

DISCUSSION PAPER

**NAMIBIA:
A POLITICAL ECONOMIC SURVEY**

by
Reginald Herbold Green

DP No. 144

September 1979

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Namibia is approaching independence with a very limited quantity of either research or baseline data available. Its history, the course of the liberation struggle, the structure of the economy all suggest that the political economic transition will be drastic, rapid and in danger of being chaotic. This Discussion Paper seeks to provide a basic political economic survey of the land, its history, the present economic structures, the political economic platform of the liberation movement. It also includes a set of statistical estimates - Population, Employment, Education; National Accounts; Agriculture, Fishing, Mining, Public Finance - to begin filling the gap left by the absence of published official statistics.

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A PREFATORY APOLOGIA

Origins Of A Paper

"Namibia: A Political Economic Overview" is not a normal IDS Discussion Paper either in its context and format or in its genesis and history.

Namibia is an occupied territory and was previously a Mandate. It is a very difficult place to reach or remain for research purposes. But even more striking is the dearth of territorial statistics and economic studies. South Africa has chosen as a matter of policy to restrict the availability (not necessarily the collection and analysis) of basic data - e.g. trade and territorial accounts, to present others in a wilfully confusing form - e.g. public finance and to publish other data of doubtful accuracy - e.g. Census - or competence - e.g. South West Africa Survey 1974.

Therefore basic data are hard to come by - building up a set is something of a cross between fitting a jigsaw puzzle and playing a detective game - except that the pieces do not all come from the same puzzle and some of the clues are disinformation, or from some other case.

This became clear to the author when in 1976 he took up again his interest in Southern Africa. 1976 and 1977 consultancy work for the United Nations Institute for Namibia, 1978-79 service on the Editorial and Steering Committees of the Southern African Development Coordination Conference and 1976 onward advice and assistance to the economic affairs personnel of SWAPO (the Namibian Liberation Movement) underlined three points:

1. no reasonably complete, accurate or up to date compendium of political economic data exists;
2. the absence of such a compendium not only hampers research, more critical it will hamper the government of an independent Namibia in identifying what needs to be done and how it may be possible to set about doing it;
3. enough bits of quantitative and qualitative data exist - even if widely scattered and less than fully comparable - to construct a first approximation of a compendium.

Map 1

NAMIBIA AND HER NEIGHBOURS



Toward An "Economic Survey"

This Discussion Paper, therefore, is in a sense a reversion to the early days of the author's service as Economic Adviser to the Tanzania Treasury. He was then responsible for an annual publication initially entitled "Background To The Budget" and later "Annual Economic Survey". This Paper aspires to be the same type of document - with the major difference that it is unofficial, indeed counter-official.

The core of such a survey is the presentation of data. Evidently that requires an unbiased effort to get the data - e.g. the average levels of African and European personal incomes or the population - correct. It cannot mean a lack of any outlook or organizing frame. Ranke's view of history as piling up facts which would impose their own order or Stendahl's of the novel as a mirror perambulating down a highway are not very satisfactory guides to Economic Survey writing. If for no other reason, the resulting volume would not be portable because it would need to include every known piece of data. In one sense the organizing framework here is that of national accounting and in another that of the Programme of SWAPO - data is largely selected and organized in an articulated national/sectoral account framework and related to a set of goals and policy implications derived from the Liberation Movement's Programme.

Data includes verbal and qualitative presentation and therefore shades over into exposition and quasi descriptive analysis. That is, again, a characteristic of an Economic Survey. Indeed it is usually the dominant characteristic - Tables support and demonstrate/illustrate the text rather than the text being a brief gloss on the tables.

Finally, an Economic Survey includes evaluation of events, policies, causes and trends. It usually presents some guide - more or less informed - as to future policies and - usually rather rashly - future events. This one is no exception. It may also highlight areas of concern - problems, challenges or opportunities - and pose options for dealing with them. The Tanzanian variant often did as will its author's return to the field.

And Its Uses

An Economic Survey is not in itself a contribution to theory. Nor - with rare exceptions - does it offer major contributions to analysis. It has rather different uses:

1. To provide a body of baseline data to be used in analysis and decision taking and to present it in one placeto save users' time (and hopefully achieve some comparability in their starting point);

2. By providing the available data to show the main gaps and thereby indicate in a rough way the areas in which more data collection and organisation is needed;
3. As a baseline provide, on the one hand, a point with which to compare subsequent points for movement and, on the other, a set of first approximation estimates which can be refined and improved;
4. To serve as a basis for informed dialogue, identification of options and building up more detailed and sophisticated analysis;
5. To assist in informing decision taking by its presentation of data, identification of options, discussion of past policy and indication of apparently key issues and areas.

No Economic Survey is neutral. Honest in not willfully fudging figures, realistic in reading changes and trends, self critical in terms of policy and of its own past analysis - hopefully yes but neutral no. Neither the normal locus of an Economic Survey in a Ministry nor its usual authorship by senior, hopefully professionally competent and informed, relatively unalienated civil servants permits that. This Overview does not seek nor purport to be an exception. It starts from the premise that the broad thrust of the SWAPO Programme is relevant and realistic and that the past and present political economy of Namibia can be characterized as the political economy of theft. However, its figures and data - subject to the bias of the author and the sources available to him - seek accuracy not "certain estimation" "proving" either the merits of the Programme or the obscenity of the Occupation Economy.

An Economic Survey to be comprehensive and a source of broadly useable data must surrender the opportunity to go into full detail or depth of analysis on any topic and restrain itself from vehement polemicism among options or about policies. Moderate criticism, mild advocacy, exclusion of "options" seen as professionally or politically ludicrous - yes - passionate advocacy, no. The select bibliography (admittedly not a standard feature of Economic Surveys albeit perhaps it deserves to be) includes both much more detailed analyses and much more passionate excoriation and advocacy from a range of viewpoints and by a range of authors.

Transition and Trajectory

Any country sketch of Namibia today faces special problems. Namibia is not yet independent - it remains under illegal occupation by the Republic of South Africa. Therefore,

present state and enterprise policies are not those which will be pursued (or allowed in the case of enterprises) in an independent Namibia. Very major structural changes are virtually certain to follow independence and to follow very rapidly.

On the other hand either listing probable state and enterprise policies or projecting structural changes in an independent Namibia is necessarily imprecise. No Liberation Movement has the time to articulate detailed policy before it is a government nor does it have the data to work out sequences and tactics for implementing its strategic goals. Enterprise statements on the eve of independence have a good deal of bargaining, bluff and blindness in them. South African suppression of data make present structural analysis so shaky that projections of change seem grounded on the shifting sands of Namibia's deserts rather than on normal social science methodology.

The data here so far as they relate to structures are specified either as estimates of what exists or rough estimates of probable changes. Policy statements unless specified as referring to the South African occupation regime are rough projections of what actions a newly independent Namibian government would be likely to take.

Sources, Methodology, Acknowledgements

Evidently this Overview does not have a government statistical office behind it. The sources used include government statistics and authors with access to unpublished South African data. They also include independent statistical estimates and data compilations from a wide range of commercial, journalistic, consultancy and international agency sources. These are in no case complete, never produce coherent time series and are only too often non-comparable. The tests for selection have been overall internal consistency and plausibility in comparison to whatever external yardstick seemed most appropriate (e.g. labour force to population ratios in Africa and typical per cent undercount in late colonial Censi in estimating population).

Extensive use has been made of personal contacts and of scraps of information. Oral tradition is not, perhaps, a well developed methodology in economic data collection (it is in African history) but it has its uses. For example data on the present state of Swakopmund Harbour comes from a one day visit and a postcard and on its original state from an Imperial German war propaganda newsreel clip; that on petroleum products came largely by sea through Wolvis Bay was determined by interviewing Namibian students who had lived there and looking at amateur photographs of the harbour area.

II

NAMIBIA: Summary Data

Area: 824,269 sq. km. Population (1977) 1,250,000
(1979) 1,325,000

Density: 1.6 per sq. km. Population Growth: 3%

Official Language: Afrikaans (RSA) Capital: Windhoek
English (SWAPO) (pop. 175-200,000)

Currency: Rand Measures: Metric System

<u>Economic Statistics (1977-79)</u>		<u>1977</u>	<u>1979</u>		
Gross Domestic Product		R1,135 million	R 1,425 million		
GDP per capita		R 980	R 1,075		
Gross National Product		R 710 million	R 950 million		
Personal Income per capita:					
	African	R 125	R 160		
	European	R3,000	R 3,200		
Exports:		R 700 million	R 1,000 million		
Imports:		R 450 million	R 700 million		
Main Exports:	- 1977	- 1979	Structure of Production	-1977	-1979
Diamonds	40%	47%	Ranching	11%	9%
Uranium Oxide	14%	27%	Other		
Base Metals	19%	10%	Agriculture	3%	2%
Karakul	9%	6.5%	Fishing	3½%	2%
Beef/Cattle	9%	6%	Mining	33%	47%
Fish Products	9%	3%	Fish, Meat Processing	3½%	2½%
			Other Industry	4%	3½%
			Construction	5%	4%
			Services	35%	29%

<u>Public Finance:</u>	<u>1976/77</u>	<u>1978/79</u>
Revenue	R 186.8 million	R 356 million
Recurrent Expenditure	R 140.0 million	R 215 million
Capita Expenditure	R 115.0 million	R 140 million
Overall Deficit	R 68.2 million	R - 1.0 million

(See Tables 1-32 For More Detailed Estimates and Sources)

