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Namibia
Poverty Alleviation with Sustainable Growth

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Industry and Energy Operations Division
Southern Africa Department

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CURRENCY EQUIVALENTS

1990:
1 Rand = 0.39 US$
1 US$ = 2.57 Rands

GLOSSARY OF ABBREVIATIONS

CCN	Council of Churches in Namibia
CDM	Consolidated Diamond Mines
CHW	Community Health Worker
CMA	Common Monetary Area
DEA	Department of Economic Affairs
DFI	Development Finance Institution
DNE	Department of National Education
FNDC	First National Development Corporation
GFI	Government Finance Institution
HIV	Human Immunodeficiency Virus
ICSEAF	International Commission for Southeast Atlantic Fisheries
MLGH	Ministry of Local Government and Housing
MME	Ministry of Mines and Energy
MOHSS	Ministry of Health and Social Services
NBC	Namibia Broadcasting Co.
NBIC	National Building Investment Corporation
NGO	Non-government Organization
NIED	National Institute for Education Development
NISER	Namibia Institute for Social and Economic Research
PHC	Primary Health Care
PLAN	People's Liberation Army of Namibia
RBSA	Reserve Bank of South Africa
RIDP	Southern African Regional Industrial Development Program
RSA	Republic of South Africa
SACU	Southern Africa Customs Union
SWABOU	Southwest Africa Building
SWAPO	Southwest Africa People's Organization
SWATF	Southwest Africa Territorial Forces
SWAWEK	South West Africa Water and Electricity Corp.
UNDP	United Nations Development Program
UNTAG	United Nations Transition Assistance Group
WFP	World Food Program

PREFACE

This report is based on UNDP-financed economic missions that visited Namibia between September and November 1990. Mission members included Pedro Belli (mission chief and principal author), Maria Teresa Benito (economist), Joy de Beyer (health economist), Hjordis Bierman (fiscal economist), Francis Christy (fisheries economist), Alan Dock (education expert), Edward Echeverria (housing expert), Nancy Gillespie (economist), Jeffrey Gimbel (public health specialist), Roger Hay (agricultural expert), Melanie Johnson (financial expert), Armando Lago (transport economist), Arturo Meyer (macroeconomist), Peter van der Veen (mining engineer), Shujie Yao (agricultural economist), and Brigida Tuason (research assistant). Word Processing of the report was done by Ms. Nuria Plaza. Secretarial support and additional word processing assistance was provided by Ms. Noemi Dacanay and the support staff of AF6IE. Messrs. David Cook (AF6IE) and Stephen Denning (AF6DR) are the managing Division Chief and Department Director.

The mission also benefitted from valuable information provided by the UNDP resident mission in Namibia, ILO, UNICEF, and Prof. Chris Tapscott.

As indicated in UNDP Project Document (NAM/90/002) dated March 2, 1990, the major objectives of the report are to examine the structure and evolution of the economy, and several key sectors, and recommend an economic development or rehabilitation strategy for the country, including investment priorities and the main economic policy reforms needed to implement this strategy.

NAMIBIA

POVERTY ALLEVIATION WITH SUSTAINABLE GROWTH

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COUNTRY DATA--NAMIBIA

AREA	POPULATION	DENSITY
Total: 824,000 km^2	1.7 million (mid-1988) Rate of Growth: 2.8%-3.2%	2.06 per km^2

POPULATION CHARACTERISTICS (1990)	
Crude Birth Rate (per 1,000)	37.0
Crude Death Rate (per 1,000)	9.0
Infant Mortality (per 1,000 live births)	60.00

HEALTH	
Population per physician (1989)	5008
Population per hospital bed (1989)	5.6

INCOME DISTRIBUTION (1988)	
% of national income, highest 5%	71
lowest 55%	3

DISTRIBUTION OF LAND OWNERSHIP (1989)	
% of farms: below 5ha.:	80
above 50ha.:	19

ACCESS TO PIPED WATER	
% population - urban	n.a.
- rural	

ACCESS TO ELECTRICITY	
% of population	n.a.
	n.a.

NUTRITION	
Calorie intake as % of requirement	n.a.
Per capita protein intake	n.a.

EDUCATION	
Adult literacy rate (1988)	60%
Primary school enrollment % (1988)	79

GNP PER CAPITA IN 1989: US$ 1,188

GROSS DOMESTIC PRODUCT IN 1989 — ANNUAL RATE OF GROWTH (%, 1980 prices)

	US$ Mln.	%	1980-1985	1985-1989
GDP at Market Prices	1,903.8	100.0	-1.43	3.7
Gross Domestic Investment	305.8	16.1	-14.7	4.7
Gross National Savings	354.0	18.6	-5.6	-8.4
Current Account Balance	37.7	2.0	..	-26.9
Exports of Goods, NFS	1,043.9	54.8	-3.4	-1.5
Imports of Goods, NFS	1,067.1	56.1	-4.5	-0.1

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1988

	Value Added		Labor Force		V.A. per Worker
	US$ Mln	%	Th.	%	US$
Agriculture	207.7	12.5	36.1	19.5	5,753
Industry	622.0	37.3	33.4	18.1	18,623
Services	836.6	50.2	115.3	62.4	7,256
Total/Average	1666.3	100.0	184.8	100.0	9,017

GOVERNMENT FINANCE

	Central Government		Public Sector	
	(R Bln)	% of GDP	Ths.	%
	1990/91			
Current Revenues	1.7	29.3	n.a.	n.a.
Current Expenditures	1.8	30.1	n.a.	n.a.
Current Surplus	-0.1	-0.8	n.a.	n.a.
Capital Expenditures	0.3	4.4	n.a.	n.a.

COUNTRY DATA – NAMIBIA

Money, Credit and Prices	1985	1986	1987	1988	1989
(Banking System)	(Million Rands Outstanding End of Period)				
Total Bank deposits	831.0	864.5	1,014.8	1,166.6	1,658.8
Bank Credit to Public Sector	1.0	30.8	49.8	79.3	62.2
Bank Credit to Private Sector	351.9	407.6	526.1	826.9	1,217.5
	(Percentages or Index Numbers)				
Deposits as % of GDP	32.7	29.5	32.6	31.0	38.3
General Price Index (1980=100)	181.4	205.7	231.6	261.4	300.9
Annual percentage changes in:					
General Price Index	12.0	13.4	12.6	12.9	15.1
Bank Credit to Public Sector	11.0	2,980.0	61.7	59.2	-21.7
Bank Credit to Private Sector	-13.3	15.8	29.0	57.0	47.2

Balance of Payments
US$ Min

	1980	1988	1989
Exports of Goods	1,458.9	946.9	1,021.3
Imports of Goods	1,156.2	918.4	894.3
NFS (net)	-214.6	-161.3	-150.0
Resource Gap (deficit = -)	88.1	132.9	-23.1
Net Transfers	91.3	241.8	203.1
Balance on Current Account	-16.5	-67.8	37.7

Merchandise Exports (Averages)
US$ Min

	1984-1989	%
Diamonds	238.5	28.7
Minerals	429.4	48.0
Karakul Pelts	11.7	1.3
Cattle	49.2	5.7
Other Agricultural	28.9	3.3
Fish	25.4	2.9
Manufactures	44.8	5.1
Other	42.5	4.9

EXCHANGE RATE, 1989 AVERAGE

US$ 1.00 = Rand 2.62
Rand 1.00 = US$ 0.38

EXTERNAL DEBT, DECEMBER 31, 1989
US$ Min
$340.26

EXECUTIVE SUMMARY

Introduction

i. The "red line" is a fence that extends across Namibia from east to west about one-quarter of the way south of the border with Angola. The fence has only two openings. It was erected to keep diseased game and cattle in the north from contaminating healthy game and cattle in the south. The fence also divides communal from commercial agriculture and is a symbol of the rift between two Namibias at opposite ends of the economic spectrum.

ii. A visitor from Europe transported to the capital, Windhoek, south of the "red line" would probably think he is in some small town in the Netherlands, or Germany, save for the racial composition of the population. Stores and modern supermarkets are well stocked with reasonably priced goods, with the exception of expensive electronic goods. This initial impression would be further reinforced by the city's neat appearance, the quality of the buildings, the excellence of the roads, and the reliability of the telephone system. Urban Namibia is rich and European in many respects. The same visitor to rural Namibia, north of the red line, would find poor farmers--most likely illiterate--eking out a living by raising cattle and growing millet with primitive technology in a not very fertile land. Farm children would look malnourished and tired from walking long distances to fetch drinking water for the family. The visitor would know immediately that this is Africa.

iii. There are indeed at least two Namibias. The white population, which is no more than five percent of the total, is mostly urban and enjoys the incomes and amenities of a modern Western European country. The black population, mostly rural, lives in abject poverty. What the white population earns in a day of work, the urban black population earns in two weeks and the rural black population in one year. While the white population has access to excellent health care, the black population does not. One out of twenty black children born today will be dead by his/her first birthday, and one out of ten will be dead before the age of five. While virtually every white Namibian has access to a fine education, only very few blacks have. Before independence in 1990, a white Namibian's chances of being taught by a "qualified" teacher were seven out of 10; a black Namibian's chances would have ranged from one in four, for a Tswana, to one in 50, for a Caprivian or a Herero.

iv. Black Namibians are not only in poorer health and less educated than white Namibians--hence likely to be less productive--they also own far fewer assets and have been denied access to highly productive employment. In 1964 *The Commission of Enquiry into South-West African Affairs* (the "Odendaal Commission") assigned some 33.3 million hectares to 10 black homelands and 34.9 million hectares to white commercial farmers. Many white-owned farms are so large (7,000 hectares, on average) that their boundaries are visible on a medium-sized Namibian map.

v. The dualism that characterizes social conditions is evident in the productive sectors as well. Namibian mining--the country's main source of income and wealth--is world class in practically every respect: management, productivity, marketing skills, technological know-how. Commercial agriculture--the country's second most important productive sector--is also very efficient. Communal agriculture, in contrast, is subsistence agriculture.

vi. This extreme inequality in income and access to public services is what the first administration of independent Namibia has inherited. Its main task will be to dismantle an economic and social system built on apartheid. Redirecting public expenditure to meet the health and educational needs of the majority of the population will be a necessary first step, but it will not be enough. The authorities will also have to tear down many symbolic "red lines" that historically prevented the black population from having equal access to the country's productive assets, services, and markets. The authorities' job will be easier in the context of a growing rather than a stagnating economy. The tradeoff is not between equity and growth, but between immediate redistribution of assets and income vs. long-term sustainable growth.

vii. This report offers suggestions for dealing with Namibia's daunting problems and is divided into three parts. The executive summary, which targets policymakers as its audience, concentrates mainly on suggestions for addressing the equity problems. The main report reviews the country's recent economic performance and employment trends, analyzes the salient development problems of Namibia--which have to do with policies for improving the living conditions of 90 percent of the population--and discusses measures to stimulate growth. The Namibian authorities inherited a policy framework with few price distortions that is largely conducive to growth. This policy framework does not require major modifications. The report, therefore, focuses on the sectoral policies needed to spur labor-intensive growth and on a re-direction of fiscal expenditures to improve the welfare of the poor and raise their productivity. The third part of the report contains a statistical appendix and various technical annexes.

The Government's Economic and Social Challenges

viii. The Namibian economy expanded at 9 percent per year during the 1960s, but since then its performance has been lackluster. Growth was nil during the 1970s and low and erratic during the 1980s. In 1982-84 the economy fell into a recession that brought Gross Domestic Product (GDP) down by 10 percent. After recovering the lost ground in 1985 and 1986, GDP fell again in 1987, recovered in 1988, and fell again in 1989, closing the decade only 4.7 percent higher than at the beginning. Because of continuous population growth, per capita GDP fell some 21 percent during the decade.

ix. The economy's poor performance was not the result of erroneous policies, but rather of exogenous events over which the authorities had no control. Growth fell at the beginning of the decade because of sanctions against the Republic of South Africa (RSA), depletion of high-grade diamond deposits, and a devastating drought from 1982 to 1984 that brought agricultural output down by 43 percent. Sanctions and uncertainty about the country's political future resulted in low investment levels, which, *inter alia*, led to the depletion of high-grade diamond deposits, which in turn, led to a 27 percent decline in output from the mining sector. The drought brought agricultural output down by 43 percent. *One of the Government's main tasks will be to reactivate the economy by stimulating private investment, increasing public investment, and maintaining an enabling environment for private sector activity (see XV).*

x. Despite its poor performance during the past two decades, Namibia is still one of the richest countries in Sub-Saharan Africa. Its per capita income of nearly US$1,200 places it firmly among

middle-income countries, although this figure tells only part of the story. The wealthiest five percent of Namibians receive more than 70 percent of the country's GDP, while the poorest 55 percent receive only 3 percent. As a result, a tiny minority in the modern urban sector enjoys incomes and public services at levels comparable to those of Western European countries, while more than two-thirds have a standard of living so low that they live in "absolute" poverty. The previously disenfranchised and neglected majority rightfully expects to partake in greater measure of the independent country's income and wealth. *Addressing the country's equity problem at an acceptable pace without jeopardizing growth will be a second major challenge.*

xi. Reliable estimates of unemployment prior to independence are unavailable, but current estimates range between 30 and 40 percent. The ILO also estimates that between 25 to 30 percent of the labor force in the formal sector is unemployed, while two-thirds of those in the subsistence sector are underemployed. *Creating enough employment opportunities to absorb the currently unemployed and new entrants into the labor force will be the Government's most difficult challenge*, one that is intimately related to poverty alleviation.

xii. The Government also has a fiscal problem. Prior to independence, Namibia's public administration consisted of the Central Authority, 11 ethnically-based Second Tier Authorities, an equal number of municipalities, or Third Tier Authorities, numerous other local authorities, and several statutory entities. Except for one of the Second-Tier Authorities, the Administration for Whites, the others depended heavily on financial transfers from the Central Authority, because their only other significant source of revenue was the personal income taxes paid by members of their respective ethnic group. While formally established to provide a measure of self-government to various population groups, with the exception of the Administration for Whites, the Second Tier Authorities lacked the necessary human and financial resources to operate efficiently. As a result, public services and the economic and social infrastructure were largely oriented to serve the major urban centers where the white population lived, but few services were provided to rural areas.

xiii. Because of the cumbersome structure, the new Government inherited an oversized public administration, as well as a budget that was too short on investment, excessively focused on a minority of the population, and of questionable efficiency. During the first half of the 1980s, the deficit of the Central Authority was equivalent, on average, to 20 percent of GDP. Namibia relied heavily on the RSA for financing the deficit: the RSA transferred an amount equivalent to about 6 percent of GDP as straight budgetary support until the mid-1980s, and the rest was financed by commercial banks with loans guaranteed by the RSA. In the second half of the 1980s, Namibia had to adjust to declining budgetary support from the RSA, initially by raising taxes and cutting capital expenditures. Higher taxes raised revenues by an amount equivalent to about 8 percent of GDP, and the reductions in capital outlays reduced expenditures from about 12 percent of GDP (in fiscal 1981/82) to about 6 percent in fiscal 1988/89. Nevertheless, current expenditures remained high, at about 35 percent of GDP, and the adjustment measures did not address fundamental imbalance problems. The tax base is narrow and heavily dependent on diamond and uranium revenues, hence sensitive to fluctuations in the prices of these two commodities. Current expenditures are still too high and capital expenditures too low. A cumbersome bureaucracy and attendant inefficiencies are reflected in an excessive wage bill for the general government (estimated at 17 percent of GDP in fiscal 1989/90, or triple the 1986 average for all

developing countries), high current expenditures, and low-quality services for most Namibians. *The challenge for the Government is to change the composition of expenditures, increase their efficiency, and contain their growth.*

xiv. Options for stimulating growth and finding ways for using the incremental income to alleviate poverty call for a clear division of labor between the public and private sectors. The Government's main task, as viewed in this report, is to define the "rules of the game," while the private sector is to use resources efficiently within the rules specified by the Government. The approach calls for Government intervention only to address specific problems if market forces fail to do an adequate job. The idea is that growth should come primarily from the private sector and that the Government should provide social and other services to alleviate poverty and improve the distribution of income. The report emphasizes the use of *fiscal policies* to alleviate poverty and to raise incomes through productivity gains. Because Namibia's income is likely to come primarily from mining and fisheries, the report emphasizes a strategy based on maximizing economic rents from these activities and using fiscal instruments to channel part of these rents to finance social programs, especially those that improve education and health. In general, the recommendations discourage the use of other policies--monetary, trade, industrial, etc.--to address income inequalities.

xv. The report's analysis shows that in the short term there is some scope for improvement in income from crop agriculture but that there would be few employment gains. Agricultural income growth can provide a stimulus to the development of rural non-farm activities and links to nearby towns. Development of fishery resources can provide Namibia and the fisc with a new source of income in the short term. In the medium term, processing of fish and agricultural products for export can provide further employment growth.

Reactivating Growth

xvi. The vast majority of Namibia's productive assets are in private hands, and the Government plans to rely on the private sector to reactivate economic growth. To this end, it is committed to providing an enabling environment to stimulate private sector investment for sustained reactivation of the economy. Both private and public investment declined precipitously during the first half the past decade, the former at an average rate of nearly 19 percent per year, the latter at nearly 15 percent per year. Private and public investment rates have recovered in recent years, but private investment is about one-third below its 1980 level, and public investment is less than one-half. Relative to GDP, gross fixed private investment in 1989 was 11 percent and gross fixed public investment 5.2 percent.

xvii. Namibia's options for reactivating growth and investment are limited. As a member of the Southern Africa Customs Union (SACU) and of the Common Monetary Area (CMA), its trade policies, exchange rate, and monetary policies are set either within the SACU framework or by the Reserve Bank of South Africa. This means that fiscal policies are the Government's main tool for macroeconomic management. Inflation, controls on the movement of capital in and out of the country, and interest rates--all important considerations for private investors--are beyond the control of the authorities.

xviii. Nevertheless, reactivating growth is perhaps the less difficult of the Government's four economic challenges. *First*, economic policies at the sectoral level are already conducive to growth and need only minor modifications. Namibia has no history of interfering with market forces in resource allocation: there are few price controls, no investment controls, no widespread subsidies, no import and export licensing. To be sure, the prices of some agricultural products are set by marketing boards according to the price of similar imports adjusted for transport costs (import-parity rules), and there have been some interest rate subsidies, but these are the exception rather than the rule. *Second*, the extension of Namibian control to the Benguela Current in the Namibian Sea and an exclusive 200 mile economic zone will provide an additional source of income. *Third*, new gold and diamond mines are coming onstream, and as a result, mining output is expected to increase during the next two years. *Fourth*, with proper policies, agricultural output might increase rapidly during the next five years. Independence, moreover, has made it possible for Namibia to penetrate the European beef market on advantageous terms. *Finally*, sanctions against the Republic of South Africa, which once affected the price and volume of Namibian exports, no longer affect the newly independent country: there might be some gains from improvements in the terms of trade and opportunities to penetrate new markets.

Sources of Growth

xix. Consideration of Namibia's economic outlook must begin with the country's export prospects for two main reasons. *First*, Namibia's main productive sectors--agriculture, mining, and fisheries--are heavily oriented toward exports. The small domestic market of about 1.7 million people would be incapable of absorbing a substantial share of new output. *Second*, the Namibian economy is highly dependent on imports for output expansion and is likely to remain so for the next ten years. Although the country does not have a binding foreign exchange constraint, as soon as it introduces its own currency it will lose the cushion now provided by the foreign exchange reserves of the RSA. The economy will need to generate foreign exchange to pay for its imports. Nevertheless, while export performance is important, any country's long-term development depends on its ability to improve its productivity. This section assesses the country's prospects in the light of the recommendations given below.

Fisheries

xx. The fisheries subsector offers promising prospects for quickly increasing Namibia's income. The Namibian Sea is one of the largest and most productive coastal fishing grounds in the world, but Namibia's pre-independence political status meant that there was no internationally recognized coastal state management authority. Fishing took place without control of access, with few benefits accruing to Namibia. The authorities' proclamation of a 200-mile Exclusive Economic Zone (EEZ) immediately after independence made it possible to exercise Namibian sovereignty over this vast maritime territory. With proper management of the resource, the value of the catch in Namibian waters could increase from R600 million in 1991 to R1 billion by 2000 (US$240 million and US$400 million, respectively). Not all this income will necessarily accrue to Namibia, but a catch of this size could yield as much as R150 million from licenses alone in 1991 and some R250 million in 10 years' time--amounts equivalent to about 2.5

percent of GDP. To realize this income, the Namibian authorities need policies that will control access to the fishing grounds and extract as much income as possible, subject to biological limits to allow the resource to replenish. These policies will require (i) selling fishing licenses at an appropriate price with a mechanism that is transparent, e.g., through auction; (ii) establishing a mechanism for surveillance that will permit updating data on stocks; and (iii) establishing the means to gather data on catch and ensure adherence to fishing limits. General guidelines are discussed in Chapter VI. In the medium to long term, fishing-related activities (e.g., fish processing) could also add to Namibia's growth, but to realize this potential, sizeable investments in processing facilities and infrastructure would be needed.

Mining

xxi. Mining is the backbone of the Namibian economy. On average, over the past 10 years it accounted for:

- 76 percent of export earnings
- 38 percent of tax revenues
- 31 percent of GDP
- 18 percent of cash wage earnings
- 18 percent of gross domestic fixed investment

Eight foreign-owned companies account for 98 percent of the sector's value added, and two, Consolidated Diamond Mines (CDM) and Rössing Uranium, which account for about three-quarters of the sector's output, are significant by world standards. CDM ranks sixth in production value and Rössing ranks fifth in Western world uranium production.

xxii. Mining output has been stagnant for at least 10 years, and its growth potential in the near future is modest--mostly from diamonds and gold. The new Auchas diamond mine is expected to yield some 44,000 carats per year of mainly gem-quality diamonds. Elizabeth Bay, another new mine, is expected to come onstream shortly and to yield some 250,000 carats per year, with stones of 95 to 98 percent gem quality. These two diamond mines are expected to boost Namibia's production by one-third, to one million carats per year. Gold production is expected to rise about one-fifth as a result of the Navachab mine coming on stream. More intense exploration could mean a better long-term outlook. Overall the mining sector is expected to grow some 2 percent from 1991 to 1994, some 3 to 4 percent in 1995 to 1996 and, if investment picks up soon, to grow faster at the end of the decade.

xxiii. Compared to other countries with a long mining tradition, Namibia is relatively unexplored, and its geological structure, its great variety of rock types, and its vast land mass (equivalent to Texas and Mississippi together) suggest that there is still considerable potential for the discovery of important new mineral deposits. Because of general uncertainty about the country's future, exploration programs in recent years merely aimed to replace depleted reserves, and no substantial "grass roots" exploration--the key to future development--has taken place. The long "gestation period" in mining means that even if investment were to pick up now, the pay-off would not come before the middle of the decade, suggesting that higher investment rates are needed urgently.

xxiv. The Namibian authorities do not need to make radical changes to current policies, nor adopt drastically new policies to stimulate investment. The present policies already provide the economic environment to attract the high-risk investment capital required to find and develop new mines. It would help, however, if the Government were to undertake a marketing program to "sell" the country to outside investors. A key element of this marketing effort would be the formulation of a private sector-oriented policy and a strategy for the sector that in one concise document would define the "rules of the game" with respect to the applicable legal, tax, and investment framework. The on-going revision of the tax code to conform to best practice, bringing it in line with codes of other mining countries, will also help, especially if it makes Namibia as attractive to investors as any other country in the world. Because of the long gestation period of investment in mining, the revisions of the mining and tax codes need to be done soon. It should be emphasized that these are efforts at the margin, as the main world-class mining companies are already working in Namibia and are aware of the prevailing business environment. The main purpose of a mining policy paper would be to reassure investors, rather than to make radical changes. To achieve the various aims, the Government needs to provide (i) mining legislation and taxation schemes that are competitive, fair and applicable to all investors equally; (ii) transparent and stable legislation, straightforwardly implemented; and (iii) geological information and support to build infrastructure.

Agriculture

xxv. Agriculture is by far the most important employer in Namibia, supporting directly or indirectly some 70 percent of the population. The communal agricultural sector provides employment to about 300,000 people, more than half of the economically active population. Although the sector contributes only about 10 percent of GDP, far less than the share from wholesale and retail trade, it is the most important exporter, after mining, with a one-tenth share of total exports. Good agricultural performance, therefore, affects the lives of most Namibians not only directly but also indirectly through its contribution to the country's foreign exchange earnings--a feature that will acquire more importance when Namibia introduces its own currency.

xxvi. The sector has not performed well during the past decade, declining at an average annual rate of 1 percent per year. Until recently, official statistics excluded subsistence farm production, which which add about two to three percent to GDP, but which would not change the overall result. One bright note is the growth of commercial cereal output, which grew at an average annual rate of 24 percent during the past five years.

xxvii. Output variations were particularly marked during the 1980s when drought brought output down by 43 percent between 1982 and 1984. Although the value of agricultural output in real terms had reached the pre-depression level of R156 million by 1989, output had not fully recovered in physical terms. The additional value expansion came from increased value-added through the extension of local processing.

xxviii. Between 1980 and 1985 bad weather plagued the sector, but while drought may explain interannual output variations, the explanation for secular declines in the sector's performance must be sought elsewhere. The commercial ranching sector may be facing limits to growth imposed by land and

water scarcities. In the three years preceding independence, many large-scale livestock farmers shifted capital out of farming (and into South Africa's financial markets) by reducing the size of their herds. Both investment and output suffered. Cattle sales declined 4 percent per year after 1980. The decline in karakul pelt production, which fell by 80 percent in the decade, can almost certainly be explained by a collapse in international prices, while sheep and goat sales increased at 8 percent as farmers switched from karakul to goats and to the more profitable, but less environmentally kind, breeds of sheep. As a result, production and exports of mutton and wool have risen. So far, there has been little or no growth in communal agriculture to offset the declines in commercial sector output; the extreme inequalities in the distribution of resources, markets and services have marginalized the vast majority of communal farmers and suppressed any contribution they may have made.

xxix. Land of good quality is a major growth constraint to agriculture, at least with present technological knowledge. Although vast and relatively unpopulated, Namibia is flanked by two major deserts, and the land between them is not prime agricultural land. In terms of stock, the carrying capacity of the range declines steadily from the northeast, where 7-10 hectares are needed per head of large stock (cattle and range game), to the southwest where more than 30 hectares are needed to sustain a single head of large stock. It is estimated that as few as two hectares, but as many as 10, are needed to sustain one person on a long-term basis in the north, where presumably the land is the best. The present ratio of 2.9 hectares per person in Owambo, Kavango, and Caprivi is at the extreme limit of the long-run sustainable range. And the land is by no means uniformly good.

xxx. Water is the other major growth constraint. Irrigation potential is probably limited to about 32,000 hectares, of which 18,000 are in communal areas. Owing to evaporation, surface water is extremely limited, and the underground water table is dropping. Some form of irrigation is used on approximately 6,500 hectares of arable land, of which 5,600 hectares are in four commercial areas. In the Ovambo region the intensification of crop farming though irrigation is limited in many places by saline encroachment and in others by a salt layer that may draw to the surface after a few years of water application.

xxxi. Growth prospects in agriculture will depend largely on the performance of communal farmers. Long-run trends suggest that commercial ranching may have reached growth limits imposed by poor land quality and scarce water. Large-scale farmers have started cereal production in a few better-endowed areas and commercial cereal output has grown rapidly in the past five years, but the contribution of arable output is still too small to make much difference to the sector's overall performance. Maize farming has become established in the "maize triangle" near Otavi, and wheat is being produced with supplementary irrigation near Hardap: cereal production grew 24 percent per year in 1984-89. Other higher value crops have followed. Strong growth might be sustained from this base, but because of the scarcity of good land, its long-run prospects are limited.

xxxii. Communal agriculture, which contributes only 15.4 percent to overall sectoral output and which has grown slowly, offers more hope. Extreme inequalities in the distribution of resources, and access to marketing channels and services have marginalized the vast majority of communal farmers and their potential contribution to sectoral output, as discussed in Chapter V. Nevertheless, the communal sector has the potential to grow at a healthy rate and push overall sectoral growth to some 6 percent per year during the next five years. Key actions to realize these prospects include (i) integrating the northern

farmers into the national market by opening distribution channels in the north and providing credit, extension, and veterinary services to communal farmers; (ii) improving the road network in the north for transporting inputs and produce to and from the communal areas; (iii) relaxing transport regulations; and (iv) emphasizing the production of high-value crops. Chapter V gives specific suggestions to increase the output of communal farmers, and Chapter XII provides preliminary economic assessment of investments in rural access and other types of roads, as well as some specific suggestions for deregulation. Provided that communal farmers respond to policy changes, agriculture might grow about 5 to 6 percent per year in the next five years, as shown in Table 1. Without rapid growth in the communal areas, agricultural output is likely to grow at 4 percent per year, or less.

Table 1
Namibia: Projected Rates of Growth of GDP, 1991-96
(Percentages)

Sector	1991	1992	1993	1994	1995	1996
Agriculture	4.5	5.0	6.5	6.0	6.0	6.0
Fishing	3.4	3.5	3.5	3.4	9.0	9.0
Manufacturing	4.0	4.0	4.5	4.5	4.5	4.5
Other Industry	5.0	5.0	5.0	5.0	5.0	5.0
Mining	2.0	1.5	0.0	3.0	5.0	2.0
Other	3.5	3.5	3.5	3.5	3.5	3.5
GDP	3.3	3.3	3.1	4.0	4.9	4.7
Consumption/capita	-0.6	0.4	0.7	1.3	0.8	3.0
GDP/capita	0.1	0.1	-0.1	0.8	1.7	1.5

Overall Growth Prospects

xxxiii. If (i) communal farmers respond to incentives as expected; (ii) the authorities capture the rents in the fisheries sector; and (iii) investment levels stay at or above some 17 percent of GDP, the World Bank's economic model suggests that Namibia is likely to attain a rate of growth of 3 percent per year in the next three years and closer to 5 percent per year in the following three, as shown in Table 1. In the longer term, Namibia's prospects are brighter. *First*, income from fisheries is likely to increase as stocks recover and *second*, mining output is likely to rise if investments in exploration and new mine development are undertaken now. Namibia is one of those rare countries where the longer-term growth prospects are more favorable than the more immediate ones.

Alleviating Poverty

xxxiv. The alleviation of poverty is the most difficult challenge facing the new Government. Namibia has a serious problem of *relative poverty*, evident in the highly skewed distribution of income, and an equally serious problem of *absolute poverty*, evident in the proportion of the population below the poverty line. In addition, available data suggest that during the 1980s the situation worsened, as Table 2 shows.

Table 2
Namibia: Per Capita GDP by Sector
(1980 US Dollars)

Year	Total	White Modern	Black Wage Employment	Subsistence
1980	1,140	12,830	900	59
1984	953	11,236	759	62
1988	921	12,839	585	55

xxxv. The first step in designing policies to help the poor is understanding who they are, where they live, and how they earn their livelihood. In Namibia, as in the rest of Africa, poverty is primarily a rural phenomenon. The Namibian poor either own small amounts of unproductive land or have no land at all. They also lack human capital and live from agriculture and the fruits of their unskilled labor. Compared to the rest of the population, the poor also have less access to public services, such as health and education, and as a result have a lower income-earning capacity. Typically, poor families are headed by a woman whose husband works in a city, leaving her responsible for farming the family plot. The family ekes out a living growing millet (or other crops) and raising a few head of cattle or goats. The sons tend the animals, walking hours daily to watering holes, while the daughters fetch water for the household from a distant source. These tasks take three to eight hours and compete directly with school attendance. The head of the household is likely to have given birth to her first child while still in her teens and to have given birth to five more, not all of which have survived beyond their tenth birthday. In fact, one out of 20 children is likely to die before his/her first birthday and one out of 10 before the age of five. Of those that survive, one out of three goes hungry for enough of his/her childhood to suffer stunted growth, and in some areas of the north, one out 10 actually starves.

xxxvi. There are no quick solutions to poverty alleviation. The key lies in raising the productivity of the poor and creating employment in the framework of a rapidly growing economy. But while the *rate* of growth matters, the *pattern* of growth is equally important: "countries that have been most successful in attacking poverty have encouraged a pattern of growth that makes efficient use of labor and have invested in the human capital of the poor" *(World Development Report 1990)*. This two-part approach, encouraging labor-intensive growth and investing in the human capital of the poor, is the basis for the strategy of poverty reduction proposed in this report. In particular, the strategy calls for (i) increasing the demand for the poor's most abundant asset--labor--through a policy of broad-based, labor-intensive growth; (ii) adopting a concerted program of social expenditures to improve the poor's access to basic

health and educational services, with the twin objectives of increasing the poor's productivity and improving their living conditions; and (iii) establishing a system of well-targeted transfers and safety nets for those who may not benefit from the two preceding measures.

Labor-Intensive Growth

xxxvii. Poverty alleviation in Namibia necessarily entails reducing unemployment. According to the ILO, the economically active population stands at around half a million and is increasing at a rate of 3 percent per year, equivalent to 16,500 new labor-force entrants per year. In addition, current open unemployment is estimated at 25 to 30 percent, or around 40,000 to 60,000 people. No single sector is likely to provide a dramatic increase in employment. The outlook is for widespread, but incremental gains across all sectors. If the projected growth rates materialize and labor absorption proceeds according to patterns in countries similar to Namibia[1], approximately 1,000-20,000 jobs will be created in the formal sector in next five years. Thus, policies designed to accelerate growth need to contain specific measures to stimulate labor-intensive economic growth. They also require (i) moderate taxation of agriculture and relatively undistorted product and factor markets; (ii) public provision of infrastructure and an environment that makes technical change accessible to small farmers and the urban poor; and (iii) specific policies to improve the participation of the poor in economic growth by increasing their access to land, credit, and public infrastructure and services.

Efficient Growth in Agriculture

xxxviii. The experience of other countries shows that the expansion of agriculture lays the basis for broadly-based, poverty-reducing growth. The poor benefit directly if they are farmers, and they benefit indirectly from growth in the demand for farm labor and for the products of the rural non-farm sector. Moreover, agricultural growth helps the rest of the economy. Typically, countries with rapid agricultural growth have also had rapid industrial growth.

xxxix. The main policies that affect agricultural performance are taxation and public support to agricultural development and taxation. Although the range of experience is wide, countries that have performed well have usually taxed agriculture moderately and provided strong support to agriculture through infrastructure, research, and technology.

xl. This type of support for agriculture has had a decisive influence world-wide on the level and pattern of agricultural growth and on private investment in the sector. Better infrastructure has led to increased productivity, technical change, and stronger market linkages, while technological change has been vital for agriculture. The record of the past 30 years supports the argument for public funding of agricultural research and for dissemination of new technologies in small-scale production. In Namibia, the commercial sector already has adequate access to research and extension services, is already well served by the country's excellent infrastructure, and its economic interests are looked after by the numerous marketing boards, as discussed in Chapter V. The communal sector, however, does not have

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1/ The projections assume elasticities similar to those calculated by the World Bank in Zimbabwe.

any of these advantages and, as a result, is not integrated with the rest of the economy. The suggestions for improving the productivity of communal farmers offered in para. xxxii would not only have a positive impact on growth, they would help alleviate poverty, as would the suggested investments in infrastructure, mentioned above and discussed more amply in Chapters V and XIII.

xli. Agriculture in Namibia is already lightly taxed, perhaps too lightly taxed, as losses in agriculture may be deducted from other income, giving rise to "hobby" farms. This report, however, does not address taxation in Namibia; the IMF is already addressing taxation issues. Indirect taxation, stemming from price controls, industrial protection, and overvalued exchange rates, has not been a major problem in the commercial sector, but for communal farmers the situation is different.

xlii. Pricing--by various marketing boards--of agricultural products has been favorable to commercial farmers. Over 90 percent of Namibia's livestock is sold to South Africa at higher-than-international prices; wool and karakul pelt prices are determined by export prices; and maize is priced by the Agronomic Board according to import-parity rules, or higher. Moreover, the previous administration subsidized the purchase of land through negative real interest rates, and although the Landbank has increased interest rates from 4 to 18 percent per year (above inflation, but lower than commercial banks rate), there is pressure to return to previous practices to redress past inequities.

xliii. For communal farmers in the northern areas, the situation has been different. Isolated from the national and export markets by the "red line," their only sales outlets have been the Oshakati abattoir, which buys all grades of meat at low canning-meat prices, and the local butchers. By virtue of low product prices and unavailable (hence infinitely expensive) credit, communal farmers are being taxed higher than commercial farmers. Efficient, labor-intensive growth requires that market forces continue to determine output prices for commercial farmers and that communal farmers have more access to credit and to the national livestock market. For those agricultural goods where total liberalization of price determination is not feasible, for non-economic reasons, import-parity rules are a good substitute. Policies that distort the relative price of labor, such as capital subsidies, targeted credit, and tax credits, need review. Underpricing other important factors of production--land, water, and technology--may also be detrimental to the potential absorption of labor; the prices of these inputs also need review. Chapter V discusses these policies in more detail. Finally, the price of labor deserves special attention.

Factor Market Interventions: Wage Rates

xliv. Professionals and skilled labor are scarce in Namibia, and both can command premium wages. But the supply of unskilled labor far exceeds the number of jobs available; wages for this group remain low and will probably remain low until unemployment abates. The introduction of a minimum wage to protect unskilled labor at this time would be counterproductive and likely to segment Namibia's labor market further and slow employment creation. While a minimum wage might preserve wage gains for a few, it would do so at the expense of those still excluded from the labor-market.

xlv. An alternative would be to pursue negotiated wage settlements under arbitration, if needed, and make the results public. Barriers in the skilled and semi-skilled labor markets could be lowered through expanded access to the Ministry of Labor's program of certification. It would be desirable for the Government of Namibia to continue setting standards for training and certification and to consider

subcontracting training services to the private sector. Nevertheless, efficient creation of employment opportunities through economic growth is the most important labor market policy.

Informal Sector Activities and Deregulation

xlvi. Finally, the removal of unnecessary barriers to the development of informal sector activities will also help employment creation. Small businesses offer prospects for employment growth, but they need access to input and product markets. To ensure the poor's participation in employment opportunities, small business regulations and labor market codes need review. Overly restrictive regulations on small businesses and services, such as food vending and transport (discussed in Chapter II), need to be relaxed or modified, taking care not to jeopardize public health. These regulations tend to protect formal sector businesses against competition; experience in other countries shows that they impose high employment and equity costs on the economy.

Investing in the Human Capital of the Poor

xlvii. The second part of the approach to alleviate poverty calls for a heightened effort to provide basic health and educational services to the poor. There is overwhelming evidence that investing in human capital is one of the keys to reducing poverty. Moreover, improvements in health, education, and nutrition reinforce each other (*World Development Report 1990*). Too little investment in the human capital of the poor increases the probability that they will remain poor and that their children will also be poor.

Improving Health Services

xlviii. According to *World Development Report 1990* figures, the Namibian Government spends far more of its country's GDP on health than do other middle-income countries, yet health conditions in Namibia are closer to those of other Sub-Saharan African countries. Namibians, for example, live 10 years less than the population of middle-income countries--paradoxical in a country that spends as much of its GDP on health care. The reason is that the structure and orientation of the service delivery system has been built around the concept of curative rather than preventive health care. The major health problems in Namibia are infectious diseases, and the hardest hit are poor black children. The illnesses of children, diarrheal and respiratory, are amplified by a variety of interacting factors: malnutrition increases disease severity; inadequate water supplies, sanitation facilities, and housing increase the incidence of disease. The high fertility rates, lack of pre-natal care, and family planning services further exacerbate the impact on the community. Tuberculosis and malaria are the major infections that affect adults as well as children.

xlix. The health care system is ineffective in targeting the groups that these diseases afflict most severely: children in rural areas, child-bearing women, and poor uneducated adults, those who lack the necessary resources and education to access the health care system effectively. By design, the system treats disease after it develops, inevitably leading to increased costs, suffering, and mortality, conditions that are also influenced by factors outside the service-delivery system. Without attention to childhood

and maternal nutrition, and to clean water and sanitation, infectious disease control will be limited. Preventive as well as curative strategies are needed.

l. Namibia does not need to spend a substantially higher proportion of its GDP on health care. It needs to reorient its health delivery system toward preventive health care and to emphasize access for the poor. Better living conditions will not only relieve human suffering but also generate the time savings necessary to enable people to take advantage of emerging income opportunities.

li. Improved health delivery systems alone, however, will not be enough. Crucial indirect determinants of disease also need attention. Malnutrition increases the morbidity and mortality of infectious disease, poor water and sanitation are associated with diarrheal illness, inadequate housing facilitates the spread of tuberculosis, and unemployment enhances the incidence of alcoholism, with all its attendant social problems. Unaddressed, these indirect factors will neutralize the effects of efficient service delivery. The issues cut across sectors as well--lasting improvements in public health will require efforts beyond the activities of the health sector. Chapters I-XI propose specific measures to improve the delivery of primary health care, water, sanitation, and housing services to Namibia's poor. These following paragraphs highlight some of the most important suggestions.

lii. *First* and foremost, the authorities need to continue their program emphasizing preventive health care and more services for the poor. Inevitably, there will be trade-offs, and some services now provided by the state may have to be provided by the private sector. However, no compelling reason dictates having the state provide every health service to everyone. In fact, worldwide experience indicates that a division of labor between the state and the private sector might be more efficient, with the state taking responsibility for (i) providing health interventions that either have a public-good character (traffic safety, for example) or that generate benefits to the overall community (for example, immunization against communicable diseases); (ii) providing curative services that the private sector might not provide at all; and (iii) ensuring that the poor have access to basic care.

liii. *Second*, the system needs to expand coverage. To this end, the authorities might consider decentralization. In Chile, transferring responsibility for many public health services from the central government to the municipalities helped broaden the system's coverage. Partly as a result, infant mortality fell from 103 per thousand in 1965 to 27 per thousand in 1985 (*World Development Report 1990*).

liv. *Finally*, the state needs new financing mechanisms to increase revenues and improve equity. User fees based on ability to pay would be a step in the right direction. As of 1990, the maximum rate for private patients was R75 per day (US$30) with additional user fees for specific services. Often charges were much lower: R25-50 per day (US$10-20). Full-cost fees for patients who can afford it would decrease usage, free up resources, and make it possible to render the services more widely.

Improving Education

lv. Raising the education and skills levels of poor Namibians will increase labor productivity, broaden the employment base, raise individual incomes, and improve the country's international competitiveness. Recent research points to a strong link between education and economic growth. As with health, Namibia already spends as much of its GDP as any country in the world--8.5 percent. Yet the educational status of the population is no better than that of most Sub-Saharan African countries. Two statistics suffice to make the point: six out of 10 Namibians are illiterate, and seven out of 10 have not completed four years of schooling, the internationally accepted minimum requirement for maintaining literacy skills.

lvi. The system's dismal performance results from the cumbersome and expensive administrative structure that pre-independence apartheid policies required. The maintenance of 10 separate ethnic administrations, in addition to the Department of National Education, which served ethnic groups living outside their designated ethnic regions, entailed unnecessary duplication of expenditures. Separation along ethnic lines also perpetuated differences in the quality of education, as the poorer administrations could not afford as many good teachers, build as many good schools, and buy as many materials as the Administration for Whites. As a result, although the averages of key indicators look good, they are unduly influenced by the high quality of education for whites. Moreover, the variations among regions and ethnic groups are astounding. Finally, Namibia's previous administration had a penchant for sacrificing numbers for quality, as evident in many aspects of Namibian life--the high quality of the hospital buildings, the high quality of the roads, and the high quality of the school buildings: good, but too few of them.

lvii. In general terms, the authorities' most important tasks are *first*, to articulate a policy framework against which to consider and evaluate proposed development and recommendations; *second*, to streamline the administrative system; *third*, to emphasize access to lower secondary education, by the judicious expansion of strategically-located primary schools, and thus moving toward a 10-year basic education for all; *fourth*, to give high priority to the upgrading and reorientation of all teachers so that effective learning can keep pace with the changing curriculum; and *last*, to improve the quality of the curriculum. Chapter X provides specific suggestions for improving the delivery of education to the poor. One area that deserves special emphasis, however, is farmer education and technical services. As discussed in Chapter V, there is a great need for better communal farmer education and technical services support to increase farmer productivity and give farmers confidence to invest in new, more profitable crops.

Direct Employment Creation

lviii. Although the main emphasis to increase the demand for labor must be on the policy framework and efficient economic growth, such programs might not be enough to effect a substantial alleviation of unemployment, especially in the short term. For this reason, it would be advisable to consider options for employment generation through public works schemes. Labor-intensive construction of rural access roads in the north, for example, would provide employment opportunities and improve marketing channels for communal farmers. The Department of Transport is already considering

labor-intensive road construction, and its efforts deserve encouragement. An ambitious low-cost housing program along the lines suggested in Chapter XI would likewise create jobs and address a pressing social need.

lix. Given the resource limitations and the extent of need, it will be critical that the Government and donor employment programs conform with sector development strategies and be fully justified on economic grounds. Moreover, such programs should not compete with other employment: they should run during periods of slack agricultural labor demand and should pay wages below those prevailing in the market.

Gender-specific Programs

lx. This strategy demands particular efforts to include women. Women are significantly disadvantaged in their economic activities. While they hold primary responsibility for family maintenance and welfare, they have the least amount of discretionary time to avail themselves of social services and supports. The primary target groups for credit, skills, training and social services should include urban and rural women. Labor-short female-headed households may be unable to benefit from employment schemes, and it would be advisable to assess the economic and social feasibility of direct transfer assistance for these households.

Improving Safety Nets

lxi. In 1989 the Council of Churches in Namibia/Repatriation, Resettlement and Reconstruction Committee (CCN/RRR) estimated the "nutritionally needy" at 150,000 people. Despite employment gains, the most vulnerable people will continue to need transfer assistance. A system of safety nets for the poorest is critical to stabilizing their welfare and facilitating sustainable poverty reduction in the short run. The design of a safety net system is beyond the scope of this report, but some suggestions to improve the present system are possible.

lxii. The system of social safety consists of state transfers (social pensions and other targeted assistance schemes) and church, NGO, and donor-based programs. The most important public sector program is the social pension managed through the Ministry of Health and Social Services (MOHSS). Every Namibian over the age of 60 is eligible for a social pension, currently R92 per month. The other main public sector safety net is the Remission of Rent Scheme (also managed through the Ministry of Health and Social Services), whereby residents of township-municipal housing may qualify for rent exemptions. Eligibility for the scheme is subject to a strict means test, which also determines the amount of subsidy, up to a maximum of R74 per month. By limiting eligibility to households that rent municipal housing for at least two months, the scheme is not reaching the poorest of township residents (squatters, those in single quarters, etc.). It would appear that the means test is too strict, as only 3,348 people benefit from the scheme, and the average subsidy per household is only half the maximum allowable.

lxiii. In both cases, it would appear advisable to explore the scope for restructuring the transfers. For social pensions--nearly one-third of the total Ministry of Health and Social Services budget--the

Government might consider scaling pension benefits to favor the poor. The Remission of Rent Scheme is small, but apparently mistargeted, and with nearly 50 percent of the budget going to administrative expenses, it is also inefficient. The same resources could be better deployed as direct transfers (rather than a payoff by one part of the Government to another) or for upgrading housing (sites and services) for the poorest of the urban poor.

Poverty Alleviation Through Asset Redistribution

lxiv. Even though the Government of Namibia is committed not to expropriate land, and current legislation prohibits the break-up of existing production units, the redistribution of assets--particularly land--as a quick way of alleviating poverty needs to be addressed. The land-scarce, the landless, and the political leaders point to unequal access to land as one of the root causes of inequality. Redistributing the existing stock of assets to the poor has reduced inequalities in some countries, but this has been the exception rather than the rule. In the case of Namibia, a large redistribution of land would probably not be in the best interest of the Namibian poor. However gross, the maldistribution of land is but one of several reasons for the wide disparities in income. Others include differential access to education, health care, and labor markets. Although access to land is of considerable importance, massive redistribution may not be a feasible option nor the most efficient way to redress past inequalities.

lxv. Namibia's landmass, although vast, is of poor quality. Two major deserts--the Kalahari and the Namib--occupy large portions of the country and as much as two-thirds is either arid or semi-arid. Consequently, minimum-economic-size farms need to be very large. Stripping down large holdings to make smaller ones would result in a patchwork that could not be farmed efficiently. On the other hand, if all the usable land could somehow be re-allocated so that existing farmers (commercial and communal) had a farm of minimum economic size, as recommended by the Ministry of Agriculture, about 2,100 new cattle farmers and 500 new smallstock farmers would receive rangeland, but there would be a loss of 13,300 farms in potentially arable communal areas because existing holdings would have been amalgamated to achieve an "economic" size. This simple exercise suggests that an administered land reform is unlikely to bring any benefits at all in communal areas and only small benefits in livestock areas. The authorities are caught on the proverbial horns of a terrible dilemma. Land reform that safeguards efficiency and production is not likely to satisfy the aspirations of many. Land reform that satisfies the aspirations of many is likely to do so for only a short time; in the medium term it may bring output down considerably and expose new farmers to undue risk of economic failure.

Redirecting Public Expenditures

lxvi. The final challenge, *redirecting public expenditures,* must be met if Nambia's health, education, and housing services are to improve rapidly. Fiscal policy is the Government's main tool for addressing the present extraordinary inequalities in income and access to social services. Namibia inherited a capable and experienced public administration that is well placed to help meet the country's social and economic challenges. An important task for the new Government is to capitalize on the experience and expertise of the public service and marshall their efforts to serve the previously disenfranchised and neglected majority.

The Fiscal Position at Independence

lxvii. Namibia was in a relatively strong fiscal position at independence. For nearly five years the operations of the Central Authority had been progressively adjusting its operations to match the declining budgetary support from the RSA; in the year before independence the budget virtually balanced. At the same time, the public debt had fallen to very low levels, and two of the three major non-financial public enterprises, run on commercial principles, enjoyed overall surpluses and little or no debt.

lxviii. Namibia's public administration however, confronts difficult problems. It has inherited a complex administrative apparatus and a narrow revenue base that is still vulnerable to changes in world market conditions. Expenditures are still high, despite dramatic reductions of investment expenditures. Finally, budget support from the RSA--down to about 3 percent of GDP in the year immediately before independence--is likely to shrink further. Given the narrow tax base and the already high tax burden, there is limited room for increased taxation in the short term. The challenge for the new Government is to maintain existing assets and rationalize the public administration to meet new priorities without jeopardizing fiscal and macroeconomic stability.

Revenue Projections

lxix. The revenue projections presented here are based on the macroeconomic projections summarized in para. xxxiii, taking into account some specific circumstances that might affect fiscal performance. Mining was the single most important source of tax revenues, but with the sector's stagnation, its share has declined. The slow projected growth of the sector along with write-off provisions for investment indicate that future mining tax revenues are likely to grow slowly. Individual income taxes, which in 1990/91 accounted for about 6 percent of GDP, are likely to remain constant relative to GDP, while taxes on international trade, which in 1990/91 accounted for about 9.3 percent of GDP, are likely to decline slightly, due to the relative fall of diamond export as a percent of GDP and the decline of SACU receipts. Finally, the other major item, taxes on domestic goods and services, is likely to decline. All told, tax revenue is likely to fall from 29.8 in 1991/91 to 26.7 percent of GDP in 1995/96.

lxx. These projections are on the conservative side. Namibia's nominal tax rates are already high and, with the possible exception of the land tax discussed in Chapter V, it would not be advisable to raise further. Tax administration, however, can be improved, existing exemptions tightened, and liberal write-off provisions reduced. These changes would increase revenues and further the equity of the tax system. The narrow tax base is a reflection of the economic system, and, therefore, the tax base will automatically widen with broader-based economic development. Revenues could also be increased through the implementation of the recommended system of user charges and cost recovery policies in the social sectors and improvements in user charges for transport, as discussed in Chapters IX-XII, and for postal services, airports, and water services. The major public enterprises, which generally are run on business principles and are in sound financial condition, might be subjected to company taxes. Also, there is no economic reason for exempting them from paying dividends to their shareholder, the Government. Furthermore, the status of the First National Development Cooperation (FNDC), which is a drain on the Central Government, needs examination, with a view to reversing this position. Finally, the projections do not take into account revenues from fishing licenses and the land tax, which could add some 2.5 to

3.5 percentage points of GDP to fiscal receipts. Thus, under a more optimistic scenario, total revenues might amount to some 33-36 percent of GDP.

Expenditures

lxxi. Meeting the challenge of poverty alleviation will inevitably require an increase in expenditures, but the major part of the real gains will come from the elimination of inefficiencies in spending and improvements in the quality of services, not from increased budget allocations. Total expenditures of the Central Authority ranged between 40 and 50 percent of GDP in the 1980s and are estimated to have been reduced to 36 percent of GDP in 1990/91, despite an increase in the wage bill from 9.1 percent of GDP in 1989/90 to 15.4 percent in 1990/91. This increase is in large measure due to accounting methodology reflecting a re-organization of the Government. Only the expansion of the Central Government (for new ministries, embassies, etc.) entailed an increase in total expenditures. The remaining increase in the wage bill reflects a change in the structure of Government and was accompanied by a corresponding reduction of transfers from the Central Government to other Government entities. For the future, the projected expenditures shown in Table 3 decline as a percent of GDP, mainly due to a lower wage bill. Table 4 shows an alternative projection with a wage bill constant in real terms. Although compared to historical levels, the projected wage bill seems low in both cases, this is due to savings made possible by the cessation of hostilities. A functional breakdown of Central Government expenditures for the five years before independence shows that about 40 percent was spent on protection and for military expenditures and administrative services. The projections incorporate a significant reduction in the share of military expenditures because their need disappeared with the cessation of hostilities.

lxxii. The projections also incorporate an assessment of what is possible in the short run. Efficient redirection of resources requires good information, good project preparation, and good project implementation. The present administration did not inherit a ready-made portfolio of projects reflecting its own priorities, nor a database that would enable the authorities to make optimal, or, in some cases, even good decisions, as discussed in Chapters IX and X. Efforts are now underway to create the database as well as the project portfolio, but progress is uneven. For example, it will take time to reorganize the health system and train teachers to provide quality education; in the short run these two sectors probably cannot use efficiently a major increase in resources. On the other hand, within a much shorter period it may be possible to improve the housing situation; provide extension services to communal farmers; and construct feeder roads in the north. The disparities in information, planning, and implementation capacity among the various sectors suggest that strengthening these functions should be concentrated first in the high priority sectors of health and education.

lxxiii. Some savings and efficiency gains are also possible. The constitutional decision to abolish the so-called second-tier governments offers hope for a radical streamlining of expenditures in the medium term, even if the constitutional provision that all Government employees be retained limits the scope for immediate streamlining. More efficient use of resources is possible in many areas. For example, using different building materials and standards for low-cost housing, as suggested in Chapter XI, would lower construction costs by 30 to 40 percent. Lower road maintenance standards, as suggested in Chapter XII, would also bring some savings. Finally, subjecting expenditures to strict economic analysis--in road

construction, for example--and undertaking only projects that can be justified on economic and social grounds would improve resource use.

lxxiv. Incorporating savings and efficiency gains is difficult in any projection. It is especially difficult in the case of Namibia because of the anticipated major re-direction of resources and the limited database. Nevertheless, some rough, global estimates of the monies available and general direction of expenditures are possible. With resources available from taxes and other income, plus expected budget support, the authorities would be able to finance expenditures amounting to 36 percent of GDP in 1991/92 and about 31 percent in 1995/96, as Table 3 shows. With this level of resources, the Government could increase the purchase of goods and services and capital expenditures by 25 percent (real terms) in fiscal 1991/92 and 5 percent per year thereafter, until 1995/96, *provided that the wage bill declines about 5 percent per year in real terms*. The latter is a crucial pre-condition and a difficult one to meet. Under this scenario, the Government would be able to finance 15 percent of its capital expenditures in 1991/92 and about 70 percent by 1995/96. Grants and concessional loans could finance long-gestation projects, while domestic financing could underwrite the rest. Looking farther ahead, Namibia needs to strengthen its fiscal position; the authorities cannot continue to rely on external concessional project financing for the medium term. Table 3 is based on conservative assumptions about revenues and on a 5 percent real annual decline in the wage bill.

Table 3
Namibia: Central Government Financial Projections
(As percent of GDP)

Item	*1989/90*	*1990/91*	*1991/92*	*1992/93*	*1993/94*	*1994/95*	*1995/96*
Total Revenue	39.0	29.3	32.0	31.5	31.2	30.5	29.7
of which: taxes	34.5	25.9	29.4	28.9	28.6	27.9	27.1
Current Expenditure	35.2	30.1	30.4	29.5	28.5	26.8	25.5
of which:							
Wages	9.1	15.4	14.7	14.1	13.1	12.0	11.0
Goods & Services	8.4	10.9	10.3	10.5	10.6	10.7	10.7
Current Savings	3.8	0.8	1.6	2.0	2.7	3.7	4.2
Capital Expenditure	3.7	4.4	5.1	5.1	5.1	5.6	5.5
Deficit (-)	0.1	-5.2	-3.5	-3.1	-2.4	-1.9	-1.3
Budget Support	2.8	1.7	2.1	0.9	0.0	0.0	0.0
Other Financing	-2.9	3.5	1.4	2.2	2.4	1.9	1.3

lxxv. Were the wage bill to remain constant in real terms, the authorities could still provide the same level of goods and services and investment if (i) revenues from the sale of fishing licenses attain their potential level and if the donor community increases its annual support over the next five years by R640 million (US$255 million at 1989 prices), as the projections shown in Table 4 suggest. More borrowing on commercial terms at a time when the public administration is still undergoing reorganization and the data on which to base solid decisions are still wanting, might not be as efficient a use of resources as borrowing in three to four years. Thus, the authorities need to use this instrument with care and only for projects where the social and economic returns, as well as the preparation and implementation capacity, are satisfactory.

Fiscal Policy Recommendations

lxxvi. Expenditure rationalization and streamlining of the public administration are critical to bring Namibia's public finances to a sustainable position. In particular, the constitutionally- mandated reorganization of the public administration should contribute significantly to lowering expenditures relative to GDP. Restraining expenditures would require a reduction in the wage bill, a rationalization of expenditures in the social sectors, and a redirection of expenditures to the priority sectors. The base projections incorporate a reduction in the wage bill to 11 percent of GDP by 1996. This projection already makes allowance for the new functions undertaken by independent Namibia and is still about twice the average for developing countries. Government options to attain this goal are to lower employment or to lower real wages. The first option has serious limitations because of the constitutionally-enshrined job guarantee for public employees; attrition and early retirement might be the only feasible alternatives. But streamlining through attrition and early retirement needs to be done early so as not to perpetuate the inefficiencies inherited from the previous administration. Lowering wages would probably not be in Namibia's best interest, as the more capable employees are likely to seek employment in the private sector if public sector wages are not competitive. In the interest of a rapid establishment of a more efficient civil service, experienced civil servants should advise, work with, and train newer staff.

lxxvii. Namibia has a fairly large capital stock, but a poorly educated labor force. At this time, human capital is more important for the country's future development. This is not to say that investment in physical assets should be neglected, but Namibia needs to exercise caution in its choice of investment projects and take into account into account (i) implementation capacity; (ii) the opportunity costs of capital; and (iii) the recurrent costs inevitably generated by investment programs. Accordingly, the investment program needs to remain within limits that ensure that future recurrent costs do not become excessive and threaten the envisaged fiscal balance.

lxxviii. Were Namibia to introduce its own currency, fiscal and financial discipline would be crucial prerequisites for price stability and a strong currency. A public sector deficit financed with central bank credit could have deleterious effects on price stability, growth, and probable income distribution, since inflation is likely to affect lower income groups especially hard. A public sector deficit, financed with commercial bank credit, may crowd out the private sector and slow economic growth. Experience in Africa and Latin America suggests that fiscal and monetary prudence is Namibia's best option for stable prices, sustained economic growth, and a strong currency.

Table 4
Namibia: Central Government Financial Projections, Alternative Scenario
(As percent of GDP)

Item	*1991/92*	*1992/93*	*1993/94*	*1994/95*	*1995/96*
Total Revenues	35.2	34.3	34.0	33.2	32.5
of which: fishing licenses	3.2	2.8	2.8	2.7	2.8
Current Expenditures	32.0	31.2	30.7	29.5	28.5
of which: wages	16.3	15.8	15.3	14.7	14.0
Current Savings	3.2	3.1	3.3	3.7	4.0
Capital Expenditures	5.1	5.1	5.1	5.6	5.5
Financing Requirements	1.9	2.0	1.8	1.9	1.5

lxxix. Namibia begins its independent life lightly indebted. The challenge to the authorities will be to maintain the country's macroeconomic stability and creditworthiness while laying the basis for using resources more efficiently in the future. The world is replete with countries that have borrowed only to invest poorly or to sustain short-lived bonanzas. They are now undergoing painful adjustments. Namibia does not need to repeat these mistakes. At this time it would be risky for Namibia to seek commercial financing because a large proportion of the country's expenditures are for social projects and programs with long gestation periods and later pay-offs. The prudent course would be to seek concessionary funding over the next two to three years for programs in agriculture, health, education, sanitation, and housing in the more populous and poorest regions of the country. This would focus the Government's limited implementation capacity on high priority areas and prepare the ground for more active programs later. As Namibia's new administration consolidates its position and the data required to make better decisions become available, the authorities might consider financing public sector projects with non-concessional external loans.

lxxx. In summary, Namibian begins its independent life with many advantages over countries with simila per capita income. Its excellent infrastructure, good macroeconomic policies, favorable climate for private enterprise, relatively open economy, and competitive private sector place it in an enviable position to meet a most formidable social challenge: alleviating relative and abosolute poverty. The authorities' best option for *alleviating poverty* is not to engage in a massive redistribution of income or assets, but to *stimulate growth* by supporting, rather than supplanting competitive markets and to invest in people, especially the poor. The authorities also need to spend public funds more efficiently, especially those that affect the poor more directly--education, health care, and nutrition. Increased efficiency will require shifts in spending priorities (e.g., preventive over curative medicine, primary and secondary education over higher education) and better targeting of expenditures, among other things. At

the same time, the authorities need to enhance income and employment opportunities for the poor by, first and foremost, "getting the prices right," but also by eliminating excessive regulation (e.g., in transport, in marketing of agricultural products, in urban street vending) and by building transport and marketing infrastructure in the North. Alleviating poverty will be neither easy nor quickly accomplished, but the only *sustainable* way to do it will be through labor-intensive economic growth. The World Bank will make poverty alleviation a main center of attention of its future work in Namibia.

I. THE ECONOMY AND THE PEOPLE

Overview

1.1 Namibia is a country of sharp contrasts. From many points of view it is a prosperous middle-income country: its per capita income is nearly US$1,200; its physical infrastructure is comparable to that of a Western European country; its telecommunications system is one of the most efficient, and its public administration is highly developed. From other points of view Namibia is a very poor country. The majority of the population has a per capita income of about US$85 per year and lives under primitive conditions without adequate housing, potable water, sewerage, health services, or education. Its ample territory--824,000 km^2, equivalent to Texas and Mississippi--hosts widely different climates and physical terrains: from lush-green tropical forests along the northern border with Angola, to desert-like landscapes in the south. Two major deserts flank the country, the Namib on the west and the Kalahari on the east, and over one-half of the territory is classified as either semi-arid or as desert.

Population

1.2 Namibia is also one the most sparsely populated countries in the world, with only 1.7 million inhabitants in 1988. Texas and Mississippi, by comparison, have a combined population of about 16 million. But Namibia's population is growing fast. About 45,000 political emigres returned in 1989 and 1990 and the rate of population growth has been estimated at between 2.8 and 3.2 percent per year.

1.3 Most Namibians are also very young: about 45 percent are under 15 years of age. Approximately 88 percent of the population is black, 5 percent white and some 7 percent mixed or of other races. Nearly 60 percent lives in the three northern districts of Caprivi, Kavango, and Ovambo.

Links with South Africa

1.4 For all practical purposes Namibia was run as a neglected fifth province of South Africa until independence in 1990. The official languages were English and Afrikaans, the South African rand was (and still is) legal tender, communication links led and still lead to and from the Republic of South Africa (RSA), Namibia's power grid is interconnected with that of the RSA, its main export market for agricultural exports was and still is the RSA and its main supplier of goods is still the RSA. In addition, monetary policy was set by the RSA, interest rates were identical to those of the RSA, restrictions on capital movements were those of the RSA. The main commercial banks in Namibia were branches of South African banks and other important financial institutions (e.g., insurance companies), had close ties to their South African counterparts.

1.5 Namibia was also a *de facto* member of the Southern Africa Customs Union (SACU). SACU membership implied that the movements of goods to and from the RSA took place as if the

two territories were part of the same country. There were no customs duties levied and no customs authorities at the border to keep track of the movement of goods. RSA multinationals either have close ties to or own the firms that produce about one-third of Namibia's GDP and three-quarters of its exports--diamonds, uranium, and gold. Since independence, Namibia has formally joined SACU.

1.6 The legal, educational, and health systems were also either closely tied to or patterned after those of the RSA. The laws, for example, were those of the RSA. In fact, the laws in effect at the time of independence remain in effect until specifically repealed by an act of Parliament. The curriculum in the schools as well as the requirements for graduation, matriculation, etc, were patterned after those of the RSA. The health system also closely mirrored that of the RSA. In fact, patients with special problems are still flown to RSA hospitals when Namibian hospitals cannot treat a specific problem.

Transport Infrastructure

1.7 Namibia has a well developed transportation network that includes an efficiently-managed railroad, an extensive well-maintained paved road network, and expanding air service that covers the entire country. In fact, Namibia leads all African countries (including the RSA) in road network density. Airport facilities include 28 licensed aerodromes, 16 with asphalt runways.

1.8 The Namibian railroad network covers 2,382 route kilometers. The main line runs from Nakop on the RSA border to Windhoek and from there to the port of Walvis Bay. Branch lines serve the port of Luderitz and the mining and ranching towns of Tsumeb, Grootfontein, and Outjo. The railroad is among the best run in Africa.

1.9 The two major ports are Walvis Bay and Luderitz. The former, claimed by the RSA as its own territory, handles most of Namibia's maritime cargo. Walvis Bay has among the shortest turnaround times for unloading and roll-on/roll-off operations in Africa and has good rail and road access. It is currently working at only 28 percent capacity, however.

1.10 Luderitz, about 400 kms south of Walvis Bay and run by TransNamib, is a small and well-managed port. Luderitz serves mainly two rock lobster fishing companies as well as off-shore diamond exploration and gas fields. The facilities, coupled with the shallow water depth at the port, are adequate for handling small coastal ships, but not for handling large vessels. No facilities exist for handling bulk cargoes, large shipments, or liquid products.

GDP and Per Capita GDP

1.11 Officially recorded GDP was estimated at the equivalent of US$1,895 million in 1988, or US$1,142 per capita. This estimate, however, does not include traditional (subsistence) agriculture or the informal (urban-rural) sector. Unofficial estimates place value added in traditional economic activities (not included in the official GDP estimates) at the equivalent of R175 million, or US$77.4 million. Recorded GDP and traditional economic activities add up to US$1,972 million or, on per

capita basis, US$1,188. This relatively high per capita income conceals an extremely dualistic society with sharp differences in economic conditions and living standards.

1.12 Effectively, there are two Namibias: one modern, one traditional. A third group--blacks in formal-sector wage employment--bridges the two, but its income is closer to that of the traditional sector than to that enjoyed by the white population. Modern (market oriented) economic activities employ approximately 45 percent of the population, which could be split further into white (5 percent) and black (40 percent). The modern "white" sector of the economy has per capita income of about US$16,500 per year while the blacks in the modern sector earn only US$750 per capita and the subsistence sector has a per capita income of only about US$85 per year. The roughly 5 percent of Namibia's population that is white accounts for over 70 percent of GDP, as Table 1.1 shows. Apartheid policies led to the present situation, where whites occupy most positions of responsibility, own a disproportionately large share of physical assets, and receive a disproportionate share of the country's income.

Table 1.1
Namibia: Incomes of Major Segments of the Economy--1988

	Share of GDP (Percent)	Share of Population (Percent)	Annual per Capita GDP (US$)
Subsistence Sector (blacks)	3.4	54.8	85
Modern Sector	97.6	45.1	2,531
(blacks)	25.4	40.0	750
(whites)	72.2	5.1	16,504

Source: UNDP, "Population and National Accounts of Namibia, 1990" and The Department of Finance, "Statistical/Economic Review," SWA/Namibia 1989; mission estimates.

Sectoral Contributions to GDP

Mining

1.13 Mining is by far the most important productive sector of the Namibian economy. On average, over the past 10 years it has accounted for:

- 31 percent of the Gross Domestic Product;
- 18 percent of the Gross Domestic Fixed Investment;
- 18 percent of the Cash Remuneration paid to Employees;
- 76 percent of the Export Earnings; and
- 38 percent of the Tax Revenues (last eight years).

Although mining employs only about 5 percent of the formally employed labor force, it accounts for nearly 13 percent of wage remuneration, suggesting that it is a complex capital-intensive sector requiring highly skilled labor. Diamonds, uranium, and metals (copper, lead and zinc) contribute more than 95 percent of the value of mineral production while industrial minerals and semi-precious stones make up the rest.

1.14 *Large-scale operations.* Eight foreign-owned companies account for 98 percent of the sector's production value. Two of the 40 mines currently operating in Namibia employ more than 2,000 people and generate a gross annual revenue of more than R500 million each. Another six mines account for more than 200 employees and generate a gross annual revenue above R10 million. With the exception of Rössing Uranium in which the Government holds a small share, these operations are owned by major foreign mining companies.

1.15 Two of the Namibian mining companies are significant by world standards, Consolidated Diamond Mines (CDM) and Rössing Uranium, which account for 75 percent of the production value of the mining sector. CDM ranks sixth in production volume of near-gem and gem diamonds worldwide. Rössing ranks fifth in western world uranium production, with a share of 9.5 percent of world output. The other six large operations are all metal mines of which four are base metal mines.

1.16 *Medium and small-scale operations.* The mid-sized category includes three operations with a labor force of more than 100 employees. The small-scale category comprises some 30 mines, each employing a work force of between five and 75 people. With the exception of one copper mine, one gold-silver mine and two tin mines, small-scale operations extract non-metallic minerals. Four of these operations produce diamonds, the others mine a variety of industrial minerals and semi-precious stones.

1.17 Informal artisanal mining has been active in Namibia for many years. It encompasses local individuals extracting comparatively high-value minerals from surface or near surface mineralizations. An estimated 750 individuals are engaged in tin ore extraction, for instance. Ore is recovered from shallow pits by a unique method of dry hand panning developed because of the shortage of water. In addition, several hundred individuals mine semi-precious stones throughout Namibia.

Table 1.2
Namibia: Sectoral Contribution to GDP at Factor Cost, 1980-89
(Percentages)

	1980	1984	1989
Agriculture and fishing	11.5	8.0	10.7
Mining and quarrying	43.6	35.9	31.6
Manufacturing	3.9	4.6	4.7
Electricity and water	1.8	2.3	2.5
Construction	3.5	2.8	2.2
Wholesale and retail trade	11.5	12.3	12.7
Transport and communication	5.3	5.8	6.3
Finance, insurance, real estate and business services	5.3	5.9	6.0
Community, social & personal services	1.3	1.9	1.9
General Government	9.6	17.5	18.2
Other	2.6	3.0	3.1
GDP at factor cost	100.0	100.0	100.0

Source: Statistical Appendix, Table I.02

Agriculture

1.18 Agriculture is the largest employer, supporting either directly or indirectly some 70 percent of the population, and the second most important sector in terms of cont ibution to exports, with a 12 percent share. Extensive stock farming is the dominant agricultural activity, accounting for 65 percent of the sector's gross value of output, and beef is its major product. Up to 90 percent of the total annual beef output of 77,000 tons is exported, mostly to the RSA. Until recently, karakul pelts were the second most important agricultural product.

1.19 Only about half (444,000 km^2) of the country's land area is suitable for farmland. Moreover, low rainfall and high evaporation limit dryland arable farming to a much smaller area in the north. In 1964 the Odendaal Commission designated some 35 million hectares as 10 "homelands" for blacks and 34.97 million hectares as commercial land for whites. A veterinary cordon fence dividing the northern rangeland from the rest of the country, was originally erected to control the southward movement of potentially infected animals, but it has become symbolic of the rift between the neglected communal sub-sector in the north and the privileged, commercial farmers to the south.

1.20 Commercial agriculture consists of farms operated by individuals and agricultural enterprises with title to the land. Communal agriculture consists of farms operated by family units on land to which they have user rights but no title. It is mainly subsistence agriculture. Commercial

agriculture contributed 8.3 percent of GDP in 1990 and employed 34,400 people (or about 19 percent of total formal employment), while communal agriculture employs about 250,000-300,000 people, more than half of the economically-active population. Subsistence agriculture contributes about 1.7 percent to GDP and takes place mainly in the north (Ovambo, Kavango, and Caprivi) while land-extensive and capital-and management-intensive technology characterizes the commercial agriculture in the south.

