5606-A1)

OPEX technicians provided direct help to upgrading government operations through their own services but they also understood well the need for improving long-term institutional capability through training of local personnel and emphasizing improved coordination of their own offices/departments within the ministries of which they were components.

Although health and education areas were included in the original project design the mid-project evaluation found that, at a regional level, the project was heavily concentrated in agriculture and agriculture-related fields. (Siffin)

"While personnel and funding limitations preclude further assignment of new positions under SADPT, the team did question the lack of involvement in the health and education fields. Apparently, in the context of the three countries, the agricultural ministries (or other bodies active in the agriculture field) have a somewhat better capacity to plan and effect utilization of OPEX technicians from the U.S., thanks partly to a very vigorous and innovative OSARAC agriculture officer with effective connections in all three countries. A further factor favoring provision of agriculture-related technicians is the recognized superior U.S. capability in such fields as conservation and range management. (p. 15, Siffin)

The evaluation team also noted the reluctance of the Minister of Health and Education in Swaziland to utilize OPEX personnel. The Minister was particularly concerned that a preliminary condition should be an assessment of the likely or possible roles of these sectors in being an integral part of Swaziland's rural development area programs. No similar examples are cited for Botswana so it is unclear what the Botswana rationale was, but, in fact, it appears that opexers were active in the health sector although there were none in the education sector. (check this)

The 1979 A.I.D. assessment team felt strongly that health and education sectors should receive more support. "Indeed, the evaluation team sees this as a special challenge to SADPT to accomplish something very much in harmony with the new directions in U.S. foreign assistance legislation." (Siffin, p.15) This same theme was reiterated in a subsequent evaluation where one of the "lessons learned" was that this type of project was particularly useful to small but growing missions because it "allows the mission to get a 'foot in the door' in mandate areas where regular bilateral projects might be initiated in the future"---"thus, it can also be used as a project design tool, with bilateral project 'spin-offs'." (Gant, Jon, et al.)

In a somewhat aberrant interpretation of the new directions mandate the midterm evaluation team reported: "Somewhat afield from the new directions, SADPT senior professionals in the area of income taxation occupy key roles, and there are interesting questions about their impact upon the localized development of their department." (p. 14, Siffin) Actually this activity was reported elsewhere as very effective, considerably enhancing government revenue --Team needs to confirm. Although not directly related to the health activities in this project, strengthening the tax base as one dimension of this larger project may well have contributed to sustainability.

Project strengths reported in the evaluations included a combination of limited size with flexibility, and responsiveness to host country defined objectives. The project had a "demonstration effect" by implementing small strategic activities having value and visibility beyond their relative cost. In addition, it responded to an area that had high value for the BLS countries, i.e., building local capability. "And indeed the U.S. program is virtually unique among donor projects; and time and time again government officials of the three countries who are not expatriates expressed their appreciation that the U.S. was giving palpable support to their own efforts at localization." (Siffin, p. 12)

Issue areas or problems in project implementation included frequent shifts of local personnel ("In Botswana in particular we encountered frequent shifts of local personnel." (p. 21, Siffin), the great range in differences in host nation needs, modes for effective action, capacity for making and supporting decisions, external relations, slowness in identifying suitable students for training and the insufficient length of opex appointments to identify and develop a local successor.

There were also problems in implementation resulting from A.I.D. procedures. The 1978 evaluation suggested that mission issue work orders directly, i.e., bypassing AID/W, and that the contractor's field representative have authority to negotiate contracts with OPEX candidates living in southern Africa. A serious housing shortage was being created by the increasing level of international assistance. The team noted that there were reported objections in the AID/W contracting office toward OPEX projects and that the contracting office had insisted on concluding contracts for only one year with the Near East Foundation, the principal furnisher of OPEX personnel for the project. The evaluators believed that continuity was crucial for success of the project and recommended that there be high level management intervention in AID/W to reorient the contract office to the nature of the problems.

The evaluators also stated that the key to implementation of the project is project management, i.e., the effectiveness of mission personnel in a number of domains: close collaboration with host country personnel (at levels ranging from Ministers and Permanent Secretaries to field personnel who participate in specific activities--yet those associations must not intrude upon the relationships of the latter with their employers, the local organizations where they work); interaction with other donors and with sometimes highly sensitive expatriates with the host government. Project management required "talented entrepreneurship combined with a keen understanding of the host country situation," and AID/W must backstop to reduce and eliminate bottlenecks. Finally, the recruitment of high quality OPEX personnel was crucial to project success.

Finally, it is clear that project expectations were overly ambitious --they thought they could achieve total "localization" by the mid-80s. (There are more expats in these posts now than there were then--although the percentage is lower.)

What Has Been Sustained:

We have not been able to determine from information available in Washington who was trained in health under this project, the precise areas of training, and what they did subsequent to completion of project funding by A.I.D. The Study Team will need to determine if the people trained in health under this project are continuing to carry out activities and provide benefits in the areas of their training. How long subsequent to project completion in 1980 did activities or benefits continue? Did the government continue to train people in health under other programs, and did they commit their own resources to these activities. Were some efforts supported by other donors? How much, if any, replication has taken place, i.e., have those who received training continued to train others? What benefits has the project contributed? How much "localization" has occurred?)

Factors Affecting Sustainability: What additional information not covered in the above account can the team uncover in relation to the fifteen sustainability factors, particularly the project characteristics?

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APPENDIX E

HEALTH SERVICES DEVELOPMENT

Maternal & Child Health/Family Planning (6330032) FY72 - 80  
\$1,823,000

In 1972, the GOB policy took a new turn. The Government determined that MCH/FP should receive an important emphasis as part of the general health and preventive services. This was a major new departure in the development of Botswana's national health services where emphasis had been largely given to strengthening and expanding curative facilities. (Need more description on conditions in the health sector before the project began.)

With the shift of medical priorities from the upgrading of curative facilities to the dissemination of general health and preventive services, the government of Botswana found that it lacked sufficient trained personnel, especially in the area of maternal/child health and family planning. The strategy devised by the Government relied on a public sector approach, emphasizing the development and staffing of an existing institution. (was there any consideration given to non-public sector--e.g., mining, missions? Or perhaps to government playing coordinating role?)

It was within the context of this objective that the A.I.D. assisted project, Maternal and Child Health/Family Planning (MCH/FP), was formulated. The purpose of the U.S.A.I.D. project was to assist the development of a cadre of health personnel capable of staffing and providing preventive MCH/FP services in the urban and rural health facilities. The Government looked to this project to improve and extend family planning and preventive health services by training the manpower to staff the rural health facilities projected to achieve the goal of providing adequate services to the population. This project had linkages with several other on-going and planned projects in the rural development sector. The scope of the project was country-wide and an integral functional component of the Government's rural development program, thus interrelating with almost any rural development project undertaken.

The A.I.D. project was meant to contribute to the development of decentralized, generalized health delivery system in Botswana supported by both the U.S. and the Norwegian aid. Norway funded construction, equipping, and operation of 40 clinics and 120 health posts. The U.S. provided technicians, consultants, and commodities to establish four sites for in-service training of registered and enrolled nurses in integrated health care. Heavy emphasis was placed on maternal/child health and family planning.

AID assistance was requested for in-service training, development of an integrated basic curriculum and development of the Health Education Unit.

U.S. inputs included: US technicians, admin asst, commodities, vehicles, participant training, observation visits, consultants. GOB inputs included: housing, trainee salaries, office space, clerical staff, in-country travel costs. Other Donors were: Government of Norway (NORAD), UNFPA, IPPF, UK (GDA) (Need more information on concurrent activities by national government and other international donors.)

Project Outputs were to include: 1. in service training plan and integrated health curriculum devised. 2. refresher course completed by in-service nurses. 3. integrated curriculum used in nursing schools. 4. field training resources developed and utilized . 5. tutorial staff trained. 6. health ed. unit established 7. post-partum family planning program established. 8. counterpart training conducted by US staff.

The project was implemented by Meharry Medical College. Based on a 1975 trip report three years into the project, filed by a three person team from Meharry , A.I.D. and the GOB, focused on three main areas encompassed by the project, the following observations were made:

1. Training:

A. In-service Training. There was unanimous agreement that the in-service training aspect of the project had been outstandingly successful. Roughly one third of the total of approximately 500 registered nurses had been trained through the in-service program. The curriculum for training of enrolled nurses had been revised by the Meharry Nurses to include MCH/FP courses. At the time of the visit, the revised curriculum had not been implemented by the GOB. Meharry nurses had established post-partum clinics in two geographical areas.