Map 2
 NAMIBIA

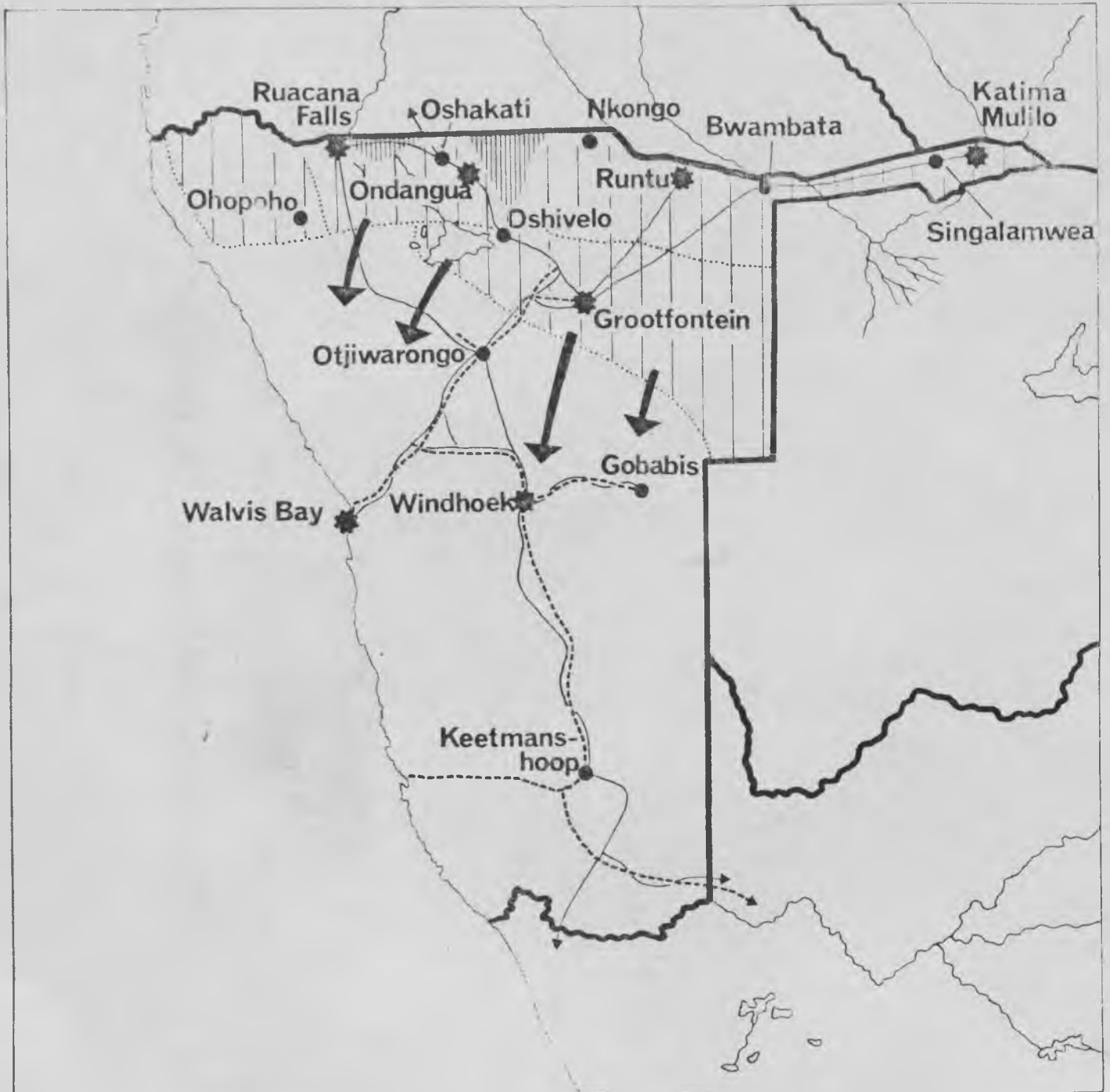


- Capital
- Town
- - - Railway
- ~ ~ ~ Boundary of the Police Zone
- Road



Map 3

MILITARY SITUATION



- ✱ military and air-base
- military base
- buffer zone
- - - railway
- λ tarred road
- ⋯ boundaries of SWAPO's military zones
- ↙ SWAPO's military actions to the south
- ▤ SWAPO's military zones
- ▨ semi-liberated areas

The methodology is evidently extreme pragmatism and ad hocery - naked instead of dressed up as in many African national accounts and agricultural estimates by states and international organizations. The tests used have been internal consistency, plausibility of key figures (including views of Namibians), comparability of ratios to those in not wholly non-comparable African situations.

Because of its origins this Overview has a large number of debts to be acknowledged. First to Randolph Vigne and Neville Rubin of the Namibia Support Group and Commissioner Marteti Ahtisaari of the United Nations Council for Namibia who drew me back into studying Southern Africa. Then to Roger Murray whose work convinced me serious data estimation was possible and to Ndugu John Malacela of Tanzania and Ndugu Mark Bomani of the United Nations Institute for Namibia without whose references I would doubtless not have been accepted by UNIN or by SWAPO. To my colleagues in some of the research especially Kimmo and Marja Lisa Kiljunen of IDS. But above all to the Namibians with whom I have worked and especially Comrades Ben and Libertine Amathila and John ya Otto of SWAPO and Hidipo Hamutenya, N. Kaulinge and H. Tjitendero of UNIN. And last - but probably largest - to a series of harried but helpful secretaries and typists at UNIN and IDS who have at one time or another dealt with almost every page and table of this Overview at least four times during its evolution..

III

NAMIBIA 1979: A SKETCH

The Certainty of Transition

Namibia in 1979 has entered a process of political economic transition. The colonial mode of growth and exploitation is no longer reproduceable and can only be held in place at an ever rising cost. Perhaps R 600 million in Republic of South Africa military spending and 60-80,000 troops, security police, auxiliaries and mercenaries (ex-UNITA Angolans) are not able to prevent a slow deterioration of the military situation. Their "operational area" has been extended south to the suburbs of Windhoek, the erosion of white farmer safety and confidence is running a course remarkably similar to that in Zimbabwe a few years ago.

Apart from the short term defense spending burden and long term military erosion threat, other forces make transition inevitable. Industrial "unrest", political mobilization, Namibian church criticism increase the internal precariousness of the colonial occupation. Externally, the untenable international legal position since the 1971 World Court ruling upholding the Mandate's revocation, the pressures

from the United Nations and the attempts at managing a negotiated transition by the "Gang of Five" (USA, UK, Federal Germany, Canada, France) all impinge on South African perceptions of the costs and practicabilities of continued occupation of Namibia. So do the heightening of its internal African levels of consciousness, mobilization and resistance.

The question is not whether. The questions are: When? How? To What? The answers to the first two appear likely to be: Within 1 to 3 years. By a semi-negotiated process involving some type of international involvement.

The Uncertain Nature of Transition

The Namibian economy in 1979 is increasingly affected by uncertainty as to the nature of transition. Except for some ranchers, ongoing operations are not greatly affected. However, very few major investments are being made or medium term initiatives taken. This applies to the public - e.g. large scale water development, territorial hospital programme - and the private - e.g. mine development, cement plant - sectors.

The uncertainty will not evaporate until a transition is determined and in progress. Until then it can only grow. Four main variants or strategies of transition have been canvassed:

1. The traditional Afrikaaner settler model. This is backed by a majority of the resident Europeans and the two parties representing them: National and HNP. It proposes creating a series of bantustans with a loose confederal central government. In effect this is the old Odendaal variant of separate development and apartheid with a confederal gloss. Its "crossracial" Party confederation is named Aktur. Some gains to African elites are on offer - to be financed by higher taxes on large foreign companies (especially Anglo American). As even the South African state (and the National Party in South Africa of which the party in Namibia was formerly the territorial branch) views this route as non-viable, it is a non-starter. Without South African state backing there would be no army to keep the settler regime in being.

2. The new settler model. This is backed by the South African state and by a significant minority of European residents - especially the German community. Its white party is the Republican (which split off from the National) and its "crossracial" coalition the DTA (Democratic Turnhalle Alliance). A number of African notables and elite members, some with a certain following, support DTA. It has - jointly with the Administrator appointed by South Africa - abolished

petty apartheid but not segregated education or health. Nor - in fact as opposed to form - has it moved to end "contract" labour or residence control nor to implement equal pay for equal work. It does offer the hope of some improvement in access to land, education, jobs, small business, the middle levels of the civil service - perhaps about as much as the Rhodesian internal settlement model. Even these steps and promises have triggered violent white demonstrations against DTA and its "National Assembly". South Africa has been forced to remove its Administrator and substitute no less a figure than the President of the Broerbond, Professor Gerrit Viljoen. While this transition model has South African backing - and therefore gold and guns - it does not have significant African acceptability nor any international saleability. An "independent" Namibia on these lines would be utterly dependent on a South African military expeditionary force throughout its - moderately brief - life expectancy.

3. The "moderate" model. The dominant variant might be titled: "transnational leadership with a human face". It is backed by some of the major foreign firms - notably Anglo American. In Namibia its main representatives are the white professionals and managers who make up the tiny Federal Party (basically the Namibian parallel to the Progressive Federal Party in the Republic). Its strategy is one of genuine equality of access achieved through gradual reform, e.g. integrated education, a land bank, implementation of equal pay for equal work and equal opportunity for promotion. Basically it would surrender the settler and European working class interests to achieve a secure position for white professionals and managers and for the major firms for which they work. It rejects the first two models as unjust, unworkable, unsaleable internationally. The Federal Party has had problems in organising a "transracial" coalition or creating a single non-racial party. The Namibia National Front - some of whose components do have a certain popular base and leaders who are more than pure opportunists - is in some disarray. The Federal/NNF problem is that it is anti-government enough to be hindered but not militant enough either to attract a true mass base or to stand up well to harrassment. Internationally, this model appeals to the "Gang of Five" - it is reminiscent of one reading of the US civil rights movement's achievements, especially in Georgia. However, the Federal/NNF hopes have turned not on winning an election but holding the balance of power and organising a coalition with "moderate" (i.e. conservative) SWAPO supporters and "moderate" (i.e. less reactionary) DTA leaders.

4. The liberation model. In SWAPO, Namibia has a single Liberation Movement which, while encompassing a diversity of viewpoints on many issues, has avoided major fragmentation or internal strife. In that respect it resembles Mozambique's

FRELIMO. SWAPO probably has the support of 60-75% of the black, a significant minority of the "coloured" and a handful of the white population. Therefore it advocates a free, UN supervised election because it has no doubt it would win. Its transition model (discussed in more detail in Section VI) is strategically radical and tactically flexible. It most resembles a telescoped version of TANU/CCM political economic transition in Tanzania or that of FRELIMO in Mozambique. SWAPO's key tool for securing an election is the guerilla war mounted by its PLAN (Peoples Liberation Army of Namibia). Its second tool is broad international support and formal OAU/UN recognition. Even the "Gang of Five" have come to believe that SWAPO would dominate any freely elected assembly and to accept that seeking to block or rig an election for that reason is no longer in their interest.

The Production and Distribution Base

Namibia enters transition as a territory with moderate levels of output per capita - about \$1,250 in 1979. However, the structure of production is very unbalanced and territorial economic integration is exceedingly low. About 90% (in value terms) of the value added in the production of goods is exported. The economy turns on a handful of products: beef, karakul (persian lamb), pilchards and anchovies, diamonds, uranium oxide, base metals (copper, lead, zinc).

Distribution is exceedingly unequal. Gross National Product (\$1,150 million in 1979) is, on a remittance basis, under two thirds of Gross Domestic Product (\$1,750 million in 1979). Gross operating surpluses of large enterprises (all foreign) account for about three fifths of GDP.

Personal income distribution is also radically unequal and unequal on basically rational lines. For Europeans it was about \$3,750 per capita in 1979 and for Africans about \$190. A European artisan can earn \$9,000 a year plus fringe benefits, an African ranch worker \$300 a year including housing and food provided in kind.

This base of relatively high productivity, massive external dependence (concentrated on the Republic of South Africa), internal economic non-integration, a very high corporate surplus share in GDP and massive racial inequality in income goes far to explain both the intensity of the pressure for transition and the equal intensity of efforts to avert, limit or manage it.

Layout

The next section provides a brief survey of the dynamics of the colonial economy. It is followed by an introduction to the physical characteristics of Namibia, a review of the

Map 4

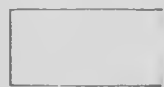
SETTLEMENT PATTERNS BEFORE COLONIZATION



 main areas of settlement

Map 5

AFRICAN RESERVES (from about 1920 up to 1970)



African reserves



Areas reserved for whites



Diamond areas



Boundary of Police Zone

1 Kaokoveld

2 Ovamboland

3 Okavango

4 East Caprivi

5 Sesfontein

6 Fransfontein

7 Otjohorongong

8 Okombahe

9 Otjituuo

10 Eastern

11 Waterberg East

12 Epukiro

13 Ovitoto

14 Otjimbingwe

15 Rehoboth

16 Hoachanas

17 Aminuis

18 Neuhof

19 Krantzplatz

20 Berseba

21 Tses

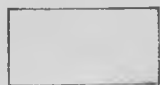
22 Soromas

23 Bondels

24 Warmbad

Map 6

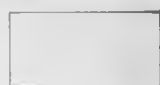
AFRICAN "HOMELANDS" ACCORDING TO THE ODENDAAL-PLAN



African "homelands"



Areas reserved for whites



Game reserves and other government areas

- 1 Kaokoveld
- 2 Ovambo
- 3 Kavango
- 4 East Caprivi
- 5 Damaraland
- 6 Bushmanland
- 7 Hereroland
- 8 Rehoboth
- 9 Tswanaland
- 10 Namaland

content of the probable political economic strategy and tactics of transition and a series of sectoral presentations. These include personpower, productive force levels and characteristics, natural resources, industrialization, services and infrastructure, Southern African regional prospects and external economic cooperation. Two concluding sections present a set of Tables and a list of principal sources.

