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SUPPLEMENT TO BOTSWANA

**COUNTRY DEVELOPMENT
STRATEGY STATEMENT**

FY 82

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BEST AVAILABLE

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**SUPPLEMENT TO BOTSWANA
COUNTRY DEVELOPMENT STRATEGY STATEMENT
FY 1982**

21 May 1980

SUPPLEMENT TO BOTSWANA CDSS, FY 1982

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PART I - ELABORATION OF A MORE CLOSELY-KNIT AID STRATEGY

A. Introduction

Following the FY 1982 Botswana CDSS review session on March 12, 1980, in AID/Washington, chaired by AA/AFR, a summary cable - STATE 094824 - was sent to USAID/Botswana. This message stated as paragraph 2: "A paper clearly defining USAID/B strategy is required at the time of ABS submission. This paper should include principally the elaboration of a more closely knit AID strategy with equity as the primary goal, demonstrably supported by a core of activities. We also ask that you include analysis and documentation of GOB policy and commitment to equitable development. This analysis should include a detailing of the steps being taken by the GOB to improve income distribution as well as the Mission's candid assessment as to whether such steps will be effective."

This same cable included a number of instructions for items to be included in the FY 1983 CDSS, and concluded with a series of questions concerning the revenues projected to accrue from the mining sector by 1984/85 and a discussion of USAID's proposal for phasing from grants to development loans and, by FY 1986, to reimbursable development.

This short supplement to the FY 1982 CDSS will attempt to be responsive to the paper required in paragraph 2 of the telegram and to deal with the questions about mineral revenues, localization, and a schedule for reimbursable development. All of this, of course, will be elaborated upon in the FY 1983 CDSS.

B. Elaboration of a More Closely Knit AID Strategy with Equity as the Primary Goal.

As discussed at length in Part I of the 1982 CDSS, General Overview, Botswana is an atypical Lesser Developed Country. Government revenues are high and growing, although 50-55 per cent of the population have incomes below the absolute poverty datum lines for rural and urban households. The principal sources of government revenue are mining, beef export, and receipts from the Southern Africa Customs Union, but these represent capital-intensive sectors and there is inadequate employment in the country to provide incomes for the majority of its population. While most of the population is rural, climate and tradition are not conducive to arable agriculture and livestock ownership is concentrated with 30-50 per cent of the rural households owning no cattle. Progress and commitment of the GOB under Section 102 (d) of the FAA is outstanding with utilization of revenues from the export sector and customs receipts used to provide education and health services for all and expanded transportation systems to remote areas; a human rights and rule of law record second to none in the developing world; and a series of national development plans pledged to growth with equity that have always reached near their targets. Botswana's standing as a non-racial state with equal rights for all its citizens and its international role as a leader in the move

toward majority rule throughout Southern Africa through moderate evaluation and protection of minority rights is well-known. Still, Botswana is a country of poor people with a colonial inheritance of a severe shortage of skilled workforce, some 24 per cent of all households are female-headed, only 2.3 per cent of the land area is considered suitable for arable agriculture. Access to land and water is still unequal, and sources of employment are lacking. The recently published National Development Plan 1979-85 (NDP V) has four long-term objectives:

- rapid economic growth
- social justice
- economic independence
- sustained development

The GOB's strategy has been and remains -

- to achieve rapid and large returns from intensive capital investment in mining
- to reinvest those returns so as to improve the living standards of those who do not benefit directly from mining sector expansion

This strategy has been extremely successful in generating financial resources which have been reinvested in education, and training and physical and social infrastructure. The foundation for further economic growth has been laid and, at the same time, new social and physical infrastructure - schools, roads, health services, water supplies, etc. - has significantly improved the quality of life for most Batswana.

There is a limit, however, to what can be achieved simply by expanding Government services, valuable as these are. In the long run, higher living standards for all must be based on more productive work for all. And, since most Batswana live in rural areas, there is a particular need to expand rural work opportunities. Accordingly, NDP V emphasizes the complimentary theses of employment creation and rural development. The GOB is aware that shifting the emphasis of development policies more towards employment creation and rural development will not be easy. Programs to improve rural productivity and raise employment levels cannot follow standard blueprints like those of past years' concentration on basic physical and social infrastructure. They will necessarily be somewhat experimental and tentative at first; only gradually, as experience is gained, will such programs be able to absorb a much larger share of the available resources.

The economic forecast indicates that, barring major disruptions or increased requirements to divert development funds into security sectors, significant increases in the level of GOB expenditure will be possible.

With the above problems and development strategy of the GOB in mind, the long-range goal of USAID/Botswana's assistance to the GOB is: to achieve self-sustained development and growth with equity.

The means of contributing to this goal is through concentration of our assistance in human resources development and rural employment generation.

In recent weeks, there has been a major breakthrough in GOB thinking concerning the speed of localization of the government service. With the decision of the U.K. to reduce their support for expatriates approximately 50 per cent over the next 2-3 years, this means that some 200 senior technical positions must be localized (or funded by other donors, a most unlikely alternative). Already, the GOB planners are reconsidering the pace at which they are willing to move into reimbursable technical assistance to provide shorter-term expatriate technicians while Botswana receive academic and practical training to permit them to take over the highly technical positions required in the government bureaucracy.

Following the recommendations of the Southern Africa Development Analysis Project (SADAP) in the Report to the Congress on Development Needs and Opportunities for Cooperation in Southern Africa, March 1979, USAID/Botswana bases its assistance to Botswana on the principle of collaboration and carefully follows the development policies established by the GOB. Also, as recommended in the SADAP report, our strategy is cross-cutting, rather than sectional, in nature and essentially mirrors GOB priorities.

The primary objectives of the USAID program and their various core components are:

1) To decrease Botswana's economic vulnerability and increase its economic resilience and independence.

- Human Resource Development: expand academic skills training through scholarships to U.S. and African institutions of higher education in economic and social development fields, particularly agriculture, local government and lands, education, mineral resources and water affairs, commerce and industry, works and communications, and finance and development planning. Major concentration will be upgrading capabilities and qualifications of government employees, but increased emphasis will be given to new secondary school and UBS graduates for both government and private sector employment.
- Continuation of OPEX program to provide short-range (2-4 year) U.S. experts to fill government positions while the eventual Botswana holder of the position receives academic and on-the-job training.
- Local institutions: support expansion and improvement of GOB technical and skill training institutions in Botswana. Agricultural College (certificate, diploma and, perhaps, degree), Institute of Development Management, Botswana Training Center, and elements of the University College of Botswana.
- Education: effort to upgrade the quality of the formal education system starting at the primary level, particularly training in math and science and improved education management.
- Non-formal Education: concentrate on provision of practical on-the-job training for middle-level government officials.

- Preparing for Drought: implementation of recommendations of the Stanford paper on drought preparedness and the recent Symposium on Drought.
- Mining: help - principally through RDP - expand and diversify mineral production, concentrating on the more remote regions of the country.
- Resources Planning and Management: improve the management of ground water, wood resources, soils, and wild plants and animals.