1.21 Water availability and vegetation determine the patterns of stock ranching. Cattle farming predominates in the northern districts where water is more available. In the southern districts, only small stock, sheep (especially karakul), and goats can be raised due to the harsh condition and lack of water. The central regions have an intermediate climate that permits mixed cattle and small stock farming. In 1986 about 2,521 farming units with 18.0 million hectares of land were under the cattle farming system in the north and central regions. About 1,200 commercial units produce karakul and other smallstock on 15.3 million hectares in southern areas. A few large commercial farms in better endowed areas engage in crop production, especially maize, wheat, and sunflowers.

Fisheries

1.22 Namibia's fisheries sector contributed 2 percent to GDP in 1988 and employed 1,700 persons, or 0.9 percent of total formal employment. Such low contributions to GDP and employment might appear paradoxical, considering that the Namibian Sea is well known as one of the largest and most productive coastal fishing grounds in the world. Before independence, Namibia's uncertain status (not an independent country but not a province of the RSA either), meant that fishing vessels from many developed countries fished almost freely in these waters, while Namibians derived virtually no benefits. The RSA's claim in 1977 to a twelve mile territorial sea and a 200-mile exclusive fishing zone off the coast of South Africa, including Walvis Bay, was not accepted by the international community. As a result, until Namibian independence, the waters beyond the six mile zone were one of the few fishing areas in the world that lacked a recognized management authority. After independence, the Government proclaimed a 200 mile exclusive economic zone and prohibited all fishing. It is estimated that, properly managed, the Benguela Current could yield a sustainable annual production of 3 million metric tons (approximately half in Namibian waters). ICSEAF member countries have reported that in 1986-88 the mean total annual catch was close to 1.2 million tons.

Industry

1.23 Manufacturing industries contributed 4.3 percent to Namibia's GDP in 1988 and employed about 9,200 people, or 5.1 percent of total formal employment (Table 1.3). Manufacturing activities in Namibia are not highly developed. The sector consists essentially of food, beverages, and tobacco (i.e., breweries, soft-drink bottling plants, slaughter houses, and a few bakeries), some furniture factories, and a few metal processing shops. If the fish processing facilities in Walvis Bay were included, the size of the sector would more than double (the Walvis Bay processing facilities are still within the RSA enclave, although many of the workers are Namibian). By and large, these industrial sub-sectors are closely related to the primary sectors.

1.24 Slaughterhouses and bakeries account for 53 enterprises and some 2,000 workers, equivalent to about one-fifth of the manufacturing enterprises and 22-23 percent of employment. The manufacturing sector is heavily concentrated in Windhoek and its surroundings. With the possible exception of the food, textile, and wood industries, Namibia's manufacturing consists mostly of small enterprises producing goods for local consumption.

Table 1.3
Namibia: Enterprises and Employment in Manufacturing by Subsector
(Percentages)

	Firms	Employment
Food, Beverages & Tobacco	9.0	51.1
Textiles, Clothing & Leather	8.1	4.2
Wood and Furniture	16.2	7.3
Paper, Printing, Publishing	5.0	4.9
Chemical Products	4.2	3.6
Non-metal Mineral Products	7.3	11.9
Metal Products	12.7	12.3
Other	7.7	1.4
Repair Services	9.7	3.2
Total	**100.0**	**100.0**
Number	259	9,176

Source: Statistical Appendix Table VII.04

The People: Poverty Profile

Population Overview

1.25 Namibia's population is approximately 70 percent rural. About half of all Namibians live in the northern communal areas, and of those about four-fifths are engaged in crop and stock farming. The southern and central communal areas account for roughly 15 percent of the population. The residents of Hereroland, Bushmanland, and Damaraland are predominantly rural pastoralists, while those of Namaland and Rehoboth tend to be engaged in stock agriculture and increasingly in wage employment. Almost two-thirds of Namibia's urban population lives in Windhoek and in the urban and peri-urban areas of Oshakati-Ondangwa.

1.26 The prevalence of an extended family structure links the economies of communal and commercial areas through migration and income remittance. As a consequence of migration, rural households largely comprise older people and children, while urban/peri-urban migrant communities include more working-age adults.1/ Migration also results in a high incidence of female-headed households: 45 percent in rural Ovambo, 40 percent in peri-urban Ovambo, 36 percent in Katutura, and between 20 and 57 percent in other townships.

How Serious is the Poverty Problem?

1.27 Poverty is both a relative and an absolute phenomenon. A particular group in a society may be relatively poor because its income, or standard of living, is lower than that of some other group. Or a group may be absolutely poor because its standard of living is below a given threshold or "poverty line." Namibia confronts both kinds of poverty: extreme degrees of income inequality and widespread absolute poverty. As stated before, the wealthiest 5 percent of Namibians control more than 70 percent of GDP, while the poorest 55 percent control only 3 percent. A conservative estimate of absolute poverty, based on an urban poverty line and rural vulnerability to food insecurity,2/ suggests that at least two-thirds of the population are absolutely poor and that as many as three-quarters of all blacks are poor.3/

1.28 These estimates, as well as all others in this section, must be taken as merely indicative because the data available in Namibia do not permit a rigorous poverty profile. Estimates are based on various partial surveys, proxies, and qualitative information; they should be regarded as rough approximations. For the urban populations, where some income data are available and a poverty line is already in use, an income poverty line is used as the definition of poverty. For the rural areas, where no consistent income measures are available, UN-sponsored estimates of the extent of household food insecurity and vulnerability to drought are used as a measure of poverty. These estimates are supplemented with direct income data, where available.

Who are the Poor?

1.29 About three-fourths of Namibia's poor live in the rural areas and depend on (usually low-productivity) subsistence agriculture, cash transfers, and wage employment on commercial farms for their income. The farms employ about 36,000 laborers. The remaining one-quarter of Namibia's poor live in peri-urban households and depend either on wage earnings or self-employment in small business, or are unemployed. The number of urban poor seems to be growing, along with unemployment and under-employment.

1/ The share of household members between the ages of 15-54 is 64 percent greater in Katutura than in rural Ovamboland, whereas the share of household members under 15 and over 54 is 60 percent greater in rural Ovamboland. This pattern is repeated in the southern communal areas, where one third of a sample of rural Nama children were looked after by their grandmothers.

2/ See Annex I for an explanation of how absolute poverty was measured.

3/ Estimates of the incidence of urban black poverty alone, for example, range up from a conservative minimum of two thirds to three fourths in the smaller urban areas.

1.30 Women head approximately 40 percent of households and households headed by women appear to be among the poorest of the poor. In urban areas, the incomes of female-headed households are substantially below those of male-headed households, while in rural areas women's lesser access to productive inputs and the absence of male labor places an additional burden on the time and health of women and children.

1.31 A typical poor family lives in a rural area and is headed by a woman who is responsible for farming the family plot and whose husband (and perhaps another relative) works in a city. The family ekes out a living growing millet (or other crops) and raising a few head of cattle or goats. The sons tend the animals, often walking hours daily to watering holes, while the daughters fetch household water from a distant source. These tasks can take three to eight hours, and they compete directly with school attendance. Total cash income (primarily from pensions or remittances from relatives) may amount to some R130 per month with which, in addition to farm production, the household supports four school-age children, one youth, and two adults.

Sources of Income and Income Distribution

1.32 The income of the rural Ovambo family comes primarily from farming activities and cash remittances from migrant relatives working in the cities, in the mines, in the RSA, etc., but income from self employment and pensions also plays a significant role. Very few rural workers are engaged in wage employment. In the city the typical Katutura household earns income primarily from wage employment, while in the Ovambo peri-urban areas self-employment and farm income are the primary sources of income (see Table 1.4).

Table 1.4
Namibia: Percent of Households Receiving Income from Selected Sources, 1990

	Gov't job	Non-Gov't job	Self empl.	Family farm	Remit-tances	Pensions	Food aid [a/]
Katutura	53.6	38.7	14.7	1.0	9.8	8.2	9.6
Peri-Urban Ovambo	18.4	25.1	47.2	34.4	24.1	10.7	11.7
Rural Ovambo	22.3	12.3	30.1	80.3	54.5	30.4	17.7

[a/] Food aid was distributed to returnees under the resettlement scheme.
Source: UNICEF, HHNS 1990

1.33 Not all the poor are equally poor. In general, those in the city are substantially better off than those in peri-urban areas, who are in turn better off than rural families. Average cash income in urban Katutura is roughly twice that of peri-urban Ovamboland, and five times the average income

in rural Ovamboland, as Table 1.5 shows.4/ Surveys of black townships during the mid-1980s found average income comparable in real terms to income in the peri-urban north. Average income in female-headed households in the townships averaged half that of male-headed households.

Table 1.5
Namibia: Household Cash Incomes by Area (1990 Rand/month)
(for all in sample and by quintile)

	All	Q1	Q2	Q3	Q4	Q5
Katutura	618	107	252	470	832	1,460
Peri-urban Ovambo	361	39	104	218	441	986
Rural Ovambo[a/]	129	8	27	70	124	425
Black Townships	261-658					
Rural South	100-200					
Agricultural Laborers	100-350					

[a/] Does not include own consumption
Source: UNICEF (HHNS, Preliminary Situation Analysis, and Food Security Workshop), NBIC, 1990

1.34 Income disparities within each area are greatest for rural Ovamboland and least for Katutura (see Table 1.6). If asset holdings are included, actual income disparities may be even greater in the rural north since low income appears to correlate with small landholdings and low livestock ownership. But income is more equally distributed within these three areas than across the country as a whole. This means that geography alone is not enough to identify the poor. Additional characteristics, such as social indicators, need to be taken into account for targeting assistance.

4/ This differential fails to take own consumption into account, presumably a significant factor in rural areas, but not estimated to be significant enough to change income rankings. It should be noted that many peri-urban households also have access to rural extended family production. Further, this differential is not adjusted for higher urban household expenses, such as housing, transport, clothing and food, the consumption patterns of which may be affected by white urban preferences.

Table 1.6
Namibia: Income Distribution Shares

	Lowest 40%	Highest 20%
Katutura	12.8	46.2
Peri-Urban Ovambo	5.8	65.9
Rural Ovambo	4.7	67.4
Total Sample	4.5	65.2

Source: UNICEF, HHNS, 1990

Social Indicators

1.35 Living conditions in Namibia reflect the wide income differences among various segments of Namibian society. The quantity and quality of social services available to each ethnic group similarly parallel the sharp disparities in income. Before independence, the Administration for Whites enjoyed per capita revenue and expenditures substantially higher than the 10 other Second Tier Authorities, for example. The following paragraphs examine critical indicators and the causes underlying the living conditions of the poor.

Box No.1.1: How the Poor Live--Infant Mortality in Namibia

Selected surveys conducted over the past few years suggest that the infant mortality rate is between 50 and 100, that prevalence of undernutrition in children is between 30 and 40 percent, and that the completed immunization level is about 40 percent. This means that one out of 20 children born in 1990 will be dead by his/her first birthday and that one out of 10 will be dead before the age of five. As you read this now, one out of 10 children in the north is starving. Throughout the country, one out of three goes hungry for enough of his/her childhood to stunt their growth. Although this situation is similar to that of other African countries, it is an unnecessary and avoidable tragedy, especially in view of the country's high income level and quality of facilities.

Health

1.36 Although Namibia boasts an average per capita income of $1,200, health indicators for most of the black population resemble those for Sub-Saharan African countries with much lower per capita income (see Table 1.7). Health indicators are low because of widespread poverty and the health care system's bias against preventive care and minimal orientation toward community-based health delivery.

Table 1.7
Namibia: Selected Health Indicators, Namibia and Other SSA Countries

	Namibia	Botswana	Kenya	Zambia	Zimbabwe	Tanzania	Malawi
Total Fert. Rate	**6+**	5.1	6.9	6.7	5.3	6.7	7.6
Infant Mort. Rate	**65**	41	70	78	49	104	149
Mod Child Undernutrition[1/]	**23.3**	15.0	na	19.7	11.5	na	23.9
Maternal Mortality	**371**	300	510[2/]	110	150[a]	370[a]	250

[1/] Moderate child undernutrition refers to the percent of children between 6 and 60 months between minus two and minus three standard deviations from median weight for age; Maternal mortality is measured per 100,000 live births).
[2/] Data refer to mortality in hospitals and other medical institutions only.
Source: UNICEF, HHNS, 1990; WDR 1990.

Education

1.37 Internationally comparable estimates of educational attainment and enrollment rates are not available for Namibia, but other data reflect a history of significant ethnic-based differences in educational access and in school quality.

1.38 Each Second-Tier Authority, through its Directorate of Education and Culture, was expected to provide 12 years of schooling, train primary school teachers, and build and run schools, training colleges, hostels, and other education-related institutions. The resulting distribution of qualified teachers was biased strongly toward the Administration for Whites, 70 percent of whose teaching force is considered "qualified." By contrast, the ratios for other ethnic groups ranged from 23 percent for the Tswanas to 2 percent for the Caprivians and Hereros, respectively.

1.39 Rough estimates of access to school suggest wide variation across different regions of Namibia. About 70 percent of school-aged children (ages 5-19) are estimated to be in school, most of them in the primary grades. The national average of 70 percent enrollment decomposes to show access ratios that are relatively balanced at the primary level but that fall off sharply by the junior and senior secondary level. While there were roughly 251 potential students per primary school in

Ondangwa, there were 480 in Windhoek. By the secondary school age cohort, however, there were 2,400 potential students per school in Ondangwa, as compared with 619 in Windhoek. This suggests that access to very basic primary education in Namibia may be widespread, but that access to secondary or higher education is limited for most Namibians.

1.40 Moreover, conditions are highly variable. DEA 1989 statistics indicate that the average class size under the former white authority was fewer than 13, with at least 92 percent of teachers fully qualified. This compares with an average class size in Ovamboland of 37, with only 2 percent of teachers qualified. That is, more than half the students attend schools with about 40 students per class, and they have only one chance in 50 of being taught by a qualified teacher.

1.41 Expenditures per student at the primary and secondary level also reflect this inequitable treatment. In the Administration for Whites, expenditure per student in 1986/87 was R3,213, which contrasted sharply with expenditure per student for the Ovambos--R329. The Tswanas ranked second, with expenditures of R1,648 per student.

1.42 Educational attainment among household heads is generally low. Adult illiteracy is estimated at 60 percent. Households surveyed by UNICEF in rural Ovamboland report that more than one-third have had no schooling, and another two-fifths have had only one to four years of schooling. Only 6 percent of households reported eight or more years of schooling. In the peri-urban areas of Ovamboland, the picture is only slightly better: 27 percent with no schooling, one-third with one to four years, and 15 percent with eight or more years. In Katutura, educational attainment among households is significantly higher. Only 17 percent report no schooling, while one-fourth report one to four years, another one-fourth report four to eight years, and a full third report eight or more years. Male heads of household had consistently higher educational attainment.

1.43 These figures suggest that although the Namibian education system delivers a first-class education to a small proportion of the population, the vast majority receive an education that suits them only for unskilled employment. The opportunity to gain skills to enter the labor market at a higher skill level remains the province of the few.

Water and Sanitation

1.44 Water and sanitation indicators vary widely by region. Virtually all dwellings in Katutura have access to water and have a toilet inside or outside the house. In the peri-urban areas of Ovamboland, four-fifths of households have access to water (usually a standpipe near the dwelling), but about two-thirds do not have toilets. Of those that do, nearly all have pit latrines. In rural Ovamboland, only half the dwellings have water, and more than 95 percent lack toilets. Distance to water in the dry season also varies considerably for rural households--for example, from one to three hours in rural Ovamboland. The UNICEF survey found that female-headed households are 20

minutes farther away from water sources in the dry season.5/ Poor access to water and sanitation for both rural and peri-urban populations continues to pose a severe threat to family health, and particularly child survival.

Housing

1.45 Ownership and quality of housing stock also vary widely in Namibia. While ownership or rent-free accommodation is almost universal in rural and peri-urban Ovamboland, previous restrictions on black ownership in the formally regulated urban areas has resulted in only 30 percent housing ownership in Katutura.6/ This low rate is probably representative of the other black townships in the south. During the 1980s, most urban housing (rental) was the responsibility of the municipality and the NBIC.

1.46 The supply of urban housing stock on legal, serviced lots in Namibia totals 53,000 dwellings, of which 20,000, or 38 percent, house the white population. The condition of these dwellings, in terms of floor space per capita and quality of construction, finishes, and services, is excellent by any standard. The remaining 33,000 dwellings accommodate 78,000 black households--an average of more than 2.3 households per 2-3 room dwelling. About two-fifths of this housing is public, unfinished housing stock. Other public housing structures include one-room core houses constructed in clusters of four to relocate illegal squatters. These houses are built to minimal standards, providing only unfinished structures and no electricity. Some older municipal structures include singles' quarters, originally designed to house migrant laborers on their own. They now house entire families, with as many as 10 or more people per room. In the UNICEF HHNS sample of Katutura, rents per income quintile range from an average of R92 per month for those in the lowest income quintile to R255 for those in the highest quintile, with an average of R160 per month.

1.47 Recent rural-urban migration has increased the demand for housing, with the result that an estimated 180,000 squatters live on the edge of urban areas, primarily in Windhoek, Oshakati, Ondangwa, and Rundu. These squatters live in make-shift huts, mostly of corrugated tin, with no services.

1.48 The UNICEF sample survey of households in Katutura, peri-urban Ovamboland, and rural Ovamboland found that 93 percent of dwellings in Katutura had metal roofs, compared with only 74 percent in the peri-urban north and less than 9 percent in rural Ovamboland. The variance in access to electricity is even greater. While 80 percent of Katutura's surveyed dwellings had electricity, the rate falls to only 5 percent for peri-urban Ovambo and 2 percent for rural Ovambo dwellings.

5/ The reasons for this finding seem to be related to custom. There is some evidence to suggest that village elders give female-headed households inferior pieces of land, or move them to lesser plots once the man leaves. The insecurity of tenure reduces incentives for women to invest in improving land, say digging a well. Also, female headed households may lack the family labor to dig a well and maintain it. In some cases, investments in land improvements are tasks that migrant males get done when they return.

6/ Five percent own their house free and clear. Another 25 percent of homes are under mortgage, while 70 percent pay rent.

1.49 Although a clear and large gap in housing quality separates white and black urban neighborhoods, there is also an important, albeit smaller, differential between housing stock in Katutura and in the communal areas of the north. As with the observed differentials in income and employment, the far better access to water and sanitation, as well as to housing and services, in Katutura relative to other areas of Namibia, suggests a continued incentive to migrate, even considering the higher costs of accommodation.

Vulnerable Groups

1.50 Some of the poor deserve special attention because they are particularly vulnerable to changes in factors beyond their control. For example, although the northern communal areas--Ovambo, Kavango and Caprivi--have the highest agricultural potential, supporting both crops and livestock, and therefore the greatest potential for generating income from subsistence agriculture, the relatively high population density (58 percent of all Namibians live there) and high population growth strains the capacity of the land. And there are few safety nets. The following paragraphs attempt to identify the sources of vulnerability for the main groups of the poor in Namibia. The information available is inadequate to rank these groups by degree of vulnerability.

1.51 The vulnerability of rural *Ovambo households* derives primarily from land degradation and the scarcity of water. Females are heads of 45 percent of households, which indicates a high dependency ratio and/or labor scarcity. Also, since women must walk long distances to collect water and fuel, their health and their time for housework, child care, and farming become even more strained. These female-headed households do not rely solely on agricultural income, however, because they often receive extra income from cash transfers.

1.52 The economies of *Kavango and Caprivi* demonstrate higher agricultural potential than Ovambo but are less linked to the rest of the country through migration and income transfers and are more limited in the extent of local wage or self-employment. Their households, therefore, are more vulnerable to drought or agricultural failure than Ovambo households, as demonstrated during the Caprivi crop failure of 1989-90.

1.53 Income in the rural *southern communal areas*, though comparable to income in rural Ovambo, may reflect greater household vulnerability because of the sources of this income. UNICEF estimates that transfers and pensions are the most important household income sources, with livestock farming of lesser importance in the drought-afflicted areas around Namaland. Household access to land and water eroded during past administrations. As a result, agriculture is no longer economically viable for many in the communal areas. Transfers are unstable: the loss of an elderly pensioner can deprive the household of a primary source of income. High unemployment rates, as well as the tendency (also observed in other countries) for remittances from family members to become less reliable, undermine the security of wage remittances as a primary source of income--a 1986 survey of rural Namaland and Katutura found that 25 percent of households depended entirely on the mother's earnings.

1.54 Vulnerable groups also exist in the *other communal areas*. The eastern and western communal areas, including Hereroland, Damaraland, Bushmanland, and Kaokoland, are sparsely populated and have minimal water resources. Most households are stock farmers. Households in Hereroland and Damaraland subsist through the sale of their stock at the main southern auctions. The vulnerability of these groups to destitution through loss or distress sales of livestock has increased during the last decade of drought. Having lost their livestock, these households tend to migrate, assetless, to the urban areas, adding further pressure to unskilled labor markets.

1.55 The *population of Kaokoland* also depends on stock farming; at present it is suffering from drought. Cut off from the subsidized southern markets by the veterinary cordon, these households must rely on the Oshakati abattoir, which buys all classes of meat at cannery prices, or on the informal Ovambo market in competition with an expanding supply of Angolan stock. Much of the population of Bushmanland, traditionally a hunter-gatherer community, was employed by the South African armed forces--for 15 years almost 85 percent of the area's population depended on army wages. Most of these people have lost their traditional bush skills and are left without income or employment prospects.

1.56 Agricultural *laborers on commercial farms* depend on wages and in-kind transfers. While very little information is available about living conditions on the commercial farms, wages are low and job security is also low; during the first half of the 1980s, labor declined 20 percent on commercial farms, apparently due to drought-related de-stocking, labor-saving measures such as fencing and mechanization, and uncertainties about future labor codes.

1.57 *Peri-urban households* throughout Namibia live precariously. Their income is low and their jobs insecure. Many earn a living from activities with low value added and limited growth prospects, most typically informal retail trading

1.58 Women and children in *female-headed households* all over Namibia are particularly vulnerable to poverty. While women represent close to half, if not more, of subsistence farmers, they are the most disadvantaged in their access to farm inputs and the right to make investment decisions. Without title to the land, they have virtually no access to credit. In towns, female-headed households report income as much as 50 percent below that of male-headed households. In urban and rural areas, children in households headed by women show a higher incidence of malnutrition.

1.59 *Returnees*. Roughly 45,000 exiled Namibians were repatriated in 1989-90. These exiles returned to their home areas, to families (if they still had any), or to church camps and other temporary shelters. While UN assistance packages of seeds, farm implements, and food eased the exiles' return, reentry has proven difficult. Most returnees remain unemployed, others are in rural areas with little prospect of employing the skills they learned in exile and no cash to finance travel to urban areas in search of work. In other cases, skills acquired in the East bloc or in various other countries are not recognized, and skilled employment is refused. This is an important group, however, not only for their numbers but also for their political visibility--they are the people who left Namibia to fight for independence and now find themselves significantly disadvantaged.

1.60 The *disabled* are another important group among the vulnerable. After two large polio outbreaks and years of war--with land mines often used--the share of the disabled in the population is thought to be high.

II. RECENT ECONOMIC DEVELOPMENTS

Macroeconomic and Sectoral Trends

Overall Economic Growth

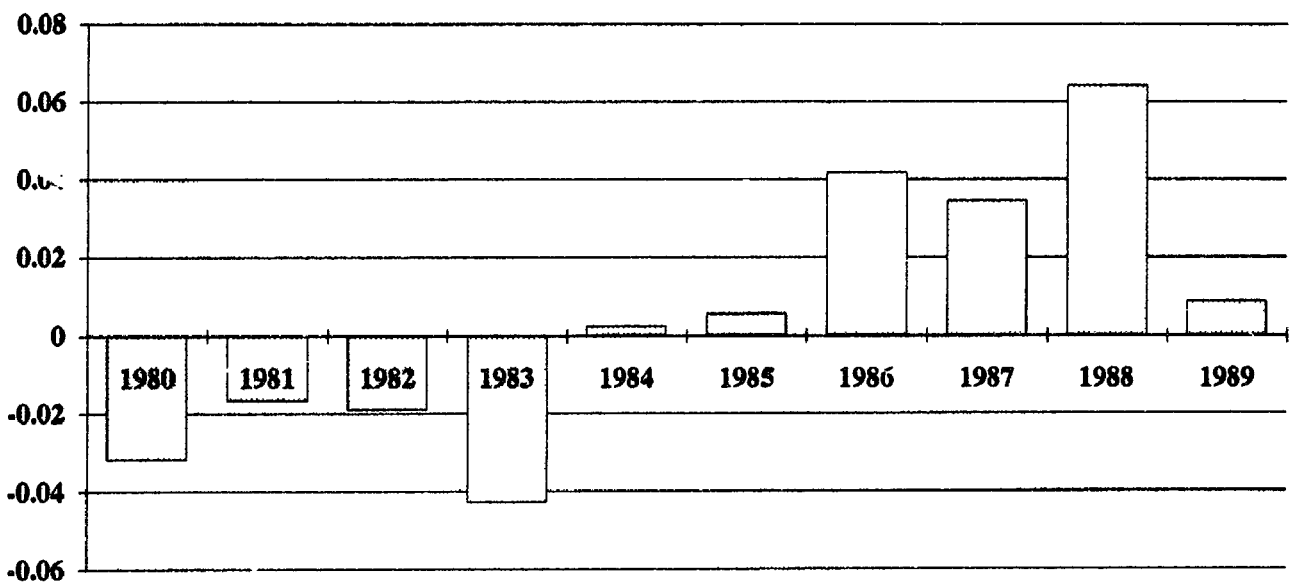
2.1 Real GDP has barely grown since the 1970s, after growing 9 percent annually during the 1960s. GDP at factor cost declined steadily during the first six years of the 1980s and reached a 20-year low in 1985. Since then, the economy has grown slowly and, although real GDP at factor cost in 1989 was one percent higher than at the beginning of the decade, per capita GPD fell about 21 percent during the 1980s. The slow growth of GDP was not due to a single cause, but mining (Namibia's most important sector and its perennial engine of growth) had an abysmal performance during the 1980s. Save for 1986 and 1988, mining output fell every year of the decade. By 1989 its output was some 27 percent lower than in 1980. Agriculture, another important sector, suffered a severe drought that lasted from 1982 to 1984. In these three years, agricultural output fell 43 percent and, despite a 28 percent increase in 1987, agricultural output in 1989 was some 6 percent lower than in 1980. The only dynamic sector during the 1980s was the Government. Propped by budget transfers from the RSA and by increasing domestic taxation, the public sector grew every single year of the decade, sometimes at astounding rates--16 percent in 1981, 32 percent in 1982, and 19 percent in 1983. In general, an expansion of Government simply means that either public sector employment or public sector wages grow. In Namibia's case it was both, as discussed later in the chapter.

2.2 The economy began to grow in 1986 owing to the mining sector's strong performance in that year. The growth of 1987 was in large measure due to the 28 percent growth of agricultural production. In 1989, the presence of the UNTAG forces gave a strong push to demand and, save for mining, every sector expanded, with manufacturing leading the way. Nevertheless, because of the decline in the mining sector, overall GDP growth was only 0.2 percent. Figure 2.1 depicts the performance of the Namibian economy during the past decade and the following paragraphs explore in depth the performance of its two principal sectors, mining and agriculture.

Mining

2.3 The dismal performance of the mining sector was the result of two factors: the depletion of high-grade diamond deposits--which affected the production of diamonds--and the imposition of economic sanctions against the RSA--which affected the demand for uranium (see Table 2.1). As a result of diamond depletion, the average carat content of ore fell from 13 to 5 carats per 100 tons. Consequently, overall carat production fell by 40 percent, from 1.6 million in 1980 to 0.9 million in 1990. Meanwhile, uranium production had to be cut back about 20 percent between 1980 and 1990 as a result of sanctions.

Figure 2.1
Namibia: Growth Rates of GDP at Market Prices, 1980-1989



2.4 Sanctions, political uncertainty, and depressed mineral prices also affected people's willingness to invest. At 1980 prices, investment in mining dropped from R112.4 million in 1980 to R70.6 million in 1989--during 1982-1986, investment in the sector was only R15 to R40 million a year. The 1988/1989 turnaround was caused by an improvement in the prices for minerals/metals. However, new investment went primarily to sustain existing capacity and only to a lesser extent for expansion.

2.5 Employment in the mining sector declined from about 19.8 thousand in 1980 to 12.8 thousand in 1989, equivalent to 3 percent of the total labor force. Mining's share of the total cash remuneration to employees (at current prices) declined from 17.8 percent to 12.8 percent over the 1980-1989 period. This decline in employment and share was gradual, with a small improvement in remuneration during 1987-1989 from a 10.5 percent to a 12.8 percent share in total remuneration. Improved efficiency, through the use of advanced technology, is the principal reason for the decline in employment, subsequently resulting in higher labor productivity. The fact that 3 percent of the labor force receives 12.8 percent of total cash remuneration shows that mining wages and salaries are well above average.

Table 2.1[1/]
Namibia: Uranium and Diamond Production, 1980-1989

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Index of Uranium Production (1980=100)	100	98.5	93.6	92.1	91.7	83.8	86.0	83.8	87.0	76.2	79.5
Diamonds											
Grade (Carat/100T)	9.3	10	10.1	10	12.3	11.1	8.3	7.6	5.8	5.2	5.5
Production (x 1000 carats)	1560	1250	1020	970	930	940	1010	1020	940	880	780

[1/]Figures on uranium production are not official, but derived from various publicly available publications.

2.6 Mining's share of total exports fluctuated between 69.4 percent (1981) and 82.5 percent (1986). In current terms, mining exports increased from R908 million in 1980 to R2,026 million in 1989. Almost all mining products are exported to Western Europe, North America, Japan, and South Africa. Namibia is regarded as a reliable supplier of diamonds, uranium, and base metals in the world minerals' markets.

2.7 The mining sector's contribution to tax revenue fluctuated between a 26 percent share and 47 percent share of Namibia's total tax income during the 1983-1989 period. These figures represent the Corporate Tax as direct tax and the Diamond Export Duty as an indirect tax.

Additional tax revenues derive from the mining sector through a general sales tax, a non-resident shareholders' tax. and fuel levies. Hence, over the last eight years, the mining industry generated 36 percent to 57 percent of total tax revenue annually. Because tax revenue is based not only on the operating income generated by the mining companies but also on their capital investment programs--since capital expenditures can be deducted against the operating income--it is difficult to assess the figures for a trend.

2.8 In addition to its economic contribution, mining gives a major impetus to the regional and infrastructural development of Namibia. It is estimated that the mining sector uses 35 percent of Namibia's railway services and requires approximately 50 percent of Namibia's total power capacity.

Agriculture

2.9 Until 1985 Namibian agriculture was characterized by the privileged access of a small minority to a large share of the nation's resources. The growth of large-scale agriculture, mainly for whites, was encouraged by subsidized credit for land purchases. Although interest rates were raised to 5 percent in 1980 and, in steps, to 10 percent in 1984, they were still below both market rates (13 to 18 percent) and inflation. Communal farmers were not explicitly excluded, but they were not considered bankable by either the Landbank or the commercial banks, for lack of collateral.

2.10 The growth of white-owned large-scale agriculture was further encouraged by the distribution of public investment in markets and transport infrastructure. South Africa guaranteed a market for Namibian beef, and the South African Meat Board defended Namibian producer floor prices (and still does). In due course, Namibian quasi-public institutions were created that reflected the congruence of state and white-farmer interests: marketing parastatals for meat, cereals, and karakul pelts. Their primary objectives were (and essentially still are) to promote and support white farmers and ensure integration with the protected RSA agricultural markets. The veterinary cordon served to emphasize the division between communal and commercial agriculture. Discriminatory access to land, markets and infrastructure, and selective support, were probably as important as subsidized credit in setting commercial farmers apart from communal farmers in terms of productivity and income.

2.11 The results of these policies constitute the legacy inherited by the new Government. The 6,337 large farms owned by 4,450 farmers account for 32.3 million hectares (73 percent of Namibia's farmlands). More than 100,000 communal farmers tend 12.1 million hectares (27 percent of total farmland). The average size of white-owned farms is 7,836 hectares, 23 times the average size of African-owned cattle farms. A large but unknown number of African-owned arable farms also exist. Their size can only be guessed--very likely less than 20 hectares on average--until recently their production was not included in any national statistics. There are no marketing channels for cereals produced by African cultivators.

2.12 In 1985, large-scale commercial farms employed about 40,000 workers at low wages. About six people were dependent on each farm worker. Based on the same dependency ratio, 100,000 African farms extended over 12.1 million hectares would sustain more than twice the number of people on one-third of the area.

2.13 Between 1980 and 1985, bad weather plagued the sector. Output fell for three consecutive years (1982 to 1984), overall 43 percent. Farm workers were laid off, and some farmers went bankrupt, while wealthier farmers bought additional land for which low-interest credit was available, thus exacerbating land concentration.

2.14 By 1985, inequity and inequality were creating mounting political pressure. African and Colored farmers gained access to land abandoned by white farmers, and their access to livestock markets south of the veterinary cordon improved. This increased the supply of communal livestock farmers, and a few wealthy African cattle farmers emerged to take advantage of relaxed apartheid policies. However, the vast majority of farmers became poorer as animal population pressure in restricted grazing areas eroded the fragile natural resource base. Access to markets remained severely restricted, and veterinary services and extension advice in communal areas remained woefully inadequate.

2.15 In the two or three years before independence, and because of increasing uncertainty about their future, many large-scale livestock farmers began to hedge their bets and there was a substantial shift of capital out of farming in Namibia and into South Africa's financial markets, made easier because the Administration for Whites, at the end of its tenure, issued low-interest loans to white farmers who wanted to buy land. Many farmers reduced their stock or shifted towards calf raising, reducing the capital tied up in grazing stock. Cattle sales declined 4 percent per year after 1980, and karakul pelt exports declined 15 percent per year, while sheep and goat sales increased at 8 percent as farmers switched from karakul to goats and less environmentally kind, but more profitable breeds of sheep (for mutton and wool). As a result, mutton and wool production and exports have risen. Supposedly there was also a large shedding of labor, reinforcing a trend toward a decline of the large farm labor force, from 42,000 in the late 1970s to 35,000 by 1988. Reportedly, this downward trend reflected reduced profits and fear that the new government would introduce minimum wage legislation or prohibit the laying off of farm labor.

2.16 There was no great exodus of white farmers. Given fair economic conditions and political stability, much of the capital exported to South Africa may return. Namibian farmers exhibit a dogged nationalistic spirit, and many have revealed their commitment to a new Namibia by their actions. A reversal of capital flows may not be enough to lead to a resurgence in large-scale livestock farming--there are indications that good land and water are becoming binding constraints--but the sector's output has partially recovered from the drought's ravages and is now only 9 percent below its 1981 level.

2.17 In terms of arable agriculture, large-scale farmers have started cereal production in a few better-endowed areas, maize farming has become established in the "maize triangle" near Otavi, and wheat is being produced with supplementary irrigation near Hardap. The result has been a 23 per cent annual growth rate in cereal production. Other, higher-value crops have followed. Strong growth might be sustained from this base--but not to the extent that crop farming becomes a major export earner or the long-term solution to Namibia's employment problem.

2.18 The Rössing Foundation and the First National Development Corporation (FNDC) developed an interest in communal arable agriculture. Rössing made a genuine attempt to improve

communal production, first in cere[illegible]d later in high-value crops. War near the Angolan border brought thousands of troops and th[illegible] dependents, creating a new market for high-value crops and meat. FNDC tried to exploit this opportunity by establishing capital-intensive agricultural projects in communal areas. Both the Rössing and the FNDC initiatives were flawed. Rössing's efforts failed to consider that there is no organized market for millet, the preferred cereal in Ovambo and Kavango. Most FNDC projects failed in at least three ways: *First*, they were money-losers, although capital was subsidized and the prices for the scarcest factors of production--land and water--were artificially low. *Second*, they failed to stimulate any increase in farmer productivity. *Third*, they displaced labor.

2.19 Summing up, the five-year period before independence was marked by faltering efforts to introduce reforms to level up the inequalities between communal and commercial farmers. Reforms were not only inadequately resourced and poorly designed but were wholly ineffective in reversing the trend toward greater inequalities.

Expenditures on GDP

Consumption

2.20 Despite stagnating income, rising private and public consumption was a striking feature of economic developments in Namibia during the early 1980s. As a proportion of GDP, private consumption grew from 45.9 percent in 1980 to 67.3 percent in 1983. It closed the decade at 56.2 percent. Government consumption followed a similar pattern, increasing from 16.5 percent of GDP in 1980 to 30.8 percent in 1984, and falling to 28.4 percent by 1989. The Government expanded the scope of its activities, and the public sector's wage bill went up from 10.1 percent of GDP in 1980/81 to 18.4 in 1986/87. Corresponding figures for the Central Government were 4.6 and 10.3, respectively.

Investment

2.21 Increased propensity to consume mirrored a reduction in the willingness to invest. Gross fixed investment fell from 27.9 percent of GDP in 1980 to 16.1 percent in 1989, after bottoming at 13.8 percent in 1985. While public investment declined steadily throughout the decade ending at a mere third of its level in 1980, private investment recovered mildly beginning in 1986, but still ended the decade at only half the level of 1980. The overall investment decline was the result of two factors. First, there was a deliberate Government decision to cut public expenditures as a way of limiting the size of the fiscal deficit in response to declining budgetary support from the RSA. Second, private investment declined because of (i) uncertainty about the political future of the country and about its future economic policies; (ii) the impact of sanctions against the RSA on Namibia's economic activity; and (iii) a decline in the international price of minerals during the mid-eighties, which slowed investment in the mining industry. It is clear that a higher level of investment in the productive sectors will be required if Namibia is to achieve faster economic growth and social development.

Table 2.2
Namibia: Fixed Investment, 1980-89
(Million 1980 Rands)

Year	Private[1/]	Public	As Percent of GDP Private	As Percent of GDP Public
1980	197.5	239.6	12.6	15.3
1981	176.8	205.1	12.5	14.7
1982	128.4	187.5	9.5	14.0
1983	100.6	137.1	8.0	11.2
1984	86.8	110.3	6.7	8.8
1985	75.7	121.4	5.3	8.5
1986	85.4	100.1	6.3	7.0
1987	95.3	99.6	7.3	7.4
1988	131.0	91.4	9.0	6.2
1989	156.1	75.9	11.0	5.2

[1/] Private investment includes fixed investments of "private business enterprises" and "public corporations, and excludes fixed investments of "public business enterprises."
Source: Statistical Appendix Table 1.05 and 1.06

Balance of Payments

2.22 Data on Namibia's external sector are generally weak. Because of Namibia's status vis-a-vis the RSA, the flow of goods and services between Namibia and the RSA has been completely unrestricted and has not been recorded in any systematic fashion. Until independence, there were no border posts between Namibia and South Africa. Existing balance of payments estimates are limited to the current account. Capital flow between Namibia and the rest of the rand monetary area has been totally free. The capital account has not been estimated, and there are no reliable estimates of the quantity of money in the economy.

2.23 During the 1980s the current account of Namibia's balance of payments moved from a small deficit in the initial years (1.0 to 4.0 percent of GDP) to progressively larger surpluses. These peaked in 1986, when they reached R561 million (18 percent of GDP). The balance on current account contracted after 1986, as the Government of the RSA reduced its financial transfers to Namibia. By 1988, the current account again showed a negative balance equivalent to 4 percent of GDP.

2.24 The balance on goods and non-factor services has been negative most years, indicating that Namibia has been absorbing real resources from the rest of the world. Toward the end of the decade, the balance on goods and non-factor services ranged between 5 and 10 percent of GDP.

2.25 Exports and imports of goods stagnated during the early 1980s but grew rapidly late in the decade. Exports ranged from R940-R1,100 million in 1980-84, to approximately R2,700 million in 1989, prodded by a substantial rise in the price of diamonds. Imports followed a similar pattern, but their growth during the second half of the decade was less rapid. From R900-R1,100 million in 1980-1983, they increased to about R2 billion by the end of the decade.

Table 2.3
Namibia: Gross Domestic Product and Expenditure at Current Prices, 1980-89
(Percentages)

	1980	1984	1989
Private Consumption	45.9	65.1	55.8
Government consumption	16.5	30.8	25.6
Gross domestic fixed investment	28.0	15.4	14.8
Change in inventories	5.2	1.8	2.5
Exports of GNFS	73.6	54.2	53.9
Imports of GNFS	69.2	67.3	52.7

Source: Statistical Appendix Tables I.05 and II.01

2.26 The shares of both exports and imports to GDP declined throughout the 1980s, exports from 73.6 percent to 53.9 percent, and imports from 69.2 percent to 52.7 percent. The sum of exports and imports relative to GDP--a frequently used indicator of the degr e of openness of an economy--declined from 143 percent in 1980 to 107 percent at the end of the decade. This indicator suggests a "closing" of the Namibian economy, which may have been caused by the international sanctions against the RSA and by the policies adopted by the RSA in response. Unfortunately, the weakness of Namibia's international trade statistics--especially import data--resulting from the country's treatment as a part of the RSA, preempts a firm conclusion in this respect.

2.27 In terms of the classification of productive sectors into tradable-producing (agriculture, fishing, mining, and manufacturing), and non-tradable-producing, the former bore the brunt of the contraction in output during the first half of the 1980s, declining by a cumulative 25 percent in 1985; after a marginal recovery, by 1989 tradables sectors had reached 80 percent of their 1980 output. The non-tradable-producing sectors, on the other hand, expanded their output throughout the decade, and the increase was 30.8 percent by 1989.

2.28 The preceding analysis suggests two important differences between the economy of Namibia in 1989, compared to 1980:

(i) Namibians consume substantially more and invest considerably less of their income now.

(ii) Namibians now sell a lower proportion of their production abroad and also import a lower proportion of what they consume.

A sustainable economic recovery will require higher investment rates and a more dynamic external sector. Namibians will invest more in their own country if the policy environment is favorable to private sector activity; Chapters III-VIII discuss policies to stimulate investment and exports.

Employment

Labor Force

2.29 The ILO (1990) estimates Namibia's economically active population at about half a million, with 45 to 55 percent engaged in subsistence activities, agriculture, or in small informal-sector businesses. Total paid employment in 1990, including unregistered wage employees in domestic service, commercial agriculture, and other sectors, was about 43 percent of the labor force. More than half of formal wage employment in 1988 was in three sectors: government (29.7 percent), commercial agriculture (19.5 percent), and mining (5.4 percent). Many Namibians work in South Africa, almost all in the mining sector. RSA employment for 1985 document an estimated 72,000 Namibians, 71,000 in the mining sector.

Characteristics of the Unemployed

2.30 No labor survey of any significance has ever been carried out in Namibia. Reliable estimates of unemployment prior to independence are not available. Estimates of the number of unemployed in 1989 vary between 30,000 and 80,000 and, according to the ILO, they were mostly black, unskilled laborers with some experience in mining or commercial agriculture. A significant number were women, typically former domestic servants. Also according to the ILO, unemployment has risen since independence as a result of the demobilization of some 53,000 combatants--37,000 with the South West Africa Territory Forces (SWATF) and about 16,000 with People's Liberation Army of Namibia (PLAN). The repatriation of 44,000 exiles has also added to the labor force. Current national estimates of unemployment range between 30 and 40 percent. The ILO estimates that 25 to 30 percent of the labor force in the formal sector is unemployed, while two-thirds of those in the subsistence sector are underemployed.

2.31 Unemployment rates are highest in the smaller urban areas--ranging from a low of 20 percent in Katutura to 50 percent in Okahandja, according to NBIC estimates. Female-headed households in Katutura are more likely to suffer unemployment, averaging 25 percent, while the unemployment rate for returnees is the highest: 80 percent in Katutura, 66 percent in peri-urban Ovambo, and 47 percent in rural Ovambo. As a share of the total labor market, these new market

entrants are significant--the increase is equal to 52 percent of those formally registered in wage employment in 1988, or nearly one-fifth of the total labor force. The demobilized combatants are mostly unskilled, while the returnees tend to have somewhat higher skill levels. In the rural subsistence sector, overt unemployment is less an issue than underemployment. The ILO estimates that most of the labor force in subsistence agriculture and, to some extent, those in the informal sector engage in low-income, low-productivity work. Others, such as casual laborers and seasonal farm workers, may be underemployed due to insufficient work throughout the year.

Recent Employment Trends and Prospects

2.32 The gaps in average rural and urban income and living standards (e.g., housing) remain large, adding a strong incentive for the rural population to migrate, even to urban areas with high unemployment. Recent trends offer few prospects for rapid employment growth or a reduction in unemployment. Between 1984 and 1988, growth in formal wage employment was 2.3 percent annually, mostly in the public sector. A continuation of this rate would create 4,500 jobs annually, which the ILO estimates would cover only about one-fourth of new market entrants. But 2.3 percent is an optimistic rate because the main employers--the public sector, commercial agriculture and mining--all show stagnant or declining employment. The fisheries and services sectors promise growth in income and, possibly, in employment. The remaining sectors--subsistence agriculture and self employment in small or informal businesses--offer some prospects for productive labor absorption, but these too are considered limited. The informal sector remains small; even its high growth rates promise to generate little employment in the short term relative to need.

Wage and Salary Structure

2.33 The principal feature underlying Namibia's labor market is economic dualism, reflected in labor market segmentation and wage dispersion. ILO estimates of the wage and salary structure in the formal sector offer some indication of wage dispersion and the returns to skills accumulation (see Table 2.4).

Table 2.4
Namibia: Average Earnings Per Month by Occupational Category, 1990
(Rands)

	Unskilled	Semi-skilled	Professional	Senior Management
Public Sector	270	850	2,000	10,000
Private Sector	250-400	1200	2,000-2,500	7,000-10,000

Source: ILO, 1990

2.34 Average unskilled wage rates in 1990 were less than half the 1989 Windhoek primary household subsistence level (PHSL) of R570 per month.1/ Including housing and transport expenses, the Windhoek HSL of R650 per month is nearly 2.5 times the unskilled wage rate in the public sector. Semi-skilled wages are more than three times greater than unskilled wages, while those for professionals jump to seven times the wage rate for unskilled labor. There is a high return to skills accumulation for those in wage employment.

Unskilled Wage Trends

2.35 Trend data exist only for the construction sector in recent years and for the apprenticeship pay schedules over a longer period. Real wages have declined for all classes of worker since 1975. There is some indication that real wages fell the most for those in the lowest wage categories, as Figures 2.2 and 2.3 show.

2.36 The trend data starkly shows an unremitting decline in real wages for all classes of worker since 1975. Further, there is some indication that real wages fell most for those in the lowest wage categories. Real wages for apprentices in all three years in the hairdressing trade fell 61 percent between 1975 and 1990. Over the same period, real wages for apprentices in all other trades fell 41 percent for those in their first year of apprenticeship, and 35 percent for those in their fourth year. There seems to have been some cushion for those with skills and a few years of experience.

Economic Segmentation

2.37 The Namibian economy is highly segmented--in all sectors. For labor markets and wage determination, three aspects of this segmentation are relevant. *First*, the ILO found that profits generated in the formal white economy have not been invested in ways to raise the productivity of labor. Funds either flow out of the country or are invested to increase the capital intensity of white production. They neither establish links with other segments of the economy nor broaden the base of development within the economy. In this regard, the white Namibian economy has behaved like an enclave economy, developing little contact with the surrounding economy and transferring few benefits from its growth. The pattern of public expenditure has been similar To a large extent, the beneficiaries of public resources have been the white owners of the formal economy, not the broader population. *Second*, the ILO found that this has resulted in a relatively capital-intensive pattern of production in the economy, generating little employment growth. *Third*, a systematic process of wage and labor market segmentation has meant that there has been very little "trickle down" of benefits.

Labor Market Segmentation

2.38 Segmentation of labor markets has occurred through three principal mechanisms: (i) a labor reserve system that permits unskilled wages to remain low, (ii) unequal educational opportunities or skill opportunities, and (iii) outright racial discrimination.

1/ See Annex I for definition and composition of urban poverty lines.

Figure 2.2
Namibia: Nominal Wages for Apprentices, 1974-90
(Rands per Month)

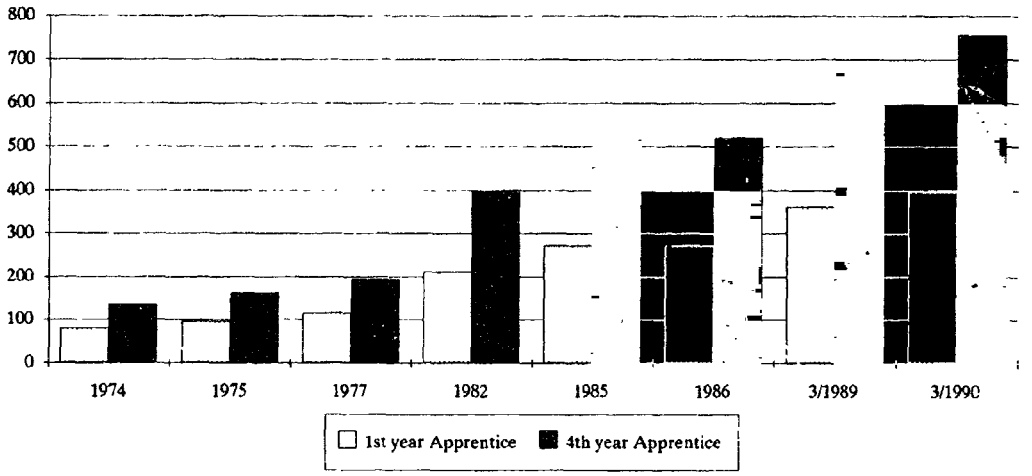
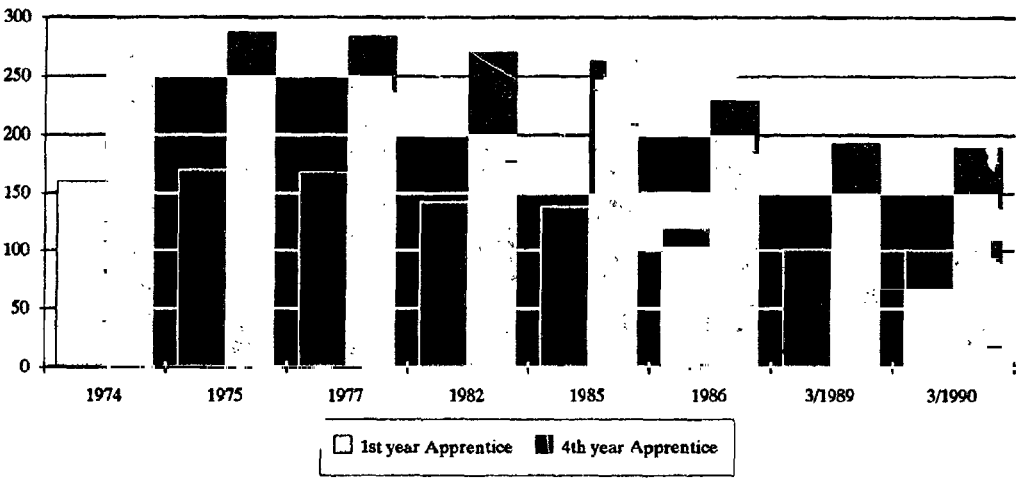


Figure 2.3
Namibia: Real Wages for Apprentices, 1974-90
(1980 Rands per Month)



2.39 The labor reserve system has kept the supply price of labor low by confining the black population to homelands, many of which are economically inviable for subsistence agriculture. The homelands were established de jure by the Odendaal Commission in 1964 (although the practice had existed de facto since the early 1900s). This homeland process served to ensure subsidized labor for Namibia's business sector. As agriculture in the southern communal areas was barely viable when the population density was low there, it became virtually impossible as population increased with the establishment of the black reserves. Households therefore needed to send one or more members into wage employment. Employers, however, faced such an oversupply of unskilled labor that market-clearing wages were virtually zero. Payment of wages below marginal product was feasible on market-clearing terms, and was rationalized on the grounds that laborers had their family farms to supplement their income. Thus, laborers had virtually no alternative except migration.

2.40 The effects of the labor reserve system have persisted because there has been only limited productive investment in the homelands. Such investment has served neither to broaden the productive base nor to provide significant new sources of employment and income. Thus even though the northern homelands of Ovambo, Kavango and Caprivi offer much better agricultural potential, their growth has been constrained by lack of access to product markets, productive inputs, and services. Rapid population growth has also eroded he economic base and contributed to environmental degradation. For the most part, these investments (most of which were executed by the FNDC) have consisted of enclave investments, which benefit from state capital subsidies and access to services and inputs unavailable to the local population, to produce superior products at competitive prices, thus undermining local subsistence producers. Health regulations, which are barriers to the movement of livestock, have also limited the competitive position of the northern homelands producers and prevented them from trading with other parts of the country or exporting.

2.41 Limited access to public goods and services has blocked opportunities to improve real income in the homelands. Veterinary health, credit, agricultural extension, training, irrigation, fertilizers, access roads, and utilities are significantly underprovided compared with the commercial farm and industrial areas. The result has been neglect and actual deterioration of the homeland economies. Although traditional subsistence agriculture had been just possible in the homelands for much of the century, the lack of investment, coupled with population growth, increasing land degradation (overgrazing), and drought, has destroyed the fragile subsistence base.

2.42 The alternative to subsistence agriculture in the homelands or in the formal wage labor market is self employment. Again, the regulatory structure and poor access to necessary inputs and services have severely hampered the growth of this sector. Micro-vendors in central Windhoek are restricted as to where they may sell and the number of vendors per location (effectively limiting entrants to the market) and are closely regulated by the health authorities (Box 2.1). Commercial credit is virtually unavailable to microentrepreneurs, although a few NGO micro-credit schemes are being developed. Demand is apparently high, since one of the few schemes that provides micro-credit can charge rates substantially above those available to larger commercial borrowers and still enjoy

better success with repayment rates.2/ As borrowers successfully build a credit history with repeated loans, they are eligible to move up to larger loans at more favorable rates. To date, however, very few have progressed beyond the initial loans.

Box No. 2.1: Hawking, Windhoek Style

Overseeing food hawking in Windhoek is a regulator's dream. Entry is strictly controlled -- by access to up-front capital, health inspections, regulatory standards, and favors from the town planner's office in the designation of hawking sites.

The prospective vendor must submit evidence of a complete personal health examination, including chest X-ray, and a health inspection by a municipal health inspector of both the kitchen where the food will be prepared and the cart from which the food will be sold. The health inspector pays a weekly visit to each cart and supply kitchen once a vendor is approved. Approved carts, imported from the RSA, are of stainless steel with gas canisters for cooking and water tanks and sinks for hygiene. Each one costs about R11,000.

Once health clearance is obtained, a hawker must apply to the town clerk for a license. Getting a license (R10 per year) does not guarantee the right to hawk. Hawking sites are determined by the town planner. In the interests of maintaining the appearance and amenities of Windhoek, only 34 sites are designated as hawking sites in the central business district -- one hawker per site. Although the town authorities allegedly allocate these sites on a first-come-first-serve basis each day, all the downtown businesses are apparently owned by four or five entrepreneurs. The Bank mission observed that the same carts return to the same sites day after day. These are not microenterprises -- they are small-to-medium-size businesses that hire employees to manage retail carts on commission.

2.43 The second feature that has sustained labor market segmentation is the white population's monopoly on access to skills. Blacks have enjoyed few of the advantages available to whites, to acquire education, develop skills, and compete with whites on equal terms. This monopoly has been

2/ Hawkers are eligible for FNDC's mini loan scheme. Loans are granted on the basis of a brief conversation with the borrower, display of some form of identification, and the filing of a form containing the borrower's name and address. No collateral is required. Terms for the smallest loans of R200 for one month, are R10 payable up front as service and interest fees--which on an annualized basis is equivalent to 86 percent interest. Borrowers may take and repay such loans three times before being eligible to move up to the next category of loan, up to R500, with R32 payable up front, for 90 days, equivalent to an annual rate of 30 percent. Rates on loans drop to 18 percent as loan sizes grow and a successful credit history is established. Repayment rates exceeded 90 percent before independence (although no borrower has yet graduated from the scheme to the commercial market). Since then, they have averaged 70 percent.

further enforced by the manipulation of job categories and classifications to exclude even those blacks who manage to gain some job skills.3/

2.44 Finally, the ILO found evidence of clear wage discrimination--blacks being paid less than whites for the same job. One private sector survey cites differentials as great as 20-25 percent; the ILO suggests that in practice the differentials may be far greater.

2.45 A history of systematic economic and employment segmentation has left Namibia with a growing supply of unskilled labor, rising unemployment, a stagnant economy (which creates few jobs even when it grows), and a labor market that still clearly discriminates against blacks. These features are reflected in the labor market's grossly unequal structure of wages and salaries and in the significant proportion of black households living below the poverty line, with little prospect of escaping.

Winners and Losers During the 1980s

2.46 Namibians as a group are poorer now than in 1980, but only the poor are poorer; the rich having managed to maintain their living standards, as Table 2.5 shows. Total per capita GDP fell by about 20 percent over the 1980s, but real incomes in the white modern sector were not affected. Incomes in the black wage employment sector fell by a third, while those in the subsistence sector fell by about 7 percent. The result was an increase in income dispersion. Blacks in the formal wage economy suffered the biggest losses, both in numbers and income. Reduced numbers in this group conversely show up as increased numbers in the subsistence sector--as blacks return to their rural extended family base or enter informal urban activities.

The Government's Economic Challenges

2.47 The Namibian authorities face four important economic challenges: (i) reactivating growth, (ii) redirecting and restraining the growth of public expenditures; (iii) reducing poverty; and (iv) generating employment. Legal or formal equality has already been established by the Constitution of Namibia, but the drive towards a more even distribution of income and public services is just beginning. Moreover, macroeconomic constraints make it difficult to do much in the short run. In particular, the country's development potential may be jeopardized by excessive speed in the pursuit

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3/ Evidence from a survey of returnees conducted by NISER shows that "while significant numbers of returnees have had some form of training, their skills levels and experience vary widely. This factor has served to reinforce the prejudices and biases of potential employers in different sectors of the economy. The uncertainty that has surrounded the qualifications of returning professionals (doctors, nurses, teachers, etc.), in particular, has caused considerable consternation. The qualifications of some professionals appear not to have been recognized as being equivalent to local qualifications. In such instances individuals are appointed on lower salaries than their local counterparts (as in the case of teachers and nurses) or are appointed to positions below their qualifications. While the issue of standards is a complex one, the seemingly arbitrary manner in which it is applied to repatriated exiles is a source of considerable dissatisfaction to many. There is also evidence that the issue of qualification standards has been used as a mechanism to discriminate against certain returnees."

of equality--leading to an overly rapid increase in consumption--and therefore becoming detrimental to the formation of domestic savings and capital accumulation.

Table 2.5
Namibia: Per Capita GDP by Sector
(1980 Rands)

Year	Total	White Modern	Black Wage Employment	Subsistence
1980	1,140	12,830	900	59
1984	953	11,326	759	62
1988	921	12,839	585	55

Source: UNDP "Population and National Accounts of Namibia, 1989."

2.48 A possible short-term approach to the pursuit of equality--minimizing the possibly negative effects on saving and investment--would focus on reallocating public expenditures to even out the level and quality of public goods and utilities for all Namibians. Over the medium and long term, the equity issue may be tackled most effectively by increasing the rate of growth of the Namibian economy, since a larger output of goods and services can support higher and more egalitarian standards of living.

Reactivating growth

2.49 There is scope for improving the growth performance of the Namibian economy. In the short run, economic recovery is likely to be led by the increased income generated from mining, agriculture and the fisheries sectors. Over the medium to long term, economic growth will take place only with higher investment rates. Foreign investment and repatriation of Namibia capital would help--and there are ample opportunities for foreign investors in Namibia--but Namibians will also need to consume less and invest more. Public sector savings will be a key variable influencing the overall investment rate. There are limits to the Government's domestic and foreign borrowing. Excessive domestic borrowing runs the risk of "crowding out" the private sector in financial markets. The perils of excessive foreign borrowing are well known.

2.50 Mission estimates indicate that if Namibia is able to exploit its vast fisheries resources and capture the ensuing income, GDP may grow at about 3.5 percent per year during the next five years, barely above the population growth rate. If attained, these growth rates would make Namibians as a group some 3 percent richer by 1996. The extra income would give the Namibian authorities some elbow room to improve the standards of living of the poorer segments of the population without

making any particular group worse off. The design, proper implementation and enforcement of the policies adopted for the two key subsectors are, therefore, extremely important for Namibia's economic growth and social development. Suggestions to accelerate growth constitute main theme of Chapter IV-VII.

Restraining and redirecting public expenditures

2.51 The second challenge, redirecting public expenditures, must be met if the health, education, and housing services for the poor are to improve rapidly. Namibia inherited a highly competent public administration and a fiscal situation that while in balance, was too short on public investment and social services for the majority of the population. Bank projections indicate that for the next five years, at least, the Namibian Government will have to follow more stringent fiscal policies than the previous administration because fewer resources will be available. The analysis of Chapters IX and X shows that the problem with social program expenditures is not so much their volume, as their direction. The challenge is to meet the new priorities within a fiscal framework that does not endanger macroeconomic stability. Another challenge is to enlist Namibia's capable corps of public employees to meet the new Government's priorities, taking care not to render them ineffectual. Chapter III provides an assessment of the fiscal constraint, and Chapters IX-XII provide some suggestions for re-directing public expenditures.

Reducing poverty

2.52 Success in dealing with the third challenge, poverty alleviation, will depend crucially on economic growth. Economic growth is the only sustainable medium-term solution to poverty. But the nature of growth also matters. It will be necessary to emphasize the efficient use of labor, the most important asset of the poor. These policies include for example, eliminating subsidies now largely enjoyed by the rich (such as below-market interest rates). Regulatory controls that limit factor and product market competition also need to be eliminated. Public action is also needed to provide public goods, services and infrastructure to the poor, as well as to overcome market failures that hurt or exclude the poor. Examples of such actions include pricing social services (e.g., medicine), now offered basically at the same price to the rich and the poor alike, according to income levels. It is also important to provide more and better health, education, housing, transport, and agricultural services to the poor. Finally, some system of safety nets for the poorest is critical to stabilize their welfare. The design of a safety net system is beyond the scope of this report, but some suggestions to improve the present system are possible and offered below.

2.53 Efforts to include women should be a particular part of this strategy. Women are at a significant disadvantage in economic activity. While they hold primary responsibility for family maintenance and welfare, they have the least amount of discretionary time to avail themselves of social services and supports. Urban and rural women should be among the primary target groups for credit, skills training, and social services.

Creating employment

2.54 The final challenge, employment creation, will probably be the most difficult. No single sector is likely to provide dramatic employment gains. Rather, the outlook is for incremental gains across all sectors. Fast economic growth will make the task easier, but the Government needs to facilitate the process by removing unnecessary barriers to employment creation and by training the labor force in the skills that it needs to make it more productive. The first priority in improving employment and wages is the removal of impediments to labor absorption. Policies that distort the relative price of labor, such as capital subsidies, targeted credit and tax credits, need review. The authorities should also examine the relative prices of other important factors of production--land, water, and technology. Underpricing these inputs may also be detrimental to the potential absorption of labor.

2.55 To ensure that the poor can participate in employment opportunities, small business regulations and labor market codes must also be reviewed. Competitive small and informal sector businesses offer prospects for employment growth. These businesses need access to input and product markets. *First*, overly restrictive regulations governing small businesses and services, such as vending and transport, need to be relaxed. These regulations tend to protect formal sector businesses against competition, and impose high employment and equity costs on the economy. *Second*, relative prices need to be free of distortions. *Third*, credit for small business needs to be available on market terms, as discussed in Chapters V and VIII.

2.56 A competitive structure will be critical to the development of a sustainable small business sector. Again, overly restrictive regulations need to be modified or eliminated. For example, if their aim is to safeguard public health, that objective may be better pursued via preventive health campaigns that have wider economic and social benefits, rather than through regulations that effectively restrict the market and protect the formal sector at the expense of the informal sector.

2.57 Professional skills and skilled labor are scarce in Namibia--and can command premium wages--but unskilled labor supply far exceeds the number of jobs available. Thus, wages for this group remain low. However, introduction of a minimum wage at this time would be counterproductive and likely to segment Namibia's labor market further and slow employment creation. To be sure, a minimum wage might preserve wage gains for a few, but at the expense of those excluded.

2.58 As an alternative, negotiated wage settlements may be pursued under arbitration if necessary, and the results made public. Expanded access to the Ministry of Labor's program of certification could lower barriers in the skilled and semi-skilled labor markets. Government should continue to set standards for training and certification, and it should consider subcontracting training services to the private sector. Nevertheless, efficient creation of employment opportunities through economic growth is the most important labor market policy.

III. FISCAL POLICIES

Introduction

3.1 Fiscal Policy is the Government's main tool for addressing the inequalities in income and access to social services. Namibia inherited a capable and experienced public administration that is well placed to help meet the country's social and economic challenges. The new Government needs to capitalize on the experience and expertise of the public service while re-directing its efforts to serve the previously disenfranchised and neglected majority. Full use of this pool of institutional expertise would expedite the establishment of a system to implement the new policy strategy.

Structure of the non-Financial Public Sector

3.2 Prior to independence Namibia's public administration consisted of a Central Authority, 11 Representative or Second-Tier Authorities, an equal number of municipalities or Third Tier Authorities, numerous other local authorities, and several statutory entities.

3.3 Formally established along ethnic lines, the Second-Tier Authorities were to provide a measure of self-government to various population groups. They included one Administration for Whites and ten administrations for other ethnic groups and delivered most social services until independence. Although charged with the provision of health, education and welfare, they lacked the necessary human and financial resources to do so effectively. Except for the Administration for Whites, the Second-Tier Authorities depended heavily on financial transfers from the Central Authority. Their only other significant revenue came from the personal income taxes paid by each ethnic group. Central Government transfers to the Second-Tier Authorities are estimated to have covered at least three-quarters of their expenditures, on average.

3.4 Until independence, the Government of the RSA retained ultimate executive power, in the hands of its representative, while the Legislative Assembly had only limited power. Until April 1, 1989, the second tier governments were run by their own executive committees, but on this date the Administrator General--the representative of the RSA Government--assumed the executive power for all three tiers of administration until the establishment of a government for Namibia.1

3.5 The Constitution abolished the Second-Tier Authorities in 1990 and provided for the eventual establishment of regional and local units of government. It left open the determination of regional and local boundaries, functions, powers and sources of revenue. Until this structure becomes fully operational, the Central Government will perform the functions of the Second-Tier Authorities. The status of the rest of the general government and of the non-financial public enterprises remains unchanged until repealed or amended by Act of Parliament or declared unconstitutional.

3.6 During the 1980s the public sector of South West Africa was expanded to include some decentralized agencies of the Central Authority and various enterprises taken from the South African

public and private sectors. As a result, South West Africa's public sector became responsible for a wide range of public services, including electricity and water supply, transportation (road, air, sea, and railway), and post and communications (telephones, postal services, radio, and TV). The public sector also comprises the Academy, which manages the University of Namibia, Tecnicon Namibia, and the College for Out of School Training; the Namibian Broadcasting Corporation (NBC); TransNamib Ltd., a transport company that owns the national rail system, and the national airline, runs a road transport enterprise, manages Luderitz harbor, and provides shipping services; and South West African Water and Electricity Corporation (SWAWEK).

3.7 At present the Namibian Government consists of: (i) a Budgetary Central Government, which comprises 18 ministries, 2 offices, and the regional offices of former Second-Tier Authorities; and (ii) several special funds, including the Redemption Fund of the Central Government; and (iii) several agronomic marketing boards (discussed in Chapter V). Departmental entities consist of the Construction Division of the Transportation Department and the Department for Water Affairs, the budgets of which remain an integral part of the Central Government's budget. In addition, the Central Government's Budget includes the Post Office and the airports, which are nonfinancial public enterprises. Included in the Central Government are various municipalities and townships and their associated departmental enterprise. In addition, the public sector includes three large nonfinancial public enterprises, and some smaller enterprises, mainly commodity boards, which have a significant influence on pricing and marketing decisions.

3.8 The *Academy* does not run on commercial principles. Instead, as a decentralized agency of the Central Government, the Academy receives approximately 85 percent of its revenue as a subsidy from the Government. In addition, the Government also provides long-term financing and guarantees other Academy loans.

3.9 *NBC* is not run on commercial principles either. It receives approximately 80 percent of its revenue as an operating subsidy from the Government. The remaining revenue derives from license fees and advertising. NBC's capital expenditure is financed from the budget of the Ministry of Information and Broadcasting.

3.10 The two major public enterprises, *TransNamib Ltd. and SWAWEK*, are fully Government-owned but are run commercially, both are in strong financial condition. TransNamib Ltd., in rail, road, air and sea transport, took over NTC as established in the National Transport Corporation Act (1987). The corporation has operated only since July 1988, but registered both a consolidated operating and overall surplus, through end-March 1990, and has transformed the railroads' heavy losses into a strong operating surplus. TransNamib's financial position is further strengthened by the virtual absence of debt.

3.11 *SWAWEK's* financial position is similarly strong, with overall surplus rising. In the past two years it paid dividends to the Government. However, SWAWEK is only providing electricity to major centers, where this is a profitable business activity. Because of the country's vast size, and sparse population, most Namibians live without electricity.

3.12 *The First National Development Corporation* (FNDC), created in 1978, is a Covernment-owned holding company for the Government's equity investments in slaughterhouses, mining, manufacturing, agriculture, rural development, cattle ranching. distribution services, and service stations. FNDC is authorized to raise capital in private markets, but so far has relied on annual Government budget replenishment. FNDC's financial accounts show a small operating income relative to turnover, although the performance of its enterprises varies dramatically. Agronomic enterprises and rural development ventures have shown losses consistently, while most of its other enterprises have shown some profit. Its loan portfolio is small. Its lending has been primarily to its own companies, at subsidized rates. FNDC also has a small portfolio of loans to black entrepreneurs, at rates of over five percent per month. FNDC has paid no taxes and, so far, no dividends.

Recent Fiscal Performance: A Summary

Central Government

3.13 Government finances in the 1980s were dominated by four factors: (i) the expansionary impact of the three-tier Government, especially in the early part of the decade; (ii) the decline of budget support provided by the RSA, especially after 1986/87; (iii) the decline in revenue received from the RSA in lieu of customs revenue (SACU receipts) relative to total revenue; and (iv) the Namibian policy response to the three preceding factors--seeking to reduce the fiscal deficit and reducing the burden of public debt incurred in the early 1980s. At independence Namibia had a relatively high revenue-to-GDP ratio, equivalent to 39 percent. There was a more even distribution between taxes on income and profits, on the one hand, and domestic and international transactions, on the other, than at the beginning of the decade. The tax base, however, was still narrow and heavily dependent on diamond and uranium revenue, which meant that fluctuations in the prices of these commodities still had a marked influence on overall revenues. While overall expenditure had been reduced, the adjustment had been accomplished mainly by cutting investment, with little effort to improve efficiency. A cumbersome bureaucracy and attendant inefficiencies were reflected in an excessive wage bill for the General Government (estimated at 18 percent of GDP in 1989, or triple the average for the third world), high current expenditure, and low-quality service for the majority of Namibians.

Revenues

3.14 In the early to mid-1980s, revenues averaged about 26-28 percent of GDP (Table 3.1). Payments from the RSA in lieu of customs and excise duties (i.e., SACU receipts) accounted for the bulk of the Central Authority's revenues. Other sources (mainly company tax, special diamond taxes, a general sales tax, and administrative fees and charges) contributed, on average, less than one-half of the total. Income taxes accrued to the Second-Tier Authorities until 1989/90, when all individual income taxes became payable to the Central Authority.

3.15 In the latter half of the 1980s, revenues rose relative to GDP by about eight points, to 38.7 percent. Small declines in SACU receipts were more than offset by successive hikes in the sales tax rate, the recovery of the mining sector, and higher receipts from taxes on income and profits.

Income tax yields, according to the Central Authority, rose in the mid-1980s, when withholding began to be passed from the Second-Tier to the Central Authority, and again in 1989/90, when all personal income taxes became payable to the Central Authority.

Expenditures

3.16 Central Authority expenditures reached a record 49 percent of GDP in 1983/84. Current expenditure went up particularly fast in the first half of the decade, as employment in the public sector expanded and interest payments rose on the mounting debt. Current transfers (mainly to the Second-Tier Authorities for expenditures on health, education, pensions, and welfare) rose more slowly but still faster than GDP. Capital expenditure declined sharply, both in nominal terms and relative to GDP, from 12.1 percent in 1981/82 to 8.4 percent in 1984/85.

3.17 The Government's wage bill rose from 4.6 percent in 1980/81 to 9.3 percent in 1983/84 and remained around 10 percent of GDP until 1987/88. The wage bill declined to 8.5 percent of GDP in 1989/90. The rise in the wage bill until 1987/88 reflected a sharp expansion of employment and an attempt to attain parity with Government wages in the RSA. The latter objective had to be abandoned in the late 1980s owing to tightening fiscal conditions.