B. Out of Country Training. Thirty five slots were available that allowed for long and short-term training in Nursing, Health Education and Administration of MCH/FP. Five Batswana nurses had completed short-term education observation. Two enrolled in a two year advanced nursing program in Nairobi. Five students had been enrolled in B.S. programs in the U.S., two in Health Ed. and three in nursing. Although funds were available to train candidates at the Masters level, presently there were no candidates identified who could take advantage. Also, there was a need to identify a counterpart Administrative Officer to replace the Meharry officer at the end of the contract.

A review of the Training Sites --Hospitals and clinics that serve as clinical training sites for nurses being trained in the in-service or continuing education programs--indicated that nurses were enthusiastic, and were using newly acquired skills and knowledge.

2. Health Education Unit --Disappointment was expressed at the fact that this aspect of the project had not developed to the extent that the Ministry had hoped. Evaluators reported that the unit was in need of a clearer sense of direction and of prioritizing and implementing objectives. Goals and objectives were specified further by the MOH.

3. Technical Assistance --Most TA under the contract was not as useful as had been anticipated. The Ministry expressed a firm decision to entertain only that technical assistance in the future that was specifically requested with clearly defined goals and objectives. One recommendation made by the team was that the initiative for use of outside consultants come from the GOB with specific tasks outlined to be performed by the consultants engaged.

The Final Project Evaluation was prepared by Medical Service Consultants, Inc. (PD-AAP-528) "Evaluation Report: The Botswana Child Health/Family Planning Training Project (Aside: Annex VI has a good description of the health services sector and of Botswana's development strategy.) The following is a summary of findings:

1. Administration and Management: Recruitment of personnel, etc. was adequate with exception of the failure to provide a health educator for 20 months of the project. U.S. backstopping personnel to field staff was weak in many respects. Administrative and technical support to the field was poorly handled leaving staff with "a sense of abandonment"; Commodity and logistical support to the field was conspicuously

deficient; management and financial resources appeared to be so bad and were so inscrutable to the evaluation team that they requested a financial audit; host country relationships were warm and friendly--MOH and other Government officials expressed their pleasure and satisfaction with the Meharry project.

2. Training component --Both immediate and long-range positive effects on the quality of care being provided in PH/MCH/FP by nurses trained under the in-service program were identified. --Concepts of MCH/FP were introduced into the basic EN and RN curricula as originally planned, but full integration of these concepts into the teaching program has been spotty.
3. Participants The participant program under the Project was appropriately conducted with reasonable and appropriate numbers and types of participants trained.
4. Health Education Unit--while problems of planning, leadership administration and management of this component of the project were of serious magnitude , the future potential of the unit appears to be adequate to meet MOH needs in this area.
5. Residual Effects on the GOB Health Services Post-partum program and family planning activities have clearly exceeded the original objectives established for this component of the project.

The Evaluation Team concluded that the Meharry Medical College as Contractor failed to develop the institutional commitment and the degree of involvement required for the support and management of an overseas project of the scope and magnitude of the Botswana Child Health/Family Planning Training Projects.

(Accomplishments listed objective by objective in MCI final evaluation--useful in field)--

Objective 1: To train or Restrain Personnel for Staffing Rural Health Facilities in Public Health, Maternal and Child Health and Family Planning; Objective 2: To prepare an Integrated Curriculum (including appropriate Public Health, Maternal and Child Health and Family Planning Programs) for use in the Basic Nurse Training Schools; OBJECTIVE 3: To Develop Field Training Facilities and Field Practice Areas Needed to Support the Health Training Programs; Objective 4: To Train a Selected Tutorial Staff to Continue Use of the Integrated Health Curriculum; Health Education Unit; Residual Effects on the GOB Health Service ("Implicit in the objectives of the project is the concept of "institutionalization" of the activities of the Bots )

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The evaluation team thoroughly indicted the management of this project by Meharry--Yet in terms of achievement of objectives/outputs, it seemed quite successful.--was there some unspoken agenda here? Or is the "lesson" that it is possible to achieve objectives and goals in spite of poor project management? MCI--the evaluators--won the succeeding contract. (see notes) Did Meharry compete for the new contract? Who can provide information about this project? Jean Pinder in the U.S.? Who in Botswana?

### What Has Been Sustained

The Study Team will need to determine: (see outputs listed above) 1. Is new integrated health curriculum in continued use? Has it been continually refined? 2. Are in-service nurses continuing to use the training they received? Are refresher courses still being given? 3. Are field training resources still being utilized? 4. Is tutorial staff functioning effectively? 5. Is the health education unit established and functioning? 6. Is there a post-partum family planning program in operation? 7. Are counterparts trained by U.S. staff using their training? 8. Other effects on GOB health services?

Determining what was sustained in this project will be complicated by the fact that many of the activities in this project were continued under a follow-on project, Health Services Development. These two projects could possibly be handled as one "case study," with numerous components. The overlap is not complete, however, and all components should be included even if present in only one project.

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APPENDIX F

HEALTH SERVICES DEVELOPMENT

Health Services Development (6330078) 1978-1986, \$3,933,000

Background: This project was designed to provide technical cooperation and training to strengthen the delivery of health services in Botswana. It was a follow-on to the earlier MCH/FP project, the beginning of an ambitious program to extend health services to the settled population of the country. Initial emphasis on health services in Botswana, following Independence, was on curative care. Beginning with the third national development plan the government embarked on a long-term effort to establish a curative-preventive mix of health services. The problem to be addressed by the project was inadequate facilities and insufficient trained personnel, thus providing rural areas with an emphasis on preventive health care.

Project Purpose: to increase the capacity of the GOB MOH to provide health services to the people of Botswana with an emphasis on the rural and peri urban populations.

The project was designed with four functional components, each of which was perceived as a necessary link in the provision of basic health services through an effective and efficient health delivery system. The four components and their functions were:

1. Nursing Education--Nurse educators to staff local training facilities prepared in a university level, in-country training program were introduced by the project. A diploma course was also developed to train nurse practitioners and public health nurses in-country. The graduates of the program to provide the staff for existing understaffed health facilities throughout Botswana. The Enrolled Nurse Curricula revised to prepare practical level nurses for rural services.
2. Health Administration--Health and hospital administrators trained at the Institute for Development Management in Botswana for positions in District Councils and hospitals. A health planner and statistical assistants trained in the U.S. for MOH positions.

3. Health Education --An in-country training program developed to prepare health educators for positions with regional health teams. Trained Batswana to fill all positions in the Health Education Unit of the MOH. Planning and training capabilities of the Unit improved. A facility for the Health Education Unit constructed in Gaborone.

4. Nutrition research conducted, and results incorporated into national nutrition program developed by project technicians and counterpart staff. Project-trained Batswana eventually filling all the positions in the Nutrition Unit of the MOH. Offices for the Nutrition Unit located in the same facility constructed for the Health Education Unit.

AID inputs were to include (a) nine long-term technicians and one project administrative coordinator, and 45 pm of short-term consultant services; (b) U.S. participant training for 14 Batswana (long-term) at the diploma, B.Sc. and M.A. levels and 4 Batswana (short-term); (c) support for in-country training for 200 Batswana; (d) construction of a central health education/nutrition unit (also includes four technician's houses); and (e) commodity and other costs support. (p. 3, PP)

The Project Paper design team was a multi-disciplinary effort comprising 6 1/2 person-months of effort. According to the PP, the design was conducted in close collaboration with MOH officials. Collaboration was facilitated by the provisions in the MOH of office space, with ready access to all MOH personnel.

During the design period of the Botswana Health Services Development project a number of issues were raised. An issues paper prepared 10 days into the PP design (March 10, 1978) identified as an "old" issue the "Evolution of Nursing Education." "The idea of transition into a BSc program is well accepted by certain groups interviewed and viewed more skeptically by others." The Director of Nursing Education (Mrs. Kupe) was absent at the time. The PS made the final decision, I believe. "Planning officers of the MOH, Ministry of Finance and Development Planning, and Ministry of Local Government and Lands seemed to feel this was a technical decision but were naturally concerned with recurrent funding implications of such a change." (PP, Annex C) This issue was dealt with in the final PP. (See LG 1st draft for discussion of financing) (There was no health financing/economist on the design team.)