2) To Provide New Productive Employment Opportunities and to Promote Development in Rural Areas and the Provision of Basic Human Needs Throughout the Country.

- Arable Lands Production: emphasize farming systems research and adoptive research on drought-resistance cereal varieties; improve markets, storage, rural roads, extension training, and credit structure.
- Wildlife: improve the capacity of Basarwa to raise incomes and living standards without drastically changing the basis of their economy and culture - wildlife.
- Livestock: increased emphasis on the formation of communal associations and group ranch development; thoroughly examine the implications of the Tribal Grazing Lands Policy (TGLP) on traditional mafisa livestock utilization.
- Rural Institutions: strengthen District and Village Councils and Land Boards through training and improved personnel systems.
- Transport: expand rural road and farm-to-market road construction program in Tuli Block area and other areas of agricultural potential; strengthen road maintenance capacity of MWC and District Councils.
- Basic Services: support government objectives such as universal primary education, a health post within 15 km of all population clusters, clean water in every village; strengthen the capacity of Self-Help Housing Agencies (SHHAs) to administer expanded urban sites and service and squatter upgrading programs.
- Shelter and Urban Development: improve housing finance institutions and study the relationships between urban centers and major villages and their hinterland in order to establish a policy of urban capital authorization.
- Health and Nutrition: upgrade training and supervision of Family Welfare Educators and Enrolled Nurses; upgrade environmental health standards.
- Okavango Delta: support basic research on resource availabilities, international planning on use of Okavango waters, improved transport, marketing, and communications networks; flood-recession agriculture and small-scale irrigation.
- Private U.S. Investment: increase the scope of U.S.G. and other Investment Guaranty Programs and expand U.S.G. efforts to encourage investment in Botswana in conjunction with policies to discourage new private investment in R.S.A. and the "homelands."

- Domestic Private Investment: help to improve incentives for labor-intensive small-scale industry and commerce; review GOB licensing and tender procedures to encourage local firms.
- Incomes Policy: increased differentiation on wage policies to both ensure the availability of jobs for low cost unskilled and semi-skilled labor and encourage Batswana with professional, management and technical skills to work in Botswana rather than externally.
- Labor-intensive Employment: encourage labor-intensive programs in areas such as agriculture, industry, commerce, public works, construction, conservation, reafforestation, education, and small-scale mining (but not the major export mining).
- Population Policy: support comprehensive maternal and child health services, including provision of family planning information and supplies; review impact of government policies from female education to social security to availability of contraceptives or family planning decision-making.

C. Regional Development Strategy.

Botswana is centrally located in Southern Africa and has served as a vital link in the connection between R.S.A. and majority-rule Africa. In view of the key role Botswana has played as the voice of moderation among the Front Line States (Angola, Mozambique, Tanzania, Zambia and Botswana) in their single-minded drive for majority rule in Zimbabwe and Namibia, and in the initiation of the agreements for economic cooperation among the Nine in Southern Africa (the Front Line States, plus Lesotho, Malawi, Swaziland and Zimbabwe), there are a number of possible donor-supported regional activities that should include or center upon Botswana.

1) Transport and Communications

- Construction of a railroad linking Botswana with Namibian ports - from Lobatse to Gobabis in Namibia.
- Upgrading the road connection to Namibia - Jwaneng to Kang to Ghanzi to Mamuno to Gobabis.
- Regional airline maintenance facilities serving Zambia, Zimbabwe, Botswana, Lesotho, Swaziland and Malawi, and joint scheduling and ticketing.
- Expansion of railroad training facilities within the region.
- Improved telecommunications links with Namibia, Zambia and Zimbabwe.

2) Water

- International studies of the Okavango basin, jointly with Angola and Namibia.
- Regional cooperation to develop the upper Zambesi (with Zambia), the Chobe (with Namibia), and the Limpopo (with R.S.A. and Zimbabwe).
- Regional study of groundwater basins (with Namibia and Zimbabwe).

3) Agriculture

- Animal diseases: hoof and mouth, tick-borne, Tsetse fly.
- Semi-arid agriculture research: perhaps an ICRISAT field center in northern Botswana to service Namibia, Zambia, and Zimbabwe, as well.

4) Education

- Regional Agricultural College specializing in degrees in animal husbandry, animal health, and semi-arid agronomy. Based in Botswana for entire region.
- Management and vocational training - possibly in Zimbabwe.

5) Trade

- Promotion of strengthened East and Southern Africa Preferential Trade Area (UN-sponsored) and possible customs union with Namibia, Zimbabwe, Zambia, Mozambique, and Malawi to counter dependency on S.A.C.U.A. and help Botswana withdraw from S.A.C.U.A.

D. Kinds and Terms of Assistance.

In FY 1980, all AID assistance is grant-funded from the ESF account. As noted in the FY 1982 CDSS itself, USAID believes ESF funding for all or part of our program in Botswana will be justified throughout the NDP V period (1979-1985). The basis for this recommendation is primarily because during this Plan period a major proportion of the development budget must be diverted to security-related requirements.

Within the Southern Africa region, without access to the sea, partially exposed to the powerful R.S.A. economy and military complex which is actively interested in keeping Botswana economically dependent and in preventing the formation of an interdependent bloc of majority-rule states in the region, the GOB believes it must take several expensive actions to make it possible to decrease its economic vulnerability and increase its economic resilience and independence.

One of these actions is the gradual takeover (with compensation) and operation of the Rhodesia Railway, which is the live-giving artery for export of beef and copper-nickel matte, as well as for most imports and is the main commercial artery of the northeastern corridor of the country in which 85 per cent of the population resides. Another such action is establishment of an international airport to permit direct communication with the rest of the world without funneling through R.S.A. and thereby granting that state control of access and egress. Including the financing of these two major projects, Botswana anticipates that during the plan period P156.8 million (\$201 million), or nearly one-quarter of its development budget will be allocated to security-related needs.

On the recurring budget side, no breakout is given for Botswana Defense Force (BDF) expenditures, but by making estimates from several tables in NDP V, the total BDF recurrent expenditure can be approximated on the order of P 70-75

million, or 8 per cent of total recurrent expenditures. This implies about a 20 per cent growth rate per annum to about P18 million for 1984/85.

All of this would indicate that Botswana, a country that had no armed forces and no security-related expenditures prior to the Soweto incident and open civil war in Zimbabwe in 1976 (both of which brought streams of refugees to Botswana), will be diverting more than P225 million (\$288.45 million) from development to security during the 1980-86 period. While the independence of Zimbabwe and the return of some 20,000 refugees to that country has eased the burden on the eastern frontier, continued SWAPO and RSA incursions in the west and north are accelerating, and - once a majority rule Namibia exists - Botswana will be on the front line of majority rule confrontation with RSA. With up to 2,000 South African refugees already in Botswana, and the probability of increased ANC and other liberation forces on the periphery of the RSA, continued need for security forces and alternative transport routes to those connecting to RSA appear warranted.