3.18 After fiscal 1984/85, overall expenditures declined relative to GDP. Capital expenditures were cut by half relative to GDP, from 8.4 percent in 1984/85 to 3.5 percent in 1989/90. Current expenditures were cut by about 4 percentage points relative to GDP, mainly affecting transfers to the Second-Tier Authorities. Interest payments, however, also declined in nominal terms over several years. Relative to GDP, the wage bill and expenditure for other goods and services remained stable until 1989/90.

3.19 In the second half of the 1980s, about 40 percent of total expenditures was allocated to the protective and administrative services (until 1989/90 when expenditure for national defense dropped). About one-third was spent on community services (education, training, health, and welfare), and about one-quarter on infrastructure and economic services.

Financing the Deficit

3.20 During the first half of the 1980s, the Government deficit averaged about 20 percent of GDP, most of it financed through budget support from the RSA, as Table 3.1 shows. Commercial bank borrowing (with RSA guarantee) financed about six points of GDP, and as a result, Namibia's public debt rose from less than 6 percent of GDP in 1980/81 to 32.7 percent of GDP in 1983/84.

3.21 In the second half of the decade, a significant reduction in budget support from the RSA forced a sharp decline in the overall deficit to an average of 9 percent of GDP, roughly equal to the volume of transfers received. The reduction of the deficit was achieved through an average increase in revenues equivalent to 8 percent of GDP and an average reduction in expenditures of about 3 percent of GDP as Table 3.1 shows. A small annual surplus (after budget support) together with drawdowns of accumulated cash balances were used to reduce public debt from 34.9 percent of GDP at end March 1985 to 13.9 percent at end March 1990.

Table 3.1
Namibia: Summary Financial Operations of the Central Authority,
Fiscal Years 1981/82-1989/90
(As percent of GDP)

	Average 1981/82-84/85	Average 1985/86-88/89	Prel. 1989/90
Revenue	26.3	33.8	39.0
Taxes on Int'l. Trade	14.4	11.3	10.1
Other Revenue	11.9	22.4	28.9
Expenditure	45.9	43.2	28.9
Current	35.7	35.7	35.2
Capital	10.1	7.5	3.7
Surplus (- =Deficit) before RSA budget support	-19.6	-9.4	0.1
Surplus (- =Deficit) after RSA budget support	-5.6	0.8	2.9
Financing	5.6	-0.8	-2.9
Borrowing, net	8.6	0.2	-3.4
Increase in cash balances (+)	3.0	1.0	-0.5

Source: Statistical Appendix Table III.026

Central Government Performance for 1990/91 and Budget for 1991/92

3.22 The budget for 1990/91 reflects the transition to independence and the attendant new claims on the Government's scarce financial resources. The Central Government is being restructured to incorporate new institutions and to integrate and rationalize old ones (such as the Second-Tier Authorities). Various affirmative action programs seek to provide employment for groups that previously did not have access to government jobs. Finally, in the interest of national reconciliation, all pre-independence civil servants have been guaranteed job stability.

3.23 The budget targeted a deficit (before budget support) equivalent to 6.5 percent of GDP. After budgeted donor country support, the deficit was targeted at 3.8 percent of GDP. To finance

the deficit and heavy debt redemption, the budget incorporated a drawdown on cash balances of R186 million, leaving unfinanced a gap equivalent to 3.4 percent of GDP.

3.24 The budget anticipated a drop in revenue equivalent to 7.2 percent of GDP, from 39.0 percent to 31.8 percent, reflecting a decline in taxes from mining, and a slowdown in economic activity after the departure of the UNTAG Group and the RSA defense forces. No new revenue measures were included, but the Government believed that revenue performance could improve through better tax administration.

3.25 Complete information on the outturn of the operations of the Central Government for 1990/91 is not yet available. Preliminary information, however, indicates a deficit equivalent to 5.2 percent of GDP before budget support, or 3.5 percent after budget support. The lower outturn relative to the budgeted deficit reflected lower-than-budgeted revenues and expenditures. Revenues from SACU were 60 percent lower than budgeted, but debt-service payments, subsidies, transfers, and capital outlays also came under budget, more than compensating for the revenue shortfall. The preliminary outturn for 1990/91 illustrates the uncertainty associated with SACU revenues and the difficulties that this creates for fiscal management.

3.26 The budget for 1991/92 shows a sharp rise in the deficit, to 6.2 percent of GDP after budget support (7.7 percent before). The budget is to be financed by new loan disbursements equivalent to 4.5 percent of GDP, and a drawdown of cash balances (including the amortization fund) equivalent to 3.7 percent of GDP. Were the budget to be realized, it would be reflected in a serious drawdown of the Government's cash position that would hamper its ability to sustain even the projected medium-term expenditure level and it would raise Namibia's Central Government debt significantly. Total Central Government outstanding debt at end-1990/91 was estimated at 12.3 percent of GDP.

3.27 It should be noted that while the level of the deficit projected for 1991/92 is comparable to that of previous years, budget revenues and expenditures are overstated by identical amounts, because previous years include operating surpluses of some departmental enterprises on a net basis, while the 1991/92 budget treats them on a gross basis. There is insufficient data to make the conversion, but it is estimated to amount to some 2 to 3 percent of GDP. Even after making allowance for this difference in reporting, both revenues and expenditures are budgeted to rise sharply in 1991/92. On the revenue side, while taxes on income and profits are budgeted to contract sharply owing to the drop in mining taxation, this is more than offset by the budgeted increase in taxes on international trade, mainly from SACU receipts. Furthermore, non-tax revenues are projected to rise sharply, partly because of budgeted compensation from the RSA for the use of the rand, partly because of increased investment income, and partly because of sale of quotas and licenses for fishing activities. In total, revenue is projected to rise to 33.7 percent of GDP in 1991/92. Thus, the significant fiscal deficit arises because expenditures are budgeted at 41.4 percent of GDP, with a wage bill equivalent to 18 percent of GDP, and total current expenditure of 34.2 percent of GDP.

The Dual Challenge of Improving Equity and Efficiency

3.28 Namibia was in a relatively strong fiscal position at independence. For nearly five years the operations of the Central Authority had been progressively adjusted to declining budgetary support from the RSA and in the year before independence the budget was virtually balanced. At the same time, the public debt had been reduced to very low levels and two of the three major non-financial public enterprises which are run on commercial principles, had overall surpluses and little or no debt.

3.29 Namibia's public administration, however, confronts difficult problems and it has yet to attain a sustainable fiscal position. It has inherited a complex administrative apparatus and a narrow revenue base that is still vulnerable to changes in world market conditions. Expenditures are still extremely high, despite dramatic reductions in investment. Future SACU revenues, or customs and excise revenues, are uncertain. Finally, budget support from the RSA--down to about 2.5 percent of GDP in the year immediately before independence--is likely to be further reduced. Given the narrow tax base and the already high tax burden, there is limited room for increased taxation in the short term. However, expenditure pressure to meet both social and economic needs is strong. The challenge to the new Government is to maintain existing assets and rationalize the public administration to meet new priorities, without jeopardizing fiscal and macroeconomic stability.

3.30 The new Government has moved quickly to deal with these problems, but they cannot be resolved overnight. The inherited complex administrative structure has been dismantled, but the new administration is not yet fully in place. Because the Constitution protects the employment of "... all persons holding office... at the date of independence..." an oversized public sector will continue to be a financial burden. The narrow revenue base reflects the structure of production and the distribution of income--conditions that are unlikely to change in the short run. Namibia will also need to develop its own customs and excise tax administration, and its own statistics on external trade to be able to claim its due share of SACU receipts.

Prospects for Own Revenues

3.31 Given that recourse to financing should remain relatively limited, fiscal expenditure should be basically financed from Government resources.1/ In the medium term, revenue growth remains constrained by the already high tax rates, the narrow tax base and the slow growth prospects of some of the sectors which are major tax contributors. Furthermore, Namibia's revenue performance will depend crucially on its receipts from SACU, with whom Namibia (in the absence of trade statistics) did not reach agreement on its share for 1990, and has yet to reach agreement in 1991. The medium-term projections of SACU revenues are based on information obtained in late 1990.2/

1/ Including revenue from customs and excise duties, so-called SACU receipts, but excluding loans and grants.

2/ The budget for 1991/92 contains much larger SACU receipts than those projected on the basis of information available at end-1990. Medium-term projections are based on the old level of receipts because the reasons for the newer receipts is not available.

3.32 The following paragraphs present annual budgets for the next five years that are consistent with the overall economic growth of the economy, likely resource availabilities from the donor community, and with macroeconomic stability. The projected budgets, thus, give an idea of the resource envelope that the Namibian authorities are likely to have.3/

3.33 Central Government revenue is projected to continue to decline relative to GDP, after an initial sharp drop from 39 percent to 29.3 percent of GDP in 1990/91 explained by i) the impact of UNTAG and South African troop withdrawal, ii) low output and reduced world prices and iii) the relative decline in projected receipts from SACU. While these factors are estimated to account for a drop in revenue equivalent to 10 percent of GDP in 1990/91, the impact of the last two factors will continue to depress revenue throughout the period to 1995/96, where Central Government revenue is projected at 29.7 percent of GDP (Table 3.2).

3.34 These projections are particularly sensitive to the assumptions regarding the depreciation of the rand and the prospects of the mining sector. The contribution of the mining sector to revenue is estimated to have declined from 5.6 percent of GDP in 1989/90 to 3.2 percent in 1990/91, and is projected to decline to 2.2 percent of GDP in 1995/96, with a further decline of about 1 percent of GDP, if the assumed depreciation of the rand does not materialize.

3.35 Prospects for customs and excise tax revenue are even more important for overall revenue performance, and even less certain than those for mining sector revenue. The projections assume that Namibia should have received R500 million from SACU in 1990/91, and that SACU receipts will grow thereafter in line with projected import volume and prices. The amount received from SACU could well vary, and in fact there is no certainty that Namibia will remain in the customs union over the entire period. In that case, the proficiency of Namibia's new customs department, and the level of dutiable imports and excise and tax rates will determine the revenue actually collected.

3.36 Upper and lower bounds for Namibia's revenue from SACU can be estimated by calculating Namibia's minimum share in the pool based on i) the available very rough estimates of Namibia's imports, excisable goods, etc., with a two year lag and applying to this the minimum 17 percent rate that is payable to all SACU members except RSA; and ii) applying the 1988/89 interim formula for Namibia's share of the pool (agreed on between the interim authority of Namibia and RSA in the absence of trade statistics). The two calculations give significantly different results, and in any case neither of them may be applied in the final negotiations. The chosen estimate, which would represent an increase relative to 1989/90 of 5.6 percent, falls within these two boundaries for 1990/91. By the end of 1990/91, the Namibian authorities should have a better basis for negotiating their share of the pool, based on the actual trade statistics for 1990/91.

3/ The projections are based on the preliminary outturn for 1989/90. partial information on revenue performance through 1990, and the macroeconomic projections of Chapter XIII. Although the budget for 1991/92 has been approved and is included in this report, the information was not sufficient to use as basis for medium-term projections.

Table 3.2
Namibia: Medium-term Financial Projections
(As percent of GDP for Fiscal Years ending March 31)

	Prelim	Budget	Projected				
	1991	1991/92	1992	1993	1994	1995	1996
Revenues	29.3	33.7	32.0	31.5	31.2	30.5	29.7
Taxes	25.9	27.9	29.4	28.9	28.6	27.9	27.1
Other	3.3	5.9	2.6	2.6	2.6	2.6	2.6
Expenditures	34.5	41.4	35.5	34.7	33.6	32.4	31.0
Current	30.1	34.2	30.4	29.5	28.5	26.8	25.5
Capital	4.4	7.2	5.1	5.1	5.1	5.6	5.5
Deficit (=-)	-5.2	-7.7	-3.5	-3.1	-2.4	-1.9	-1.3
Budget Support	1.7	1.5	2.1	0.9	0.0	0.0	0.0
Financing	3.5	6.2	1.4	2.2	2.4	1.9	1.3

3.37 The projections assume that Namibia either chooses to stay within SACU or sets its customs and excises at rates high enough to maintain revenues from this source constant in nominal terms. The decision on whether or not to remain in SACU will clearly need to take into account the estimated fiscal revenue derived from continued membership, but will need to be based on a much broader evaluation of the costs and benefits of SACU membership to the development and trade potential of Namibia.

3.38 These projections are on the conservative side. Namibia's nominal tax rates are already high, and with the possible exception of the land tax discussed in Chapter V, it would not be advisable to raise them further. Tax administration, however, can be improved, existing exemptions tightened, and liberal write off provisions reduced. These changes would increase revenues and further the equity of the tax system. The narrow tax base is a reflection of the economic system, and therefore, the tax base will automatically widen with broader-based economic development. Revenues can also be increased through the implementation of the recommended system of user charges and cost recovery policies in the social sectors, and improvements in user charges for transport, as discussed in Chapters IX-XII, and for postal services, airports, and water affairs. The major public enterprises, which are run generally on business principles and are in sound financial condition, might be subjected to company taxes. Also, there is no economic reason for exempting them from paying dividends to their shareholder, the Government. Furthermore, the status of FNDC, which every year is a drain on the Central Government, needs to be examined with a view to reversing this position, or liquidating it. Finally, the projections do not take into account revenues from fishing licenses, and

the land tax, which could add some 2.5 to 3.5 percentage points of GDP to fiscal receipts. Under a more optimistic scenario, then, total revenues might amount to some 32-34 percent of GDP.

Donor Funding: Rand and Non-Rand Borrowing Policies

3.39 With independence Namibia lost RSA as an important source of budget support, but donor support is expected to replace it, at least partially. R106 million are estimated to have been disbursed in 1990/91--somewhat less than RSA budget support to Namibia in the last year before independence. The base case medium-term projections assume an increase in budget support disbursements for 1991/92, before tapering off in 1992/93 as Namibia's budget becomes sustainable and donor funding changes from budget support to project support. To finance the deficit, Namibia will need recourse to debt-financing in an amount equivalent to about 2-3 percent of GDP, as shown in Table 3.2). In addition, the Government will need to drawdown its cash balances (including its amortization fund and the funds inherited from the Second-Tier Administrations).

3.40 So far, Namibia has maintained that non-rand denominated loans on even highly concessionary terms may become onerous as a result of the depreciation of the Rand, over which Namibia has no control. The donor funding disbursed in 1990/91 was in the form of grants. The projections assume maintenance of this policy.

Expenditures

3.41 Meeting the challenge of poverty alleviation will inevitable require an increase in expenditures, but the major part of the real gains will come from the elimination of inefficiencies in spending and improvements in the quality of services, not from increased budget allocations. Total expenditures of the Central Authority ranged between 40 and 50 percent of GDP in the 1980s and are estimated to have been reduced to about 35 percent of GDP in 1990/91, despite an increase in the wage bill from 9.1 percent of GDP in 1989/90 to 15.4 percent in 1990/91. This increase is in large measure due to accounting methodology reflecting a re-organization of the Government. Only the expansion of the Central Government (for new ministries, embassies, etc.) entailed an increase in total expenditures. The remaining increase in the wage bill reflects a change in the structure of Government and was accompanied by a corresponding reduction of transfers from the Central Government to other Government entities. For the future, the projected expenditures shown in Table 3.2 decline as a percent of GDP owing mainly to a lower real wage bill. Until the Government achieves a sustainable fiscal position, it would be advisable to keep the wage bill constant in real terms and, if possible, to lower it. Table 3.3 shows an alternative projection with a wage bill constant in real terms. Although compared to historical levels, the projected wage bill in both cases seems low, this is due to savings made possible by the cessation of hostilities. A functional breakdown of Central Government expenditures for the five years before independence shows that about 40 percent was spent on protection and administrative services. The projections incorporate a significant reduction in the share of protective services.

3.42 The projections also incorporate an assessment of what is possible in the short run. An efficient redirection of resources requires good information, proper project preparation, and the ability to implement projects. The present administration did not inherit a ready-made portfolio of projects reflecting new Government's priorities, nor a data base that would enable it to make optimal, or in some cases, even good decisions, as discussed in Chapters IX and X. The data base as well as the project portfolio have to be created even though there are already efforts in this direction. At present, however, the scope for these improvements varies between sectors. For example, it is clear that past expenditures on health and education were disproportionate to the services received, but it will take time to reorganize the health system and train teachers to provide quality education. On the other hand, within a much shorter period it may be possible to (i) improve the housing situation; (ii) provide extension services to communal farmers; and (iii) construct feeder roads in the north. The disparities in information, planning, and implementation capacity among the various sectors suggests that one of the most urgent tasks is to improve the data base, properly prepare projects, and enhance implementation ability; strengthening of these functions should be concentrated in the first instance in the high priority sectors of health, education.

3.43 There is also some scope for savings and for efficiency gains. The constitutional decision to abolish the second-tier governments offers hope for a radical streamlining of expenditures in the medium term, even if the constitutional provision that all government employees be retained limits the scope for immediate streamlining. More efficient use of resources is possible in many areas. For example, using different building materials and standards for low cost housing, as suggested in Chapter XI, would permit lowering construction costs by 30 to 40 percent. Lowering road maintenance standards, as suggested in Chapter XII, would also bring some savings. Finally, subjecting expenditures to strict economic analysis, as suggested be done in road construction, for example, and undertaking only those that can be justified on economic and social grounds, would improve resource use.

3.44 Savings and efficiency gains are always difficult to take into account explicitly in any projections. In the case of Namibia, where a major re-direction of resources is also to take place and the data base permits only a superficial analysis, it is even more difficult. Nevertheless, some rough estimates of global availabilities and general direction are possible. With resources available from taxes and other income plus expected budget support, the authorities would be able to finance expenditures amounting to 36 percent of GDP in 1991/92, and about 31 percent in 1995/96, as Table 3.2 shows. Such an expenditure level would allow an increase in the purchase of goods and services and in capital expenditures of 25 percent (real terms) in fiscal 1991/92 and 5 percent per year thereafter until 1995/96, *provided that the wage bill declines about five percent per year in real terms.* The latter is a crucial pre-condition and a difficult one to meet, because the Government has few degrees of freedom in this regard. Under this scenario, the Government would be able to finance 30 percent to its capital expenditures from current savings in 1991/92 and about 76 percent by 1995/96. It would have to rely on grants and concessional financing for its long gestation projects, and on domestic financing for the rest. Looking further ahead, Namibia would need to strengthen its fiscal position, as the authorities cannot continue to rely on external concessional project financing for the medium term. Table 3.2 is based on conservative assumptions about revenues and on a 5 percent real annual decline in the wage bill.

3.45 Were the wage bill to remain constant in real terms, the authorities could still provide the same level of goods and services and levels of investment if revenues from the sale of fishing licenses attain their potential level and if the donor community increases its annual support over the next five years by an amount equivalent to R640 million (US$255 million at 1989 prices), as the projections shown in Table 3.3 suggest. Borrowing additional amounts on commercial terms at a time when the public administration is still undergoing re-organization and the data on which to base solid decisions is still wanting, might not be as efficient a use of resources as borrowing in three to four years. Since borrowing now would reduce the scope for borrowing later, the authorities need to use this instrument with care and only for projects where the social and economic returns, as well as the preparation and implementation capacity, are satisfactory.

Fiscal Policy Recommendations

3.46 Expenditure rationalization and streamlining of the public administration must be at the center of the efforts to bring Namibia's public finances to a sustainable position. In particular, the constitutionally mandated reorganization of the public administration should contribute significantly to restraining expenditures relative to GDP. Restraining expenditures would require a reduction in the wage bill, a rationalization of expenditure in the social sectors, and a redirection to the social and economic priority sectors. The base projections incorporate a reduction in the wage bill to 11 percent of GDP by 1996. This projection already makes allowance for the new functions undertaken by independent Namibia and is still about twice the average for developing countries. Government options to attain this goal are lowering employment or real wages. The first option has serious limitations because of the constitutionally-enshrined job guarantee for public employees; attrition and early retirement might be the only feasible alternatives. The second option would probably not be in Namibia's best interest, as the more capable employees are likely to seek employment in the private sector, if public sector wages are not competitive. Efforts to streamline the public sector through attrition and early retirement need to be made as early as possible so as not to perpetuate the inefficiencies inherited from the previous administration. Meanwhile, and in the interest of a rapid establishment of a more efficient civil service, it would be highly desirable to make intensive use of the experienced civil servants who have remained after independence, to advise, work with, and train more inexperienced staff.

3.47 As for the division between capital and current expenditures, Namibia already has a fairly large capital stock. By comparison, Namibia has under-invested in human capital, which at this time is more important for the country's future development. It would be advisable, therefore, that fiscal policy be modified to take into account the need to allocate funds for current expenditure in priority sectors, such as health and education. This is not to say that investment in physical assets should be neglected, but Namibia needs to exercise caution in its choice of investment projects and take into account (i) available financial resources and implementation capacity; (ii) the opportunity cost of capital; and (iii) the recurrent costs inevitable generated by investment programs. Accordingly, the investment program needs to be maintained within limits that ensure that future recurrent costs do not become excessive and threaten the envisaged fiscal balance.

Table 3.3
Namibia: Central Government Financial Projections, Alternative Scenario
(As percent of GDP)

Item	1991/92	1992/93	1993/94	1994/95	1995/96
Total Revenues	35.2	34.3	34.0	33.2	32.5
of which: fishing licenses	3.2	2.8	2.8	2.7	2.8
Current Expenditures	32.0	31.2	30.7	29.5	28.5
of which: wages	16.3	15.8	15.3	14.7	14.0
Current Savings	3.2	3.1	3.3	3.7	4.0
Capital Expenditures	5.1	5.1	5.1	5.6	5.5
Budget Support Required	1.9	2.0	1.8	1.9	1.5

3.48 Were Namibia to introduce its own currency, fiscal and financial discipline would be crucial prerequisites for price stability and a strong currency. A public sector deficit financed with central bank credit may have deleterious effects on price stability, growth, and probably income distribution, as inflation is likely to affect lower income groups harder than the rest. A public sector deficit, financed with commercial bank credit, may crowd out the private sector and slow economic growth. Experience in Africa and Latin America shows that fiscal and monetary prudence is Namibia's best option for stable prices, sustained economic growth, and a strong currency.

3.49 Namibia begins its independent life lightly indebted. The challenge to the authorities will be to maintain the country's macroeconomic stability and creditworthiness while laying the basis for using resources more efficiently in the future. The world is replete with countries that have borrowed only to invest poorly or to sustain short-lived bonanzas. They are now undergoing painful adjustments. Namibia does not need to repeat these mistakes. At this time in Namibia's life it would risky to seek commercial financing because a large proportion of the country's expenditures are for social projects and programs with long gestation periods and far-into-the future pay-offs. Moreover, in at least two of the most important social sectors the data for informed decisions is wanting. The prudent course would be to seek grants and loans with a strong grant element to lay the basis for effective programs that can be implemented in two or three years and to concentrate in the more populous and poorest regions of the country in the areas of agriculture, health, education, sanitation, and housing. Such a focus would utilize the Government's limited implementation capacity in high priority areas and prepare the ground for more active programs in the near future. As Namibia's new administration consolidates its position and the data required to make better decisions becomes available, the authorities might consider financing public sector projects with non-concessional external loans.

IV. MINING

Structure and Composition of the Sector

4.1 Mining is by far the most important productive sector of the Namibian economy. On average, over the past 10 years it has accounted for:

- 31 percent of the Gross Domestic Product;
- 18 percent of the Gross Domestic Fixed Investment;
- 18 percent of the Cash Remuneration paid to Employees;
- 76 percent of the Export Earnings; and
- 38 percent of the Tax Revenues (last eight years).

Although mining employs only about 5 percent of the labor force, it accounts for nearly 13 percent of wage remuneration, suggesting that it is a complex capital-intensive sector requiring highly skilled labor.

4.2 Diamonds, uranium, and metals (copper, lead and zinc) contribute more than 95 percent of the value of mineral production while industrial minerals such as marmor, lithium, fluorspar and semi-precious stones make up the rest.

Large scale operations

4.3 Eight foreign-owned operations account for 98 percent of the sector's production value. Two of the 40 mines currently operating in Namibia employ more than 2,000 people and generate a gross annual revenue of more than R500 million each. Another six mines employ more than 200 employees and generate a gross annual revenue above R10 million. With the exception of Rössing Uranium in which the Government holds a small share, these operations are owned by major foreign mining companies.

4.4 Two of the Namibian mining companies are significant by world standards, Consolidated Diamond Mines (CDM) and Rössing Uranium account for 75 percent of the production value of the mining sector. CDM ranks sixth in production volume of near-gem and gem diamonds worldwide. Rössing ranks fifth in western world uranium production, with a share of 9.5 percent of world output. Gold Fields of Namibia, a majority owned subsidiary of Golds Fields of South Africa is the country's main base metals producer operating four mines and the Tsumeb smelter complex, while Iscor (the iron and steel corporation of South Africa) operates the Rosh Pinah lead/zinc mine. The sixth larger operation is the Navachab Gold Mine which was brought into production in December 1989.

Medium and small-scale operations

4.5 The mid-sized category includes three operations with a labor force of more than 100 employees. The small-scale category comprises some 30 mines, each employing a work force of between five and 75 people. With the exception of one copper mine, one gold-silver mine and two mines, small-scale operations extract non-metallic minerals. Four of these operations produce diamonds, the others mine a variety of industrial minerals and semi-precious stones.

4.6 Informal artisanal mining has been active in Namibia for many years. It encompasses local individuals extracting comparatively high-value minerals from surface or near surface mineralizations. An estimated 750 individuals are engaged in tin ore extraction, for instance. Ore is recovered from shallow pits by a unique method of dry hand panning developed because of the shortage of water. In addition, several hundred individuals mine semi-precious stones throughout Namibia.

Recent Performance

4.7 Real value added in the mining and quarrying sector declined during most of the 1980s, falling about 27 percent in that period. Mining's relative contribution to GDP also decreased, from 43.6 percent in 1980 to 31.7 percent in 1989, principally as a result of two factors: the depletion of high-grade diamond deposits - which affected the production of diamonds - and the imposition of economic sanctions against the RSA - which affected the demand for uranium. As a result of diamond depletion, the average carat content of ore fell from 9 to 5 carats per 100 tons. Consequently, overall carat production fell by 50 percent, from 1.6 million in 1980 to 0.8 million in 1990. Meanwhile, uranium production had to be cut back by 20 percent as a result of sanctions and their effect on demand.

4.8 The mining sector also experienced a sharp decline in its contribution to Gross Domestic Fixed Investment. At 1980 prices, investment dropped from R112.4 million in 1980 to R70.6 million in 1989 - during 1982-1986, investment in the sector was only R15 to R40 million a year. The drop in investment activity resulted principally from depressed mineral prices and economic uncertainty. The 1988-1989 turnaround was caused by an improvement in the prices for minerals/metals. However, new investment went primarily to sustain existing capacity and only to a lesser extent for expansion.

4.9 Employment in the mining sector declined from about 19.8 thousand in 1980 to 12.8 thousand in 1989, equivalent to 5 percent of the total labor force. Mining's share of the total cash remuneration to employees (at current prices) declined from 17.8 percent to 12.8 percent over the 1980-1989 period. This decline in employment and share was gradual, with a small improvement in remuneration during 1987-1989 from a 10.5 percent to a 12.8 percent share in total remuneration. Improved efficiency, through the use of advanced technology, is the principal reason for the decline in employment, subsequently resulting in higher labor productivity.

4.10 During the same period, mining's share of total exports fluctuated between 69.4 percent (1981) and 82.5 percent (1986). In current terms, mining exports increased from R908 million in 1980 to R2,026 million in 1989. Almost all mining products are exported to Western Europe, North America, Japan, and South Africa. Namibia is regarded as a reliable supplier of diamonds, uranium, and base metals in the world minerals' markets.

4.11 The mining sector's contribution to tax revenue fluctuated between a 26 percent share and 47 percent share of Namibia's total tax income during the 1983-1989 period. These figures represent the Corporate Tax as direct tax and the Diamond Export Duty as an indirect tax. Additional tax revenues derive from the mining sector through a general sales tax, a non-resident shareholders' tax, and fuel levies. Hence, over the last eight years, the mining industry generated 36 to 57 percent of total tax revenue annually. Because tax revenue is based not only on the operating income generated by the mining companies but also on their capital investment programs--since capital expenditures can be deducted against the operating income--it is difficult to assess the figures for a trend.

4.12 In addition to its economic contribution, mining gives a major impetus to the regional and infrastructural development of Namibia. It is estimated that the mining sector uses 35 percent of Namibia's railway services and requires approximately 50 percent of Namibia's total power capacity.

Growth Potential

4.13 Mining has been the Namibian economy's mainstay since the turn of the century. However, the sector's output has been stagnant for at least 10 years, and at present its growth potential is modest at best. Despite good geological potential, there has been a lack of exploration and mine development because of general uncertainty about the business environment. Before independence, investors stood on the sidelines awaiting the resolution of internal conflicts, since independence, they have been awaiting the new Government's articulation of economic and investment policies.

4.14 Looking to the future, the lack of exploration will result in a continuation of the stagnation over the next 3 to 5 years. Whereas CDM is confident that diamond production will reach once again a level of 1 million carats per year because two new mines will come on stream, the outlook for uranium is less encouraging. Although sanctions no longer hinder Rössing sales, Eastern Bloc sales of surplus material has depressed prices. Under these circumstances Rössing does not see an opportunity to secure additional contracts at acceptable prices and further production cutbacks might be necessary. With respect to base-metal production the future is uncertain, as production is not only dependent on exploration and development efforts to replace depleted deposits but also on the economics of the operations, which presently are marginal.

4.15 This is not to say that the long-term outlook is also bleak. Compared to other countries with a long mining tradition, Namibia is relatively unexplored. The country's geological structure, its vast land area suggest that there is still considerable potential for the discovery of important new

mineral deposits, although perhaps not on the scale of the unique, world-class uranium and diamond deposits.

4.16 Also, Namibia is in an excellent position to take advantage of its potential. First, in addition to good sectoral policies, the country has a well established mining industry and an experienced and organized mining sector administration. Second, all of the large- and medium-scale mines and many of the small-scale operations use state-of-the-art technology and equipment. Third, due to their affiliation with major foreign mining companies, the larger Namibian companies, in particular, have first-class management and an intimate knowledge of global mineral markets - an essential ingredient of successful commodity marketing in a competitive world. Finally, the principal mining centers are served by an adequate transport infrastructure and a high-voltage power supply system. Electric power supplied via a 7,900 km high-tension grid is among the least expensive in the world. The railroad network comprises almost 2,400 km of lines along a central north-south axis, linking the mining town of Tsumeb with both the Walvis Bay port and South Africa. Moreover, good road links serve all the existing mining districts.

4.17 However, in order for the country to realize its mineral potential and attract private investment funds, especially the high risk exploration funds, the authorities need to strengthen the business environment by providing a legal framework competitive with other mineral producing countries. There is some urgency in this endeavor, because the long lead times between mineral exploration and production suggest that even if higher investment rates were to take place now, the pay-off would not come before the middle of the decade.

Suggestions for Strengthening the Business Environment

4.18 Namibia already has a business environment that is conducive to private sector activity. Also, some world-class players are already present in Namibia and have been for some time. Nevertheless, because Namibia is a new country without a "track record" and some of its neighbors have at times adopted policies inimical to private sector activity, a strong policy statement would reassure the international business community of Namibia's intention and economic orientation. Already a lot has been done in this direction. The Constitution has clear statements, in February 1991 the Government organized a private sector conference, and in the mining sector the legislation is in the process of revision. The authorities recognize that the development of the sector demands careful and special treatment.

4.19 The authorities are quite aware that mining sector development requires, first and foremost, a stable economic environment to attract high-risk capital required. Second, that the Government guarantee the security of this investment to all miners alike--independent individuals and small, medium and large mining companies. And third, that the Government prepare a mining policy and strategy, which defines the role of Government and private industry in the sector and presents clear "rules of the game" with respect to the applicable legal and tax framework. At present, the Government has promulgated a new foreign investment act, which addresses the security issues and is reviewing the mining code and tax regime.

Mining legislation

4.20 The existing mining code and other legislation affecting mining, forms basically an appropriate legal framework to support mining and is adequate to ensure the health and safety of mine workers and the protection of the environment. However, to encourage high density prospecting and to eliminate delays in resource utilization, provisions should be introduced to eliminate the blocking of land for speculative purposes. To this end, both mining claims and mining areas should be limited in time. For mining claims renewable terms of 2 years appear to be appropriate, while terms of mining areas should be determined based on mining schedules to be submitted. Another change in this context is the limitation of the number of mining claims per prospecting license. In addition, mining claims should be tradeable, transferable to other parties subject to review only by the mining commissioner. Moreover, minimum work obligations combined with periodic reporting requirements should also be introduced for mining claims and mining areas. In legislation and practice, prospecting and mining grants should in each case be controlled in size and restricted to specific minerals. Furthermore, access to land by potential investors should be maximized by minimizing Government restrictions of land use and by enforcement of work obligations in licensed areas. Informal, artisanal mining should be legalized. Licensing assistance could be offered by temporary field offices of the mining commissioner with reporting requirements kept to a minimum.

Mining taxation

4.21 Tax regimes are a critical and highly sensitive aspect of the investment environment. Although a detailed examination of the tax regime is beyond the scope of this report - and producers consider Namibia's tax regime reasonable - the authorities should compare the competitiveness of the tax regime with regimes in other mineral exporting countries. The upcoming review of the tax code also should include an assessment of incentives to attract high-risk exploration funds from both local and foreign investors.

Government Services

4.22 The authorities can stimulate the growth of the mining sector by providing appropriate services to the industry through the technical departments of the Ministry of Mines and Energy and other specialized institutions. Government services that would enhance the sector's performance include:

- provision of infrastructure;
- a geological and topographical data base;
- an inventory of dormant and abandoned mines, together with an assessment of remaining mining potential; and
- manpower development programs.

4.23 Energy and transport infrastructure, while excellent in urban centers and mining districts, is lacking in remote rural areas. Road density is particularly low in the northern and northeastern regions - Damaraland, Kaokoland, Ovambo, and Kavango. Low road density adversely affects

exploration and mine development, and construction of such infrastructure would accelerate the development of the mining sector. Of course, all such investments must have the potential for adequate rates of return before being undertaken.

4.24 Comprehensive information on the mineral potential of the country is a key factor in attracting prospective mining firms. The Geological Survey's role is to generate, compile, interpret and disseminate relevant geological and resource-related information on Namibia. Its mandate should provide for the installation of a documentation center, including an up-to-date geological and topographical data base and a mineral inventory. Publication and distribution of geological maps of the country should be part of this information process.

4.25 The Directorate of Mining should continue to maintain unbureaucratic procedures for issuing permits while enforcing regulations related to work obligations and reporting requirements of all permits. This would ensure better access to mining rights for potential investors. The Directorate of Mining should develop appropriate environmental standards, including a set of regulations for their enforcement, and coordinate implementation with various public sector institutions. Any general statistical data base on mining industry activities should include an inventory of dormant and abandoned mines, and the properties listed have to be assessed with respect to environmental liabilities and their remaining mining potential.

4.26 Government support is required for manpower development to alleviate the present lack of skilled and professional personnel in the mining sector. Despite a long mining tradition, skilled manpower is limited. In the informal segment, lack of training is one of the main reasons for inadequate productivity and unsuccessful product marketing, notably of semi-precious stones. In the formal sector of the mining industry, expatriate personnel hold a large share of the professional and technical management positions. In view of the shortage of trained manpower, the leading mining companies, notably CDM and Rössing, have established training schemes, primarily for their own needs. For example, more than 10,000 Namibians have completed special courses at Rössing, and CDM allocates 3 percent of its annual budget to training and education.

4.27 The establishment of a School of Mining technology at Arandis, a private initiative by Rössing with Government support, is a valuable contribution. The Government might consider providing scholarships at institutions in neighboring countries.

4.28 Government services that would enhance not only the sector's growth performance but also its contribution to employment and poverty alleviation include (albeit in a limited way):

- technical assistance to small-scale entrepreneurs;
- formation of producer organizations in areas of high density artisanal mining;
- geological support to improve skills of small-scale miners in identifying target areas;
- provision of equipment in the form of plant-hire schemes on a cost-recovery basis; and
- training in marketing of semi-precious stones.

4.29 Although technical assistance to small-scale mining in general is difficult and often ineffective, in the case of Namibia this type of technical assistance is justified in view of the lack of

job opportunities in other mining segments. A technical assistance program should include on-site geological support to improve the skills of miners at identifying promising target areas. Where geological indications are favorable, the introduction of basic equipment should be encouraged to enhance labor-productivity. This has to be complemented with an on-the-job training program in the use and maintenance of the equipment. The equipment should be used by members of the producers association on a co-operative basis or individually according to a rotating schedule. Provision of equipment should preferably be according to a plant-hire scheme, on a cost-recovery basis, and administered by a Small Mining Services Unit established in the Ministry of Mines and Energy.

4.30 One of the major constraints on small entrepreneurs is their limited access to commercial bank loans. Technical assistance to assess workable reserves as a basis for the preparation of a report acceptable to banks would improve the position of entrepreneurs in obtaining project financing or attracting equity capital.

4.31 Artisanal miners extracting semi-precious stones require additional assistance in product marketing. This should be primarily basic training in the valuation of gemstones, as well as in providing independent price recommendations. With this assistance, miners will be able to market their products through established gemstone traders at a fair price.

4.32 The Government needs to strengthen the institutions that provide these services. The Geological Survey and the Directorate of Mines, in particular, will require additional staff and budget to implement and enforce Government policies.

V. AGRICULTURE

Introduction

5.1 Agriculture is by far the most important employer in Namibia, supporting directly or indirectly some 70 percent of Namibia's population. Communal agriculture provides employment to about 300,000 people, more than half of the economically active population. After mining, the sector is the most important exporter. Agricultural performance, therefore, affects the lives of most Namibians not only directly but also indirectly through its contribution to the country's foreign exchange earning--a feature that will acquire more importance when Namibia introduces its own currency.

5.2 The dominant agricultural activity is extensive stock farming (Table 5.1). Beef is the major product and up to 90 percent of the total annual beef output of 77,000 tons is exported. Until recently, karakul pelts were Namibia's second most important agricultural product. Between 80 and 85 percent of gross agricultural output is exported. The bulk of livestock exports (99 percent in 1989) are to the RSA.

Table 5.1
Namibia: Composition of Agricultural Production, 1987[1/]

Products	Gross Agricultural Output (Rand Million)	Percent
Wheat	2.0	0.3
Maize	2.5	0.5
Other Crops[2/]	1.2	0.3
Vegetable	3.4	0.7
Crop Total	9.1	2.0
Cattle	299.0	65.1
Small Stock	59.7	13.0
Pelts	42.6	9.3
Game	21.7	4.7
Other Livestock	27.2	5.9
Grand Total	459.3	100.0

Sources: Department of Agriculture and Conservation, Windhoek 1987.
[1/] Data do not include production from communal areas.
[2/] Millet not included.

5.3 The larger proportion of usable land (73 percent or 32.3 million ha) is farmed as 6,337 large-scale commercial holdings by 4,500 owners (Statistical Appendix Table VII.01.d). The average farm size is more than 7,000 ha. In the northern districts, where water is more available, cattle farming predominates. In the southern districts, only small stock, sheep (especially karakul) and goats can be raised. A few large commercial farms in better endowed areas engage in crop production; maize, wheat, and sunflower.

Table 5.2
Namibia: Population and Agricultural Activities in Communal Areas, 1989

Regions	Population (000)	Agricultural Area (ha. millions)	Activity	No. of Livestock LSU (000)	SSU (000)[1/]
Kaokoland	20.5 (20.5)[2/]	4.9	stock farming	na	na
Ovambo	659.7 (648.6)	5.6	millet & stock	362.6	362.0
Kavango	142.5 (136.2)	4.2	maize, millet & stock	79.9	27.6
Caprivi	55.7 (55.7)	1.2	maize, millet, sorghum &	na	na
Damaraland	37.2 (30.2)	4.8	limited irrigation extensive small stock	na	na
Bushmanland	3.3 (3.3)	2.4	limited agriculture	na	na
Hereroland	32.5 (32.5)	5.9	stock	326.4	392.8
Rehoboth	37.9 (19.1)	1.2	stock & limited croping	na	na
Namaland	34.0 (13.9)	2.2	extensive small stock	7.9	220.7

[1/] LSU = large stock unit; SSU = small stock unit
[2/] Number in brackets are rural population. The population of Namaland is that for Keetmanshoop
Sources: Population: Namibia: *Development Information Report*, Table 2.2;
Adam *et al* 1990: *The Land Issue in Namibia*: An inquiry; Mission estimates

5.4 In contrast, communal area farms, which support a total population of about 900,000 people, occupy only 12.1 million ha or 27 percent of the usable land. In the communal areas of Kaokoland, Bushmanland, Damaraland, Hereroland, Rehoboth, Aminuis and Namaland there are between 20,000 and 30,000 small and medium scale ranches. Between 120,000 and 150,000 smallholders farm 7 percent of the country's utilizable land in the northern farming areas of Ovambo, Kavango and Caprivi. Their major agricultural activities are subsistence cropping (dryland farming with very little irrigation) combined with cattle, sheep and goat production (Table 5.2).

5.5 Namibian producers supply all of the nation's meat consumption and about 60 percent of the country's cereal consumption. Pearl millet is the major staple produced and consumed locally in the communal areas of Ovambo and Kavango and maize and sorghum in Caprivi. Total domestic demand for cereals is estimated to be about 143,000 and production about 90,000 tons per annum.

5.6 Cereal import requirements vary from year to year depending on both domestic demand and supply: supply because of arable agriculture's dependence on rainfall and demand because communal area families increase their market demand for food in years when their own production is low. However, the proximity of a large, cheap and responsive food markets in South Africa, together with a well integrated domestic cereals market,1/ have meant that food prices, even in remote rural markets, appear to have been quite stable despite fluctuations in domestic supply and demand between years. Namibia has had neither the need nor the experience of food security stocks, *ante quo* import requirement calculations or the like. This rapid and efficient equilibration between demand and supply does not mean that nutrition requirements are being met. Malnutrition is a common feature of rural Namibian families, much of it caused by poverty which will not be ameliorated by an increase in food output *per se*.

Resource Base

Water

5.7 The agricultural resource base in Namibia is relatively poor. As expected in a country that is flanked by two major deserts, water is a very scarce resource. Average annual rainfall decreases steadily from over 600 mm in the north-east to less than 100 mm in the west and the south-west. There are no inland perennial water systems. Namibia's northern border, however, is marked by the Cunene, Kavango, Okavango and Zambezi rivers. Surface water is relatively more abundant in the northern regions during the summer season of November to March, but a shortage of water storage facilities makes farming activities extremely difficult during the dry season. The southern parts of the country are mainly drained by the Fish River which only flows during the rainy season. It empties into the Orange River which marks Namibia's border with South Africa and flows all the year round but a boundary agreement with South Africa makes it inaccessible for Namibian agriculture.

1/ Cereal-based staple and other foods are distributed through an efficient, integrated, widely spread network of retail outlets. Many, even in the heart of the countryside, are supermarkets owned by large corporations based in South Africa.

5.8 Some form of irrigation is used on approximately 6,500 ha of arable land of which 5,600 ha are in four commercial areas: at Noordoewer on the banks of the Oranje River, on the Hardap irrigation scheme north of Mariental, in Stampriet east of Mariental and in the "maize triangle" near Tsumeb.2/ Irrigation plays an insignificant role in the communal areas: only 100 ha is irrigated from small dams in the northern communal areas. In the Ovambo region the intensification of crop farming through irrigation is limited in many places by saline encroachment and in others by a salt layer that may draw to the surface after a few years of water application.3/ It is estimated that irrigation potential is limited to 32,000 ha (18,000 ha in the communal areas, 14,000 in the commercial sector).4/

5.9 Ground water resources have been diminishing during the past decades so that the withdrawal of water from wells and boreholes has had to be carried out at increasingly lower depths. The lowering of the water table has become an increasing restriction on ground water exploitation.

Box 5.1: Management of Water Resources

Namibia is one of the arid regions of the World. Mean annual rainfall is only 250 mm and there is a high evaporation of between 2,600 mm in north and 3,700 mm in the central south.

Rainfall varies from 50 mm in the western to as high as 700 mm in the north-eastern Caprivi--occurring mainly during the summer months. There are an average of 10 hours of sunshine per day and the average daily temperature is 25 degrees C--varying between -10 degrees C and + 40 degrees C in some areas. All these climatic extremes contribute to a unique hydrological cycle in Namibia. It is estimated that on average 83 percent of the total rainfall evaporates shortly after precipitation, 17 percent is available as surface runoff, of which 1 percent recharges groundwater sources, and 14 percent is lost through evapotranspiration. Only 2 percent remains to be harnessed in surface storage facilities. The flow of rivers in the interior of the country is irregular and unreliable, limiting the potential of surface water sources.

2/ Axel J. Halbach 1990: *Basic study Namibia: Volume 14, Structure, problems and Potential of Economic Developmeru*. Summary report p89. Bonn, Germany.

3/ Alex J. Halbach 1990, p99.

4/ Alex J. Halbach 1990, p11.

Land

5.10 Good agricultural land is also rare. Namibia, although vast and relatively unpopulated, is flanked by two major deserts and only about half of the territory (444,000 km^2) can be used as farmland. There is little prime agricultural land. Moreover, low rainfall and high evaporation limit dryland arable farming to a much smaller, but better-watered area in the north. Land of good quality is a major growth constraint to agriculture, therefore, at least with present technological knowledge.

5.11 In terms of stock, the carrying capacity of the range declines steadily from the north-east, where 7-10 hectares are needed per head of large stock (cattle and range game), to the south-west where as many as 30 hectares are needed to sustain a single head of large stock.5/ It is estimated that as few as two hectares, but as many as 10, are needed to sustain one person on a long-term basis in the north, where presumably the land is the best. The present ratio of 2.9 hectares per person in Ovambo, Kavango, and Caprivi is at the extreme limit of the long-run sustainable range. And the land is by no means uniformly good. Coupled with a scarcity of water, the limited amount of land with reasonable production potential constitutes the major constraint on agricultural development. Vegetation and soils throughout the land are extremely fragile and vulnerable to excessive utilization.

Recent Performance

5.12 Agricultural output declined in the past decade by one percent per year. Until recently, official statistics excluded subsistence farm production, which add about two to three percent to GDP, but which would not change the overall result. One bright note is the growth of commercial cereal output, which grew at an average annual rate of 24 percent during the past five years.6/

5.13 Output variations were particularly marked during the 1980's when drought brought output down by 43 percent between 1982 and 1984. Although the value of agricultural output in real terms had reached the pre-depression level of R156 million by 1989, output had not fully recovered in physical terms. The additional value expansion came from increased value-added through the extension of local processing.

5/ The Soum is only suitable for sheep an goats, but a standard unit is used here to make comparisons easier.

6/ Growth estimates were obtained by fitting a log-linear regression model to the data.

Table 5.3
Namibia: Recent Trends in Agriculture
(Includes fisheries unless stated otherwise)

	1980	1985	1989	Annual Rate of Growth[1/] (%)
	(Million 1980 Rands)			
Contribution to GDP				
Value of agricultural output	166.3	116.7	156.9	-1.0
Agriculture's share of GDP (Percentages)	11.5	8.4	10.8	-1.2
Annual change in value (Percentages)	24.5	8.8	3.9	-1.2
Fixed capital stock	631.0	624.0	607.0	
Gross domestic fixed investment	22.2	16.3	16.6	
Share of total GDFI (Percentages)	5.1	8.3	7.2	
Physical output	(Thousand Units)			
Cattle sales	423.2	268.9	327.0	-4.0
Karakul pelt sales	3,006.8	825.2	654.7	-14.7
Small stock sales	369.5	538.8	778.7	7.9
Maize output (tonnes)		18,289.0	26,500.0	23.6
Agriculture exports	(Thousand Rands)			
Cattle	72.3	64.7	154.9	8.5
Small stock	9.1	30.5	95.4	24.4
Karakul pelts	42.8	19.7	25.0	3.5
Other	7.4	12.6	18.4	10.2
Total agricultural exports (x)	131.6	127.5	293.7	10.1
Share of total exports (Percentages)	11.6	8.0	11.0	
External terms of trade (y)	100.0	93.5	93.4	0.1
Barter value (x*y/100)	131.6	119.2	274.3	10.2

[1/] Annual growth rates estimated by log-liner regression
Source: Statistical/Economic Review, Namibia 1989

5.14 While drought may explain interannual output variations, the explanation for secular declines in the sector's performance must be sought elsewhere. The commercial ranching sector may be facing limits to growth, imposed by land and water scarcities. More recently, some large scale white farmers may have perceived their future to be uncertain to the extent that both investment and output suffered. The decline in karakul pelt production which fell by 80 percent in the decade, can almost certainly be explained by a collapse in international prices. So far, there has been little or no growth in communal agriculture to offset the declines in commercial sector output; the extreme inequalities in the distribution of resources, markets and services have marginalized the vast majority of communal farmers and suppressed any contribution they may have made.

The Policy Environment for Commercial Farmers

Pricing Policies

5.15 Pricing policies in Namibia need to be understood within the context of their institutional framework. Pricing of agricultural products involves market interventions of varying degrees and kinds, depending on the product, by the numerous marketing boards. Marketing of meat, the sector's most important product, is done by the *Meat Board of Namibia* (formerly the SWA Meat Board); marketing of cereals and other strategic crops is done by the *Agronomic Boara of Namibia* (formerly the SWA Agronomic Board); and marketing of Karakul pelts by the *Karakul Board of Namibia*.

5.16 Unlike other African countries, where the marketing boards are state-run, the Namibian boards are mixed entities reflecting the close-knit alliance that, until recently, existed between the Government and commercial farmers. Less than 5,000 farmers were able to create their own institutions in a cooperative way to reduce their market risks. Where specialized knowledge was required, such as in karakul pelt marketing, an institution was established to provide that expertise. These institutions were financed either by members' subscription (e.g., Namibian Agricultural Union) or, as in the case of marketing boards, by levies on produce, or by revenues from the sale of services or goods (e.g., the cooperatives traders). They also received ready political and financial support from both the central Government and the Second Tier Administration for Whites. Although continued financial support has generally not been provided, many were given grants or soft loans as start-up capital by the Government. The Boards remain dominated by white producer interests. The only farmers' association which exists for black farmers is in Caprivi.

5.17 *Livestock Pricing.* From Namibia's point of view, meat prices are market-determined. As mentioned in para. 5.2, the major part of Namibia's livestock output is exported to South Africa where Namibia enjoys a guaranteed market for a proportion of its exports of live animals. Quotas are negotiated each year. In addition, South Africans buy at Namibian auctions and the Namibian Meat Corporation has regularly exported to South Africa in excess of Namibia's quota. The South African Meat Board, however, defends floor prices in South African auctions and Namibian producers benefit as a result.

5.18 *Pricing of Agricultural Products.* The *Agronomic Board of Namibia* regulates two of the major staples, wheat and maize, using import prices as a reference and adjusting them for transport

costs up to the border, i.e., using import-parity pricing. The Board enforces prices through a monopoly in the purchase of both staples and in the issuing of import permits.

5.19 In other countries, market interventions by marketing boards have led to prices that work against producers in the sense that they are lower than under free market conditions. In Namibia, that does not seem to be the case. The degree of nominal protection afforded producers in the country as a whole can be measured by the nominal protection coefficient (NPC), i.e., the ratio of the domestic price to the price of similar imports adjusted for transport costs (the import parity price). Since independence, Namibia has had a choice of import sources. The three major potential suppliers are Zimbabwe, the RSA and the Rest of the World (RoW). Table 5.4 compares domestic nominal prices with estimates of import parity prices with respect to Zimbabwe and the RoW. The corresponding NPCs have also been calculated.7/ The NPCs against the RoW range from 0.956 in 1980 to 1.355 in 1987, as Table 5.4 shows. The NPCs against Zimbabwe are calculated under two different assumptions. The first series assumes perfect competition while the second series assumes an export subsidy by the Zimbabwean government to the extent that transportation and handling costs from the local market to the Namibian border are entirely covered, that is, the border prices are assumed to be exactly the same as those paid to the Zimbabwean producers.8/ The first series of NPCs ranges from 0.938 in 1980 to 1.175 in 1987 9/ and the second from 1.133 to 1.523. The first series of NPCs indicates that Zimbabwean producers received only slightly more than their Namibian counterparts after 1987.

5.20 These calculations suggest that far from being "unprotected," Namibian producers have enjoyed a modest degree of protection. Internal transportation and handling costs from the border to the local markets can easily push up the domestic price of imported cereals by another 20-50 percent of the border price, depending on the location of the local markets. This means that the NPCs can be as high as 1.20-1.50 without entailing protection. The present NPCs of 1.090 (as against ROW) and 1.060-1.378 (with and without government intervention as against Zimbabwe) are not indicative of high protection with respect to current competitors.

5.21 *Pricing of other Products.* Prices of wool and karakul pelts are determined by international markets. Wool is exported to South Africa for auctions administered by the South African Wool Board. Karakul pelts, in the past a major specialty export, are auctioned in Frankfurt for the European market. The Karakul Board promotes karakul production and markets pelts on behalf of Namibian producers.

7/ An import parity price is unique as it is calculated with respect to the cheapest available source. The analysis covers three sources for two reasons. First, each may be the cheapest source for some parts of Namibia but not for others. Second, because supply and prices may vary from one year to the next, the cheapest source in any one year may vary. An additional potential source of maize imports in the future may be Angola. The import parity price with respect to South Africa has not been estimated as this, at the moment anyway, determines Namibia's domestic price for white maize.

8/ This assumption has been made because we believe that, in effect, this is what happens, at least for some Zimbabwe maize exports.

9/ The movements of import and export parity prices reflect both changes in world prices and changes in foreign exchange rates.

Table 5.4
Namibia: Import and Export Parity for Maize (1985-1990)
(US per Tonne)

Year	1985	1986	1987	1988	1989	1990	Avg. Price
Zimbabwe export parity (wrt RoW)	125.17	92.97	98.37	121.97	133.92	148.30	120.12
Zimbabwe import parity (wrt RoW)	170.83	137.03	147.63	166.03	172.08	187.36	163.49
Zimbabwe price	114.00	129.00	131.00	141.00	135.00	124.00	129.00
Average border price	141.81	141.81	141.81	141.81	141.81	141.81	
Namibia export parity (wrt Zimb.)	106.83	121.03	125.63	133.03	124.08	113.53	120.69
Namibia import parity (wrt Zimb.)	166.83	181.03	185.63	193.03	184.08	173.53	180.69
Namibia price	141.55	144.49	166.72	163.29	167.76	172.25	159.35
Average border price	150.69	150.69	150.69	150.69	150.69	150.69	
Namibia export parity (wrt RoW)	118.00	85.00	93.00	114.00	123.00	137.83	111.81
Namibia import parity (wrt RoW)	178.00	145.00	153.00	174.00	183.00	197.83	171.81
Namibia price	141.35	144.49	166.72	163.29	167.76	172.25	159.35
Average border price	141.81	141.81	141.81	141.81	141.81	141.81	

Sources: Agronomic Board Annual Report 1990, ADCC Food Security Unit, FAO Global Information System 1990, TransNamib (personal communication)
Note: All data are in US dollars.

5.22 *Pricing of Agricultural Inputs.* The marketing of agricultural inputs is handled almost exclusively by a cooperative, AGRA, set up by commercial farmers and to which virtually all commercial farmers belong. AGRA imports and distributes agricultural inputs to its members and is run on strictly commercial principles. The marketing services are run through a network of retail outlets located mainly in commercial farming areas. Commercial farmers, then have had access to inputs at RSA prices, adjusted, of course, for transportation costs.

Credit

5.23 Subsidized credit for land purchase was one of the instruments used to attract new farmers to Namibia (Appendix Table VII.01.j). In aggregate terms, the subsidies received by the sector by way of low interest rate credit have been substantial. A major source has been the 4 percent long-term loans given by the Administration for Whites, particularly in the two years prior to

independence.10/ Landbank interest rates have been increased since independence to 18 percent--above the rate of inflation but still below the prime rate from commercial banks.

Institutional Support and Policy Environment for Communal Area Farmers

5.24 The structure of agricultural institutions and their objectives have played a major role in the growing inequalities between commercial and communal farmers. Given the congruence of white farmer and public interest which led to their creation, it is now difficult to decide which are "public," in the sense that they operate in the wider public interest; which are "parastatal" in that they are owned by the Government and implement Government policy; and which are "private" in the sense that they operate commercially to make a profit in competition with similar enterprises.

5.25 Regardless of classification, communal area farmers have benefitted little, if at all, from the institutional setup. Northern livestock markets are isolated from national and export markets by the veterinary cordon fence. Except for an abattoir in Oshakati, which buys all grades of meat at canning meat prices, the only other market for locally produced livestock is provided by local butchers. AGRA does not have retail outlets in the communal areas and as a result communal area farmers have no ready access to inputs. Moreover, communal area farmers have received little or no marketing support; the most basic research into communal farming systems remains to be done; agronomic research, which might guide improved communal crop management is still in its infancy, and communal area extension services are woefully under-resourced and under-staffed.

5.26 Credit has not been abundantly available to communal area farmers either and what is available has come at a high price. There is undoubtedly informal lending and borrowing but little is known about these transactions. There are no rural financial institutions in the formal sector which are geared to extend loans in rural areas. An exception is a "mini loans" scheme launched in 1989 by FNDC aimed at helping the peri-urban unemployed, especially single mothers, to set up in business. These mini loans are not available for small-holder farmers, but the interest rates charged give some indication of the demand for credit and its price in rural areas. Interest is related to the size of the loan and its duration. The lowest interest rate is 21.7 percent, just above the prime commercial rate of 21 percent. But for smaller loans, which are most useful to poor people, the interest rate rises to an equivalent of 60 percent per annum. This suggests that, if they are prepared to pay such high interest rates, there is a strong demand for small and short term credit, not only in the peri-urban areas but, according to a recent field study, in the rural areas as well.

5.27 Despite the lack of support and limited access to research, inputs, and technology, communal farmers are at least as efficient as commercial farmers, contrary to widespread belief. Although the data on which this analysis is based are extremely limited, the results suggest that, by using about four times as much labor, the production of pearl millet on a self-managed communal

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10/ The 'provisional' data for outstanding Administration for Whites' loans shown in Table VII.01.j for these years is almost certainly under-estimated.

farm is about 50 percent cheaper than on a commercial farm.11/ It would therefore appear that there is a great potential for generating higher social welfare, as well as for creating greater employment opportunities, by encouraging the development of small scale, labor-intensive farming systems. The increased utilization of labor would also shift income distribution in favor of communal area farmers. There may be both efficiency and equity gains in encouraging a labor-capital mix which favors labor.

Food Security

5.28 The gap between cereal production and domestic demand in Namibia, together with the important objective of raising rural incomes, underscores food self-sufficiency objectives for the sector. Evidence for the feasibility of this objective has been provided by the sharp growth in cereal production by a few large scale farmers near Otavi and by smallholders in Caprivi. It is almost certain that this growth could continue, by area expansion alone, to the point that Namibia becomes self-sufficient in white maize, if not wheat. Moreover, to judge by the experience of other countries, if smallholders growing pearl millet were offered adequate prices and marketing channels, their output would also increase sharply.12/

5.29 Whether or not a growth in cereal output to the point of self-sufficiency is technically feasible, two important economic questions remain to be answered: whether cereal output growth is either necessary or sufficient for achieving a sustained growth in rural incomes; and whether this is the most efficient use of the scarce resources. The strategic issues behind these questions is, (i) the extent to which public resources should be devoted to accelerating the growth of smallholder cereal output by farmer training and other means; and (ii) whether there is a better use of these scarce resources.

5.30 The nominal protection analysis paras. 5.18-5.20 suggests that Namibia can produce competitively an exportable surplus of cereals. Despite its impressive transport infrastructure, however, the distances within Namibia, and from Namibia to external markets, increase transport costs and hence reduce export parity prices in producing areas to levels so low that production could not be sustained without subsidies. This means that Caprivian farmers can grow white maize for local markets, but not for Windhoek, let alone Bulawayo in Zimbabwe. It also means that Ovambo and Kavango farmers can grow millet for local markets, southern Angola and possibly for Windhoek, but not for export to more distant markets. As cereal producing areas approach an output level close to that required to supply demand in markets reasonably close at hand, further output expansion becomes uneconomical.

11/ The data for this analysis were kindly made available by the First National Development Corporation from a millet trial in Kavango. It is recommended that the analysis attempted here be repeated with more data.

12/ Millet is the preferred cereal in Ovambo and Kavango and, according to anecdotal evidence, amongst Ovambo in the cities.

5.31 Therefore, given alternative cheap sources of imports, cereal self-sufficiency is not the only, nor necessarily the cheapest, way to achieve national food security. Moreover, cereal growth alone cannot be relied upon to produce a sustained growth in farmer incomes. The problem lies with the resource base, but more particularly with transport costs from producer areas to markets.

5.32 An alternative strategy for the sector is to place more emphasis on the production of high value crops which are more likely to enjoy a comparative advantage because transport costs contribute a smaller share of total costs. They would also generate higher incomes per unit of land area. The production of vegetables and other cash crops, such as groundnuts, sunflowers and some tree crops, all have technical potential in the northern areas of Ovambo, Kavango and Caprivi and some southern areas close to water. In neighboring countries such as Zimbabwe, groundnuts, sunflower and cotton have made major contributions to smallholder income growth. Investment studies carried out by FNDC suggest that these crops may be economically sound import substitutes and have export potential as well. There is little doubt that the production of high value crops would be a more efficient use of Namibia's scarce arable resources than the production of cereals and that undistorted price signals would suggest a relative shift towards their production. It would be advisable for the authorities to anticipate this shift and take it into account in its strategy towards communal area arable agriculture.

Land Reform

5.33 The Government of Namibia is committed not to expropriate land and current legislation prohibits the break-up of existing production units. Nevertheless, unequal access to land is one of the root causes of structural inequality in Namibia and the land issue is of special importance in the minds of many Namibians. However gross, the maldistribution of the nation's land resources is but one of several reasons for the wide disparities in incomes between Namibian whites, coloreds and blacks. Other causes include differential access to education and health care and differential access in labor markets. Although access to land is of considerable importance, an administered land reform may not be the most efficient way to redress past inequities.

5.34 There are both *supply side* and *demand side* constraints to improving the equality of land distribution. On the supply side, there are physical and economic constraints; on the demand side there are economic and administrative constraints. An analysis of land availability suggests that policies on the supply side aimed at acquiring and redistributing land face an absolute constraint in terms of the supply of land and a frictional cost in terms of changing current land ownership. And all for very little gain.

5.35 Efficient land use and environmental protection are probably incompatible with a radical redistribution of land from large-scale to smallholder farmers. Breaking up large holdings into smaller ones to relocate a large number of farmers is likely to carry considerable short-run costs in terms of reduced output and more intense range utilization, with attendant medium-term ecological damage. An "efficient" redistribution that seeks to maintain or even increase output and protect the environment, on the other hand, would not accomplish much in terms of equity. If all the useable land could somehow be re-allocated so that commercial as well as communal farmers had a farm of

the minimum economic size recommended by the Ministry of Agriculture, about 2,100 new cattle farmers and 500 new small-stock farmers would acquire land in rangeland areas. There would be a loss of 13,300 farms in potentially arable communal areas, however, owing to amalgamation to achieve a minimum economic size. The authorities are caught on the proverbial horns of a terrible dilemma. An economically efficient land reform is not likely to satisfy the aspirations of many. A land reform that satisfies the aspiration of many may expose new farmers on poor land to undue risk of economic failure.

5.36 The Government might consider ways of redistributing land by means of economic instruments. Its recent decision to raise interest rates on credit may, itself, be sufficient to bring a good deal of land onto the market. A progressive land tax designed to make overly large and multiple holdings unprofitable would help to achieve the same goal. A rough estimate, on the basis of an analysis of commercial farm profits, suggests that perhaps 20 percent of existing commercial holdings would come onto the market. A land tax, however, needs to be designed carefully in order to avoid sudden disruption of commercial production. In some countries, such as Australia, land taxes have resulted in productive land being abandoned. More importantly, the use of any economic instrument which increases the financial pressure on commercial farmers is likely to bring the worst land onto the market first. Inexperienced farmers should not be asked to manage poor land. The almost inevitable result will be an ecological disaster for the range and an economic disaster for the farming family.

5.37 The problems on the *demand side* are equally complex, but it is in the relief of demand side constraints to land access that government policies have more to offer. Until independence, there were both administrative and economic barriers to land access. The administrative barriers have been removed, but capital remains the main constraint on land purchase. It is not known how many land-scarce or landless families could afford to buy land if it were on offer, or service a loan for the purchase of land. Some communal cattle farmers could almost certainly afford to buy land outright. Others are in a position to obtain commercial loans and be able to service them. The poorest and those most in need of additional land could do neither under current operating rules.

5.38 There are a number of possible strategies which might be considered to broaden the access to land coming onto the market. The most obvious, which the Government has already begun to implement, is to purchase land for distribution to land-scarce or landless families. The Government's capacity to buy land, however, is restricted by its financial resources and it is not clear that this is the best use of its limited means. Instead, the authorities might elect to increase access to the market for land by offering selective subsidies to prospective new purchasers. This strategy, which is outside the scope of this report, needs to be carefully thought out.

5.39 Another way would be to purchase new land coming onto the market in competition with other buyers for lease to new farmers with an option to buy later. Provision could be made for groups of families to enter into leasehold agreements if the government wished to encourage the formation of cooperatives. However, the holding would need to be managed as a block without fragmentation and the intensity of its use would need to be strictly controlled to maintain its long-term productivity.

Recommendations

Marketing Channels

5.40 The provision of marketing channels for communal area farmers' products is possibly the single most important, and least expensive, stimulant for growth. In the case of northern arable farmers, the outcome of the Agronomic Board's experiment with millet marketing is of the keenest interest. In the case of livestock farmers north of the cordon fence the provision of veterinary services, which will ensure their full participation in national markets, is of the greatest priority.

5.41 A central problem of marketing arrangements in Namibia is that there are relatively few actors. External trade is regulated by three statutory marketing boards. One institution--the Namibian Meat Corporation owns half of the country's abattoirs. The Agronomic Board has strong monopsony power on the purchase of wheat and maize. The Karakul Board is the sole exporter of karakul pelts. An oligopolistic structure such as this is prone to imperfections and price distortions. Efficiency and equity would be served if market reforms were directed towards removing differences between external and internal market prices and reducing imperfections arising from a lack of competition which impede the passage of price signals between producers and consumers. The statutory monopoly of the Agronomic Board, in the case of cereals, and of The Meat Board on Namibia in the case of livestock product export has no economic or social justification. Allowing free entry would increase competition and efficiency.

Transport Infrastructure

5.42 A critical factor in improving marketing channels is the reduction in transport costs. More and better roads would benefit both producers and consumers by reducing the gap between producer and consumer prices. Namibia has a very good network of main roads. In the south this provides an efficient and adequate infrastructure, but not in the north. A paved road between Rundu in Kavango and Caprivi would open up Namibia to SADCC markets, enabling Caprivi to trade with SADCC and the rest of the country. More feeder roads in Ovambo and Kavango, accompanied with de-regulation and freer entry into the transport industry, as discussed in Chapter XII, would greatly accelerate the development of those regions. The construction and maintenance of this network would also create much employment. A rough calculation of costs and benefits of these projects is given in Chapter XII.

Small-holder Credit

5.43 The provision of credit to small-holders is one of the more important issues to be tackled if growth in communal areas is to be sustained. There are virtually no formal credit markets in communal areas. The challenge is to find ways of meeting small-holders demand for credit, particularly, from those who do not have land to offer as collateral.

5.44 Two types of action are required. First, smallholders and new farmers need education in the use of credit; there is an important public role to educate and support producers in the initial use of credit. Extension services, NGOs, Farmers Organizations and other rural institutions can all make

a contribution to this process. Second, institutional solutions need to be found to extend seasonal and short term credit to communal farmers. Governments seldom manage credit efficiently, suggesting that the management of lending and credit recovery is better placed in the hands of commercial institutions. The latter tend to be more efficient and experienced in credit management and typically do a better job, in deciding what or who is "bankable" and in recovering credit.

5.45 However, the reasons why commercial financial institutions have failed to penetrate rural credit markets need to be addressed if their role is to be extended. The first is their typically urban location and orientation: if city markets are profitable why consider rural branches? The second is the issue of collateral security. The problem of collateral may need to be addressed before commercial banks are prepared to lend to small-holders and some kind of Government guarantee for commercial lending may be required. The third is that the transaction costs on tiny amounts of credit, irrespective of typically thin rural markets, are often very high.

5.46 Faced with similar problems, many countries have tried to solve the problem with subsidized credit. Unfortunately, cheap credit programs have not helped the poor. First, they have failed to reach their intended targets. Only 5 percent of farms in Africa and 15 percent in Asia and Latin America have had access to cheap credit. In Bangladesh, after more than a decade of subsidies, only 15 percent of smallholders and 7 percent of the landless households had received institutional credit. *Cheap credit has become a transfer for the non-poor.* Second, artificially low interest rates and credit regulations have distorted the allocation of resources and lent themselves to patronage and corruption. World-wide experience indicates that public funds are better spent on infrastructure and services.13/

5.47 Group lending has been one successful approach for reaching poor people. The best-know example of this approach is the Grameen Bank in Bangladesh. Group lending, however, is not the only way. The Badan Kredit Kecamatan (BBK) in Indonesia provides individual loans without collateral and without relying on groups. The BBK has managed both to reach the poor and to remain financially viable. Other credit programs have targeted microenterprises with packages of credit, training, and technical assistance (MicroFund in the Philippines, ADEMI in the Dominican Republic). The programs that have emphasized credit have been the most successful. Most microenterprise credit programs receive subsidies to help cover their initial costs. The more successful programs have become financially viable when they charge market-based interest rates and keep operating costs low. The design of the most appropriate scheme for Namibia is beyond the scope of this report; a study of options is needed to ensure both success in reaching the poor and financial viability for the scheme.

Research and Extension

5.48 There is a desperate need for better farmer education and support by technical services in both livestock and arable communal areas, first to increase their productivity under existing production regimes and, second, to give them the confidence to invest in new, more profitable crops.

13/ IBRD, *World Development Report 1990*, pp. 67 and 68.

Increased veterinary services such as vaccination and regular health monitoring will substantially reduce the incidence of cattle disease and eventually help remove the cordon imposed in the northern communal areas.

5.49 Agronomic research is also required but, applied research on low input-low output communal farming systems to identify the constraints on growth and their policy implications is more urgent. It is vital that research and farmer services be closely related. Farmers and schools can be commissioned to run crop trials. Local organizations, NGOs and the University can be commissioned to undertake socio-economic research. The results of research needs to be communicated directly to farmers and organizations which serve them. The aim would be to create a broad, integrated front involving schools, extension activities and research bodies.

5.50 If, as suggested in this report, a shift towards high value crops is to take place, communal area farmers would need special training in high value crop production. This process is likely to take some time but will probably spread the benefits of growth most widely.

5.51 A government-run agricultural extension service is the conventional response to the need for farmer education. But, in Namibia, such is the paucity of existing communal area services that a greater and broader mobilization of effort is required. Farming needs to be on the educational curriculum in rural areas: serious attention to agriculture has long term implications for rural development and agricultural productivity. In the short run, schools can be commissioned to run demonstration plots and new crop trials. An expansion of government extension and technical services remains important, but will take time. Its development might be accelerated by contracting organizations such as the Rössing Foundation or other private organizations to train extension officers or farmers directly.

Water Development

5.52 Water is the most critical constraint on agriculture and the scarcest resource. The effective availability of river water for irrigation is limited and the use of ground water is a questionable use of a diminishing resource. Small-scale schemes for the entrapment of surface water for high value crop production in northern regions may have higher returns. A modest public involvement may be required to help design the schemes and manage the construction phase. In Ovambo, the Rural Development Centre (RDC) in Oshakati has demonstrated that simple cement-lined underground water storage tanks can be constructed by local people with modest financial support from the Ministry of Agriculture.

5.53 As discussed in Chapter IX, for health reasons the first priority of public investment in water development is improving the availability and quality of water for domestic consumption. Water for other uses, such as irrigation and industrial use may need to be restricted in order not to undermine household consumption. A plan under discussion would enlarge the existing canal from Ruacana to Oshikuku and increase the processing capacity of the local purification plant. A new canal can also be dug from the Angola border to Ongandjera and a new purification plant can be built there to supply purified water for both Oshakati, Ondangwa and the surrounding areas. With

increased carrying capacity of the canal system, the existing pipeline network could be enlarged so that most households in the region would have easier access to good quality water.

5.54 Water scarcities in the southern parts of the country are more difficult to solve. Most of the southern areas, apart from those adjacent to the Orange River, depend heavily on boreholes. Drilling costs are often beyond the reach of the communal farmers and underground water resources are being used up. There is a real dilemma here. If agriculture, or even human habitation, is not sustainable without exhausting a natural resource, public investment should not signal the contrary. The medium term outlook for many communities in southern Namibia may be so grim that the most economical alternative might be to encourage them to move.