IV

THE COLONIAL ECONOMY: GROWTH AND EXPLOITATION

"Before the Germans came"

Namibia was not a single state or society before its conquest. Indeed its northern (Ovambo, Kavango, Caprivi) zone's peoples and states had limited contact with those of the south.

The 19th century efflorescence of modern state building in West Africa touched Namibia - and particularly Ovambaland - but not, it appears, very strongly. Similarly the Southern African mfecane process touched off by the advance of the European invasions from the Cape and Natal also affected Namibia in an attenuated form. Several Nama and Coloured groups did escape from the Cape; wars of state building did occur; a modern cross tribal state existed briefly at Windhoek under the Afrikaners - but no unified Southern Namibian Empire comparable to either the Zulu or the Basotho pattern evolved.

Pre colonial neo-colonialism was also relatively weak - Namibia was a distant land even viewed from Capetown or Luanda and was guarded by very difficult intervening terrain. Missionaries and traders did penetrate. The trade evolved from ivory through cattle to human beings. It altered the power structure of the states, introduced guns and spirits, greatly exacerbated inter state pasture and cattle wars, combined with rinderpest smashed the cattle economies.

Conquest and Genocide: The German Days

The German Colonial period of 1875-1915 was begun as a chartered company, transited to Imperial Rule in the wars of conquest and genocide which lasted until 1910 and evaporated in the face of General Botha's South African acquisitory force in 1915.

Germany colonial strategy was mercantile and marginal. Mark area raw material sources and no fiscal burden on the Imperial Treasury were its aims. Deutsch Sudwes Afrika hardly met these tests - but the effort to meet them both shattered the Namibian peoples and laid the foundation for South African colonialism.

From merchant trading, German economic policy moved to settler ranching. Land, livestock and labour were acquired by force. Soon after 1900 the reaction to this variant of primitive accumulation mobilized into Nama and Herero wars of liberation. The Imperial response was purposeful genocide - 75-80% of the Herero and 50-60% of the Nama/Damara were killed. A majority starved or died of thirst after being driven into the desert or of hunger or disease after being put in concentration camps.

By 1914 output was perhaps R 12-13 million. Of this about 50% came from diamond mining (near Duderity not at the main Oranjemund deposits) and copper-lead-zinc mining and smelting at Tsumeb. European ranching was perhaps 15-20% of output. German ranchers held about 180,000 cattle and 700,000 sheep (largely karakul) and goats (Table 23). The foundations of the two main mineral and the two main agricultural subsectors had been established, if not very firmly.

South Africa: The Conquest Completed

The medium term pattern after the South African acquisition of Namibia and its ratification by the League of Nations' Mandate was not markedly different from the German. The major concessionaires were dispossessed - De Beers then buying diamonds. Some, by no means all, German settlers were replaced by Boers. The trade nexus shifted from Germany to the Republic and, secondarily, the United Kingdom. The wars of conquest went on, including the north over which the Germans had not sought to exert direct rule.

The economy did not prosper, GDP in 1920 and in 1929 was much like that of 1913 in levels and amount (Table 13). In the 1930s it declined over two thirds to R 3.8 million in 1935 with value added in mining negative and in ranching only R 700,000. By 1940 it had recovered to 1919 to 1920 monetary levels and while it was R 19.8 million in 1945 in real terms this was still below thirty three years earlier.

However 1940-45 did see the cattle/karakul sector come onto a firm basis. 1945-46 saw the beginning of permanent substantial mining by Consolidated Diamond Mines (de Beers/Anglo American) at Oranjemund and Tsumeb (AMAX/Newmont) at Tsumeb. The fishing industry was also reestablished on a viable basis in the late 1940s.

By 1950 GDP had trebled to R 61 million - one third each from mining and ranching/fishing. By 1956 it had gone to R 141.6 million from which it fell back with lower meat and metal prices and fish catches before regaining the 1956 level over 1960-62. 1965 saw a new spurt to R 213.9 million - 20% ranching/fishing, 45% mining, and 1970 a GDP of R379.4 million, 17% ranching/fishing and 30% mining.

As of 1970 the colonial economy appeared to be a clear and stable success. It was export led, generated a trade surplus to cover rising remittances (8% of GDP in 1946, 31% in 1958, 25% in 1959 - Table 14) of settlers, expatriates and firms and provided both relatively high incomes to European settler ranchers/businessmen and European employees. Namibia was a profitable colony from a South African, a corporate or a settler viewpoint. As a captive market for Republic exports and a source of remittances it substantially bolstered the RSA balance of payments. Tsumeb and CDM were highly profitable. Most ranchers had net incomes of R 7,500 or more and most European employees enjoyed wages and fringe benefits of R 4,000 or more.

However, by 1970 the system was on the brink of crisis. That crisis related integrally to the colonial economy's history and success.

"Contract" and Consciousness

Until the 1960s getting cheap labour was perceived by the Germans and the South Africans as the key to making their colony viable. The primary means used to secure supply was to limit Africans to "reserve" areas so small that subsistence on production (animal and crop) from within the "reserve" was impossible. "Work or starve" was a fact of life carefully created by the colonial authorities.

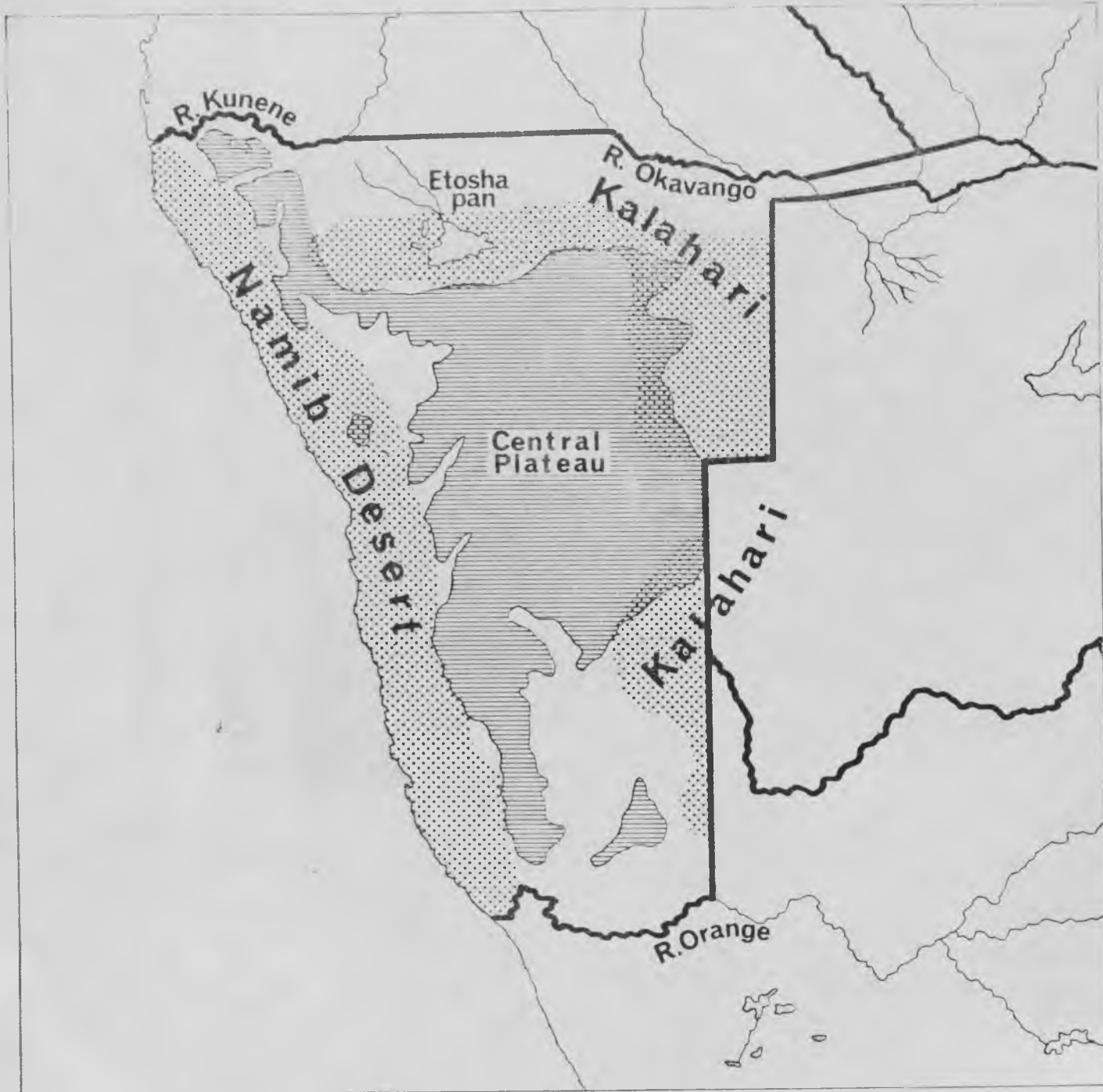
The dominant form of labour was "contract". This is a system of centralized recruitment in the reserves of individual workers for term contracts during which they are separated from their families and live in compounds. By no means the only form of African employment (Tables 4,6), "contract" involves nearly 100,000 employees - i.e. breaks 100,000 households - at any one time. Economically it has allowed paying wages below family subsistence because the household members required to live in the "reserve" were able to house and to some extent feed themselves. While probably economically unsound for major firms today (though perhaps still profitable for ranches and seasonal industries like fish processing), "contract" was crucial in allowing the foundation laying for the colonial economy.

However, it had other - unintended-- results. First, it made virtually all "reserve" households both peasant and proletarian. Second, in the compounds it created a setting in which interaction, mutual consciousness raising and - eventually - mobilisation was possible. Third, by moving workers throughout Namibia it laid the foundation for national as well as workers consciousness.