Conservative estimates of increased GOB revenues as the Jwaneng diamond mine comes into production are used in NDP V. These have an 80 per cent chance of being realized. So, it is proposed to move from grants to development loans for new AID projects by 1983. This will require a new review of criteria and establishment of development loan terms for Botswana. Discussions have already been initiated with the Ministry of Finance and Development Planning (MFDP) and this is not seen as any problem. By FY 1986, it is expected that Botswana will be a middle-income country and able to fund much of the U.S. assistance, although real incomes in the rural areas will still be low and the extreme shortage of trained workforce will persist. It is, therefore, expected that a reimbursable development program will be appropriate. Some of this can be through PDC/RDP, and the first activity through that program is about to be initiated - a feasibility study of the mineral resources of Sua Pan in northern Botswana.

Similarly, USAID has initiated another, and perhaps more appropriate, form of reimbursable assistance. The GOB has deposited funds in a dollar Trust Account to pay for some 80 per cent of the cost of placing and training 20-25 students in U.S. universities for undergraduate degrees. Further discussions will be initiated with MFDP later this year to expand this concept - that is, the GOB funding 75-80 per cent of activities through Trust Funds, with USAID grant funding administrative costs and DH staff only.

An RDP exploratory team will be in Botswana in late June 1980, and initial discussions will be held on possible FAA (air flight controllers), USDA (Northern Apattoir design), USGS (mineral exploration), and USBR (semi-arid lands reclamation) teams under reimbursable technical assistance.

PART II - ANALYSIS OF GOB POLICY AND COMMITMENT TO EQUITY

A. Equity and Employment (in NDP V)

The GOB proposes to: (1) shadow price labor in Government's major projects; (2) give 12½ per cent preference to local products for Government purchases through the Central Tender Board; (3) Government will not starve the private sector for qualified personnel; however, 40 per cent of modern labor force expansion will be in Government, even though skilled/unskilled employment ratio is much lower in Government; (4) Government is reviewing regulations that impinge on private sector activity and will reduce them to an essential minimum; and (5) all new legislation will be scrutinized for any employment-restricting effects.

The Parliament has approved the new incomes policy:

- To maximize the growth of new job opportunities
- To prevent a widening of the gap in living standards between those in formal sector jobs and those dependent on traditional agriculture.
- To prevent scarce financial resources from being pre-empted by the modern sector.

Parliament has also approved the NDP V employment policy:

- Communal Area Planning and Development (CAPAD)
"The focus on TGLP will shift towards the communal areas that contain the mass of smaller herd owners and are most heavily stocked with least opportunity for future expansion." (NDP V, para 6.102 of Part I) This will begin the correction of growing inequity of access to land, inadvertently caused by TGLP.
- Arable Land Development Program (ALDEP)
"For reasons of production as well as equity, the ALDEP target population will be the 60,000-70,000 small farmers ploughing less than 10 ha.... A prime sub-target group are the 30,000 to 35,000 households who do not have direct access to draught power.... Another target group is the 30% of rural households that are female headed and generally characterized by shortages of labor, capital, and draught power." (NDP V, para 6.69 of Part I)
"The importance of ensuring that all Batswana can earn a decent living means that more attention than before must be paid to the task of improving the status and security of the small farmer. In any conflict of interest, the claims on Government resources of small, resource-poor farmers should outweigh those of larger, more wealthy farmers." (NDP V, para 6.4, Part I)
- Commerce and Industry Ministry to promote, rather than regulate and control.
- Building up and staffing local authority institutions and giving them a leading role in designing and implementing rural development programs.

- Study and evaluate a payroll subsidy
- Maximize mining sector finances
- Develop physical infrastructure aimed at supporting productive activities in rural areas.

B. Income Distribution

The Rural Income Distribution Survey (RIDS) showed that 40 per cent of rural households had 12 per cent of total rural income, while the richest 10 per cent had 42 per cent of the total income and the richest 5 per cent had 30 per cent. When plotted to form a Lorenz curve, the Gini coefficient of concentration is 0.52 (the higher the coefficient, the more unequal is income distribution). Comparative Gini coefficients for selected other countries:

Bangladesh	0.34
U.K.	0.34
Sweden	0.39
U.S.A.	0.42
Zambia	0.52
France	0.52
South Africa	0.58
Tanzania	0.60
Kenya	0.64
Zimbabwe	0.66

Government White Paper No. 1 on Rural Development states, "To achieve social justice and equality of opportunity, which are essential for the application of our principles of democracy and unity ... Government policy is directed towards reducing the large differentials in income and wealth within the country. Specific development proposals have been framed with this objective in mind." When a group of back-benchers in Parliament attacked the ALDEP proposal as unfair because it discriminated against large land holders and deprived the rich of equal support from the Government with the poor, the Cabinet held its ground and refused to provide ALDEP benefits to anyone holding more than 10 ha. Parliament supported the Cabinet by a substantial majority.

C. Commitment

In the review of commitment and performance under Section 102 (d) of the FAA criteria (which clearly includes equity), PPC rated Botswana in FY 1980 in its highest category for both.

The Accelerated Rural Development Program (ARDP), 1973-76, expended more than Pula 21 million and provided the following:

Boreholes	138
Village Water Supplies	34
Primary School Classrooms	489
Teachers' Quarters	425
Health Posts/Clinics	72
Staff Housing	178
Tarred Major Village Roads	8

The primary purpose of this program was reduction of income gaps by helping the poor to better increase their own incomes through the Government's provision of physical and social infrastructure.

TGLP as a land tenure reform program for grazing land began in 1975, and is meant to provide large and small cattle owners with ways to increase incomes from livestock, while at the same time implementing measures to conserve and improve the land resource. The easier task of establishing commercial ranches outdistanced the organization of communal ranching and group formation of smaller owners. This led to concentration of land and cattle in the hands of larger owners who could afford borehole drilling and fencing. Now, with GOB resources shifting to communal lands, it is proposed to rezone some of the commercial areas, and to provide groups and communal ranches with the resources to compete with free-hold and commercial owners.

The ALDEP and CAPAD programs are drawing on the TGLP experience and plan to try to avoid some of the problems and errors made in the earlier program. ALDEP goals for 1985 include:

- higher productivity for 60-70,000 rural households farming less than 10 ha.
- an annual cash income per household of P250-300 (compared with P100/mo. earned by a mineworker in RSA and the minimum urban wage of P40/mo.)
- new employment for 10-12,000
- an increase of annual sorghum and maize production levels from about 70,000 MT to 150-200,000 MT.