User Fees for Land and Water

5.55 Water and good quality land are scarce resources in Namibian. Land is being degraded by excessive use and the underground water table is getting progressively lower.

5.56 In commercial areas, where property lines are clearly delineated, land often has been fenced, and land is bought and sold--prices offer information to guide investment and production decisions. Land enclosure also offers an incentive to improve land value.14/ This is not the situation in communal areas where land is virtually a free good. Communal land cannot be bought and sold, but usufruct rights are extended by chiefs and headmen, including the right to use land by private entrepreneurs and corporations. The result has been underutilization in northern arable areas and the destruction of the resource in the south by overgrazing and bush encroachment.

5.57 Farmers are beginning to enclose land in communal areas through their own initiative, but without a price tag to the land. The consequences are of some importance. On the one hand, enclosure has encouraged private investment, for the extraction of underground water for example, because it gives the owner exclusive rights to the use of his investment. It also encourages good range management practices if users take the long term view and wish to increase their output in a sustainable way. On the other hand, land enclosure restricts communal grazing and migratory movements, which are essential to sound range management under communal systems. Users pay almost nothing to use the land and invest practically no capital in the land itself.

5.58 In potentially arable areas the problem is more acute. Access to land can be gained by a one time payment of a fee that is likely to be well below market value. As a result, price signals are distorted and land use is intensive. This is an inefficient use of a scarce resource.

14/ Despite this, there is apparently a tendency by some farmers to take short run profits by intensive land utilization at the expensive of longer term land productivity. This has resulted in serious bush encroachment and land degradation. The practice is known locally as 'land mining.'

5.59 In the absence of a reform to convert communal land into private holdings, progressive user charges might be applied to the use of communal land to help correct price signals.15/ This would leave the maximum amount of scarce land available for small-holder agriculture.

5.60 Much the same economic problems attach to water. Irrigation offers an apparently attractive means of raising farm output and incomes rapidly. Much emphasis has been placed on the need for water development to expand usable rangeland areas, especially in Ovambo and the southern part of Kavango. However, the extensive use of irrigation faces two kinds of problems. One is physical limitation to the expansion of irrigation. Much of the best land is furthest from permanent plentiful sources of surface water and underground water resources are already being depleted. The second problem with irrigation is an economic one and it takes two forms.

5.61 First, water development to expand rangeland areas might help alleviate the pressure on the range near rivers and existing boreholes from over-grazing in the short run. Experience elsewhere suggests that, in the absence of either sound communal or commercial range management practices, borehole development in semi-arid rangeland areas raises the carrying capacity of the land by an increment which is quickly exceeded by herd growth. The result, all too often, is overgrazing and range degradation around the new boreholes within a few years. Caution should therefore be exercised with respect to the expansion of ranching systems on the basis of underground water exploitation and should always be accompanied by vigorous efforts in farmer education.

5.62 Second, all of the evidence available from the region suggests that investment in irrigation systems solely for the production of low value crops, such as cereals, does not provide an economic return on capital.16/ Irrigation comes into its own in the production of high value crops, a strategy favored in this report. However, irrigation requires enormous amount of water for even a limited amount of land. According to 1983 data, the total area of irrigated land in Namibia was only 7,350 hectares but it consumed more than 110 million m^3 of water, or 25 percent of the total national water resources (surface water from local rivers and pans and ground water).17/

5.63 A major reason for the current pattern and volume of water use in agriculture is the structure of water user fees. Farmers who use water provided as a result of public investment pay a user charge designed to meet full capital cost recovery and maintenance costs. Farmers who sink their own boreholes or pump water from a river pay nothing in addition to their own investment and operating costs. This arrangement would be justified if pumping water from one's land did not entail externalities (i.e., if it did not affect one's neighbor water table). But underground water is common property and if the costs of reducing the water table are not paid by users, the resource will be overused. Indeed, in Namibia underground resources are being drawn faster that they are being

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15/ However, they would tend to increase the intensity of land use and might increase ecologically damaging land exploitation.

16/ It also has to be said that the irrigation construction schemes which have been subject to economic analysis may not have used labor optimally This finding may therefore be open to doubt and should be tested in Namibia.

17/ UNDP, Assessment of the Water Resources Sector in Namibia: Base Studies on Financial Economic and Social Aspects for the Arrangements for Independence in Namibia.

allowed to replenish, suggesting that current charges are not sufficiently related to scarcity value. As in the case of communal land, a user charge for water is also justified and even more urgent. The design of such a scheme is beyond the scope of this report, but studies to design one and put it in practice are urgently needed.

Institutional Reforms

5.64 The sector's institutions, established before independence, have not served the needs of all Namibian farmers. This does not mean that existing institutions should be abolished but statutory institutions providing product marketing, input, credit and extension services should be examined carefully to determine their future role.

5.65 The Government might approach institutional reform by considering three sets of issues. The first relates to the definition of the social objectives the Government wishes to pursue and their cost. In many cases it will be found that an institution in the public sector has both commercial and social functions. The Agronomic Board is a case in point. It is expected to perform its trading functions efficiently from a commercial point of view but also to perform social functions such as the extension of marketing services to communal area producers in areas where private markets are embryonic or non-existent. An important lesson being learned in other countries in the region, such as Zimbabwe, Kenya and Malawi, is that it is important to estimate the costs of these social functions and separate them from the costs of commercial trading. This accounting transparency allows the government to take informed decisions on the extent to which it is able to pay for social functions, to decide which type of institution is likely to carry them out most efficiently, and to ensure that any deficit on the institution's trading accounts is commensurate with the costs of the social functions it is performing rather than arising from inefficiencies.

5.66 The second set of issues relates to institutional management. Large scale producers dominate the Boards of all agricultural institutions in Namibia. These Boards, with the exception of the Namibian Agricultural Union, which represents large scale producers anyway, need urgent reconstitution with a broader membership which better represents the institution's new clientele. Apart from creating a management structure appropriate to institutional objectives, an incentive structure needs to be created to maintain the maximum efficiency in the performance of social functions.

5.67 The third set of issues relates to institutional ownership: which institutions should be sold off to the private sector and in which should the government retain a stake or own fully. Government ownership is not a pre-condition for the effective extension of social services. It may be possible to "contract" out to the private sector the provision of some services which have been generally held to fall within "public" responsibility, such as the provision of rural credit and farmer training. Rather than seeing the choice to be between two stark alternatives, private or public ownership, the issue is perhaps better approached by considering which functions can be carried out by the private sector without direct control, which might be carried out by private institutions under various forms of contractual arrangements with the government, which need to be undertaken by parastatal institutions and which by the government directly. Given the Government's extremely limited resources, this last should be kept to an absolute minimum. This is now an important issue

world-wide. In any particular case, the answer should emerge from an examination of the desirable extent and the cost of social functions and from decisions on the most appropriate form of management. Management issues need to be addressed first. The ownership issue can then be tackled in an orderly way.

VI. FISHERIES

Introduction

6.1 The fisheries sector offers Namibia the best opportunity for quickly increasing its income. With proper management, the value of the catch could increase from about R600 million in 1990 to about a billion by 2000. Not all of this income will necessarily accrue to Namibia. The policies adopted by the authorities will substantially influence how much of the income is realized and how much the Namibian people receive. This chapter focuses on the policies needed to maximize Namibia's income from the resource.

6.2 Although Namibian fishery resources have been severely depleted by foreign fleets in recent years, the country is, nevertheless, in an exceptionally good position to achieve a highly efficient fishery industry. The resources are potentially very large; the basis for effective fisheries management is already in place; industrial fishing capacities and skills exist; there are no artisanal fisheries competing for the resources; and there is strong government support for the treatment of fishing as a commercial natural resource industry. *There is virtually no other country in the world that possess such a favorable combination of factors.*

Resource Base

6.3 There are only a small number of fish species in the fishing grounds, but they are present in very large quantities. The pelagic (schooling) species include the herring-type pilchard, anchovy, the horse and chub mackerel, and the snoek. The demersal (groundfish) species encompass the Cape hake, angler fish (monkfish), kingklip and dentex (sea bream). On the rocky coasts in the south there are important crustacean resources (lobster).

6.4 The fisheries for pilchard (from Walvis Bay) and lobster (from Luderitz) developed rapidly during the 1950s. Although management measures were in effect, they broke down in the 1960s due (in the case of the pilchard) to the high global demand for fishmeal and the introduction of factory vessels. This resulted in significant over-fishing of the stocks.

6.5 Since the mid-1960s the growing number of foreign fishing fleets in Namibian waters has led to a substantial exploitation of the hake and horse mackerel populations. The occasionally high by-catch quantities of kingklip and snoek by foreign fishing vessels have had noticeable adverse effects on the catch quantities of the Namibian trawler and line fisheries.

6.6 The *total volume of catch,* which at sometimes exceeded 2 million tons per year, declined markedly during the seventies and even more drastically in the eighties. In various peak years the hake catch off Namibia amounted to 600,000 tons (1972); the pilchard to 1.4 million tons (1968); the anchovy to 370,000 tons (1987), and the horse mackerel to 650,000 tons (1984). The catch level dropped to an

average of about 1 million tons between 1984 and 1988. Namibia's share of this total fluctuated during the last five years between 14 (1984) and 39 percent (1988) with an average of 24 percent.

Biological Limits for the Short-to Medium-Term

6.7 It is estimated that, in biological terms, the recovery of the stocks could be achieved by limiting catches to about 510,000-820,000 tons in the short to medium term. The successful implementation of a management policy that limits the catch to these levels would eventually permit total sustainable yields of approximately 1.4 million tons, as Table 6.1 shows. These figures must be considered approximate long-term averages, since actual catches fluctuate annually. They are also not necessarily the yields that would maximize economic benefits.

Table 6.1
Namibia: Recommended Short-term Limits on Fish Catch
And Estimated Long-term Sustainable Yields
(Thousand Tons per Year)1/

Species	Short-term Limits	Sustainable Yields
Hake	120-200	350
Pilchard	60-120	500
Horse Mackerel	300-400	450
Anchovy	50-100	140
Rock Lobster	1	3
Other	20	30
Total	531-851	1,473

6.8 At the estimated levels of catch, the gross revenues would be about R600 million for 1991 (1989 prices) and about R1 billion by 2000 (1989 prices). Under proper management, fisheries can produce a resource rent similar to that associated with agricultural land and other natural resources. The basic management objective in fisheries should be to maximize the amount of rent by controlling the inputs of capital and labor. This rent should accrue to society as the owners of the resource and can provide sizeable revenues to the Government. The absence of information on the basic economic and biological characteristics of the individual fisheries makes it impossible to derive accurate estimates of

1/ These estimates are based on biological yield functions and should be modified by economic analyses in order to determine optimum levels of catch.

the amounts of rents. The most that can be done is to suggest indicative figures based on studies of other fisheries in other areas of the world. The average potential economic rents in nine Australian fisheries, for example, amounted to about 29 percent of the gross revenues. In a fishery for squids and cuttlefish off Northwest Africa, potential rents were estimated to be 50 percent of gross revenues. Assuming that potential economic rents in Namibia are about 25 percent of gross revenues, these would equal R160 million in 1994 and R225 million in 1998.

Conceptual Framework

6.9 Fishery resources are different from most other natural resources in two particularly important regards. The first is that the cultivation of stocks in the marine environment is possible for only a few species of fish. For most marine species, catches cannot be increased beyond a certain point. The second important characteristic is that of the difficulty of controlling access to the resources. This is generally due to the mobility of the stocks and the problems of establishing meaningful boundaries in the marine environment. Most marine stocks of fish have been (and continue to be) subject to free and open access. The consequence of these two characteristics is that there is both biologic and economic waste; i.e., depletion of stocks and wasteful uses of capital and labor. The management of the resource needs to take into account these characteristics. The peculiarities of the endeavor, as well as the effects of different management approaches, can be illustrated by reference to Figure 6.1.

6.10 In this diagram, the vertical axis shows the amount of catch (expressed as tons of fish or rands) obtained as a function of the fishing "effort." The latter is in turn a function of the number of vessels, the average catching power of each vessel, and the number of days spent fishing. The catch increases as the fishing effort increases, but only up to a point, the Maximum Sustainable (long-run) Yield (MSY). This point is the biologically optimal point in the sense that it is the maximum catch possible without depleting the stock. Further fishing effort leads to depletion of the stock. The graph also shows the costs (plus profits) of increasing the fishing effort. For simplicity's sake, costs are assumed to increase in direct proportion to the fishing effort. This assumes that each vessel has the same operating and fixed costs (including opportunity costs of capital and labor; i.e., ordinary and expected wages and profits).

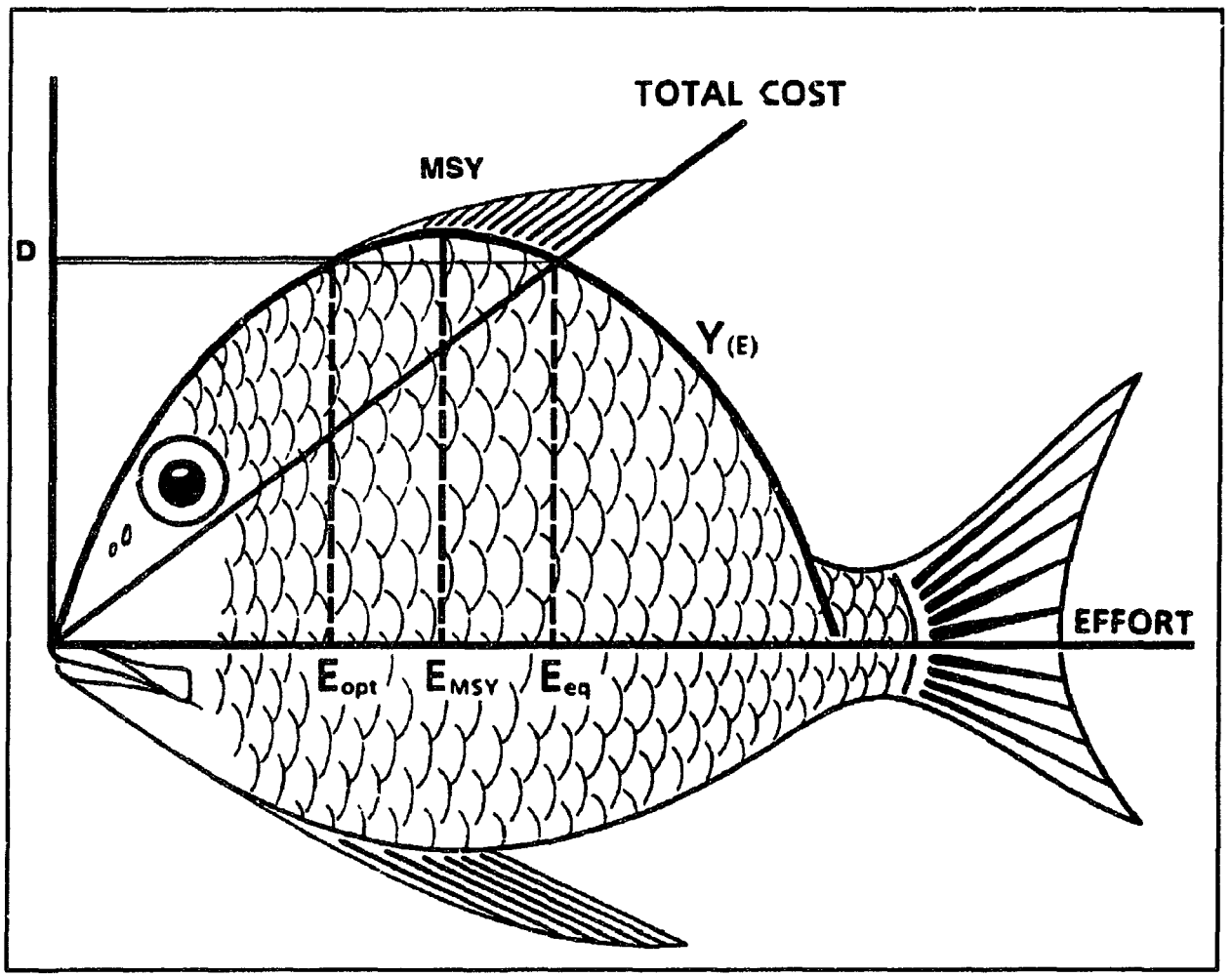
6.11 In the absence of control over access, fishermen will fish until it ceases to become profitable, i.e., until the total cost of the catch is equal to the total revenue that it brings. This mechanism leads to depletion of the stock, because each individual fisherman will continue fishing until it becomes unprofitable for him--he does not take into account the effects of his fishing on the entire stock. In terms of the diagram, the fishing fleet would stop fishing when it reaches point E_{eq}. In open access fisheries, this would be the equilibrium position. If the fishing effort is less that E_{eq}, total costs will be less than total revenues and fishermen would be receiving "economic rents" (i.e., a profit greater than the norm needed to keep them in business) and this would attract more fishing vessels.

6.12 From a biological point of view, the optimal catch would be the point at the top of the curve, i.e., the MSY. From an economic point of view, this point is not necessarily the profit-maximizing point. If the fishery were subject to private ownership--say only one operator for the entire country--the owner would operate at the point where he receives the maximum net economic revenue i.e., where the

difference between total revenues and total costs is the largest. In the diagram, this point corresponds to point E_{opt}. At that point the fishery enjoys the maximum *economic rents*, equal to the differece between revenues and total costs. Present knowledge about the economics of the fisheries sector in Namibia precludes calculation of economic optima.

6.13 This brief digression into the economic peculiarities of the endeavor, illustrates two important points: (a) that access to the fishery stocks must be controlled through some form of exclusive use rights and (b) that such use rights acquire high value which the State may extract through user fees.

Figure 6.1: The Economics of Fisheries



6.14 Namibia is fortunate in that the basic elements of an effective fisheries management system are already in place and the country has a unique and extraordinary opportunity to achieve a highly efficient industry, producing large returns to the economy. There are, however, several ways in which the system can be improved.

Policy Options for Inshore Fisheries

6.15 There are three major elements to the task of managing the inshore fisheries: (i) the measures used to achieve economic efficiency; (ii) the system for allocating use rights; and (iii) the imposition of taxes, levies or fees to extract the economic rents.

Mar. gement measures

6.16 In Namibia there is currently both a license scheme and an individual quota control, but it is the latter that is the most important. It provides a right to take a share of the total allowable catch (TAC) which, in a sense, provides a guaranteed total revenue. With such a right, the concessionaire has the incentive to reduce fishing costs to the minimum so as to maximize net earnings. Since each concessionaire has the same incentive, the total fishery operates with the maximum economic efficiency, producing the largest economic rent, assuming that the TAC has been set at the appropriate level.

6.17 Maximizing economic rents would require various modifications to the present system. First, the system needs to be applied to *all* fisheries, not just to those that seem to be in immediate need of management. The determination of the TAC for each fishery needs to be based on economic, not biological, criteria. For the fish stocks with relatively high yields, the TAC needs to be set at the level that corresponds to the maximization of sustainable net economic revenue. For stocks that have been depleted (e.g., pilchard and hake), the TAC needs to be set through "investment" analyses. That is, the portion of the potential yield that is left uncaught should be based on the present value of the future returns it can produce measured against the present costs of the investment in foregone catch.

6.18 At present, there are processing quotas as well as catch quotas. There is no economic rationale at this time for maintaining processing quotas, and they serve to reduce competition and allow the processing companies to capture the economic rents. Removing them would increase the proportion of rents captured by Government. If in addition catch quotas in the domestic fisheries are freely transferable and capable of being bought and sold in the open market their value and Government revenues from their sale would be higher. It may desirable to impose a limit on the total amount of quotas that can be held by any one individual or company in order to prevent the creation of monopolies.

6.19 Any one should be able to acquire quotas in any of the controlled fisheries. This is essential in order to allow for efficient use of vessels throughout the year.

6.20 Ideally, the quotas should be permanent, similar to property rights to land, subject only to abrogation for violation of rules and regulations. Any limit to the tenure of the rights will introduce uncertainty into the system; reduce opportunities for achieving satisfactory returns on investments; and may stimulate concessionaires to seek short-term rather than long-term gains.

6.21 In the case of the lobster fishery, the Government may wish to consider a different approach. Lobster fisheries lend themselves to systems of territorial use rights because the lobsters are relatively immobile and are associated with certain topographic features on the bottom. Under this system, the lobster grounds would be divided into separate plots of sizes sufficient to permit an economically efficient operation. Given a sufficiently lengthy lease, the lessees would have an incentive to manage their plots

for maximum long term gains. This might even include investments in environmental enhancement, such as the provision of bottom shelter, in order to increase their yields.

6.22 In general for all inshore fisheries, the present management system, based on individual quotas, provides an exceptionally good basis for achieving maximum benefits from the resources. It also provides the institutional basis for facilitating domestic development of the offshore stocks. The harvest of hake stocks by domestic vessels is increasing, entirely through private initiative. With a satisfactory individual transferable quota system in place, such increases can be expected to continue as the stocks recover, without further Government support.

The Allocation of Rights

6.23 The basic principle that should govern the allocation of IT s is that the system should be as automatic as possible and allow the most efficient producers to acquire the rights. Over the long run, if the rights are permanent and transferable, the free market will provide the appropriate mechanism.

6.24 At present the criteria for allocation of rights are not clear. The authorities are considering allocation quotas on the basis of contributions to national economic and social goals i.e., the degree to which the applicant makes use of Namibian capital and labor. Although the desire for such criteria is understandable, particularly in view of the past history during which large profits were taken from the country, this approach has two major difficulties. First, it is very difficult to determine the national origin of the capital as well as the ultimate distribution of profits. Second, it provides preferential access to individuals or companies which may be less efficient. This serves to reduce the potential revenues to the Government as well as contributions to the national economy.

6.25 In the interest or efficiency, it would be desirable to broaden the competitive basis of the industry which, at present, is held in a few hands. However, over the next few years the competitive characteristics of the fisheries may well increase without Government intervention (such as reserving a certain share of the TAC for "newcomers"). This would result from the removal of processing quotas, the increase in TACs as stocks are rehabilitated, the development of new markets, and the introduction of quota controls for new stocks.

Extraction of Economic Rents

6.26 A major objective of the Government is to maximize the revenues it receives from natural resource industries. In the case of fisheries, the basic principle to be followed in achieving this objective is that the revenues that are extracted should be equal to the full economic rents that are available in the fisheries. As discussed in paras. 6.9-6.14, this is the maximum difference between the total costs and total revenues and represents the value of the resource. If Government does not transfer these rents to the fisc, they would accrue as a "windfall gain" to the fishermen. It is also necessary that the Government receive revenues to cover the costs of management, including those for research and enforcement. Whereas this might be viewed as a transfer among Namibian citizens with no gain for the country, failure to capture rents reduces Government's ability to address urgent social problems. Every rand of rent not captured by Government is one less rand spent on nutrition, immunization, or basic education.

6.27 It is particularly critical that the rents extracted vary with the changes in the values of the fishing privileges. This deserves separate emphasis because of the dynamic nature of the industry and the powerful effect of property rights systems. Increases in the real prices of fishery products are inevitable because supplies are limited and demand continues to increase. Thus, the value of the privileges can increase very rapidly and will accrue to the fishermen unless the taxes or royalties are changed accordingly.

6.28 At present, quota royalties are applied only to the fisheries for hake and horse mackerel, the research levies applied to all stocks are negligible. A basic necessary change is to place quota royalties on all fisheries, the amounts of which should vary according to the differences in values.

6.29 The present system for hake sets a base fee for each of two different sizes. It then allows rebates with respect to degree of processing on land, employment of Namibian citizens and degree of Namibian control of the company. At present, the system is estimated to produce revenues amounting to about 6 or 7 percent of the gross revenues in the fishery. Without the rebates (and assuming that the fee level is appropriate) the Government would have collected additional revenues of about R 20 million. This reflects the amount of revenue given up in order to encourage land processing and Namibianization.

6.30 Consideration is now being given to a modification of the system that sets the base fee at a lower level and then adds surcharges for failure to Namibianize the operation, constituting a form of subsidy for locally governed operations. The results, however, would be identical in that potential revenues would be foregone in order to meet social objectives that are not related to the fishing industry and which interfere with economically efficient investments. It would be by far preferable to extract the maximum possible revenues and to use these revenues to achieve the desirable social objectives. Rent maximization argues for eliminating rebates and surcharges.

6.31 Various techniques can be used to determine the appropriate level of royalty which would achieve the objective of extracting the full economic rent in accord with the changing values of the fishing privileges (auction, transfer tax, property tax, etc.). Each of the techniques has its own set of deficiencies and difficulties and will require detailed analyses for the best choice. But the potential rewards to the Government are likely to be extremely high as the inshore fishery expands.

Policy Options for Offshore Fisheries

Maximizing Economic Revenues

6.32 In general, the basic principle of maximizing the economic rent extracted from the fisheries applies equally in the offshore as the inshore zone. A first step in this process is to estimate the potential rent in the fisheries. This can be done by estimating, each year, the gross revenues that can be received from the quotas of hake and horse mackerel which are to be made available to the foreign fishermen. The minimum amount of fishing effort required to take these quotas can also be estimated and the costs associated with that level of effort can be derived. The difference would approximate the surplus profit that could be extracted from the foreigners.

6.33 Without undertaking the analyses, there is no way of estimating the potential economic rents in the offshore fisheries. Frequently, coastal states have operated on an assumption that 5 to 10 percent of the gross revenue is a "fair" amount to charge. There is absolutely no economic foundation for such an assumption and, in fact, the potential rents in most fisheries are considerably larger. It is not unreasonable to expect that they may amount to 25 percent or more of the gross revenues.

6.34 As in the case of the inshore fisheries, the objective of maximizing economic returns conflicts with attempts to acquire other, non-economic benefits. Many access agreements contain provisions for technology transfer, training, research support, requirements for local landings, port or infrastructure development, etc. There are two major problems with such agreements. First, the aid provided by the foreigners is not always suited to the local conditions. The second, and more important, problem is that the provision of such benefits-in-kind reduces the amount of monetary payments made by foreigners. The revenues foregone could be used to achieve the desired objectives more directly and effectively.

Access Arrangements

6.35 There are several different ways for coastal states to sell access privileges. An effective approach is presently under consideration in Namibia. Under this approach, an agreement would be reached with the EEC on the total amount of catch that the EEC vessels could take. The vessels wishing to participate in the fishery would submit applications providing full information on the characteristics of the vessel and the gear. This would provide Namibia with information on the effective fishing power of the vessels. Licenses could then be awarded to vessels whose aggregate fishing power matches the allowable catch. Such an approach would provide a reasonable assurance, at relatively low cost, that the quotas are not exceeded (although it would not obviate the need for considerable improvements in enforcement capacity).

6.36 This system would also offer opportunities for extracting additional revenues. Presumably, the number of applications for licenses would exceed the amount to be provided. Decisions would have to be made on the allocation of the licenses. If left in the hands of the EEC, undoubtedly a market would develop among the applicants since the licenses would have value, a value that with proper mechanisms could accrue to Namibia. The development of an auction among the applicants for licenses would serve to extract these values and also provide a transparent means for their allocation.

Duration of Agreements

6.37 Overall agreements with foreign states (and the EEC) can be lengthy, but there is a need for annual negotiation of the allowable catches and the fees. The prices of the products and values of the privileges can change rapidly. There are often annual fluctuations in the size of the stocks. And there is a need to ensure that the opportunities for the development of domestic fishing capacity are not constrained by reductions in the rates of catch due to foreign fishing.

6.38 In addition, the interests of the present foreign fishermen are likely to be short term. There is an extremely high degree of overcapitalization in European fleets as a result of mismanagement and high subsidization. It is doubtful that there will be major re-investments in distant water vessels operating

from European ports. In view of this, Namibia cannot rely on the self-interests of the foreign fishermen in maintaining healthy stocks and environments.

Conclusions

6.39 Namibia is in a unique and excellent position to lead the world in achieving effective management of its fishery resources and extracting the maximum benefits for the country. In a sense, it is beginning with a fresh slate which allows it to avoid the mistakes that have been made in most other countries. It is operating in an unusual environment in which the appropriate management objectives and institutions are already in place. And its resources are potentially large and valuable.

6.40 The critically important requirement is that of maintaining and enlarging the system of property rights that exists in the individual quota scheme. Such property rights provide private entrepreneurs with the incentive to invest in the fisheries on a rational basis and avoid the pitfall of over capitalization and waste that results from open access.

6.41 The system for extracting revenues from the resource users also needs to be maintained and enlarged, in both the inshore and offshore fisheries. The presently available economic rents are large and can be expected to increase considerably in the future as the stocks are regenerated and the real prices of the products grow. The level of royalties in all fisheries need to be based on the potential rents and increased in accord with the growing value of the fishing privileges. It is highly desirable to avoid measures that seek to achieve other objectives than the maximization of economic revenues. These will not only impede economically efficient operations but also reduce the revenues to the Government; revenues which can be used to meet high priority national needs. Through the maintenance and elaboration of such measures, Namibia's fishery resources will support a highly productive industry capable of making major contributions to national economic growth.

VII. MANUFACTURING INDUSTRY

Introduction

7.1 Namibia's manufacturing sector accounts for approximately 5 percent of GDP and employs about 9,000 people, or about 5 percent of total formal employment. Most production is for domestic consumption and the main products are processed meat, beverages, and furniture. Few countries with Namibia's per capita income are so un-industrialized. If the fish processing facilities in Walvis Bay were included, the size of the sector would more than double (the Walvis Bay processing facilities are still within the RSA enclave, although many of the workers are Namibian).

7.2 Food, Beverages and Tobacco is the most important subsector, accounting for about 30 percent of enterprises and 50 percent of employment. Other important subsectors are wood and furniture (16 percent of enterprises and 7 percent of employment), metal products (13 percent and 12 percent), and non-metal mineral products (7 percent and 13 percent).1/ By and large, these industrial sub-sectors are closely related to the primary sectors.

7.3 The Food, Beverages and Tobacco subsector consists mostly of enterprises in slaughtering, production of meat products, and bakery goods. Slaughterhouses and bakeries account for 53 enterprises and some 2,000 workers, equivalent to about one-fifth of the manufacturing enterprises and 22-23 percent of employment. The manufacturing sector is heavily concentrated in Windhoek and its surroundings. With the possible exception of the food, textile and wood subsectors, Namibia's manufacturing consists mostly of small enterprises producing goods for local consumption.

7.4 Namibia's industrial development does not seem to have been held back by ill-conceived domestic economic policies. There are no artificial obstacles to the expansion of the sector, nor barriers to entry due to regulations or technological or financial considerations. Namibia, however, has a very small domestic market and because of SACU, it is in direct competition with the RSA, a very industrialized country. Moreover, the policies of the RSA, in particular the Regional Investment Development Program (RIDP), has made it even more difficult to compete with RSA industrial exports. Through the RIDP the RSA has subsidized labor, credit, electricity, and transport, making it far more profitable for businessmen to locate their manufacturing concerns in the RSA than in Namibia. But even without these subsidies, the disparity in the size of the two markets would have made the RSA the preferred site, especially considering that labor costs are fairly close in the two countries.

1/ These statistics are based on the Manufacturing Survey. The National Accounts of Namibia do not give sub-sectoral breakdown; the Survey gives a sub-sectoral breakdown by number of enterprises and employment, but not by value added. The statistical base, then, provides only limited scope for analysis.

The Institutional Setup in the RSA

7.5 The development of manufacturing, like the development of other sectors in the economy, has taken place in a context of a relatively free market, but in direct competition with the RSA whose manufacturing and economic diversification policies have hindered the growth of Namibia's industry. This section reviews three South African economic policies/institutions that have had a marked influence in the development of Namibian industry: the Southern African Customs Union (SACU); the Southern African Regional Industrial Development Program (RIDP), which is part of the Regional Development Program; and the Export Incentives Program.

SACU

7.6 SACU is a "full" Customs Union. Trade among member countries (RSA, Botswana, Lesotho, Swaziland, and now Namibia)2/ is entirely free and they all have a common external tariff. In practice, the RSA is the dominant partner and the policy setter. Becoming a member of SACU means adopting the trade policies of the RSA, letting the RSA take care of the operation of customs and related tax collections, and vesting in the Government of the RSA future decisions regarding changes in commercial policy. The Government of the RSA, in exchange, agrees to consult its trading partners before effecting a change in commercial policy. It also undertakes the commitment to pay a financial compensation slightly in excess of the tax revenues collected on behalf of the trading partners. As a special privilege, the other members retain the right to impose infant industry protection on certain imports (including outputs originating in the trading partners), and to single out certain industries as "of major importance." The Government of the RSA cannot reduce the tariffs on extra regional imports which compete with the outputs of industries "of major importance."

The Regional Industrial Development Program

7.7 The RIDP, launched in 1982, is based on the notion of development points and economic regions. The Government of the RSA selected nine economic regions for special treatment. The Government determined the development needs of each region according to various criteria, but the existing unemployment situation and the region's potential for closing the unemployment gap were the most important ones .

7.8 Through the RIPD, the Government of the RSA provides outright cash subsidies for certain productive inputs and specific factors of production to stimulate economic activity. Annex III provides the details. Table 7.2 gives an indication of the overall size of the RIDP Program. The subsidies for investment in manufacturing were R 590 million per year (1987 prices), on average, during the five years covered by the data. This amounts to approximately US$ 300 million per year, or US$ 1.5 billion for the five fiscal years 1982/83-1986/87. These subsidies represented about 2 percent of value added in manufacturing in the RSA.

2/ Before independence, the territory of SWA/Namibia, had been an informal member of SACU.

7.9 Table 7.1 gives an idea of the breath and magnitude of the RIDP. The statistical information needed for an evaluation of the impact of the RIDP on the expansion of manufacturing sector activities in Namibia is not available. The only data readily available are on employment generation under the RIDP (and under its predecessor, the decentralization program); these can be compared with data on manufacturing employment in all of the RSA. Table 7.2 presents the relevant figures.

Table 7.1
Namibia: Subsidies under the RIDP Program
(Million 1987 Rands)

Incentive	82/82	83/84	84/85	85/86	86/87	Average
Labor	17,449	101,516	195,989	210,046	195,028	144,006
Interest	4,677	42,718	98,691	131,677	131,319	81,816
Rental	2,529	23,154	34,133	58,832	68,401	37,410
Subtotal	24,655	167,388	328,813	400,555	394,748	263,232
Transport	93,415	150,407	193,354	250,037	258,301	189,103
Electricity	53,372	53,779	63,731	48,928	8,503	45,663
Relocation	7,718	19,955	40,037	50,654	35,054	30,684
Housing	2,784	8,048	16,093	24,259	25,894	15,416
Other	51,950	61,975	53,744	37,996	25,41[illegible]	46,215
Subtotal	209,239	294,164	366,959	411,874	353,163	327,080
TOTAL	233,894	461,552	695,772	812,429	747,911	590,311

Source: Report of the Panel of Experts on the Evaluation of the Regional Industrial Program as an Element of the Regional Development Policy in Southern Africa, p. 84.

7.10 Employment increased from 125,000 in 1974/75, to 385,000 in 1987/88 under the Decentralization/Regional Programs. During the same period, overall employment in manufacturing increased only from 1.3 to 1.5 million. As a proportion of employment in manufacturing, the decentralization/regional programs increased their share from 10 to 28 percent.

7.11 The data suggest that the RIDP had a most dramatic effect on employment creation in the decentralized areas, although not necessarily in manufacturing as a whole. Up to 1982/83, when

the RIDP started operations, the decentralization program does not seem to have had a marked impact on employment. Job creation in manufacturing considerable outpaced job creation in the decentralized areas except in 1977/78, when total employment in manufacturing decreased. From 1983/84 onwards, after the RIDP was put in place, the picture changed dramatically and job creation in the decentralized areas outpaced job creation in manufacturing every year (last two right hand columns of Table 7.2), including two years when manufacturing employment declined.

7.12 The preceding analysis strongly suggests that because of the RIDP, the decentralized areas were very successful in attracting investment and employment in manufacturing. RIDP employment increased more than total employment, in fact not only RIDP generated (in net terms) all the new jobs in the manufacturing sector of the RSA, but in addition, it sucked in employment from existing sources.

Table 7.2
Namibia: Regional and Total Manufacturing Employment in the RSA

Year	Employment		Changes in Employment		
	Total Manuf. (Thousands)	Regional Programs (%)	Region Total	Total Manuf. (Thousands)	Regional Programs
1974/75	1,281	125	9.8	-	-
1975/76	1,330	131	9.8	40	6
1976/77	1,370	138	10.1	30	7
1977/78	1,353	152	11.2	-17	14
1978/79	1,366	167	11.8	13	9
1979/80	1,398	176	12.6	32	15
1980/81	1,463	191	13.1	65	16
1981/82	1,541	210	13.6	78	19
1982/83	1,569	224	14.3	28	14
1983/84	1,494	254	17.0	-75	30
1984/85	1,508	301	20.0	14	47
1985/86	1,450	341	23.5	-58	40
1986/87	1,455	357	24.5	5	16
1987/88	1,476	385	26.0	21	28

Source: ibid., p 34

7.13 The impact of the RIDP on location of industry is clear. Namibia, as member of a Customs Union, trades freely with the RSA. The total "domestic" market is always the same (the RSA + Namibia + other SACU members). The Common Monetary Area guarantees unrestricted capital movements to and from the RSA. Labor costs are not substantially different either. Locating on the RSA side of the border entitles firms to important subsidies and gives close access to the largest regional market. Locating on the Namibian side of the border entails no subsidies and higher transport costs to the RSA markets, where the bulk of the sales are likely to take place, anyway.

The General Export Incentives Scheme

7.14 In April 1990, the Government of the RSA approved a system of export incentives for exports originating in the RSA. The RSA extends these incentives to exports going to SACU member countries and non-member countries alike. Thus, the internal distribution of incentives in SACU is biased in favor of the RSA, the largest and wealthier member country. In most Common Markets and Free Trade Areas, the usual arrangement is to give more favorable treatment to the least developed member countries. Besides, national export incentives usually are not applicable to trade flows between two member countries of a regional trading group. In SACU, the RSA not only has the strongest export incentives, but they apply to exports to all markets.

7.15 Namibia's manufacturing sector has failed to develop significantly partly because of the fierce competition from the RSA, partly because of sanctions, partly because of the size of the domestic market. Competition with the RSA has not taken place on a level playing field, but on one tilted heavily in favor of the RSA. The combined effects of SACU, the RIPD, sanctions, and the size of the market have relegated Namibian manufacturing industry to its present role.

7.16 Little wonder, then, that the only manufacturing operations located in Namibia are those producing goods with high transport costs relative to their value (e.g., bakery goods), those linked to the country's natural resources (e.g., meat-packing, fish processing, and mineral processing), and those with export potential outside SACU. Under these conditions, the intriguing question is not why is Namibian manufacturing sector so small, but why does it exist at all.

Interim Policy Recommendations

7.17 An assessment of the benefits and costs for Namibia of continued SACU membership is beyond the scope of this document, but an important task that the World Bank will be addressing within the context of regional integration. The member countries of SACU are re-negotiating the agreement and the RSA has revised the RIDP. An assessment of continued membership in SACU is premature until the new arrangements are in place.

7.18 SACU membership has entailed costs and benefits for Namibia. As discussed in Chapter V, SACU membership has enabled Namibia to sell its meat in the RSA at prices that are some 30 percent higher than international prices. The custom receipts payments made by the RSA to SACU members are also higher than what they would receive if member countries were to collect them

themselves at the same rates. On the other hand, Namibians pay more for some consumer goods than if they would import them from outside SACU, but the data does not permit an overall assessment. Nevertheless, even if pulling out of SACU were to benefit Namibia, it would not benefit all Namibians equally. The livestock sect , for example, would likely suffer, while manufacturing might benefit. To the extent that communal area farmers benefit from higher meat prices in the future, continued membership in SACU is to their advantage. The distributional implications of continued SACU membership also need to be assessed.

7.19 The choice goes beyond the decision of staying or pulling out of SACU. The Government of Namibia must address the more general issue of adopting a trade regime that is likely to use the country's resources efficiently and maximize the country's growth prospects. The authorities will then need to assess the extent to which the SACU-related trade regime conforms to that standard. This assessment will not depend only on the SACU trade regime; it will depend also on the changes that are introduced in the industrial policy of the RSA and in its export incentives.

7.20 Namibia's continued membership in SACU can be better assessed only if there is a study of the implicit taxes and subsidies that it entails. Among other things, this will require a study of effective protection entailed in continued SACU membership. It will also require an assessment of the RSA's plans with respect to the RIDP or similar programs. At present, very little is known about the structure of effective protection in the RSA.

7.21 If a study of SACU shows that the costs outweigh the benefits, Namibia will need to decide what type of trade regime to adopt. World wide experience shows that small developing countries, like Namibia, tend to grow faster in the framework of an unrestricted and open trade regime. The most conducive environment is one where the expansion of economic activity responds to the lure of competitive international markets (that usually combine high volume and low profit margins), rather than to the attraction of protected and uncompetitive domestic markets (that usually combine low volumes and high profits).

7.22 Thus the Government of Namibia should use protectionist tools with the greatest restraint, if at all. It may be relatively easy for a new Government to yield to the temptations of protectionism, obtaining short lived gains in production and employment. But the recent experience of many developing countries has shown that countries pay dearly for these short lived gains: protection not only jeopardizes future growth prospects, it also creates a system of vested interests that is very costly to dismantle both politically and economically.

7.23 Other industrial policy issues are likely to be important, such as the managerial and technical support for the development of small industries, the possible establishment of credit guarantee schemes for small-scale industries, the regional distribution of industry, training of labor and management, etc. Important as these issues may be, they are ancillary to the major issue discussed above. Namibia's commercial policy must be sorted out first, which is tantamount to saying that the Government must decide first how much and through which mechanisms the economy of Namibia is going to be integrated to the world economy. This report recommends that Namibia orient itself toward an open, export-oriented, unprotected economy. Namibia's internal market is far too small to achieve the required efficiencies otherwise.

VIII. FINANCIAL SECTOR

The Financial System

8.1 Namibia has a small but sound financial system. The institutional structure includes the Bank of Namibia (BofN), a new central bank created in July 1990; five private commercial banks; two private building societies; several Government finance institutions (GFIs); severa private insurance firms (both general and life); and several pension funds. The Post Office also operates a small savings scheme. A few non-governmental organizations (NGOs) operate in the informal sector, including a fledgling credit union network and cooperative network. Private sector institutions dominate the market, which is largely confined to Windhoek and the other larger towns. Until independence, the Second-Tier Administrations were also a source of credit, particularly for agriculture, a function now assigned to one of the GFIs, the Landbank.

8.2 RSA institutions have dominated the *commercial banking* sector. The two largest banks, Standard Bank and First National, account for about 75 percent of total deposits. The Bank Windhoek, a Namibian-owned institution, is the third largest bank. The other two banks--Commercial Bank of Namibia and Namibian Banking Corporation--are small niche operators.

8.3 Namibia's two *building societies* lend almost exclusively for residential housing. SWABOU, the largest, covers about 60 percent of the total mortgage market (including mortgages held by the commercial banks). Namib Building Society, established in 1987, has quickly gained a small, but solid foothold in the market.

8.4 Created with Government capital, GFIs were established to serve specific market segments. *Landbank* has provided farmers with financing for property since the early 1900s. Landbank lends only for surveyed land and takes first mortgages only; effectively it serves the white population. Interest rates on Landbank loans were highly subsidized until 1990. The *National Building Investment Corporation* (NBIC) was created in 1982 to construct and finance lower cost housing. It also provides credit at subsidized rates but has had very little impact on the overall housing market, constructing only 7,000 houses in nine years. *The Development Fund* was created in 1987 to channel subsidized funds to the Second Tier Administrations and other agencies (Private Sector Foundation, Newveld Investments). With the dissolution of the Second Tier Administrations, the Development Fund is largely dormant.

8.5 The *non-bank financial institutions*, particularly the insurance companies and pension funds, represent a sizeable potential market for money market and other securities. At present most of their funds are invested in the RSA. All of the life insurance firms are mutual companies and seem to be in good financial condition.

8.6 Namibia is a member of the Common Monetary Area (CMA) and its financial market is fully integrated with that of the RSA. Until independence, most commercial banks were branches of South African banks. Namibia's membership in the CMA implies that until it issues its own

currency and its Central Bank becomes operative, its monetary policies will be determined largely by the Reserve Bank of South Africa. Interest rates and inflation, will mirror those in the RSA, and the local financial institutions will continue to compete with those of the RSA.

8.7 Throughout the past decade, inflation remained between 12 and 15 percent per year, following the pattern of the RSA. In 1986-87, to stimulate economic activity after the imposition of sanctions, the RSA allowed interest rates to fall below prevailing inflation rates. This move did not contribute much to growth, but fueled inflation. In late 1987 the Reserve Bank of South Africa began to push up interest rates again. At present, lending rates and the yields on Government securities are positive in real terms. Rates on large fixed-term deposits are also positive in real terms, but rates on small savings accounts are below inflation. The yield curve is nearly flat.

8.8 Namibian financial institutions tap only a portion of the country's financial resources. Most of the large mining firms, insurance companies, financial institutions, and some individuals hold financial assets in South Africa. Moreover, the larger firms with RSA links are likely to obtain credit in the RSA. The lack of a national currency makes it difficult to assess the financial deepening of the economy. Most importantly, because the financial system serves only the modern sector, the financial data mainly reflect developments in this sector.

Financial Sector Developments

8.9 One year after independence, isolating and analyzing data on Namibia's financial sector remains difficult. Because of its membership in the CMA and the ease with which funds can cross the border, national accounts for deposit and credit growth do not capture the entire picture. Most large firms (including insurance companies and banks) and some individuals hold financial assets in South Africa. Moreover, the larger firms also borrow in the RSA. In addition, measuring M1 and M2 (typical indicators of financial deepening) are not possible without a separate currency. Since the financial system has traditionally served only the modern sector, financial sector developments may largely reflect the savings and spending patterns of the whites. It is likely that poor blacks invest primarily in non-financial assets (e.g. livestock) or hold cash outside the banking system. They are also likely to use informal and family networks for credit. Nonetheless, developments in the structure and growth of deposits and credit can provide some useful insights.

8.10 Commercial banks deposits have increased every year since 1980, although year-to-year growth ratios have been quite variable, reflecting political and economic uncertainty. The ability to transfer funds into the RSA probably contributed to these fluctuations. Short-term deposits, especially in the form of demand accounts, have shown the fastest growth, averaging 22 percent per year, compared to total deposit growth averaging 17 percent. Demand accounts now comprise 49 percent of total deposits, up from 34 percent in 1980. Long-term fixed deposits (maturity over one year) have lost the most ground, falling from 20 percent of total deposits in 1980 to 6 percent in 1980. While political uncertainty probably has played the biggest role in the shift to short-term deposits, negative real deposit interest rates during 1986 and 1987, probably also contributed.

8.11 Households accounted for 62 percent of deposits in 1989. Their share has been increasing as have Government deposits, while those of local authorities have declined. Non-financial companies have been another important source of deposits, accounting for over 20 percent in 1988 and 1989.

8.12 Economy-wide savings rates are comparable to those in other developing countries, due to relatively high corporate savings. Indeed, gross domestic savings as a percentage of gross domestic product were 21.4 percent in 1989, compared to 13 percent in Sub-Saharan Africa and 20 percent in Latin America and the Caribbean. Personal savings, however, have declined since 1987, both in absolute terms and as a percentage of personal disposable income. Personal savings ratios weakened from 4.1 percent in 1987 to 2.8 percent in 1989.

8.13 On average, total commercial bank credit has increased at about 24 percent each year, with the fastest increases in the past four years. After contracting in 1984-85 (because of political uncertainties and sanctions), total bank credit grew by just over 30 percent in 1985-87 and accelerated to 57 percent in 1987-88; it tapered off at 41 percent in 1988-89. The rapid increase in credit largely financed instaliment purchases (new cars, consumer goods, etc.) and home mortgages rather than in directly productive investment. Credit demand appears to have leveled off in 1990. With the growth of credit outstripping that of deposits, the banks' loan-to-deposit ratio increased from around 50 percent for most of the decade to over 70 percent currently. Recent figures indicate that in aggregate the commercial banks are not meeting their statutory liquidity requirements.

8.14 Commercial banks account for 64 percent of total credit, building societies 17 percent, and Government financial institutions (GFIs) another 18 percent. About 25 percent of commercial bank credit is in the form of hire-purchase and leasing contracts, and approximately 5 percent consists of commercial and residential property mortgages. All building society credit and almost all credit from the GFIs is relatively long term. Thus, long-term credit already represents over 50 percent of total credit in the system, unlike in other African countries. Indeed, Namibian banks may face a significant "maturity mismatch," particularly since the deposit base is so small, short-term and volatile.

8.15 Government's share of credit has traditionally been low. Before 1986, Government borrowings (including Landbank securities and Second Tier credit) were almost insignificant. From 1986 to 1988, Government borrowings increased to about 8 percent of total credit, but dropped back to 5 percent in 1989. Insurance companies are not subject to prescribed investment, and reserve and liquidity requirements for banks are relatively modest (4 percent and 15 percent, respectively). Thus, Government does not seem to be crowding out private sector demand for credit. Given the already high loan-deposit ratios, however, expanding domestic credit to the Government could crowd out the private sector unless savings increase dramatically.

8.16 A complete flow-of-funds analysis is not possible for the 1980-89 period because of the difficulties in separating flows to and from the RSA and because of the lack of uniform data for all sectors. The most complete data set available is for the commercial banks, which represent 60 percent of total credit. As shown in Tables 8.1 and 8.2 the flow of funds for commercial banks over the 1980-89 period indicates that the banks became more integrated with the Namibian economy. While nearly 40 percent of total assets of the banks were invested in real estate or other investments

in the early 1980s, by 1989 that figure had declined to 21 percent. Indeed, "other assets" have declined in real terms since 1985. The prime beneficiary of this change has been the private sector. A secondary beneficiary, however, has been the Government: in larger direct borrowings, holdings of Landbank securities, and increased reserve bank balances.

Table 8.1
Namibia: Commercial Bank Sources and Uses of Funds
(Percentages)

Sources	1980	1985	1987
Private Depositors	62.6	51.9	59.7
Corporate Depositors	14.6	9.4	12.7
Government	11.8	26.3	16.5
Foreign Depositors	0.3	1.0	1.3
Equity	2.7	2.4	2.3
Other Liabilities	7.9	8.9	7.5
Total Liabilities	100.0	100.0	100.0
Total Amounts (Million Rands)	436.3	927.2	1,117.5
Uses			
Local Private	41.8	38.0	47.1
Foreign Private Loans	0.0	1.5	0.0
Government Advances	0.3	0.1	4.5
Government Securities	8.2	2.7	4.8
Reserve Bank Balances	2.0	0.6	0.3
Subtotal Government	10.5	3.4	9.5
Other Liquid Assets	8.4	5.3	3.8
Other Assets	39.2	52.0	39.6
Total Assets	100.0	100.0	100.0

Table 8.2
Namibia: Commercial Bank Flow of Funds

Flows	1980-85	1985-89	1980-89
To private borrowers	74.5	83.8	67.9
To foreign borrowers	2.8	-1.3	0.0
To Government	-3.0	11.0	6.5
To Other	65.7	6.5	25.6
From Households	42.5	52.9	49.5
From Corporate Sector	4.7	32.5	23.6
From Foreign Deps	1.6	-0.4	0.2
From Government	39.3	-6.3	8.4
From Other	12.0	21.3	18.3

8.17 Within other sectors of the economy, the flows between Government and the private sector may look a bit different. For the GFIs, funds have flowed from the Government to the private sector through the Government's annual contributions to FNDC and NBIC. In addition, the Second-Tier Administrations made direct loans to farmers out of Government funds. Between the loans outstanding from the Second-Tier Administrations and the funding provided to the GFIs, the Government has probably been a net creditor, rather than a net borrower.

Equity Issues

8.18 Until now, Namibia's financial system has largely catered to the modern white sector. While blacks have not been explicitly precluded from the financial system, a number of examples show how they have been excluded implicitly:

- high collateral and deposit requirements for loans from the commercial banks and building societies;
- restrictions on lending by the Landbank for farms in surveyed areas only; very few blacks have property in surveyed areas;
- concentration of bank branches in Windhoek and other white areas;1/
- FNDC's high interest rates for small enterprises (over 60 percent per year).

1/ While there is literally a bank on every corner in Windhoek center, there is only one bank (Standard) branch in all of Katutura.

8.19 In 1989, the two building societies had just over 6,800 loans outstanding for a total of about R335 million. At such low volume, they have had little impact on the housing market (in which a gap of over 40,000 units has been projected).

8.20 In the new Namibia, Government faces pressures to expand banking services and credit to blacks. Such an expansion, as discussed later, must be calibrated to ensure the safety and stability of the financial system. A number of institutional and legal issues will need to be addressed in expanding financial services to the black population. The private sector banks will incur higher costs in expanding beyond the modern white sector (new branches/agencies, staff). Their profitability may also decline, as smaller loans necessarily entail higher transaction costs and loans to relatively inexperienced borrowers will result in higher loan losses. As the banks expand their operations beyond their traditional base, the adequacy of security and the means for recovering against defaulters will become more important. At present, it appears that cumbersome and slow legal procedures impede foreclosures. At the same time, the lengthy procedures and high costs associated with establishing title and security seem to dissuade small entrepreneurs from borrowing.

8.21 The GFIs, which in many other countries have played a developmental role, are poorly equipped to handle the needs of the black population. In the past, only NBIC and the Development Fund had (nominal) mandates to serve the poor, and the other GFI's have had little experience with higher risk enterprises. NBIC and FNDC already depend on the Government for capital and subsidies, and Landbank's financial position has weakened because of lending at negative spreads. The Development Fund has a significant pool of funds but no direct lending capability. As discussed later, this report advocates that the Government rely on the private sector to lead the expansion of credit to the poor, rather than embark on a costly expansion and reorientation of the GFIs.

Efficiency Issues

Interest Rate Structure

8.22 Namibia is fortunate to have inherited a relatively distortion-free financial policy framework. CMA membership means that interest rates are largely market determined. The Reserve Bank of South Africa (RBSA) controls three key rates: the prime lending rate (currently 21 percent), its own discount rate for banks (18.3 percent), and the term lending base rate (0.5 to 1 percent above the prime rate). Deposit rates are not controlled, and lending rates are largely variable. The RSA system also features tax-advantaged savings through the building societies and participation bonds. These instruments provide financial institution cheaper funds while providing the investor with attractive after-tax returns. At present, participation bonds are yielding a very high 19 percent (tax free), while "indefinite shares" at building societies, which are partially tax free, yield 13.5 percent. The Post Office Savings Bank also offers tax-free savings accounts at 11.5 percent.

8.23 Over the past few years, lending rates and most term deposit rates have been positive in real terms. Rates on small savings and demand deposits are negative in real terms (largely to dissuade people from maintaining these high cost accounts). Because Johannesburg also boasts active equity and bond markets, Government stocks are traded and priced competitively. In August, 1990,

RSA Treasury bills yielded 18 percent, while Government stocks yielded between 15.5 and 16.6 percent.

8.24 In Namibia, private financial institutions (which account for about 80 percent of credit) are subject to the rates prevailing in the RSA. In the public sector, Namibia has a history of subsidized credit programs, particularly to finance land for white farmers and to a lesser extent for industry (FNDC) and housing for the poor. These subsidized programs have weakened these financial institutions by eroding their capital since they are lending at negative spreads. Moreover, pricing capital well below its opportunity cost has in many cases favored the use of capital-intensive, rather than labor-intensive technologies. Recognizing the high cost of these programs and the inequities they perpetuate, the Government is now removing the subsidies. A positive feature of Namibian financial policies is that private financial institutions are not subject to directed credit requirements, as they often are in other developing countries.

Costs of Intermediation

8.25 While Namibia's sound policy framework has largely promoted the development of effective financial intermediaries, a number of signals point to the need for institutional reforms to improve efficiency. The small market, small number of players and, until recently, strong links to parent organizations in the RSA have fostered what appears to be a fairly uncompetitive environment for financial institutions. The Government may need to take steps in the future to reduce the costs of intermediation, increase the capitalization of the banks, institute regulations to promote more prudent banking practices and allow for greater competition.

8.26 The oligopolistic market structure in Namibia has enabled banks and building societies to operate on high spreads (about 9-10 percent for both classes of institutions). Namibian financial institutions can mobilize low-cost funds through current and savings accounts (commercial banks) and share accounts (building societies). Provisions are also low (0.9 percent) compared to total advances. Despite these high spreads, the average return on assets to commercial banks is about 1-2 percent, in line with levels in other countries. Such high spreads, combined with what appear to be average levels of profitability, implies that the institutions are directing a high level of their cost structure to operating expenses and suggests that they may be inefficient.

8.27 At present, detailed information on the costs of intermediation is not available. High administrative costs may be a result of (i) the small market,which may inhibit scale economies in Namibia; and (ii) the current business mix of the banks, which is focused on the retail and middle markets. On the other hand, the two largest banks, by capturing over 75 percent of the existing market, may have already exploited the available scale economies. Further study of the costs of intermediation and the potential for scale economies is necessary to determine the relative efficiency of the commercial banks.

Capital Adequacy

8.28 The commercial banks currently show capital and reserves totalling about 3.3 percent of total assets--a level lower than the 8 percent proposed by the BIS guidelines, but also higher than that in many developing countries. In line with the growth of their deposit bases in 1988-89, the banks nearly doubled their capital in 1988. The recent increase in loan-to-deposit ratios may call for additional capital, particularly since Namibian banks generally hold a much smaller proportion of risk-free assets in their portfolios than banks do in other developing countries. Finally, increasing their exposure to the larger industrial firms, will necessitate a larger capital base to absorb possible defaults. The Bank of Namibia survey of banks' portfolios and financial condition now in progress will facilitate a more precise quantification of additional capital requirements.

8.29 The building societies also exhibit some troubling signs. Irredeemable capital and reserves are also quite low (since most of their capital comes from members). Both building societies appear to be substantially overlent, with advances amounting to nearly 90 percent of total assets. Namib Building Society expanded its lending rapidly to build market share, being the newest entrant to the market. SWABOU, on the other hand, needs to break away from its reliance on Government funding sources and lending programs (such as the civil servant mortgage program) and build a larger portfolio of mortgages at regular rates. In 1989, the civil servant loans represented over 60 percent of SWABOU's portfolio. As SWABOU refinances these loans with higher-coupon deposits and shares, its profitability will suffer. Thus, both institutions will need to increase their capital, slow the growth of their lending and monitor more closely interest rate and maturity risks in their portfolios.

8.30 Increased competition, by allowing the selective entry of new institutions and reducing the barriers between types of institutions, would also contribute to greater efficiency. The deposit market is not very competitive, as demonstrated by the low rates paid on small savings accounts. "Lean" lending periods further deter banks from mobilizing deposits. As the economy expands, however, there should be ample new lending opportunities, including the expansion of medium- and small-scale service firms in small and large towns, providing corporate financial services and simple merchant banking services, serving the northern region and extending housing finance.

Transition Issues

8.31 Until independence, Namibia relied on the RSA for its regulatory and legal framework, exchange rate and foreign reserve management, the conduct of monetary policy and financial institution supervision. As a member of the CMA, Namibia continues to rely on the RSA for the management of the exchange rate and reserves as well as the conduct of monetary policy. Over time, however, it is committed to the establishment of an independent currency. With a separate currency will come important choices regarding the growth of the money supply, the valuation of the currency and the management of domestic demand. Steps that Namibia takes now in the conduct of fiscal policy and the maintenance of domestic and international confidence will figure importantly in how much latitude Namibia will have later in successfully launching a separate currency.

8.32 A major risk in establishing a separate currency is the temptation for the Government to run excessive fiscal deficits. At present, without a separate currency, the Government must finance deficits through external borrowings, drawing down cash reserves or borrowing in the RSA. An independent exchange rate and independent interest rates would provide the Government with more instruments for financing deficits. Some of these tools, such as inflationary money creation, direct borrowings from the Central Bank, and forced borrowings through the banking system (liquidity and reserve requirements, prescriptive investments) could undermine the health and stability of the financial system. These measures could also crowd out the private sector. Policies which fuel inflation would also erode personal incomes and thus lead to lower savings and investment. High inflation could also aggravate the income disparities between rich and poor.

8.33 More immediately, Namibia needs to put in place its own financial sector "infrastructure": banking legislation, prudential guidelines, financial institution supervisory capabilities, audit and accounting guidelines, etc. At independence, it inherited a framework based on 1960s RSA laws and which in many respects is now obsolete. Since independence, Namibian authorities have passed a new Central Bank Act, establishing the Bank of Namibia and setting out its responsibilities. It is also preparing an amended Banking Act with the assistance of technical advisors from the IMF.

8.34 The current framework has a number of weaknesses, including:

- placing too much responsibility for day-to-day operations in the Ministry of Finance;
- low minimum capital requirements for banks (currently R1 million);
- no exposure or concentration limits for banks and building societies. Given the small size of the institutions, some may be in danger of wiping out their capital with a single loan or with loans to a particular client or subsector; and
- inadequate enforcement and inspection powers.

8.35 In addition, audit and disclosure requirements need careful review. Information available from publicly distributed financial statements is scanty and provides little information about bank profitability or the health of their portfolios. Moreover, comparison between institutions is difficult because of differing accounting and presentation practices.

8.36 Finally, in the medium term Namibia would gain by diversifying the array of financial instruments. At present, institutional and individual investors who wish to keep their funds in Namibia have two choices: bank deposits or real estate. Investors are unlikely to keep funds in Namibia unless a greater variety of competitively priced money market instruments are available.

A Strategy for Financial Sector Development

Objectives for Financial Sector Development

8.37 Namibia's financial system represents an important asset that should be safeguarded and nurtured. Its immediate challenges will be (i) expanding the system without destabilizing it; (ii) improving efficiency; and (iii) making the transition to a system independent from the RSA. An

important secondary objective is to achieve these goals while minimizing the burden on Government's limited resources. This strategy implies that the private sector take the lead in the development of the financial system.

Improving Equity and Expanding the System

8.38 In the interest of equity, the black population needs greater access to the financial system. At the same time, expanding the system should not endanger it. Countries all over the world have attempted to use the financial system to transfer income from the rich to the poor and to reach special groups--e.g., women--via subsidized interest rates, directed credit programs, and specialized finance institutions as discussed in Chapter V. The results have been largely discouraging. Subsidized credit programs have eroded lending margins, reduced incentives for banks to expand their lending, or encouraged them to cross-subsidize unprofitable businesses with high-margin, high-risk activities. In some cases, subsidized programs have been tempting targets for politicians and their friends, and credit often has ended up in the hands of those who need it least--thus increasing the gaps between rich and poor. Specialized development finance institutions (DFIs) have turned out to be very expensive and often ineffective in expanding credit to the poor. Because of their small size, Namibian banks are more vulnerable to the fortunes of individual large borrowers and depositors. Thus, an expansion and broadening of the banking system will enable it to serve all segments better.

8.39 In expanding the system, Namibia can avoid the mistakes mentioned above by (i) allowing credit to follow development instead of using credit to lead development and (ii) by relying on the private sector to be the prime, if not the sole, source of credit. Private credit unions, cooperatives, and new financial institutions need to be encouraged and nurtured alongside commercial banks. For this strategy to succeed, interest rates need to remain market-determined, thus enabling financiers to cover risks and transaction costs; and the Government needs to withdraw gradually from credit markets. Some of the businesses currently reserved for the GFIs (farm mortgages, distribution and warehouses, etc.) would be attractive to private institutions, since collateral is likely to be strong. To facilitate the expansion of lending to small and medium enterprises, banks could rely on leasing and hire purchase contracts or short-term loans. This strategy implies a slower, but more sound expansion, thus meshing better with both the financial and human resources of Namibia's financial system.

8.40 In a private-sector approach to expansion, the Government also needs to foster a good investment environment by having a minimum of regulations, keeping inflation low, and tapping financial institutions for credit lightly. Government also needs to make available two critical inputs: adequate infrastructure and support services to entrepreneurs. Improved infrastructure outside of the larger urban centers will make the expansion of banking possible, through the provision of telecommunications, postal and transportation services. Support services, in the form of training, extension and advisory services, will help make the first-generation entrepreneur more bankable as well as increase the chance that he or she will be successful. Government may be able to draw on NGOs or donor funding to assist with the provision of these support services.

8.41 Relying on the private sector, however, is not without risk and cost. Managing a larger, more diversified and riskier portfolio will require better trained staff and larger branch and agency operations. Additional capital will also be necessary to bring the banks in line with international standards and weather these changes in the portfolio. Thus, expectations for rapid expansion of services to the poor must be tempered in light of these factors.

8.42 Under this strategy, the Government would phase out the GFIs. One option would be to fold the GFIs into one entity run as a "caretaker" for their old portfolios. Government could then collect the existing loans and slowly redeploy the GFI staff. It would also ensure that the private banks are not saddled with unprofitable portfolios. Excess funds collected from the old portfolios and the existing resources of the Development Fund could be used to fund training, the preparation of feasibility studies and extension services.

8.43 Political pressures may build for the Government to establish a development finance institution (DFI) as a means of directing credit. Virtually all developing countries have at least one, and many have a special institution for each priority sector. Successful DFIs are few and far between. Those that have succeeded charge market rates on their loans, take adequate security, raise deposits and pay market rates on funds they receive from Government. Establishing such an institution on a joint-venture basis with the private sector, thus sharing expertise (and scarce talented staff) and ensuring that it operates on commercial terms, would limit Government's financial investment in such an operation and provide a check on abuses. In Namibia, neither the market nor the staff exist to support more than one institution. Moreover, a DFI would have several disadvantages, including: (i) perpetuating the segmentation of credit markets; (ii) slowing the diversification of private financial institutions; and (iii) exacting a significant drain on Government resources. Government needs to examine this issue with extreme care.

Improving Efficiency

8.44 The experience of other countries indicates that a stronger and more efficient financial system will, over the longer-term, facilitate the expansion of services to the poor and disadvantaged and reduce the need for costly Government credit programs (*World Development Report 1989*). Efficiency is best served by a policy framework which allows interest rates to be market-determined, does not rely on directed credit programs and minimizes distortions in the taxation of financial institutions and transactions. Most of these elements are already in place in Namibia, although a comprehensive review of the taxation system is necessary.

8.45 Adequate competition between institutions and a more highly skilled cadre of financial sector staff will also help foster greater efficiency and innovation. As noted earlier, the private institutions may be somewhat inefficient and undercapitalized. A thorough assessment of the portfolios and intermediation costs of the banks and building societies will enable these institutions and the Bank of Namibia to formulate a realistic program for improving their financial condition. Selective entry of new institutions, and the removal of barriers between classes of institutions will also promote more competition and greater efficiency. Bank of Namibia supervisory staff need to be in place and trained prior to the expansion of the system.

IX. HEALTH

Determinants of Health

9.1 The Government of Namibia spends as much of its country's GDP on health care (4.5 percent) as the Government of Japan and far more than other countries at its income level. Available data suggest that the health status of the Namibian population is similar to that of other Sub-Saharan African countries. Infant mortality during the first year of life, for example, ranges from 47 to 74 per 1,000 live births, comparable to Botswana and Zimbabwe, but lower than most other countries in the region. Hospital and clinic data, the only information available on cause of death, suggest that many of these deaths and those of older children are the result of easily preventable diseases (diarrhea, acute respiratory infections) and immunizable conditions (measles).

9.2 Morbidity and mortality in children under five is directly associated with malnutrition. Available surveys document pervasive levels in children across geographic regions and time. Levels of stunting, suggesting chronic malnutrition, approach 40 percent in the north and 25 percent in Katutura and other areas of the south. In some northern areas, as many as 10 percent of the children suffer from acute undernutrition or starvation. Maternal mortality is also significant, with a recent UNICEF survey showing from 242 to 552 deaths per 100,000 live births, although hospital-based data are much lower at 39 and 71 per 100,000 deliveries in 1986/87 and 1987/88 respectively.

9.3 Facility based data suggest that the major health problems in adults are tuberculosis and malaria. These conditions are extensive, controllable and affect children as well (see Annex IV). Malaria causes explosive epidemics in the north, periodically overwhelming the health care institutions. Tuberculosis is a pervasive problem throughout the country. Antimicrobial resistance, limiting the effectiveness of curative care, is emerging with both diseases in Namibia. AIDS has also been documented in Northern Namibia and is expected to become more prevalent, HIV transmission is exacerbated by the high incidence of sexually transmitted diseases.

9.4 It is paradoxical that health conditions are as poor in a country that spends as much of its GDP on health care. One reason is the structure and orientation of health services, developed to provide curative rather than preventive health care, and geared to benefit the few to the neglect of the majority. Another reason is the size of the country relative to its population. In a country as sparsely populated as Namibia, health care will always be relatively expensive. The MOHSS has made a strong start in making the system more equitable and effective through a policy which emphasizes primary health care (PHC). But even with a model health care system, disease and mortality would remain high. There are many important factors outside the health care system that affect health adversely: widespread poverty, low literacy and educational levels, alcohol abuse, poor food security, and inadequate housing, water and sanitation.

The Health Care System

Government Health Services

9.5 Government health services and Government-supported mission hospitals supply over 90 percent of the population with health care. The structure of the state system is based on strong curative facilities, with decreasing levels of sophistication from the center in Windhoek to the periphery. Complex cases are referred to the more advanced institutions. Patients may be transferred to South Africa for more critical treatment (e.g., oncology); the indigent at Government expense.

9.6 *The tertiary unit.* The advanced tertiary referral hospital in Windhoek is the top of the pyramid and serves as the country's referral center for cases from the regional or district levels. The Oshakati Hospital was established to function similarly in the north, but currently lacks the infrastructure to do so. Health care services, especially at the Windhoek Hospital are more comparable to services in Europe or South Africa than to other Sub-Saharan African countries, with expensive, sophisticated departments and equipment, including modern radiological services and an intensive care unit. However, patient/day costs are relatively low at about R130 (US$50).

9.7 The Specialized health services budget, which covers the expenses of Windhoek and Oshakati hospitals, makes up 37 percent of total spending on health, as compared to the community health services budget, which comprises 43 percent and includes all the other service delivery units in the country. Additionally, Windhoek and Oshakati Hospitals use over half the professional nurses and over two-fifths of staff nurses and nursing assistants. Expenditures on drugs, new equipment, and supplies are similar. However, these two hospitals account for about one-third of all patients, and MOHSS has managed to cut costs significantly, especially of staff, drugs, and food services.

9.8 *The regional and district hospitals.* The regional and district establishments are below the Windhoek and Oshakati hospitals in the health care pyramid. There are four regions with six to eight districts within each region. The regional hospitals support the district institutions and activities. The district hospitals serve as referral centers from the communities. District hospitals provide basic medical care and perform simple operative procedures such as appendectomies and caesarean sections. Throughout the country, district facilities and their clinics are well stocked with pharmaceuticals. The quality of curative services provided in these institutions appears excellent.

9.9 *The Clinics.* The district hospitals support fixed clinics in the community and send mobile clinics to areas too small or remote to support a full-time clinic. The fixed clinics are run by a registered nurse, staff nurse and nursing assistant. These clinics have one or two in-patient beds, and the staff is capable of treating simple medical problems and providing obstetrical care and, since independence, consistent immunization service. Clinics are well stocked with pharmaceutical supplies. Mobile clinics supply their services at periodic intervals at more than 800 visiting points; an extensive and impressive outreach which has been built up in the past few years. The MOHSS budget allows for transporting referred patients from lower-tiered clinics and hospitals to higher-level facilities. However, it is a major weakness that about one-third of clinics have no communication system.

9.10 Not all institution-based services are curative, and the proportion of staff time spent on preventive services (such as well-baby clinic sessions, antenatal care and growth monitoring) has been increasing. The lower down the system, the greater the emphasis on preventive services, which presently account for 25 percent of services provided at rural clinics and about 55 percent of mobile clinic services.

9.11 *Manpower.* Manpower resource distribution mirrors this institutional structure. There is approximately one physician for every 5,000 Namibians, a generous ratio for Sub-Saharan Africa. However, they are primarily at the more sophisticated hospitals and in Windhoek. They are not distributed evenly in areas of greatest need or in major population centers (the north). As mentioned, a similar maldistribution is evident with nursing and nursing aide staff, despite MOHSS efforts and some progress in redeploying staff. Community health workers, central to primary health care and the most cost-effective way to provide some services, are only used in a few pilot projects in the north.

9.12 *Mission hospitals.* The religious missions, Lutheran and Roman Catholic in particular, historically have played an important role in the delivery of health care services. In 1989, missions managed 22 of the 65 hospitals and 29 of the 181 clinics in the country. In the north, missions are responsible for 54 percent of health services.

The Private Sector

9.13 Private patients comprise about 5 percent of the population. Private physicians, pharmacists, and a few hospitals provide care to the minority who can afford to pay for services and/or are covered under private health insurance schemes. The mining operations provide medical services for their workers and operate four private hospitals, with a total of 159 beds.