From 1970 on there has been a series of surges of industrial unrest. The demands have grown steadily broader as well as higher. By the 1971-72 general strike the "contract" system

Map 7

GEOGRAPHY

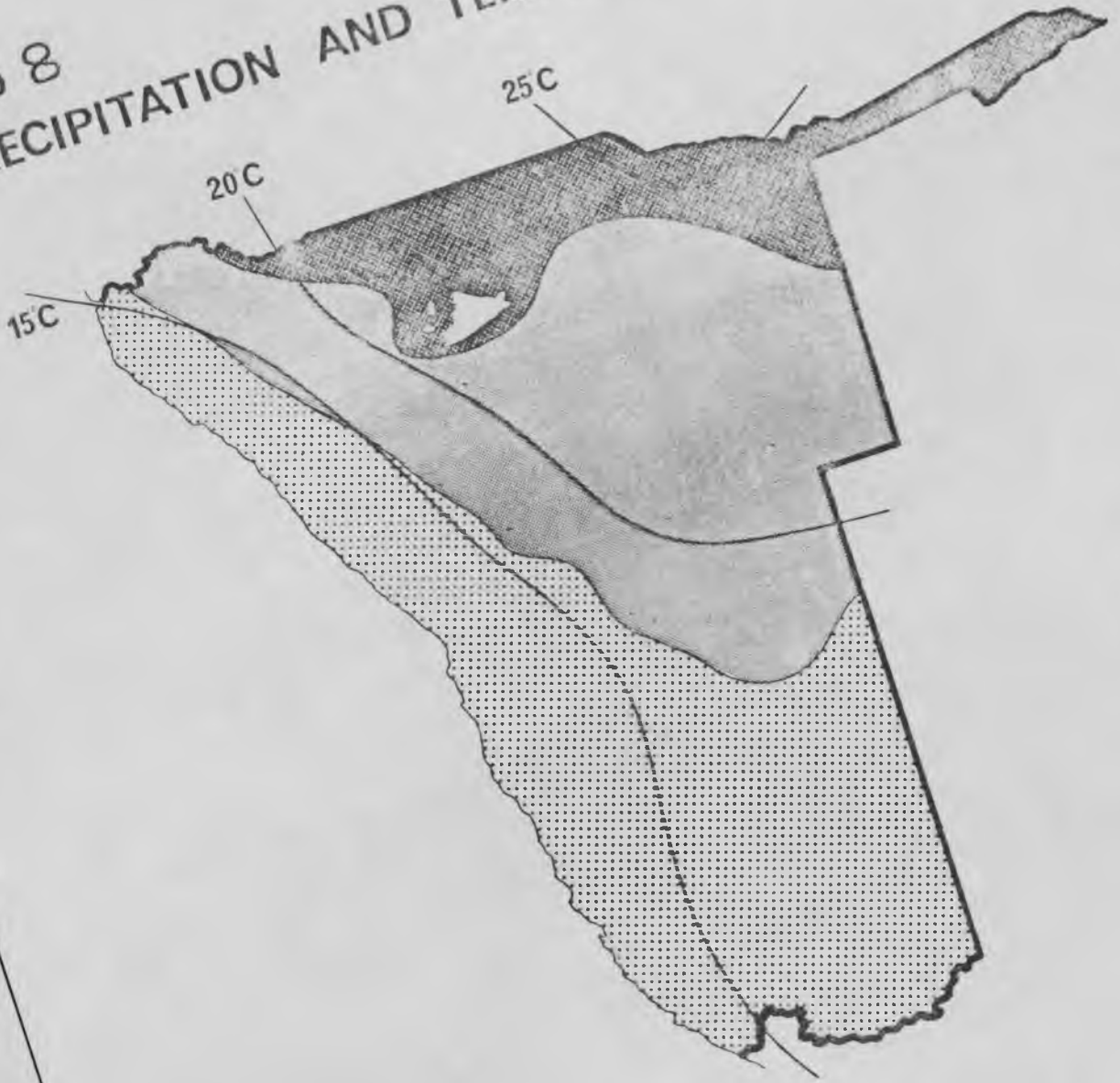


Areas above 1200m(4 000ft.)



Namib Desert and Kalahari

Map 8 PRECIPITATION AND TEMPERATURE



Annual rainfall

below 250 mm (10 in.)

250 - 500 mm (10 - 20 in.)

over 500 mm (20 in.)

July mean temperature

itself was the target and by 1978-79 the whole colonial system was explicitly challenged.

SWAPO was born in 1960 as a contract workers' organisation. Its nationwide organizing grew from that core. Its legitimacy grew as worker organisations were suppressed (African unions were illegal). The same harassment and suppression radicalized SWAPO's perceptions and drove it into the launching of armed struggle. "Contract" was vital to building the colonial economy; it has also proved to be the contradiction which has doomed it.

The Political Economy Of Theft

The historic political economy of Namibia since 1874 is the political economy of theft. Theft of sovereignty, theft of land and herds, theft of mining and fishing rights, theft of the rights of choice of work or residence and of the right to organize.

The product by 1970 was a viable European economy, a source of significant net external earnings for South Africa, a corporate bonanzaland. It was also one of the world's most unequal income distributions. Because the economy required not only the exclusion and control of the Africans, but also their integration into the European economy, it also produced an increasingly nationally conscious and militant intellectual/peasant/proletarian coalition. By 1979 it was clear that the 1963-78 juggling of the Odendaal Report, the Turnhalle talks, the controlled elections, the "National Assembly" could not resolve or avert the clash between the beneficiaries and losers from the political economy of theft.

V

PHYSICAL CHARACTERISTICS: HARSHNESS AND BOUNTY

The Land

Vast, harsh, varied, fragile, erratically bountiful, unforgiving. These are the terms that the physical nature of Namibia calls forth.

The area is 824,000 square kilometres (82.4 million hectares). Namibia is bounded by Angola and Zambia in the north, Botswana to the west, South Africa to the south and the Atlantic Ocean on the East. The northern and southern boundaries are basically along major rivers (Kunene, Okovango, Zambezi systems in the north, Orange in the south)

while the eastern is a desert boundary drawn with a ruler on a map.

Of the total area about 18 million hectares is pure, sandy desert, salt pan, or bare rock. Another 10.4 million is forest or open savannah woodland - much of it very sparse. Permanent pasture - of low animal carrying capacity and great variability - totals 52.9 million hectares. Arable land - including 7,000 irrigated hectares but excluding potentially irrigable areas - is 0.7 million hectares or under 1% of the total area. (See Table 21).

On the east the coastal plain constitutes the Namib Desert - its northern zone appropriately known as the skeleton coast. Part is composed of drifting dunes, part of fixed dunes and part of broken rock and gravel with sparse vegetation. The desert country rises into rugged hills and mountains before dropping to the central plateau.

The central plateau - and its lower, northern extension along the Kunene and Okavango valleys is variegated. In the north, relatively flat land broken by seasonal lakes and water courses merges into scrub and the huge Etosha Pan, the graveyard of an interior river system. The Tsumeb/Grootfontein area is relatively rolling with hilly outcroppings, small permanent lakes and moderately verdant grass, bush, savannah trees.

The surface becomes more broken and the vegetation sparse as one proceeds south to and past Windhoek. South of Rehoboth the hills and mountains are more pronounced and the vegetation scanty as one returns to semi-desert conditions around Keetmanshoep and the huge Fish River Canyon.

To the east, the land becomes flatter and more desolate merging into the Kalahari desert. The Caprivi strip of the extreme northeast is separated from the rest of Namibia by a swamp zone and is a part of the southern Zambia/northern Botswana savannah country.

Climate, Water, Soil

Namibia is to the south of true tropical climates, albeit the Tropic of Capricorn runs through Rehoboth more or less in the middle of the territory. Especially on the plateau there is a distinct cold season as well as a long hot season; the coastal climate is also seasonal and - partly under the influence of the Benguela current from the Antarctic - also has a markedly cool period. However, most of the year is characterized by heat and lack of cloud cover leading to rapid evaporation.

This interacts with the low rainfall. The northeast quadrant has over 400 millimetres of rain a year. The plateau from

Tsumeb-Grootfontein to Rehoboth has from 200 to 300 and the southern part of the plateau from 200 down to under 100. The Namib has 0 to 150. The variability from year to year is high throughout the country but even more marked in low rainfall areas.

Water availability varies with rainfall but not in any simple way. The Oshona country of Ovamboland is at least as dependent on seasonal runoff from the Angolan watershed than on rain. Tsumeb/Grootfontein have substantial ground water near the surface as do a handful of plateau areas at the base of hills.

Pumped borehole and artesian wells can tap water over substantial areas of the Plateau - the determining factor being the depth of the sand cover over bedrock rather than the local rainfall. The lower beds of the larger seasonal rivers - notably the Swakop and Kuiseb - support narrow green belts and pockets. Small scale irrigation can make use of these sources; larger scale dam fed irrigation (at Hardap near Mariental) has been plagued by salination and pan formation.

Large scale irrigation is dependent on border rivers; there are no year round Namibian rivers. The Kunene is suitable; the Okavango less so because it is in a deep, narrow valley during the Namibian portion of its course to the interior delta in Botswana where it sinks into the Kalahari. In the south, the Orange is suitable judging by South African irrigation programmes in the Upington district across the border.

The extreme aridity poses major problems for mines and towns. Reservoir and well collection - and tapping the Kuiseb's underground flow for Walvis Bay - has nearly reached its ceiling. Further water supply apparently requires pipelines from the north and/or desalination on the coast.

Soils are mixed. The north and extreme east constitute sandveld, the central plateau hardveld. However, both vary widely in characteristics. The northern sandveld while not very fertile is arable. The Tsumeb-Grootfontein area is somewhat more fertile. The extreme eastern sandveld varies from pasture to desert partly with rainfall and partly with the depth and purity of the sand. Similarly the hardveld includes some fairly high quality soil, e.g. the Okahandja - Otjiwarongo district and some areas of almost pure gravel and/or exposed rock.

Economic Implications

Pure rainfed farming is almost unknown in Namibia - the only evident exception is Eastern Caprivi. The Oshona country in Ovamboland, the Okavango Valley, Tsumeb/Grootfontein and

other crop pockets all depend on specific runoff and groundwater potential as much as or more than on rainfall. In total at most 1% of the surface is suitable for crops - usually with low yields. (One bag per hectare is reportedly common in the Oshona country albeit this is partly a reflection of the state of techniques and of labour supply).

Ranching is possible. It is very extensive, requiring 10 to 25 hectares per beast: in the northern half of the plateau for cattle, in the southern and on the western margin for karakul sheep. Subject to the low output, per unit of area, Namibian pasture, if well conserved, is highly suitable for ranching.

Mineral resources are massive. Diamonds (apparently from the central or eastern South African highlands swept down the Orange River and then carried north by the current) are found in the Southern coastal area. Major uranium deposits lie between Swakopmund/Walvis Bay and Windhoek. A belt of base metal (copper, lead, zinc) deposits runs roughly northeast from Rosh Pinah (near Keetmanshoep) to Tsumeb. Other mineralized zones exist in the Namib/Plateau border range and there is some evidence to suggest hydrocarbons in coastal waters and the Etosha Pan area.

The coast offers only two natural harbours - Luderitz, with problems of entry channel and inshore depth, and Walvis Bay, with a first class natural setting. However, the combination of the Benguela current and the submarine surface does provide two previously and potentially very rich fishing zones. The inshore one (0-30 miles) comprises primarily pilchard and anchovy - subject to altering catch and processing patterns to use other varieties - and the offshore one (30-200 miles) primarily hake.

The Unforgiving Land

Namibia's ecology is fragile. The bounty - pasture, fish, minerals - provided is relatively easily destructible. Natural regenerative capacity is low.

Overgrazing can result in progressive deterioration of pasture. In extreme cases this becomes irreversible leading to desert encroachment.

Overfishing has repeatedly devastated the inshore zone. At present it is having the same impact on the offshore.

Mineral resources per capita are not low. More will almost certainly be located and proved viable. However, they are not unlimited. The absence of any consideration of output levels, timing and "when the minerals run out what?" is notable for a territory with almost 50% of GDP derived from mining and several ghost towns to give one answer to the last question.

VI

POLITICAL ECONOMIC STRATEGY AND POLICYOccupation Policy

Present government policy in Namibia is that of the occupation regime. While the policy of an independent Namibia will evidently be radically different, a brief sketch of the South African policy is useful if only to point the contrasts:

- a. overall state planning in support of, and to focus the expansion of, a private capitalist productive sector;
- b. provision of land, cheap labour, markets, subsidized wage goods (especially maize) and supporting services for the independent European ranching and fishing fleet sectors;
- c. provision of infrastructure and fiscal incentives for large scale mining (by South African and OECD based firms notably Anglo, Amax/Newmont, RTZ, Falconbridge).
- d. systematic concentration of Africans in "reserves" which are not self sufficient even in basic food both to clear land for ranching and to provide a cheap, certain supply of labour;
- e. buildup of an apartheid, separate development pattern basically identical to that in the Republic and only marginally altered in the past three years;
- f. deliberately seeking to involve foreign transnational corporations and states in major ventures - notably the Rossing uranium project - in an effort to create greater geopolitical support for continued South African occupation;
- g. ruthless suppression of organized dissent by churches, workers, political groups and individuals - albeit in a more complex and in some ways less complete manner than in the Republic itself - especially during 1977-79;
- h. major military commitments (probably of the order of 50,000 fighting and support military personnel and R400 million a year by 1977 rising to 60,000 and R600 million by 1979) to contain and delay the advance of the armed liberation struggle;
- i. since 1977 an apparent desire to cut losses by ending the Angolan/Namibian military commitment, securing an

internationally acceptable Namibian government, salvaging some of its economic stake in Namibia.