The average life expectancy in Botswana has grown from 36 years in 1950 to 48.3 in 1979 (34%), and the target for 1985 is 56. This compares (UN/WHO) with selected other countries, as follows:

Angola	38	Zambia	45
Ghana	44	Zimbabwe	51
Kenya	50	USA	71
Lesotho	46	USSR	70
Malawi	41	UK	72
South Africa	52	Sweden	75
Tanzania	45		

Infant mortality (0-1) is only 97 per thousand and 126 (0-2). Selected comparisions:

	<u>0-1</u>	<u>0-2</u>
Angola	203	N/A
Ghana	63	N/A
Kenya	51	155
Lesotho	114	N/A
Malawi	142	N/A
South Africa	117	N/A
Tanzania	162	197
Zambia	160	162
Zimbabwe	122	N/A

Health stations increased 57 per cent between 1974 and 1977. Eighty-three per cent of children between 6 and 13 are in school and 83 per cent of those who start complete primary school - in 1964 only 6 per cent of those who started, finished. Yet, in 1966 at independence, only 43 per cent of primary school-aged children and 2.6 per cent of secondary were in school. Thirty-five Batswana had BA degrees. Beginning in 1980, primary school is free.

D. Assessment of Likely Success in Increasing Equity

While it is clear that the decision-makers in Botswana (the Cabinet, the Parliament, the senior Government servants) are predominantly large land-holders and cattle-owners, it is equally clear from their past performance that they have an enlightened view of their self-interest. Under the still firm guidance of President Sir Seretse Khama and Vice-President and Minister of Finance and Development Planning Q.K.J. Masire, the decision-makers opt consistently for economic growth with equity as the only sure way for Botswana to evolve into sustained development with stability (which protects their interests) and continued support for a democratic non-racial, mixed economy state (which is their ultimate interest).

Accordingly, barring severe and open confrontation with RSA or a prolonged drought (5-7 years), Botswana should move toward greater equity in income distribution and maintain growth with equity of government services throughout the NDP V period.

ANNEX A

Specific Answers to Questions in Para 7, STATE 094824

While all of these items will be more thoroughly discussed in the FY 1983 CDSS, after further investigation, there are available data from NDP V, the Annual Budget, and existing reports to cover the principal questions raised - some, of course, are answered in the FY 1982 CDSS.

1. Does GOB have long-term investment plan for expected increase in revenues?

Specific plans exist through 1984/85 which will utilize most of increased revenues. In fact, Plan is overplanned in that P170 million in projects are available over and above what GOB thinks it can implement. If revenues grow more rapidly toward end of NDP V, surpluses will be built up, but these are likely to be transitory. NDP V is probably sensible when it suggests that steady growth is important and that surpluses in mid '80's would allow expansion of expenditures into late '80's in a steady manner.

2. Will these revenues finance long-term sustained development?

The answer to that is uncertain, but USAID would tend to think not. Certain analysis could be done to investigate question more broadly, but this will take time to do and must await the FY 1983 CDSS.

3. When mineral reserves are exhausted, is sustained development a viable possibility for Botswana?

The answer is the same as for question No. 2. Since mineral resources won't be exhausted for so long (at least 100 years), it is the same question as question No. 2.

4. Given anticipated increase in GOB revenues, how does USAID justify increase of levels for FY 82/86 period?

First, "increased level" is not an increase in real terms given expected inflation rates. It is a maintenance of current levels. The macro analysis shows that continued assistance by donors at current levels is not out of line with Government revenue/expenditure forecasts. However, a good case could be made for local more local borrowing by the GOB than current grant assistance and international borrowing rates will necessitate.

ANNEX B

LOCALIZATION

The GOB's localization program has increased the percentage of citizens in senior and middle level government posts from 55.9 per cent in 1972 to 64.5 per cent in 1977. Of the net increase of 882 such positions in the five years, 674, or 76 per cent, have been filled by Batswana.

Of the 746 non-citizen officers in post, 301 (40%) are assigned to the Ministry of Local Government and Lands, Works and Communication, and Mineral Resources and Water Affairs, even though these three Ministries claim only 28 per cent of all posts. The slower progress in Works and Communications, and Mineral Resources and Water Affairs, can be linked undoubtedly to the technical/engineering nature of much of the work for which the poor math and science training in Botswana schools has ill-equipped Batswana to fill in the short run. Thus, the biggest use of expatriates in Works and Communication is in the buildings, roads and civil aviation sections. In Mineral Resources and Water Affairs, the lack of citizen employees occurs ministry-wide in such areas as geological surveys and mines, water affairs and electrical engineering.

In the Ministry of Local Government and Lands, the problem appears to be one of rapid buildup of the Ministry staff. During the 1972/77 period, senior and middle level staff increased by 85 per cent, with some new departments created for which no Motswana has been trained. Thus, the Town and Regional Planning Unit has no citizens in it, and Surveys and Lands, which more than doubled in size, has only 15 per cent of its upper level posts filled by citizens.

This situation underlines the difficulty in Botswana's progress in localization, both in government and the private sector. Botswana's economy has gone through fundamental change since independence. It is estimated that real GDP has tripled in the 1967/68 - 1977/78 period. A more stagnant economy could localize faster because the demands for manpower would not change so rapidly. That is, the economy of Botswana has become much more sophisticated than the pre-independence livestock producer it was. Government, with its rapid inflow of revenues, has had to become much more sophisticated itself. Thus, while the GOB gets some positions localized, even more sophisticated requirements for engineering, planning and other skills lead to the need for new and different expatriate skills.

Given these realities, it appears that Botswana has done a commendable job of localizing its governmental positions.

It should be noted that the loss of 50 per cent of the U.K.-supplemented positions (OSAS) over the next two plus years, will necessitate addition of some 200 localized posts - or the unlikely prospect of other donors funding these positions.

LOCALISATION PICTURE JUNE 1977 AND JUNE 1972

Senior and Middle Grades

Ministry	Department, Division	Officers in Post				% Citizens	
		Total		Citizens		1977	1972
		1977	1972	1977	1972	1977	1972
State President	State House	2	3	2	3	100	100
	Office of the President	9	24	9	21	100	88
	Directorate of Personnel	25	17	25	15	100	88
	Police	173	132	159	108	91	82
	Broadcasting	16	8	14	6	87	75
	Information	22	6	19	5	86	83
	*External Affairs/Missions *Botswana Training Centre		23 18	23 8	23 8		100 45
Home Affairs	Ministry Headquarters	7	6	6	6	86	100
	Immigration	25	10	25	10	100	100
	Prisons	55	24	55	22	100	92
	Labour	20	11	18	11	90	100
	National Library	11	6	6	3	55	50
	*National Museum	5		3		60	
Finance & Development Planning	Ministry Headquarters	60	33	23	19	38	58
	Accountant General	74	39	66	34	89	87
	Taxes	30	14	16	9	53	64
	Supplies	22	25	19	24	86	96
	Central Statistics Office	19	10	12	5	63	50
	Customs and Excise	22	9	13	3	59	33
	*Computer Bureau	11		4		36	