System Effectiveness

9.14 The health care system is effective at providing the curative services it was created to furnish. The problem is that curative services in themselves are not an effective strategy to address the health care problems in Namibia. Preventive strategies are needed. Measles is an example. In the north, hospital wards are filled with children suffering from measles. They require and receive costly in-patient care with intravenous support, antibiotics, and supplemental feedings. The care they receive is excellent. In many areas of the south, where the vaccination programs have been functioning better, measles cases are rarely seen in hospitals or clinics. The treatment of disease after it develops leads to increased costs, suffering, and mortality. Obviously, prevention is a more effective, less expensive, strategy, but in its absence, the curative care given is satisfactory.

9.15 The MOHSS is aware of the limitations of the current system and is moving in a forceful and coherent way to reorient the system towards primary health care, to make the system more equitable and responsive to the health care needs of the majority of the population, and to rationalize and reduce the costs of the existing curative services.

System Efficiency

9.16 Like the per capita income figure of US$1200, the standard efficiency indicators--hospital beds per unit population, bed occupancy rates, and even the number of facilities in Namibia--are misleading. Looking at gross statistics, Namibia seems to have an excessive number of hospital beds. There are 5.6 beds per 1,000 people, while WHO recommends 2 per 1,000 in Sub-Saharan Africa. However, many of the beds are in the wrong places, with duplication of facilities and underutilized beds in some areas, and overcrowded or very distant facilities in other areas of the country. Reliance on countrywide data should be avoided in evaluating system efficiency; local situations need to be considered. In Oshakati, during the six-month malaria epidemic of 1989-90, hospital occupancy rates averaged over 200 percent. Many hospitals in the north, especially in the medical and maternity wards, routinely average over 100 percent bed occupancy. This high level of utilization does not indicate the need for a more extensive hospital system but reflects the paucity of outreach and community-based health care. Conversely, in the sparsely populated south, many institutions are underutilized. Keetmanshoop Hospital is rarely more then 50 percent full. However, to shut down this centrally-located institution would require portions of the population to travel up to 300 km for emergency minor surgery, such as an appendectomy or caesarian section. It would reinforce inequity in the poorer sections of the population unable to obtain transport. There is a trade off between regional resource distribution and equity of access--the lower the population density, the more resources (including facilities) are needed to provide a given level of access. To a degree, in a country as sparsely populated as Namibia, rural services are inherently costly.

9.17 Prior to independence many small towns had separate hospitals for white and black patients. Since independence, services have been consolidated, but duplication and underutilization still exists. In Karasberg, the former white hospital was closed. In other towns, some buildings have been dedicated to specific services e.g. maternity hospital. Even with rational utilization, the MOHSS has buildings and beds where they are not needed and cannot be used effectively, i.e. the former white hospital in Omaruru is 5 km from the black community. It is difficult for blacks to use it given the general lack of transport. In at least five towns,1/ limited expansion of selected facilities would allow others to be closed down--some small investments could *reduce* overall recurrent costs.

9.18 The MOHSS has a rational, analytic and cost-conscious approach to system efficiency that is a model for the region. Clinic and hospital designs have been revised and refined to reduce building costs and to minimize the number of hospital staff that are needed. Costs per patient visit have been estimated and compared for fixed and mobile clinics, as a basis for choosing the most cost-effective way to provide services.

System Extensiveness

9.19 Namibia is the least densely populated country in Africa. The combination of vast geographic areas and sparsely populated tracts necessitates high infrastructure and recurrent costs in

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1/ Gobabis, Grootfontein, Outjo, Omaruru and Luderitz.

the delivery of health care. Taking this into account, the system of hospitals and clinics is extensive. The average number of visits of 2 per person per year and 5.6 per child per year for the country shows that access is good overall. The physical infrastructure and human resource base for a well-integrated health care system exists; relatively little additional capital expenditure is needed. Para. 9.18 argues for some additional hospital wards to allow rationalization; in addition, a few old, dilapidated and inadequate facilities need upgrading or replacement (eg. Engela in the north); staff accommodation is needed at some rural clinics; there are no regional training centers or trainee hostels; and consideration should to be given (depending on costs, etc) to establishing some services (eg., forensic, entomology) for which Namibia presently relies on South Africa, although this last is not of high priority.

9.20 Transport is mentioned as an important priority by all health personnel in Namibia. It is a major recurrent expense in the MOHSS budget (about 6 percent), with large line items for clinic transport, ambulance service and emergency flights. Even when a full-fledged PHC strategy is developed, including community-based health workers, clinic staff will need to be mobile so as to reach out into communities, and ambulances (and a communication system) will always be crucial to the referral system. Namibia's land settlement pattern increases reliance on transport - 70 percent of the population are rural, many of whom live in tiny homesteads of perhaps only 10 people, not in villages.

System Equity

9.21 The system gives people--both black and white--the curative services they want. The poor receive them at minimal direct cost. Public sector health care is subsidized by the state for all Namibians, with the poorest paying only a user fee (R2.4 or US$0.90) for services, inclusive of hospitalization and medicines. Windhoek has the most extensive services available, but no area is left without some provision.

9.22 Inevitably, the system benefits some people much more than others. Those who benefit most are those who (i) live in urban areas where more sophisticated services exist; (ii) have access to private transport in rural areas; (iii) suffer the chronic or surgical health problems amenable to management with specialized surgical, laboratory, and X-ray services.

9.23 The system is not equitable. It does not yet address efficiently or effectively the health problems of the groups at most risk: poor blacks in rural areas, especially women and children. These groups account for about 70 percent of the population and a greater proportion of the disease burden. The meager use of preventive health strategies, limited outreach in some areas, and scant community-based services unnecessarily increase preventable disease in these groups. This in turn raises the need for hospital care, increases overall costs, and most important, increases suffering.

Primary Health Care Policy and Cost Implications

9.24 The Ministry of Health and Social Services (MOHSS) is redirecting health care services to make PHC the focal point; emphasizing, for example, immunization, oral rehydration therapy, prompt antibiotic therapy for acute respiratory infection and malaria, antenatal care, family planning services, and primitive health education. The new strategy also seeks to mobilize local resources for the broader issues that affect public health, such as water supply, sanitation, nutrition, and housing.

9.25 Since independence, the MOHSS has moved in an forceful, organized and coherent fashion in restructuring the health care system towards PHC. The second-tier structures have been centralized into one ministry, a directorate for PHC has been formed at the national level and an organogram and career network have been devised for the national and regional levels. The budgeting process is being decentralized to the district level. Workshops to teach health providers simple approaches to diarrheal disease and acute respiratory infections are underway. The accomplishments of the MOHSS since independence are significant.

Possible Savings

9.26 The tradition of hospital-based curative care (and the unequal income distribution and control of resources) in Namibia have resulted in highly subsidized, costly medical services, which benefit a small number of patients, e.g intensive care treatment and specialized services such as oncology. Some savings have already been made, e.g. by cutting the drug list and hospital meal costs. If budgetary constraints become extreme, every effort should be made to make further such cuts rather than compromising PHC. However, deciding which services to discard without jeopardizing the structure of the health system will be difficult. Value judgements will be required and cuts would mean that some patients who are currently receiving care would have to go without. The physician and nurse managers should be given the discretion to decide which programs should be curtailed based on community priorities.

9.27 Further savings could be made (see para. 9.18), but wholesale closure of hospitals without PHC or preventive service compensation will enhance inequity. Poor communities depend upon these institutions for their health care. Consideration should be given to local factors, and various options, such as running existing facilities at part-capacity, shutting down some hospitals and upgrading others, or converting facilities into outpatient clinics (e.g. Maltahohe Hospital in Marienthal District) or chronic care units for TB patients (e.g. the Rhenish Hospital in Rehoboth). Even in the undeserved northern areas, excessive hospital beds could be more cost effectively utilized by conversion into clinic capacity (e.g. Nkongo LM Hospital in Eenhana). Case-by-case feasibility studies could help reveal which strategy is best suited to distribute health resources equitably to each community. Consolidation of curative structures will reduce recurrent expenditure and release existing staff to participate in the PHC expansion.

9.28 Emphasis needs to be on developing community capabilities, to reduce reliance on patient transport and mobile health units. Community health workers (CHW) can provide some (limited) emergency curative care, encourage preventive health behavior, and encourage community activity

in the more complex activities of sanitation and clean water supply. Appropriately motivated and trained CHWs can provide continuity of care and minimize the need for mobile visits and emergency transport.

9.29 Even with effective PHC, the need for referrals to upper level facilities and the supervision and logistic support of peripheral units will continue. Geography and patterns of settlement in Namibia ensure that transport costs will be significant. Cost effectiveness analyses in the diverse communities could help ensure appropriate use of transport.

Recommendations

Expansion of Resource Base

9.30 As mentioned before, Namibia's expenditures on health are about 4.5 percent of GDP, a reasonable proportion for a country of its income level. The composition of expenditures, however, could be improved further by placing more emphasis on prevention and less emphasis on curative treatment. The MOHSS is aware of the shortcomings of the system that they inherited and is moving rapidly to address this problem. However, PHC is *not* a cheap alternative to expensive curative care, but rather a more cost-effective strategy for improving health with given resources.

9.31 Improving access to health care for large segments of the population and increasing the number of providers to these groups will ultimately increase utilization of drugs, supplies and services. Better preventive care should allow for some savings, like the shutting down of measles wards, but more patient beneficiaries means increased costs. With improved child survival and continued high fertility rates, one can anticipate an increase in the number of surviving children who will utilize health services. Although the composition of expenditures can be modified, adequate preventive care will also require some increase in overall expenditures. The MOHSS estimates that Government expenditures on health will increase by some 12.5 percent per year in real terms over the next three years, with all of the increase going for preventive health care, as Table 9.1 shows.

9.32 Some savings in the current system can be envisioned with increased efficiency, but patient-day costs are already relatively low (about R130 per US$50 in the central hospitals and R55 per US$21 in district hospitals). Furthermore, increasing coverage and access will require additional spending. Investments in new clinics, etc., must be matched by recurrent budgetary allocations. In view of the overall resource constraint, it is unlikely that the MOHSS will receive a sufficient proportion of Government expenditures to meet all its needs. The ministry will need to explore other sources of revenue.

9.33 In the past, all health services, to rich and poor, were subsidized by the Government. Structuring cost recovery so that the wealthy and the insured pay more would lower subsidization, increase equity and release scarce resources. Those who are able to pay need to be identified. One suggestion is to use employment in the formal sector as a proxy for wealth, but other criteria could be used.

Table 9.1
Namibia: Percentage Distribution of Expenditures on Health
1991 - 1993

	1991	1992	1993
Ministry	0.2	0.2	0.2
Administration	10.9	10.4	10.0
Specialized Health Services	36.8	35.3	33.7
Community Health Services	43.2	45.6	47.9
Medical Laboratory Services	2.9	2.7	2.6
Social Services	0.0	0.0	0.0
Pharmaceutical Services	0.6	0.6	0.5
Capital Expenditures	5.4	5.2	5.0
Total	100.0	100.0	100.0
As Percent of GDP	4.4	4.4	4.5

9.34 *Private patient fees.* Currently private patients, regardless of income, pay only a fraction of costs incurred for inpatient and outpatient care. Charges for curative services and pharmaceuticals should be priced according to cost and ability to pay. The MOHSS is already moving in this direction and has reevaluated the fee structure, but costs continue to be heavily subsidized. The maximum current rate for private patients is R75 per day (US$30) with additional user fees for specific services, e.g. intensive care unit, operating theater. Often charges are much lower, R25 - 50 per day (US$10-20). In the interest of equity and efficiency, Government costs in larger hospitals are R120-140 per patient-day (US$48-56). Government should charge private patients and their insurance schemes for full reimbursement of costs incurred.

9.35 *National health insurance.* Mandatory enrollment in a Government insurance scheme would enlarge the resource base for health care. National health insurance would provide the Government with a regular additional supply of funds. Currently, a variety of private and public medical insurance schemes exist in Namibia and cover an estimated 20 percent of the formal labor force. All are too small to secure maximum economies in administrative costs. An amalgamation of the schemes within a national framework could reduce administrative costs, extend coverage to lower wage earners, and release tax money to develop services for those not covered by insurance, i.e. enhance equity.

9.36 *User Fees.* The Government policy statement calls for "...the provision of primary health care services free of charge to all Namibians." In fact, user fees, R2.4 (US$0.90), are charged

throughout the country for medical services. This single fee covers doctor/nurse consultation, medicines and, if needed, hospitalization. Concern has been expressed that even these fees deter appropriate use of services, especially preventive care and immunization, and that the administrative costs of collecting the funds are higher than the money generated in the smaller clinics. The fee structure has been revised recently to introduce free care at the lowest level facility/clinic. Small fees for curative services need to be retained for the sake of cost recovery.

9.37 Given budgetary constraints, competition for funds between the various ministries will increase in the next few years. Unless there is the ability to retain revenues collected from local health units, the MOHSS will have little incentive to expand its resource base. Allowing the MOHSS to retain revenues from these and other income-enhancing strategies and cost containments, would help fund the expansion of its PHC program and encourage efficiencies in the system.

Priority Areas that are Relatively Neglected

9.38 The MOHSS should be encouraged to continue in the redirection of its service delivery system. But even with a model PHC system, Namibians will suffer an excessive burden of disease. Crucial indirect determinants are not readily addressed through the service delivery system. Malnutrition increases the morbidity and mortality of infectious disease; poor water and sanitation are associated with diarrheal illness, inadequate housing potentiates the spread of tuberculosis; unemployment enhances the incidence of alcoholism; and uneducated, illiterate parents are less able to safeguard the health of their families. Without addressing these indirect factors, the effects of efficient service delivery will be lessened. Nutrition, water and sanitation, and family planning are of the highest priority. They cut across sectors and require intersectoral planning and action. Even within new PHC strategic plan of the Ministry of Health and Social Services, these areas are relatively neglected.

Nutrition

9.39 Recent surveys document the high level of malnutrition among children. Malnourished children are predisposed to severe and repeated bouts of infections. This increases demand for expensive curative services. The levels of starvation in the north point to an urgent need for action.

9.40 Action against malnutrition cuts across sectors. The MOHSS needs to take the lead in formulating a nutrition policy and strategy for combating childhood malnutrition from a public health perspective that can be adopted nationally. The MOHSS is in the best position to decide what activities are appropriate for the health sector and collaborate with other ministries on comprehensive activities.

9.41 Existing survey data already provide enough information to warrant emergency planning. Child starvation could be addressed through supplemental feeding programs. A targeted program aimed at specific risk groups, e.g. acutely malnourished children in female headed households in the northern periurban or other circumscribed geographic areas, can alleviate suffering and lower overall program expenditure.

Environmental Health--Water and Sanitation

9.42 Clean and plentiful water supplies for drinking and washing as well as appropriate sanitation facilities are essential for reducing the incidence of diarrheal disease, one of the major direct causes of infant and child mortality. Health education regarding proper hygiene is insufficient in the absence of clean water and sanitation. Oral rehydration salts, a cost effective therapy for diarrhea, is still curative treatment, more costly then prevention.

9.43 MOHSS health inspectors monitor water supplies and sanitation conditions. However, these positions are poorly staffed and their duties not well defined. Ovamboland currently has only two health inspectors for over 600,000 people. Additionally, the responsibility for water supply and development is not clearly delineated. Confusion exists among the Department of Water Affairs, Department of Works, Department of Agriculture, local municipal authorities, and private bodies such as parastatals or ranches as well as the MOHSS. There is a strong need for "a strategy and action plan for the development of the water supply and sanitation sector". Projects cannot be well managed without clear lines of responsibility.

9.44 The MOHSS needs to formulate its own environmental health policy and strategy to direct its community-based activities. The strategy should specify which inputs are to be provided by the MOHSS and which would more appropriately come from other agencies. If necessary, clarification of responsibility could be sought through the National Planning Commission.

9.45 Through the PHC framework, the CHW and health inspector can mobilize community resources and personnel to address local issues of which water is always a high priority. Community-based needs assessments should help set specific targets and plans for securing clean water and sanitation facilities vital for any improvement in child health. Urgent activities that would have an impact on health include community borehole creation and management, extension and maintenance of the northern water pipeline, and latrine construction. These activities will require materials, i.e. cement, drilling equipment, and technical expertise. Provision of water and sanitation should be a MOHSS priority and project funding made available. Non-MOHSS funds, community resources, and the donor community should be fully used. There is considerable international experience (and mistakes) from which to learn about sustainable programs and community participation.

Family Planning

9.46 Family planning services are delivered as an integrated component of health services. However, these services are weak and patchy throughout the country, and are almost nonexistent in the north. Staff and clients have unclear conceptions about family planning and methods available. Many staff feel that family planning just involves giving out contraceptives. Suspicion was generated in some communities by allegations of forced depo-provera injections given to tuberculosis patients. The war disrupted family planning programs and politicized the issue of birth control. Strengthening family planning as part of PHC will require the education of both providers and patients alike.

9.47 Family planning should receive high priority from MOHSS and the Government. The high level of fertility, the high proportion of pregnant women, and the excessive maternal and child

mortality can all be relieved by giving women the ability to space and limit childbirth. The incipient AIDS problem can be diminished through education about the relationship between HIV transmission and sexual activity as well as condom distribution. Lastly, reduced population growth will decrease the pressure for Government expenditure in the social sectors.

9.48 The Government and the women's affairs office needs to highlight family planning as a critical women's health issue. Family planning warrants the same sort of national and high level attention given to the recent successful immunization program. To be effective, family planning services should be made available through all health facilities and outreach workers. Social marketing would help. Formation of a parastatal body, such as the National Family Planning Council in Zimbabwe, should be considered.

9.49 Costs will be significant. About US$10-20 per user has been estimated for developing country family planning programs, and Namibia has a potential 35,000 users in the next few years (assuming a 10 percent acceptor rate). Initial costs are high but will be much lower than the expenditures needed for health and education if high fertility rates continue. Some resources could perhaps come from NGOs, the private sector, and clients who can afford to pay. Considerable interest in supporting family planning activities exists in the donor community.

Information Systems

9.50 Namibia lacks population-based health data. The current information system primarily collects hospital and clinic and financial data. Epidemiological information is processed, but without a population-based foundation, it reveals little about the community's health problems. Without accurate information from the community, planning in the health sector is inhibited.

9.51 The census scheduled for 1991 should consider MOHSS input in its design. The information gathered can serve as valuable baseline data. Surveys in selected areas should be conducted to ascertain community health problems and the efficiency of service delivery. With census and survey material, the MOHSS can create a management information system that reveals community problems as well as facility performance. Important information should include basic demographic data (births, deaths), infectious disease incidence, and nutrition indices. Performance data relating to immunization, antenatal care, and family practice utilization should be emphasized.

X. EDUCATION

Introduction1/

10.1 Independent Namibia has inherited an educational system riven with paradoxes: around 70 percent of the school age population is in school, but most children do not complete a primary education; the administrative structure governing the system is comprehensive, yet the provision of teaching materials is often inadequate; on paper, there are sufficient teachers, but in reality many schools are under-staffed; curricula are meticulously documented and their implementation supervised, but the products of the system are woefully inadequate to meet the individual's needs or the manpower demands of the economy. All these paradoxes pale into relative insignificance when it is realized that more than 8.5 percent of the country's GDP is spent on maintaining this system. It should be noted that this proportion is among the highest in the middle-income countries of Africa with similar large population pyramids and exceeds that of Zimbabwe, which has achieved virtually universal primary education and at least two years of secondary education for more than half the school-going population.

10.2 The gross disparities in the quality of educational services has created a level of expectation that will be extremely difficult to attain while striving to achieve equity of access. Perhaps one of the major functions of the education system in its widest sense will be to assist in the adjustment of those expectations to a level commensurate with the country's economic situation, and therefore attainable in the medium term.

10.3 Three main themes run through the following discussion: (i) equity of access; (ii) the relevance of the curriculum and the quality of its delivery; and (iii) the internal efficiency of the system.

Current Administrative System

10.4 At independence, the system was administered by the Second-Tier Authorities and the Department of National Education (DNE), which covered individuals living outside their designated ethnic region. Schools operated by the DNE were largely in urban centers. The National Examination Board, part of the DNE, set all curricula and national examinations.

10.5 The ethnic barriers have been removed and the second-tier system replaced by the Ministry of Education. The Ministry is the policy and control body, while the previously ethnically-defined authorities have been combined into six regional implementation arms. This arrangement is preliminary and in process of revision. Much work remains to be done in consolidating and thinning what, in the amalgamation process, has become an excessively top-heavy administration.

1/ In most instances statistics have been presented in terms of the new regional pattern, but occasionally this has not been possible, and the old ethnic groupings have been used.

Schools and School Population

10.6 The Namibian Department of Economic Affairs (DEA) has estimated the total school population by region and age groupings. Because of the effects of the unrest leading up to independence, largely unmonitored population shifts between regions and between urban and rural areas have occurred over the past decade; the social structure is rapidly evolving, and analysis of available statistics, where they exist, must be treated with caution. The estimates of school age population are only approximate. However, they do provide a rough yardstick by which to measure the potential demand for formal schooling in each region.

10.7 The latest available figures (1989) produced by the DEA put the school-going population at about 370,000. This would suggest when compared with the estimates of school age population that some 70 percent of school-age children are in school. However, as the following analysis indicates, this overview does not reveal the inequities of access and interrupted pattern of schooling that are the norm.

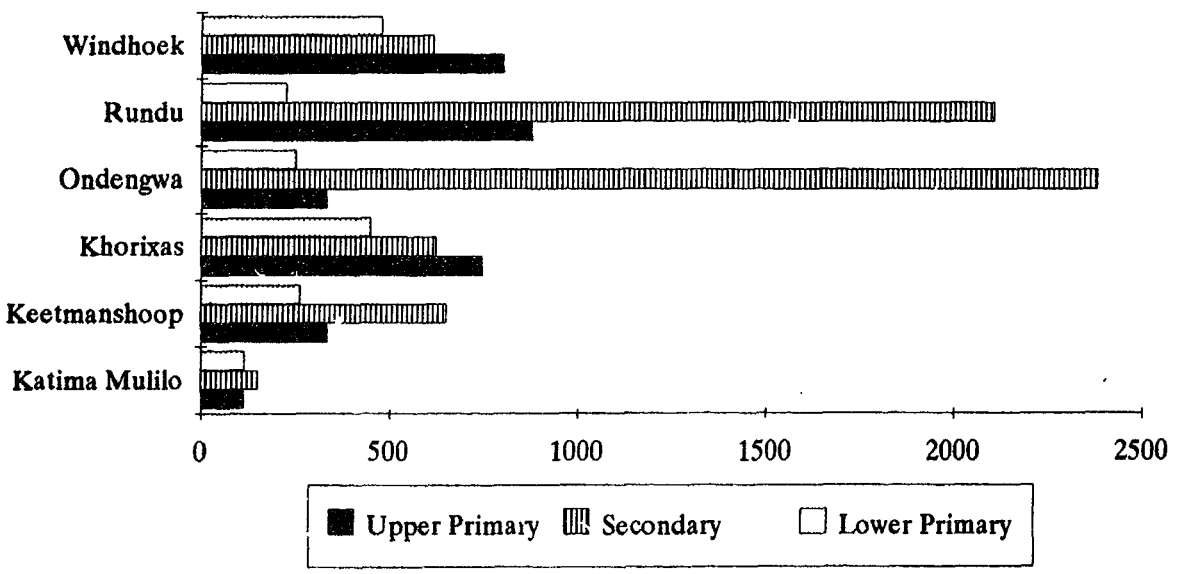
10.8 In 1989 there were 25 pre-primary schools, 1,174 primary/secondary schools, one technical school, two agricultural schools, three technical institutes, two special schools, and one industrial school. The division between primary and secondary schools is not clearly defined because many schools include classes across the boundary between primary and secondary. Accordingly, in order to evaluate access to schooling on a regional basis, it is useful to categorize schools in terms of the *level* of schooling offered; i.e., lower primary (Grades 1 - 4), upper primary (Grades 5 - 7), junior secondary (Grades 8 - 10), and senior secondary (Grades 11 and 12). Since many schools offer more than one of these categories, the totals will not equate with the school totals (see Table 10.1). It would seem that access to schooling decreases rapidly at the higher levels, particularly in the Ondangwa and Rundu regions. Figure 10.1 compares the number of students who could be seeking access to schools at each level across the regions.

Table 10.1
Namibia: Number of Schools Offering Each Level in Full

Region	Lower Primary	Upper Primary	Junior Secondary	Senior Secondary
Katima Mulilo	70	59	28	9
Keetmanshoop	68	44	11	8
Khorixas	42	21	11	10
Ondangwa	382	235	21	7
Rundu	93	20	4	3
Windhoek	117	58	36	27

Source: DEA

Figure 10.1
Potential Students per School Level for each Region



10.9 The wide range suggests that one of the major issues facing the new administration is equity of access to education. It also lends support to the new Ministry of Education's declared policy of expanding junior secondary school access (e.g.in Ondangwa and Rundu there could be more than 2,000 students seeking access to each secondary school, although this figure may be artificially high because of multiple applications).

10.10 Improved access will require expanded physical facilities. In the schools offering only primary grades there is already evidence of crowding and the growth of make-shift classrooms. Mention has already been made of the urgent need to improve access to junior secondary. Because it is difficult to get well qualified teachers to work in remote areas, and because of the low density and scattered nature of much of the country's population, the policy was to provide access to secondary courses, particularly at senior level, through the provision of schools in urban centers with boarding facilities. In practice this has limited access to those who can obtain a boarding places. The gradual expansion of secondary classes (Grades 8-10) into all areas should reduce the need for these expensive institutions, although the low population density and geographical distribution will make it very difficult to provide cost effective service at the senior level.

Relevance of Curriculum

10.11 At the primary and junior secondary level, subject syllabi and schemes of work are devised by subject panels under the direction of the DNE. Senior secondary syllabuses are based on the Cape curricula of the RSA. The primary school curriculum is geared to students who will go on to secondary education. At present, most students do not go beyond the sixth grade. For them, the curriculum is largely irrelevant as it does not prepare them for the farm or for skilled employment. School does not teach them the basic concepts of hygiene and nutrition either. Yet these are the skills and type of knowledge that they need. A revision of the curriculum is urgently required. In some aspects, it is even regarded as offensive, e.g. the perspective adopted for the history of the region is that of South Africa and of Germany, the previous colonial power, and there is a strong emphasis on Afrikaans (no longer an official language).

10.12 One of the first acts of the new Government was to make English the only official language and to encourage its use as the medium of instruction in the upper primary and secondary schools. This policy change, while popular, will bring considerable problems in its implementation since few teachers are insufficiently at home in English to teach it adequately.

Examination Requirements

10.13 The emphasis on traditional academic content is underscored by a pre-occupation with examinations at every stage of the education process. In the lower primary these take the form of school-based assessments (even in the first year of schooling the students are assessed and a certificate of competency must be acquired before they may continue). At the upper primary and junior secondary, some subjects are examined through national examinations set by the DNE, and at

all levels students are required to obtain a pass before being allowed to proceed onto the next rung of the educational ladder.

10.14 The overall result of this educational obstacle race is one of gross internal inefficiency. Students who fail to surmount the obstacle at a particular grade repeat in the following year, or they drop out of school and perhaps return at some later stage. Research does not support the contention that repetition of a particular year is more effective than staying with the peer group in achieving transferable knowledge and skills. Instead, repetition tends to promote incomplete learning by de-motivating the student. Table 10.2 suggests that the combination of high repetition and drop-out rates produces a significantly skewed mean age for each grade and a wide age distribution in each year. This seriously affects the quality of teaching and learning since materials and methods are designed for younger and narrower age bands at each grade. A more formal analysis contained in a recent UNESCO study confirms this picture, further emphasizing the inequities among ethnic groups under the old system. The report goes on to suggest that it could take 10 years or more for a student to complete the six years of primary education.

Table 10.2
Namibia: Comparison of Student Ages by Grade

Grade	Normal Age	Actual (Mean)	Difference (Norm-Act)	Interval /Means
1	5+	7.6	2.6-	
2	6+	9.2	3.2	1.6
3	7+	10.6	3.6	1.4
4	8+	12.0	4.0	1.4
5	9+	13.1	4.1	1.1
6	10+	14.3	4.3	1.2
7	11+	16.1	5.1	1.8

Source: DEA 1989 figures

10.15 Detailed information on student and drop-out and repetition is not collected by the statistics department at present, making it impossible to separate the two factors and hence obtain a reliable estimate of the wastage in the system. However, all indicators suggest it is very high. Apart from the more obvious effect on cost efficiency, the de-motivating effect of the annual barriers and the inappropriateness of the curriculum appears to have led to a perception in the rural communities that formal education has little value to offer their children. This is a perception which is very different from the views held by similar populations in other countries of independent southern Africa.

10.16 The new administration is correctly phasing out barriers at every grade and replacing them with an automatic promotion-by-age system, as found in most countries. Removal of the requirement for repetition should reduce student de-motivation and the associated drop-out rate, thereby improving the system's efficiency. The Government is already addressing this issue and substituting a preferable system, namely retaining significant assessment steps at the top of the primary (grade 6), at the end of junior secondary (grade 9, and completion of 10 year basic education), and finally at grade 11. These examinations may be used to control access to the next stage, depending on then Government's assessment of the resources available to provide access to successive stages for an increasing student population.

10.17 Improved access will require expanded physical facilities. In the schools offering only primary grades, there is already evidence of crowding and the growth of make-shift classrooms. There are 183 boarding hostels associated with secondary schools in different regions. The policy was to provide limited senior secondary classes and to establish the boarding facilities for students from remove areas.

10.18 Government is also planning the National Institute for Education Development (NIED) which will ultimately be responsible for all curricula and examinations. It is expected that the NIED will free the classroom from out-moded syllabi and constant emphasis on examinations. But if the curriculum is to *continue* to evolve and reflect the changing needs of the society, it will be vital to have teachers participate in NIED's work. Similar institutions n other countries have become millstones on their education systems, inhibiting the natural evolution of subject content and teaching methodology. Curriculum innovation becomes increasingly remote from the actualities of the classroom. Accordingly, it is strongly recommended that the core staffing of the institute be kept to a small number of curriculum and examination specialists. They would have support for curriculum development from experienced teachers, seconded to the institute for the duration of particular curriculum reform programs.

Quality of Delivery

Teachers

10.19 Unqualified teachers further contribute to the poor quality of education. If a qualified teacher is defined as someone who has completed secondary education (grade 12) and received three years of teacher training, then in 1989 (latest available figures), only 20 percent of the 13,159 teachers were fully qualified. The majority were under-qualified, with a junior secondary education and two years of training. Some 36 percent have no professional training at all. However, may teachers, while not having formal qualifications, display a considerable degree of competency gained form long experience and the advice of other trained teachers. This observation notwithstanding, teacher upgrading is of the utmost priority if the quality of teaching is to match and support the improved curriculum (see Table 10.3).

10.20 The number of students in a class is a critical factor in determining quality education. Small classes enable the poorly-qualified teacher to work more effectively. The mean student/teacher

ratio for the old Second Tier Authorities indicates a ratio of approximately 24 students to one teacher, which is not unreasonable. However, more than half of the school-going population attends classes with at least 40 students per class. A student has one chance in 50 of being taught by a qualified teacher!

Table 10.3
Namibia: Enrollment and Teachers by Ethnic Group, 1989
(Percentages)

Authority	Enrolment (Pri+Sec)	Student-Teacher ratio	% Qualified Teachers
Caprivi	6.0	25.5	0.9
Kavango	9.1	27.8	3.5
Ovambo	50.7	37.3	2.0
Damara	2.7	23.4	21.1
Herero	4.8	25.9	5.8
Mixed race	3.9	22.8	47.6
White	4.3	13.1	92.5
Tswana	0.3	22.5	27.3
Nama	3.1	22.2	18.5
Rehoboth	2.8	20.9	37.6
DNE	12.4	23.6	27.5

Memorandum Items:
Number of Students: 372,572
Number of Teachers: 13,159
Overall Ratio (S/T): 28.3

Source: Statistics Office, DEA

10.21 These data suggest that the current problem is one of poor distribution of teachers. Although on average the teacher-to-student ratio is good and the variations between regions are tolerable, the number of "qualified" teachers is woefully inadequate in Caprivi, Kavango, Ovambo, and Hereroland. Upgrading will have capital and recurrent cost implications that need to be carefully considered. Honing teaching skills will require additional outlays and, because pay is related to qualifications, better teachers will require higher pay. The problem of distribution does not have an easy solution because teachers are individuals with family and community links, not ciphers, and their equitable distribution is a problem of social engineering. Some pressures for redistribution could be introduced by requiring a period of rural service for career advancement.

Teacher Education

10.22 Pre-service teacher education is presently carried out in four regional colleges for primary teachers and in the Education Faculty of the Academy for Secondary Teachers (many of the better qualified primary teachers are also found in the junior secondary classes). Except for the curricula of the Windhoek College of Education all curricula and teaching materials are controlled by the Academy and based on the rigid theoretical framework supplied from Pretoria when the Academy was established in 1985. The process of upgrading teachers needs to be revised. At present, all potential primary school teachers must possess the equivalent of 11 grades of schooling plus formal certification of mastery of five academic subjects (five matriculation) to be eligible for their professional skills training. Entry to the program with only nine grades of schooling is accepted, but potential teachers are then required to study five academic subjects in parallel with their professional curriculum. This stringent requirement proves too heavy a burden, and four out of five students either drop out or fail. It is debatable whether primary school teachers need 11 years of schooling and mastery of five academic subjects as well. The efficiency of the system would improve if the requirement were lowered to 11 years of schooling without matriculation in five subjects. The authorities might also consider lowering the academic standards to, say, only nine years of schooling and concentrating on upgrading teaching skills related to the curriculum and teaching conditions that the future teachers will encounter.

10.23 In teacher education the most pressing issue appears to be the upgrading of teachers already in the system. In a sense, now is an opportune time for this process since it can facilitate changes in curricula and teaching methodology.

Technical Education

10.24 As indicated earlier, there are only seven formal institutions in the system that emphasize technical education. Some diversified secondary schools include optional craft studies, but the teaching is largely academic and bears little relation to the practical needs of industry or the individual. A recent research report suggests that only 0.3 percent of all formal students (or 6 percent of secondary students) are following technically-oriented courses.

10.25 The high costs and difficulty of developing an effective and diversified school system are well documented by the World Bank and other agencies, and further development along these lines needs to be avoided. Fully technical schools are also extremely expensive and of doubtful pay-off. In the context of Namibia, where the influx of returnees and de-mobilized combatants has raised the unemployment level to around 30 percent, it would seem more desirable for Government to concentrate on improving the skills of the informal sector in agriculture and small-scale industries through non-formal extension programs. There is some evidence to suggest that the major enterprises in the country--mining, transport, construction and power--organize extensive training schemes for their employees. Government should encourage the continuation of such in-house technical training, with perhaps some monitoring of access and quality by the appropriate Government agency.

10.26 A start has been made improving the skills of the non-formal sector by the Rössing Foundation (established by the uranium mining company), which provides hands-on courses in various crafts and basic technical skills at seven centers and by the German-based Otto Benecke Foundation, which has established a vocational training center for school drop-outs.

Non-formal and Distance Education

10.27 The adult illiteracy rate has been estimated to be about 60 percent. From the preceding description of the formal system, it is also not surprising that only an estimated 30 percent of adults have completed the internationally accepted minimum requirement of 4 years schooling for literacy skills to be retained. Because of the emphasis on formal examinations as barriers to advancement, many agencies engaged in non-formal education programs in practice offer alternative routes to formal qualifications. Genuine non-formal literacy and extension programs in health or agriculture are not widespread. The potential reach of such programs, however, is very good. The national radio system reaches 80-85 percent of the population, and the main road, communication, and mail systems are efficient. There is, therefore, considerable potential for growth in this important aspect of education.

10.28 As in many African countries, women hold an inferior position in the society (paradoxically, this is not apparent in access to the formal education system where they hold a marginal advantage, except in senior secondary). The mean proportion of girls in the formal system in 1989 was: primary, 52.8 percent; junior secondary, 57.3 percent, senior secondary 49.6 percent). It is estimated that some 40 percent of Namibian households are headed by women, and women are responsible for much of the labor in subsistence agriculture. Accordingly, as well as encouraging women to participate to the fullest extent in the formal education system, there remains a great need for non-formal education programmes geared to the needs of women in agriculture, family health, and income generation.

The Cost of Education

10.29 In the 1990/91 fiscal year education captured some 22 percent of the national budget with capital expenditure of US$17.9 million and recurrent costs of US$173.5 million. Statistical Appendix Table VI.02.g details the distribution of the recurrent expenditure by function and ethnic group. Because the distinction between primary and secondary schools is not clear, it is not possible to arrive at specific unit costs for different levels. However, the DNE has attempted to calculate unit costs for schools under its control, and for 1988/89 the unit cost of primary education was estimated at US$415, and of general secondary US$574.

10.30 In summary, and comparing all costs, approximately US$1,537 was spent on each white student and US$486 was spent on each black student. Overall, the recurrent expenditure was divided among general administration (15.7 percent); formal education (78.7 percent); non-formal education (1.5 percent); and libraries, sport and educational services (4.1 percent).

10.31 Within the context of formal education, salaries and other remuneration accounted for some 77.1 percent of the expenditure; school supplies 14 percent; equipment 1.9 percent; services (e.g. inspector travel) 5 percent; and transfers (pensions, etc.) 1.9 percent.

10.32 Two major points emerge from this brief analysis: *first*, general administration absorbs a significant 14.6 percent of the overall budget, confirming the inefficiency inherent in the previous multi-tier system. *Second*, within the context of formal education, salaries are the biggest item. The significance of this second observation is that if a program of teacher upgrading is introduced that includes formal certification or other public service recognition, this budget item will incur sharp increases. The corollary is that the pace of formal upgrading should be governed as much by the increase in budgetary allocation--which can be negotiated--as by the needs of the teaching profession.

10.33 A further point, which emerges from an analysis of the figures contained in Statistical Appendix Table VI.02.g, is that the mean expenditure on supplies and equipment is US$56 per student. This is very high by third world standards. Even allowing for the disparities between expenditure in the white administration and in those for blacks, it is doubtful if future budgets will be able to provide for this level of expenditure as the system expands. It would therefore be prudent to carry out a systematic analysis of expenditure that would identify potential economies or resources that could be redistributed, thus moving the system toward a more equitable position.

Priorities for Future Development

10.34 In general terms, the most important tasks before the authorities are *first*, to articulate a policy framework against which proposed development and recommendations can be considered and evaluated; *second*, to streamline the administrative system, *third*, to place major emphasis on access to lower secondary education, by the judicious expansion of strategically-located primary schools, and thus begin moving toward a ten-year basic education for all; *four*, to give high priority to the upgrading and reorientation of all teachers so that effective learning can keep pace with the changing curriculum; and *lastly*, to pace reforms according to availability of human and financial resources.

10.35 It is axiomatic that the school-going population will expand rapidly as community confidence and a more liberal promotion system begin to reduce the repetition and drop-out rates. These factors, coupled with the demographic increase, which has been estimated currently at 3.2 percent per year, suggest that there will be a short-term 10-20 percent increase in the primary grade population and a demand for greatly expanded access to junior secondary classes. More reliable estimates are not possible until the Ministry of Education begins to receive data from the schools through an improved statistics section. It is likely the pressures will be greatest in the most populous region of the country, Ondangwa, and it is here and, to a lesser degree, in the Rundu region that the need for more junior secondary classes is most urgent.

10.36 UNESCO has estimated that the annual attrition rate for teachers is around 6 percent, while the primary school enrollment figures grew 3.2 percent per year between 1986 and 1989. Using these figures and the 1989 teacher and student totals, it would seem that approximately 1,100 new teachers are required annually if the system is to retain its current student/teacher ratio. The

anticipated short-term increase of 10-20 percent in primary enrollment would add a further 1,000 to 2,000 teachers to this estimate. This spread over a five-year expansion period would suggest a required annual output of about 1,600 teachers. The output of trained primary teachers in 1988 was 415 (UNESCO figure). In the same year, the Academy graduated 34 students with secondary qualifications. The current output of the system is therefore totally inadequate, even if the student teacher ration is allowed to go up. All training facilities are grossly underutilized. With a more rational policy for accepting trainees and with strategies to reduce the failure rates, it is probable that the number of new teachers could be improved upon significantly. In the medium term it may be necessary to build another training college, particularly if regional access is considered an important factor, and if these institutions are perceived as having a broader function as in-service training and resource centers.

10.37 Physical facilities will be another part of this issue. There may be room in some schools for additional students, but increased classroom space will be essential. Other countries have encouraged community participation in this process by having the community provide labor and materials while Government provides locally-unavailable materials, designs, and supervision. Results have shown that good facilities can be constructed at low cost, with the advantages engendered by community participation in subsequent maintenance and proprietary responsibilities.

10.38 For the current situation, the professional upgrading and reorientation of teachers already in the system is probably the most urgent priority. It could be achieved most effectively through distance teaching and short vacation courses. At the same time, the needs of the individual, in terms of formal qualification for career advancement, cannot be neglected if good teachers are to be retained in the system against competition from the private sector. It is this latter aspect that has budgetary implications.

10.39 All these issues--expansion, improved facilities, and a revitalized teaching force--raise the central issue of increased expenditure and sources of finance. To reiterate, it is extremely unlikely that the fisc will increase the proportion of central revenue funds to education. Therefore, other remedies must be sought. Mention has been made elsewhere in this paper of the burden placed upon Government by the requirement of retaining all pre-independence employees. Streamlining and reducing the administrative apparatus would release money for the classroom and thus assist the maintenance of quality education as the system expands. Serious consideration should be given to offering early retirement as a means of cutting costs. While donor sources may make a major contribution to capital development costs in the medium term, longer-term planning, particularly for recurrent expenditure, must be in the context of expected nationally-generated resources. Currently the regional budgets depend on central revenue to the extent of 70-90 percent. For many regions the possibility of raising local taxes or fees for schooling is not possible. However, the more affluent urban communities could probably pay more, and therefore a selective system of school fees based on family means may need to be introduced in parallel with targeted subsidies to the more impoverished areas of the country.

10.40 The previous administration's policy on secondary education was to provide a limited number of places and boarding facilities for students from distant parts of each region. If Government is to adopt a policy of ten years of "basic education for all," this must be as an extension

to the existing day-school pattern. A cost analysis of the 183 school hostels, currently accommodating some 55,000 students, has not been done, but it is likely that the modest fees charged are well under the real cost. Considerably savings could be made by a policy shift away from boarding schools, or confining them for the most part to senior secondary (boarding places for junior secondary may be required to cater for the needs of students from areas with a population density too low to support even a full 10 year basic education school).

10.41 Adequate base statistics are also needed. A system already exists, but what is required is the reformulation of data and perhaps the re-training of personnel to collect it. Some of the issues raised above are imponderable--there can be no precise projections on the expansion of the school population at this stage. But data on drop-outs and repetitions, the precise training needs of teachers, and an inventory of physical facilities, are examples of collectable data. These data are essential prerequisites to effective development planning.

10.42 A much more difficult task, in human terms, is trimming the administrative system. It must function smoothly, ensure that communication up and down the system is rapid and efficient, and avoid duplication of responsibility.

10.43 Bringing any of the changes sought by planners or implied in this analysis to fruition demands a careful study of all costs and cost-saving options. In comparison with many other countries, it could be argued that Namibia is making adequate provision for education. What is required is not an increase in national funding for education but closer scrutiny of its distribution. This would ensure that sufficient resources reach the classroom and are not absorbed into an over-large bureaucracy.

XI. URBAN HOUSING

Introduction

11.1 Compared to most countries in Sub-Saharan Africa, urban housing needs in Namibia are relatively modest. Providing shelter is a manageable problem in relation to the country's resources and skills, but the Government faces major problems in satisfying the gap between post-independence expectations and feasible gratification. Namibia has (i) financial institutions with adequate resources, experience, and capacity to expand their activities; (ii) the institutional setup to deliver serviced land and infrastructure, based on 15 municipalities that already perform a range of functions and sound finances; (iii) a Government that has significant experience and technical expertise in the provision of housing through the activities of NBIC; and (iv) a private sector experienced in the provision of housing.

11.2 Nevertheless, the incentives needed to enable effective participation and cooperation among the various actors in the housing sector need improvement. The main problem is the reliance on subsidies for the provision of housing. Local authorities rely almost exclusively on subsidized funding from the Central Government to service urban land for low- and middle-income housing. Subsidized housing generates little or no financial reflows, making it difficult to replicate and expand the programs. Because such funding is scarce, the number of new plots corresponds to only a small fraction of the number of plots needed. The shortage of serviced land, in turn, prevents the majority of the population from taking the first step in obtaining housing. As a result, there has been scant demand for attendant services, i.e., mortgage financing and construction services and low private sector participation.

Housing Stock and Conditions

11.3 The present inventory of housing comprises 53,000 urban dwellings that are on legal urban (serviced) lots. The white population of 85,000 is housed in 20,000 spacious, high-quality dwellings, while 78,000 black households are crammed into 33,000 dwellings--more than 2.4 households in two-to-three room dwellings. Thirty-eight percent of the black-occupied dwellings have been built in the last 10 years mainly by NBIC, at low cost, but still requiring Government subsidies of over 50 percent. In the initial years, NBIC built minimal one- and two- room dwellings of rough finish, with floors, sanitary cores, water, and electricity. The largest number were built in the first phase of Katatura. In the last three years, to achieve the lowest cost minimum shelter the builders eliminated all finishes --no painting, electricity or even finished floors. Only dirt floors were provided.

Housing Needs

11.4 The future urban housing needs for 1990-95, at the current annual growth rate of 6 percent, is estimated at 20,000 new dwellings or 4,000 dwellings per year. In addition, there is a

current deficit of 45,000. There is no data available on the housing deficit by income category, but a first approximation may be made by assuming that the deficit is proportional to the number of households in each income category, except for the highest income category. Presumably, the richest households in the country have had their housing needs met in the past. The total housing needs for the period considered, then, can be estimated at 65,000 dwellings. An approximate distribution of this dwelling needs by income category appears in Table 11.1.

Table 11.1
Namibia: Estimates of Housing Needs, 1990-1995

Income Decile	Percent of Population	Annual Income (Rands)	Estimated Housing Needs Deficit	New Dwellings
1st-3rd	30	1,500-2,800	16,900	6,000
4th-5th	20	2,800-4,000	11,200	4,000
6th-8th	30	4,000-7,500	16,900	6,000
9th-10th	20	above 7,500	0	4,000

Source: NBIC household surveys, mission estimates.

Cost of Meeting Housing Needs

11.5 Mission estimates show that the cost of meeting the country's low-cost housing needs would be roughly R614 million: R453 million to eliminate the present deficit and R161 million to meet expected new housing demand. These costs are based on present cost estimates provided by NBIC. For the lowest income decile, the cost calculations are based on providing households with a basic one-room dwelling and a sanitary core of 13 m^2 for R8,000. For the next highest income category (3rd to 5th income decile) the housing solution would be a one-room core 13m^2 with a porch, for R9,600. Finally, for households in the 5th to 8th income decile, the costs are based on a dwelling that consists of two rooms (23 m^2) for R12,500. The total cost of meeting the housing needs of all Namibians, including the rich, would be over R694 million, as Table 11.2 shows. In all three low-cost housing cases, the cost includes minimal level site development and utility service. The Government has given the land away.

11.6 Several questions arise from the preceding analysis. *First*, are the housing solutions affordable for all income groups? *Second*, can costs of construction be lowered? *Third*, are existing financial instruments adequate to meet housing needs? All three questions are interrelated, but for expository purposes, they are answered in turn below. The discussion, however, will ignore the richest 20 percent of households and concentrate on the poor.

Housing Affordability

11.7 Housing affordability depends on the cost of the dwelling, the income of the potential buyer, and available financial instruments. The income of the potential buyer puts a cap on the maximum payment that the household can devote to rent or mortgage payments. Available income distribution data show that the poorest one-third of households earns between R1,500 and R2,800 per month. Experience shows that a household can devote about one-quarter of its income to housing costs. Using this guideline, the poorest third of households can devote between R375 and R700 per year to housing. Table 11.3 shows similar information for households in all income deciles. It would be difficult to address the emerging housing needs with the present delivery system without a vast increase in subsidies and expansion of Government's housing production. This is confirmed by estimates showing the cost of meeting the housing needs from NBIC production alone. The output of plots and houses in Namibia is currently between 1,000 and 1,500 per year. Estimates based on NBIC statistics show that between 1990-95, the total cost of meeting the housing needs of all Namibians (including the rich) would be over R694 million, as Table 11.2 shows, i.e., R453 million to eliminate the present deficit and R241 million to meet expected new housing demand.

Table 11.2
Namibia: Estimates of Cost of Meeting Housing Needs, 1990-1995

Income Decile	Percent of Population	Cost of Dwelling (Rands)	Estimated Cost of Meeting Housing Needs (Million Rands)		Total Cost (Million Rands)
			Deficit	New Dwellings	
1st-3rd	30	8,000	135	48	183
4th-5th	20	9,600	108	38	145
6th-8th	30	12,500	210	75	286
9th-10th	20	over 20,000		over 80	
Totals:			453	over 241	over 694

11.8 Recent increases in housing standards have pushed the average cost for MLGH/NBIC houses up to R30,000. Preliminary affordability analysis shows that only 10-15 percent of the population can afford a loan of his amount on market terms.1/ Estimates show that a minimum

1/ NBIC's instrument for financing the purchase of a house is a fixed-rate, level-payment 30-year mortgage, presently carrying 21 percent interest.

subsidy of R273 million spread over five years would be required to make a basic housing unit affordable to every household in Namibia with an income below R7,500.

11.9 There are many competing needs for budgetary funds and the present allocation (of R24 million to the Ministry of Local Government and Housing (MLGN), R11 million to NBIC and R16 million in FY91/92 for the write-off of loans for some 5,000 municipal houses) is based on housing being classified as a priority sector. Thus, it is unlikely that the allocation from the central budget for provision of housing will grow beyond its present level.

Government's Housing Strategy

11.10 Government has started to address the shortcomings in the housing sector, and as a first step recently adopted a National Housing Policy (NHP). This document forms a sound basis for the future operation of the sector, and emphasizes the following:

(i) *Reduction and restructuring of subsidies.* The NHP foresees a reduction of present subsidies for both housing and for infrastructure investments to municipalities. Remaining subsidies are to be carefully targeted for the poorest sections of society and for those categories defined as welfare cases. There will also be a shift away from interest subsidies to be replaced by one-time, up-front subsidies.

(ii) *Emphasis on preparation of land for residential purposes.* The NHP spells out the necessity of reducing the costs of plots and houses produced. This translates into a greater emphasis on preparation of serviced land for housing (surveying and provision of basic infrastructure) as further explained in the "Housing Needs Report", published by MLGH.

(iii) *Encouraging private sector participation.* The involvement of the private sector is to be facilitated by the development of an administratively simple and well defined system for housing delivery designed to maximize the input of the private sector in the production of affordable houses. Particular emphasis is placed on the mobilization of private financial funds, and on examining the possibilities of using scarce public funds as 'seed money' to leverage private funds.

11.11 The current annual output by MLGH and NBIC of 1,000 - 1,500 plots and houses is clearly not enough for addressing the urban shelter needs in any meaningful way. Given the limitations of existing programs, the NHP now offers an opportunity to reorient the thrust of the activities in the sector, and Government intends to embark on this process through the preparation of a housing strategy. Two components in this strategy would be essential to alleviate the situation, redirection of public funds, and greater private sector participation. Lowering the cost of affordable housing and introducing new financial instruments would also make it possible to provide housing to a larger number of people.

Redirection of Public Funds

11.12 Available public funds should be redirected to producing low-cost plots and houses so that a greater part of the housing needs can be met. Tentative estimates indicate that approximately R2,500 could cover the servicing of a plot and that another R3,500 would be sufficient for the construction of a small house2/ implying that R6,000 could satisfy the very basic shelter needs for an urban household. As previously noted, the average cost for the MLGH/NBIC houses produced is R30,000 implying that total costs for the 1,500 units constructed amounted in 1990 to R45 million. These funds could alternatively have been used to produce 7,500 plots/small houses at R6,000 each, thereby having increased the number of beneficiaries by a factor of five.

Private Sector Involvement

11.13 From the preceding analysis, it is clear that even if all public funding in the sector were directed to low-cost plots/houses, the total demand for urban, let alone rural, shelters could not be met. To meet the demand for urban shelter alone it will be necessary to rely not only on the two current mechanisms, but also on non-subsidized programs. The main thrust of a non-subsidized program would be low-cost plots and small loans for housing construction. Preliminary affordability analysis shows that a loan of R6,000 on market terms could be affordable to about 70 percent of the urban households (while a loan of R30,000, i.e. the average cost of houses currently produced, would be affordable to only 10-15 percent of the urban households). Total funding requirements for a program eliminating the shortage of urban shelter over a six-year period by providing 15,000-20,000 serviced plots/core units per year would thus be about R100 million per year.

Making Low Cost Housing More Affordable

Lowering Building Costs

11.14 It is also possible to make housing more affordable to more families by lowering construction costs, without sacrificing quality, using different types of construction materials. There are vast quantities of excellent limestone above Otjiwarongo that could be exploited to produce lime at a fraction of the cost of portland cement. Small lime kilns could be built and fired by the ubiquitous thorny bush that cattlemen in the area want to eliminate. Using a small crusher, high quality lime could be produced and slaked for stabilizing rammed earth blocks on each building site. The blocks could be set in lime mortar beds to build structural walls. This would reduce the use of

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2/ This assumes that costs for water, sewerage and electricity investments are not included in the cost for the plot, but that such costs could be recovered by the tariffs for the services. This enables a lower sales price for the plot, thereby making it affordable to a larger share of the population. Recovering the costs through the tariffs also enables cross-subsidization by setting progressive tariffs, further benefiting the poorer households. Presently, serviced plots for low-cost housing cost too much. Three-quarters of the 5,600 low-cost dwellings that NBIC built from 1982 to mid-1990 were in Windhoek's low-income neighborhoods (township schemes) of Katutura, Wanaheda, Okuryangava and Khomasdal. The average cost of the houses was R12,650 plus R6,000 for the serviced plot for a total of R16,650 (US$7,460). Costs outside Windhoek were equally high. The average cost of 963 houses with serviced plots in the five towns of Gobalis, Grootfontein, Okahandia, Otjiwarongo and Ismeib was R16,750 (US$6,700). In the south, the comparable cost for 491 dwellings was R15,600.

the high cost cement, which today represents 20 percent to 25 percent of a low-cost dwelling. Other techniques such as fibre cement panels could also be used for interior partitions and roof panels. The total savings could be in the order of 30 percent to 40 percent, lowering the total cost to some R4,800 to R5,600 for the basic housing solution.

11.15 *High Cost of Serviced Plots.* Serviced plots for low-cost housing cost too much. Three-quarters of the 5,600 low-cost dwellings that NBIC built from 1982 to mid-1990 were in Windhoek's low-income neighborhoods (township schemes) of Katutura, Wanaheda, Okuryangava and Khomasdal. The average cost of the dwellings was R12,650 plus R6,000 for the serviced plot for a total of R18,650 (US$7,460). Costs outside Windhoek were equally high. The average cost of 963 dwellings with service plot in the five towns of Gobalis, Grootfontein, Okahandia, Otjiwarongo and Isimeb was R16,750 (US$6,700). In the south, comparable cost for 491 dwellings was R15,600.

11.16 *Cumbersome Procedures.* The Namibian Planning Advisory Board and the Cabinet of Ministers must approve each scheme prepared for the capital city. To expedite construction, they should limit their role to setting spatial planning policies, leaving site plan approvals to the municipal planning office and building department. Without reducing the size of the building lot, new site plans should be prepared by the implementing agencies--NBIC or the building societies--using cluster and superblock designs to achieve substantial savings in road and utility networks. To control the growth of the city, the municipality of Windhoek has in the past become involved in the development business, paving and installing utilities and selling the improved lots at a profit. The result has been and excessive amount of roads and utilities and high-cost lots (R6,000 per lot). A preferable solution would be for NBIC and the building societies to arrange for long-term leasing of the land and for private builders to install roads and utilities and build the housing core units.

11.17 *Reduce the Cost of Housing Finance.* To reduce the initial cost to the purchaser, the serviced plot could be leased on a long-term basis--at least 10 years. The monthly payments could be applied in part to the ultimate purchase of the lot. As discussed below, different financial instruments could also be used. MLGH is already studying the subsidy issue. The current practice of subsidizing interest rates over the longlife of a mortgage is very expensive and needs to be changed to a single payment up front with the understanding that the remaining cost would be fully recovered in the mortgage.

The Need for New Financial Instruments

11.18 NBIC's instrument for financing the purchase of dwellings is a fixed-rate, level-payment 30-year mortgage, presently carrying 21 percent interest. The yearly payment required to service a loan of R8,000--the cost of the minimum NBIC housing unit--would be R1,685. Such a payment would be outside the reach of any household with an income less than R6,800, or more than one-half the urban population of Namibia. There are at least two possible solutions to make the basic core dwelling affordable to more people: subsidize the purchase of the dwelling, or find another financial instrument.

Subsidy Implications of a Level Payment

11.19 With a 30-year, fixed-rate, level-payment mortgage, a minimum subsidy on the order of R273 million spread over five years would be required to make a basic housing unit affordable to every household with an income below R7,500. Detailed calculations appear in Table 11.3 and 11.4. Although R273 million is not an altogether impossible sum, a better solution can be achieved with different financial instruments.

Table 11.3
Namibia: Estimates of Rent/Mortgage Paying Capacity

Income Decile	Percent of Population	Annual Income (Rands)	Maximum Annual Rent or Mortgage Payment
1st-3rd	30	1,500-2,800	375-700
4th-5th	20	2,800-4,000	700-1,000
6th-8th	30	4,000-7,500	1,000-1,875
9th-10th	20	above 7,500	over 1,875

Table 11.4
Namibia: Housing Subsidy Estimates

Subsidy Income Decile	Minimum Affordable Mortgage	Cost of Minimum Dwelling	Number of Households	Maximum Subsidy per Household	Total Subsidy (Million Rands)
1st-3rd	1,780	8,000	22,900	6,220	142
4th-5th	3,322	8,000	12,200	4,678	57
6th-8th	4,750	8,000	22,900	3,250	74
Total:					273

An Alternative Solution

11.20 *Graduated Payments.* Using a proper financial instrument to finance long-term loans is a very important step in all economic environments, but especially in those where inflation runs as high as in Namibia. With inflation on the order of 15 percent per year, even a low real interest rate mortgage prices many households out of the housing market if the only financial instrument available is a traditional 30-year mortgage. In inflationary environments, this instrument has the disadvantage that it front-loads payments (in real terms), effectively turning a long-term loan into a short-term loan. A graduated payment mortgage, where payments are indexed annually to inflation, would be more appropriate for
Namibia.

11.21 At present, a nominal interest rate of 21 percent is equivalent to a real interest rate (i.e., adjusted for inflation) of about 6 percent. A graduated payment scheme could begin, for example, with a level payment of R580, which is what a homeowner would have to pay on a R8,000 mortgage if there were no inflation and the interest rate were 6 percent. The following year, his payment would go up to R667 (R580 plus 15 percent inflation). The third year the payment would again go up by 15 percent (or as fast as inflation) and so on. If inflation continued unchanged, after approximately eight years the graduated payments would catch up with those of a level-payment mortgage and exceed them thereafter.

11.22 From the borrower's and the financial institution's point of view, the two payment schedules would be equivalent (i.e., same present value), but a graduated payment mortgage would make dwellings more affordable for a greater proportion of the population. A graduated payment scheme would enable anyone with an income as low as R2,320 to buy a basic dwelling costing R8,000, making basic core housing affordable to all but the poorest 15 percent of urban households, and the two-room dwelling affordable to households with incomes over R3,400 per year. It would therefore be possible to provide more households with better dwellings.

11.23 If the household's income remains constant in real terms, the payment will always be at most 25 percent of income, and the household will always be able to afford the mortgage payment. Here is the drawback: the basic assumption behind the scheme is that household incomes will rise at least as fast as inflation. The experience of the 1980s shows that this did not happen, and there is a risk that during the 1990s the experience may be repeated. Nevertheless, to the extent that the Government succeeds in accelerating growth and alleviating poverty, the incomes of the poor should rise faster than inflation and the risk become correspondingly lower.

11.24 A graduated payment scheme is but one of several financial instruments that would accomplish the same objective. The principal could be indexed to inflation, for example, or the mortgage could carry a variable interest rate with graduated payments, etc. The scheme in the above paragraphs was chosen merely as an illustration. The main point is that in the present inflationary environment a financial instrument adequate to the circumstances must be chosen.

NBIC

11.25 NBIC built an average 700 dwellings per year between 1982 and mid-1990. Its organizational structure has evolved over this period to provide a sound framework upon which to increase the production of low-cost housing ten-fold, eliminate the deficit, and meet new demand over the coming decade.

11.26 The staff of 83 is organized into two main departments, Social and Technical Services and Client and Management Services. The technical services division, in charge of planning, design, building research, and construction is adequately staffed to produce plans and projects for 7,000 dwellings per year. The Social Services Division, however, has to be reorganized and strengthened with trained personnel to undertake the community outreach required to deal effectively with the planned expansion of the one-room and two-room minimum dwellings. Such a program requires long hours of community organization and technical assistance for the self-help teams. Key to the operation is the setting of a price ceiling of R20,000 for NBIC financing. If all construction is subcontracted to the local building firms--now operating at 50 percent capacity--an ambitious building program would revive the depressed construction industry and create numerous employment opportunities in construction and related activities.

Suggested Housing Strategy for 1991-96

11.27 A national program for low-cost shelter to accommodate the projected urban growth of new families and migrants plus a portion of the substantial housing deficit would place too large a financial burden on the new Government. As an alternative, the authorities might consider a short-term strategy of five years focused on providing new shelter to the urban growth segment by guiding the low-income families (accounting for 80 percent of the growth) into new expansion areas, thereby blocking further sprawl of the present squatter colonies. This strategy would allow NBIC a gradual transition, doubling production each year for the first three years, to deliver 5,600 dwellings in the third year and 6,800 to 6,900 for the remaining two years. This would be a reduced program of 22,500 dwellings, or an average of 4,500 dwellings per year. The program would concentrate on the delivery of two dwelling types so as to standardize the production of low-cost construction materials and achieve economies of scale.

11.28 The selection of the housing types is crucial to the strategy. With the high aspirations of low-income families after independence and their lack of building skills, it is strongly recommended that the minimum solution be a one-room dwelling with a sanitary core. It should be immediately habitable and secure so that families are free to seek employment. At present, squatters spend a large part of their life guarding their possessions in huts and tents--unable to move. Therefore, the normal sites and service schemes, which might be the preferred solution in other countries, should be reserved for later phases. An achievable program would consist of 16,000 dwellings (70 percent of the proposed five-year goal) consisting of the one-room core (13 m^2) with a sanitary core for the 2nd to the 5th decile on the income scale. The cost is estimated at R6,000 per dwelling (25 percent below NBIC costs). The remaining 30 percent would be a basic two-room unit (23 m^2) with a sanitary core plus expansion, at R8,500 per dwelling (also 25 percent below NBIC costs). The savings have

been conservatively estimated, assuming that 50 percent of the dwellings would be made of stabilized rammed earth. Cost over the five years would be R151.2 million (US$60.5 million) with a subsidy of R44.4 million (US$17.8 million) as shown in Table 11.5.

Table 11.5
Namibia: Suggested Five Year Low-Cost Housing Program 1990-95

Income Decile	Dwelling Type	Number of Dwellings (%)	Construction Cost in R millions	Subsidy in R millions
2nd-5th	Basic 1Rm	16,000 (70%)	96.0	32 (33)
6th-8th	Basic 2Rm	6,500 (30%)	55.2	12.4 (22%)
Total:		22,500	151.2	44.4 (29%)

11.29 The overall imperative is the reorganization of NBIC to scale up its annual production of housing from fewer than 700 per year to 6,800 per year by the fifth year. There is no organizational restriction on achieving the first-year targets with the present staff, provided they are able to prepare improved site plans using more efficient cluster and superblock designs.

11.30 The budgeting requirements of this scheme are in line with the Government's reduction in the annual housing subsidy to R10.1 million in 1990. The construction program would require slightly over R30 million per year. This proposal compares favorably with NBIC's 1989 budget of R96.8 million for a much costlier product with fewer than 1,000 dwellings. It is important to emphasize the role of NBIC's community development staff: to assist the new houseowners in forming self-help brigades to complete the enclosure of porches, landscaping, etc. Support from the municipalities in providing expanded social services would also be needed.

Rehabilitation and Squatter Upgrading

11.31 While the above program does not attempt to solve the total deficit, the second part of the strategy would be a rehabilitation program to improve the present low-cost housing stock as well as upgrade the squatter colonies. Costs would be a small fraction of the replacement and/or relocation costs. Techniques for organizing into self-help work brigades are the same for both squatters and purchasers of core housing. As many as 15,000 dwellings of the existing stock require rehabilitation and additional rooms, which can be achieved through loans for construction materials and technical assistance. This must be accompanied by a broad public information program. A budget allocation of R2,000 per dwelling for an additional room or improved sanitation, for 3,000 dwellings per year,

would be R6 million, which is manageable. Before independence the residents assumed that the Government was unable to help them; now that attitude is changing, and there is an opportunity to transform their neighborhoods.

11.32 To upgrade the 30,000 squatter huts in as many as a 100 locations will require the intervention of the municipalities, with technical assistance from NBIC. A program to upgrade 5,000 huts per year in 10 to 20 locations would be a modest but achievable target. Diagnostic surveys and drawings of the location of each hut are necessary so that significant social clusters can be formed, organized and stimulated to improve their overall environment with access walkways, sanitation and drainage lines. All must be worked out with the residents at an early stage. The process is iterative as the alternatives are studied.

11.33 Experience in squatter upgrading in other countries such as Mexico, Brazil, Colombia, and India has demonstrated the viability of this program, provided the squatters are in acceptable locations. The cost of site improvements alone should not exceed R1,000 per dwelling. While it is doubtful that the residents would be able to pay more than 10 percent, the Government should attempt to recover this token amount to establish a principle and enhance the sense of participation.

Water Conservation

11.34 Urban water conservation is an important issue. In 1990 DWA delivered 67.5 million m^3 to domestic users or 27 percent of the total production. DWA estimates that this will rise to 116 million m^3 by the year 2005 or 29 percent of the total. Hence it is imperative that additional conservation measures be taken. The future urban growth will certainly consist of predominantly low-income groups who already can afford or soon will be able to afford a one-room minimal housing solution. A financial saving of about R400 to R500 per site can be achieved by using a hand pour-flush latrine of 1.5 liters per flush instead of building a gravity sewer network, using 10 liters per flush. The savings in water would be at least 60 liters per capita per day or 21 m^3 per year. For the 150,000 new urban population projected for 1995, the annual saving could be more than 3.2 million which would amount to a 12 percent saving over current urban consumption. Additional savings could be achieved in the existing urban areas through the adoption of an innovative toilet designed with a 3.5 liter flush--a saving of 65 percent.

Technical Assistance

11.35 The size of the planning, design and engineering professions in Namibia is adequate to prepare the housing projects that would form the civil works of the above program, as well as to supervise the works in the 15 or more sites to be built in any one year. Sufficient numbers of professionals are now working in private practice to implement construction programs of well over R200 million (US$80 million) per year. Nevertheless, there is a need to organize a special team within the reorganized NBIC to train the community workers and the households to improve their dwellings and environs. The best results occur when the project brings in professionals who have successfully completed similar projects in other countries. Operational manuals have to be prepared and distributed. Most TA can be financed through bilateral aid programs and UNDP programs.

XII. TRANSPORTATION

Transport Infrastructure

12.1 Namibia has a well developed transportation network that includes an efficiently-managed railroad, an extensive well-maintained paved road network, and expanding air service that covers the entire country. In fact, Namibia leads all African countries (including the RSA) in road network density. Airport facilities include 28 licensed aerodromes, 16 with asphalt runways.

12.2 The Namibian railroad network covers 2,382 route kilometers. The main line runs from Nakop on the RSA border to Windhoek and from there to the port of Walvis Bay. Branch lines serve the port of Luderitz and the mining and ranching towns of Tsumeb, Grootfontein, and Outjo. The railroad is among the best run in Africa.

12.3 The two major ports are Walvis Bay and Luderitz. The former, claimed by the RSA as its own territory, handles most of Namibia's maritime cargo. Walvis Bay has among the shortest turnaround times for unloading and roll-on/roll-off operations in Africa and has good rail and road access. It is currently working at only 28 percent capacity, however.

12.4 Luderitz, about 400 kms south of Walvis Bay and run by TransNamib, is a small and well-managed port. Luderitz serves mainly two rock lobster fishing companies as well as off-shore diamond exploration and gas fields. The facilities, coupled with the shallow water depth at the port, are adequate for handling small coastal ships, but not for handling large vessels. No facilities exist for handling bulk cargoes, large shipments, or liquid products.

12.5 The main problems facing the transportation sector of Namibia concern the need for continued access to the Port of Walvis Bay and the need to deregulate the transportation sector to permit the free entry of Namibian entrepreneurs into the transportation business. Other issues concern road building, civil aviation, and urban transportation problems.

Walvis Bay

12.6 Walvis Bay is of critical importance to the economy of Namibia. The port is efficiently run and offers a variety of high-quality shipping services. Port operations are profitable, but service charges are high owing in part to relatively low traffic volume.

12.7 None of the alternatives to the use of the Port of Walvis Bay are feasible now. The Port of Luderitz is not feasible because of (i) the fishing fleet is expected to move northward; (ii) the port needs considerable dredging; (iii) land around the port for expansion and location of industrial processing activities is scarce. Development of a new deep-water port north of Swakopmund would not be profitable either, as it would entail building a new port and rail infrastructure. There are more profitable uses of funds elsewhere in Namibia.

12.8 The task then is to negotiate an arrangement for the joint use of the Port of Walvis Bay in the short term, with the goal of eventual incorporation of the port and territory of Walvis Bay into the Republic of Namibia. The land around the Port of Walvis Bay is also important because it is ideal for the location of processing industries based on imported raw materials.

Transport Regulatory Environment and Competition

12.9 Namibia's transport regulatory environment is characterized by numerous barriers to free entry into the transportation sector, and a regulatory framework which protects the existing transportation providers from competition. In addition, Government policies have supported the creation and development of the parastatal firm TransNamib Limited, which controls the largest trucking operations as well as the only railroad and scheduled air transportation services and a maritime shipping firm. The concentration of so many transportation functions and transportation modes in TransNamib Limited has promoted inter- and intramodal cross subsidies, as evidenced by the fact that inefficient rail service on several branch lines and deficit-prone passenger services are still provided in some routes, despite numerous recommendations to the contrary from several transport commissions and expert panels. The current regulatory setup is also characterized by barriers to entry of even small entrepreneurs on farm-to-market hauls and by barriers to private transportation of goods.

Road Transport Regulations

12.10 Road transport regulations in Namibia stem from South African statutes which emphasized strict control of entry into the road transportation industry. Indeed, Road Traffic Ordinance No. 30 (1967), based on South African statutes, consolidated laws pertaining to motor vehicles and traffic. The current regulatory framework was promulgated in the Road Transport Act No. 74 (1977), which established the Road Transportation Board in the Department of Transport and regulated entry into the transportation market, including the quantity of service to be supplied along a given route.

12.11 Specifically, Road Transport Act No. 74 (1977) stipulates two types of permits to be issued regardless of vehicle size considerations. Private permits can be issued to transport providers who are carrying their own goods on their own vehicles between places where they normally conduct business. Otherwise, carriers must apply for public permits.

12.12 Permit applications must be submitted to the Road Transportation Board and stipulate (i) the type of commodity to be carried; (ii) the area and route of service (iii) the vehicle capacity; and (iii) the need for the service (i.e., the absence of other transportation service-road or rail- in the area to be covered by the permit). Objections to the application can be filed by the railroad and by any of the carriers with authorized permits. A municipality can also file an objection in the case of a local passenger service application.

12.13 The only tariffs subject to regulation are those that apply to scheduled bus service and taxi operations. Tariffs for road haulage and charter operations are not regulated, but customers may

complain to the Road Transport Board, which can then set maximum tariffs if market conditions are deemed monopolistic.

Reserved Commodity Cargo Preference

12.14 In 1989, to protect TransNamib Rail from the competition of South African-owned and operated trucking firms, the Administrator General for the Territory of South West Africa modified the Road Transportation Act of 1977 freezing new permits for the transportation of fourteen commodity groups between specified origins and destinations.1/ This amendment of the 1977 legislation protects both the railroads and existing trucking firms from the competition of new entrants. Although TransNamib Rail did not need the protection provided by this amendment, because with few exceptions the fourteen commodities were basically rail-oriented bulk commodities the amendment has resulted in further blocking and freezing of free entry into trucking. As a result, this amendment, has had deleterious effects on tariffs and the potential entry of black African entrepreneurs into trucking.