Namibian Policy

To seek to delineate the detailed policy of the Namibian government after independence would be both rash and presumptuous. The Liberation Movement's strategic goals are on record but they are not - and could not be at this stage - spelled out in detail nor are sequences and timing specified. A number of points as to likely policies can be made but these are not complete and are subject to more inaccuracy than would be true of an existing government.

A. Comprehensive agrarian transformation including: "land to the tiller" i.e. rapid recovery of European holdings with a variety of small holder, communal and state farms- but probably not large African capitalist farmer - forms used; more emphasis on food (crop) production to meet domestic needs and so cease to be "a dependent hostage of the particular country which feeds its population"; water development more oriented to irrigation.

B. Substantial alteration of ownership patterns including: a major state role in large scale enterprise including mining, fishing, finance and commerce as well as transport, power, communications and water; a basically state owned financial system (possibly with joint venture commercial banks) headed by a central bank and an independent Namibian currency; a pragmatic approach to most private enterprises (mining developments created after the revocation of the mandate may constitute a special category) with selective purchase, joint ventures and continued private operation used on a case by case basis.

C. Efforts to diversify production including greater emphasis on processing exports, on broadening manufacturing for Namibian markets and on utilizing a broader range of agricultural and forest products in the industrial sector.

D. Total restructuring of production relations including: encouraging trade union organization and union participation in enterprise planning and management; ending the "contract" system and assisting a pattern of permanent employment characterized by complete household residence at or near the place of work; abolition of legally enforced racial inequality and building up measures to overcome its heritage of inequality.

E. An emphasis on equality and access including: creation of a basic services (education, health, communication, water, housing environment/urban infrastructure) for all Namibians; substantially higher rates of both corporate and personal income tax probably with much more narrowly defined or special case negotiated incentives; immediate

reduction of inequalities of income, access to services, political participation with a view toward elimination of "exploitation of man by man" and a transition to socialism over a more extended period.

F. A dominant state role in the economy including: use of central planning as a major coordinating, prioritizing, allocating and sequence ordering tool; alteration of channels of and markets for exports and building up of a greater nationally directed component in production but no major intentional reduction of exports.

G. Reduction of dependence on South Africa including case by case consideration of the phasing down of personnel from and trade with South Africa conditioned by a goal of a rapid reduction but also by a desire to avoid major disruption and to consider options in each case. (This projection assumes South Africa does not seek to destabilize Namibia, to retain Walvis Bay for an extended period or to make very high political and economic demands in return for continued - but reduced - trade and use of personnel).

H. Active development of diversified external relationships including deliberate broadening of sources of personnel, technical assistance and finance within a policy of coordinating such inputs on the Namibian side and seeking to ensure that they do not de facto take over technical and economic decision taking; promotion of cooperation with African states - particularly neighbours and other Front Line states; membership in the Commonwealth; negotiation for ACP status probably subject to a substantial beef export quota; a clear preference for public rather than private external funds and for loans rather than equity but no absolute rejection of new joint ventures with foreign state or private firms in respect to major new productive sector undertakings.

VII

PERSONPOWER: LABOUR FORCE, OCCUPATION, SKILLS

Population

Namibia's population was probably of the order of 1,250,000 in 1977, slightly over 100,000 Europeans (excluding South African military personnel who would raise the total to about 150,000), 115,000 "Coloured" and 1,035,000 Namibians of African ancestry. (Tables 1,2,3). With a growth rate of about 3% it had reached 1,325,000 by 1979.

These figures are not consistent with projections from the 1970 Census which would give about 950,000 in 1977. However, most colonial censuses have proven to be 25% or more under-

counts - colonial subjects believe they have good reason to avoid officials. Labour force data for 1977 cannot be reconciled with a population figure of 1,000,000 nor, on the face of it, with any level much below 1,250,000.

The geographical population division is hard to state because of past residence restriction policies which combined labour reserves and male temporary labour migration. Further, no independent government could pursue such a policy - ending the "contract" system is a mass demand and at the base of the history of the Liberation Movement. Radical population moves from the north and, to a lesser degree, northeast and east to the main towns, mines and ranching areas are certain over the first few years of independence as families are reunited.

It appears likely that, even without a rural exodus unrelated to employment opportunities, over 50% of the total population will live in towns (including smaller towns associated with mining) by the mid 1980s. As that will represent at least a doubling of present urban African population (much more if one excludes the "contract" workers housed in prison compound type dormitories quite unsuitable for permanent urban redevelopment use) a massive city development problem confronts an independent Namibia.

Of the 1,250,000 Namibians about 700,000 are now resident in the small agricultural/ranching sector, 200,000 on the large (European) ranches and 350,000 in urban areas. Of the total labour force of 500-525,000 about half are in subsistence agriculture, a tenth in large scale ranching and four tenths in non-agricultural activities. These figures are distorted by the fact that up to a third of the population (300,000 to 400,000), as noted, are resident in the small agricultural sector but basically dependent on heads of household working in large scale ranching or urban occupations.

A further complication in respect to population - and residence - estimates results from the war. Approximately 40,000 Namibians are refugees in Angola and Zambia. Perhaps an equal number of Angolans are refugees or UNITA military personnel being trained by or serving as mercenaries in the South African occupation forces.

Economic Activity

The 500,000 plus economically active Namibians include about 240,000 in small scale agriculture, 75,000 in domestic service, 56,000 in large scale agriculture, 30,000 in government, 25,000 in commerce and finance, 22,500 in mining and 50,000 in other sectors (Tables, 4, 5, 6). The employment/self employment figures do not relate closely to output

as the largest two sectors in economically active person terms generate perhaps 4% of GDP while the fifth - mining - provides almost half total value added and over three fifths of total physical goods produced. (Table 17).

Excluding small scale (basically sub or pseudo subsistence) agriculture and domestic service, African employment is of the order of 150,000 (25-30% of the 15-55 age group). About one third is in large scale agriculture, an eighth each in mining and in commerce, a tenth in government, just under a tenth in construction and just over a fifteenth in manufacturing plus public utilities.

European employment totals about 36,500 - excluding the military occupation forces of about 50,000 (20,000 odd fighting and 30,000 odd support personnel). Of the 36,500 about two fifths are in government, a fifth in large agriculture, somewhat over a tenth in commerce and finance, about a tenth in mining, just under a tenth in manufacturing plus public utilities. Over half the Europeans are South African state or state corporation employees, perhaps a fifth are employees of foreign based companies and a third are self employed (basically in ranching and commerce) or employed by locally based firms.

Skills

Perhaps 10,000 of the 500,000 plus economically active are managers/administrators (half on the 5,000 odd ranching units) and 17,000 professional and technical. Clerical and secretarial personnel total about 6,000, foremen and supervisors 12,500, skilled non-supervising personnel 5,000, semi-skilled 50,000 and unskilled 90,000 plus 75,000 in domestic service. Small scale self employed are 12,500 and small agricultural workers 240,000 (Table 7).

Of the managerial/administrative and technical/professional groups about 20,000 (75%) are European. Excluding primary school teachers and nurses the totals become 17,250 of 18,500 (93%). Skilled non supervisory personnel are probably about 60% European, secretarial/clerical 40% and supervisory/foremen (on a broad definition) 30-35%.

Within the African group there are secondary divergences. Coloured workers are somewhat better represented at para-professional, clerical and supervisory levels. At foremen and semi skilled levels the same applies to Africans from the northern areas because of the dominance of the northern "contract" recruitment system in extracting the workforce for most large enterprises.

For the labour force in Namibia it would appear that perhaps 5,000 Africans (about 1%) have secondary education or above and perhaps 52,500-55,000 (11-12%) complete primary or above

while over 300,000 (64%) have no or negligible education (Tables 10, 11). Perhaps another 1,500 Namibians abroad have partial secondary education or above including several hundred present secondary and tertiary level students.

For the European workers about 10,000 have university or other post secondary training, 10,000 secondary or equivalent education and virtually none less than complete primary education.

Changes In Requirements And Personnel

Projecting the transitional occupational requirements and possibilities for an independent Namibia is an exercise fraught with maximum uncertainty.

The need to keep the core of the economy (mining, ranching, if possible fishing) and its supporting services functioning is accepted by the Liberation Movement. Equally, basic public services (adult and primary education, basic preventive and curative medicine, decent housing, urban environment) must be expanded very rapidly from an appallingly low base by any independent government on grounds of principle and of political credibility alike.

In the case of large scale agriculture, the need to maintain the extensive veterinary, input, transport and marketing support services to the 6,500 odd ranching units (up to 8,500 land holdings) is not in question. However, since - except in the north - 90% of useable land is now European held, no government can afford to hold back on rapid phasing out of European ranchers nor can it afford simply to substitute expatriate ranch managers leaving the structure as perceived by ranch workers unchanged.

In the urban/mining/fishing sectors it is clear that an independent government would take over state and state corporation (water, power, telecommunications, transport) activities and that it would seek - whether by joint ventures, selective nationalisation or new parastatal bodies - to build up a significant public sector position. However, neither the response of the present owners nor the details and timing of change can be projected.

How many Europeans will leave, how soon, is imponderable. Many ranchers almost certainly will if real land reform (affecting title and organisation of industrial relations) are pursued. Fishing fleet operators are likely to do likewise. Barring the unlikely event of sweeping confiscations, small urban businessmen seem unlikely to leave en masse and large private sector companies still less likely to withdraw their personnel. What the South African state will do in respect of the 50% of European employees on government and state

corporation contracts is unclear (probably to the Republic as much as to the observers). Their precipitate withdrawal would greatly exacerbate transitional problems to put it mildly. Their selective (by the independent Namibian state) retention and secondment would ease the technical aspects of transition subject to doubt as to what political or economic price South Africa would demand for it.

The systematic underrecording of actual qualification and work levels of Namibians leaves it unclear how many could immediately, or with brief upgrading and gap filling courses, replace present European holders of middle level posts. The speed and scope of technical assistance buildup for gap filling training programmes and high level personnel is uncertain.

Therefore, the tabular "Independence" and "1985" occupational category estimates (Tables, 7, 8, 9) are at best orders of magnitude. They assume that about 20,000 Namibians can be promoted very rapidly to middle level posts and 2,000 will return from abroad for middle and high level posts but that 2,000 (10%) of the 20,000 odd Namibians in middle level posts will either leave (e.g. "Cape Coloured" emigration) or be politically unacceptable. These are moderately optimistic assessments.

They also assume that 7,500 present Europeans (about 20%) will remain and be acceptable and that 7,500 new expatriates (not necessarily European) can be recruited. The estimate on possible retention of present Europeans may be too pessimistic especially in respect of farmers, civil servants (e.g. medical and veterinary personnel, central ministry administrators) and state corporation personnel. That would reduce strain as both the "targeted" 7,500 new recruitments within 12 months and the possibility of cutting European/expatriate personnel from 36,500 to 15,000 that rapidly without major dislocations of sectors the independent state would see as key, and without greatly hampering creation of a basic service network for Namibian Africans, are optimistic estimates justified by necessity more than by parallel experience.

The "1985" rough projections are probably easier to achieve if major attention is given at once to training and to technical assistance recruitment. However, they are very vague because the detailed changes in personnel needs flowing from socio-political and political economic transition cannot be mapped until after independence. The requirement data are largely estimated from Tanzanian and Zambian analogues adjusted for any obvious differences in Namibian circumstances.