* New departments created since 1972

LOCALISATION PICTURE JUNE 1977 AND 1972 (Con't)

Senior and Middle Grades

Ministry	Department, Division	Total		Officers in Post		% Citizens	
		1977	1972	1977	1972	1977	1972
Agriculture ¹	Ministry Headquarters	16	2	8	2	50	100
	Animal Health	77	55	38	26	47	47
	Field Services	107		77		71	
	Research	35		14		40	
	Cooperatives	17	10	13	10	76	100
	Agricultural College	15	6	6	1	40	17
	All other agriculture, 1972		86		39		45
Education ²	Ministry Headquarters	8	4	6	4	75	100
	Vocational Training Division	4	2	-	1	NIL	50
	Bursaries Section	2		2		100	
	Extension College	5		4		80	
	National Centre for Vocational Training	15		3		20	
	Unified Teaching Service Headquarters	12		10		83	
	Primary/Secondary/Teacher Training	73		67		92	
	Research and Testing Centre	4		4		100	
	All other education, 1972		227		72		32

¹ Ministry of Agriculture reorganized since 1972. All departments not otherwise specified are combined into "all other agriculture, 1972". This would otherwise compare most closely with the sum of Field Services and Research in 1977.

² Ministry of Education reorganized since 1972. All departments not otherwise specified and combined into "all other education, 1972".

LOCALISATION PICTURE JUNE 1977 AND JUNE 1972 (Con't)

Senior and Middle Grades

Ministry	Department, Division	Total			Officers in Post			% Citizens		
		1977	1972	1977	1972	1977	1972	1977	1972	
Local Government and Lands	Ministry Headquarters	29	7	16	4	55	57			
	District Administration	38	23	19	20	50	87			
	Local Government Audit	9	2	3	2	33	100			
	Surveys and Lands	27	12	40		15	NIL			
	*Town and Regional Planning	10		-		NIL				
	*Unified Local Government Service	9		7	22	78	10			
	Community Development		22							
Commerce & Industry	Ministry Headquarters	13	14	12	7	92	50			
	Wildlife and Tourism	29	16	19	8	66	50			
	Government Printer	9	8	2	2	22	25			
	Weights and Measures	5	1	-	-	NIL	NIL			
	*Botswana Enterprises Development Unit	7		6		86				
	*Registrar of Companies	5		3		60				
Mineral Resources & Water Affairs ³	Ministry Headquarters	5		4		80				
	Geological Surveys and Mines	36	47	7	6	19	13			
	Water Affairs ³ Electrical Engineering	47	23	18	9	38	39			
		23	6	6	1	26	17			

* New departments created since 1972

³ Ministry of Mineral Resources and Water Affairs has been created since 1972. The departments of geological survey and mines, and water affairs used to be in the Ministry of Commerce, Industry and Water Affairs. The department of electrical engineering used to be in the Ministry of Works and Communications.

LOCALISATION PICTURE JUNE 1977 AND JUNE 1972 (Con't)

Senior and Middle Grades

Ministry	Department, Division	Total			Officers in Post			% Citizens		
		1977	1972	1977	1972	1977	1972	1977	1972	
Health ⁴	*Ministry Headquarters	12		8				66		
	Training Division	47		35				73		
	Health Services	279		182				65		
	Medical Department		87		62				71	
Works and Communications	Ministry Headquarters	13	12	9	7			69	58	
	Posts & Telecommunications Buildings	167	37	135	20			81	54	
	Roads	32	28	10	9			31	32	
	Civil Aviation	42	18	11	-			26	NIT	
	Meteorological	24	4	6	-			25	NIT	
	Central Transport Organisation	11	3	10	2			91	67	
		59	33	14	14			24	42	
Independent Departments	Administration of Justice	16	12	4	4			22	33	
	Attorney-General	17	17	12	8			71	47	
	Auditor-General	28	18	22	14			79	78	

* New departments created since 1972

⁴ Ministry of Health has been split off from the Ministry of Health, Labor and Home Affairs since 1972. All health services were included in the "medical department" of the previous MHLHA.

LOCALISATION PICTURE JUNE 1977 AND JUNE 1972 (Con't)

Senior and Middle Grades

Ministry	Department, Division	Total		Officers in Post		% Citizens	
		1977	1972	1977	1972	1977	1972
	National Assembly	3	2	3	2	100	100
TOTAL		2102	1220	1356	682	64.5%	55.9%

NOTE: The above table summarizes the tables in Chapter II of NDP V, but omits the teachers (shown in paragraph 7.13) and the Local Government posts (shown in paragraph 9.33). In common with the Chapter II tables it also omits the advisers provided by donor agencies.

SOURCE: Report of the Presidential Commission on Localisation and Training in the Botswana Public Service 1977, and Report of the Presidential Commission on Localisation and Training in the Botswana Civil Service and the Government Statement on the Report of the Commission 1973.

ANNEX C

OVERVIEW OF GOVERNMENT FISCAL POSITION DURING NDP V

1. Government Financial Position at Beginning of NDP V

The GOB financial position at the beginning of NDP V was an envious one. From 1976/77 to 1978/79, the GOB's total domestic bank deposits rose from P44 million to P60 million, while the main banking system claim on Government, the holding of treasury bills, fell from an average of P10 million to P6 million at the end of March 1979. Government's net deposits with the banking system stood at P52 million, equal to approximately five months of recurrent expenditures.

Outstanding external debt at the end of March 1979 stood at P106 million, or only slightly above that outstanding in 1976 because of the conversion of P36 million in debt from loan to grant status. The debt servicing for 1980 is projected to be P5.3 million, or only about 3 per cent of commodity exports. (A debt service ratio of 10 per cent is probably acceptable.) By 1984, the debt service is expected to rise to P8 million, but with the coming on stream of the Jwaneng mine, the debt service ratio will probably decline.

2. Government Revenues and Expenditures During NDP V (1979-85)^{1/}

Slow Mineral Growth Path

Over the six year course of NDP V, it is anticipated that revenues will expand by 8.2 per cent per year (compared to 9.5 per cent p.a. for 1976/77 - 1978/79), and that expenditures will grow by 8.5 per cent (compared to 10.0 per cent in 1975/76 - 1978/79). This will result in a total revenue of P325.2 million for this and all other data are in constant 1978/80 terms and expenditures of P322.3 million in 1984/85. (See Table 1) During the period the total budget deficit (expenditures less revenues including donor grants) is anticipated to be P121.1 million (P138.5 million using actual FY 1979/80 data).