Effect on the Supply of Transportation Services

12.15 Strict entry control has restricted the supply of services, fostered concentration, and led to higher tariffs. Only seven trucking companies (including TransNamib Carriers) have permits to export and import goods into Namibia. Most of these operators are affiliated with South African corporations. The limited supply of trucking services is most apparent in the Northern Districts.

Effect on Prices and Tariffs

12.16 Unlike prices of goods, which can be compared across borders, the prices of services can only seldom be compared and indirect means to assess their levels must be used. One way is to determine whether carriers are making more or less than "normal" profits. With the limitation information available, it was possible to assess TransNamib Carrier's incremental rate of return on assets at 30.9 percent for 1989/90, as shown in Table 12.1. This is a very good rate of return, equivalent to a real return of about 15 percent and 8 points above long-term interest rate. Such a high rate of return suggests that TransNamib Carriers are making more that "normal" profit and a higher degree of competition would result in lower prices and a more "normal" rate of return.2/

1/ The 14 commodity groups included the following: 1-ores and minerals, including mineral concentrates, 2-cement, 3-lime, 4-animal fodder and animal supplement foods, 5-maize not produced in Namibia, and maize products, 6-fish meal, 7-petroleum products, excluding liquified petroleum gas, 8-sugar, 9-metal ingots, 10-hazardous materials, 11-iron and steel products, 12- wood and wood products, 13-explosives, and 14-container cargo.

2/ Similar analysis for the rate of return on transport of maize using articulated trucks (with truckloads exceeding 30 tons) also showed similar results. The calculations appear in Appendix Table VII.04.h.

Table 12.1
Namibia: Incremental Rate of Return on Net Assets of TransNamib Carriers 1989/90
(in thousand Rands)

	1988/1989 9 Months	1988/89 12-Months	Projected 1989/90 Without Acquisitions	Real 1989-90	Change Real Estimate
Operating Income	8,391	11,188	12,866	19,388	6,522
Operating Expenses	9,086	2,114	13,931	17,171	3,240
Operating Surplus (Loss)	(695)	(926)	(1,065)	2,217	3,282
Net Assets	4,591	---	5,280	15,892	10,612
Rate of Return (%)					30.92%

Note: The 1988/89 figures for nine months of operation, and the real 1989/90 figures both come from TransNamib Limited Annual Report 1990. A 15 percent rate of inflation was used to project the 1988/89 figures to 1989/90.

Deregulation Strategy

12.17 In the interest of fostering more efficient resource use, it would be advisable to de-regulate entry into transport. The first step would be to liberalize present, excessively strict entry requirements. Requirements could be relaxed and permits granted to anyone who (i) is financially fit to provide the service; (ii) has adequate insurance to compensate for cargo losses; and (iii) is free of criminal convictions. Objections by current permit holders need not be a criterion.

12.18 The second step would be to repeal the amendment to the transportation act and allow all modes of transport to carry the 14 commodity groups now protected. If at the same time the level of user taxes on heavy vehicles, which are the ones in competition with TransNamib Rail is raised, some of the statutory protection now granted to TransNamib Rail would be restored, but through the price system, making it more transparent. Also, it would permit the railroad to compete on better terms with South African trucking firms. This suggestion is analyzed in more detail in later in this chapter. The third and final step would be to exempt from permits (i) light vehicles engaged in farm-to-market transport of agricultural goods and fertilizers in rural areas; (ii) mercantile establishments delivery trucks; and (iii) vehicle used in transport of private goods.

User Taxes and Infrastructure Costs

12.19 One of the major objectives of transport regulation is to approximate efficient allocation of resources within the transport sector. This is turn requires that incremental costs be allocated to the users of transportation facilities. The analysis of costs and user taxes presented in this section suggests that there is room for improving road user charges by increasing the levies on heavy vehicles and lowering levies on light ones. The present structure has two undesirable effects. First, it encourages operation of heavy vehicles and second, it puts rail transport at a disadvantage with respect to road transport.

Transportation Infrastructure costs and User Revenues

12.20 Analysis of global transportation infrastructure costs involves allocating pertinent expenditures--both current and capital--between the different transportation modes served. This allocation always requires value judgements, but the exercise provides useful guidelines for assessing whether transport modes are receiving heavy subsidies or paying heavy taxes.

12.21 Government expenditures budgeted for fiscal year 1991 amounted to R161 million (about US$58 million), of which 93.8 percent were for road transport, 5 percent for civil aviation, and the rest for other types of transport. Revenues, on the other hand, were estimated at about R135 million (US$52 million). Appendix V shows the methodology for allocating revenues and expenditures and Table 12.2 shows a summary of revenues and expenditures by transport mode. Overall, there was only an 83 percent recovery rate, with road transport recovering nearly 90 percent of allocated expenditures, but civil aviation recovering only 20 percent.

Table 12.2
Namibia: Summary of User Revenues and Expenditures by Transportation Subsector
Financial Year Ending 31 March 1991
(Rands)

	Road Transport	Civil Aviation	Other	Total
Revenues	$132,800,200	$1,596,200	$37,200	$134,433,600
Expenditures	151,522,400	8,098,900	1,833,600	161,454,900
Surplus (Deficit)	(18,722,200)	(6,502,700)	(1,796,400)	(27,021,300)
Percent Cost Recovery	87.6	19.7	2.1	83.3

12.22 More detailed breakdown by type of vehicle indicates that light vehicles are paying 136 percent of their allocated costs, suggesting that they are being taxed, whereas heavy vehicles are paying only 53 percent of allocated costs, indicating that they are being subsidized.3/ Detailed calculations appear in Appendix V. This analysis suggests a more efficient use of Namibian roads would be attained if user charges on light vehicles are lowered by some 36 percent, and user charges on heavy vehicles are doubled. The authorities are aware of this problem and are in the process of studying ways of modifying road user charges.

Impact of De-regulation and Changes in Road User Charges

12.23 De-regulation accompanied with an increase in road user charges for heavy vehicles would probably decrease tariffs for the consumer. From the latter's point of view, an increase in operating vehicle costs would be more than compensated by a decrease in profits, for a total reduction in charges of R0.45 per vehicle-kilometer, as illustrated in Table 12.3. De-regulation would benefit the north more than any other region. In the Northern Districts of Ovambo, Kavango and Caprivi, new entrepreneurs are likely to enter the transportation market, which coupled with improvements in rural access roads would reduce significantly the costs and tariffs on farm-to-market hauls. In the South, which has a more extensive supply of transportation services, the effect on tariffs would not be as significant.

Road Building Issues

12.24 In 1989 Namibia had one of the most extensive road networks in Africa with 4,506 kms. of paved roads, and 25,197 kms of gravel roads out of a total 41,800 kms road network. In terms of network density, Namibia led all the African Countries (including South Africa) with 31 persons per kilometer of road. In addition, the road network is well maintained, with high standards of riding quality throughout the road network, except in a few road sections in the North of the country.

12.25 One major reason for the quality of the road network in Namibia is the high level of competence and capability of its Department of Transport. The DOT manages well the maintenance of its road network, administers systematic counts of traffic volumes on the network and has led the world in the development of construction materials in the desert. The Department is now in the process of developing a maintenance management system. The technical competence of the DOT is a resource that needs to be safeguarded and nourished.

3/ This estimate is based on vehicle fleet figures published by the Namibia Department of Economic Affairs in their publication *Econ Info 1990*, page 22. If the larger vehicle fleet numbers presented in SWECO, *Transport and Communications in Namibia*, 21 March 1990, page 83 are used, the cost recovery from heavy vehicles becomes smaller than 53 percent.

Regional Disparities and Efficiency

12.26 The well developed road network of Namibia suffers from regional disparities. Ovamboland and Kavango have 288 and 106 persons per kilometer of road respectively compared with an average of 31 persons for Namibia as a whole. The Caprivi District also in the North exhibits the third poorest supply of roads with 62 persons per kilometer of road in 1989.

12.27 These regional disparities are partly the result of war conditions that made difficult road construction in the north and favored it in the south. As a result, a number of roads in the south were constructed without the benefit of feasibility studies and now the southern districts have an oversupply of roads. These regional disparities need to be addressed promptly. Rural access roads in the North remain unpaved and unimproved despite higher traffic volumes, as shown in Table 12.4. To its credit, the DOT has moved to change its portfolio of projects to include projects in Ovambo, Kavango, and Caprivi.

Table 12.3
Namibia: Estimated Impact of User Tax Policies and Deregulation/Free Entry on Trucking Tariffs
(In Mid-1990 Rands)

Fuel Tax Levy Per Liter (93 Octane Petrol)[1/]	0.3190
Increase in Fuel Tax Levy per Liter due to User Cost Allocations[2/]	0.28
Increase in Vehicle Operating Costs Per Kilometer[3/]	0.18
Capital Investment Per Vehicle-Kilometer[4/]	6.317
Increase (Decrease) in Profits per Vehicle Kilometer due to Deregulation/Free Entry[5/]	(0.63)
Increase (Decrease) in Average Trucking Tariffs per Vehicle-Kilometer	(0.45)

[1/]The fuel tax levy data comes from SWECO, *Op. Cit.*, page 167.
[2/]The user cost allocations presented in Annex V concluded that heavy vehicles were paying only 53 percent of infrastructure costs.
[3/]Responses with local trucking firms stated 0.50 liters per vehicle-kilometer as typical of heavy vehicles in Namibia. A more conservative estimate of 0.65 liters per kilometer is used in these estimates.
[4/]Assumes a vehicle price of R 475,000 for a new articulated truck, an extra 33 percent of the cost as representative of the costs of depots, garages, equipment, and buildings, and average annual travel of 100,000 kilometers per vehicle.
[5/]Deregulation/free entry is assumed to reduce the rate of return on trucking from the current 30 percent to the 20 percent long term interest rate.

Need to Redirect Budget to the Northern Districts

12.28 In Ovamboland some of the roads presented in Table 12.4 are being improved, but not to the standards that warrant their traffic volumes. In Kavango, while the main road Rundo-Bagani is being improved, not much attention is being paid to the roads West of Rundu (some with stretches with average daily traffic count of over 100). The Department is planning on improving the roads in Caprivi that merit improvement, but maintenance of the middle section of the road through the Caprivi strip is in disrepair. The DOT has changed course and is channeling more resources to the northern districts, but more remains to be done. These efforts are steps in the right direction and deserve the authorities' support.

Table 12.4
Namibia: Heavily Used Unpaved Access Roads in Northern Districts

District	Origin-Destination	Road No.	1989 Average Daily Traffic (excludes Military Traffic)
Ovambo	Oshakati-Okatana	DR 3620	200-500
	Ohangwena-Eenhana	DR 3601	100-200
	Oshakati-Okahao	DR 3613 & 3615	200-500
	Okahao-Tsandi	DR 3612	50-100
	Ombalantu-Tsandi	DR 3612	50-100
Kavango	Rundu-Mupini	MR 110	200-500
	Mupino-Nkurenkuru	MR 110	50-100
	Rundu-Kayengona	DR 3402	<100
	Rundu-Mashari	TR 8/4	100-200
	Mashari-Bagani	DR 3402	100-200
Caprivi	Bagani-Kongola	TR 8/5	50-100
	Kongola-Katima Mulilo	TR 8/6	100-500
	Katima Mulilo-Ngoma	TR 8/7	50-500

Source: Namibia Department of Transport, Planning Division.
Note: DR=District Road MR=Main Road TR=Trunk Road

Road Development Budget Priorities

12.29 To examine efficient allocation of resources in road building, a list of possible projects was assembled form the 1990/91 Capital budget and from the publications of the DOT.4/ Where the data allowed, internal rates of economic return were estimated using simplified economic evaluations methods presented by Beenhakker and Lago.5/ The internal rates of economic returns of the road projects are presented in Annex V. Road projects with economic returns above 20 percent we classified as high priority projects, and projects with rates of return below ten percent are classified as low priority.

12.30 The Department of Transport plans do not include the upgrading of roads west of Rundu in the Kavango District, which has heavily travelled gravel roads in disrepair. Other projects that need to be contemplated are ferry service from Rundu into Angola (a project not in the plans) and construction of roads MR92 and TR 1/11 into Angola, whose feasibility study is to be conducted this year. It is imperative that no new road projects be undertaken without first conducting feasibility studies. Not heeding this sound practice, as sometimes happened in the past, led to the overbuilding of roads in the southern part of Namibia.

Maintenance Policy

12.31 The Department of Transportation expenditures in routine and long term maintenance operations stood at R84.0 million in 1988/89, having remained fairly constant in real terms since 1989/81 despite an increase in road mileage maintained during this period. In view of the good state of repair and maintenance of the road network of Namibia, with few exceptions in Caprivi;6/ and Ovambo, the above figures raise the issue of whether maintenance standards can be relaxed without jeopardizing overall efficiency. This issue is some importance, not only because of its budgetary implications, but also because of its impact on transport costs. As discussed before, if the allocated share of infrastructure costs are borne by trucking firms, their user taxes would probably have to be doubled. The amount required to have them bear their share of allocated costs would be lower if maintenance expenditures were to fall. With deregulation and more competition in the sector, the consumer would gain even more than stated before. Northern farmers would stand to gain more from these policies, thus furthering the overall aims of reducing income disparities. Thus, a systematic approach to the planning and evaluation of maintenance operations, with a view to reducing costs, is needed.

4/ The Secretary. Department of Transport. *General Overview of the Road and Aerochome Infrastructure in Namibia.* Windhoek, February 1990.

5/ H.L. Beenhakker and Armando M. Lago. *Economic Appraisal of Rural Roads: Simplified Operational Procedures for Screening and Appraisal.* World Bank Staff Working Papers No. 610, Washington, D.C., 1983.

6/ Several sections of the main roads in Caprivi are in poor condition. The middle third section of the road through the Caprivi strip is in disrepair and so are portions of the road Katima Mulillo-Ngoma.

12.32 The Department of Transport has made a start in the direction of systematizing the study of maintenance operations. A maintenance management information system is in use by the Department, but no attempt has yet been made to incorporate cost data to the system and to assess the level of optimal maintenance of roads in Namibia conditions. The department has prepared a research project to further refine the maintenance management model. Their efforts deserve to be encouraged.

Environmental Considerations

12.33 The last few years have witnessed new awareness of the possible adverse effects of roads in environmentally-sensitive area. This environmental awareness could perhaps affect donor participation in some road projects which may affect game reserves. The Trans-Caprivi road may be an example of such a project. Because of the importance of some of these projects, the Ministry of Transport needs to be prepared to undertake environmental impact studies of some of the affected roads and re-design sections of the project to accommodate the movement of game and animals. These environmental actions need to be undertaken to assure donor commitments. The Department could gain valuable knowledge if it were to consult and review the successful experience of Kenya and other countries in constructing roads through game parks.

Labor-Intensive Construction Opportunities

12.34 The massive road building and improvement program in Ovamboland brings forth the need to look into opportunities for labor-intensive construction of rural access rods. Given that the agricultural labor wage rate is R60 per month in Ovamboland, labor-intensive construction methods are within the range of being feasible (although reasonably close to the margin of US$1.00-US$1.50 per day required for feasibility).

12.35 The problem with labor-intensive construction is that the Department of Transport does not have a successful record of implementing such projects. Another problem is that some of the roads in Ovambo already are experiencing average daily traffic volumes above 100 vehicles per day, requiring upgraded specifications not amenable to labor intensive construction methods. A final consideration is the need for a large pool of labor to support labor-intensive construction. The pool of labor resources does not exist in other areas of Namibia, although that does not appear to be the case in the Ovambo District.

12.36 Again, to its credit, the Department of Transport has moved in the right direction regarding labor-intensive construction. Its master plan study for roads in Ovambo calls for analysis of such issues. The Department is considering the so-called Spoorban technique of labor-intensive construction, which uses 3-4 times the labor required in conventional construction methods. The Department will need expert technical assistance from the ILO or other sources to successfully implement labor-intensive construction technology.

12.37 With a few exceptions, the better road projects lie within the northern districts. While the well-managed and technically competent Namibia Department of Transport has been quick to recognize the opportunities in the north, there are still opportunities in the north that remain untapped. Some rural access roads in Ovambo and Kavango remain unpaved despite having daily traffic levels above those on paved roads in the south. Development of master plans for the Kavango and Caprivi rural access roads need be accelerated. An analysis of road priorities and an estimate of their rates of economic returns are presented in Annex V.

12.38 Labor-intensive road construction methods are appropriate in the northern districts, mainly in Ovambo, but due to difficulties inherent in this construction technology, technical assistance from the International Labor Organization (ILO) should be sought. The Namibia Department of Transport is technically competent and effective; the task is to match the significant capabilities of the Department of Transport to the needs of roadbuilding in the north and maintenance of the network in the rest of the country. The level of user charges needs to be increased, especially for heavy vehicles, to finance road building and maintenance.

Civil Aviation Issues

12.39 The current system of civil aviation user taxes generates insufficient revenue to finance the aviation infrastructure of Namibia. Civil aviation user charges are defraying only 19 percent of costs. Therefore, an urgent study is needed of civil aviation user taxes to reduce the gaps between tax revenues and expenditures. The most urgent expenditure is required for navigation aids at Grootfontein, Mariental, and other sites. As a general rule, facilities and equipment should be financed through user charges only.

12.40 There is a need to monitor closely the finances of Namib Air. Its losses will probably rise in the next two years as new markets are developed in Europe and other African countries. A commitment to undertake joint ventures with foreign airlines would be advisable, and Namib Air needs to be prepared to reduce scheduled flights in the new routes if traffic fails to materialize after a prudent gestation period. The match between the aircraft types and the characteristics of the routes where they are assigned could be improved.

Urban Transportation Issues

12.41 The main urban transportation problems are: the need for free entry into taxi service (after a three-year transition period), for more taxis in the main cities, and for improved and revamped bus services. In Windhoek, for example, the Katutura Bus Service is experiencing increased deficits and is unable to compete with tavi services, even in mass-volume areas such as Katutura-Windhoek Central Business District. There is hardly any bus service linking the neighborhoods of Windhoek. In summary a revamping and redesign of the bus service is in order.

XIII. ECONOMIC GROWTH PROSPECTS

13.1 Consideration of Namibia's economic outlook in the next decade must begin with the country's export prospects. There are two principal reasons for such an emphasis. First, Namibia's main productive sectors, agriculture, mining, and fisheries, are heavily oriented towards exports. The small domestic market would be incapable of absorbing a substantial share of their output. Second, the Namibian economy is highly dependent on imports for output expansion and is likely to remain so for the next 10 years. Although for all practical purposes at present the country does not have a binding foreign exchange constraint, as soon as it introduces its own currency, it will lose the cushion now provided by the foreign exchange reserves of the RSA. The economy will then need to generate the foreign exchange required to pay for its imports.

13.2 While export performance is important, any country's long-term development depends almost totally on its ability to improve its productivity. The recommendations in the preceding chapters stressed the means by which Namibia can increase the productivity of its investment and of its labor force. This chapter assess the country's growth prospects in the light of those recommendations.

13.3 Namibia's public sector expanded rapidly in the past decade. The task now will be to improve its productivity and make it more responsive to the needs of the majority of the population and to the priorities of the new administration. The price mechanism cannot be used in this endeavor, as the public sector almost by definition does not respond to price signals. Rather, this must be done through programmatic reforms. Given the many demands likely to be placed on public funds, Namibia call ill afford inequitable and inefficient resource allocation. Every rand spent on low-priority projects will be one rand taken away from vital education and preventive health care programs

13.4 Relative poverty challenges Namibia to adopt a strategy that generates rapid improvements in equity. The speed with which the Nabimian authorities will be able to alleviate poverty will depend critically on the country's rate of growth. If income grows faster than the population, the authorities will be able to transfer an increasing share of current income to the poorer segments of the population without making any group worse off. If per-capita income stagnates, poverty alleviation will necessarily entail taking away from the rich to give to the poor--a slower and more socially difficult endeavor.

13.5 Widespread subsidy and transfer schemes, while cushioning the immediate effects of poverty, do not lead households toward a sustainable exit from poverty. The key to poverty reduction in lies in employment creation in the framework of a rapidly growing economy. In aggregate, no single sector is likely to provide rapid employment growth; the prospects are for widespread, but incremental rather than rapid gains. In all sectors, it will be critically important to let competitive markets price financial and physical inputs at levels which reflect their relative scarcity--this will help maximize the employment of Namibia's labor force. The following paragraphs present an assessment of growth propects.

Mining

Diamonds

13.6 Output is expected to rise to 950,000 carats by 1991 when two additional deposits--Auchas on the north bank of the Orange river and Elizabeth Bay, south of Luderitz--come on stream. Production from the Auchas mine began at the end of 1990 and is expected to yield some 44,000 carats per year of mainly gem-quality diamonds. Elizabeth Bay is expected to yield some 250,000 carats per year with stones of 95-98 percent gem quality. The operation came on-stream in April 1991 and reserves are sufficient to yield 4 million metric tons per year of ore over a 10-year period.

13.7 Both operations will prolong the life of on-shore mining, which is otherwise likely to become uneconomic by the early years of the next century. Attention is now focusing increasingly on the off-shore potential where a De Beers subsidiary, Marine Diamond Corp., holds large tracts. Test mining produced 21,545 carats in 1989. CDM began the local sorting of diamonds at its Windhoek headquarters in 1988, through a subsidiary, CSO Valuations Namibia (Valco Namibia). Diamond production, then, may recover from its 1989 low and can probably be sustained at a level of approximately 1,000,000 carats per year.

Uranium

13.8 The production of uranium oxide suffered from the sanctions imposed on the Republic of South Africa, which for years have prevented the conclusion of new sales contracts. Namibia's independence will have positive economic implications in this respect. However, in line with the decline in uranium oxide prices, lower revenues are to be expected when new long-term agreements are concluded. The volume of uranium exports is expected to decline owing to overproduction in Eatern Europe. On the positive side, current reserves of the Rössing mine would suffice for over 20 years, even working at full capacity.

Gold

13.9 Gold production is expected to rise in 1991 about 20 percent above the level of 1990, when it reached 1,605 kg, up from 336 kg in 1990, as a result of the Navachab mine coming on stream. After 1992, gold production is expected to remain steady at about 2,000 kg per year for the remainder of the projection period. Lead production is expected to decline from 44,000 tons in 1989 to about 30,000 in 1992 due to the near exhaustion of the Tsumeb deposit. Copper production is aldo expected to decline, from about 37,000 tons in 1989 to about 30,000 in 1992.

13.10 In summary, the volume of mineral production is expected to increase about 2 percent in 1991, 1 percent in 1992, hold steady in 1993, and to begin increasing towards the end of the decade, if investment rates pick up soon.

Fisheries

13.11 As discussed in paragraphs 3.56 and 3.57, the estimated value of the catch at the levels deemed necessary to allow for replenishment of the stock would be about R650 million for 1994 (1989 prices) and R900 million in 1998, with potential economic rents of about R160 million 1994 and R225 million in 1998.

13.12 These projections assume that the Government is successful in restricting the catch to allow the resource to replenish. The catch, therefore, *declines* in 1991, compared to 1989 when it took place without restrictions. After 1991, the catch grows slowly until it reaches it maximum potential in 2000.

13.13 Although it is not possible at this time to predict how the absorption of fisheries will benefit the Namibian economy, two extremes can be singled out. The minimum contribution would occur if all the fishing is done by foreign vessels, paying a license fee to the Government of Namibia. *Every thing else being equal,* the maximum contribution would occur if all the fishing is done by Namibian vessels with Namibian crew.

13.14 The projected growth rates presented refer to the fisheries' contribution to the economy from the point of view of the economic activity occurring within the economic territory of Namibia, i.e. in terms of Gross Domestic Product, rather than Gross National Product.1/ If all the factors of production participating in the Namibian fishing industry--now and in the future--were to be Namibian residents, the industry's contribution would be the same in terms of GDP or GNP. In Namibia's current situation, however, GNP would be a better indicator of the fisheries' contribution to the material welfare of the country. The relatively small size of the Namibian fishing fleet (a sizeable portion of which allegedly belongs to South African stockholders) makes the participation of foreign factors of production unavoidable, at least in the short term.

13.15 The Government considers that the sale of licenses to foreign vessels is the least attractive approach to the exploitation of fisheries. Its general policy in this respect seeks to maximize the contribution of Namibian factors of production. For the restricted catch levels envisaged for 1990, the existing Namibian fleet might prove adequate. By early May 1990 the Government had received applications for licenses from Namibian companies that exceeded the total allowable catches for 1990 for the most important species previously caught by foreign vessels (offshore fishing). Nevertheless, in the future, complete exploitation of the fisheries potential may require the presence of foreign vessels. For purposes of these projections, the net income has been calculated on the basis of license fees.

1/ By definition, Gross Domestic Product is the sum total of value added within a given territory, irrespective of whether the value added is earned by a resident or a non-resident. Gross National Product, on the other hand, refers to the sum total of value added generated by the factors of production deemed to be residents of a given territory. These definitions imply that (a) GNP would exclude value added generated in a given territory but paid to non-residents (i.e. wages earned by immigrant guest workers, profit remittances of foreign corporations to their headquarters); and (b) GNP would include value added earned by resident factors of production outside the territory of their residence (i.e. wages earned by emigrant guest workers, profit remittances of national corporations that have invested abroad).

13.16 The fisheries sector could also make a major contribution to the development of manufacturing industries in Namibia. Industrial fish processing is the obvious forward linkage that can be generated by this primary sector. This stimulus could be felt immediately, but it need not be limited to the time-span of the fisheries' expansion. The impact on manufacturing production could last well beyond a decade, depending on factors such as the investment climate, and the availability of appropriate economic and social infrastructure. The projections of manufacturing growth presented in this section, however, do not formulate explicit hypotheses regarding the development of industrial fish processing induced by offshore fisheries. The growth of the manufacturing sector has been projected between 4 and 5 percent per annum. To the extent that industrial fish processing develops rapidly in Namibia, the growth of the manufacturing sector could be substantially greater.

13.17 Although fisheries offer a promising and immediate development option, maximizing the sector's contribution to growth will require careful economic management and sector planning on the part of the Government. Domestic processing of fish could rapidly turn manufacturing into a leading export and employment sector. But this will call for an adequate system of incentives to attract domestic and foreign investment. Physical planning will also be required to guarantee the supply of essential inputs, such as electricity and water. Since Namibia's population is not concentrated near the natural fishing ports, the development of fish-processing industries would probably entail internal migrations and the attendant provision of housing and public services to the workers.

Agriculture

13.18 Table 13.1 provides mission estimates of how well the sector is likely to perform over the next five years, provided communal farmers can access output and input markets more easily and that they receive the required technical assistance. The methodology used combines the projection of past trends, where these seem to be firmly established, with "best guesses" of shifts arising from reforms and changes in internal and external markets. These projections depend critically on a sharp response by the communal sector to better market access. Without this response, the sector is likely to grow very slowly, if at all.

13.19 In the case of livestock, all the expected growth in cattle output comes from communal farmers. A additional but modest contribution to value added has been included to represent a continued expansion of downstream processing and shift to specialty products. An estimate of additional demand for exports from a successful conclusion to Namibia's negotiations with the EEC has been taken into account, but it has been assumed that Namibia's supply response to this opportunity will take five years to reach the new level of demand. This gives an overall value growth rate in real terms for large stock output of 4 per annum and of beef exports of 3 per cent per annum.

13.20 As far as small stock products are concerned, it is has been assumed that the karakul market remains weak and grows only at 3 percent per annum, but that the strong growth in mutton and wool production of the past few years will continue for the next five. In all, small stock output is expected to grow in value by 8 percent per annum over the next five years.

13.21 For the arable sector, it has been assumed that the recent strong growth in commercial cereal output will be sustained for the next five years, although growth is likely to tail off in favor of higher value crops after five years.

13.22 In communal areas, millet output is expected to grow sharply for the five years at 12 per cent per annum. This is a critical assumption, both for the validity of the projections and also for the welfare of communal farmers, that is predicated on a transfer of technology through farmer education.

13.23 High value crop production is also projected to grow strongly both in commercial and communal areas, at between 10 and 25 per cent per annum, depending on the crop, but from a very small base. The small contribution made by arable agriculture to the sector as a whole means that its effect on sectoral growth rates is correspondingly small.

13.24 Taking the sector as a whole, its real growth in value terms is adds up 6 percent per annum. If communal area farmers do not respond to the incentives discussed in Chapter V, the sector's growth will be that much less. Without a 12 percent projected growth rate in millet output, the sector as a whole would fall to 5 percent per annum.

13.25 The extent to which this modest growth contributes to the incomes and employment of Namibians is a critical issue. But even in the best possible circumstances, where prices and policy favor the intensive use of labor, the growth in agricultural employment is unlikely to exceed 2.4 per cent annum--less than the rate at which new entrants join Namibia's labor force. This result has two implications. First, it emphasizes the need to resist the temptation to intervene in capital and labor markets. The present relative price of labor and capital will favor employment. Secondly, it suggests that agriculture alone cannot be relied upon to solve Nambia's unemployment problems.

Table 13.1
Namibia: Projected Rates of Growth of GDP

Item	1991	1992	1993	1994	1995	1996
GDP at Market Prices	4.3	4.0	3.5	3.0	3.5	4.0
Agriculture	4.5	5.0	6.5	6.0	6.0	4.0
Fishing	3.4	3.5	3.5	3.4	9.0	9.0
Manufacturing	4.0	4.0	4.5	4.5	4.5	4.5
Other Industry	5.0	5.0	5.0	5.0	5.0	5.0
Mining	2.0	1.5	0.0	3.0	5.0	2.0
Other	3.5	3.5	3.5	3.5	3.5	3.5
Consumption/capita	-0.6	0.4	0.7	1.3	0.8	3.0
GDP/capita	0.1	0.1	-0.1	0.8	1.7	1.5

Manufacturing

13.26 Manufacturing production is likely to remain oriented towards the domestic market and its performance determined largely by the evolution of domestic demand. Accordingly, manufacturing has been estimated to grow at approximately the same pace as aggregate demand.

13.27 *Services* were the main source of employment during the 1980s because of the explosion of employment in the public sector made possible in part by budgetary support from the RSA. As a result, the public sector is too large and needs to be scaled down. If anything, then, public sector employment needs to decrease. This means that if value added in the services sector grows, it will be on account of other activities. The projection, then, is for services to grow at slightly lower pace than GDP.

Employment Implications

13.28 The above growth rates imply that employment in Namibia will increase, but only slowly. To obtain an idea of the likely employment gains, this report attempted to estimate employment generation using a best "guesstimate" of elasticities. The data in Namibia preclude any but a gross estimate of employment elasticity. For that reason, elasticities from other sources, e.g.; Zimbabwe, were used. The results are not encouraging, as Table 13.2 shows. Formal employment may grow at a rate of about 3,500 per year, not nearly enough to make a dent on the pool of presently unemployed, let alone abosorb the new entrants. Namibia's best hope for making significant inroads into the unemployment problem is to stimulate the informal sector. Communal agriculture, not included in the estimates shown below, may also absorb substantial numbers, on the order of 5,000 per year, if it grows at the projected rates. These calculations highlight two important points. First, the urgent need to stimulate labor-absorbing growth. Second, the paramount role of communal agriculture in contributing to the amelioration of the unemployment problem.

The Need for Government Interventions

Direct Employment Generation Programs

13.29 This report has emphasized poverty alleviation through labor-intensive economic growth. While the main emphasis for improving labor market conditions must be through the policy framework and restoring efficient growth in the economy, such programs will not be enough to alleviate unemployment substantially, especially in the short term. For this reason, the Government might consider direct employment programs. This option would have two aims: (i) facilitating self-employment opportunities by improving access to markets and inputs, including credit and training, and (ii) generating employment through public works schemes. It will be critical, given resource limitations and the extent of need, that Government and donor employment programs conform to Namibia's overall sectoral investment strategies and be well targeted. Such programs should not compete with other employment: they should operate during periods of slack agricultural labor demand and should pay below-market wages. Labor-short, female-headed households may be unable

to benefit from employment schemes, and it would be advisable to assess the economic and social feasibility of direct transfer assistance for these households.

Table 13.2
Namibia: Projected Rates of Employment Creation, 1991-96

Sector	1991	1992	1993	1994	1995	1996
Agriculture	38,000	38,800	39,800	40,700	41,800	42,800
Mining & Quarrying	10,000	10,000	10,000	10,000	10,000	10,000
Electricity & Water	1,400	1,400	1,400	1,500	1,500	1,500
Construction	12,200	12,600	13,000	13,500	14,000	14,400
Trade	31,700	32,800	34,000	35,200	36,400	37,700
Transport	9,500	9,800	10,100	10,500	10,800	11,200
Financing	4,500	4,600	4,700	4,900	5,000	5,200
Other Services	74,400	74,600	74,900	75,200	75,400	75,700
Total	181,700	184,600	187,900	191,500	194,900	198,500
Increment	3,300	2,900	3,300	3,600	3,400	3,600

Transfer Assistance

13.30 In view of the modest employment prospects, the most vulnerable will need transfer assistance. Some system of safety nets for the poorest is critical to stabilizing their welfare and facilitating sustainable poverty reduction in the short run. The design of a safety net system is beyond the scope of this report, but some suggestions to improve the present system are possible. Again, in this respect Namibia is ahead of other African countries; it already has in place a system of safety nets that it can improve.

13.31 The system of social safety consists of state transfers (social pensions and other targeted assistance schemes) and church, NGO and donor-based programs. The most important public sector program is the social pension. Every Namibian over the age of 60 is eligible for a social pension, currently in the amount of R92 per month. The other main public sector safety net is the Remission of Rent scheme (also managed through the Ministry of Health), whereby residents of township municipal housing may qualify for rent exemptions. Eligibility for the scheme is subject to a strict means test, which also determines the amount of subsidy, up to a maximum of R 74 per month. By limiting eligibility to households renting municipal housing for at least two months, the scheme is not reaching the poorest of township residents (squatters, single quarters, etc.). Even so, it would appear that the means test is too strict, as only 3,348 people benefit from the scheme, and the average subsidy per household is only half the maximum allowable.

13.32 In both cases, it would appear advisable to explore the scope for restructuring the transfers. For social pensions--nearly one-third of the total MOHSS budget--the Government might consider scaling pension benefits to favor the poor. The Remission of Rent scheme is small, but apparently mistargeted, and with nearly 50 percent of the budget going to administrative expenses, it is also inefficient. The same resources could be better deployed as direct transfers (rather than a payoff from one part of Government to another), or for upgrading housing (sites and services) for the poorest of the urban poor.

ANNEXES

ANNEX I
METHODOLOGY FOR POVERTY MEASUREMENTS

Urban Poverty Lines.

1. An unofficial urban poverty line exists for Windhoek, calculated as the local cost of a basket of goods developed at the University of Port Elizabeth as the minimum required to maintain a household of six in the short run--the Primary Household Subsistence Level (PHSL). The basket includes food, clothing, fuel, light, washing and cleansing materials. A second poverty line, the Household Subsistence Level (HSL), also includes allowances for rent and transport. A third line, the Household Effective Level (HEL), is defined as 150 percent of the HSL. The HEL is intended to indicate the level of income necessary for a household to survive over time, including expenditures for medical care, schooling, savings, hire-purchases, holidays, reading material, entertainment, recreation, insurance, consumer durables and other transport. These lines were developed for purposes of offering guidance to employers in setting wage levels and, although highly controversial, are the basis for current discussions of wage policy reforms.

Urban Poverty Incidence.

2. Rough estimates by the NBIC of household incomes in black townships suggest that in 1981, about 55 percent of households had incomes below the PHSL. In 11 surveys of townships during 1983-86, the NBIC found average incomes to be consistently below the Windhoek primary household subsistence level, and frequently as little as half that level. Only residents of Otjiwarongo municipal housing were found to have average household incomes above the PHSL--by 22 percent in 1984. In 1990, the NBIC estimates that nearly 60 percent of urban black households live below the PHSL.

Table A.1
Windhoek Poverty Lines, September, 1989
(Rands per household per month)

Primary Household Subsistence Level	570.1
Household Subsistence Level	650.1
Household Effective Level	975.0

Source: University of Port Elizabeth, RSA, 1990

3. Recent survey data suggest the NBIC estimate may be conservative. Survey data exist for Katutura and Oshakati/Ondangwa, which cover roughly two thirds of Namibia's urban population. Approximately 56 percent of Katutura households fall below the PHSL (assuming linear increases in income between the quintile midpoints). In the case of peri-urban Ovambo, approximately 75 percent of households fall below the Windhoek PHSL. Even adjusting the PHSL down by 10 percent to reflect differing price levels would put the PHSL at the average level of household income for the fourth quintile of the income distribution, suggesting roughly 73 percent of households fall below that level. The remaining urban areas of Namibia can be expected to

resemble peri-urban Ovambo more than Katutura. Thus, a very conservative estimate of the incidence of poverty among urban black households in Namibia is 67 percent. Using the prior NBIC estimate suggests that the incidence of urban black poverty has increased over the 1980s from 55 percent to 67 percent, a 22 percent change. Assuming that black households constitute roughly 85 percent of all urban households in Namibia, then the overall incidence of urban poverty is approximately 57 percent.

Rural Poverty Incidence.

4. Based on the identification of vulnerable groups discussed in the main report, the UN agencies have developed a food security profile and conducted a drought assessment study of households vulnerable to food insecurity during the 1989-90 failure of the rains in the North. Although the overview is qualitative, it is at present the most complete source of information for assessing the incidence of poverty in rural areas. Income data for rural Ovamboland are used to supplement the picture.

5. Estimates of households affected by drought as at Dec. 1989 were generated by a joint UN/GON/CCN fact finding mission. Although the mission did not find widespread nutritional deterioration among children at that time, the focus of the mission was to identify the food insecure, defined as those households and areas vulnerable to rapid deterioration in child nutritional status and loss of household assets, given the intensification of the ten year drought and the loss of cash incomes with the withdrawal of South African and UNTAG forces from the North.

6. The numeric estimates reflect the findings from rural Ovamboland of relatively inequitable income distributions and low absolute levels of income. Both findings suggest that fairly high proportions of the rural population live in poverty and/or are food insecure. The estimates listed below range from approximately 80 percent of the population of Damaraland, Kaokoland, Bushmanland, Hereroland and Namaland, to almost 70 percent in Ovamboland, and somewhat less in Kavango and Rehoboth. Without better information on the total population by each region, however, these proportions are also rough approximations.

Table A.2
Namibia: Estimates of the Food Insecure in Rural Communal Areas

Region	*Number*
Damaraland	30,000
Kaokoland	15,000
Ovamboland	450,000
Kavango	40,000
Caprivi	40,000
Bushmanland	4,000
Hereroland	30,000
Namaland	20,000
Rehoboth	6,000
Total	**635,000**

Source: Mission estimates, based on UN sources

7. The incidence of food insecurity in the rural communal areas can be estimated by subtracting agricultural laborers (about 36,000) and their dependents (about 320,000) from the total rural population living on commercial farms. The remaining rural population is 910,000, which should approximate residents of rural communal areas. With this figure, the incidence of poverty in the rural communal areas may be estimated at about 70 percent.

8. More recent estimates of the need for food assistance suggest that even though the drought continues, the recovery of the rains in Ovamboland in 1989-90 has substantially reduced the need for immediate food transfers. A WFP/CCN program to distribute food between October 1990 and March 1991 (i.e., until the next harvest) estimated in September, 1990 those at critical nutritional risk to be approximately 150,000 people, or about 10 percent of Namibia's total black population.

9. There is little information available about the living conditions of those working as laborers on the commercial farms. UN findings suggest that this group has very low incomes (particularly cash incomes) per capita, and that a high percentage of the group should be considered poor. Without additional information, it was assumed in this report that the incidence of poverty on commercial farms is also 70 percent, comparable to the incidence of poverty in the smaller urban areas and the rural communal areas.

10. In summary, provisional estimates of the incidence of poverty in Namibia find that more than two thirds of the population could conservatively be considered to live in absolute poverty. Although the headcount of rural poverty is far greater, and the incidence of rural poverty, at 70 percent, is currently slightly higher than the 67 percent incidence of urban black poverty, the continuing rural-urban migration and stagnation of peri-urban economies with the withdrawal of the war and transition forces, suggests that rural and urban poverty pose challenges of equal urgency.

ANNEX II
MINING AND INVESTMENT CODE

Legislation

1. The government recognizes that the mining industry can only maintain its strong position within the economy or grow if:

- o private investments (in particular grass roots exploration) are encouraged;
- o an influx of foreign capital and a transfer of up-to-date technologies are achieved;
- o management and other skills are available, and
- o access to foreign markets is provided.

In view of this, the government should bring the current phase of uncertainty to an end as soon as possible with the formulation and promulgation of the revised mining code, the investment code and the tax revision.

Mining Code

2. The mining code is one of the critical elements in the legal framework. The mining code has to be concise, clear, simple to understand and provide definitive terms. While mining legislation presently in force in Namibia is largely supportive of mining sector development, amendments under consideration should aim to further stimulate this process.

Investment Code

3. These guidelines were provided to the Government as part of seif-standing report on the mining sector. Nevertheless, the guidelines are applicable to investment in any sector, bearing in mind that the best investment code a country can offer is an enabling environment for private sector activity. An investment code is no substitute for macroeconomic stability, a competitive environment, market-determined prices, and minimal bureaucratic procedures. As a new country, Namibia has yet to establish a track record in these regards and for that reason an investment code may be a good idea if it gives investor clear guidelines on Government attitudes towards private investment. The new investment code should provide equitable and attractive conditions, including a regime of guarantees and incentives. Specifically, the investment code should contain:

- o guarantees on the security of title to property;
- o provisions that local and foreign investors are treated in the same manner;
- o guarantees of access to foreign exchange, transfers of dividends and capital as well as access to international and national money markets and financing institutions;
- o guarantees that expatriate and local employees can be hired without restrictions;

- regulations on fair management-labor relations to maintain industrial peace;
- procedures for the settlement of disputes and compensation of state acquisitions under fair and equitable conditions, including clear regulations on expropriation, state participation and interference with the management of enterprise;
- stipulations to minimize interference with marketing of exports;
- incentives for investors to employ, train and educate local staff;
- assurances that investment proposals are processed by the government efficiently and timely.

ANNEX III
SOUTH AFRICA'S REGIONAL INVESTMENT DEVELOPMENT PROGRAM

1. The RIDP distinguishes five kinds of industrial development points:

- o metropolitan areas are areas where condition for the establishment of private sector manufacturing operations are favorable as a result of existing agglomeration advantages;
- o deconcentration points are points close to metropolitan areas, such that industrial growth could be diverted to lessen the pressure of concentration in the metropolitan areas;
- o industrial development points are points where alternative agglomeration advantages could be created to compensate the advantages of existing industrial metropolis;
- o other industrial points are points with less potential to develop as counterbalances to the existing metropolis, and/or where the economic needs of the region are less than in other regions;
- o ad hoc cases refer to specific projects rather than industrial points as such. They include all the cases that do not fit within the four categories above.

2. The Application Authority identified eight deconcentration points and forty eight industrial development points.

Long Term Incentives

3. *Transport rebate*: rebates ranging from 40 to 60 percent of the incremental transportation costs caused by the relocation decision, are paid on all goods leaving the development areas. They cover road and rail transport, and certain types of sea and air transport. Some deconcentration points do not qualify for transport rebates.

4. *Electricity concession:* electricity was subsidized to make tariffs equal at all development points.

5. *Training allowance:* besides an income tax allowance on training expenses, industries operating in the designated areas can claim a cash grant estimated at .75 x company tax rate x training costs. For a 50 percent tax rate, for example the training allowance becomes 37.5 percent of training costs. This must be added to the ordinary tax allowance for training (50 percent).

6. *Housing Subsidy:* the interest on bonds up to R 55000 - 68000 is subsidized 20 - 60 percent, depending on the area, This subsidy is only available to employees with supervisory responsibilities.

7. *Tender Preference:* a preference margin, from 4 to 10 percent is, awarded to firms in the development points, for tenders to different levels of Government and parastatals.

Short Term Incentives

8. Enterprises already located at the development points are eligible for these incentives for new projects or the expansion of the existing ones.

9. *Labor incentive:* it takes the form of a non taxable cash grant for seven years. The incentive is calculated on the basis of the workers employed (full time only) during the financial year. The incentive per employee is defined as a percentage of the average monthly wage, subject to a ceiling. The rate of subsidy varies between 80 and 95 percent.

10. *Interest and rental subsidy:* These subsidies are offered for ten years. The interest subsidy is a percentage of the imputed interest, at a predetermined rate of interest, on 100 percent of investment in land and buildings and 50 percent of the plant, machinery, inventories, etc., up to an investment ceiling of R 7.0 million. The rental subsidy can cover 20 -80 percent of rental payments, depending on the area.

11. *Relocation costs*: relocation costs, up to a limit of R 500,000, plus 20 percent of unforeseen expenditure are paid to:

- o firms relocating from Pretoria-Witwatersrand - Vereeniging and Durban-Pinetown to the development areas;
- o firms relocating from the Cape Peninsula to deconcentration points;
- o firms relocating from a foreign country.

12. *Productivity Incentive Scheme*: the consultant fees caused by a productivity monitoring system instituted at the firm level, are also subsidized.

13. *Simplified wage incentive*: this scheme is available to small firms (capital up to R 500,000) an as an alternative to the labor incentive and the interest subsidy. The simplified wage incentive equals 1.2 times the normal labo. subsidy. The point is to minimize the need for complex calculations.

14. The preceding description clearly reflects that the application authority in the RSA has ample discretion to set the levels of the subsidy rates. Nothing will be said about the impact of these subsidies on the allocation of resources in the RSA, with which this Report is not concerned. Rather, the average level of subsidies received by manufacturing industries, under the RIDP in the RSA, is the relevant variable affecting the competitiveness of Namibia as a destination for investment in manufacturing.

15. The specific terms under which Namibia became a member of SACU had not been disclosed when the mission visited the field. A priori, there is no reason to expect that Namibia's terms will be significantly different from the general conditions that govern the membership of Botswana, Lesotho, and Swaziland. The language used in official statements in the RSA presents these entities, as if they were independent countries. The vast majority of the international community, however, has rejected this fiction.

ANNEX IV
MAJOR HEALTH PROBLEMS

Fertility

1. The UNICEF survey conducted in 1990 in selected northern communities and Katutura, a black suburb of Windhoek, documented fertility rates which range between 5.2 and 7.3. The Demographic and Health survey which excluded Ovamboland suggests that the rate is 6 or higher. Reproduction appears to start at a very youthful age. 81.7 percent of all teenagers had already given birth and 16.4 percent were currently pregnant. This pregnancy rate is considered high. A large proportion of women have high fertility preferences, even at high parities, women wanted more children. 76 percent of women surveyed with five living children wanted more offspring. Pathological sterility is largely absent and by age 35 nearly all women have given birth to one or more children. Factors associated with fertility decline, i.e. readily available modern contraceptive information and methods for women throughout fertile ages, are not present in Namibia. Without an effective family planning program, fertility levels will continue to be elevated.

2. Analyses of questions about child spacing and contraception showed "a considerable degree of dissatisfaction with the reproductive process among women in Namibia. This dissatisfaction is most noticeable at younger and older ages. These analyses suggest a low level of planned fertility among Namibian women[1]" Women would like to have better control over their reproductive processes and be able to delay and space their pregnancies. The birth control pill (16.7 percent ever used) and hormone injection (36.9 percent ever used) are the two modern methods of control used most frequently. However, "utilization of efficient modern contraception is limited and in some areas nonexistent[2] (4)." There is a considerable unmet need that strong family planning services could address in Namibia.

Infant and Child Mortality and Morbidity

3. Determinants of mortality and morbidity can be divided into direct biomedical and indirect socioeconomic factors. Biomedical elements like diarrheal disease and acute respiratory infection can be addressed by the health care system through a variety of curative and preventive measures. Socioeconomic factors such as educational level of mothers or family food security require a more complicated, intersectoral approach. Both the direct and indirect components interact in a complex fashion to determine levels of mortality and morbidity.

4. The infant mortality rate is an important summary statistic that encompasses direct and indirect determinants. A recent UNICEF survey utilized indirect measures (asking women about the number of births they have had and the number of children they have who are still alive) to determine the IMR within specific communities. Looking at limited underserved areas in northern Ovamboland and Katutura, results were calculated and ranged from 47 to 74 deaths per 1000 children during the first year of life. These figures suggest a burden of disease among the black population that is similar to other African countries in the region.

5. The Southern African Demographic and Health Survey conducted by Roussow in 1989 (3) surveyed the country with the exception of Ovamboland. It calculated an IMR of 26, a value much lower than other countries in the region, including South Africa. Roussow's results have

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[1] Mostert and van Tonder, *Fertility and Contraception*, Southern African Demographic and Health Survey, Namibia; 1989 Human Sciences Research Council.

[2] *ibid.*

been questioned. "...problems were encountered with non-compliance from respondents, absentees and errors of data collection and quality control.[3]" However, it is not improbable that dramatic variances in infant and childhood mortality occur in different regions of the country. Without further studies and confirmation from vital statistics, it is impossible to ascertain the precise level of infant mortality in Namibia. In lieu of these studies, the UNICEF data appears to be more reasonable.

6. There are no community based data upon which to base an accurate description or quantification of the determinants of childhood mortality and morbidity. One must extrapolate from hospital and clinic data, reviews of recent mission reports and interviews with health care personnel. Infectious diseases appear to be the major cause of infant and childhood mortality. The most prominent are diarrheal disease, acute respiratory infections and immunizable conditions, especially measles. Also of considerable importance are tuberculosis and malaria. Underlying malnutrition and anemia increases mortality and morbidity from all these conditions. This is similar to other countries in the region and in Sub-saharan Africa.

7. The pattern of childhood disease suggests ways in which gains are possible. Strengthening community clinics and outreach activities through primary health care would allow for direct intervention. Accessible, inexpensive local services should provide timely immunization to combat measles, utilization of ORT for diarrheal disease and prompt antibiotic treatment for acute respiratory infections. Indirect socioeconomic factors, such as inadequate water supply and sanitation, food insecurity and lack of education will limit the success of any clinic based approach. Tuberculosis, malaria and malnutrition will be discussed separately.

Malnutrition

8. Malnutrition is the major health problem affecting children in Namibia. The recent surveys reviewed[4] consistently note critical levels of malnutrition among the under 5 population across geographic regions and time. Levels of stunting, suggesting chronic undernutrition, approach 40 percent in the north and 25 percent in Katutura and other areas of the south. Acute undernutrition or starvation, was noted in 10 percent of children in selected areas in the north. Malnutrition is directly associated with mortality between the ages of 1 and 5. It increases the susceptibility to disease, the severity of illness and demand for health care.

9. Breast-feeding is almost universally practiced by women in Namibia. Women in rural areas continue breast-feeding for over 1 year. In Katutura and peri-urban areas weaning occurs earlier. The levels of malnutrition noted above were not seen before the first 6 months of life, suggesting an association of good nutrition and breast-feeding. Increased urbanization mitigates against extended periods of breast feeding. Health education can retard this trend by discouraging early weaning practices.

10. The health care system through PHC can approach the problem of malnutrition in a limited fashion. It can promote growth monitoring, breastfeeding, and the education of mothers concerning proper weaning foods. Other factors which are associated with undernutrition such as educational level of the mother, existence of female headed households and income are less amenable to the health service delivery mechanisms.

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[3] H. C. Hughson; *Survey of Nutritional Status and Related Factors in Selected Areas of Namibia*; Oxfam Mar-Apr 1986.

[4] *Ibid*, also, Mostert and van Tonder, *op. cit.*, and Rossouw, J. and J. van Tonder, Southern African Demographic and Health Survey, Namibia 1989: *Infant Mortality and Child Health*, Human Sciences Research Council, Pretoria 1989.

Maternal Mortality

11. Community based maternal mortality data are limited to the recent UNICEF survey. Indirect measures ascertained levels from 242 to 552 deaths/100,000 live births. Health professionals interviewed felt that the maternal mortality rates calculated in the UNICEF survey were excessively high, although they acknowledged significant maternal mortality in multiparous women.

12. It appears that there is already demand and access to antenatal and obstetric care. The same survey showed that these women seek medical care during pregnancy and prefer to deliver in clinics and/or hospitals. In Katutura, only 12 percent deliver at home and in the areas surveyed in the north, 60 - 90 percent utilized clinic or hospital services for delivery. In the south, 67 percent delivered in a hospital or clinic and 70 percent utilized the services of a doctor or midwife for obstetric care (3).

13. There seems to be a contradiction between the high level of maternal mortality and significant utilization of antenatal and obstetrical services. More data is urgently needed to determine the actual prevalence and causes of maternal mortality in order to plan appropriate intervention strategies. Antenatal services must be capable of determining and referring high risk cases to appropriate facilities for controlled childbirth. Family planning services could decrease the number of high risk unwanted or closely spaced pregnancies. Malnourished pregnant women could be targeted through a nutrition program.

Adult Mortality, Morbidity

14. Adult mortality and morbidity data suffer from the same lack of population based information that the childhood conditions do. Facility based data suggest that major problems are infectious diseases. They include tuberculosis, malaria, and sexually transmitted disease (11). Alcoholism and hypertension were also noted.

15. Malaria is a major public health problem but essentially limited to the endemic, populous areas of the north. Cessation of spraying and cyclical factors, rainfall and population movements, caused an explosive epidemic in 1990. Clinical cases reported in Ovambo rose from 28,765 in 1988 to 167,626 from January to June of 1990. Local staff reported 300 excess deaths in the Ovambo region alone during March and April.[5] The situation is complicated by the emergence of chloroquine resistance. Local communities, through PHC clinics or community health workers, should have the capability to treat uncomplicated cases with chloroquine or other medications and thereby avoid costly referral to regional hospitals. The MOHSS will have to maintain seasonal spraying of mosquitoes as a special program because of the geographical and seasonal specificity of the disease and the expensive, specialized equipment (insecticide, spraying trucks, etc.) required.

16. Tuberculosis is a recognized major health problem throughout the country with 4000 to 7000 individuals, adults and children, on therapy at any given time (incidence greater than 275/100,000/yr). The situation is expected to worsen with the increasing incidence of alcoholism and incipient AIDS epidemic. Ensuring that tuberculosis patients adhere to the prolonged (6-18 months) medical regimen is required to cure their disease. Maintaining compliance with the regimen, especially after the patient begins to improve, is a problem in all tuberculosis treatment programs. Currently, the MOHSS strategy involves prolonged inpatient medication and supplementary feeding to assure compliance with therapy. Costly compliance maintaining

[5] Haimanent, Cano, and Rietveld, *WHO Malaria Mission to Namibia*, WHO, 24 Jul-9 August 1990

regimens are preferable to interruptions in treatments and the emergence of mycobacterial resistance. Primary health care and its outreach program can help restrain the epidemic through contact tracing, monitoring compliance on selected outpatients and general patient education on the importance of early diagnosis and prolonged treatment.

17. Clinic and hospital data uniformly list sexually transmitted diseases (STD) as being a significant reason that patients request health care. AIDS is still an infrequently reported STD. As of June 1990 there have been 311 serologically confirmed cases of infections with HIV. Cases have been predominantly in the North, 40 percent originating in Caprivi, which is contiguous with Zambia. President Nujoma has spoken out publicly about the problem and a solid multifaceted control program including surveillance, a broad educational campaign and blood transfusion screening is being set up. Given the level of STDs in the country, the problem of AIDS can be expected to worsen. AIDS education and condom distribution should also be provided as part of integrated family planning activities.

ANNEX V
TRANSPORT SECTOR METHODOLOGY

5.1 To examine efficient allocation of resources in road building, a list of possible projects was assembled form the 1990/91 Capital budget and from the publications of the DOT.1/

5.2 For some of these projects, internal rates of economic return were estimated using simplified economic evaluations methods presented by Beenhakker and Lago.2/ The approach followed is one in which the ratio of the cost of road to the first year benefits are calculated (C/B_1), and then an estimate is developed of the annual rate of growth of benefits. Either V. Wouters3/ or M. Martinez's 4/ tables are then used to estimate the internal rates of economic return of road projects. New paved roads are assumed to have 25 year service lives, gravel roads are assumed to have 15-year service lives, and 30-year service lives were assumed for bridges.

5.3 Vehicle operating cost information was assembled from the Department of Transport sources. The vehicle operating costs sources furnished by the Department were mid-1988 costs for several vehicle types on surfaces of different roughness. These vehicles operating costs were projected to mid-1990 levels using inflation rates of 15 percent per year. The basic vehicle operating cost data used are presented in Annex Table 5.1.

5.4 The internal rates of economic returns of the road projects are presented in Annex Table 5.2. Road projects with economic returns above 20 percent we classified as high priority projects, and projects with rates of return below ten percent are classified as low priority.

5.5 As a general rule, projects with high rates of return include those with heavy traffic volumes, such as the Windhock-Windhock Airport ramps or those projects in Ovamboland which focus on upgrading of gravel roads in poor state of disrepair. However, it is significant that the Department of Transport plans do not include the upgrading of roads west of Rundu in the Kavango District, which has heavily travelled gravel roads in disrepair. Other projects that should be contemplated are ferry service from Rundu into Angola (a project not in the plans) and construction of roads MR92 and TR 1/11 into Angola, whose feasibility study is to be conducted

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1/The Secretary. Department of Transport. General Overview of the Road and Aerochome Infrastructure in Namibia. Windhoek, February 1990.

2/H.L. Beenhakker and Armando M. Lago. Economic Appraisal of Rural Roads: Simplified Operational Procedures for Screening and Appraisal. World Bank Staff Working Papers No. 610, Washington, D.C., 1983.

3/V. Wouters. Internal Rates of Return Tables. World Bank. Washington, D.C., December 1967.

4/M. Martinez. Benefit-Cost Calculations: Tables for Internal Rates of Return and Sensitivity Tests. World Bank. Washington, D.C., January 1979.

this year. A rule that should be followed is not to undertake any road development project without a previous feasibility study.

Annex Table 5.1
Namibia: Estimates of Vehicle Operating Costs in Namibia - Mid-1990
(in Rands)

Type of Pavement and Conditions	Surface Roughness Measurements			Vehicle Operating Costs per Km.		
	Speed (Kms/Hr)	IRI	QI	Autos	Heavy Trucks	Average Vehicle Operating Costs per Km
Super Highways	110	1.53	20	0.344	1.415	0.505
New Pavements	100	2.0	26	0.364	1.442	0.526
Older Pavements	90	5.0	65	0.463	1.600	0.634
Poorly Maintained Pavement	85	6.15	80	0.529	1.666	0.700
Maintained Unpaved	70	8.0	104	0.622	1.799	0.799
Damaged Pavement	60	10.0	130	0.754	1.957	0.934
Poorly Maintained Unpaved	40	15.4	200	1.190	2.460	1.381

Note: In the estimation of this table, vehicle operating costs for Mid-1988 supplied by the Namibia Department of Transport (see Memorandum of 6 March 1990 from H. du Plessis to F.W. Poolman) were extrapolated to Mid-1990 using inflation rates of 15 percent per annum. The average vehicle costs assume 85 percent light vehicles and 15 percent heavy vehicles as representative of Namibia conditions.

Annex Table 5.2
Namibia: Analysis of Road Investment Priorities
(In Rands)

1990/1991 Approved Budget	Budget 1990/91	Data 1991/92	Total Cost	Length of Road (Kms.)	Ratio of Costs to First Year Benefits	Rate of Growth of Benefits	First Year ADT	Internal Rate of Economic Return	Priority
1. Ovambo Master Plan	190,000	210,000	400,000	N.A.	N.A.	N.A.	N.A.	N.A.	High
2. MR92, TR1/11 Feasibility Study	30,000			N.A.	N.A.	N.A.	N.A.	N.A.	High
3. TR6/1 Windhoek-Windhoek Airport Ramps-Feasibility Study	200,000		10,180,000	7	5.09	9%	1,800	30.1%	High (assumes 50% reduction in accidents)
4. MR55, 56, 39, 40 Feasibility Studies	200,000			N.A.	N.A.	N.A.	N.A.	N.A.	Medium
5. TR1/5 Feasibility Study Windhoek-Aris Ramps	50,000	450,000	500,000	N.A.	N.A.	N.A.	1,400	N.A.	High (assumes 50% reduction in accidents)
6. Rehabilitation of Ovambo Roads (450 Kms)	1,300,000		12,000,000	450	5.24	11%	40	30.0%	High
7. MP65 Outjo-Khoritas-Cont.	8,400,000		undetermined		N.A.	N.A.	80	N.A.	Low
8. TR1/7 Okahanda-Otjiwarongo-Cont.	1,585,000		undetermined		N.A.	N.A.	700	N.A.	Medium
9. TR1/5 Windhoek-Rehobath-Cont.	1,500,000		undetermined		N.A.	N.A.	>1,000	N.A.	Medium
10. Detours & Smaller Works	200,000			N.A.	N.A.	N.A.	N.A.	N.A.	Medium
11. HP8/7 Katima Mulilo-Ngoma Feasibility Study-Cont.	240,000		28,240,000	60	31.46	15%	70	13.0%	Medium
12. TR8/4 Rundu-Divundu	4,000,000	20,000,000	70,000,000	147	27.90	11%	250	10.1%	Medium
Other Projects from General Overview Study									
13. Maintenance Mgmnt System (2 yrs)			1,000,000	N.A.	N.A.	N.A.	N.A.	N.A.	High
14. Road User Charge Study									

Namibia: Annex Table 5.2 (Continued)

1990/1991 Approved Budget			Total Cost	Length of Road (Kms.)	Ratio of Costs to First Year Benefits	Rate of Growth of Benefits	First Year ADT	Internal Rate of Economic Return	Priority
	1990/91	1991/92							
15. Replacement of Obsolete Graders9,000,000	9,000,000	25,950,000	N.A.	N.A.	N.A.	N.A.	N.A.	Medium	
16. Paving of Main Road 55 Gobabis-Buitepos		100,000	35,250,000	103	19.22	12%	260	14.4%	Medium
17. Study of Roads in Herreroland			300,000	N.A.	N.A.	N.A.	N.A.	N.A.	Medium
18. Bridge over the Zambezi River at Katima Mullilo		450,000	31,650,000	N.A.	67.50	15%	50	9.7%	Low
19. Bridge Over Chobe River			3,150,000	N.A.	Not Estimated	Not Estimated	20	Not Estimated	Low
20. Feasibility Study/Master Plan in Caprivi			200,000	N.A.	N.A.	N.A.	N.A.	N.A.	Medium
21. Divundu-Kongola (Trans-Caprivi Highway)			90,600,000	195	53.02	15%	75	9.1%	Medium (costs must be lowered)
22. Paving of Trunk Road 4/1 Goabeb-Aus			36,750,000	103	17.40	6%	75	9.2%	Low
23. Improvement of Main Road 44-Swakopmund-Henties Bay			undetermined	N.A.	N.A.	N.A.	N.A.	N.A.	Low
24. Improvement of Road 2301 Henties Bay-Terrace Bay			undetermined	N.A.	N.A.	N.A.	N.A.	N.A.	Low
25. Alternative Route Windhoek-Walvis Bay			undetermined	N.A.	N.A.	N.A.	N.A.	N.A.	Low
26. High Standard Road Walvis Bay-HentiesBay-Uis-Khorixas-Kamanjab-Ruacana			undetermined	N.A.	N.A.	N.A.	N.A.	N.A.	Low

N.A. denotes information not available for benefit or cost estimation purposes.

Road Transport Allocations

5.6 This section compares road infrastructure expenditures to user tax revenue contributions of light and heavy vehicles. Because of data limitations on the average daily traffic of several types of light and heavy vehicles on Namibian roads, it has been necessary to restrict the analysis to solely two vehicle types: light (autos, vans and utility vehicles) and heavy (buses, lories, and articulated trucks) vehicles.

Allocation of Road Expenditures

5.7 Road maintenance expenditures are the single most important item in road transportation expenditures presented in Table 5.4. The maintenance costs are to some extent a function of the vehicle axle loads that the roads must support. Following the american cost allocation practice, 5/70 percent of the road maintenance costs are allocated proportional to equivalent single axle 18,000 lbs. loads (ESAL) for a variety of vehicle types 6/ whose specifications are presented in Annex Table 5.5. The remainder 30 percent are incurred as function of weather and/or the mere passage of time. These weather and/or time dependent maintenance costs are allocated in proportion to equivalent daily traffic volumes, where following conventional capacity assumptions heavy vehicles are equivalent to 1.5 light vehicles. Annex Table 5.5 presents the estimation of the ESAL factors for vehicles and traffic compositions representative of Namibian conditions.7/

5.8 The allocation of road construction costs presented in Annex Table 5.6 distinguishes pavement costs from other costs, such as clearing, grubbing, earthwork and drainage costs. The pavement costs are assumed to represent 70 percent of the road construction budgets and are allocated in proportion to the ESAL factors presented on Annex Table 5.5. The other road construction costs are assigned in proportion to the equivalent average daily traffic.

5.9 Allocation of all the other road expenditures in the budget are presented in Annex Table 5.5. Expenses on control of road traffic are assigned in proportion to the number of transport

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5/U. S. Department of Transportation. Federal Highway Administration. Capital Cost Allocations and User Charge Structure Options. Highway Cost Allocation Study Working Paper No. 12. Washington D.C. July 1981, page 73.

6/The vehicle specifications recommended by the Namibia Department of Transportation come from: H. W. du Plessis and U. A. Rust. A Vehicle Operating Cost Model for Southern Africa: Draft User's Manual. Report No. DPUT-C23.1. National Institute for Transport and Road Research (CSIR) Pretoria, South Africa. September 1988, pages 26 and 27.

7/The Namibia Department of Transportation's traffic counts show that light vehicles account for 85 percent of traffic on Namibian roads. Assuming a vehicle equivalence factor of 1.5 light vehicles per heavy vehicle, light vehicles account for 79 percent of the equivalent average daily traffic.

vehicle permits issued. The number of vehicle permits was estimated as 553 taxis and 558 trucks, buses and lorries. This later figure was developed from the SWECO Report.8/

Allocation of Road User Tax Revenues

5.10 The two main sources of user tax revenues are the fuel levy and the vehicle licenses and fees. The revenue from fuel levies are allocated in Annex Table 5.3, following the assumption that light vehicles are 85 percent of the average daily traffic (ADT) on Namibian roads, and that articulated trucks are 30 percent of the heavy vehicle traffic. The allocation of revenues from vehicle license fees is presented in Annex Table 5.7, where the revenue contribution of heavy vehicles is assigned as a residual Annex Table 5.8 presents the allocation of all the Transport Departmental revenues incidental to road transportation.

Annex Table 5.3
Namibia: Allocation of Fuel Levies
Financial Year Ending 31 March 1991

	% Average Daily Traffic	Average Fuel Consumption Per Kilometer (Litters)	% Total Fuel Consumption	Fuel Levies Paid (Rands)
Light Vehicles	85%	210	70.55%	84,660,000
Heavy Vehicles[a]	15%	500	29.45%	35,340,000
			100.0%	120,000,000

[a]Assumes that articulated trucks account for 30 percent of the heavy vehicle traffic, a figure that is supported by the estimates of numbers of vehicles presented in Annex Table 5.7.

Cost Recovery by Vehicle Class

5.11 The percent cost recovery by vehicle class is presented in Annex Table 5.8, which shows a cross-subsidy between vehicle types. Light vehicles are overpaying their fair share of costs,

8/SWECO. Transport and Communications in Namibia. Prepared for the Ministry of Works, Transport and Communications of the Republic of Namibia. March 21, 1990, page 85.

paying 136 percent of their allocated costs, whereas heavy vehicles pay only 53 percent of their share of allocated costs.9/

5.12 This analysis of costs and user taxes supports the conclusion that light vehicles are subsidizing heavy vehicle traffic, with concomitant adverse effects on road/rail transport competition. Either the user taxes on heavy vehicles are significantly increased, perhaps doubled, or the level of road maintenance activities are reduced to a level in balance with the user tax contribution of the heavy vehicle sector.

Annex Table 5.4
Namibia: Estimation of Transportation Expenditures
Financial Year Ending 31 March 1991
(in Rands)

Current Expenditures	Road Transport	Civil Aviation	Other
01 Transportation Administration	14,984,000		
02 Construction of Roads and Airports	1,491.500		
03 Maintenance of Roads and Airports	66,519,800		
04 Control of Road Traffic	5,032,500		
05 Control of Civil Aviation		7,863,900	
06 Control of Water Traffic			100,000
07 Provision and Maintenance of Equipment	33,614,800		
08 Provision of Meteorological Service			1,733,600
09 Planning and Design of Roads and Airports	2,584,800		
10 Government Garage	9,400,000		
	133,627,400	7,863,900	1,833,600
Capital Expenditures			
Eros Airport-Erection of Plane Sheds		235,000	
Road Construction Projects	17,897,000		
	151,522,400	8,098,900	1,833,600

Source: The budget figures come from State Revenue Fund. *Estimate of revenue and expenditures for the Financial Year ending 31 March 1991,* pages 201-212.

9/This allocation uses vehicle fleet figures that come from the Namibia Department of Economic Affairs. Econ Info 1990, page 22. If the larger vehicle fleet figures contained in the SWECO report (page 83) are used, the cost recovery from heavy vehicles is less than 53 percent.

Annex Table 5.5
Namibia: Estimate of Equivalent Single Axle 18,000 lb. Load Rates (ESAL)

Vehicle Types	Tare (Kg)	Payload (Kg)	Total Weight (Kg)	Average No. of Axles	Average Weight Per Axle	ESAL Load Factor	Percent Vehicles by Class	Proportion Average Daily Traffic	ESAL Loads Per Km of Road	Percent Allocation ESA Load Vehicles Kms
Small Car	960	400	1,360	2	680	0.038	34.4%	N.A.	N.A.	N.A.
Medium Car	1,200	400	1,600	2	800	0.044	34.4%	N.A.	N.A.	N.A.
Pickup & Minibus	1,430	1,400	2,830	2	21,415	0.079	31.2%	N.A.	N.A.	N.A.
Total Light Vehicles				2	950	0.053	100.0%	0.85	0.090	31.0%
Bus	6,050	4,500	10,550	2	5,275	0.293	4.6%	N.A.	N.A.	
Medium Truck	5,020	11,000	16,020	2	8,010	0.445	36.2%	N.A.	N.A.	
Heavy Truck	6,400	16,000	22,400	3	7,467	0.415	36.2%	N.A.	N.A.	
Artic. Truck	14,700	32,000	46,700	5	9,340	0.519	23.0%	N.A.	N.A.	
Total Heavy Trucks				3	7,994	0.444	100.0%	0.15	0.20	69.0

[a]Estimated as the product of the number of axles times the equivalent single axle 18,000 lbs. load factor times the proportion of average daily traffic.
N.A. denotes information not available.

Annex Table 5.6
Namibia: Road Expenditure Allocation Summary
Financial Year Ending 31 March 1991
(in Rands)

Expenditure Items	Budget Costs	Allocation Basis	Light Vehicles	Heavy Vehicles
02 Construction of Roads and Airports				
a. Pavement Costs (70%)	1,044,050	Equivalent Single Axle Loads	323,660	720,390
b. Clearing, Earthwork & Drainage Costs(30%)	447,450	Equivalent Avg. Daily Traffic	353,490	93,960
03 Maintenance of Roads and Airport				
a. Dependent on Axle Loads (70%)	46,563,860	Equivalent Single Axle Loads	14,434,800	32,129,060
b. Dependent on Time & Weather (30%)	19,955,940	Equivalent Avg. Daily Traffic	15,765,190	4,190,750
04 Control of Road Traffic	5,032,500	Vehicle Permits Issued	2,516,250	2,516,250
07 Provision & Maintenance of Equipment	33,614,800	Equivalent Single Axle Loads	10,420,590	23,194,210
09 Planning & Design of Roads and Airports	2,584,800	Average Daily Traffic	2,197,080	387,720
10 Government Garage	9,400,000	Equivalent Single Axle Loads	2,914,000	6,486,000
Capital Expenditures for Road Construction				
a. Pavement Costs (70%)	12,526,500	Equivalent Single Axle Loads	3,883,220	8,643,280
b. Clearing, Earthwork & Drainage Costs(30%)	5,368,500	Equivalent Avg. Daily Traffic	4,241,120	1,127,380
01 Administration	14,984,000	As Percent of the Sum of All Other Costs	6,293,280	8,690,720
	151,522,400		63,342,680	88,179,720

Annex Table 5.7
Namibia: Allocation of Revenues from Vehicle License Fees
Financial Year Ending 31 March 1991

	No. of Vehicles[a]	License Fee[b] (Rands)	Total Revenue From License Fees (Rands)
Light Vehicles			
Motor Cars	13,445	72	986,040
Panel Vans	4,745	84	398,580
Minibuses	553	84	46,452
	19,538		1,413,072
Heavy Vehicles			
Buses	398	N.D.	
Lorries, Trucks and Truck Tractors	6,214	N.D.	10,586,928[c]
Trailers & Semi-Trailers	1,783	N.D.	
All Other	194	N.D.	
	8,589		12,000,000

[a]The vehicle fleet figures come from Namibia Department of Economic Affairs. Econ Info 1990, page 22. These figures conflict with a 1986 survey quoted in SWECO. Transport and Communications in Namibia, 21 March 1990, page 83. If SWECO's vehicle fleet figures are used, the cost recovery from heavy vehicles becomes lower than 53 percent.