Regarding the component of Health Education, "The issue at hand is the question of the MOH's interest and commitment to health education in general and, more specifically, in staffing

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equipment and, facilities."..."The Health Education Unit is now housed in temporary quarters with inadequate space for projected staffing requirements and for functioning effectively and efficiently in implementing a national health education program and in producing health education materials. The MOH acknowledges this problem, but seems to have no immediate solution. This irresolution reinforces an impression of a general lack of interest and commitment in health education."..."The degree of commitment on the part of the MOH will be further explored during the PP design period."  
(citation)

Health Administration: There was also ambivalence here. PP team thought it "obvious" that health administrators are required on the (district -?) levels--that nurses at all levels need to be relieved of this task. "The PP team will discuss this issue in greater detail with MOH officials and will tailor proposed training programs in health administration based on a consensus."

"Nutrition Programs: Again as in the case of health education, the PP team is unsure of the MOH's interest in and commitment to nutrition as a basic component of health care and delivery."...."..."the PP team may recommend assistance in nutrition programs, including staffing of the unit, as means of encouraging generating MOH interest and commitment to nutrition."

Other issues included: Disagreement between PP design team and MOH on placement of public health nurse-- MOH wanted her in clinic. PP team felt this would be a mistake. MOH prevailed. (see final PP) PP team wanted B.Sc. in nursing program vis a vis several different types of training programs. (PP design team prevailed)

Two general questions: (a) personnel ceilings for positions to be filled by Bots counterparts to AID-financed staff advisory positions (vis a vis OPEX concept?) (b) salary scales for nursing, health ed. and health admin cadres --Of primary importance, perhaps, are the salary scales for graduates of the nurse practitioner, public health nurse, B.Ed. nursing program and proposed B.Sc. nursing program. (See PP, Annex C, Botswana Health Services Development - Issues Paper, February 17, 1978)

It appears generally, that the PP was overly "directive" -- there didn't seem to be a lot of consensus in many areas. I don't know how much "negotiation" went on. The GOB did agree, at length, but not clear how much enthusiasm was there.

(It is important to clarify here the nature of the "project negotiation" process, as it is one of the key factors under scrutiny. It is also important to understand how much consensus there was among the Batswana themselves about the different components of the project--another key factor.)

Robert Friedline was rep-in A.I.D./W now?)

The mid-term eval (Nov 1979 - Feb, 1981) reported good progress toward objectives. The first classes had commenced for training family nurse practitioners and public health nurses. The curriculum for the enrolled nurses had been strengthened with particular attention to improved from enlarged guidelines, and was being tested at one nursing school. The building had been completed for the Health Education and Nutrition Units and had opened in time for the first class to train Health Education/Nutrition Assistants in a two-year program. The technical advisors had completed the curriculum and were assisting with its teaching. The human nutritionist had strengthened this component of all teaching programs for paramedical personnel as well as at the primary school level. Assistance had also been given to the National Food and Nutrition Committee. (Who conducted the evaluation?)

The component that had not advanced was Health Administration--the training of health administrators for senior level positions in hospitals and local government staffs at the Institute for Development Management. The team stated: "The area which had least specificity in the PP was the training for health administrators. The reason was that the scope of work for personnel working in this area had not been defined both in the Ministry of Local Government and Lands and in the Ministry of health. Additionally, the Institute of Development Management had no prior experience in teaching this cadre. Problems were caused by the lack of a suitable job description and defined interrelationships between the administrator and the technical health staff. Need to clarify the hierarchy within which health administrators will work.

The team felt that the need for health administrators did not seem to be an issue. They believed that this objective remained important and that every effort should be made to solve the current problems--which seemed to revolve around definitions of appropriate roles, salaries and job descriptions for the graduates.

The evaluation team recommended that some attention be given to the identification of long-term participants --or they would not be able to complete courses by end of project.

There were two "outputs" for which no progress had been made. These were 1. "Three year BEd in Nursing program at UBS assisted and strengthened," and 2. "Foundation established, including curriculum development for possible future transition to BSc in Nursing program." In both cases, the team reported that the activities were "Not done by request of UBS." (p. 6 Botswana Health Services Development, PES, A.I.D., Feb , 1981. PD-AAI-932) Progress was also reported to be unsatisfactory in the activity of Health Administration.

There were other indications of trouble in the evaluation report. E.g., "The Senior Nurse Educator has been unable to assist or strengthen the three-year Bachelor of Education in Nursing Program at the University because UBS declined to accept her services. This planned project activity was in the process of implementation by a Botswana national and a U.S. technician hired under an OPEX contract before the Senior Nurse Educator arrived." (p. 9)

The three "lessons learned" reported by the evaluation team also suggest areas of trouble: "(a) Development of a team identity and spirit would have been desirable prior to arrival in the field....items which should have been clarified include the roles and functions of AID, the contractor, the field support office, the Chief of Party and the Ministry of Health. (b) For relatively large projects of a technical nature, the local AID office should be prepared to provide adequate backstopping. In this case regular visits of a health officer are necessary if there are none on the local staff. (c) When projects involve numerous parties such as the Ministry of Health (including several interested individuals), teaching institutions, AID, and the technical advisory team of regular meetings with an agenda should be convened from the start of the Project."

Finally, recommendations included "Upon departure of the current Project Coordinator, the position should revert to that described in the PP and be filled by a Botswana., and 2. Incoming personnel should be selected so that an individual capable of serving as Chief of Party as well as having necessary technical skills is hired. 3. Upon the completion of the Senior Nurse Educator's tour, a review should be conducted of her revised job description, and the necessity of an additional nurse Educator re-evaluated

Four months subsequent to the mid-term evaluation "AID terminated the contract for the convenience of the government..." (Review of Termination Costs Claimed by Medical Service Consultants, Inc. Under Contract No. AID/AFR-C-1599 (Botswana), Audit Report No. 0-000-82-85, July 12, 1982

The final evaluation of this project identified as reasons for the termination the various problem areas alluded to in the mid-term evaluation. The only additional light shed on the matter was information on the technical assistance to the Nursing Program at the University of Botswana component, i.e., the University of Botswana declined to accept the proposed Senior Nurse Educator candidate since it had reservations on her qualifications. The individual subsequently filled the newly created position of nursing team coordinator. "Finally, the evaluation acknowledged problems of a lack of unity and clarity on the part of USAID/B and the Ministry of Health regarding the roles and functions of all parties involved in the implementation of the project." "Five members of the team left Botswana in the Fall of 1981. Three of those remaining in country were employed by the Ministry of Health and were funded from a non-AID source. The fourth was employed by the U.S. Peace Corps." pp. 6 -7, Botswana Revised Health Services Development Project (633-0078), Final Project Assessment (October 1986), Dr. Charles DeBose, A.I.D.)

The projects was revised in January 1983. Most significant here seems to be the amount of TA that was eliminated. Allowance for a project coordinator was also deleted. Essentially, it looks like the Batswana took control at this point. In general, lines of authority, supervision and communication were placed firmly within the framework of GOB regulations and procedures. The TA advisor concept appears to have been eliminated and there was a return to the concept of OPEXers. All long-term technicians recruited under the project were to fill GOB supernumerary positions. They would hold regular MOH job titles and sign GOB employment contracts. Under the OPEX arrangement, AID was to supply funding for the appropriate reimbursement of U.S. technicians overseas." (p. 11) .."Selection of OPEX staff to serve in the project was to be the joint responsibility of AID and the GOB. The project was to fund a trip to AID/Washington for GOB officials designated by the MOH Permanent Secretary to participate in the interview and selection of the OPEX staff." etc. The selection process went back to them.

And there were shifts in level of effort going into activities. p. 11

("When this AID-funded project terminated in August 1986, the GOB's request for a further extension for the nurse educator was not granted by USAID/B.---Was this Kupe? De Bose said it was vitally imp. that she complete her studies ..funded by another donor. ---key questions now revolve around self-managing and self-financing-----COMMITMENT WAS KEY (p. 25)

The Final Project Assessment, August 1986, reported the following state of affairs:

National Health Institute:

Nine of the 11 participant trainees sent to the U.S. have returned to appropriate units or institutions, and are all playing significant educational and technical leadership roles. (Two had not yet returned, but were expected when they completed their studies.) Graduates and students taught by counterparts, OPEXers, and tutors funded under the projects felt their competence, independence and confidence had markedly increased. Some difficulties had been encountered due to need to establish FNP role better at the administration level. Curriculum development successful, and new teaching techniques were learned and are being utilized.