Revenue expansion is to be paced by an increase in mineral revenues (mostly from the opening of Jwaneng diamond mine) from P64.7 million in 1979/80 to P136.8 million in 1984/85, an increase of 16.2 per cent per year. Mineral revenues will provide 32 per cent of total NDP V revenue. ^{2/} Customs revenue is forecast to grow by 4.4 per cent p.a. to P98.0 million in 1984/85 and will provide 35 per cent of NDP V revenue. Donor grant revenues are not specified in the Plan but they are expected to remain at about the P30 million

^{1/} 1978/80 figures are NDP V figures in constant 1978/80 terms. Revised estimates of the FY 79/80 actual revenue and expenditure figures indicate that NDP V planned and actual revenue were very close, but actual expenditures exceeded Plan figures by P13 million. The 1980/81 planned and budget estimate figures are very close if a 15 per cent inflation rate is assumed.

^{2/} These revenue forecasts are based on a slow mineral growth path. A more optimistic view follows.

TABLE 1. GOB Revenues and Expenditures Actual (1975/76-1978/79) and NDP V (1979/80-1984/85)

Using Slow Mineral Growth Option

Million of Pula (in current terms through 1978/80, Thereafter in constant 1979/80 terms)

	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81 ^{1/}	1981/82	1982/83	1983/84	1984/85	Total	%
Customs Revenue	24.6	15.4	37.8	49.8	79.0 (98.0)	87.9 (98.0)	95.4	90.7	99.3	98.0	540.3	35
Mineral Revenue	23.3	17.2	24.0	38.8	64.7 (63.6)	66.1 (78.8)	58.7	66.1	98.3	136.8	490.7	32
Other Revenue	31.8	38.3	38.4	48.2	(75.5 (45.1))	(78.5 (52.5))	(80.5	(84.5	(87.4	(90.4	316.8	21
Grants	8.1	16.5	17.4	29.7	(30.4)	(36.2)	((((180.0	12
Total Revenue	87.8	87.4	117.6	166.5	219.2 (220.1)	232.5 (265.5)	224.6	241.3	285.0	325.2	1,527.8	100.0
Recurrent Exp.	48.8	64.8	73.8	99.0	120.6 (131.3)	136.4 (151.6)	146.8	169.8	177.3	201.4	952.3	57.8
Development Exp.	35.5	37.6	44.4	79.0	76.2 (90.0)	83.3 (120.0)	93.3	90.2	93.9	92.8	529.7	32.1
Net Lending &	5.8	5.7	4.8	-5.8	17.2 (5.8)	36.3 (21.5)	25.0	24.8	35.5	28.1	166.9	10.1
Jwaneng Equity												
Total Expend.	90.1	108.1	123.0	172.2	214.0 (227.1)	256.0 (294.1)	265.1	284.8	306.7	322.3	1,648.9	100.0
Budget Surplus(+) or Deficit(-)	-2.2	-20.7	-5.4	-5.7	5.2 (-7.0)	-23.5 (-28.7)	-40.5	-43.5	-21.7	12.9	-138.5	
(of which ext.	15.4	19.0	12.7	12.7								
			5.7									
Customs Revenue					79.0	87.4	83.4	88.4	98.0	98.5	534.7	30.
Mineral Revenue					69.4	77.3	75.0	114.4	182.5	228.4	747.0	42.
Other Revenue					((((((
Grants					(75.5	(77.2	(77.0	(79.1	(81.2	(83.2	173.8	16.
Total					223.9	241.9	235.4	281.9	361.7	410.7	1,755.5	100.
Recurrent Exp.					120.6	137.4	150.3	175.1	184.0	210	870.0	57.
Development Exp.					76.2	83.3	93.3	94.3	99.5	100.2	446.8	32.
Net Lending & Jwaneng Equip.					17.2	36.3	25.0	24.8	35.5	28.1	166.9	9.
Total					214.0	257.0	268.6	294.2	319.0	338.9	1,527.8	100.
Budget Surplus or deficit					19.9	15.1	-33.2	12.3	142.7	142.7	142.7	
FY 79/80												
FY 80/81												

1/ / Actuals in parenthesis and/budget estimate in parenthesis in FY 80/81 terms.

2/ Rough estimates for inflating prior year data to 1979/80 prices are as follows: For 1978/79 inflate by 1.15; for 1977/78 inflate by 1.32 (recurrent), 1.26 (development) and 1.30 (revenue); for 1976/77 inflate by 1.47 (recurrent), 1.46 (development) and 1.47 (revenue); for 1975/76 inflate by 1.65 (recurrent), 1.64 (development) and 1.66 (revenue).

per year level, or 12 per cent of total revenue. Other revenue, primarily consisting of non-mineral income taxes, interest on Government deposits and fees, will grow from about P45.1 million to P60.4 million, or by 6.0 per cent p.a. over the course of the Plan and will provide 21 per cent of total revenues.

Recurrent expenditures will be constrained to a yearly 10.8 per cent (compared to 12.0 per cent for 1975/76 - 1978/79 period) increase reaching P201.4 million in FY 84/85. This will constitute 58 per cent of total expenditures, the same percentage as in the 1975/76 - 1978/79 period. Development expenditures will grow at a rate of 4.0 per cent p.a. (compared to 16.0 per cent during 1975/76 - 1978/79 period) to P92.8 million by 1984/85. ^{3/} During NDP V they will constitute 32 per cent of total expenditures, down from 40 per cent in the 1975/76 - 1978/79 period. "Net lending to parastatals and Jwaneng equity," which could be considered development expenditures, will be allocated the remaining 10 per cent of total expenditures.

These revenue and expenditure patterns will lead to a cumulative budget deficit of P121.1 million. In 1979/80 terms, net external lending averaged P18.3 million per year over the period 1975/76 - 78/79. Continued lending at this level would finance P109.8 million of the deficit. Thus, if donor grant assistance and international lending to Botswana remain at levels of the recent past, net domestic borrowing by the GOB could be limited to about P11 million over NDP V.

Given Botswana's financial position, this level of domestic borrowing is undoubtedly less than could be comfortably financed from local sources. The banking system in Botswana is extremely liquid and the GOB is in a net creditor position with the banking system currently. More local currency financing through domestic borrowing would have a minimal negative impact on the economy and would be a boon to the banking system. Likewise, the foreign exchange situation is improving to the extent that the foreign exchange impact of more "local currency" financing could be handled as well as increased direct foreign exchange financing locally. This would imply an even more reduced reliance on foreign assistance than the 15 per cent of total expenditures that would occur in 1984/85 at current donor assistance levels. There may, however, be other reasons why the GOB would not want to reduce donor assistance below this level.

Rapid Mineral Growth Option

The situation changes markedly under a high mineral growth option (Table 1). In this case, revenues grow to P410.7 million or by 12.9 per cent per annum. Mineral revenues would provide 43 per cent (compared to 35 per cent) of total revenues as they grow from P69.4 million to P228.4 million. Changes in expenditures would be much more modest, the growth rate increasing only to 9.6 per

^{3/} Growth rates of development expenditures should be viewed with caution since capital investments tend to be lumpy and the choice of reference years can heavily influence the period's growth rate.

cent with recurrent and development expenditures equally sharing the absolute increase. This results in an overall NDP V budget surplus of P63.8 million compared to the P21.8 million deficit under the slow growth option. This surplus exceeds the GOB's net current indebtedness.