[b]The license fees come from the Namibia Ministry of Finance. Office of the Receiver of Revenue.

[c]Determined as a residual.

N.D. denotes not determined due to lack of data on the number of vehicles in each vehicle weight category.

Annex Table 5.8
Namibia: Road Transport Revenues Allocation Summary
Financial Year Ending 31 March 1991
(in Rands)

	Revenues	Allocation Basis	Light Vehicles	Heavy Vehicles
30.01 Tax & Duties				
12 Levy on Fuel	120,000,000	Fuel Consumption	84,660,000	35,340,000
30.03 Licenses				
05 Vehicles & Related Fees	12,000,000	Vehicle License Fees	1,413,070	10,586,930
31.21 Department Revenues - Transport				
02 Road Transport Board	300,000	Permits Issued	150,000	150,000
03 Traffic Services	100,000	Average Daily Traffic	85,000	15,000
04 Lost Equipment & Stores	200	Average Daily Traffic	170	30
05 Obsolete & Worn Out Equipment	400,000	Equivalent Single Axle Loads	124,000	276,000
Total Revenue Allocation	132,800,200		86,432,240	46,367,960
Total Cost Allocation	151,522,400		63,342,680	88,179,720
Surplus (Deficit)	(18,722,200)		23,089,560	(41,811,760)
% Cost Recovery	88%		136%	53%

STATISTICAL

APPENDIX

STATISTICAL APPENDIX

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Table I.01:

NAMIBIA - GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN IN CURRENT PRICES

(Million Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Agriculture a/	166.3	217.3	204.6	166.4	167.4	198.7	228.7	382.5	469.6	489.5
Mining and Quarrying	630.0	454.4	465.6	473.3	510.4	900.1	1061.2	757.2	1051.8	1258.7
of which:										
Diamond mining	364.6	186.3	143.1	174.9						
Uranium mining	169.0	188.4	243.7	190.5						
Other mining	96.4	79.7	78.8	107.9						
Manufacturing	56.5	67.2	82.7	93.5	102.3	113.2	132.0	156.6	179.3	210.3
Electricity & Water	26.3	36.4	36.5	52.1	48.6	49.5	53.9	53.0	75.7	77.2
Construction	50.6	67.3	69.6	64.5	61.9	71.3	69.1	83.7	99.4	111.3
Trade, Hotels, etc.	166.3	204.9	228.4	234.9	255.5	282.8	328.4	382.7	449.4	532.8
Transport & Communications	76.7	78.3	83.8	107.6	137.2	139.5	175.2	204.1	229.7	265.0
Finance & Real Estate	77.0	88.2	111.8	127.5	153.0	176.9	184.8	217.3	263.7	311.2
Community Services	18.6	24.1	28.8	36.1	41.3	46.9	54.1	62.7	72.5	85.1
Government	138.8	227.1	316.3	366.8	427.3	479.3	556.5	716.1	764.3	855.7
Other Producers	37.0	40.9	49.5	54.3	64.5	74.4	83.7	97.7	111.8	129.4
GDP at Factor Cost	1444.1	1506.1	1679.6	1779.0	1969.7	2540.6	2927.6	3112.6	3767.2	4326.2
Net Indirect Taxes	117.4	103.6	114.6	100.0	142.9	201.1	258.5	289.1	540.6	654.2
GDP at Market Prices	1561.5	1609.7	1794.2	1879.0	2112.6	2741.7	3186.1	3401.7	4307.8	4980.4

NOTES:
Values shown exclude Walvis Bay.
a/ Includes fishing.

SOURCE:
"Statistical/Economic Review: Namibia", Department of Finance, Namibia.

Table I.02:

NAMIBIA - GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN

(Million 1980 Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Agriculture a/	186.3	171.8	155.6	121.1	107.3	116.7	118.8	149.1	151.6	156.9
Mining and Quarrying	630.0	559.0	508.8	499.3	483.2	467.5	499.7	488.2	493.0	461.5
of which:										
Diamond mining	364.6	177.7	120.1	134.1						
Uranium mining	169.0	179.7	204.5	146.1						
Other mining	96.4	76.0	66.1	82.7						
Manufacturing	56.5	55.4	61.2	62.5	62.1	59.9	60.5	61.4	62.2	67.9
Electricity & Water	26.3	27.8	29.2	30.5	31.5	32.3	32.9	33.2	34.9	36.1
Construction	50.6	60.2	53.0	43.1	38.2	36.4	32.1	33.2	33.9	31.8
Trade, Hotels, etc.	166.3	175.6	180.8	166.0	165.5	163.7	167.6	173.5	180.4	185.9
Transport & Communications	76.6	70.3	65.8	70.8	77.6	77.8	82.0	83.7	83.4	92.1
Finance & Real Estate	77.0	74.3	75.7	77.8	79.6	80.8	82.8	85.6	86.6	88.0
Community Services	19.6	22.8	23.8	25.0	26.2	26.5	26.8	27.4	28.0	28.4
Government	138.8	183.1	218.6	229.8	235.7	241.7	247.4	253.8	259.9	265.4
Other Producers	37.0	36.0	37.1	38.4	39.9	40.8	41.9	43.3	44.7	45.9
GDP at Factor Cost	1444.1	1436.3	1409.6	1364.8	1346.8	1346.1	1390.5	1432.4	1457.0	1459.9
Net Indirect Taxes	117.4	155.9	107.3	105.2	84.3	183.0	244.0	177.6	248.1	175.0
GDP at Market Prices	1561.5	1592.2	1516.9	1469.5	1431.1	1529.0	1634.5	1610.0	1705.1	1634.9
GDP Deflator (%) b/	1.0	1.0	1.2	1.3	1.5	1.9	2.1	2.2	2.6	3.0

NOTES:
Values shown exclude Walvis Bay.
a/ Includes fishing.
b/ Computed using current GDP factor cost divided by constant GDP at factor cost.

SOURCE:
"Statistical/Economic Review: Namibia", Department of Finance, Namibia.

Table I.03:

NAMIBIA - GROSS DOMESTIC FIXED INVESTMENT BY KIND OF ECONOMIC ACTIVITY

(Million Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Agriculture a/	22.2	24.2	27.9	30.0	29.0	30.7	36.6	43.0	45.5	57.5
Mining and Quarrying	112.4	74.6	47.6	40.8	31.9	31.9	75.3	94.5	170.8	249.3
of which:										
Diamond mining										
Uranium mining										
Manufacturing	15.8	23.0	8.8	9.9	10.0	9.5	9.0	8.7	9.0	16.1
Electricity & Water	14.1	36.8	30.4	21.4	5.4	6.9	9.6	6.1	10.8	14.0
Construction	15.5	13.4	18.2	10.0	10.1	6.3	5.5	7.5	10.1	11.3
Trade, Hotels, etc.	12.0	17.2	18.5	12.0	14.3	17.3	17.7	19.8	25.0	33.3
Transport & Communications	25.9	32.2	39.5	37.3	25.7	35.5	31.9	39.2	34.0	32.3
Finance & Real Estate	13.2	12.8	20.7	25.7	38.7	32.8	34.8	58.9	97.8	140.1
Community Services	3.7	8.2	9.6	5.4	5.8	8.0	8.6	6.6	11.9	12.2
Government	202.3	194.8	199.6	188.4	155.3	198.7	193.8	218.9	248.3	238.3
Gross Dom. Fxd. Inv.	437.1	437.2	420.8	360.9	328.2	377.6	422.0	501.2	655.2	805.2

NOTES:
Values shown exclude Walvis Bay.
a/ Includes fishing.

SOURCE:
"Statistical/Economic Review: Namibia", Department of Finance, Namibia.

Table I.04:

NAMIBIA - GROSS DOMESTIC FIXED INVESTMENT BY KIND OF ECONOMIC ACTIVITY

(Million 1980 Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Agriculture a/	22.2	21.3	21.1	20.2	18.1	16.3	15.6	16.4	15.3	16.6
Mining and Quarrying	112.4	66.0	36.5	27.8	19.8	16.8	31.8	36.3	58.1	70.6
of which:										
Diamond mining										
Uranium mining										
Manufacturing	15.8	20.3	8.7	6.8	6.4	5.1	3.8	3.3	3.0	4.6
Electricity & Water	14.1	31.9	22.7	14.0	8.2	3.6	4.3	2.4	3.6	4.2
Construction	15.5	12.0	14.1	6.9	6.5	3.3	2.2	2.6	3.1	3.0
Trade, Hotels, etc.	12.0	15.2	14.1	8.1	9.1	9.1	7.4	7.5	8.3	9.5
Transport & Communications	25.9	28.0	29.5	24.2	15.2	18.2	13.0	13.5	10.4	8.4
Finance & Real Estate	13.2	11.1	15.3	16.7	23.0	17.1	15.7	23.5	33.7	41.2
Community Services	3.7	7.3	7.4	3.7	3.7	4.2	3.8	2.6	4.0	3.5
Government	202.3	166.9	148.5	109.5	92.1	103.4	87.9	86.8	82.9	70.4
Gross Dom. Fxd. Inv.	437.1	381.9	315.9	237.9	197.1	197.1	185.5	194.9	222.4	232.0
GDI Deflator b/	1.0	1.1	1.3	1.5	1.7	1.9	2.3	2.6	2.9	3.5

Values shown exclude Walvis Bay.
a/ Includes fishing.
b/ Calculated by taking Gross Domestic Fixed Investment in current terms divided by Gross Domestic Fixed Investment in constant terms.

SOURCE:
"Statistical/Economic Review: Namibia" Department of Finance, Windhoek.

Table I.05:

NAMIBIA - EXPENDITURE ON GROSS DOMESTIC PRODUCT

(Million Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total Consumption	974.8	1422.3	1679.7	1821.3	2025.0	2299.2	2658.1	3272.8	3738.6	4213.6
Private Consumption	717.1	1017.6	1189.3	1264.3	1375.0	1523.1	1719.2	2130.2	2431.4	2798.7
Gov. Consumption	257.7	404.7	490.4	557.0	650.0	776.1	938.9	1142.6	1307.2	1414.9
Gross Dom. Fxd. Inv.	437.1	437.2	420.8	360.9	326.2	377.6	422.8	531.2	655.2	806.2
Public Authorities	239.6	236.2	251.2	210.6	185.2	233.5	223.2	253.2	266.9	257.8
Gen. Departments	202.3	194.8	199.6	168.4	156.3	198.7	193.8	216.9	240.3	238.3
Pub. Business Ent.	37.3	41.4	51.6	42.2	29.9	34.8	29.4	36.3	26.6	19.5
Public Corporations	20.4	52.1	50.5	35.5	20.3	25.5	30.6	29.1	49.0	53.8
Private	177.1	148.9	119.1	114.8	120.7	118.6	169.0	218.9	339.3	493.6
Change in Stocks	80.9	59.1	-5.7	-27.3	37.5	5.4	-16.7	38.4	214.4	22.1
Total Investment	518.0	496.3	415.1	333.6	363.7	383.0	406.1	539.6	869.6	827.3
Gross Domestic Expenditure	1492.8	1918.6	2094.8	2154.9	2388.7	2682.2	3064.2	3812.4	4608.2	5040.9
Exports GNFS	1148.9	983.8	1061.9	979.5	1144.7	1621.8	2028.3	1827.3	2177.7	2731.4
Imports GNFS	1080.2	1292.7	1362.5	1256.4	1420.8	1562.3	1606.4	2238.0	2478.1	2791.9
Resource Balance	68.7	-308.9	-300.6	-276.9	-276.1	59.5	121.9	-410.7	-300.4	-60.5
Expenditure on GDP	1561.5	1609.7	1794.2	1879.0	2112.6	2741.7	3186.1	3401.7	4307.8	4980.4

SOURCE:
"Statistical/Economic Review: Namibia", Department of Finance, Windhoek.

Table I.06:

NAMIBIA - EXPENDITURE ON GROSS DOMESTIC PRODUCT

(Million 1980 Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total Consumption	974.8	1220.5	1242.0	1201.1	1215.6	1235.4	1254.0	1346.0	1369.2	1356.2
Private Consumption	717.1	886.4	896.9	851.3	848.8	844.5	853.0	943.0	947.5	951.1
Gov. Consumption	257.7	334.1	345.1	349.8	366.8	390.9	401.0	403.0	421.7	405.1
Gross Dom. Fxd. Inv.	437.1	381.9	315.9	237.9	197.1	197.1	185.5	194.9	222.4	232.0
Public Authorities	239.6	205.1	187.5	137.3	110.3	121.4	100.1	99.6	91.4	75.9
Public Corporations	20.4	45.4	37.9	23.4	12.5	13.4	13.5	11.4	16.5	15.3
Private	177.1	131.4	90.5	77.2	74.3	62.3	71.9	83.9	114.5	140.8
Change in Stocks	80.9	67.7	-9.7	-19.8	30.1	1.9	-7.5	18.9	96.5	6.0
Total Investment	518.0	449.6	306.2	218.1	227.2	199.0	178.0	213.8	318.9	238.0
Gross Domestic Expenditure	1492.8	1670.1	1548.2	1419.2	1442.8	1434.4	1432.0	1559.8	1688.1	1594.2
Exports GNFS	1148.9	1069.3	1024.4	927.7	909.3	954.8	1067.4	943.4	889.6	897.5
Imports GNFS	1080.2	1147.2	1055.7	877.4	921.0	859.3	864.9	892.2	872.6	856.8
Resource Balance	68.7	-77.9	-31.3	50.3	-11.7	95.5	202.5	50.2	17.0	40.7
Expenditure on GDP	1561.5	1592.2	1516.9	1469.5	1431.1	1529.9	1634.5	1610.0	1705.1	1634.9

SOURCE:
"Statistical/Economic Review: Namibia" Department of Finance, Windhoek.

Table I.07:

NAMIBIA - SAVINGS AND INVESTMENT

(Million Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	19
Gross Dom. Fxd. Inv.	437.1	437.2	420.8	360.9	326.2	377.6	422.8	501.2	655.[illegible]	6[illegible] 2
Change in Stocks	80.9	59.1	-5.7	-27.3	37.5	5.4	-16.7	38.4	214.[illegible]	2[illegible].1
Total Investment	518.0	496.3	415.1	333.6	363.7	383.0	406.1	539.6	869.[illegible]	[illegible]7 3
Domestic Saving	505.1	427.3	448.2	499.9	516.4	728.0	966.7	548.6	716.2	920.0
Personal Saving	71.8	62.9	56.5	64.7	66.6	86.3	69.6	91.4	85.[illegible]	00.2
Corporate Saving	207.0	178.9	143.8	222.1	109.4	270.1	242.7	86.1	212.[illegible]	202.1
Government Saving	130.9	77.9	130.9	86.8	207.5	231.2	504.8	208.7	238.[illegible]	303.0
Prov. for Depreciation	95.4	107.6	118.0	126.3	132.9	140.4	149.6	162.4	180.3	200.7
Net Foreign Borrowing	12.9	69.0	-33.1	-166.3	-152.7	-345.0	-560.6	-9.0	153.[illegible]	-80.7
Total Savings	518.0	496.3	415.1	333.6	363.7	383.0	406.1	539.6	869.[illegible]	[illegible]7 3

SOURCE:
"Statistical/Economic Review: Namibia", Department of Finance, Windhoek.

Table [illegible].06:

NAMIBIA - GROSS NATIONAL PRODUCT

(Million Rands and Million 1980 Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Remuneration of employees	610.0	860.2	961.8	1080.8	1185.3	1311.6	1472.7	1736.4	1940.6	2216.0
Operating surplus	[illegible]	[illegible]	609.7	[illegible]	767.4	1080.7	1306.3	1214.0	1637.7	1909.9
Net dom. at factor cost a/	1310.7	[illegible]	[illegible]	[illegible]	1856.7	[illegible]	[illegible]	[illegible]	[illegible]	4126.6
Provision for Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	269.7
Indirect Taxes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	700.3
Subsidies	20.1	41.1	[illegible]	[illegible]	60.9	70.2	[illegible]	[illegible]	[illegible]	46.0
GDP at Market Prices	2601.6	[illegible]	[illegible]	[illegible]	[illegible]	2741.7	[illegible]	[illegible]	[illegible]	4980.4
Net Factor Income	-270.2	-200.3	-241.3	-176.4	-266.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gross National Product	1281.3	1403.2	[illegible]	[illegible]	[illegible]	2242.0	[illegible]	[illegible]	[illegible]	3064.0
GNP (1980 constant)	1281.3	1149.1	1106.3	[illegible]	1103.6	[illegible]	[illegible]	[illegible]	[illegible]	1200.4
GNP Deflator	1.0	1.2	1.4	1.6	1.7	[illegible]	[illegible]	[illegible]	2.6	3.1

a/ Remuneration of employees + Net operating [illegible]

SOURCE:
"Statistical/Economic Review: Namibia", Ministry of Finance, Windhoek

Table 1.02:

NAMIBIA - GROSS NATIONAL PRODUCT

(Million Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Remuneration of employees	610.8	[illegible]	[illegible]	[illegible]	[illegible]	1411.5	1772.7	1795.6	1959.5	[illegible]
Operating surplus	737.9	[illegible]	602.7	[illegible]	665.4	1038.7	1305.5	1214.8	[illegible]	1900.9
Net dom. at factor cost a/	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2600.2	2778.0	2950.2	3587.7	[illegible]
Provision for Depreciation	95.6	107.6	118.0	[illegible]	135.0	140.4	149.6	162.4	180.9	200.7
GDP at Factor Cost	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2927.6	3112.6	3767.2	4525.2
Indirect Taxes	137.5	[illegible]	[illegible]	[illegible]	202.8	[illegible]	593.7	[illegible]	[illegible]	[illegible]
Subsidies	20.1	61.8	57.8	85.7	66.9	78.2	65.2	76.0	62.5	45.9
[illegible] at Factor Cost	1291.3	1403.4	1546.9	1702.6	1857.[illegible]	2242.9	2607.9	2915.9	3357.4	3954.0
GDP at Market Prices	1561.5	1609.7	1794.2	1879.0	2112.6	2761.7	3186.1	3401.7	4307.8	4980.6
Net Factor Income	-152.8	-102.7	132.7	76.4	-112.6	-297.7	319.7	-195.7	-399.8	-376.2
Gross National Product (GNP)	1408.7	1507.0	1661.5	1802.6	2000.0	2444.0	2866.4	3205.0	3906.0	4603.2

a/ Remuneration of employees + Net operating surplus.

SOURCE: "Statistical/Economic Review: SWA-Namibia" Department of Finance, Windhoek.

Table I.10:

NAMIBIA - GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN

(Million 1980 Rands; May 1991 Update)

	1983	1984	1985	1986	1987	1988	1989	1990	-PROJECTIONS- 1991	1992
Agriculture	118.7	109.4	113.0	117.0	147.1	143.7	160.6	156.6	163.9	170.2
of which:										
Commercial	100.9	91..	94.1	97.5	127.0	123.1	139.4	134.7	141.4	147.2
Subsistence	17.8	18.8	18.9	19.5	20.1	20.6	21.2	21.9	22.5	23.0
Fishing	20.2	16.2	22.6	19.8	22.1	27.9	17.5	74.4	81.8	85.1
Mining and Quarrying	499.8	483.2	467.5	499.7	488.2	493.0	461.5	416.2	401.3	416.0
of which:										
Diamond mining	237.7	..18.0	212.7	236.3	240.7	227.7	217.7	177.9	198.7	233.7
Other mining	261.6	265.2	254.8	263.4	247.5	265.3	243.8	238.3	202.6	182.3
Manufacturing	62.5	62.1	59.9	60.5	61.4	62.2	64.8	68.1	70.8	73.7
Fish Processing (Walvis Bay)	15.0	11.3	18.4	14.8	20.9	24.1	14.5	28.7	30.7	32.2
Electricity & Water	30.5	31.5	32.3	32.9	33.2	34.9	36.1	38.0	39.5	40.7
Construction (contractors)	43.1	38.2	38.4	32.1	33.2	33.9	31.8	28.6	30.9	32.1
Wholesale & Retail Trade a/	166.0	165.5	163.7	167.6	173.5	180.4	185.9	188.3	193.0	197.8
Transport & Communications	70.8	77.6	77.8	82.0	83.7	83.4	92.1	96.7	103.0	108.1
Finance & Real Estate b/	77.8	79.6	80.8	82.8	85.6	86.8	88.0	87.9	89.7	91.5
Community Services c/	25.0	26.2	26.5	26.8	27.4	28.0	28.4	28.7	29.3	29.9
General Government	229.8	235.7	241.7	247.4	253.8	258.9	265.4	274.7	281.6	287.2
Other Producers	38.4	39.9	40.8	41.9	43.3	44.7	45.9	46.6	48.0	49.4
GDP at Factor Cost	1397.1	1376.4	1383.4	1424.8	1473.4	1501.7	1492.5	1533.5	1563.5	1613.9

NOTES:
a/ Includes catering and accomodation.
b/ Includes insurance and business services.
c/ Includes social and personal services.

Estimates of the real GDP include real value added emanating from subsistence agriculture, as well as the real value added resulting from fish processing in the enclave of Walvis Bay. As from independence all value added resulting from fishing in Namibia's extended EEZ is included in GDP. Data for 1987 to 1989 are preliminary and subject to revision, while data for 1990 to 1992 should be regarded as tentative.

SOURCE:
"Economic Review Budget 1991". Ministry of Finance, Republic of Namibia, May 23, 1991.

Table II.01:

NAMIBIA - BALANCE OF PAYMENTS

(Million Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	19
Merchandise Exports	1138.0	946.7	1009.2	941.3	1101.1	1594.4	1994.0	1798.4	2140.9	267
Merchandise Imports	-901.9	-1082.5	-1124.5	-1024.4	-1176.4	-1272.2	-1552.4	-1882.4	-2076.6	-233
Trade Balance	236.1	-135.8	-115.3	-83.1	-75.3	322.2	441.6	-86.0	64.3	33
Net Non-Factor Serv.	-167.4	-173.1	-185.3	-192.8	-200.8	-262.7	-319.7	-384.7	-364.7	-39
Resource Balance	68.7	-308.9	-300.6	-275.9	-276.1	59.5	121.9	-470.7	-300.4	-6
Net Transfers	71.2	342.6	466.4	516.6	541.4	583.2	758.4	616.4	546.8	53
Net Factor Payments	-152.8	-102.7	-132.7	-76.4	-112.6	-297.7	-319.7	-196.7	-399.8	-37
Current Acct Balance	-12.9	-69.0	33.1	166.3	152.7	345.0	560.6	-51.0	-153.4	9
Exchange Rate (R per US$)	0.8	0.9	1.1	1.1	1.4	2.2	2.3	2.0	2.3	2

SOURCE:
Statistical/Economic Review - Namibia 1990.

Table II.02:

NAMIBIA - EXPORTS BY COMMODITY

(Million Rands)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Mineral Exports	908.3	657.0	754.1	715.0	851.1	1284.4	1645.3	1306.9	1554.7	2026.8
Diamonds	446.7	231.0	217.9	234.7	231.6	409.0	615.5	431.2	653.5	814.0
Other Minerals	461.6	426.0	537.2	480.3	619.5	875.4	1029.8	875.7	901.2	1212.8
Agricultural Exports	131.6	174.1	120.5	77.7	95.1	127.5	156.9	241.9	258.4	293.7
Cattle	72.3	119.0	74.3	48.0	51.6	64.7	83.2	138.9	148.9	154.9
Small-Stock	9.1	25.8	22.2	10.7	15.5	30.5	40.7	53.0	57.6	95.4
Karakul Pelts	42.8	20.1	13.3	10.2	16.2	19.7	18.4	34.6	34.6	25.0
Other Agric. Exports	7.4	9.2	10.7	8.8	11.8	12.6	14.6	15.4	17.3	18.4
Fish Exports (Unprocessed)	12.9	23.2	30.8	31.8	25.1	44.3	38.7	63.1	94.1	64.9
Manufactured Exports	53.2	52.4	58.6	67.6	68.3	73.6	80.2	97.6	119.7	134.5
All Other Exports	32.0	40.0	44.2	49.2	61.5	63.2	72.9	86.9	114.0	151.7
Total Exports	1138.0	946.7	1009.2	941.3	1101.1	1593.0	1994.0	1796.4	2140.9	2671.6

SOURCE:
Statistical/Economic Review: Namibia 1990.

Table II.03

NAMIBIA - EXCHANGE RATE

(Rand per US Dollar)

YEAR	NOMINAL EXCHANGE RATE
1980	0.780
1981	0.870
1982	1.081
1983	1.112
1984	1.438
1985	2.191
1986	2.268
1987	2.035
1988	2.261
1989	2.617
1990	2.586

Source: IFS.

Table II.04:

NAMIBIA - FOREIGN TRADE: INDICES OF VALUE, VOLUME AND PRICES

(1980 = 100)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EXPORTS										
Value	100.0	85.6	92.4	85.3	99.6	141.2	176.5	159.0	189.5	237.7
Volume	100.0	93.1	89.2	80.7	79.1	83.1	92.9	81.4	78.0	78.1
Price	100.0	92.0	103.7	105.6	125.9	169.9	190.0	195.3	243.0	304.3
IMPORTS										
Value	100.0	119.7	126.1	116.2	131.5	144.6	176.5	207.2	229.4	254.1
Volume	100.0	106.2	97.7	81.2	85.3	79.6	80.1	82.7	80.8	78.0
Price	100.0	112.7	129.1	143.1	154.3	181.8	220.4	250.6	284.0	325.9
TERMS OF TRADE	100.0	81.6	80.3	73.8	81.6	93.5	86.2	77.9	85.6	93.4

SOURCE:
"Statistical/Economic Review: Namibia 1990", Department of Finance, Windhoek.

Table III.01:

NAMIBIA - STRUCTURE OF NONFINANCIAL PUBLIC SECTOR

I. General Government

1. Budgetary Central Government

   a. 18 Ministries including regional offices

   b. Departmental enterprises of Central Government

      * Transportation Department, Construction division
      * Department of Water Affairs

   c. Public enterprises

      * Post Office
      * Airport

2. Extrabudgetary Special Funds

3. Decentralized agencies of Central Government

   a. The Academy

   b. The National Broadcasting Corporation

4. Municipalities and Townships, and associated departmental enterprises

II. Nonfinancial Public Enterprises

S.W.A. Water and Electricity Corporation (Proprietary) Ltd. (SWAWEK)

TransNamib Ltd.

First National Development Corporation (FNDC)

S.W.A. Oil Exploration Corporation (SWAKOR)

Agronomic Board

The Meat Board

SWAMEAT

The Karakul Board

The Diamond Board

SOURCE: Official Goverment Sources.

Table III.02.a:

NAMIBIA -- CONSOLIDATED 1st, 2nd AND 3rd TIER GOVERNMENT EXPENDITURES, FISCAL YEAR[a] 1980/81-1986/87

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87
			(In millions of RSA Rand)				
Current Expenditures							
Interest	---	16.1	50.6	63.9	114.4	120.2	113.3
Transfers	62.3	72.8	118.0	118.3	138.6	206.6	172.2
Other current expenditures	432.3	499.0	629.0	790.7	823.9	969.4	1247.0
Sub-total current expenditures	494.6	587.9	797.6	972.9	1076.9	1296.2	1532.5
Capital expenditures							
Transfers	37.8	74.8	43.1	39.4	38.9	82.9	69.5
Other capital expenditures	188.6	207.0	161.4	145.8	174.7	170.3	172.0
Sub-total capital expenditures	226.4	281.8	204.5	185.2	213.6	253.2	241.5
Total expenditures	721.0	869.7	1002.1	1158.1	1290.5	1549.4	1774.0
Of which: Central authority	---	744.2	798.4	945.9	1037.2	1241.4	1405.2
			(In percent of fiscal year GDP)				
Current Expenditures							
Interest	---	1.0	2.8	3.3	5.0	4.2	3.5
Transfers	4.0	4.4	6.5	6.1	6.1	7.2	5.3
Other current expenditures	27.5	30.1	34.8	40.8	36.3	34.0	38.5
Sub-total current expenditures	31.4	35.5	43.9	50.2	47.4	45.4	47.3
Capital expenditures							
Transfers	2.4	4.5	2.4	2.0	1.7	2.9	2.1
Other capital expenditures	12.0	12.5	8.9	7.5	7.7	6.0	5.3
Sub-total capital expenditures	14.4	17.0	11.3	9.6	9.4	8.9	7.5
Total expenditures	45.8	52.5	55.2	59.8	56.9	54.3	54.8
Of which: Central authority	---	44.9	44.0	48.8	45.7	43.5	43.4
Memorandum items:							
			(In millions of RSA Rand)				
Fiscal year gross domestic product	1573.5	1655.8	1815.4	1937.4	2269.8	2852.8	3240.0
			(In percent of total government expenditures)				
Central authority expenditure	---	85.6	79.7	81.7	80.4	80.1	79.2

Source: Auditor General's Reports and Unpublished Material for Master's Thesis of R.Ritter.

[a]Fiscal year runs April through March.

Table III.02.b:

NAMIBIA - CENTRAL AUTHORITY FINANCIAL OPERATIONS, FISCAL YEAR 1981/82-1990/91e

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	Prel 1989/90	Est 1990/91
			(In millions of RSA Rand)							
Total revenue (excluding loans and transfers)	431.2	453.3	513.4	626.0	948.6	1133.6	1215.0	1484.1	2010.7	1927.7
Taxes on income and profits	78.8	55.6	107.3	165.9	293.9	395.1	415.5	451.8	824.9	746.0
Property taxes	3.2	2.0	2.7	2.4	3.0	5.2	9.0	8.8	14.5	11.8
Taxes on domestic transactions	55.4	76.0	85.3	121.7	162.2	204.7	261.7	338.5	441.6	453.0
Taxes on international trade	275.5	271 7	273.1	271.1	338.8	400.2	391.3	458.5	521.6	557.6
Less: payments to SWFC	6.9	5.8	8.3	6.5	15.6	20.7	12.1	20.9	23.5	0.0
Sub-total tax revenue	406.0	399.5	460.1	554.6	782.3	984.5	1065.4	1236.7	1779 1	1767.9
Non-tax revenue	25.2	53.8	53.3	71.4	166.3	149.1	149.6	247.4	231.6	159.8
Total expenditures	744.2	798.4	945.9	1037.2	1241.4	1405.2	1669.0	1790.3	2003.2	2142.5
Current expenditures e	543.9	585 7	786.8	847.0	994.8	1193.7	1346 3	1524.6	1812.2	1892.5
Wages ee	108.7	151.9	179.5	224.9	235.3	334.4	372.3	432.4	469.6	1000.0
Goods and Services	105.4	117.1	156.3	160.9	255.5	321.6	392.5	440.6	435.0	500.0
Interest	20.9	37.9	62.8	112.9	118 9	113.3	109.3	114.3	89.8	118.6
Other borrowing costs	1.0	12.9	1.1	1.4	1.3	4.6	3.2	20.8	84.9	37.7
Subsidies	36.9	56.4	39.4	33.3	72.8	77.3	71.6	51.3	..	..
Current transfers	271.0	209.5	347.7	313.6	311.0	342.5	397.4	465.2	732.9 a/	236.2 a/
Capital Expenditure	200.3	212.7	159.1	190.2	246.6	211.5	322.7	265.7	191.0 b/	250.0 b/
Acquisition of fixed capital assets	105.0	93.5	87.7	116.4	115.3	117.3	141.9	153.1	116.3	..
Purchases of land etc	8.2	2.0	0.0	0.2	3.1	0.2	0.3	0.8	0.0	..
Capital transfers	82.1	112.6	67.7	61.1	112.1	95.7	177.2	119.0	77.5	..
Net lending	5.0	4.6	3.7	12.5	16.1	-1.7	3.3	-7.2	-2.7	..
Deficit before budget support(-)	-313.0	-345.1	-432.5	-411.2	-292.8	-271.6	-454.0	-306.2	7.5	-214.8
budget support	214.0	215.0	265.0	372.0	318.7	469.2	308.0	313.8	141.9	106.0
Deficit after budget support (-)	-99.0	-130.1	-147.5	-39.2	25.9	197.6	-146.0	7.6	149 4	-108.8
Financing	99.0	130.1	147.5	39.2	-25.9	-197.6	146.0	-7.6	-149.4	108.8
Net borrowing	141.9	206.9	182.3	113.9	8.6	-46.9	5.3	80.4	-177.2	..
Loan disbursements	142.0	207.0	199.7	162.8	97.2	0.1	66.5	190.8	93.7	..
Loan redemptions	0.1	0.1	17.4	48.9	88.6	47.0	61.2	110.4	270.9	..
Change in cash balance (decline -)	42.9	76.8	34.8	74.7	34.5	150.7	-140.7	88.0	-27.8	..
Memorandum items:			(In percent)							
Revenue/GDP	26.0	25.0	26.5	27.6	33.3	33.0	33.5	33.2	39.0	32.5
Expenditure/GDP	44.9	44.0	48.8	45.7	43.5	43.4	46.0	40.0	38.9	36.1
Deficit before budget support/GDP	-18.9	-19.0	-22.3	-18.1	-10.3	-8.4	-12.5	-6.8	0.1	-3.6
Deficit after budget support/GDP	-6.0	-7.2	-7.6	-1.7	0.9	6.1	-4.0	0.2	2.9	-1.8
			(In millions of RSA Rand)							
Fiscal year gross domestic product	1655.8	1815.4	1937.4	2269.8	2852.8	3240.0	3628.2	4476.0	5151.4	5930.6

Source: Auditor General and Ministry of Finance.

e Includes budgetary central government except 2nd tier authorities prior to 1990/91. Includes 2nd tiers in 1990/91. Includes redemption fund for the full period. This is an extrabudgetary fund.

ee The wage bill and other current expenditure excludes those for departmental enterprises as the net operating surplus of these are included under nontax revenue. The wage bill also includes contributions to pension funds, to the medical aid scheme, and improvements in conditions of service.

eee Not comparable to previous years because of methodology differences. Government estimated Fiscal Year GDP at factor cost.

a/ Includes subsidies.
b/ Includes net lending.

Table III 02.c:

NAMIBIA - CENTRAL AUTHORITY REVENUE RECEIPTS, FISCAL YEAR* 1981/82-1990/91

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	Budgeted 1989/90	Prel 1989/90	Est. 1990/91
					(In millions of RSA Rand)						
Total Revenue	431.2	453.3	513.4	626.0	948.6	1133.6	1215.0	1484.1	1530.7	2010.7	1927.7
Income and profit taxes	78.8	55.6	107.3	165.9	293.9	395.1	415.5	451.8	524.0	824.9	748.0
Individual income tax	0.0	0.0	3.3	1.3	4.5	19.4	21.2	20.6	109.0	298.5	375.0
Co. tax on diamond mines	25.5	17.6	13.6	38.1	19.5	81.5	99.0	44.8	97.0	288.8 a/	187.0 a/
Diamond profit tax on co.	9.6	6.7	12.9	8.7	30.4	39.3	15.1	32.9	20.0	..	..
Co. tax on other mines	2.0	2.3	37.0	65.4	153.2	146.0	158.9	180.1	135.0	..	..
Tax on non-mining co.s	24.3	21.9	28.7	38.7	57.3	60.7	91.2	129.3	130.0	172.5	189.0
Non-resid. shareholder's	17.4	6.9	11.8	13.7	29.0	48.2	30.1	44.2	33.0	65.1	45.0
Other	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property tax	3.2	2.0	2.7	2.4	3.0	5.2	9.0	8.8	8.0	14.5	11.3
Transfer tax	3.2	2.0	2.7	2.4	3.0	5.2	9.0	8.8	8.0	14.5	11.3
Tax on dom. goods and ser	55.4	76.0	85.3	121.7	162.2	204.7	261.7	338.5	368.9	441.6	453.0
General sales tax	50.9	70.6	78.8	112.0	139.7	173.9	205.9	256.5	254.0	311.4	311.0
Fuel levies	0.0	0.0	0.0	3.0	12.9	18.6	41.3	62.2	100.0	110.0	120.0
Licenses	2.9	3.4	4.3	4.4	7.3	8.9	10.7	14.9	11.9	15.5	15.5
Stamp duties and fees	1.6	2.0	2.2	2.3	2.3	3.3	3.8	4.9	3.0	4.7	6.5
Tax on international trad	275.5	271.7	273.1	271.1	338.8	400.2	391.3	458.5	501.8	521.6	557.6
Diamond export duty	17.7	21.7	23.1	21.1	38.8	50.2	41.3	64.3	54.0	73.8	57.6
Customs and excise taxes (customs union receipts)	257.8	250.0	250.0	250.0	300.0	350.0	350.0	394.2	447.8	447.8	500.0
Less:transfer of tax to S	6.9	5.8	8.3	6.5	15.6	20.7	12.1	20.9	14.9	23.5	0.0
Total tax revenue*	406.0	399.5	460.1	554.6	782.3	984.5	1065.4	1236.7	1387.8	1779.1	1767.9
Non-tax revenue	25.2	53.8	53.3	71.4	166.3	149.1	149.6	247.4	142.9	231.6	159.8
Entrepren. and property i	5.6	8.7	16.4	32.4	54.9	61.2	65.5	92.6	61.9	94.8	57.0
Operating surplus of departmental enterprises	4.5	1.4	4.2	4.6	9.3	14.9	22.0	41.7	23.1	48.4	41.8
Other property income	1.1	7.3	12.2	27.8	45.6	46.3	43.5	50.9	38.8	46.4	15.2
Admin. fees and charges	17.1	23.2	33.8	35.1	41.9	51.4	77.8	88.3	72.8	78.0	92.8
Fines and forfeitures	1.4	2.0	2.2	2.2	2.2	2.7	3.2	3.2	3.0	4.4	3.5
Sales of stocks & fxd ass	0.3	0.2	0.5	0.6	0.8	2.9	2.7	2.9	2.2	3.2	1.7
Other non-tax revenue	0.8	5.0	0.4	1.1	0.5	0.5	0.4	0.7	3.0	30.4	0.6
Grant from rep. author.s	0.0	14.7	0.0	0.0	66.0	30.4	0.0	3.5	0.0	0.0	0.0
Receipts from exchange co	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.2	0.0	20.8	0.0
Fiscal Year GDP	1655.8	1815.4	1937.4	2269.8	2852.8	3240.0	3628.2	4476.0	5190.1	5151.4	5930.6

Source: Auditor General and Ministry of Finance.

* Fiscal year runs April through March. For coverage, see table 3.02.b.
** Budget 1991/92 figures are not comparable with previous years because of methodology differences.
*** Not comparable to previous years because of methodology differences.
**** Authorities estimated Fiscal Year GDP at Factor cost for Budget 1991/92.

a/ Includes company taxes on mining and diamond profit tax.

Table III.02.d:

NAMIBIA - CENTRAL AUTHORITY REVENUE RECEIPTS, FISCAL YEAR* 1981/82-1990/91

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	Estimated 1989/90	Budget 1990/91
	(In percent of fiscal year GDP)									
Total Revenue	26.0	25.0	26.5	27.6	33.3	35.0	33.5	33.2	38.8	31.0
Income and profit taxes	4.8	3.1	5.5	7.3	12.3	12.2	11.5	10.1	15.9	11.5
Individual income tax	0.0	0.0	0.2	0.1	0.2	0.6	0.6	0.5	5.8	4.7
Co. tax on diamond mines	1.5	1.0	0.7	1.7	0.7	2.5	2.7	1.0	1.9	1.2
Diamond profit tax on co.s	0.6	0.4	0.7	0.4	1.1	1.2	0.4	0.7	0.7	0.2
Co. tax on other mines	0.1	0.1	1.9	2.9	5.4	4.5	4.4	4.0	3.0	2.1
Tax on non-mining co.s	1.5	1.2	1.5	1.7	2.0	1.9	2.5	2.9	3.3	2.5
Non-resid. shareholder's tax	1.1	0.4	0.6	0.6	1.0	1.5	0.5	1.0	1.3	0.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property tax	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.1
Transfer tax	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.1
Tax on dom. goods and serv.s	3.3	4.2	4.4	5.4	5.7	6.3	7.2	7.6	8.5	7.2
General sales tax	3.1	3.9	4.1	4.9	4.9	5.4	5.7	5.7	6.0	4.9
Fuel levies	0.0	0.0	0.0	0.1	0.5	0.6	1.1	1.4	2.1	2.0
Licenses	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2
Stamp duties and fees	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tax on international trade	16.6	15.0	14.1	11.9	11.9	12.4	10.8	10.2	10.1	10.0
Diamond export duty	1.1	1.2	1.2	0.9	1.4	1.5	1.1	1.4	1.4	1.1
Customs and excise taxes (customs union receipts)	15.6	13.8	12.9	11.0	10.5	10.8	9.8	8.8	8.8	8.9
Less:transfer of tax to SWFC	0.4	0.3	0.4	0.3	0.5	0.6	0.3	0.5	0.5	0.3
Total tax revenue	24.5	22.0	23.7	24.4	27.4	30.4	29.4	27.6	34.3	28.4
Non-tax revenue	1.5	3.0	2.8	3.1	5.9	4.6	4.1	5.5	4.5	2.6
Entrepren. and property inco										
Operating surplus of departmental enterprises	0.3	0.1	0.2	0.2	0.3	0.5	0.6	0.9	0.9	0.7
Other property income	0.1	0.4	0.6	1.2	1.6	1.4	1.2	1.1	0.9	0.2
Admin. fees and charges	1.0	1.3	1.7	1.5	1.5	1.6	2.1	2.0	1.5	1.5
Fines and forfeitures	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sales of stocks & fxd assets	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Other non-tax revenue	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grant from res. author.s	0.0	0.8	0.0	0.0	2.3	0.9	0.0	0.1	0.0	0.0
Receipts from exchange cover	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.4	0.0
Aggregate diamond company tax	3.2	2.5	2.6	3.0	3.1	5.3	4.3	3.2	4.0	2.5
Aggregate mining sector tax	3.3	2.7	4.5	5.9	8.5	9.8	8.7	7.2	7.0	4.6

Source: Auditor General and Ministry of Finance

*Fiscal year runs April through March. For coverage, see table 3.02.b.

Table III.02.e:

NAMIBIA - GOVERNMENT APPROVED ESTABLISHMENTS, JUNE 30, 1983-AUGUST 1990

	June 30 1983	June 30 1986	June 30 1987	June 30 1988	August 1990 Approved	August 1990 Employed
I Central Authority Department						
Office of the President	0	0	0	0	104	62
Office of the Prime Minister	0	0	0	0	586	507
Auditor general	59	46	46	46	..•	..•
Agric.and nature cons. (Agric & rural dev.)	2,127	2,042	2,143	2,418	2458	2312
Water affairs (Fisheries and Water)	1,437	1,976	1,975	1,977	2201	1827
Civic affairs & manpower (Labor and manpower)	319	565	700	858	74	65
Local govt. and housing	0	0	0	0	1008	936
Governmental affairs	269	292	297	268	..•	..•
Economic affairs	244	141	143	178	..•	..•
Mines and Energy	0	0	0	0	87	79
Trade and Industry	0	0	0	0	54	41
Finance	283	351	370	391	768	503
Justice	531	534	510	687	271	243
Natl. health & welfare (health and soc.serv.s	263	4,185	4,183	4,059	7599	7026
National intelligence	0	0	1	1	...	...
National education	1,229	1,668	1,891	2,117	20111	21410
Lands, Resettlement and Rehabilitation	0	0	0	0	88	47
Home Affairs					5324	6936
Police (civil posts)	286	182	183	183	...	...
Posts and telecommunications	2,408	2,366	2,411	2,470	10178	8655
Transport	4,143	3,722	3,730	3,803	..•	..•
Information and broadcasting	0	0	0	0	111	51
Defense (civil posts only)	1,883	1,789	1,819	1,968	2170	5205
Wildlife, conservation and tourism	0	0	0	0	1563	1491
Foreign Affairs	81	0	0	0	60	81
Central personnel institution	206	243	244	320	...	...
Total: Central Authority	15,667	20,102	20,646	21,744	54813	57276
II. Representative Authorities						
Wh.bae	5,509	4,630	4,927	4,772		
Capricians	1,535	1,576	1,665	1,934		
Damaras	1.560	1,459	1,572	1,790		
Hereros	2,469	2,333	2,077	2,175		
Kavangos	2,936	3,120	2,701	2,758		
Coloreds	816	1,194	1,245	1,328		
Namas	936	1,033	1,162	1,117		
Ovambos	7,610	9,403	8,716	8,941		
Tswanas	182	228	257	276		
Total: Representative Authorities	26,553	25,006	24,112	25,091	0.0	0.0
Total: Government Establishments	42,240	45,107	44,758	46,835	54813	57276

Source: Unpublished material from incompleted thesis by R. Ritter and Annual Report of the Government Service Commission, 1987-1988.

For 1990/91 includes total Central Government.

• No longer independent entities.

Table III.02.f:

NAMIBIA - FUNCTIONAL DISTRIBUTION OF CENTRAL AUTHORITY EXPENDITURE*,

FISCAL YEAR** 1985/86-1990/91

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
	(In millions of RSA Rand)					
Total government expenditure	1128.9	1324.1	1698.5	1751.3	1809.9	2259.5
Economic sector services	60.0	72.5	154.4	78.3	55.4	108.9
Total community services	358.1	400.1	497.8	587.4	662.9	904.5
Education and training	187.0	210.8	278.8	345.2	363.7	476.1
Health and social welfare	133.9	148.0	168.8	189.2	224.8	345.7
Other services	37.2	41.3	50.6	53.0	54.3	82.7
Total infrastructure services	256.1	302.3	337.1	382.4	389.8	430.8
Transport	94.8	141.0	152.4	151.0	146.2	151.1
Water supply	69.0	67.7	76.5	89.5	86.3	90.8
Other services	92.3	93.6	108.2	141.9	157.1	188.9
Total protection and admin. services	452.9	547.1	707.6	701.6	701.4	814.9
Law and order	84.3	146.5	164.1	184.0	196.2	194.7
National defense	150.6	166.7	198.3	225.5	125.7	113.1
Other services	218.0	233.9	345.2	292.1	379.5	507.1
Research	1.8	2.1	1.6	1.6	0.6	0.4
	(In percent)					
Share of total expenditure						
Economic sector services	5.3	5.5	9.1	4.5	3.1	4.8
Total community services	31.7	30.2	29.3	33.5	36.6	40.0
Education and training	16.6	15.9	16.4	19.7	21.2	21.1
Health and social welfare	11.9	11.2	9.9	10.8	12.4	15.3
Other services	3.3	3.1	3.0	3.0	3.0	3.7
Total infrastructure services	22.7	22.8	19.8	21.8	21.5	19.1
Transport	8.4	10.6	9.0	8.6	8.1	6.7
Water supply	6.1	5.1	4.5	5.1	4.8	4.0
Other services	8.2	7.1	6.4	8.1	8.7	8.4
Total protection and admin. services	40.1	41.3	41.7	40.1	38.8	36.1
Law and order	7.5	11.1	9.7	10.5	10.8	8.6
National defense	13.3	12.6	11.7	12.9	6.9	5.0
Other services	19.3	17.7	20.3	16.7	21.0	22.4
Research	0.2	0.2	0.1	0.1	0.0	0.0
	(In percent)					
Share of fiscal year GDP						
Total government expenditure	39.6	40.9	46.8	39.1	34.9	37.1
Economic sector services	2.1	2.2	4.3	1.7	1.1	1.8
Total community services	12.6	12.3	13.7	13.1	12.8	14.9
Education and training	6.6	6.5	7.7	7.7	7.4	7.8
Health and social welfare	4.7	4.6	4.6	4.2	4.3	5.7
Other services	1.3	1.3	1.4	1.2	1.0	1.4
Total infrastructure services	9.0	9.3	9.3	8.5	7.5	7.1
Transport	3.3	4.4	4.2	3.4	2.8	2.5
Water supply	2.4	2.1	2.1	2.0	1.7	1.5
Other services	3.2	2.9	3.0	3.2	3.0	3.1
Total protection and admin. services	15.9	16.9	19.5	15.7	13.5	13.4
Law and order	3.0	4.5	4.5	4.1	3.8	3.2
National defense	5.3	5.1	5.5	5.0	2.4	1.9
Other services	7.6	7.2	9.5	6.5	7.3	8.3
Research	0.1	0.1	0.0	0.0	0.0	0.0

Source: Annual Budgets of the Central Revenue Fund.

*Budgeted amounts, and not actual expenditure. Excludes statutory expenditure, i.e. mainly debt servicing.

Table III.88.a:

NAMIBIA - THE ACADEMY

(In millions of RSA Rands)

	1986	1987	1988	est 1989	est 1990
Operating revenue	18.7	23.2	32.0	30.7	30.4
of which (Govt. subsidy)	16.1	20.3	27.7	25.2	25.8
Other revenue	0.3	0.6	0.5	0.5	0.6
Operating Expenditure	12.4	16.2	20.9	25.0	27.0
Remuneration	9.1	11.5	14.8	...	...
Other	3.3	4.7	6.1	...	...
Other Expenditure	3.1	3.8	4.5	4.0	4.0
of which: interest to govt.	...	...	...	...	...
Operating Surplus/deficit (-)	6.3	7.0	11.1	5.7	3.4
Overall Surplus/deficit (-)	3.5	3.8	7.1	2.2	6.0
Financing	3.5	3.8	7.1	-2.2	6.0
Disbursements	0.0	0.0	0.0	...	...
Redemptions	1.6	2.4	3.0	...	...
Increase in cash balance	1.9	1.4	4.1	...	...

Source: The Academy, Annual Financial Statements and mission estimates

Table III.88.b:

NAMIBIA - NAMIBIAN BROADCASTING CORPORATION (NBC)

(in millions of RSA Rands)

	1986/87	1987/88	1988/89	1989/90	Budget 1990/91
Operating revenue	25.6	31.3	35.9	46.5	47.0
License fees	2.2	2.3	3.0	3.0	3.2
Advertising services	2.1	2.8	4.2	5.1	5.3
Government subsidy	21.2	26.1	28.4	38.1	37.5
Other	0.1	0.1	0.3	0.3	1.0
Operating expenditure	23.3	29.0	32.3	43.5	46.0
of which: interest to Government	0.3	0.3	0.3	0.3	0.2
Operating surplus/deficit(-)	2.3	2.3	3.6	3.0	1.0
Other Revenue	7.8	5.9	6.1	7.6	6.1
Transfer from Government	7.2	5.3	5.0	6.3	6.1
Investment income	0.6	0.6	1.1	1.3	0.0
Capital expenditure	7.5	4.1	6.3	3.3	6.1
Overall surpluses	2.6	4.1	3.4	2.3	1.0
Financing	-2.6	-4.1	-3.4	-2.3	-1.0
Improved cash position(-) **	-2.6	-4.1	-3.4	-2.3	-1.0

Source: Namibian Broadcasting Corporation, Annual Financial Statements for 1986/87 - 1989/90 and budget for 1990/91

* The financial year is April 1 - March 31.
**Transferred to various funds, such as redemption and depreciation funds which here treated as an integral part of the NBC.

Table XII.08.c:

[illegible] - TRANSNAMIB LTD.

(In millions of R&A Rands)

	1988/89	1989/90
Operating revenue	335.6	380.0
Freight	317.0	375.0
Passengers	6.2	34.3
Equipment rental	7.0	13.0
Services	2.0	0.3
Operating expenditure	310.4	370.1
Maintenance of infrastructure	26.1	38.6
Operating and maintenance	86.1	131.8
Administration	0.1	9.1
Depreciation	6.2	6.0
Operating income before group administration	30.2	31.6
Group administration	8.0	24.6
Depreciation	0.8	1.4
Administration	8.7	20.2
Operating income after group administration	16.3	26.0
Adjustment for noncash item:		
Depreciation	6.1	6.4
not transfer to reserve charged against income	10.0	6.0
Net increase in accounts payable	-7.0	12.7
Internal cash generation, operating acct	28.0	61.0
Other income	4.1	28.4
Interest earned	2.8	10.0
Property rental	1.3	4.0
Other expenditure	7.0	-4.6
Fixed assets acquired	0.6	26.8
Less:disposal of fixed assets	-0.0	-37.0
Inventories	8.2	7.4
Interest paid	1.0	0.4
Insurance fund contribution	0.0	0.0
Cash surplus/deficit (-)	10.7	70.0
Financing	-10.7	-70.0
Share capital issues	38.0	24.6
Long term loans repaid	-10.6	-0.8
Increase in cash resources	-47.0	-103.1

Source: National Transportation Corporation Ltd, Annual Report 1990 and Transnamib Ltd, Annual Report 1990. Data include corporation and subsidiaries.

a Financial year [illegible]
as data for 1989/90 [illegible]

Table III.88.d:

NAMIBIA - SOUTH WEST AFRICAN WATER AND ELECTRICITY CORPORATION (SWAWEK)

(In millions of RSA Rands)

	1986/87	1987/88	1988/89	1989/90
Operating revenues	77.7	86.5	104.3	122.4
Sales of goods and services	77.7	88.5	104.3	122.4
Operating expenditure	56.6	66.0	64.9	90.5
Management and Administration	3.0	4.1	6.7	7.6
Generation and distribution	43.4	51.6	47.3	69.1
Depreciation	10.2	10.3	10.9	11.7
Exceptional repairs	0.0	0.0	0.0	2.1
Operating surplus/deficit	21.1	22.5	39.4	31.9
Adjustment for noncash items	9.9	11.4	11.9	11.2
depreciation	10.2	10.3	10.9	11.7
other	-0.7	0.0	0.0	0.0
increase in accounts payable	0.4	1.1	1.0	-0.5
Internal cash generation	31.0	33.9	51.3	43.1
Nonoperating revenues	19.0	22.6	31.0	39.3
Interest & other prop.inc.	19.0	22.6	31.0	39.3
Nonoperating expenses	13.6	14.3	32.2	33.7
Interest	4.3	0.3	0.3	0.7
Fixed assets acquired	9.1	11.0	28.3	31.3
Sale of fixed assets	-0.3	-0.4	-1.2	-0.3
Change in stocks	0.0	0.9	1.7	1.0
Lending	0.4	1.0	0.7	1.0
Cash surplus	35.4	42.2	50.1	48.7
Financing	-36.4	-42.2	-50.1	-48.7
Transfer to Fund investments	33.7	-35.2	-22.0	-35.7
loan repayment	-73.0	-0.0	-0.0	-0.0
bank financing	0.0	-1.1	-14.0	-2.5
Capital contributions by consumers	3.0	2.0	2.2	4.0
Dividend paid	0.0	0.0	-6.5	-6.5

Source: Swawek, Annual Reports 1987 to 1990

a SWAWEK's fiscal year runs from July 1 through June 30.

Table III.88.e:

NAMIBIA - FIRST NATIONAL DEVELOPMENT CORPORATION

(In millions of RSA Rands)

	1987/88	1988/89	1989/90
Operating Revenues	126.8	135.2	156.7
Sales of goods and services	117.5	124.8	137.9
Subsidies	1.5	1.2	6.2
Interest	7.8	9.2	12.6
Operating Expenditure	119.7	130.3	146.8
Operating Surplus/deficit (-)	6.3	4.9	4.7
Adjustment for noncash items	2.2	1.6	3.9
depreciation	2.1	3.5	4.3
profits on disposal of assets	-6.1	-6.9	6.6
write offs	6.3	6.2	6.5
increase in accounts receivable	-6.1	-1.2	-6.4
Internal cash generation	8.5	6.5	8.6
Investment expenditure	16.6	16.8	4.8
Purchase of fixed cap.assets	9.9	11.6	8.1
less:cap.assets sold	-1.8	-2.5	-4.6
net increase in loans	-2.4	-1.5	5.4
Establishment cost	6.8	6.2	6.3
Change in stocks	2.7	3.6	-5.6
Overall cash surplus/deficit (-)	-1.5	-4.3	3.8
Financing	1.6	4.3	-3.8
Shares, Govt.	11.1	7.6	1.9
Bank financing, net	-9.5	-2.7	-5.7

Source: First National Development Corporation, Annual Report 1990 and Financial Statements for 1990.

aFiscal year runs from April 1 to March 31

Table III.04
Namibia: Central Government Medium-Term Financial Projections, 1991/92-95/96
(Million Rands)

	Prel.	Est.	Projections				
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Revenue	**2,010.7**	**1,734.9**	**2,257.7**	**2,637.8**	**3,102.1**	**3,630.4**	4,263.2
Income and Profits Taxes	824.9	740.7	818.3	944.5	1,092.0	1,273.3	1,500.7
Individual Income Taxes	298.5	373.8	444.1	527.6	626.7	750.8	901.0
Company Taxes on Mining and Diamond Profit Tax	288.8	163.1	187.6	202.6	218.8	236.5	271.9
Company Tax on Non-Mining	172.5	167.6	148.7	174.5	204.6	240.0	281.3
Nonresident Shareholder's Tax	65.1	36.2	38.0	39.9	41.9	44.0	46.2
Property Tax	14.5	12.7	12.0	14.0	16.0	17.0	18.0
Transfer Tax	14.5	12.7	12.0	14.0	16.0	17.0	18.0
Taxes on Dom. Goods and Serv.	441.6	500.8	588.6	686.3	799.5	930.8	1,088.4
General Sales Tax	311.4	359.3	425.6	504.1	597.1	707.3	837.8
Fuel Levies	110.0	120.0	140.0	157.6	176.3	196.0	221.6
Licenses	15.5	15.4	16.0	17.0	18.0	19.0	20.0
Stamp Duties and Fees	4.7	6.1	7.0	7.5	8.0	8.5	9.0
Taxes on International Trade	521.6	283.8	655.6	775.5	936.1	1,099.4	1,282.5
Diamond Export Duty	73.8	60.3	65.6	75.5	86.1	99.4	112.7
Customs and Excise Taxes (Customs Union Receipts)	447.8	223.5	590.0	700.0	850.0	1,000.0	1,169.8
Less Transfer of Tax to SWFC	23.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Tax Revenue	1,779.1	1,538.0	2,074.5	2,420.3	2,843.6	3,320.5	3,889.6
Non-Tax Revenue	231.6	196.9	183.2	217.5	258.5	309.9	373.7
Fiscal Year GDP	5,151.4	5,930.6	7,045.2	8,364.7	9,942.1	11,920.1	14,372.0

Source: Ministry of Finance; mission estimates.

Table III.05
Namibia: Central Government Medium-Term Financial Projections, 1991/92-95/96
(Million Rands)

	Prel.	Est.	Projected				
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Total Revenue	**2,010.7**	**1,734.9**	**2,257.7**	**2,637.8**	**3,102.1**	**3,630.3**	**4,263.3**
Tax Revenue	*1,779.1*	*1,538.0*	*2,074.5*	*2,420.3*	*2,843.6*	*3,320.4*	*3,889.6*
Income and Profits Tax	824.9	740.7	818.3	944.5	1092.0	1273.3	1500.7
Property Taxes	14.5	12.7	12	14	16	17	18
Taxes on Domestic Transactions	441.6	500.8	588.6	686.3	799.5	930.8	1,088.4
Taxes on International Trade	521.6	283.8	655.6	775.5	936.1	1,099.4	1,282.5
Less: Payments to SWFC	23.5	0.0	0.0	0.0	0.0	0.0	0.0
Non-Tax Revenue	*231.6*	*196.9*	*183.2*	*217.5*	*258.5*	*309.9*	*373.7*
Total Expenditure	**2,003.2**	**2,044.0**	**2,504.5**	**2,899.2**	**3,343.3**	**3,865.0**	**4,458.9**
Current Expenditure	*1,812.2*	*1,784.5*	*2,144.5*	*2,469.2*	*2,831.3*	*3,195.5*	*3,662.8*
Wages	469.6	912.7	1,035.0	1,182.5	1,300.8	1,430.8	1,573.9
Gods and Services	435.0	644.6	724.5	874.8	1,056.4	1,275.6	1,540.2
Interest	89.8	21.4	125.6	142.1	159.1	173.1	184.9
Other Borrowing Costs	84.9	0.0	1.4	0.0	40.0	0.0	0.0
Subsidies and Expenditures	732.9	205.8	258.0	269.8	275.0	316.0	363.8
Capital Expenditure	191.0	259.5	360.0	430.0	512.0	669.5	796.1
Deficit Before Budget Support	**-7.5**	**309.1**	**246.8**	**261.4**	**241.2**	**234.7**	**195.6**
Budget Support	**141.9**	**100.0**	**150.0**	**75.0**	**0.0**	**0.0**	**0.0**
Deficit After Budget Support	**-149.4**	**209.1**	**96.8**	**186.4**	**241.2**	**234.7**	**195.6**
Financing	**-149.4**	**209.1**	**150.7**	**261.6**	**406.1**	**360.8**	**326.2**
Net Borrowing	*-177.2*	...	*96.8*	*186.4*	*241.2*	*234.7*	*195.6*
Loan Disbursements	93.7	...	194.3	150	150	150	125
Loan Redemptions	270.3	...	151.4	38.8	73.7	41.5	60.0
Change in Cash Balance, Increase (-), or additional fin. nee	27.8	...	53.9	75.2	164.9	126.2	130.6

Source: Ministry of Finance; Mission estimates

Table III.06

Namibia: Projected Central Government Debt and Debt-Service, 1991/92-95/95

(Million Rands)

	Actual 1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
			A. Existing Loans				
I. Debt Outstanding end of FY	**714.1**	**582.4**	**539.1**	**500.3**	**421.6**	**375.1**	**315.1**
Stocks	549.5	497.5	466.5	439.6	403.6	368.6	308.6
Local Loans	35.6	25.0	20.0	15.0	5.0	0.0	0.0
Loans from RSA	39.0	32.5	26.0	19.5	13.0	6.5	6.5
Term Bonds	19.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign Loans	71.0	27.4	26.6	26.2	0.0	0.0	0.0
II. Schedule Redemptions in FY		**131.7**	**43.3**	**38.8**	**78.7**	**46.5**	**60.0**
Stocks		52.0	31.0	26.9	36.0	35.0	60.0
Local Loans		10.6	5.0	5.0	10.0	5.0	0.0
Loans from RSA		6.5	6.5	6.5	6.5	6.5	0.0
Term Bonds		19.0	0.0	0.0	0.0	0.0	0.0
Foreign Loans		43.6	0.8	0.4	26.2	0.0	0.0
III. Scheduled Debt Service	**426.0**	**265.5**	**118.7**	**106.8**	**181.2**	**100.5**	**107.0**
Interest	89.8	96.1	74.0	68.0	62.5	54.0	47.0
Discounts and Forex. Loses	84.9	37.7	1.4	0.0	40.0	0.0	0.0
Amortization	251.3	131.7	43.3	38.8	78.7	46.5	60.0
			B. Projected New Loans				
Projected New Loan Inflows		150.0	194.1	150.0	150.0	150.0	125.0
Projected Interest on Loans		22.5	29.1	2.5	22.5	22.5	18.8
Cumulative Interest on New Loans		22.5	51.6	74.1	96.6	119.1	137.9
			C. Projected Outstanding Debt and Debt Service				
Interest and Forex Costs (A+B)	174.7	156.3	127.0	142.1	199.1	173.1	184.9
Amortization	251.3	131.7	43.3	38.8	78.7	46.5	60.0
Debt Service	426.0	288.0	170.3	180.9	277.8	219.6	244.9
Debt Oustanding, End FY	714.1	732.4	883.2	994.4	1,065.7	1,169.2	1,234.2
			D. Debt Service Ratios (As Percent of GDP)				
Debt Service	**8.3**	**4.9**	**2.4**	**2.2**	**2.8**	**1.8**	**1.7**

Table IV.01:

NAMIBIA - INDICES OF CONSUMER AND FOOD PRICES (1980=100; ANNUAL AVERAGES)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Namibia - CPI (Windhoek)	100.0	114.8	132.6	148.5	162.0	181.4	205.7	231.6	261.4	300.9	337.1
% Change in CPI		14.8	15.5	12.0	9.1	12.0	13.4	12.6	12.9	15.1	12.0
Food Price Index Windhoek	100.0	126.6	148.1	168.8	186.8	198.0	227.2	266.8	302.8	356.3	418.0
% Change in FPI		26.6	17.0	14.0	10.7	6.0	14.7	17.4	13.5	17.7	17.3

SOURCE:
"Statistical/Economic Review - Namibia 1990" and "Economic Review Budget 1991"

Table IV.02:

NAMIBIA - ASSETS OF COMMERCIAL AND GENERAL BANKS

Rand Millions
(As at 31 December)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Liquid Assets	81.4	99.1	105.7	91.5	87.3	78.9	95.9	99.2	203.4	263.4
Coin, bullion & bank notes	9.6	14.2	14.2	16.9	20.5	24.0	27.5	27.0	36.5	44.9
Call money w/ discount houses	3.2	6.7	19.0	15.3	30.9	22.7	22.0	15.6	44.5	87.3
Bills discounted or purchased	2.7	7.0	9.4	13.7	2.4	1.7	15.7	0.0	81.0	48.4
Short-term government stock	26.4	25.4	39.0	8.8	5.5	11.7	17.8	21.5	21.4	56.0
Other liquid assets	39.5	45.8	24.1	36.8	28.0	18.8	12.9	35.1	20.0	26.8
Prescribed Investments	6.7	10.8	11.8	11.3	19.8	5.3	NA	NA	NA	NA
Other Investments a/	0.5	4.5	4.3	16.2	29.5	97.2	84.4	114.2	124.8	231.1
Advances & Non-Liquid Discounts b/	186.0	225.4	290.3	338.5	409.6	362.8	444.7	587.9	960.6	1301.1
Hire-purchase discounts & advances	39.1	50.6	72.7	93.6	96.3	95.8	86.5	126.2	200.8	261.7
Leasing & deeds of sale	20.1	18.9	23.0	29.7	26.9	22.1	23.9	24.8	35.1	56.0
Other loans and advances	126.8	155.9	194.6	215.2	286.4	244.9	334.3	436.9	724.7	981.4
Other assets c/	161.7	150.2	238.1	398.4	264.0	353.0	309.0	316.2	168.7	165.1
TOTAL ASSETS	436.3	490.0	650.2	855.9	810.0	927.2	984.0	1117.5	1457.5	1960.7

Notes:
Domestic" and "Foreign" in this context refers to residents inside and outside the Common Monetary Area respectively.

a/ Including differences between the market values (as for reporting liquid assets and prescribed investments) and the book value of investments.
b/ Including discount of bills, promissory notes and acceptances that do not qualify as liquid assets, but excluding loans to discount houses and bills of advances to the Land Bank. Until 1985, advances and discounts are stated before deduction of unearned finance charges; as from 1986 they are stated after accounting for unearned finance charges.
c/' Including customer's liability on acceptances outstanding, per contra and including head office balances of South African based banking institutions.

Source:
Statistical/Economic Review: Namibia 1990", Department of Finance, Windhoek.

Table IV.03:

NAMIBIA - LIABILITIES OF COMMERCIAL AND GENERAL BANKS

Rand Millions
(As at 31 December)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total Domestic Deposits	398.1	414.7	568.3	713.8	715.5	821.9	852.2	1000.4	1158 3	1659.7
Demand	134.1	130.3	200.2	213.2	257.3	244.2	247.3	352.9	457.8	816.4
Savings	101.9	118.3	117.4	129.0	135.8	156.8	174.7	202.2	223.9	247.3
Fixed and Notice	162.1	166.1	245.7	371.6	322.4	420.9	430.2	445.3	476.6	590.0
Short-Term	18.0	13.6	37.4	87.4	24.0	68.2	79.8	51.8	172.3	247.8
Medium-Term	66.1	66.9	77.9	187.2	182.9	230.6	242.7	278.5	194.4	247.5
Long-Term	80.0	85.6	130.4	117.0	115.5	124.1	107.9	120.0	109.9	94.9
Total Foreign Deposits	1.4	2.0	1.8	2.3	2.9	9.1	12.3	14.4	8.3	5.1
Total Deposits	399.5	416.7	565.1	716.1	718.4	831.0	864.5	1014.8	1166.6	1658.8
Other liabilities to the public	16.4	24.6	30.8	25.5	20.0	37 2	27.3	44.8	162.1	161.0
Total Liabilities to the Public	415.9	441.3	595.9	741.6	738.4	868.2	891.8	1059.6	1328.7	1819.8
Capital and Reserves	8.6	11.1	14.2	16.0	16.7	22.2	28.6	28.6	58.4	65.0
Other Liabilities a/	11.8	37.6	40.1	98.3	52.9	36.8	18.6	32.3	70.4	75.9
TOTAL LIABILITIES	436.3	490.0	650.2	855.9	810.0	927.2	934.0	1117.5	1457.5	1960.7

Note:
a/ Including head office balances of South African based banking institutions. Including unearned finance charges until 1985; unearned finance charges are excluded as from 1986.

Source:
"Statistical/Economic Review: Namibia 1990", Department of Finance, Windhoek.

Table V.01:

OUTSTANDING DEBT AND DEBT INDICATORS OF THE CENTRAL GOVERNMENT, 1981/82-1989/90

End March:	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
				(In millions of Rands)						
Debt outstanding:										
Stocks	85.0	173.7	323.1	458.6	584.4	813.6	804.5	569.7	549.5	549.5
Local loans	0.0	0.0	0.0	0.0	0.0	28.0	22.4	16.8	41.2	35.6
RSA loans	0.7	0.6	0.5	0.0	0.0	0.0	0.0	52.0	45.5	39.0
Term bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	113.2	19.0
Foreign loans	5.7	56.6	114.1	174.5	222.6	198.7	168.0	160.4	141.1	71.0
Other loans	0.0	0.0	0.0	0.4	0.3	0.1	0.1	1.5	1.0	0.0
Total debt outstanding ...	91.4	230.9	437.7	633.5	787.3	840.3	795.0	800.4	891.5	714.1
Fiscal year:	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	
				(In millions of RSA Rands)						
Debt flows:										
Interests	20.9	37.9	62.8	112.9	118.9	113.3	109.3	114.3	89.8	
Amortizations	0.1	0.1	5.7	8.9	88.6	45.4	61.2	97.8	251.3	
Discounts and Forex. losses	1.0	12.8	1.1	1.4	1.3	4.6	3.2	20.8	84.9	
Debt services	22.0	50.8	69.6	123.2	208.8	163.3	173.7	232.9	426.0	
New loans	141.0	207.0	199.7	162.8	141.6	0.1	66.6	188.9	73.6	
				(In percent)						
Ratios to GDP, end of fiscal year:										
Outstanding debt	13.9	24.1	32.7	34.7	29.5	24.5	22.1	19.9	13.8	
Debt service, incl. costs and forex. losses	1.3	2.8	5.6	5.4	7.3	5.0	4.8	5.2	8.2	
Memorandum item:										
				(In millions of RSA Rand)						
Fiscal year gross domestic product	1655.9	1815.4	1937.4	2269.8	2852.8	3240.0	3628.2	4476.0	5188.6	

Source: Ministry of Finance.
c Includes also interest on short term overdraf facilities during year and interest on loan levy on companies.
cc Excluding redemption of loans guaranteed by Government, which are included in amortization payments of Central Government, table .
ccc Includes discounts and foreign exchange losses.

Table VI.01.a:

NAMIBIA -- POPULATION ESTIMATES BY POPULATION GROUPSe, 1980-88

	1980	1981	1982	1983	1984	1985	1986	1987	1988
	(In thousands)								
Total	1306.0	1346.0	1387.0	1428.9	1473.0	1518.0	1564.0	1611.0	1660.0
White	75.3	76.4	77.6	78.7	79.9	81.1	82.3	83.6	84.8
Non-white supported by modern economy	534.7	546.6	559.4	573.2	592.1	610.9	627.7	645.4	663.2
Non-white supported by traditional economy	696.0	723.0	750.0	777.0	801.0	826.0	854.0	882.0	912.0
	(In percent)								
Share of total economy:									
Total modern economy	46.7	46.3	45.9	45.6	45.6	45.6	45.4	45.3	45.1
White	5.8	5.7	5.6	5.5	5.4	5.3	5.3	5.2	5.1
Non-white supported by modern economy	40.9	40.6	40.3	40.1	40.2	40.2	40.1	40.1	40.0
Non-white supported by traditional economy	53.3	53.7	54.1	54.4	54.4	54.4	54.6	54.7	54.9
Total economy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: UN Statistical Office/DIESA, UN Population Division/DIESA, as referenced in "Base Studies on Financial, Economic and Social Aspects for the Arrangements for Independence in Namibia: Population and National Accounts of Namibia," (UNDP) Pp. 26 and 49.

eProvisional estimates.

Table VI.02.a:

NAMIBIA - PRIMARY AND SECONDARY TEACHERS ACCORDING TO QUALIFICATIONS, BY EDUCATION ADMINISTRATION, 1988

	Qualified*	Under qualified**	Un-qualified***	Total
Whites	852	345	15	1212
Caprivians	27	21	763	811
Damaras	51	58	317	426
Hereros	21	50	542	613
Kavangos	32	44	1071	1147
Coloureds	105	297	256	658
Namas	50	109	373	532
Tswanas	10	14	19	43
Owambos	45	395	4480	4920
DNE	299	321	1078	1698
Rehoboth	51	217	197	465
Total:				
1988	1543	1871	9111	12525
1987	1418	1734	8793	11945
1986	1268	1663	8190	11121

Source: Statistics Office, DEA, as referenced in "Base Studies on Financial, Economic and Social Aspects for the Arrangements for Independence in Namibia: Education in Namibia," (UNDP) Annex IV.4.