University of Botswana (UB)

The goal of the nursing education program at UB was to prepare tutors to be placed in teaching positions in the UB program, at NHI, in the enrolled nursing schools, and in the training programs for FNPs and CHNs. The program surpassed this goal and, in fact, the UB program has now become a regional training program. Since 1984, 36 students have graduated from the program, and there are presently 62 students enrolled. At the time of the final evaluation, SADCC had expressed an interest in supporting UB as a regional training facility in nursing education and administration.

Health Education Unit:

The project did assist in strengthening the HEU. However, the unit requires considerably more support. The project trained two Batswana at the Master's level in health education. The MOH is committed to this area as evidenced by their policies and guidelines on health education. Their commitment is demonstrated by the actual expenditure of funds for staff, transport and other recurrent costs.

Nutrition Unit

The Nutrition Unit was "partially strengthened" with inputs (training and TA) from the project. However, the evaluation indicated that a general reorientation was required in the Unit.

EOP Major findings included:

--NHI is providing relevant, quality training

--The OPEX arrangement was ideally suited in this situation

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--The careful selection of participant-trainees, having positions already in place for their return and flexible support for the trainees while they are studying, in the U.S. are essential for success.

--The project was highly successful because MOH officials and American OPEXers viewed themselves as being involved in adoption and use of innovative technology and processes.

--Continuing education activities and service delivery may compete for resources; there is coordination of training and service delivery at the central level, but little evidence that it is as effective at the district level

--NHI is a successful, valid and effective institution because it was established on a universally agreed upon need in the country, is in great demand by its beneficiaries, and is focused on specific and immediate goals that are important to MOH.

--Health education support to major components of the PHC program such as MCH/FP, EPI, Nutrition (growth monitoring and nutrition education), has not kept pace with increased health services availability and population coverage over the past few years.

The final project assessment (EOP) dealt with the issue of "Institutional Capacity/Sustainability." "A key issue is whether the MOH as a whole and the units that were assisted and supported through the project have the capability to sustain effective training and service delivery efforts. Although it is reasonable to expect that the GOB will require both external technical and financial assistance in the near future, "the key question must center about the commitment of the GOB to support the activities funded under the project and the degree to which these activities are becoming self-managed and self-financed.

The evaluator identifies two indicators that are positive factors for sustaining project elements by GOB and MOH. The first indicator was the MOH's expenditure on the recurrent health budget, which has increased steadily over the years 1981/82-1984/85. The second indicator cited was the recent GOB organization and method review exercise covering the overall reorganization of MOH. As a result of the reorganization, two new departments were established that have direct responsibilities for the components covered under the project. These are now the Department of Health Manpower headed by an Undersecretary/Health Manpower and the department of Primary Health Care Services headed by an Assistant Director of Health

Services (primary health services). The training components of the project are the responsibilities of the first department and the health education and nutrition components of the project are the responsibility of the second department. These developments do appear to support GOB's and MOH's commitment to sustaining the project's activities.

### What Has Been Sustained?

#### A. The Training Component (NHI and UB)

Two months following the completion of this project, the evaluator reported a solid, well-organized training program at both NHI and UB. New curricula developed under the project were being carefully taught by the tutors who had gone to the U.S. for training. In addition to the payment of salaries, the GOB has taken over all expenses of the project. This includes costs of continued in-country workshops and travel of the NHI tutors. It appears that NHI and UB have sufficient institutional capacity to plan, run and evaluate appropriate training programs. Although outside technical assistance and funds for training of tutors will be a need, the training institutions are able, with decreasing assistance, to provide effective training programs. The GOB is able to recruit sufficient and qualified staff, train trainers, and design and develop curricula.

Several areas are identified which will require additional donor inputs --including long-term TA, short-term TA and commodities (p. 23-DeBose)

The CDIE team will need to verify that the activities and benefits reported in the final evaluation (two months following project completion) have endured--and to see if donors did pick up in some areas, and with what consequences.

#### B. The Service Delivery Component (HEU and Nutrition Unit)

Two months following the completion of the project, the evaluator reported that both the HEU and Nutrition unit are existing, functioning service delivery units of the MOH. These units have, since their inception, been strengthening their internal organization to cope with increased demand for their services at local, district and national level. Project inputs assisted in the continued efforts to make them comprehensive service units. Both units have full-time local heads and are building the type and number of staff needed for their effective and efficient operation. In spite of staff shortages which have limited their overall effectiveness, they have

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accomplished much in a relatively short time period. There appears to be a high degree of institutional commitment from MOH to the units. Budget allocation have been made by MOH.

Considerably more outside assistance will be needed in order for these units to expand to full capacity, including long-term TA, Short -term TA, long term participant training, short-term training, and commodities.

The CDIE evaluation team will need to verify these post-project findings, and to determine if there is continuing progress and support.

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## Draft Case Study

### APPENDIX G

#### ENVIRONMENTAL SANITATION

Environmental Sanitation and Protection Project --(6330084)  
1979 - 1983      \$348,000

#### Background

In 1976, the National Conference of District Development Committees of Botswana resolved that a coordinated national effort was necessary to improve sanitation. As seen then, improvement of sanitation included (1) construction of toilet facilities, and (2) the disposal of refuse. Considerable efforts had been made by GOB health officers, in particular the Health Inspectors, Family Welfare Educators, nurses and Community Development Officers, to promote sanitation. However, success had been limited. Over the two-year period, AID and the GOB on the central, district and village levels planned to: 1) develop, test, and evaluate various educational techniques, media, and messages related to sanitation and to the building and maintenance of appropriate latrines and refuse disposal systems; and 2) test various types of latrines and refuse disposal systems to determine which ones are technically appropriate, socially acceptable, and affordable to rural households.

Functional elements of the project included: (1) a multi-media health education campaign, (2) construction of latrines and refuse disposal systems in each village; (3) on-the-job training (OJT) of health personnel and village-based construction teams (including OJT to Motswana counterpart who will be capable of functioning as Project Coordinator for a nationwide ESPP), (4) continuous evaluation, and (5)

experimentation and research on low- and lowest-cost options for sanitation systems and on the reuse and recycling of waste materials.

Assistance in the production of multi/mass-media materials was to be provided by the Peace Corps. The Peace Corps would participate in the materials production functional element of the project. A PCV Materials Producer would work closely with the MOH Health Education Unit, the MLGL Sanitation Engineer and the Ministry of Works in producing multi-media materials on health education and technical manuals on construction techniques and appropriate technology. The Materials Producer would function as a full-time member of the ESPP project team and would participate actively in the other functional elements of the project.

AID inputs to the project included:

1. Technical Assistance: a) a Multi-Media Specialist/Project Coordinator for two years; b) a Sanitarian for two years; c) a Social Scientist for six months
2. Participant Training: a) Short-term Training in media management for the Botswana counterpart Project Coordinator in the U.S. and Third Countries for a Botswana counterpart
3. Funds for: a) commodities --multimedia educational equipment and supplies, two vehicles (one to transport media equipment), construction material and building tools; b) other expenses including local hire to assist in evaluation; conferences and seminars; and research funds; cost of housing for U.S. personnel if any are assigned to Gaborone.

Botswana Inputs to the project included:

1. The Central Level would provide a) Technical services--a counterpart Project Coordinator, full-time; an economist, part-time; and the cadre of health personnel working on the district and village levels; b) Commodities and Services--three trucks; camping equipment, vehicle operation and maintenance, office space and secretarial services; housing for the PCV.
2. The District Level would provide a) housing for the U.S. personnel in Kanye and Mochudi
3. Community Participation: (See pp) This was defined as: Decentralization; Self-help; this was very heavily emphasized in PP

Peace Corps input to the project would include:

Technical Assistance--a Materials Producer Volunteer for at least one year, and support-related costs

Planned Project Outputs were: 1. Prototype latrine system built and tested. 2. Refuse disposal alternatives tested. 3. Improved community/personal hygiene messages developed. 4. Extensive use of new latrines by six villages. 5. Increased use of existing latrines in six villages. 6. Printed technical and audio-visual materials produced on latrine building/maintenance. 7. Multi-media health education campaign developed and tested. 8. Multi-media network strengthened at central, district, and village levels. 9. Motswana trained in project management and media management. 10. Recommendations on replication of Environmental Sanitation project in other districts. 11. Procedures for administration of subsidies (e.g., selection, amounts).