Training, Replacements, Education

Namibia's education system for Africans is weak at all levels (Table 11) and beyond academic secondary school level the

system is exiguous in the extreme even for Europeans because they have used Republic institutions. Immediate priorities are likely to include:

1. emergency gap filling and upgrading courses for Namibians to be (or who have been) promoted;
2. mass English teaching if - as seems probably for political and technical reasons - English is to be the official language and lingua franca of independent Namibia;
3. articulated adult education from basic literacy and basic skills (e.g. agriculture, environmental sanitation) through middle level skills and part time or correspondence secondary and tertiary education;
4. broadening and upgrading primary education requiring both new syllabuses and teacher retraining;
5. working out and beginning the establishment of a coordinated secondary and tertiary system and related research capacity (Table 12);
6. identifying and securing places to meet specialised training and education needs which can - at least for several years - only be met outside Namibia.

Today a wide range of programmes do exist - the Institute for Namibia is the largest single institution but even at technical and general tertiary levels the sum total of students in a large array of smaller programmes is greater. However, there is no coherent list of programmes, trainees and Namibians with complete secondary or further credentials. Nor has there yet been any overall attempt to articulate immediate personpower needs and to devise a coherent short term programme of courses to meet them.

The barriers to moving ahead rapidly are complex. An articulated personpower requirement projection does not yet exist. Details on Namibian holders or potential holders of middle or high level posts and of their specific training needs to fill particular posts are also lacking. Coordination of bilateral and multilateral technical assistance by either SWAPO, the Council for Namibia, UNIN or donors is weak. Limited Liberation Movement personnel and attention are available because of the requirements of the military, political mobilization and diplomatic struggles toward independence.

These constraints are doubtless to some extent inevitable as long as the trajectory and timing of Namibian independence remains less than clear and it is virtually impossible to do field work in Namibia itself. However, today it seems that a much higher priority needs to be given to at least partially

overcoming them.

Women

The Liberation Struggle has included the emergence of coherent organisation by women to demand radical changes in traditional and occupational structures which oppress them and limit their opportunities. It has already resulted in a radically changed draft family law code and in a high proportion of women in secondary, technical and tertiary training programmes.

Reuniting of families will bring large numbers of women to urban areas and ranches. A reduction in numbers of Europeans will sharply reduce domestic service employment - the main wage employment avenue (however unsatisfactory) now open to women.

As a result two issues are likely to require special attention by independent Namibia:

1. ensuring that the high proportion of Namibian women with relatively advanced qualifications is maintained and results in a parallel distribution of posts;
2. paying special attention to creating decent unskilled, semi-skilled, clerical and para professional employment opportunities (full or part time) for women with limited initial education resident in the urban and ranch sectors. The second may interlock with efforts to increase crop production which is more labour intensive than ranching and in respect to which Namibian women probable have more experience than Namibian men.

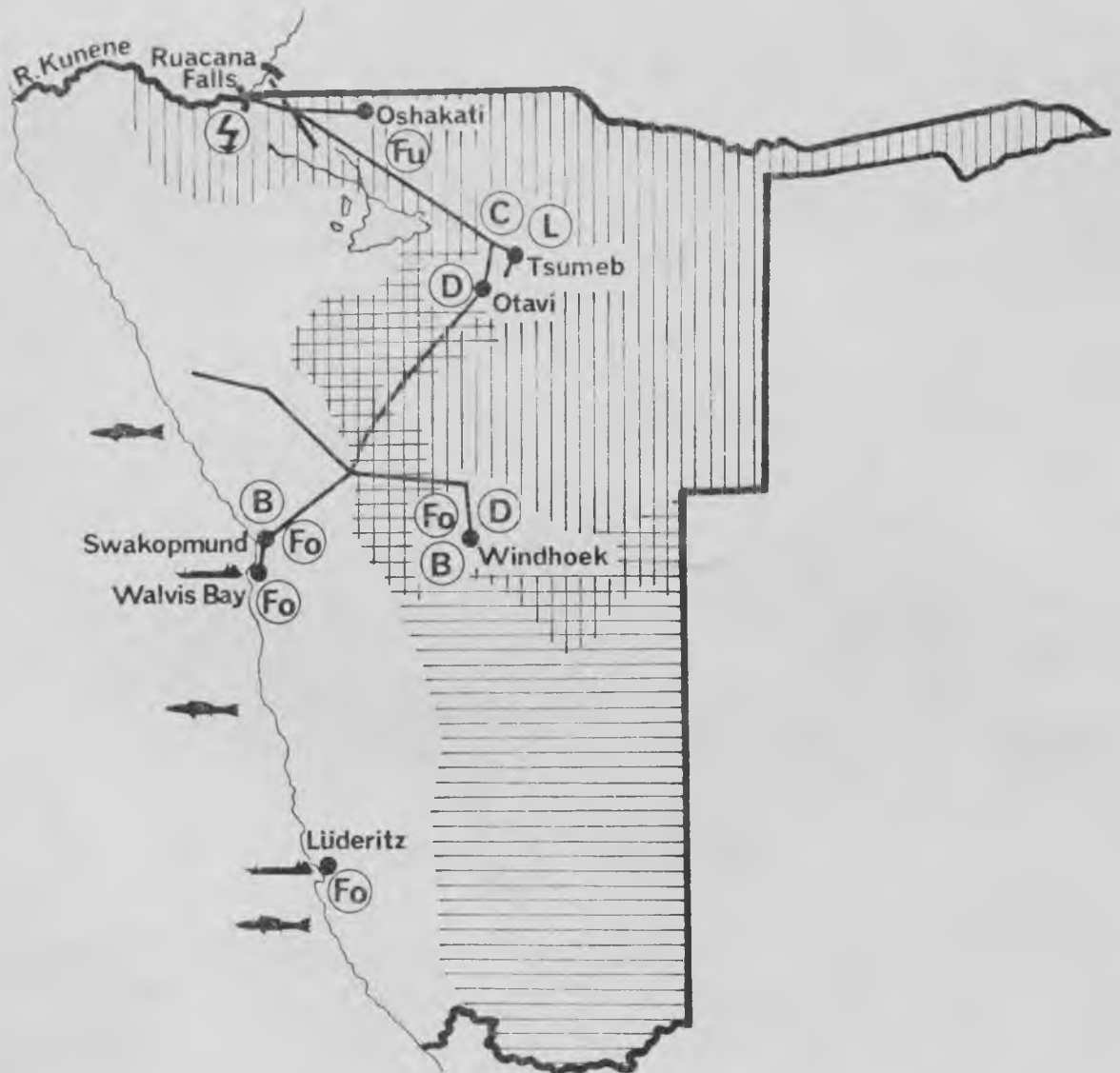
VIII

PRODUCTIVE FORCE LEVELS, MAKEUP, DISTRIBUTION

GDP, GNP and All That

Namibia - despite the hostility and fragility of its environment - is not today a territory with a low level of productive forces. 1977 GDP was of the order of R1,100-1,150 million or R900 (\$1,050) per inhabitant (Table 15). In 1979 it was of the order of R1425 million or R1,075 per capita (Table 17). That is about the world average, significantly above the African average and very much above that of most other states in the Southern African region except the Republic itself.

Map 9 ECONOMY



Fo food industry

Fu furniture factory

C copper smelter

L lead smelter

D dairy production

B breweries

 fishing

 power station

 harbour

 power line

 cattle

 sheep and goats

Map 10

MINES



- 1 Tsumeb
- 2 Berg Aukas
- 3 Kombat
- 4 Uis
- 5 Brandberg
- 6 Rössing
- 7 Onganja
- 8 Otjihase

- 9 Matchless
- 10 Oamites
- 11 Klein Aukas
- 12 Rosh Pinah
- 13 Loreley

D1 Diamond Area 1
D2 -- -- 2

However, the economy is very narrowly based - 15% export agriculture and associated processing (fish, beef, karakul), 47% export oriented mining (basically uranium, diamonds, copper, lead), 10% services directly associated with export production - transport - finance - marketing. Thus almost three fourths of output flows from a handful of exports and the bulk of the remainder represent services paid for out of export proceeds. Under 4% of output represents food production for domestic use. Value added in domestic market directed manufacturing is even lower.

Further, domestic product (produced in the territory) is very different from national product (accruing to nationals of the territory) (Table 14). Gross National Product in 1977 was about R700 million or about 62½% of GDP and in 1979 R950 million or 67%. The gap is extremely wide even for a territorial economy oriented to export production and largely opened up by foreign based firms.

Finally most Namibians are very poor. Surpluses of large production units account for almost half of GDP and taken together with taxation of enterprise surpluses account for three fifths (Tables 15, 17). Personal income was of the order of R450-475 million, R375 (\$440) per capita in 1977 and R550 million, R415 per capita, in 1979. However, the distribution is such that the average European personal income per capita was R3,000 and the average for Africans R125 in 1977 and R3,200 versus R160 in 1979. The latter average - roughly adjusted for price differences - indicates that Namibian Africans have lower real personal incomes than Tanzanians despite Tanzania being one of the world's poorest countries. A comparison of public service access (especially in rural areas) leads to an even stronger conclusion that the Africans of Namibia have less than those of Tanzania.

GDP Trajectory and Makeup

The overall growth of GDP in Namibia over the 1945-75 period was rapid - quite possibly of the order of 5% a year in real terms (Table 13). The growth shifted the balance among exports - especially toward mining and toward diamonds within mining. It did not reduce - indeed it enhanced - the dominance of production for export.

However, over the period since 1974 the Namibian economy has stagnated. While increased diamond production and the buildup of production at Rossing (500 tonnes oxide in 1976, perhaps 3,000 tonnes in 1977, probably at least 4,000 tonnes in 1978 and over 4,000 in 1979) mean that total GDP has grown, a series of setbacks have affected other sectors:

- a. overfishing has cut catches from 900,000 tonnes at the turn of the decade to perhaps 200,000 (including only 46,000 of the key fish - anchovy) by 1978

- creating massive employment losses and seriously affecting trawler owners and the Walvis Bay commercial sector;
- b. South African policy has caused cuts in the Namibian cattle marketing quota and South African price controls have artificially depressed its value putting beef ranching sector in a price and a quantity scissors only slightly alleviated by rather belated and marginal efforts to build up sales outside the Republic plus a R4.5 million subsidy in 1978-79;
 - c. the collapse and continued stagnation of the copper price has led to the closure of one of the three major mines (Otjihase) and retrenchment in the face of losses at the other two;
 - d. while military construction spending has risen, that for works and government buildings has been cut back theoretically because of revenue limits but realistically because of uncertainty as to the duration of the occupation;
 - e. with the advance of the Liberation Struggle, uncertainty - with postponement of most new investment and remittance of savings by individuals - has created a general lack of buoyancy.

If major damage to mining and ranching during the transition can be avoided, independent Namibia's economy has good growth prospects (Table 17). Rossing should reach full production by 1979-80 and an equally major operation, Langer Heinrich, now in development stage, could reach full production a few years later. Between them they would then yield \$800-1,000 million of exports and \$500-750 million value added. Diamond prices have risen over 80% since the beginning of 1977 and show an upward trend. Namibia's reserves - on a conservative basis - will last into the 1990s. Base metal price recovery by the mid 1980s seems likely. By 1985 (Table 19) the mineral sector - excluding any new mines - should be producing well over R1,000 million (\$1,200 million) in exports and contributing R850 million (\$1,000 million) to GDP. This would undergird import capacity, investible surplus and government revenue.