3. Recurrent Budget Allocation ^{1/}

The recurrent budget is expected to grow by 10.8 per cent p.a. (Table 2). Most rapid growth is envisaged for grants to local authorities, commerce and industry, education and mineral resources and water affairs, all of which grow above the average rate. The administrative ministries and departments such as the Office of the State President (but excluding BDF), Home Affairs and Local Government and Lands will generally grow at the slowest rates.

4. Development Budget

The development budget "Category A" projects (P643.9 million) exceed what the Plan anticipates actual expenditures (P529.7 million) will be, but no estimate of where the shortfall will come is attempted. See Table 3). ^{2/} Based on "Category A" projects, the Ministry of Works and Communication will receive 33.1 per cent of the development budget (31.3 per cent in 1976/77 - 78/79), Local Government and Lands, 19.6 per cent (compared to 13.6 per cent), and Agriculture, 12.3 per cent (versus 7.3 per cent). Education's share in the development budget falls from 14.6 per cent to 8.0 per cent.

The most important activity groupings are summarized in Table 4. Takeover of and improvements in the Rhodesian railway is the largest activity with NDP V development cost of P70.8 million, or 11 per cent of development expenditures. Non-rural roads and the BDF are the next largest investment areas. Altogether, the nine activity areas account for 54 per cent of "Category A" expenditures. If the Jwaneng equity and parastatal lending items are included in the development budget (as they probably should be), the activities listed in Table 5 account for 62 per cent of all development expenditures.

5. Security Related Expenditures

If the takeover of the railroad and improvement to Gaborone airport are included, Botswana anticipates allocating P156.8 million, or nearly one quarter of its development budget to security-related needs.

On the recurrent budget side, no estimates are given for BDF expenditures, but by making estimates from several tables in NDP V, one might roughly

^{1/} In this and the expenditure sections, the slow mineral growth option is used.

^{2/} "Category A" projects are the core projects of NDP V. "Category B" projects are of lesser priority and would only be implemented after "Category A" projects.

TABLE 2. NDP V Recurrent Budget

<u>Ministry/Department</u>	<u>1984/85 Ceiling (P Millions)</u>	<u>Yearly % Growth 1978/79-1984/85</u>
State President	11.0	7.6
Finance Planning	5.6	6.9
Agriculture	15.6	10.3
Education	43.7	11.0
Commerce and Industry	3.9	13.2
Local Government and Lands	5.5	8.7
Local Authority Grants	16.9	24.4
Works and Communications	32.2	9.7
Mineral Resources and Water Affairs	7.0	11.0
Health	13.3	9.0
Justice	0.4	4.0
Attorney General	0.4	5.9
Auditor General	0.3	6.7
External Affairs	<u>1.8</u>	<u>5.2</u>
TOTAL	162.8*	10.8

*Excludes several items, including BDF

TABLE 3. NDP V Development Budget

<u>Ministry</u>	<u>Total (P Millions)</u>	<u>% of Total</u>	<u>Planned 1976/77-1978/79 Percentage</u>
President	17.7	2.8	
Finance and Planning	10.1	1.6	
Home Affairs	11.8	1.8	
Agriculture	79.1	12.3	7.3
Education	51.6	8.0	14.6
Commerce and Industry	19.4	3.0	1.6
Local Government and Lands	126.0	19.6	13.6
Works and Communication	213.0	33.1	31.3
Mineral Resources	33.2	5.2	6.0
Health	18.8	2.9	5.1
Drought	6.7	1.0	
BDF	<u>56.0</u>	8.7	
	643.9		
Jwaneng Equity	31.1		
Net Lending to Parastatals	<u>109.8</u>		
TOTAL	784.8		

TABLE 4. NDP V Major Development Activities

<u>Activities</u>	<u>Expenditure (P Millions)</u>	<u>% of Category A Projects</u>
Northern Abattoir	18.0	2.8
ALDEP	11.9	1.8
Primary Schools (Local Govt)	42.2	6.6
Town Physical Development	37.7	5.8
Railway Takeover and Improvement	70.8	11.0
Non-Rural Roads	67.3	10.5
Rural Roads	11.2	1.7
Gaborone Airport	30.0	4.7
BDF	<u>56.0</u>	<u>8.7</u>
TOTAL	345.1	53.6
Jwaneng Equity	31.1	
Lending to Parastatals	109.8	

guess that total BDF recurrent expenditures could be on the order of P70-75 million, or 8 per cent of total recurrent expenditures. This implies about a 20 per cent growth rate per annum to about P18 million by 1984/85.

6. Discussion of Revenue/Expenditure Estimates

The slow mineral growth model, which is used for Plan revenue and expenditure projections, is based on a 20 per cent chance that actual revenue will fall short of forecast revenue. Given the importance of not undertaking a series of development activities for which continued finance will not be available, using the slower mineral growth model would seem to be an appropriate safeguard.

Even if the rapid mineral growth path (based on the expected value of revenues; i.e., a "50-50" chance that revenues will be less than forecast) is actually followed, the large government surpluses built up at the end of the period are probably necessary to maintain a steady growth pattern. By the end of the Plan period, Jwaneng will be operating at full production. As a result, revenue growth will slow considerably during the latter half of the decade unless new mineral activities begin. Apparently, Orapa mine output could be expanded during that time but there are no firm plans and Botswana could have difficulty in marketing increased diamond output given its quota in world markets. Other mining activities, such as soda ash at Sua Pan and coal production for export, could begin in the latter 1980's, but neither of these activities would provide substantial GOB revenues. Thus, it is likely that the 1984 and 1985 jump in revenues will have a ratcheting effect on revenue causing the revenue trend line to shift upward but not altering its slope. If this turns out to be the case, the large Government surpluses at the end of NDP V would be transitory and not a signal that donor finance was no longer needed. The surplus could be utilized in the latter half of the decade to maintain the developmental momentum for Jwaneng a few extra years.

It is much more difficult to come to a conclusion on expenditures. The biggest question is how much security investment Botswana needs. Zimbabwe has attained independence since the Plan was drafted. The effect of this on Botswana's security requirements is not yet known. Including the airport and railway expenditures with expenditure estimates for BDF, the total security package amounts to perhaps P230 million, or about 80 per cent of donor grant and international loan financing at current levels. If security needs are reduced, development expenditure levels could be maintained through a more complete implementation of "Category A" (P644 million planned versus P530 million contained in expenditure estimates as being consistent with GOB capacity to implement) and of "Category B" projects (P55 million).