Upon completion of the project after two years, the following conditions will be indicative of achievement of the project purpose:

--affordable, acceptable and technically appropriate sanitation systems identified for replication in rural Botswana;

--multi-media health education and training packages developed and tested; and

--district and village institutions able to implement sanitation activities in six villages.

The Project Paper identified specific activities which would be carried out in the project. The installation of 18 prototype latrine systems at village sites, e.g., schools, would serve as functional public models to encourage the subsidized, individual self-help construction of 450 latrines. (Construction of 450 unsubsidized latrines was anticipated.) Latrine types include the Ventilated Improved Pit (VIP), a semi-offset structure over a straight chute; Reid's Odorless Earth Closet (ROEC), an offset structure over a curved chute; and the Revised Earth Closet (REC), an offset structure over a double pit. Printed and audiovisual technical materials on latrine building and maintenance will be produced to assist participants.

Refuse disposal systems to be tested included on-site household refuse burning, storage, and disposal; the communal collection of refuse to be burnt, composted, recycled, or used as an energy source, e.g., in biogas plants.

A multi-media health education campaign was planned to complement installation of the new sanitary systems, increase the use of existing latrines, and develop a multi-media network operative on central, district, and regional levels. Five core health messages were to be developed, focusing on latrine use, hygiene, safe water, refuse disposal, and safe food preparation and storage. Radio, film, audio cassettes, Polavision (portable film cassettes), slides, flip charts, booklets, posters, leaflets, and folk media. Peace Corps Volunteers will

help reproduce and edit useful project materials. In-depth evaluations will lead to specific recommendations for ESP replication. Project/media management training will be provided to the ESSP coordinator's Botswanan counterpart, and GOB administrative procedures (e.g., beneficiary selection for ESSP subsidies) will be established.

When the project paper was reviewed in AID/W, a question was raised about the institutional location/relationships of the project. AID/W asked why the mission was initiating this activity as a separate project rather than integrating it with the Botswana Health Services Development (HSD) project. Their concern was for the amount of management time that would be incurred by the mission for this activity. They told the mission that if integration was not workable that mission should demonstrate how the project related to the Botswana health Project, particularly as regards aspects of hygiene education. They were mostly concerned with the size of the project--proliferation of small, fragmented projects in southern Africa. However, they also questioned how this activity would be coordinated within the GOB. And they asked why an American coordinator was required, and who was going to handle this position at the end of the project. (Was there no provision for a Botswana counterpart in the original PP?)

The Project Paper (design) was modified to articulate a connection between the ESPP and the HSD project. (Footnote: The Health Education component of the Botswana HSD project (to be funded by AID from FY 1978 - 81) was designed in part to supplement and complement the health Education output of the USAID/MCH/FP project. Expected outputs of the health education component of the project are: 1) national health education plan developed and in the process of being implemented; 2. GOB capability developed to provide training in health education; 3. In-country training program developed for health educators; 4. Health education positions in the MOD Health Education Unit filled by Botswana, and 5. a new facility for MOH, the Health Education Unit, built and in use.) The ESSP designers pointed out that the HSD project will have the long-term services of a Health Educator to develop the curriculum for an in-country health education training program and to assist in teaching in order to train a new cadre of regional health educators through in-service training. The MOH Health Education unit is currently preparing a curriculum for training these Regional Health Educators. They will eventually be in the field and thus ensure the continuity of the health education component of this pilot project. Perhaps the AID-provided technician Health Educator can serve as a resource person for the ESPP, structuring the health education curriculum to the needs of the six pilot villages and using these villages for field training experiences.

The GOB also expressed a concern about the project. Specifically they questioned the financial/cost dimensions. In a letter to the USAID mission director in 1979 they emphasized

that they had not yet ascertained whether a subsidy will be required at all, and if so, what form it would take--a flat rate, a graduated subsidy depending on income, etc. Furthermore, they were concerned that no discussion of the recurrent and associated costs arising out of the project had taken place, and that the amount estimated for a full subsidy had been significantly underestimated, and that the government is not at this stage prepared to commit itself to subsidies on a national scale. Furthermore, they pointed out that even if the pilot were successful, they did not intend to implement it on a national scale, but on a district by district basis as each district is ready. Each district might choose to adopt a slightly different method of carrying it out.

At the end of the second year an extensive and thorough interim, formative evaluation was undertaken to assess progress and improve implementation. It was a collaborative effort: The GOB project overseer, USAID project officer and ESPP project team traveled, attended meetings and held review discussions with the core evaluation team. It included extensive field visits, reviews of the project with district and village level officers and staff, inspecting facilities and interviewing beneficiaries and village leaders for their opinions. All project villages were visited. Team members stayed overnight in two to gain a better appreciation of village conditions and logistical problems. Project documents were reviewed. A draft of the recommendations were discussed with the ESPP team members, MMGL and USAID, and their suggestions taken into account.

The evaluation reported that the project had not progressed as planned. "First, there was considerable delay in securing the services of the two technical assistants. Second the building of prototype latrines in villages began later than anticipated. Third, the multi-media campaign on latrines began prior to evaluation of the prototype latrines. Fourth, ESPP has suffered from poor management. Fifth, there have been difficulties with construction using non-traditional materials in the villages; the actual cost of latrines has yet to be established; and technical and logistical problems have yet to be resolved. Sixth, the delivery systems need to be institutionalized.

The evaluation team set forth 27 recommendations, which they believed, if implemented in a timely fashion, would contribute to a successful outcome. Positive features of the project included a dynamic and committed Project Coordinator-Counterpart. And, initial reactions of villagers to the prototype latrines have been favorable and preliminary costings of materials indicate that they will be affordable to a significant proportion of households. It seems reasonable to expect that viable media packages will be ready for wide-spread delivery by end-of-project. The ESPP team has involved Batswana leaders in promoting the ESPP. The refuse disposal campaign was successful in motivating the digging of rubbish pits in five villages and in some clean-up efforts.

The economic situation of the country, was less favorable than in 1979, when ESPP was designed. Hence finances are not available to create many new positions with the GOB. The ESPP was originally designed to almost exclusively rely upon existing personnel, and attempts must be made to integrate ESPP functions and responsibilities with various categories of GOB personnel. If the program is to be continued and expanded a person should be assigned within each district who can devote his/her time to ESPP and who is in a line-position which would allow for assuming environmental sanitation responsibilities after project completion. Persons appointed to these posts should not be transferred within a time frame agreed upon by the GOB.

As a result of this thoroughgoing collaborative evaluation, the project was fundamentally redesigned. The original basic concept that media is the key to implementing ESPP and any future program was challenged. A new direction was recommended. ESPP was reorganized and new management created. The U.S. full-time multi-media technical assistant, who was also Project Team Leader, was dismissed. The Materials Producer, who originally had been supplied by the Peace Corps, accepted an OPEX arrangement to work in the Department of Non-Formal Education, Ministry of Education, on agreement that he would spend 50 percent of his time on ESPP. He replaced the multi-media expert as Project Team Leader. At the same time the Senior Public Health Engineer in the Ministry of Local Government and Lands (MLGL) took an active role Project Manager on behalf of the GOB.

Other changes were equally far-reaching. Short term consultants were secured through a combination of ESPP funds and AID centrally-funded projects. (p. 4, confirm) Participant training in the field of media management was replaced by training in another ? In-country training was to be more comprehensive and focused skills training. Further, it was recommended that people who were expected to play a role in the ESPP delivery system should receive the necessary training and that short term consultants should be considered to assist in developing these modules. Although the GOB had named a project coordinator-counterpart prior to project initiation, this person had withdrawn. Several months prior to the midterm evaluation, a Motswana project coordinator had joined ESPP and many of the results to date were traced to his efforts.

Fieldwork began to progress only after the appointment of the Botswana counterpart Project Coordinator. (Aside--Did he have anything to do with the conduct of this midterm evaluation?) The evaluation team emphasized that if the project was to succeed more GOB involvement was required. Furthermore, it was necessary that (a) tasks and responsibilities be clearly delineated, as much as possible, which are considered within each cadre's job description and (b) if additional responsibilities are required that directions be forthcoming from that cadre's sectoral officials.