Ranching requires market redirection - and overcoming transitional problems. At best it is a low growth sector because of carrying capacity limits. From a very small base, crop husbandry could be expanded significantly. Fishing - after a 3-4 year "rest" likely to be imposed in any event by the transition - can be built up to higher than past peak levels if - as seems certain - Namibia impose and - as is less clear - can enforce a 200 mile economic waters zone and a strict quota system for foreign vessels.

The provision of basic services and the building of houses for reunited families plus associated urban infrastructure will require rapid growth in the construction and service sectors. In short, given the ability to sustain and build on present core production, Namibia should have the export earnings, investible surplus and government revenue to embark on a national economic development strategy which could reduce inequality, broaden access to basic needs and provide substantial economic growth.

About half of GDP in 1977 was derived from the primary sector. Mining is 33%, fishing 3.5% (over 90% large scale export oriented), large scale farming 12% (again up to 90% export oriented) and peasant subsistence agriculture under 2% of normal GDP price estimation levels. By 1979 mining had risen to 47%. The agricultural share is very low - especially by African standards. The 2-3% contribution of domestic food production to GDP among the lowest in the world. Even revaluing "subsistence sector" household self consumed food production at retail prices would only raise this to 4-5% (Table 15).

The secondary sector contribution to GDP was about 14% in 1977 and 11% in 1979. Of this about half came from manufacturing (one half meat and fish processing for export) and over a third from construction. The sector is small, even by African standards. Indeed the construction and electricity/water components are so low as to suggest underestimation resulting from the problem of disentangling South African and Namibian operations of units operating in both territories.

Tertiary sector activities (services) contributed slightly over a third of GDP. Again division of South African and Namibian value added in commerce, transport, finance and general government poses major difficulties. The estimates exclude military and police expenditure (including construction financed under this head) both because they hardly appear to be a contribution to Namibian output (much less a contribution to estimating future Namibian GDP) and because they are financed from Republic votes details of which are unavailable.

Distribution of GDP

Wages, salaries and subsistence production in Namibia take about 30% of GDP, surpluses of production units 55% and taxes on those surpluses 15% (Tables 15, 17). The share of wages - salaries - subsistence is very low. Fifty to sixty per cent (including peasant subsistence production) would be a more typical range in sub-Saharan Africa and 50-65% wage and salary shares are typical of most industrial economies with Singapore's 35% about the lowest recorded.

Within the production unit surplus category, R500 million odd in 1977 and R700 million in 1979 accrued to large enterprises (as depreciation, interest on debt, after tax profit and reserve additions). These firms are without exception based outside Namibia. The major South African groups - e.g. Anglo-American/De Beers and General Mining and parastatal bodies like ISCOR and IDC - are the most important. Next are major mining transnationals particularly RTZ and Amax/Newmont, with major international banks (Barclays, Standard), petroleum companies (Shell, B.P, Total) having substantial but lesser units.

The estimated 44% large, foreign enterprise operating surplus less tax share in GDP is probably the highest in the world although Gabon in some years may have approached it. The distribution flows directly from the heavy export orientation with mining, meat and fish processing, finance and import/export trade dominated by large firms. The 9 to 10% share of smaller (basically family) European enterprise surpluses comes primarily from ranching, fishing trawler operation (albeit not in 1977-79 which were very bad years for that sector), retail commerce and urban service establishments.

African wages and salaries (including "fringe benefits") in 1977 were of the order of R100 million for over 200,000 workers and European of the order of R200 million for perhaps 30,000. The per-worker averages are R500 and R7,000 per annum. The lowest African wages are in domestic service (ca R125-200 per annum) and ranching (ca R250-400 per annum including payment in food and shelter) - which are also the largest generators of employment. African wages in large enterprises are substantially higher - and as the prospect of independence imposes itself on employers' minds have been rising steeply - with some mining firms possibly paying an average approaching R1,500 (including payment in kind) by 1977 and a handful of skilled African employers as high as ca R2,500. Policies as to wage levels and quality of housing/food provided have been sharply different within the mining sector - Oranjemund (Anglo-American) has usually been perceived by workers as "best" with Tsumeb (Newmont/Amex) above average and Swaco, (Consolidated Goldfields) and Rossing (RTZ) among the worst. Variations within the small enterprise sector are even wider. By 1979 African wages had risen to perhaps R130 millions and 25-40% 1977-79 increases were not uncommon. The average, however, remains substantially below the urban household poverty line.

Personal income (subsistence production, wages and salaries, small enterprise surpluses) is of the order of 40% of GDP (Tables 15, 17). Of this perhaps one third accrues to Africans and two thirds to Europeans. Per capita this came to about R125 per African and about R3,000 per European in 1977 and R3,200 and R160 in 1979.

Household data are almost impossible to estimate meaningfully because in the case of the 100,000 households including a "contract" (single male worker, absent from his family, compound or "quarters" resident) employee, the concept of a single household budget (or even closely coordinated budgets of different income streams) is simply not applicable.

The ratio of 20 to 1 between per capita African and European incomes is not in itself necessarily uniquely high for Sub-Saharan Africa. Relatively small expatriate communities largely made up of managers and professionals may well have incomes averaging R8,500 (\$10,000) and average African wages of R500 (\$600) or less are not uncommon. The differences in Namibia are structural:

- a. the European community is not limited to a small group of highly skilled personnel but includes many middle level personnel;
- b. total European wages and salaries are of the order of twice total African wages and salaries;
- c. Africans are virtually excluded from high level posts, sparsely represented at middle level and similarly virtually totally excluded from all but the smallest of individual enterprises.

By contrast in Zambia, where the number of expatriates is similar in absolute terms, the wage ratio in 1974 was 5 : 1 (vs 14 : 1) and the total African wage bill was twice as large as the expatriate (vs half as large).

The agricultural sector illustrates this. The 6,500 European units have average gross incomes of the order of R20,000 and average net incomes to proprietors of R10,000 - somewhat down on 1973-75 peak levels, especially in beef. African farm workers (50,000) receive annual wages of about R300 - half in cash and half in "rations" and lodging. Even valuing self consumed food at retail prices the 150,000 households engaged in African agriculture have a cash and kind farm income of not much over R100 per person or 400 per household.

External Flows and Balances

With about 90% of physical goods production destined for export and about half of basic foodstuffs, perhaps three fourths of consumer manufacturers and over 90% of capital goods uses met from imports, Namibia's economy is about as fully integrated into the world economy as it is possible to be. The resource gaps (land suitable for intensive cultivation, large domestic market) and strengths (minerals, fish, ranching land) do not require the present form and

pattern of integration but they do constrain any independent Namibia to maintain a high ratio of foreign trade to GDP.

Exports of goods in 1977 (Table 18) were of the order of 700 million (61% of GDP) and in 1979 (Table 19) R 1010 (71%). Minerals account for 85%, fishery products 3%, ranching products 13% (altered from 70%, 10% and 20% in 1977).

Beef exports are primarily (about 80% in most years) and fish products substantially (over 50% normally, 100% except for lobster in 1979) to South Africa with the balance of beef, karakul and fish largely exported through the Republic. Karakul beyond the ranch is dominated by three firms. Mineral exports are only peripherally to the Republic (a secondary market for lead, zinc, copper). Most metal concentrates and ingot are shipped direct to Europe and North America while uranium oxide is airfreighted direct (as befits its \$40 plus per pound value). Diamonds are marketed through De Beers Central Selling Organization (London based) but apparently usually are flown via and sorted/valued in the Republic.

In the case of beef South Africa is the only possible market for mass live cattle sales. However, the market is quota limited and price controlled. The past state and parastatal decisions not to enlarge packing plant and tinning facilities and develop external markets more rapidly have harmed Namibian growers in several years and will pose major problems to independent Namibia. Fish meal and fish to the Republic receive controlled prices below those on the world market and overseas sales are not allowed until South African quotas are fulfilled.

Visible imports (excluding military forces imports) are probably of the order of R450 million in 1977 and R700 in 1979 (Table 20). Of these about two thirds are from and a higher proportion are imported through the Republic. This pattern results partly from the fact that Namibia is within the South African tariff zone, partly from South African subsidization of maize (to benefit South African growers and to keep wages low by keeping the staple food cheap) and partly from the structure of commercial links which run through the Republic.

Both imports and exports are handled largely by South African based bodies except for base metals and uranium oxide in which cases the major managing firms are European (RTZ) or North American (Newmont, Falconbridge) based. The petroleum importers are part of the South African region of the parent transnationals. They import petroleum products refined in the Republic through Walvis Bay.

Data on other balance to payments items are exceedingly fragmentary. Imports of services (transport, travel, fees

and royalties, tourism) substantially exceed exports (primarily South African tourism to Swakopmund, the Etosha Pan Game Reserve and other National Parks).

Remittances from current income (including interest and dividends) in 1979 probably included about R80 million for individuals (1977 R85 million) R320 million for large firms (1977 R302 million) and R75 million (1977 R40 million for the state net of railways/harbours and posts/telecommunications operating deficits for a total outflow of R425 million.

Long term capital - excluding capital flight - was probably of the order of R200-225 million in both years over half on state development projects, about a quarter on mineral prospecting plus Langer Heinrich uranium oxide mine and Pilot plant development and most of the balance transport, communications, electricity and water parastatals.

Capital flight - largely via bank and other financial institution transfers to the Republic - may have been of the order of R100 million in 1977 and R150 million in 1979. Its counterpart was primarily a reduction in financial institutions' Namibian branches' net claims on South African branches and head offices.

Public Finance

Namibian public finances are exceedingly difficult to estimate. Most revenue is collected by the Republic - not the SWA Administration - and most expenditure paid out of the Republic's South West Account. Territorial expenditure is largely financed by transfer from the Republic account. Local government units are self financing. Military, most police, and foreign service expenditure does not appear on any Namibian (SWA) accounts and research and specialized service expenditure may or may not be fully covered by transfer from the Republic account. Similarly the revenue and expenditure of the central bank in respect of Namibia are not available.

If both defence (at a South African financial press estimate of R400 million) and capital spending are included there was a deficit of the order of R450 million. If both are excluded there was probably a surplus (on government recurrent account) of the order of R45 million in 1976-77 (Table 31). Because of an upsurge in diamond revenues this had probably risen to R150 million in 1978-79 (Table 32).

In 1976-77 estimated consolidated Recurrent Spending from the Republic's South West Account and the Territorial account was of the order of R140 million and revenue of R187 million. Capital account spending (including R48 million in respect of parastatal water and power investment) was to be of the

order of R115 million. In 1979 the comparable figures are probably R215 million recurrent expenditure, R356 million recurrent revenue and R140 million capital account expenditure.

Railways/Harbours and Posts/Telecommunications 1976-77 recurrent revenue was estimated at R45 million and expenditure at R68 million for an operating deficit of R23 million plus an additional capital account spending of R18 million. The deficit has almost certainly widened since despite sharp rate increases. Local government and special account spending of about R40 million was largely balanced by anticipated revenue.

Public expenditure - excluding defence, railways/harbours and posts/telecommunications - was in 1976-77 the order of R322 million and R400 in 1978-79 or about 30% of GDP. Useable breakdowns of recurrent expenditure do not exist because of the form of the accounts. About one third of recurrent expenditure appears to represent social services, pensions and similar items for Europeans, about a quarter economic services (agriculture, water, roads, etc) primarily for Europeans and about a tenth general (excluding "Bantu", "Homeland", "Coloured") administration. The one third representing African and "Coloured" spending is largely categorized as administration and development (not including health or education) and appears to represent first European salaries, second African administrative and "chiefly" functionary salaries, third associated pure administration costs and fourth minor works.

Service levels are radically unequal. For education African (including "Coloured") estimates for 1976/77 were R4.75 million and for European R15.85 million. The first averages about R4 per capita and the second about R150 per capita or a differential of nearly 40 to 1.