*Standard 10 + 4 years or more teacher training.
**Standard 10 + 1 to 3 years or more teacher training.
***Standard 7 or lower up to Standard 10 with little or no teacher training.

Table VI.02.b:

NAMIBIA - REVENUES AND EXPENDITURES, INCLUDING EDUCATION, BY ADMINISTRATION OF REPRESENTATIVE AUTHORITY, 1986/87

(In thous. of Rand)	Revenues from: Own sources	Central Authority	Total	Total expend-itures	Educat. expend-itures	Educat. as a % of total
Whites	163849.4	31541.9	195391.3	199648.3	53891.0	27.0
Caprivians	2558.4	25545.5	28104.0	26241.8	9836.2	37.5
Damaras	3937.2	21508.0	25445.2	25908.3	9030.3	34.9
Hereros	9183.8	22451.7	31635.5	37155.4	15704.7	42.3
Kavangos	7044.6	37850.7	44895.3	41639.4	16973.5	40.8
Coloureds	10638.1	23142.1	33780.2	34126.5	18768.4	55.0
Namas	1770.0	24518.6	26288.6	25531.1	11885.2	46.6
Tswanas	1797.4	6461.0	8258.4	7930.7	1400.5	17.7
Owambos	19317.4	128641.1	147958.2	146719.8	59555.7	40.6
Rehoboth	8538.8	20786.1	29324.9	28378.1	10228.0	36.0
Total	228635.1	342446.7	571081.6	573279.4	207273.5	36.2
DNE	***	***	77695	77796	74839.8	96.2

Source: Reports of the Auditor-General for Fiscal Year 1986/87 as referenced in "Base Studies on Financial, Economic and Social Aspects for the Independence in Namibia: Education in Namibia," (UNDP) Annex X.1.

Table VI.02.c:

NAMIBIA - EDUCATION EXPENDITURE IN RANDS PER PUPIL 1986

	Pupils/ Students 1986	Education expend.s in thous. of Rands 1986/87	Rands/ Pupil
Whites	16773.0	53891.0	3213
Caprivians	17622.0	9836.2	558
Damaras	9144.0	9030.3	988
Hereros	14657.0	15704.7	1071
Kavangos	31837.0	16973.5	533
Coloureds	15773.0	18768.4	1190
Namas	14667.0	11885.2	810
Tswanas	850.0	1400.5	1648
Owambos	180812.0	59555.7	329
Rehoboth	10388.0	10228.0	985
Subtotal	312523.0	207273.5	663
DNE*	41557.0	74839.8	1801
Total	354080.0	282113.3	797

Source: UNESCO mission, as referenced in "Base Studies on Fin., Econ. and Soc. Aspects for the Arrangements for Independence in Namibia: Education in Namibia," (UNDP) Annex X.5.

*DNE (Department of National Education) figures include student of and subsidy to The Academy.

Table VI.82.d:

NAMIBIA - EDUCATION PROFILE: SUMMARY, 1988

	Total enrolment	Number of teachers	Number of approved posts	Teacher shortage	Pupil/ Teacher ratio
District:					
Bethanien	696	33	33	0	21.1
Bushmanland	596	24	27	-3	24.8
Caprivi	21658	822	831	-9	25.6
Damaraland	10861	462	474	-12	23.5
Gobabis	4949	215	216	-1	23.0
Grootfontein	4261	177	180	-3	24.1
Hereroland-East	6380	225	226	-1	28.4
Hereroland-West	6157	238	244	-6	25.9
Kaokoland	3347	122	122	0	27.4
Karasburg	2796	136	136	0	20.6
Karibib	3054	110	113	-3	27.8
Kavango	35935	1266	1265	-59	29.4
Keetmanshoop	6267	288	289	-1	21.8
Luderitz	2178	121	121	0	18.0
Maltahohe	776	34	34	0	22.9
Mariental	5941	262	264	-2	22.7
Namaland	3696	167	170	-3	22.1
Okahandja	3632	148	155	-7	24.5
Omaruru	1592	69	69	0	23.1
Otjiwarongo	4818	211	214	-3	22.8
Outjo	1953	88	89	-1	22.2
Owambo	193963	4982	4992	-36	39.1
Rehoboth	10000	465	467	-2	21.5
Swakopmund	3648	204	207	-3	17.9
Tsumeb	3845	178	184	-6	21.6
Windhoek	31969	1559	1566	-7	20.5
Total	374289	12526	12688	-162	29.9

Source: SWA/Namibia Department of Economic Affairs, Statistics, 1989. "Operational Information." Windhoek.

Table VI.82.e:

NAMIBIA - EDUCATION PROFILE: SUMMARY, 1988

	Total enrolment	Teaching Rooms* Permanent	Prefab.	Other temporary	Total	Pupil/Perm. classroom ratio	Pupil/Tot. classroom ratio
District:							
Bethanien	696	35			35	19.9	19.9
Bushmanland	596	14	12	1	27	42.6	22.1
Caprivi	21858	354	27	298	681	59.5	30.9
Damaraland	10861	396			396	27.4	27.4
Gobabis	4949	187	22	5	214	26.5	23.1
Grootfontein	4261	139	7		146	30.7	29.2
Hereroland-East	6388	178	1	6	185	35.8	34.5
Hereroland-West	6157	168		8	176	36.6	35.0
Kaokoland	3347	71	18	8	89	47.1	37.6
Karasburg	2796	125	8	1	134	22.4	20.9
Karibib	3854	107	8		115	28.5	26.6
Kavango	35935	798	46	339	1178	45.3	30.5
Keetmanshoop	6267	229	57	2	288	27.4	21.8
Luderitz	2178	111	19	8	138	19.6	15.8
Maltahohe	778	37			37	21.0	21.0
Mariental	5941	235	35	2	272	25.3	21.8
Namaland	3696	138	38	7	183	26.8	20.2
Okahandja	3932	130	11		141	27.9	25.8
Omaruru	1592	54		4	58	29.5	27.4
Otjiwarongo	4818	144	50		194	33.5	24.8
Outjo	1968	88			88	23.5	23.5
Owambo	193868	2641	855	1253	4749	73.4	40.8
Rehoboth	10000	439	6	6	451	22.8	22.2
Swakopmund	3648	177	27		204	20.6	17.9
Tsumeb	3845	145	24		169	26.5	22.8
Windhoek	31969	1248	125	5	1378	25.8	23.3
Total	374269	8378	1388	1955	11718	44.7	32.0

Source: SWA/Namibia Department of Economic Affairs, Statistics, 1989. "Operational Information." Windhoek.

*Includes class rooms, laboratories, typing rooms, handicraft rooms, cookery rooms needlework rooms, art rooms and workshops.

Table VI.02.9:

NAMIBIA - EDUCATIONAL INSTITUTIONS, 1985-88

	1985	1986	1987	1988
Total	1106	1121	1129	1159
Pre-primary	31	32	15	22
Ordinary schools	1050	1071	1093	1118
Technical schools	1	1	1	1
Agricultural schools	2	2	2	2
Technical institutes ...	2	2	2	3
Special schools	2	2	2	2
Specialized education ...	3	3	3	3
Industrial schools	0	1	1	1
Teacher training colleges	5	5	5	5
Agricultural colleges ...	2	2	2	2

Source: SWA/Namibia Directorate Development Co-ordination, "Statistics of Schools," various issues. Windhoek.

Note: Pre-primary - schools with only pre-primary classes.
Ordinary schools - all schools not otherwise defined, includes junior primary, senior primary, junior secondary, and senior secondary or a combination of the afore mentioned.
Technical schools - present technical courses as part of their usual curriculum.
Agricultural schools - present agricultural courses as part of their usual curriculum.
Technical institutes - technical certificates are awarded at these institutes.
Special schools - a school in which vocational or appropriate training is given to pupils for whom progress is not possible at an ordinary school.
Specialized education - pupils with the following disabilities are accommodated: hearing, sight, mental, (or retardation), neural, early childhood autism and education deprivation.
Industrial schools - children are accommodated who were referred there in terms of the Children's Act, 1960.

Table VI.02.g:

NAMIBIA: 1990/91 ESTIMATES OF RECURRENT EXPENDITURE ON EDUCATION

(Thousands of Rand)

REGION	ADMIN	FORMAL	INFORMAL	ARCH.	SPORT	AUX. SER.	TOTAL (REG.)	% OF TOTAL	PER CAPITA POPN.	PER PUPIL (FORM)
Caprivi	5268.9	13020.0	284.9	0.0	24.0	93.0	18690.8	4.0	0.33	0.58
Kavango	3632.8	23551.3	49.0	186.9	165.3	0.0	27585.3	5.9	0.20	0.70
Ovambo	13809.6	101828.1	220.0	176.4	153.5	64.2	116251.8	24.8	0.16	0.54
Damara	4747.2	12586.3	27.0	0.0	0.0	35.0	17395.5	3.7	0.15	1.25
Herero	2741.0	25170.0	65.0	0.0	0.0	91.0	28067.0	6.0	0.25	1.42
Coloured	534.6	28209.0	333.0	0.0	255.5	129.3	29461.4	6.3	0.43	1.94
White	3448.0	66203.0	2818.6	1854.0	483.0	6721.0	81527.6	17.4	1.02	4.15
Tswana	233.8	2472.1	0.5	0.0	0.0	7.8	2714.2	0.6	0.04	2.49
Nama	416.7	17216.8	328.4	0.0	0.0	93.8	18055.7	3.9	0.25	1.49
Rehoboth	592.6	21235.3	7.7	70.3	198.5	121.0	22225.4	4.7	0.60	2.03
Nat. Ed.	37319.2	56980.6	2849.6	1547.6	3580.5	3324.8	105602.3	22.5		1.23
SUB-TOTALS	72744.4	368472.5	6983.7	3835.2	4860.3	10680.9	467577.0	99.8		
MOE H.Q.	927.0	0.0	0.0	0.0	0.0	0.0	927.0	0.2		
GRAND TOTAL	73671.4	368472.5	6983.7	3835.2	4860.3	10680.9	468504.0	100.0		
EXP. AS % OF TOTAL	15.7	78.6	1.5	0.8	1.0	2.3	100.0			

SOURCE: Ministry of Finance: Budget Estimates for 1990/91.

Table VI.03.a:

EXPENDITURES ON HEALTH ADMINISTRATIONS, 1988/89

	Whites	Owambos
	(In millions of RSA Rands)	
Total government allocation	18.5	35.8
Central government	5.6	21.2
Second tier authorities	12.9	14.6
	(In RSA Rand)	
Per capita contributions to health .	236	91
Central government	72	34
Second tier authorities	164	57
	(In percent of total)	
Contributions to health:		
Central government	31	59
Second tier authorities	69	41

Source: Reports furnished by The Administration for Whites Estimate of Expenditure and Revenue, Administration for Owambos (1988/89), as referenced in "Base Studies on Financial, Economic and Social Aspects for the Arrangements for Independence in Namibia: Health Sector Review: Namibia," (UNDP) Table 4.3.5, P.27.

Table VI.03.b:

DISTRIBUTION OF HEALTH FACILITIES AS OF MARCH 1989

	Population	Hospitals Number	Hospitals Beds	Clinics Number	Clinics Beds	Total beds/ thous. pop.
District:						
Caprivi	46640	1	220	23	0	4.7
Damaraland	15210	2	167	11	11	11.7
Gobabis	34515	2	132	9	35	4.8
Grootfontein	34753	2	181	4	21	5.8
Korasburg	11688	2	64	4	6	6.0
Kavango	129987	10	763	34	1	5.9
Kaetmanshoop	31464	4	196	7	6	6.4
Ludeitz	13241	2	92	4	3	7.2
Mariental	35446	4	191	7	21	6.0
Okakarara	26793	1	60	6	34	3.5
Omarutu	15721	2	138	2	0	8.8
Kaokoland	20450	1	132	4	6	6.7
Oranjemund	5209	1	115	0	0	22.1
Otjiwarongo	25870	2	200	2	0	7.7
Outjo	10903	2	80	3	7	8.0
Rehoboth	34662	2	211	4	1	6.1
Owamboland	555948	12	2289	49	0	4.1
Shakopmund	22629	4	156	4	5	7.1
Tsumeb	24931	2	227	3	0	9.1
Usakos	13478	2	83	4	0	6.2
Windhoek	152479	4	1235	7	19	8.2
Total	1262017	64	6932	191	176	5.6

Source: Epidemiology Section of the Department of National Health and Welfare, Windhoek, as referenced in "Base Studies on Financial, Economic and Social Aspects for the Arrangements for Independence in Namibia: Health Sector Review: Namibia," (UNDP) Table 4.1.1, P.6.

Table VI.03.c:

INPATIENT CAPACITY IN THE ADMINISTRATION FOR WHITES HEALTH FACILITIES 1 APRIL 1988-31 MARCH 1989

	Whites	Non-whites
Beds	603	105
Patients	3841	3743
Patients per bed	6.4	35.6
Patient days	14277	16505
Patient days per bed	23.7	157.2

Source: Epidemiology Section of the Department of National Health and Welfare, Windhoek, as referenced in "Base Studies on Financial, Economic and Social Aspects for the Arrangements for Independence in Namibia: Health Sector Review: Namibia," (UNDP) Table 4.1.5, P.10.

Table VI.03.d:

MEDICAL PERSONNEL, 1989

	Medical Practitioners*	Dentists	Sisters	Staff nurses	Health Inspectors
District:					
Caprivi	5	0	33	40	2
Damaraland	3	0	10	21	1
Gobabis	4	0	10	7	2
Grootfontein	6	0	18	16	3
Hereroland	3	0	7	2	1
Kaokoland	1	0	4	0	0
Karasburg	2	0	7	10	0
Karibib	1	0	1	0	1
Kavango	14	0	65	43	1
Kaetmanshoop	5	2	24	34	2
Luderitz	8	2	35	7	1
Mariental	4	1	19	8	2
Omaruru	2	0	9	6	0
Otjiwarongo	6	3	17	6	3
Outjo	2	0	6	3	1
Owamboland	0	0	329	208	2
Rehoboth	5	0	16	10	2
Swakopmund	21	3	54	27	4
Tsumeb	11	2	20	7	2
Windhoek	124	18	426	172	21
Total	227	31	1110	627	51

Source: SWA/Namibia Department of National Health and Welfare, 1989. "Operational Information." Windhoek.

*Includes specialists.

Table VII.01.a:

NAMIBIA - AGRICULTURAL PRODUCTION

Crop Production (Commercial farming only) in metric tons

	1985/86	1986/87	1987/88	1988/89
White Maize	7,600	18,289	6,779	14,415
Yellow Maize	1,100	4,618	1,000	1,560
Wheat - class A		306	1,755	
- class B	3,850	5,392	3,205	4,844
Sunflower seed	600	1,162	524	833
Cotton			141	142
Sultanas			264	
Vegetables a/			3,500	
Peanuts				195

Livestock Production in number of head

	1985	1986	1987	1988
Beef & Veal	301,046	304,084	348,200	327,002
Mutton & Goat	747,466	685,247	786,611	778,688
Pork	37,226	41,511	45,559	51,801

Other

	1987	1988
Alfalfa (tons)	4,084	8,361
Mohair (tons)	106	112
Wool - Karakul, Merino, etc. (tons)	2,343	1,878
Karakul pelts (number of pelts)	835,321	793,231
Game (head)	33,862	50,635
Eggs (dozen)	2,737,500	3,540,500
Fresh Milk (liter)	16,494,000	1,549,800
Industrial Milk (liter)		996,000

a/ Estimate

SOURCE: Department of Agriculture and Rural Development

Table VII.01.b:

NAMIBIA - CATTLE SALES AND SLAUGHTER

(In number of head, 1980-1988)

Year	Sold and Processed in Namibia	Exported Live to the RSA	Total Production
1980	226,735	236,435	463,170
1981	142,733	330,642	473,375
1982	138,363	184,954	323,317
1983	154,388	114,258	268,646
1984	156,389	112,501	268,890
1985	163,671	137,375	301,046
1986	161,906	142,178	304,084
1987	164,047	184,153	348,200
1988	166,925	160,077	327,002

NOTE: A big percentage of the beef sold and processed in Namibia will eventually be exported to the RSA.

SOURCE: Department of Agriculture and Rural Development

Table VII.01.c:

NAMIBIA - AGRICULTURAL IMPORTS/EXPORTS

Item and Unit	Imports		Exports	
	87/88	88/89	87/88	88/89
Total Agric. Products (tons)		155200		85500
Food - human consumption (tons)		127800		10000
Food for animals (tons)		44100		4400
Beverages (tons)		49200		10000
White maize (tons)	56970	35663		
Yellow maize (tons)	10000	13000		
Wheat (tons)	30041	29456		
Sunflower seed (tons)	8853	8847		
Beef and Veal (tons)			63334	62524
Mutton and Goat (tons)			9734	10291
Pork (tons)	1477			
Eggs (dozen)	547500			
Milk - self sufficient	-	-	-	-
Vegetables (tons)	26500			

SOURCE: Department of Agriculture and Rural Development

Table VII.01.d:

DISTRIBUTION OF LAND IN THE COMMUNAL AGRICULTURAL SECTOR 1982

District	Number of owners	Average farm size (ha/farm)
A: Mainly beef producing areas		
Gobabis	592	6823
Grootfontein	451	5886
Karibib	138	10038
Okahandja	207	6918
Omaruru	118	7205
Otjiwarongo	293	6287
Outjo	387	6789
Tsumeb	127	7035
Windhoek	444	7895
Total	2757	7017
B: Mainly sheep producing areas		
Bethanien	167	12545
Mariental	702	6435
Keetmanshoop	342	9518
Luderitz	55	19086
Maltahoe	188	10977
Karasburg	249	13992
Total	1703	9165

Note: The farm size may include more than one holding.

Source: Fiona Adams, et al. 1990: The land issue in Namibia: An inquiry. Namibia Institute for Social and Economic Research.

Table VII.01.e:

POPULATION AND AGRICULTURAL ACTIVITIES IN CUMMUNAL AREAS 1989

Regions	Population (000)	Agricultural Area (ha millions)	Activity	No. of livestock a/ LSU(000)	SSU(000)
Kaokoland	20.5 (20.5) b/	4.9	Stock farming	N.A.	N.A.
Ovambo	659.7 (648.6)	5.6	millet & stock	362.6	362
Kavango	142.5 (136.2)	4.2	maize, millet & stock	79.9	27.6
Caprivi	55.7 (55.7)	1.2	maize, millet, sorghum and draught cattle	N.A.	N.A.
Damara-land	37.2 (30.2)	4.8	limited irrigation extensive small stock	N.A.	N.A.
Bushman-land	3.3 (3.3)	2.4	limited agricultural activities	N.A.	N.A.
Herero-land	32.5 (32.5)	5.9	stock	326.4	392.8
Rehoboth	37.9 (19.1)	1.2	stock and limited cropping	N.A.	N.A.
Namaland	34 (18.9)	2.2	extensive small stock	7.9	220.7
Total	1022.8 (959.9)	32.2		N.A.	N.A.

Notes:

a/ LSU--Large stock unit and SSU--small stock unit.
b/ Number in brackets are rural population. The population of Namaland is that for Keetmanshoop.

Sources: Population--"Namibia: Development Information Report", table 2.2.
Others--Adams, et al. 1990: "The Land Issue in Namibia: An inquiry."
Data also assembled by the authors.

Table VII.01.f:

RECENT TRENDS IN AGRICULTURE

Values at 1980 prices (Rand '000,000)
(Includes fisheries unless stated otherwise)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Growth p.a.(%)
Output value	166.3	171.8	155.6	121.1	107.8	116.7	116.8	149.1	151.0	156.9	-1.0
Share of total GDP (%)	11.5	12.0	11.0	8.9	8.0	8.4	8.4	10.4	10.4	10.7	-1.2
Annual change	24.5	3.3	-9.4	-22.2	-11.4	8.8	0.1	27.7	1.3	3.9	
Fixed capital stock	631.0	630.0	630.0	630.0	628.0	624.0	620.0	616.0	611.0	607.0	
Gross Domestic Fixed Investment	22.2	21.3	21.1	20.2	18.1	16.3	15.6	16.4	15.3	16.6	
Share of total GDFI (%)	5.1	5.6	6.7	8.5	9.2	8.3	8.4	8.4	6.9	7.2	
Physical output (selected products only)											
Cattle sales ('000)	423.2	463.2	473.4	323.3	268.6	268.9	301.0	304.1	348.2	327.0	-4.0
Karakul pelt sales ('000)	3006.8	1956.9	1346.3	650.5	717.7	825.2	556.5	695.0	623.1	654.7	-14.7
Small stock sales ('000)	369.5	335.7	750.7	714.0	467.6	538.8	747.5	685.2	786.6	778.7	7.9
Maize output (tonnes)					7600.0	18289.0	6779.0	14415.0	21000.0	26500.0	23.6
Agricultural exports (Rand '000 at current prices)											
Cattle	72.3	119.0	74.3	48.0	51.6	64.7	83.2	138.9	148.9	154.9	8.5
Small stock	9.1	25.8	22.2	10.7	15.5	30.5	40.7	53.0	57.6	95.4	24.2
Karakul pelts	42.8	20.1	13.3	10.2	16.2	19.7	18.4	34.6	34.6	25.0	3.5
Other	7.4	9.2	10.7	8.8	11.8	12.6	14.6	15.4	17.3	18.4	10.2
Total agricultural exports	131.6	174.1	120.5	77.7	95.1	127.5	156.9	241.9	258.4	293.7	10.1
Share of Total Exports (%)	11.6	18.4	11.9	8.3	8.6	8.0	7.9	13.5	12.1	11.0	
External terms of trade (all products)	100.0	81.6	80.3	73.8	81.6	93.5	86.2	77.9	85.6	93.4	0.1
Agricultural barter value	131.6	142.1	96.8	57.3	77.6	119.2	135.2	188.4	221.2	274.3	10.2

Note: Annual growth rates estimated by log-linear regression.

Source: Statistical/Economic Review, Namibia 1989.

Table VII.01.g:

AGRICULTURAL PRODUCTION, 1989 (COMMERCIAL SECTOR ONLY)

Products	Output (ton)	Value (R mil.)	Deficit (% import)
Wheat	4122	2.00	89.0
Yellow maize	1866	0.52	91.0
White maize	22548	9.91	64.0
Sunflower	707	0.54	92.0
Cotton	73	2.07	N.A.
Vegetables	18342	8.90	65.0
Fruit	1503	1.45	65.0

Source: Agronomic Board, Namibia and personal estimates

Table VII.01.h:

LIVESTOCK MARKET FLOWS 1979 TO 1989

('000 Heads)

Year		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
The cattle market												
Factories	no	162.8	173.6	104.8	94.7	113.3	-	-	-	-	-	-
	%	38.5	37.5	22.1	29.3	42.2						
Swameat	no	-	-	-	-	-	118.5	120.9	112.4	115.9	120.9	138.2
	%						44.1	40.2	37.1	33.3	36.9	39.9
Oshakati abbatoir	no	na	12.0	3.5	11.3	5153.0	0.3	3.6	5.2	5.6	5.9	5.1
	%		2.6	0.7	3.5	1.9	0.1	1.2	1.7	1.6	1.8	1.5
Butchers	no	31.6	41.1	34.4	32.3	35.9	37.6	39.1	44.2	42.6	40.2	40.0
	%	7.5	8.9	7.3	10.0	13.4	14.0	13.0	14.5	12.2	12.3	11.6
RSA controlled	no	126.1	127.1	90.3	70.1	53.2	50.9	64.1	69.1	50.8	37.2	44.1
	%	29.8	27.5	19.1	21.7	19.8	18.9	21.3	22.7	14.6	11.4	12.7
RSA open	no	102.8	109.3	240.3	114.9	61.1	61.6	78.3	73.1	133.4	122.9	119.0
	%	24.2	23.5	50.8	35.5	22.7	22.9	24.3	24.0	38.3	37.6	34.3
TOTAL		423.2	463.2	473.4	323.3	268.6	268.9	301.0	304.1	348.2	327.0	346.4
The small stock markets												
Swameat	no	-	-	28.2	59.5	65.6	89.7	57.6	41.1	44.0	49.0	87.2
	%			3.8	8.3	14.0	16.7	7.7	6.0	5.6	6.3	8.3
Butchers	no	121.5	131.7	139.3	140.0	142.3	146.8	143.4	118.2	137.6	132.1	117.0
	%	32.9	39.2	18.6	19.7	30.4	27.3	19.2	17.2	17.5	17.0	11.2
RSA controlled	no	62.6	60.7	185.2	176.5	116.0	89.7	143.7	142.4	244.2	246.9	314.1
	%	16.9	18.1	24.7	24.7	24.8	16.6	19.2	20.8	31.0	31.7	30.0
RSA open	no	185.5	143.4	398.0	338.0	143.7	212.5	402.8	383.5	360.8	350.8	529.0
	%	50.2	42.7	52.9	47.3	30.8	39.4	53.9	56.0	45.9	45.0	50.5
TOTAL		369.5	335.7	750.7	714.0	467.6	538.8	747.5	685.2	786.6	778.7	1047.3
The markets for pig												
Swameat	no	-	-	0.1	0.6	0.3	0.2	0.2	0.4	0.3	0.2	0.0
	%			0.4	1.7	0.8	0.4	0.6	0.9	0.7	0.4	0.0
Butchers	no	318.6	316.7	33.0	33.2	37.4	35.2	37.0	41.1	45.2	51.6	53.9
	%	100.0	100.0	99.6	98.3	99.2	99.6	99.4	99.1	99.3	99.6	100.0
TOTAL		318.6	316.7	33.1	33.8	37.7	35.3	37.2	41.5	45.6	51.8	53.9

Note: "RSA controlled" refers to exports under a quota agreement with South Africa. In addition, South African buyers operate in Nambian markets. These results "open" export sales from Namibia.

Source: "Development and Information Report", Namibia 1990.

Table VII.01.1:

AGRICULTURAL CREDIT: OUTSTANDING LOANS TO THE COMMERCIAL SECTOR BY SOURCE AND YEAR a/

(1981-89, R million)

Year at 31 March	Advanced by the Landbank	Bank loans secured by mortgages over property b/	Loans by government c/	Total credit (nominal terms)	Investment deflator d/	Total credit (1980 prices)
1981	65.2	18.4	24.2	107.8	114	94.6
1982	65	25.7	40.4	131.1	132	99.3
1983	68.5	29.5	38.6	136.6	149	91.7
1984	75.1	43.4	39.1	157.6	150	105.1
1985	85.9	44.3	48.9	179.1	188	95.3
1986	98.7	40.6	74.4	213.7	235	90.9
1987	102.9	49.7	88.1	240.7	262	91.9
1988	108.2	63.2	93.2	264.6	297	89.1
1989	121.2	86 1	93.2	300.5	346	86.8

Notes:

a/ Excludes leasing and hire-purchase credit.
b/ Excludes loans to farmers secured by other means.
c/ More than 97 percent granted by the Administration for Whites.
d/ The deflator has been calculated by dividing domestic fixed investment in agriculture and fisheries at current prices with the corresponding investment at 1980 prices.
e/ The amounts for 1988 and 1989 are preliminary.

Source: Development Information Report 1990.
Statistical/Economic Review 1990 (for deflator calculations).

Table VII.01.j:

SUBSIDIES ON AGRICULTURAL CREDIT

Loans outstanding: 1980 to 1989

Year to 31 March	Bank loans secured by farm mortgage (a)	Commercial interest rates (prime) (b)	Subsidy	Landbank long-term mortgages (c)	Interest rates (d)	Subsidy (e) [ce(b-d)]	Central Government (f)	Interest rates (g)	Subsidy (h) [fe(b-g)]	Admin. for Whites (i)	Interest rates (j)	Subsidy (k) [ie(b-j)]	Total credit	Total subsidy
	R mil.	(%)	R mil.	R mil.	(%)	R mil.	R mil.	(%)	R mil.	R mil.	(%)	R mil.	R mil.	R mil.
1980	na	0.15	0.0	60.7	0.05	6.1	na			na			na	
1981	18.4	0.15	0.0	65.2	0.05	6.5	3.8	0.04	0.4	20.4	0.04	2.2	107.8	9.2
1982	25.7	0.15	0.0	65	0.07	5.2	6.4	0.04	0.7	34.0	0.04	3.7	131.1	9.6
1983	29.5	0.15	0.0	68.5	0.075	5.1	6.6	0.04	0.7	32.0	0.04	3.5	136.6	9.4
1984	43.4	0.15	0.0	75.1	0.09	4.3	0.5	0.04	0.1	38.6	0.04	4.2	157.6	8.6
1985	44.3	0.2	0.0	85.9	0.1	8.6	0.5	0.04	0.1	48.4	0.04	7.7	179.1	16.4
1986	41.6	0.14	0.0	98.7	0.1	3.9	0.5	0.04	0.1	73.9	0.04	7.4	213.7	11.4
1987	49.7	0.125	0.0	102.9	0.1	2.6	0.4	0.04	0.0	87.7	0.04	7.5	240.7	10.1
1988	63.2	0.15	0.0	108.2	0.1	5.4	0.3	0.04	0.0	92.9	0.04	10.2	264.6	15.7
1989	86.1	0.2	0.0	121.2	0.125	9.1	0.3	0.04	0.0	92.9	0.04	14.9	300.5	24.0
1990	na	0.21	na	161.1	0.14	11.3	na	na	na	92.9	0.04	15.8	254.0	27.1

Notes:

a/ Landbank interest rates averaged where change occured during the financial year.
b/ Subsidies may be underestimated where increases in the interest rates were not applied to outstanding loans immediately.
c/ Commercial prime rate data may not be accurate in all cases.
d/ Data for lending by the Administration for Whites in 1988-90 are provisional.
e/ Although the subsidy to the sector is significant in aggregate, the income by means of subsidies per account should be seen in relation to total farm revenue. The subsidy transfer per account is illustrated below with reference to Landbank accounts only.

Landbank	No of Accounts	Average loan (Rand)	Subsidy per account (Rand)
1980	3432	17694	1769
1990	1909	84376	5906

Sources: Namibia: Development Information Report; Urban-Econ (1990)
Annual Report; Land and Agricultural Bank of South West Africa (1990)
Landbank (personal communication)

Table VII.01.k:

FNDC's Mini-Loan Scheme: Interest Rates Charged

Amount Borrowed	Interest Charged Per Person	Equivalent Interest Rate Per Annum
R 200	R 10 in 1 month	79.6%
R 500	R 32 in 2 months	45.1%
R 1000	R 80 in 4 months	24.1%
R 2000	R 290 in 8 months	21.7%
Average Commercial Farm Borrowing		18.0%
Prime Commercial Rate		21.0%

Note: The interest rates are calculated by the authors.

Source: FNDC.

Table VII.01.1:

MAIZE PRICE TRENDS 1985-90

		1985	1986	1987	1988	1989	1990
Namibia prices (Rand)							
Nominal	(a)	310.0	320.0	330.5	370.7	439.5	441.0
Interannual change (%)			5.0	3.2	9.5	18.6	0.3
Consumer price index (base year 1980)	(b)	181.4	205.7	231.6	261.4	300.9	325.5
'Real' (base year 1985)	(a/b*181.4)	310.0	289.3	265.1	257.2	265.0	245.7
Interannual change (%)			-6.7	-8.4	-3.0	3.0	-7.3
Exchange rate	(c)	2.2	2.3	2.0	2.3	2.6	2.6
Dollar price (nominal)	(d) = (a/c)	141.6	144.5	166.7	163.3	167.8	172.3
World prices (US dollars)							
Yellow maize (Gulf fob)	(e)	105.0	73.0	86.0	118.0	111.0	113.8
Sea freight	(f)	43.0	42.0	37.0	26.0	42.0	54.0
Dollar border price	(g) = (e+f)	148.0	115.0	123.0	144.0	153.0	167.8
NPC's	(d/g)	0.956	1.256	1.355	1.134	1.096	1.028

Notes:

a/ NPC = Net Protection Coefficient (see Table 12 and text for discussion

b/ Ministry of Agriculture economists in Namibia believe that input cost inflation has followed the CPI closely. Changes in "real" producer price estimates shown in this table may therefore be indicative of changes in agriculture's terms of trade.

Sources: Agronomic Board, Namibia 1990
FAO Global Food Information System Reports 1990

Table VII.01.m:

WHITE MAIZE: NAMIBIAN IMPORT PARITY PRICES WITH ZIMBABWE AND THE REST OF THE WORLD AND THEIR NOMINAL PROTECTION COEFFICIENTS

Year	1985	1986	1987	1988	1989	1990
Nominal domestic prices (R/ton)	310	328	338	371	440	441
Rest of the World						
fob + sea freight (US$/ton) (1)	148	115	123	144	153	167
Exchange rate(US$/R)	2.19	2.27	2.03	2.27	2.62	2.56
Prices (R/ton) (2)	324	261	250	327	401	404
NPCs (1/2)	0.956	1.256	1.355	1.134	1.096	1.026
Zimbabwe						
Freight prices (Z$/ton)	180	180	180	195	215	225
Exchange (US$/Z$)	1.55	1.6	1.65	1.7	1.85	1.8
Prices in US$/ton	116	113	109	115	116	125
Prices (R/ton) (3)	254	255	221	260	304	320
Border prices (R/ton) (4)	331	332	288	338	396	415
NPCs (1/3) (a)	1.219	1.284	1.526	1.425	1.445	1.378
NPCs (1/4) (b)	0.938	0.988	1.174	1.096	1.112	1.060

Sources: Grain Marketing Board Annual Reports, Zimbabwe Agronomic Board reports, Namibia.

Notes: NPCs = nominal protection coefficients.
a: assumes Zimbabwean exports are subsidized by the transport costs from the local market to the Namibian border.
b: assumes includes transport costs.

Table VII.01.n:

NAMIBIA'S IMPORT AND EXPORT PARITY PRICES FOR MAIZE (1985-1990)

	1985	1986	1987	1988	1989	1990	Av Price
Zimbabwe export parity	125.17	92.97	98.37	121.97	133.92	148.30	120.12
Zimbabwe import parity	170.83	137.03	147.63	166.03	172.08	187.36	163.49
Zimbabwe price	114.00	129.00	131.00	141.00	135.00	124.00	129.00
Average border price	141.81	141.81	141.81	141.81	141.81	141.81	
Namibia export parity (Z)	106.83	121.03	125.63	133.03	124.08	113.53	120.69
Namibia import parity (Z)	166.83	181.03	185.63	193.03	184.08	173.53	180.69
Namibia price	141.55	144.49	166.72	163.29	167.76	172.25	159.35
Average border price	150.69	150.69	150.69	150.69	150.69	150.69	
Namibia export parity (RoW)	118.00	85.00	93.00	114.00	123.00	137.83	111.81
Namibia import parity (RoW)	178.00	145.00	153.00	174.00	183.00	197.83	171.81
Namibia price	141.55	144.49	166.72	163.29	167.76	172.25	159.35
Average border price	141.81	141.81	141.81	141.81	141.81	141.81	

Note: All data are in US dollars.

Sources: Agronomic Board Annual Report 1990
SADCC Food Security Unit
FAO Global Information System 1990
TransNamib (personal communication)

Table VII.01.o:

PRODUCTION COSTS OF PEARL MILLET PER HECTARE

Production Costs	Commercial Farm a/ Rand (person-days)		Communal Farm b/ Rand (person-days)	
Capital costs	252.2		84.7	
Labour costs (R4/person-day)	27.6	(7)	122.4	(30.6)
Management cost	20.2	(0.3)	0.0	
Total	300.0		207.2	
Break-even output (R600/ton)	500kg/ha		345kg/ha	

Notes:

a/ Commercial farm: mechanized discing, planting, weeding, harvesting and threshing.
b/ Communal farm: mechanized discking - other tasks by hand.
c/ Fertilizer application in both cases, 30 kg/ha.
d/ Capital costs include the costs of fertilizers, seeds, machinery, services and depreciation.

Source: Cost and labour data are provided by the First National C
------ Corporation experiment in Kavango region; calculation is done by the authors.

Table VII.01.p:

AGRICULTURAL GROWTH PROJECTIONS

Exports	Value in 1989 (R '000,000)	1990	1991	1992	1993	1994	1995
Beef	154.9	147.155	148.6265	151.5990	156.7780	162.1340	167.6729
Small stock	95.4	96.354	97.31754	98.29071	99.27362	100.2663	101.2690
Karakul	25	25.75	26.5225	27.31817	28.13772	28.98185	29.85130
Other	18.4	19.32	20.286	21.3003	22.36531	23.48358	24.65775
TOTAL	293.7	289.529	293.7625	299.5282	306.5547	314.8658	323.4510
ANNUAL GROWTH RATES		0.986	1.015	1.020	1.023	1.027	1.027

Domestic output	Value in 1989 (R '000,000)	1990	1991	1992	1993	1994	1995
Beef	309.617	294.1361	297.0775	303.0190	315.4278	328.3447	341.7905
Small stock	118.414	122.3331	131.9537	142.3309	153.5242	165.5978	178.6208
Karakul	24.957	25.70571	26.47688	27.27118	28.08932	28.93200	29.79996
Maize	9.911	12.24939	15.13950	18.16740	20.89251	22.98176	24.82030
Millet	40	44.8	50.176	56.19712	62.94077	70.49366	78.95290
Pulses	0.1	0.125	0.15625	0.195312	0.244140		0.381469
Oilseeds	0.64141	0.705551	0.776106	0.853716	0.939088	1.032997	1.136296
Other (inc fruit and vegetables)	18.4	23	25.3	27.83	30.613	33.6743	37.04173
TOTAL	517.0404	525.2409	549.3019	578.0847	613.8209	652.4624	693.6241
ANNUAL GROWTH RATES		1.016	1.046	1.052	1.062	1.063	1.063
TOTAL (without millet)		480.4409	499.1259	521.8876	550.8801	581.9687	614.6712
ANNUAL GROWTH RATES		1.007	1.039	1.046	1.056	1.056	1.056

Note: Beef export projections include an allowance for beef exports to EEC under the Lome agreement.

Source: Statistical/Economic Review, Namibia 1990.
Projections by mission members.

Table VII.02.a:

NAMIBIA - RETAIL PRICES FOR FISH PRODUCTS
(WINDHOEK, JUNE 1989)

ITEM		PRICE	PROCESSOR/DISTRIBUTOR
FROZEN FISH			
Fish Fingers (hake)	400 g	3.05	Irving & Johnson
Hake Fillets	750 g	7.89	Irving & Johnson
	600 g	4.99	Sea Harvest
Hake Fillets (prime, deboned)	800 g	8.05	Sea Harvest
Cape Whiting	800 g	4.89	Sea Harvest
Snoek Steaks	600 g	5.25	Irving & Johnson
Deep Water Hake Fillets	750 g	5.99	Irving & Johnson
Dressed Baby Soles	300 g	10.45	Irving & Johnson
Kingclip	1 kg	23.49	Sea Harvest
	800 g	14.79	Sea Harvest
Oak Smoked Haddock Fillets	800 g	6.99	Irving & Johnson
Seafood Cocktail Monk Fillets	400 g	5.75	Irving & Johnson
CANNED FISH			
Pilchards (tomato, chili)	155 g	0.89)	
	425 g	1.79)	Lucky Star
(brine)	425 g	1.65)	Glenryck
(minced)	425 g	1.35)	
Sardines (in oil)	105 g	2.65	Portugal
Mackarel Fillets	190 g	3.19	BR Deutschland

Source: 'Grundlagenstudie Namibia.
Band 6: Sektorstudie Fischwirtschaft', 1989.

Table VII.02.b:

NAMIBIA - RAW MATERIAL INPUT AND UTILIZATION IN THE FISH PROCESSING INDUSTRY
(1985)

1985	Total	Canned	Fish Meal/ Fish Oil	Other
	1,000 t			
Raw Materials				
Pilchard	57	35	21	1
Anchovy	51	-	51	-
Stocker	31	-	30	1
Total	139	35	102	2
Production Qty				
Final Prod.	55	21 a/	32	2
of which:				
Meal	-	-	26	-
Oil	-	-	6	-
	in Millions of Rand			
Production Cost	43.4	24.4	18.7	0.3
Turnover	55.9	37.7 b/	18.2 c/	-

NOTES:
a/ 2.4 million cartons.
b/ 1,794 Rands/ton - canned pilchard.
c/ 26,000 tons fish meal at 598 Rands/tons and 6,000 tons at 445 Rands/ton.

SOURCE: "Grundlagenstudie Namibia
Band 6: Sektorstudie Fischwirtschaft", 1989.

Table VII.02.c:

NAMIBIA - TOTAL CATCH IN NAMIBIA
(FAO Estimates)

Year	Total Tons	Inshore-Fisheries (Lakefish) Tons
1977	425,490	50
1978	418,210	50
1979	351,130	50
1980	252,612	50
1981	278,599	50
1982	233,539	50
1983	364,728	100
1984	187,081	100
1985	185,520	100
1986	201,302	100
1987	519,518	150

SOURCE: "Grundlagenstudie Namibia,
Band 6: Sektorstudie Fischwirtschaft", 1989.

Table VII.02.d:

NAMIBIA - LOBSTER LANDINGS 1950-1988/89 a/

Year	Tons
1950	6,500
51	7,300
52	13,100
53	10,300
54	9,100
55	9,200
56	7,000
57	7,700
58	4,400
59	5,800
1960	4,300
61	5,800
62	7,200
63	5,900
64	7300
65	7300
66	8900
67	5900
68	8,500
69	8,500
1970	2,100
71	2,200
72	2,396
73	3,179
74	3,193
75	1,697
76	1,400
77	1,796
78	1,197
79	1,504
1980	1,249
81	2,891
82	1,355
83	1,641
83/84	1,866
84/85	1,820
85/86	1,769
86/87	1,360
87/88	1,784
88/89	830

a/ Luderitz Bay

SOURCE: "Grundlagenstudie Namibia, Band 6: Sektorstudie Fischwirtschaft", 1989

Table VII.63.a:

NAMIBIA - MINING PRODUCTION ACCORDING TO COMMODITY, 1983-89

	Units	1983	1984	1985	1986	1987	1988	1989
Precious Metals and Minerals:								
Gold (contained in blister)	kg	296	196	194	184	172	240	372
Silver (contained in blister)	tonnes	93	96	98	106	95	108	108
Diamonds	carats	969400	931300	909500	1009650	1037261	974565	899776
Semi-Precious stones: (hand sorted)								
Agate	tonnes	47	41	65	87	100	99	93
Amethyst	tonnes	162	165	21	37	189	175	149
Chrysocolla	kg	NA	NA	NA	1000	8250	4000	8000
Dioptase	kg	NA	NA	NA	520	60	130	190
Rose quartz	tonnes	348	369	299	172	365	2225	602
Tourmaline	kg	5	300	745	2070	1709	41	937
Metal and mineral concentrates:								
Arsenic trioxide (75% As)	tonnes	1126	2504	2471	2200	1864	2984	2399
Cadmium (refined metal)	tonnes	51	40	59	61	51	106	88
Copper conc. (30% Cu)	tonnes	146153	186811	143761	157085	118900	131610	162852
Copper blister (99% Cu)*	tonnes	54238	48573	47611	50145	37653	42163	37978
Lead cons. (30% Pd)	tonnes	86599	70819	94200	77753	75490	80619	79854
Lead refined metals	tonnes	35416	29930	38511	40647	40634	44447	44183
Pyrite (50% S)	tonnes	110238	172815	174363	189451	120260	226882	196531
Sodium Antimonate	tonnes	---	---	---	---	51	156	73
Tantalite conc. (16% Ta)	kg	2775	5115	3118	8196	13009	6965	6000
Tin conc. (67% Sn)	tonnes	1300	1400	1483	1313	1637	1772	1519
Uranium Oxide	tonnes	+-4000	+-4300	+-4000	+-3990	+-4175	NA	NA ?
Zinc conc. (52% Zn)	tonnes	56300	56500	57496	65510	75722	71655	79865
Industrial minerals:								
Ambligonite (0.5% Li2O)	tonnes	54	F0	49	52	166	134	131
Granite	tonnes	NA	NA	NA	71	730	12\90	6490
Lepidolite (4% Li2O)	tonnes	36	10	71	52	61	19	41
Limestone (calcite for flux)	tonnes	16810	21639	32219	31071	---	---	NA
Marble	tonnes	800	1000	2987	2750	4215	4149	11663
Petalite (4% Li2O)	tonnes	709	829	1753	751	749	1465	1226
Salt (common)	tonnes	130350	84630	147050	120210	123571	141040	132357
Salt (table)	tonnes	801	740	500	475	470	570	756
Salt (rock)	tonnes	---	3600	5811	5951	900	7263	7210
Silica (+99% Si)	tonnes	140	57	940	1041	2190	0	0
Silica (+96% Si for flux)	tonnes	39701	1025	645	5910	2012	0	0
Wollastonite (hand sorted)	tonnes	1100	---	373	601	500	396	0

Source: Department of Economic Affairs.
*Products of imported concentrate included.

Table VII.88.b:

NAMIBIA - OPERATING MINES AND QUARRIES, 1989

DISTRICT	OPERATING MINE OR QUARRY	COMMODITY PRODUCED	NUMBER OF EMPLOYEES
Damaraland	Uis Tin Mine	Tin, tantalite	426
Grootfontein	Platveldt Amethyst Mine	Amethyst	15
	Kombat Mine	Lead, Silver, Copper	555
Karasburg	Belle Rose Mine	Rose Quartz	12
	Wickberg Rose Quartz Mine	Rose Quartz	11
	Seven Pillars Mines	Diamonds	7
	Yeterputz Mine	Agate	23
Kaokoland	Omaue Mine	Chrysocolla, dioptase	5
Karibib	Chrystal Tin Mine	Tin	19
	Josef Berger Mines	Marble	38
	Kookamoor Mines/Claims	Tourmaline	3
	Marmorwerke Karibib	Marble	39
	Navachab Mine	Gold	216
	Outjua Mine	Tourmaline, quartz	26
	Pallisandro Marble	Marble	15
	Paukap West Tin Mine	Tin	8
	SWA Lithium Mines	Amblygonite, lepidolite, petalite, quartz, beryl	186
	Usakos Tourmaline Mine	Tourmaline	6
	Usakos Wollastonite Mine	Wollastonite	5
Luderitz	CDM	Diamonds	5486
	Namibia West Coast Diamonds	Diamonds	66
	Rosh Pinah Mine	Lead, zinc, silver	451
	Sinclair Mine	Rose Quartz	7
	Sonnberg Diamante	Diamonds	82
	Tidal Diamonds	Diamonds	18
Otjiwarongo	Okorusu Fluorspar Mine	Fluorspar	188
Rehoboth	Golden Valley Mine	Gold, silver	84
Swakopmund	Hoffnungstahl Mine	Rose Quartz	11
	Namibia Granite Quarries	Granite	32
	Rossing Uranium Mine	Uranium	2481
	Salt Company	Salt	76
	Salz Gesser	Salt	4
	Snow Salt	Salt	24
	Zinc and Lead Namibia	Lead, zinc, silver	148
Tsumeb	Tsumeb Mine	Copper, lead, silver, arsenic, cadmium, antimony	2878
Windhoek	Ongonja Mine	Copper	11
	Otjihase Mine	Copper, pyrite, silver, gold	571
		Total Number of Employees	13941

Source:
1. "Namibian Mining Enterprises, Mines and Employment", S. Galloway, 1989, Windhoek.
2. "Labour Statistics, 1988", SWA/Namibia Department of Economic Affairs 1989, Windhoek.
3. "Namibia: Development Information Report, 1988", Department of Economic Affairs, Windhoek.

Table VII.63.c:

NAMIBIA - INDEX OF PHYSICAL VOLUME OF MINERAL PRODUCTION, SUMMARY; FOR SELECTED YEARS, 1960 TO 1988 (1975=100)

YEAR	NON-FERROUS BASE METALS	PRECIOUS METALS	FERROUS BASE METALS	NON-METALLICS	ROCK AND SEMI-PRECIOUS STONES	TOTAL OTHER MINING	SOURCES OF ENERGY	TOTAL NON-DIAMOND MINING	PRECIOUS STONES	TOTAL MINING
Weights	36.65	2.67	9.66	1.41	9.13	[illegible]	1.14	48.98	59.12	100.00
1960	17.5	6.1	0.0	10.5	36.2	16.4	0.0	15.9	28.9	23.6
1965	35.8	0.0	0.0	19.1	53.0	33.3	0.0	32.4	46.5	40.7
1966	37.2	0.0	0.0	23.6	146.3	35.1	0.0	34.1	53.5	45.6
1965	96.3	13.1	43.5	25.6	178.7	90.5	0.0	78.3	94.7	88.6
1970	98.4	114.9	93.3	44.3	36.0	89.9	0.0	87.4	107.6	99.0
1971	91.8	82.6	114.6	51.9	107.5	96.2	0.0	87.6	94.5	91.7
1972	96.1	74.6	24.4	46.9	75.3	97.6	0.0	85.1	91.4	88.8
1973	107.3	100.6	135.4	48.9	84.1	104.8	0.0	101.9	91.6	95.8
1974	121.4	92.0	106.2	70.6	134.5	117.5	5.2	114.4	89.9	99.9
1975	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1976	87.7	68.7	721.1	98.4	83.8	97.7	334.5	94.5	98.9	96.9
1977	107.8	92.1	1369.4	68.3	122.3	107.3	1287.8	138.0	114.5	124.1
1978	102.5	252.4	40.2	57.0	100.2	103.6	1892.1	144.4	100.5	123.2
1979	92.8	241.3	79.9	56.5	57.9	99.2	1978.5	151.6	94.6	117.9
1980	85.6	152.9	58.8	57.0	100.5	88.3	2083.6	143.9	89.3	111.6
1981	85.6	217.5	434.4	52.3	237.5	92.5	2068.0	147.1	71.5	102.4
1982	98.7	185.8	1299.6	68.2	209.9	104.8	1958.0	156.2	60.2	98.2
1983	100.6	198.9	1329.2	39.7	387.5	107.6	1919.1	157.5	55.4	97.2
1984	89.4	192.6	1926.3	24.3	584.6	97.8	1918.9	148.3	53.4	92.2
1985	92.9	209.1	1969.8	41.6	822.3	101.7	1746.8	147.6	53.8	92.1
1986	72.1	599.6	2101.5	51.6	864.1	102.8	1791.4	149.9	57.6	95.5
1987	73.9	584.6	1884.6	38.4	698.4	101.6	1746.8	148.9	59.3	95.1
1988	73.6	698.0	2514.5	44.2	2168.2	110.7	1811.6	164.6	55.6	100.6

Note:
Figures shown for 1986, 1987 and 1988 are provisional.

Sources:
1. "Operational Information", SWA/Namibia Department of Economic Affairs, Mining economics, 1989, Windhoek.
2. "The Role of Mining in the Economy of SWA/Namibia. 1966-1985", P. Hartmann, 1986.
3. "Namibia: Development Report 1988", Department of Economic Affairs, Windhoek.

Table VII.03.d:

NAMIBIA - VALUE OF MINING SALES
BY COMMODITY, 1988

COMMODITY	SALES (R'000)	CONTRIBUTION (%)
Diamonds	653500	38.1
Copper	228641	13.3
Lead	62880	3.7
Zinc	60268	3.5
Silver	52195	3.0
By products (1)	18847	1.1
Tin	17020	1.0
Salt	3774	0.2
Other (2)	619558	36.1
Total	1716683	100.0

Notes:
(1) Includes gold, arsenic, pyrite, antimony, cadmium.
(2) Includes uranium, industrial minerals, semi-precious stones and dimension stone.

Source:
1. 'Namibia: Development Information Report 1990', Department of Economic Affairs, Windhoek.
2. 'Namibian Production and Sales of Metals and Minerals', S. Galloway, 1989, Windhoek.

Table VII.03.e:

NAMIBIA - VOLUME AND PRICE INDICES OF MINERAL EXPORTS, 1970-1988

(1975=100)

YEAR	VOLUME	PRICE
1970	93.8	56.2
1971	80.4	5.4
1972	82.5	74.2
1973	99.8	93.9
1974	87.7	108.6
1975	100.0	100.0
1976	93.0	132.8
1977	119.0	202.3
1978	141.8	213.5
1979	121.7	279.6
1980	119.4	315.4
1981	101.1	269.4
1982	103.3	303.2
1983	99.8	296.0
1984	96.8	364.5
1985	101.9	522.1
1986	93.9	668.6
1987	94.1	537.2
1988	97.9	626.9

Note:
Numbers for 1986, 1987 and 1988 are provisional.

Sources:
1. "Namibia: Development Information Report 1990", Department of Economic Affairs, Windhoek.
2. "Operational Information", SWA/Namibia Dept. of Econ. Affairs, Mining Economics 1989.

Table VII.03.f:

NAMIBIA - EMPLOYEES AND SALARIES IN MINING INDUSTRY 1975 TO 1988 a/

YEAR	TOTAL EMPLOYEES	TOTAL SALARY (R/annum)	AVERAGE SALARY (R/annum)
1975	18417	38043294	2066
1976	19897	58193306	2925
1977	21230	74889949	3528
1978	19269	76775164	3984
1979	20074	90302021	4498
1980	19776	108941413	5509
1981	19240	123804456	6435
1982	17773	132157914	7436
1983	16876	141299700	8373
1984	15624	139441000	8925
1985	14869	152825000	10278
1986	15019	165442000	11016
1987	13799	184034000	13337
1988	13770	241553000	17542

Note:
a/ Cash only, fringe benefits excluded

Sources:
1. "Namibia: Development Information Report 1990", Department of Economic Affairs, Windhoek.
2. "Labour Statistics: 1988", SWA/Namibia Department of Economic Affairs, 1989, Windhoek.

Table VII.03.g:

NAMIBIA - PROFITS, TAX AND EXPENDITURE OF NAMIBIAN MINING COMPANIES;
FOR SELECTED YEARS, 1980-1988

(R million)

YEAR	PROFIT a/	TOTAL b/ PUBLIC REVENUE COLLECTED	TAXES c/ PAID BY MINING COMPANIES	MINING TAXES AS PERCENT OF TOTAL	EXPENDITURE		
					TOTAL d/	AMOUNT SPENT IN NAMIBIA	CAPITAL e/
1980	457.1	337.8	182.9	54.1	n.a.	n.a.	112.4
1981	253.6	291.8	151.1	51.8	453.5	280.7	76.6
1982	257.4	436.0	55.0	12.6	467.3	264.9	47.6
1983	241.9	453.9	48.3	10.6	439.9	292.5	40.8
1984	278.7	520.5	110.2	21.2	438.3	301.1	31.8
1985	650.7	651.1	133.9	20.6	491.3	324.7	31.9
1986	778.7	896.3	241.8	27.0	655.0	337.2	75.3
1987	477.9	1121.1	282.1	25.2	653.7	389.5	94.5
1988	n.a.	1308.7	273.0	20.9	n.a.	n.a.	170.8

Notes:
(1) Net operating surplus.
(2) Excludes grants-in-aid received from RSA.
(3) Excludes Non-resident shareholders tax.
(4) Operating costs and capital expenditure.
(5) Gross fixed investment.

Source: The Chamber of Mines of Namibia, 1988.
"What mining means to SWA/Namibia", Windhoek.

Table VII.04.a:

ESTIMATES OF VEHICLE OPERATING COSTS IN NAMIBIA -- MID-1990
(in Rands)

Type of Pavement and Conditions	Speed Kms/Hr.	Surface Roughness Measurements		Vehicle Operating Costs per Km.		Average Vehicle Operating Costs per Km.
		IRI	QI	Autos	Heavy Trucks	
Super Highways	110	1.53	20	0.344	1.415	0.505
New Pavements	100	2.0	26	0.364	1.442	0.526
Older Pavements	90	5.0	65	0.463	1.600	0.634
Poorly Maintained Pavement	85	6.15	80	0.529	1.666	0.700
Maintained Unpaved	70	8.0	104	0.622	1.799	0.799
Damaged Pavement	60	10.0	130	0.754	1.957	0.934
Poorly Maintained Unpaved	40	15.4	200	1.190	2.460	1.381

Note: In the estimation of this table, vehicle operating costs for Mid-1988 supplied by the Namibia Department of Transport (see Memorandum of 6 March 1990 from H. du Plessis to F.W. Poolman) were extrapolated to Mid-1990 using inflation rates of 15 percent per annum. The average vehicle costs assume 85 percent light vehicles and 15 percent heavy vehicles as representative of Namibia conditions.

Table VII.04.b:

ESTIMATE OF EQUIVALENT SINGLE AXLE 18,000 LB. LOAD RATES (ESAL)

Vehicle Types	Tare (Kg)	Payload (Kg)	Total Weight (Kg)	Average No. of Axles	Average Weight per Axle	ESAL Load Factor	Percent Vehicles by Class	Proportion of Average Daily Traffic	ESAL Loads Per Km. of Road*	Percent Allocation of ESA Load Vehicle-Kms
Small Car	900	400	1,300	2	600	0.038	34.4%	N.A.	N.A.	N.A.
Medium Car	1,200	400	1,600	2	800	0.044	34.4%	N.A.	N.A.	N.A.
Pickup & Minibus	1,430	1,400	2,830	2	1,415	0.079	31.2%	N.A.	N.A.	N.A.
TOTAL LIGHT VEHICLES				2	950	0.053	100.0%	0.85	0.090	31.0%
Bus	6,650	4,500	10,550	2	5,275	0.293	4.6%	N.A.	N.A.	
Medium Truck	5,920	11,000	16,920	2	8,010	0.445	36.2%	N.A.	N.A.	
Heavy Truck	6,400	16,000	22,400	3	7,467	0.415	36.2%	N.A.	N.A.	
Artic. Truck	14,700	32,000	46,700	5	9,340	0.519	23.0%	N.A.	N.A.	
TOTAL HEAVY TRUCKS				3	7,994	0.444	100.0%	0.15	0.20	69.0%

*Estimated as the product of the number of axles times the equivalent single axle 18,000 lbs. load factor times the proportion of average daily traffic.

N.A. denotes information not available.

Table VII.04.c:

ESTIMATION OF TRANSPORTATION EXPENDITURES
FINANCIAL YEAR ENDING 31 MARCH 1991
(in Rands)

Other	Current Expenditures		Road Transport	Civil Aviation
01	Transportation Administration	R 14,984,000		
02	Construction of Roads and Airports	1,491,500		
03	Maintenance of Roads and Airports	66,519,800		
04	Control of Road Traffic	5,032,500		
05	Control of Civil Aviation		R 7,863,900	
06	Control of Water Traffic			R 100,000
07	Provision and Maintenance of Equipment	33,614,800		
08	Provision of Meterological Service			1,733,600
09	Planning and Design of Roads and Airports	2,584,800		
10	Government Garage	9,400,000		
		R $133,627,400	R $7,863,900	R $1,833,600
Capital Expenditures				
Eros Airport-Erection of Plane Sheds			235,000	
Road Construction Projects		17,895,000		
		R $151,522,400	R $8,098,900	R 1,833,600

Source: The budget figures come from State Revenue Fund. Estimate of revenue and expenditures for the Financial Year ending 31 March 1991, pages 201-212.

Table VII.04.d:

ESTIMATION OF REVENUES -- STATE REVENUE FUND
FINANCIAL YEAR ENDING 31 MARCH 1991
(In Rands)

Other	Current Expenditures	Road Transport	Civil Aviation
30.01	Tax and Duties		
12	Levy on Fuel	R 120,000,000	
30.03	Licenses		
05	Vehicles and Related Fees	12,000,000	
31.21	Department Revenues - Transport		
01	Airports	R 1,100,000	
02	Road Transport Board	300,000	
03	Traffic Services	100,000	
04	Lost Equipment/Stores	200	
05	Obsolute and Worn Out Equipment	400,000	
06	Sale of Fuel at Windhoek Airport	40,000	
07	Leasing of Airport & Airfield Facilities	456,200	
08	Sale of Water and Electricity		24,000
09	Private Telephone Calls		4,600
10	Miscellaneous		9,600
		R 132,800,200	R 1,596,200 R 37,200

Source: State Revenue Fund. Estimate of revenue and Expenditures to be Received on the State Revenue Fund during Financial Year ending 31 March 1991, pages 9, 10, and 17.

Table VII.04.e:

ROAD EXPENDITURE ALLOCATION SUMMARY
FINANCIAL YEAR ENDING 31 MARCH 1991
(in Rands)

	Expenditure Items	Budget Costs	Allocation Basis	Light Vehicles	Heavy Vehicles
02	Construction of Roads and Airports				
	a. Pavement Costs (70%)	R 1,644,650	Equivalent Single Axle Loads	R 323,660	R 720,390
	b. Clearing, Earthwork & Drainage Costs (30%)	447,450	Equivalent Avg. Daily Traffic	353,490	93,960
03	Maintenance of Roads and Airport				
	a. Dependent on Axle Loads (70%)	46,563,860	Equivalent Single Axle Loads	14,434,800	32,129,060
	b. Dependent on Time & Weather (30%)	19,955,940	Equivalent Avg. Daily Traffic	15,765,190	4,190,750
04	Control of Road Traffic	5,032,500	Vehicle Permits Issued	2,516,250	2,516,250
07	Provision & Maintenance of Equipment	33,614,800	Equivalent Single Axle Loads	10,420,590	23,194,210
09	Planning & Design of Roads and Airports	2,584,800	Average Daily Traffic	2,197,080	387,720
10	Government Garage	9,400,000	Equivalent Single Axle Loads	2,914,000	6,486,000
	Capital Expenditures for Road Construction				
	a. Pavement Costs (70%)	12,526,500	Equivalent Single Axle Loads	3,883,220	8,643,280
	b. Clearing, Earthwork & Drainage Costs (30%)	5,368,500	Equivalent Avg. Daily Traffic	4,241,120	1,127,380
01	Administration	14,984,000	As Percent of the Sum of All Other Costs	6,293,280	8,690,720
		R 151,522,400		R 63,342,680	R 88,179,720

Table VII.04.f:

ALLOCATION OF REVENUES FROM VEHICLE LICENSE FEES FINANCIAL YEAR ENDING 31 MARCH 1991

Total Revenue From License Fees	No. of Vehicles[a]	License Fee[b] (Rand)	
Light Vehicles			
Motor Cars	13,445	R 72	R 986,040
Panel Vans	4,745	R 84	398,580
Minibuses	553	R 84	46,452
	19,538		R 1,413,072
Heavy Vehicles			
Buses	398	N.D.	
Lorries, Trucks and Truck Tractors	6,214	N.D.	R 10,586,928[c]
Trailers & Semi-Trailers	1,783	N.D.	
All Other	194	N.D.	
	8,589		R 12,000,000

[a]The vehicle fleet figures come from Namibia Department of Economic Affairs. Econ Info 1990, page 22.

[b]The license fees come from the Namibia Ministry of Finance. Office of the Receiver of Revenue.

[c]Determined as a residual.

N.D. denotes not determined due to lack of data on the number of vehicles in each vehicle weight category.

Table VII.04.g:

AIRCRAFT MOVEMENTS AND PASSENGER ACTIVITY AT SELECTED AIRPORTS

	Eros Aerodrome		Windhoek International		Keetmanshoop Airport	
	1988/89	1989/90	1988/90	1989/90	1988/89	1989/90
Aircraft Movements	13,519	15,035	5,202	5,558	2,772	2,471
Passenger Movements	52,091	70,867	303,012	309,857	3,586	4,393

Source: 1988-89 figures come from the Namibia Department of Transport. General Overview of the Road and Aerodrome Infrastructure in Namibia. Windhoek. Feburary 1990, page 17.

1989/90 figures were supplied by Mr. G. Riedel. Namibia Department of Transport. Personal Communication dated 17 October 1990.

Table VIII.01:

NAMIBIA - MANPOWER SURVEY, 1988

	Employment		
	Male	Female	Total
Section A: By occupation			
Professional, technical and related workers	10729	12226	22955
Administrative and managerial	1876	226	2102
Administrative, clerical and related workers	6414	10209	16623
Sales workers	5743	4306	10049
Service workers	9237	27949	37186
Farm and For. workers, fishermen, hunters	36503	1885	38388
Production and Construction Workers	17764	840	18604
Engines and equipment operators	7793	738	8531
General laborers	28248	2107	30355
Total section A	124307	60486	184793

	Total	PUBLIC Total (% total)	Central govt.	Repres. author.	Local author.	SECTOR Public corp.	Other	Total public	Public sector (% public)	Private sector (total)	Private sector (% priv.)
Section B: By industrial group and control											
Agriculture, Hunting, Forestry and Fishing	36071	19.5	0	0	0	0	0	0	0.0	36071	27.9
Mining and Quarying	10062	5.4	0	0	0	0	0	0	0.0	10062	7.8
Manufacturing	9442	5.1	20	0	0	687	0	687	1.2	8755	6.8
Electricity and Water Supply	1273	0.7	0	0	0	1273	0	1273	2.3	0	0.0
Construction	12657	6.8	1084	0	0	0	0	1084	2.0	11573	8.9
Trade	29394	15.9	248	18	10	1430	0	1706	3.1	27688	21.4
Transport and Communications	7880	4.3	6300	0	0	83	0	6383	11.5	1497	1.2
Financial and Business Services	4327	2.3	0	0	0	286	8	293	0.5	4034	3.1
Community, Social and Personal Services	73687	39.9	14474	24471	3623	1219	100	43887	79.3	29800	23.0
Total section B	184793	100.0	22126	24489	3633	4957	108	55313	100.0	129480	100.0
(% of Total employment)	100.0		12.0	13.3	2.0	2.7	0.1	29.9		70.1	

Source: Manpower Survey: 1988, Directorate: Development Co-ordination, Department of Government Affairs.

Table VIII.02:

NAMIBIA - MANPOWER SURVEY, 1984

	Employment		
	Male	Female	Total
Section A: Occupational groups			
Professional, semi-prof. and technical...	7578	9669	17179
Managerial, executive, and administrative	4056	751	4807
Clerical	6493	7515	14008
Sales and related work	2977	2781	5758
Mining and quarrying activities	2856	0	2856
Transportation, delivery, and commun.	4974	453	5427
OASSW in metal, plastics, motor industry,	1460	3	1463
OASSW in building and construction work	12586	0	12586
Processing of wood and furniture	267	35	302
Manufacturing of clothes and textiles	184	340	524
Food and beverages P&M processes	1552	281	1833
Leather and shoe processing	63	1	64
P&M of fiber glass, glass, cement, etc.	277	2	279
SASSW in P&M of chemical and rubber prod.s	212	26	238
Printing and paper manufacturing	78	58	136
Supervisors and OSASW, n.e.c.	9381	482	9863
Services: public, personal, and domestic	8978	5606	14584
Labourers	49956	2586	52541
Total section A	113777	36529	144306

	Artisans				
	Male	Female	Total	Appren-tices	Total
Section B: Artisans and apprentices					
Metal and engineering trades	1164	1	1165	236	1401
Electrical trades	654	1	655	148	803
Motor trades	1164	0	1164	108	1272
Building trades	1642	4	1646	257	1903
Printing trades	72	43	115	0	115
Furniture trades	71	0	71	62	133
Food trades	53	8	61	6	67
Diamond cutting, jeweller's trades	18	8	26	1	27
Hairdressing and miscellaneous trades	123	74	197	0	197
Total section B	4961	139	5046	878	5918

Summary:

Total employment	150224
Total shortage	6759
Expected change over 1 year	1858

Source: Manpower Survey: 1984, Directorate: Development Co-ordination, Department of Government Affairs.

OSASW = Operators and semiskilled workers

P&M = Processing and manufacturing

n.e.c. = not elsewhere classified

Table VIII.83:

NAMIBIA - EMPLOYEES AND SALARIES IN THE MINING INDUSTRY*, 1980-89

Year	Total employees	Total salary P.A.R.	Average salary P.A.R.
	(In thousands)		
1980	19.8	108,941.4	5,509
1981	19.2	123,884.5	6,435
1982	17.8	132,157.9	7,426
1983	16.9	141,299.7	8,373
1984	15.6	139,441.0	8,925
1985	14.9	152,825.0	10,278
1986	15.0	165,442.0	11,016
1987	13.8	184,039.0	13,337
1988	13.8	241,553.0	17,502
1989	13.9	264,833.3	19,051

Source: Department of Economic Affairs.

*Cash only: fringe benefits excluded.

Table VIII.84:

NAMIBIA - EMPLOYMENT AND NUMBER OF MANUFACTURING INDUSTRIES BY TYPE OF INDUSTRY, 1989

	Industries	Employment
Total	259	9176
Food, beverages and tobacco	76	4687
Textile, wearing apparel and leather	21	389
Wood, wood products and furniture	42	669
Paper products, printing and publishing	18	454
Chemical products	11	329
Non-metal mineral products	19	1094
Metal products	33	1138
Other	28	131
Repair services*	25	293

Source: SWA/Namibian Department of Economic Affairs, 1989. "Unpublished 1989 Industrial Census." Windhoek.

*Repair services included although not classified as manufacturing in order to provide a comprehensive view of industries.

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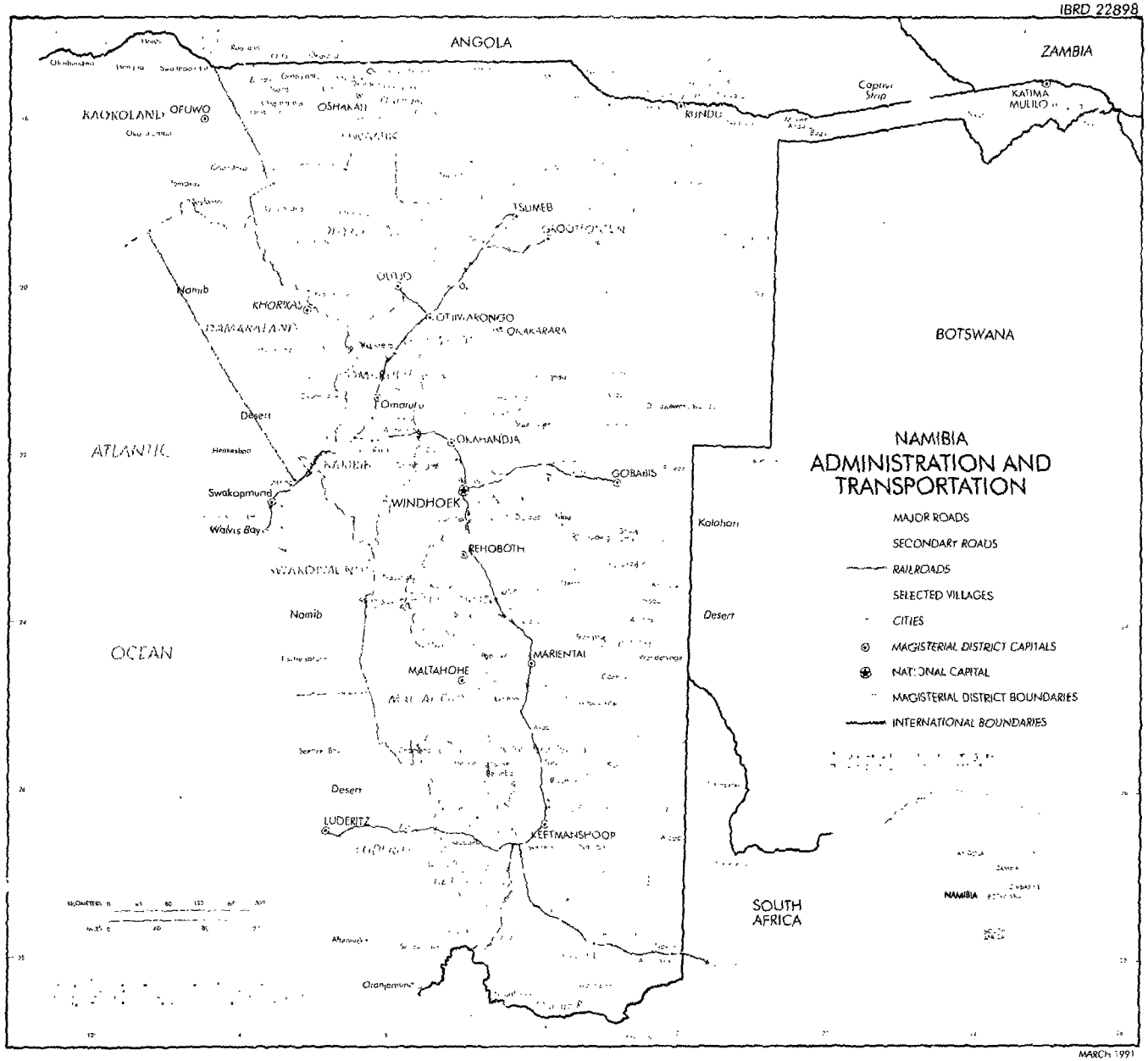

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