Unanticipated contributions of personnel had occurred. A Planning Officer (MLGL) and the Senior Public Health Engineer (MLGL) had devoted significant portions of their time to the project (the latter would become the future Project Manager on behalf of central government). Southern District appointed a District Works Department foreman to work one-half time and Kgatlang District had appointed such a person full-time for the project. Their supervisory role was deemed crucial in the building of latrines in the villages. The GOB had also picked up costs not covered in the original agreement.

Outputs were reestablished. It was recommended that household latrine construction be changed to 400 latrines rather than the 900 originally specified--because it is unlikely that this number could be produced because of the late start and because there are probably fewer than 650 households in the pilot villages which do not have latrines.

Evaluators found the management of the ESPP extremely deficient. There was no team spirit and team members had been working independently. The result was poor progress. Regular meetings and adequate management procedures (including regular reports and agreed forward planning) had not been used to guide and document project implementation. Reporting, record keeping and project monitoring were beefed up. Recommendations were made in the technical system --technical assistance, construction and procurement procedures, latrine costing, latrine design and construction, tools and equipment, soil conditions, Work was discontinued in the area of water treatment development and water supply. Many changes were proposed in the area of media and community mobilization.

On the other hand, an additional indicator was recommended for project purpose, i.e., "Delivery system tested and optimal systems identified." "...Delivery systems for community mobilization and health education focused on environmental sanitation and protection training, and installation of sanitary facilities need to be more carefully tested and optional system identified. It is not enough to have district and village level institutions able to implement sanitation activities in only six villages, if the project goal is to be reached. Low cost, effective delivery systems which can be replicated on a larger scale are required." "An issues paper discussing replication should be prepared by the ESPP team by July 1982 for discussion with GOB and be followed in October with proposals for replication of the program." (p.27) Cost components were specified, and the whole issue of subsidies was reconsidered. Much more emphasis was placed on keeping the costs down.

"UNPLANNED EFFECTS: Poor management has contributed to the slow physical progress. Although the ESPP Reference Group and the persons in USAID and MLGL responsible for overseeing the project tried to rectify the situation by requesting various

actions, e.g., weekly team meetings, the requisite actions often were not forthcoming. Poor planning and lack of coordination between ESPP team members, and poor interpersonal relations have been detrimental to the project. Affirmative action should be taken to correct the situation."

"Lessons Learned: During project implementation it has become apparent that a demand for latrines already exists in many rural communities. Efforts to create a demand by rural households for latrines through media and interpersonal communication are less needed than was assumed. It has also become apparent that greater attention needs to be given to the viability of expecting skills in construction with non-traditional materials to be available in rural communities without a concerted training program combined with frequent supervision to help ensure quality control. It may be more efficient to have the commodities produced outside the community and then transported--probably site-specific

(Carolyn Barnes, Team leader, REDSO/EA) EOP Evaluation:

As a result of the recommendations of the mid-term evaluation, the second phase of the project concentrated almost entirely on household latrine construction. Health education was dropped together with the development of multi-media packages. The project was to concentrate on delivering the necessary goods and services for village latrine construction, on replication and developing capabilities within the districts and villages to enable such replication. (Final Evaluation)  
(institutionalization ?)

ESPP - in the Districts The ESPP was to be a District council project--but there were problems getting participation of a District Coordinator. Southern District had even more

difficulties than Kgatleng. This lack of active DCs has caused a major weakness in the project--therefore likely that the councils will have more difficulty in replicating the project than if the DCos had been active throughout.

Excellent support from villages--support of the Paramount Chiefs and village headmen.

The Refuse Disposal Campaign-- Although the PP identified incorrect disposal of refuse as a growing concern in rural Botswana, this was actually incorrect. The FWEs were being very effective. The project reinforced them, however, with a very successful "rubbish campaign." FWEs in control and pilot villages.

### The Latrine Campaign

a. developing the BIT latrine--The PP incorrectly assumed that the VIP, ROEC and RECS were suitable for rural Botswana--this delayed project considerably. These models were too expensive for the majority of rural Botswana and inappropriate for logistical reasons.

PP also recommended that 450 latrines be constructed using subsidized building materials...a recommendation opposed by both District Councils who stated that there was to be no direct subsidy for household construction.

The Botswana Improved Trench (BIT) Latrine was developed for this project. And costs were kept to minimum --households built the superstructure using traditional building methods and materials.

23 demonstration latrines were constructed in villages

### The Sanitary Foreman and Sanitary Assistants

Village Coordinators-- difficulties here...People identified in PP to be VCs (FWEs and ACDOs) could not provide time-- hence positions filled rather "ad hoc" Result: a strong community based delivery system was not really established --no continuity in coordinators for replication: the role of VCo is critical for successful implementation of the project. --It is apparent from the records that local administration of the project has been most noteworthy in Ranaka particularly with the changes from an extension worker to a paid VCo. (3.3--Final eval)

### Household Latrine Construction--

Motivation--People were motivated and already knew the disease link w/o health education campaign Therefore three factors important: 1. The right technical solution - one which villagers understand, 2. the right price, and 3. an efficient delivery system.

### Progress on Latrine Construction

ESPP has resulted in 245 latrines being constructed in the pilot villages with a further eight demonstration latrines being awarded to households. (5.2-Final)

There was still a good deal of work left to be done by both the SAs and the households before the project could be regarded as complete....seats, pipes..

Labor--An important element of this project was that household latrines should be constructed with as much self-help labour as possible. By mid-1982 when it became clear that the 400 latrines required by the mid-point evaluation would not be

completed by the end of the year, USAID suggested bringing in a sub-contractor to help speed things up. The SMLG, however, decided that it was essential for ESPP to continue with the established delivery system as a self-help project so as to ascertain exactly what could be reasonably expected of villagers if such a project were to be replicated.

(5.4..Final) (Self-help labor was not restricted to the project--had been initiated independently by enterprising FWEs in Manyane.(5.5)

Tools (didn't seem to be very imp.)

### Supervision

Latrine Costs--establishing the real costs of the BIT latrine has been a major difficulty in the project. Establishing costs was complicated by the non-materials costs of such a project, including transportation, salaries and building demonstration latrines.

Affordability --response of poorer households way above expectations

### Approach to Village Participation

The PP placed strong emphasis on the full involvement of the community. Local institutions and structures were supposed to provide the framework. From the start of the project the ESPP team sought and gained the full support and involvement of the village headmen (Artesia may have been the only exception). The kgotla was their principle method of disseminating information, but this was not sufficient on its own.

At the village level the project was implemented primarily through the VCo and S.A.s. The PP had envisaged the full support and active participation of the Village Extension Team (VET), the Village Development Committee (VDC) and other local organizations. This underestimated the other duties which these extension workers must perform. After the first year of project implementation the team was disappointed in the lack of support which they experienced with the ACDOs and FWEs. In all villages, however, there was one extension worker who functioned as Vo. But, the only FWE in this position was in Keng, for the rest of the team relied on ACDOs. In general, project participation of extension workers improved during the second half of ESPP possibly as a result of the project's focus on the household latrine construction campaign in which they were given specific duties to perform. (See Final Evaluation, Section 8 ff.)

On the other hand, the shift to a construction emphasis and away from communication meant that the training of village coordinators and extension workers has been informal, unstructured and in some cases virtually non-existent. "At the time of the Intermediate Survey FWEs and ACDOs complained that

they were not sure of what exactly was expected of them. Although the project relied heavily on FWEs for conveying the ESPP health educational messages to the public, they had received no specific training in how best to achieve this nor were they given any of the teaching aids developed by the project such as posters and booklets, which could have been used during their home visits." "...where the Village Health Committees (VHC) are either weak or not functioning, the FWEs could have been taught how to activate these groups through participation in the ESPP. Lectures, role playing, films and cassettes could have been used to achieve this. However, as a result of the decision that the project should focus on latrine construction during the second year, this aspect of the project was dropped. This is regrettable since an active VHC can play a valuable role in motivating villagers to construct latrines as was found to be the case in Manyana." (Section 8.1)

It appears that the approach to motivate the local groups and to explain what was expected of them stopped with the latrine campaign (and the departure of the former project coordinator). The approach then had been more educational and people liked this.

It will be important to see where the project has been sustained and replicated. There is considerable discussion in the final evaluation about the importance of communication. This is important because replication presumably depended

upon community based delivery systems in which village, leaders, local institutions and organizations participate fully.