The shortage of projects is clearly not a constraint to maintaining forecast expenditure levels. However, the impact of the development program on the target group may be modest. The Government's strategy has been and remains one of generation of revenues from intensive investment in mining,

reinvesting the returns to improve the living standards of those not directly benefitting from mining sector expansion. According to NDP V, it is to emphasize "the complementary themes of employment creation and rural development." Nonetheless, the major investments in NDP V continue to be heavily weighted toward infrastructure which generally only indirectly affects rural employment. NDP V explains this as being a result of the nature of employment and rural development projects which require much experimentation and do not follow a standard pattern that allows for easy replication.

Suffice it to say that the revenue and expenditure forecasts presented in NDP V do appear to be realistic targets. Whether or not the kinds of expenditures and the high growth rate in expenditures are appropriate are questions for which the present analysis cannot provide answers.

OTHER MACRO-ECONOMIC TRENDS AND FORECASTS

1. Botswana's Economic Growth and Prospects

Over the period 1973/74 - 1977/78 Botswana's gross domestic product (GDP) at market prices grew from P189.3 million to P333.2 million, or by 76 per cent. Real economic growth probably averaged slightly over 4 per cent p.a. for about a 1 per cent per capita increase yearly. ^{1/} The non-governmental sector grew at an average rate of 2.4 per cent p.a., thus, actually falling in per capita terms. Major structural changes occurred during this time. The mining share of economy tripled from 5 per cent to 15 per cent and central government's and wholesale and retail trade shares increased by 50 per cent to 15 per cent and 21 per cent respectively. On the other hand, agriculture's share fell from 37 per cent to 20 per cent, with the value of output actually falling even in current terms. Construction's share fell from 11 per cent to 6 per cent.

The outlook for the NDP V period is much better with real GDP growth forecast to average 10 per cent p.a. (This and all following analyses is based on the rapid mineral growth option using the macro-economic model for Botswana (MEMBOT)). The overwhelming growth impetus will occur in the mining sector, which will account for 41 per cent of GDP in 1984/85. Agriculture's share will further erode to 11 per cent. By 1984/85, this would lead to a GDP of P1,057 million (in 1979/80 prices) or P1,090 per capita in 1984/85. This overstates actual income accruing to Botswana citizens by about 25 per cent because of expatriate earnings. (For technical reasons, MEMBOT may have shifted GDP up by 8-10 per cent, which would further reduce estimates of the welfare of Botswana citizens.)

2. Employment

Formal sector employment in 1979/80 stood at 118,000, with central and local government employing 27 per cent of the total. Employment is forecast to grow at 7.2 per cent p.a. to 168,000 by 1984/85. Sixty per cent of the total increase will arise from local and central government employment and the self-employed. Even with this high growth rate in formal sector employment, net entrants into the labor force will exceed the number of formal sector jobs created.

3. Income Distribution

Over the course of NDP V, it would appear that the economic trend of the 1970's would continue. Mining will continue to expand its role as the pre-

^{1/} This represents the NDP V view. IMF estimates (using the cost of living index as deflator for 1977/78) show that GDP grew only by 4.4 per cent over the entire period, or by 1 per cent p.a. In this case real per capita GDP would have been falling by 2 per cent p.a. There continues to be a discrepancy of about 8 per cent between the MEMBOT estimate for 1977/78 GDP and the CSO estimate. Using the MEMBOT estimate would imply a 3.0 per cent yearly growth rate over the period.

dominant sector in the economy (though not in terms of employment generations). The revenues generated are transferred to Government, which is the prime generator of formal sector employment. (From the early 1970's, local and central government have apparently increased their share in total employment by almost one percentage point per year.) The impact such a trend has on income distribution is uncertain, given the close rural/urban ties, but it is unlikely that a growth pattern of this sort would lead to a lessening of income inequalities.

4. Possible Disruptions of the Forecast

NDP V looks at three possible disrupting forces of the economy - drought, foot-and-mouth disease and slower mineral development. The results of these disruptions, as forecast by MEMBOT, are summarized in Table 5. The impact of the livestock-related disruptions is minimal on everything but personal disposable income, which would drop by 7 per cent (compared to the non-drought situation) by 1984/85 under a drought situation. This understates the distributional aspects of drought or foot-and-mouth disease on that segment of the population which is directly affected. The negative consequences for these people would, of course, be sizable. The interesting conclusion from this analysis is that what happens to the agricultural sector in the short run no longer has a major impact on the macro-economic aggregate of Botswana.

When it comes to slower mineral development, this situation changes significantly. GDP growth is reduced by over 25%, GOB revenues are reduced by 13 per cent and foreign exchange reserves are reduced by 55 per cent. Only personal disposable income remains virtually unchanged and even this would be caused mainly by the slight reduction in Government expenditures assumed if revenue actually fell. From a macro-economic standpoint, the mineral sector is the predominant factor in determining the overall level of activity. This analysis also demonstrates exceedingly well the central dilemma facing the GOB - how to transform the mineral sector windfall into local incomes.

5. Balance of Payments

The balance of payment situation and Botswana's resultant level of foreign exchange reserves have been extremely good. During the 1976/78 period, Botswana had a balance of trade deficit averaging about P40 million per year. This deficit was more than matched by official grants and transfers and private capital inflows (mining related) each of which annually averaged about P60 million and P45 million respectively. The net result was an expansion of foreign exchange reserves by P77 million over the period to a total of P137 million at the end of 1978. Data for the first half of 1979 indicate that the accumulation of reserves has expanded as the trade balance moved into an overall surplus position. This arose as beef exports doubled over the corresponding 1978 period and the volume of diamond exports increased by an estimated 75 per cent as a result of expansion of the Orapa mine. As a result, foreign exchange reserves increased by P56 million between January and June 1979 to raise total reserves to P193 million, or about 8 months' imports at 1979 rates.

TABLE 5. Impact of Disruptions on the Forecast

	<u>Slower Mineral Development</u>	<u>Drought</u>	<u>Foot-and-Mouth Disease</u>
GDP growth rate falls from 10.1% to	7.4% p.a.	8.9% p.a.	10.1% p.a.
Total change in GDP	-12.0%	-4.0%	- 0.2%
Total change in foreign exchange reserves	-55.0%	-4.0%	- 3.0%
Total change in Government revenue	-13.0%	-0.3%	-0-
Total change in personal disposable income	- 0.6%	-7.0%	- 0.4%

Over NDP V, the rapid expansion of mineral output is expected to lead to sizable overall balance surpluses reaching P200 million by 1984/85. By the end of the NDP V foreign exchange reserves, under the rapid mineral growth forecast, will reach almost P900 million, or an estimated 16 months' worth of imports.

As the discussion of potential disruptions to the economic forecast pointed out, the balance of payments situation is extremely sensitive to what happens in the mineral sector. Under the slow mineral growth forecast, the total balance of trade during NDP V will be negative and the overall balance surplus would stand at about P50 million by 1984/85. Total foreign exchange reserves would be on the order of P400 million, or about 7 months' imports, a level which is probably consistent with Botswana's geographic position in Southern Africa, its reliance on a few major exports, and its food import requirements.