This was a District project. However, direct involvement of District Council in the implementation of the project was generally very weak, primarily as a result of the lack of District Coordinators who could dedicate sufficient time to participate at both district and village levels. Interestingly, only about one quarter of the people were aware that this was a District Council project. Basically they did not separate Council from Central Government, because they see the former as an extension of the latter with central government being in a position of authority over Council. The ESPP team appeared to be classified outside of both Government and Council--they were referred to simply as "Lekogao" (white men) or "Americans."

The final evaluation pointed out that villagers are not aware that this project will end during December 9, 1982), although the VCos and S.A.s have been informed of this. The evaluator suggested that these services be continued in the pilot so that those who have not completed their latrine may do so. (Did the "government," local or national, pick this up?)

Replication Issues: The evaluator (Pia du Pradal) sets forth numerous proposals in the final chapter that are considered important for replicability, many relating to factors that CDIE

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is exploring--participation, financing, implementing institution and institutional and managerial factors. These will be investigated.

Note: Annex C of the final evaluation has a complete list of the location of all the demonstration latrines.

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Shortened section will go in  
Section 4 in Main Report

APPENDIX --

THE HEALTH SECTOR IN BOTSWANA

Development of Botswana's Health Care System:

Today Western European medicine is the officially sponsored system predominating over the indigenous system of health care delivery in Botswana. However, at the beginning of the nineteenth century, indigenous medicine in Botswana constituted the only therapeutic system upon which the population relied. The chief and his traditional doctors had complete control over all aspects of public health. By the 1880s, however, missionaries had assumed authority. "The authority of the Tswana indigenous doctor was crushed, and within a short time, the siting of villages, rainmaking, and other public functions could no longer be administered by Dingaka tsa Kgosing." (Thabo Tsae Fako, Historical Processes and African Health Systems: The Case of Botswana 1800-1966, University Microfilms International, unpublished dissertation, 1984)

As colonialism and capitalism became more established in Botswana, so did the curative hospital-based medical system of the missionaries. The missionary-colonial hospital system developed along the line of rail, from North to South, in line with the extractive network designed to benefit the forces of the capitalist enterprise. Even as early as 1898, the railway department and the Protectorate government enjoyed the sole entitlement to beds at the only hospital in Mafeking. Except for the few European settlers, the rest of the population had no access to the hospital. The administrators did not perceive the provision of medical services to the Tswana to be a duty of the British colonial government.

Over time, the Tswana chiefs began to negotiate with the administration and to suggest that the colonial government had the responsibility to provide medical and other social services. Initial colonial services became possible after some of the British officials began to perceive economic advantages in meeting the demands of African chiefs, i.e., it would result in increasing the numbers of the indigenous population that could pay tax. When medical officers were appointed for the Protectorate the chiefs were required to defray the cost of their salaries either by the payment of hut-tax or contribution in kind such as fixed tribute, cattle and other livestock. The chiefs went beyond collecting taxes, and passed laws curtailing the practice of indigenous medicine at the same time as they sought access to, and official institutionalization of, European medical authority. The chiefs' persistent negotiation

led to the placing of the first medical officer in Botswana in 1915. By 1920, the medical staff of the Protectorate consisted of only three qualified doctors.

It was not the government, however, but rather the missionaries who provided institutionalized Western European medicine for Africans. And it was not until around 1925 when competition over the spheres of religious and overall cultural influence began that medical services to Africans began to spread rapidly. Prior to 1925, the London Missionary Society (LMS) had enjoyed a virtual religious monopoly. However in 1925, the Seventh Day Adventists (Masabata) opened up a hospital at Kanye. "This created competition between the LMS and the Masabata in Kanye and later in Maun. This inter-mission rivalry soon involved the Lutherans, and the Catholics at Ramotswa, the LMS and the Scottish Continuing Church at Molepolole, the Dutch Reformed Church and the Roman Catholics at Mochudi, etc. (p. 401)

"In order to claim a tribe, each mission group had to, in addition to winning the heart of the chief, make itself "useful" by providing social services to the tribe. Whereas schools and other social services were helpful to the missionaries' struggle for converts, medical services were, more than any other social service, of immediate use to most tribesmen or women. Their provision was therefore critical to the missionary struggle to retain territorial influence and control. The provision of medical services, thus, became an inseparable aspect of the processes of cultural penetration and territorial dominance." (p. 401)

Competition over the spheres of influence, ensured competition in the services provided. Each autonomous medical mission had to show to its clientele that the services it provided were competitive and up to standard. The role of government and the Principal Medical Officer was to ensure the uniformity of fees and other matters which had a legal implication. Government's role was more with the maintenance of law and order than with the internal administration of mission hospitals.

The colonial administrators developed a policy which enabled them to regulate and control the geographic distribution of the Missions, and thus health services. By providing nominal subsidies to the mission hospitals and exercising political control over them through the Principal Medical Officer, the colonial government made itself even more insulated from criticism. The government could always point to the mission hospitals as European contributions to the Tswana. By stimulating the spread of medical missions it could claim more credit for their work.

During this time, the need for a decentralized preventive medical and dispensary system was recognized. In 1937, a special commission of inquiry advocated the establishment of a network of dispensaries, as well as travelling dispensaries. However, the system continued to be essentially hospital based. Thus, in spite of the increase of medical services during the height of the struggle for the spheres of influence (1930s and 1940s) their impact on the Tswana population was very little. The curative nature of the services meant that public health was relatively neglected.

Thus, at Independence in 1966, the modern health sector in Botswana was hospital oriented with minimal outreach. A Botswana nurse educator painted the following picture:

"(It) was first of all, hospital oriented, even though there were very few hospitals, all of them cottage hospitals, maldistributed because they did not reflect the comprehensive needs of the country. They were simply built along the railroad line, mainly in the southern part of the country, close to South Africa and close to police headquarters. The majority of the people living elsewhere had nothing.

When the British left, we did not have a single local doctor. The few doctors were all expatriates, many of whom departed on the eve of independence, leaving us with a few missionary doctors and one or two who wanted to do another contract with the post-independence government. There were no Botswana nurses. We just had a few of what they called native subordinate trained auxiliary nurses." (Kupe)

Between 1966 and 1973 the Government concentrated most of its efforts in the health sector upon the building and upgrading of central hospital facilities. The construction of a modern hospital in Gaborone absorbed the greater part of development resources devoted to health. This work was complemented by the improvement of facilities at five other Government hospitals. Together, these six government hospitals, with the six existing mission hospitals and one mental hospital acted as referral institutions for the surrounding rural areas, which were served directly (in descending order of sophistication) by 10 health centers, (clinics) and approximately 30 health posts.

In 1972, in a major departure in the development of Botswana's national health services, the Government determined that MCH/FP should receive an important emphasis as a part of the general health and preventive services. Government Paper Number One,

"Rural Development in Botswana," passed by the National Assembly in April 1972, stated that: "Government will at national and district level, concentrate new health developments on the building up and staffing of a basic infrastructure for rural health."

Thus, beginning with the period of the Third National Development Plan (1973-78), the GOB embarked on a necessarily long-term effort to establish a preventive/curative mix of health services and to extend them into the rural areas. The Plan emphasized the need to (a) construct clinics and health posts in all settled communities of more than 500 persons, (b) train and appoint health personnel to work in the rural areas, (c) improve rather than expand hospitals, (d) use hospitals as the highest level within a health care referral system, and (e) accelerate the training of paramedical and auxiliary personnel. The goal was to reach the greatest number of people possible with the broadest level of health services which the GOB could afford. Gradually, services have altered to reflect this approach with an emphasis on prevention and promotion of health.

To achieve this goal, Botswana has utilized her nurses on the front-lines of primary health care delivery. A pattern of independent nursing practice began at national independence when there were no Botswana physicians and the limited medical care available was provided by a handful of expatriate medical missionaries practicing in the more densely populated areas. Accordingly, nurses were posted to the rural clinics and health posts throughout the country. While these nurses had no specific preparation for their emerging roles in primary health care delivery, they did the best they could. Nurses brought health services within the reach of most communities in the country. Once the goal of providing basic primary health care services to the majority of the population had been reached, the Ministry of Health began concentrating on upgrading the quality and appropriateness of the services rendered. This pattern of independent nursing practice continues today in Botswana.

#### Organization of Formal Sector Health Services (PP, 1978):

Health care in Botswana is organized for delivery at different levels of sophistication and coverage. Health services are provided by the Central and Local Governments, the Missions, the Red Cross, the Mining companies, and by private and traditional practitioners. The Central Government is responsible for the general planning and supervision of the developing health care system, and for the total operation of Government hospitals and health centers. The Town and District

Councils have been assigned the responsibility for construction, maintenance and operation of their clinics and health posts. The missions are responsible at present for the operation of their hospitals, clinics and health posts, although the Central Government provides them with yearly subventions. The mines at Orapa and Selebi-Pikwe operate small hospitals for their employees and their dependents. Together, the facilities operated by these four organizations constitute th network of formal sector health services.

Health Posts represent the primary level of health care. They provide preventive health services, simple curative services and first aid. Health clinics provide the next level of health care. In addition to the type of service provided at health posts, health clinics cover a wider range of educative health subjects, collect statistics, carry out immunisations, and have beds for curative and maternity care.

The next level of health care is provided at health center facilities. Health centers are designed to duplicate on a small scale most of the simple curative functions which are usually provided at hospitals, as well as providing maternity care and preventive health care. The highest levels of health care are provided at the district and regional hospitals, and at the main referral hospital (Princess Marina) in Gaborone.

Staff shortages, especially of nurses, is one of the major constraints on the development of modern health care in Botswana. Although, in general, medical personnel are in short supply in Botswana, the introduction of a special cadre of village health workers, Family Welfare Educators, has provided many villages with access to basic health services earlier than reliance on highly trained health workers would have allowed. FWEs are primarily health motivators and reporters. Although they are usually based at health posts and clinics, their responsibilities are community centered.

### The Health Delivery System:

#### A. Government Organization

Botswana is geographically divided into twelve administrative units, including 10 districts and 4 town councils (Gaborone, Francistown, Lobatse, and Selebi Pikwe). The governing body on the district/town level is the District/Town Council, which functions under the authority of the Ministry of Local Government and Land (MLGL). The MLGL supports the operations of the Council by providing equipment and supplies and funds for construction. The MLGL's Unified Local Government Service coordinates the staffing of all council facilities, including

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health facilities. Health activities are coordinated between the MOH and MLGL at both the central and regional levels.

For the purpose of delivering health services, eight Medical Regions were established based on population distribution and the location of existing health facilities. A map of Botswana with the Medical Regions superimposed on the districts is attached (Annex \_). A Regional Medical Team is assigned to each Medical Region, including a public health nurse and a health inspector. (Others?)

The MOH is responsible for the overall planning, administration and supervision of the health care system and for the total operation of GOB health centers and hospitals. The professional supervision of the district health facilities is also the responsibility of the MOH. The Ministry headquarters in Gaborone has planning, administrative and health professionals to carry out these responsibilities effectively. An organigram of the MOH is attached (Annex \_).

Upon the completion of training, all nursing personnel have three options for employment: (a) by the MLGL Unified Local Government Service for assignment to the Council health facilities (health posts and clinics); (b) by the MOH for assignment to the government health facilities (MOH, health centers and hospitals); or (c) by Mission facilities. Employment benefits and working conditions differ within the two GOB systems, creating a particular problem in staffing remote health facilities.

#### B. Personnel

The delivery of primary health services depends primarily on three core categories:

Family Welfare Educator (FWE). The FWE is a village health worker chosen by her/his community and paid by the local (District or Town) Council. Their role is mainly motivational. Early FWE training was provided by the International Planned Parenthood Federation (IPPF). Now?

Enrolled Nurse (EN) Candidates for the EN program must have a Junior Certificate (junior high school graduate) and then are enrolled in a two-year program at one of the four government (Francistown, Lobatse, Serowe and Molepolole) or three mission schools (Mochudi, Kanye, and Ramotswa). Upon graduation, a selected number of ENs are given an additional two years of training at the National Health Institute (NHI) in Gaborone to qualify as Enrolled Nurse Midwives (ENM).

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State Registered Nurse (SRN)--Beginning in 1974, candidates for the SRN program must have passed the Cambridge O-Level examination (high school graduate) and are then enrolled in a basic three-year program at the National Health Institute in Gaborone. All graduate SRNs, however, are required to qualify also as midwives. This requirement adds one year to the basic training; the candidate graduates as a State Registered Nurse Midwife (SRNM).

Both the EN and the FWE are supervised by SRNM. Both the EN program and the SRNM program are under the professional control of the Nursing Council of Botswana. Standard examinations for the award of diplomas are offered by the Nursing Examinations Board of Botswana, Lesotho and Swaziland (NEBLS).

The importance of the nurse in Botswana is underscored by the fact that there are approximately \_\_\_ physicians working in Botswana, of whom only \_\_ are Botswana.

### C. Health Facilities

Health facilities in Botswana include hospitals, health centers, clinics and health posts. The largest hospital, the Princess Marina in Gaborone, has \_\_\_ beds, provides general hospital services and is the national referral center. There are a total of nine government hospitals, including one mental hospital in Lobatse; two mine hospitals (Orapa, Selebi-Pikwe); and three mission hospitals (Mochudi, Kanye, Ramotswa). (Note that on page 3 above, the number of hospitals is given as 6 mission and 6 government--? Did the government take over 3 mission hospitals?)

Total numbers of health facilities (obtain table) Beginning in 1973, new construction was financed principally by NORAD. (Now?)

At the village level, the basic health facility is the health post which provides primary health care and is usually the base of operations for the FWE. Services provided at clinics vary somewhat depending on whether or not a maternity ward is included in the clinic complex. Depending on the seriousness of the malady, the patient is referred from the health post to the clinic, from the clinic to the health center, and from the health center to the nearest hospital. The most serious cases are taken to the Princess Marina Hospital for care

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Role of Non-Government Health Network:

Given the limited manpower and financial resources available for health, the MOH considers it essential for both the public and private sector involved in health care to coordinate their planning and work within the total framework of Botswana's health services.

A major source of health services outside the central and local government are the various missionary operated facilities. The relationship between the GOB/MOH and the missions is evolving. The GOB does not intend to acquire mission health facilities as a matter of policy, but rather to treat each mission facility as part of the total health system. The GOB contributes financially to their viability by subsidizing operating costs and also ensures that missions recognize the essential responsibilities of the central and local government.

The various missions in Botswana are members of the Association of Medical Missions for Botswana and are represented in the MUH by an Executive coordinator. This arrangement has proved extremely successful in coordinating the work of the missions and in improving the planning process.

GOB health care policy is also evolving with regard to private mining companies. Some have already contributed to the development of health facilities, while other new industries, especially in isolated areas, find that they cannot attract skilled workers without providing adequate health care services. Although agreeing with this necessity, the GOB/MOH would like these resources to be fully integrated into the overall health care system.

Although not part of the modern health care system, the traditional healer (Ngaka) performs a significant role in Botswana, especially in rural areas. The MOH would like closer cooperation and consultation with the traditional healers.

Other Donor Interventions in the Health Sector:

(This section needs updated--it is taken from the HSD project paper --1978)

Other donor assistance accounts for approximately 90 percent of the GOB's development expenditures on health. The GOB finances 100 percent of its recurrent health expenditures. Donors and the types of assistance they are offering are listed in Table \_\_\_\_ (doesn't include health-related activities, such as village water supply

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The MOH centrally coordinates all donor contributions in the health sector, including the AID assistance. This assures complementary donor efforts and not duplication.

The HSD Project Paper (6/78) made reference to the contributions of NORAD, IPPF, and UNICEF to the establishment and continuing operation of the primary, village-level health care system. Under the project "Development of the Rural Health Services in Botswana," initiated in 1973, NORAD has financed the construction of more than 160 health posts, as well as 79 clinics, 28 with maternity wards, 62 nurses houses and 4 MCH centers. Furniture, equipment and vehicles have also been provided. UNICEF has provided medical equipment, supplies and vaccines. The staffing of these facilities, especially the health posts, by the FWE, has been supported by IPPF, which has financed the training of this growing group of primary health care workers. Based partially on the contributions of these donors and more particularly on the effective operation of the primary health care system, additional support on this level by AID at this point is neither warranted nor requested by the GOB. The FWE training program is well established, and this primary health care worker is integrated into the overall basic health service and referral system.

Major Health Problems in Botswana: The major health problems in Botswana are respiratory diseases, including tuberculosis, and gastroenteric and venereal diseases. There is concern with malaria and schistosomiasis, although their incidence is not widespread. (present a disease profile over time)

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