Recurrent revenue on the two main accounts has been dominated by diamond taxation. In 1976-77 this was estimated at R51.5% or 28% of total recurrent revenue and in 1978-79 it probably approached R200 million as a result of higher output, prices and bunching of sales. The total ratio of tax to surplus on diamond mining may - as claimed by De Beers - approach 60% in some years but this is not high for even reasonably successful diamond mines (e.g. the Williamson mine in Tanzania has a state/De Beers surplus division pattern of about 80%-20%).

Other company taxation plus dividend remittance tax and other mining royalties and taxes for 1976-77 were estimated at about R32.5 million (17.5%) for a total of R84 million (45%) on the revenue of large companies. In 1978-79 (Table 32) they were only 5% of revenue for a large company total of about R206 million (58%). Individual income tax yields about 11% of revenue (down from 14% in 1976/77) and is about 12.5% of European wages and salaries.

Indirect taxation provides under 20% of recurrent revenue (down from 25%) largely from import (perhaps R25 million or on average about 12½% of non-Republic import values) and excise (about R20 million largely on beer, spirits and cigarettes at rates low by world or African standards). Miscellaneous receipts including licences, fees, departmental sales of services were estimated at R32-33 million (17% in 1976/77, 9% in 1978/79).

These data cast grave doubts on South African claims that Namibia is not fiscally viable. Even projecting sharply increased mass services and expanded capital spending, together with mining and income tax rates more in line with other independent African states and a higher (but still relatively low) sales tax a perfectly plausible 1985-86 Budget requiring only a 20% ratio of borrowing to capital spending can be constructed (Table 32).

IX

NATURAL RESOURCES: THE PRIMARY SECTOR

Namibian's basic natural resources are water, land, fish, and minerals. The first features as a constraint on the utilization of the second and fourth. The last two are available in some abundance but subject to depletion as demonstrated all too clearly in respect of fish over 1976-79.

Water

As already noted Namibia has rainfall which is low in the north (marginal for crops), quite low in the northern half of the Central Plateau (sub-marginal for crops, suitable for cattle), very low in the southern half of the Central Plateau (sub-marginal for cattle, suitable for sheep) and nearly non-existent on the Coast and in parts of the Eastern Frontier (suitable for sand dunes and century plants).

No domestic rivers flow throughout the year and the two largest - Swakop and Kuiseb - only reach the coast in substantial volume on the surface during the heavy rains although they are perennial underground. The Orange River on the Southern Frontier (not used for irrigation), the Kunene in the north centre and north west (used for irrigation to a trivial extent), the Okavango in the north centre (used for irrigation in its narrow valley) and lesser rivers in the Caprivi (not used for irrigation) are perennial. The river system flowing from Angola through Ovambo to the Etosha Pan is not perennial but is the key source of water (more than rainfall) to the Oshana region which is central to present and future crop production.

Water development has centred on capturing major seasonal and permanent (Kunene) supplies for towns and mines. There is a need to increase the flows from the Kunene (and South African plans and partially complete works to do so) which will be made more urgent by the rapid increase of urban population with the termination of the "contract" system.

Ranch and small scale arable cultivation water has been derived from 6,000 boreholes (only 500 in African areas) and 5,000 odd check dams (with sand filled reservoirs to limit evaporation). In a few areas - notably around Tsumeb - perennial lakes and springs have also been available for such use. How much more water can be raised in this way without high pumping costs and lowering the water table is uncertain - in some areas the amount is probably substantial, in others the present extraction rate may already be too high.

Tapping underground rivers near the coast for irrigated agriculture may be feasible in some cases. However, the Kuiseb is already being overtaxed by Walvis Bay offtake so that it appears that the Swakop and Kuiseb together are likely to be barely adequate to meet Rossing/Swakopmund/Walvis Bay requirements by the mid-1980s. Their small "green belt" farming can perhaps supply more of the coastal towns dairy, fruit and vegetable needs but not much more.

The Orange River is a potential source for irrigation (and power). Some irrigation from it is in hand on the Republic side. Fairly evident political problems exist for water offtake and even more a dam. This is complicated because South Africa claims the boundary runs on the north bank not the median. This may be based on the German statement of the area of their colony. In at least one other case German documents simply stated the land in the colony and not where the frontier ran in a water boundary. Thus they claimed land down to Lake Nyasa but did not mention the lake. However, they had commercial and naval vessels on it which rather negates a view they thought the boundary ran on their shore.

The Caprivi rivers can be used for irrigation and also to drain the Central (or West) Caprivi swamps. However, no studies appear to have been made to date.

The Okavango is a potential major water source but its narrow, steep valley will pose problems for utilization. The seasonal river - Oshana system requires further study; more water could presumptively be put through over a longer period by tapping the Kunene or Kavango. The two present main irrigation canals are apparently badly designed and of little value at least for agriculture.

The Kunene is the probable key source for water for urban and industrial use and for hydroelectric power. To date the Caleuque reservoir (located in Angola and built under South

African/Portuguese cooperation) is not available but it would be to an independent Namibia. Ruacana Falls dam is completed and more or less connected to the national power grid but non-operational so long as Caleuque is not activated. With access to Caleuque and with independence it should be possible to make it fully functional removing present pressure on load limits of existing thermal stations. Ruacana's capacity is 320 megawatts, the expanded Windhoek station 120 and Walvis Bay 30. National grid load supposedly will reach 150 in 1980.

Water resource development beyond present levels is possible. On the technical side a 25 year South African plan exists but is geared neither to African crop growing nor transformation from "contract" to resident household based African employment. Indeed the related irrigation studies center on Okahandja - Otjiwarongo in the "white" ranching zone not on the north. Even on South African assumptions the cost of meeting water needs will be very high.

In the longer term sea water desalination (still more expensive than piping from Caleuque or recycling), possibly using atomic power, seems likely to be necessary at least for the Walvis Bay/Swakopmund/Rossing cluster and perhaps for the Windhoek metropolitan area.

Land

Of the 82.4 million hectares of Namibia over 50 million hectares is usable for extensive ranching, mixed farming, crop husbandry but - barring major irrigation schemes - not over one million for crop farming with much of that at best ultra marginal (Table 21).

Present land use is even more dominantly focussed on animal husbandry. (Table 22, 23, 26). Subsidized South African maize, herding Africans into reserves and hindering their development of commercial food production (at least until recently) and provision of services/infrastructure/markets for cattle have all contributed to the situation in which over 90% of value of agricultural output is livestock or livestock products (about 95% for marketed European output). Even the once thriving dairy and dairy products industry has been discouraged, up to 90% of agricultural output is exported and over half of domestic food consumption (up to half for grain in normal years and more in droughts, almost 100% of other foods except meat, fish, dairy products) is imported.

The buildup of production in grains, vegetables, fruits and (to meet increased demand with higher African incomes) expansion of dairying centered on milk not butter can begin at independence. It may be possible to reach near self sufficiency in these products but knowledge, input, water,

marketing and transport gaps suggest that change will take several years.

Present cattle population is of the order of 3,000,000 - 60% European. Offtake fluctuates widely with 600,000 head (about 75% European owned) attained in good years. Of the European cattle most are exported on the hoof by rail to the Republic. The balance plus the African owned cattle are slaughtered domestically and exported as chilled or tinned beef - partly to but dominantly through the Republic. Overall 80% goes to the Republic, 12% to other foreign markets, 8% to local consumption. An elaborate veterinary and service system - including detailed ranch planning and capital subsidies - exist for the 3,000 odd European cattle ranches. Even in respect of African cattle a fairly comprehensive vaccination and disease control service is provided (presumably to avert epidemics which might spread to European ranches). Karakul sheep, 90% on 3,000 European ranches, number over 3,000,000 - at or even above sustainable carrying capacity - yielding about 3,000,000 lamb pelts a year plus quite secondary wool and meat products from adult sheep. The Namibian industry is the world's largest (Afghanistan, the USSR and the Republic are the other major ones) but is now unable to expand despite buoyant markets which have taken the average pelt value from R7 in 1960 to R18 in 1970 and above R50 by 1976. Several hundred thousand non-karakul sheep are largely African owned and appear to give rise to negligible marketed output.

Goats and poultry are significant in some African agricultural units but excluding a few large chicken ranches are not prominent in the European sector. Game ranching seems to be on an experimental rather than a truly commercial basis although in principle it should be viable in several areas including that surrounding the Etosha Pan.

Fish

Namibia possesses the richest inshore and deepwater fishing zones of tropical Africa (Tables 27, 28). The main inshore fish are pilchard and anchovy and the main deepwater one is hake. A secondary domestic industry (based in Luderitz unlike inshore fishing which is dominantly based in Walvis Bay) is lobster. Minor sealing still exists on offshore islands and parts of the aptly named Skeleton Coast of the north.

The fishing industry is in a state of chaos resulting from the wholesale rape of the marine reserves. The inshore and deep-water problems are somewhat different.

The inshore industry probably has a sustainable catch level around 1,000,000 tonnes if sensible deepwater and inshore controls are used and if "secondary" fish (red-eye, mackerel, maasbanker) are brought in and used instead of dumped.

However, factory fish ship operations in 1967-69, trawler and seiner expansion, overconcentration on anchovy and pilchard and the lack of effective regulation outside a 20 mile limit have caused catches to decline from 1.5 million tonnes in 1968 - and 700,000 to 800,000 over 1973-75 - to 572,500 in 1976, under 350,000 in 1977 and perhaps about 250,000 in 1978-79.

The owners of the trawler/seiner fleet, of the factories and their 7,000 odd African employees have been badly hit by the decline. A period of very low quotas appears likely to be required to restore capacity - a period likely in any event to be enforced by a withdrawal of the vessel owners (basically individuals not large firms) to South Africa at independence.

The catch is almost all processed in a dozen factories. The output is about 20% of catch weight as fishmeal and 4% as fish oil (basically from anchovies) and about 25% as tinned pilchards. In 1975 for example 194,000 tonnes of tinned pilchards (sold globally under Republic labels or under more deceptive titles such as "Foreign Produce" and "Produce of Peru"), 28,300 tonnes of fish oil and 146,600 of fish meal (largely sold to the Republic for animal feed and fertilizer use at prices fixed below world levels) were produced.

Deepwater fishing is theoretically regulated by the International Commission for the South East Atlantic Fisheries - a somewhat dubious Commission as FAO (the normal fishery convention coordination body) has declined to register it and recognizes Namibia (UN Council) as a full governmental member. Control is made difficult by the fact that South Africa has not seen it as prudent to declare a 200 mile territorial limit off Namibia (as it has off the Republic).

Declared catch in 1975 was of the order of 500,000 tonnes - 40% by the USSR, 33% by Spain, under 4% by South Africa. As over 95% of the recorded catch was hake it seems likely that other varieties may have been dumped. The 1975 figure is a decline from over 800,000 tonnes in 1972 but whether this is real or a "formal" response (in reporting but not in catching) to quota cuts is unclear.

An independent Namibia will need to declare a 200 mile zone and limit catches - bilaterally or within a proper FAO registered convention. In addition it will need to consider its strategy as to requiring high licence fees, domestic processing of catch and/or a substantial Namibian share in the catch. Fairly major problems of enforcement and of fleet development can be foreseen.

Minerals

Namibia so far as GDP, exports, tax revenue and investible

surplus go is dominantly a mineral economy (Tables 15, 17, 18, 19, 29, 30,32). In this sector prospects are bright to the end of the century in respect to the key products - uranium oxide and diamonds - and there is reason to believe further prospecting would significantly raise reserve estimates especially in respect of uranium.

Rossing (near Walvis Bay) is the world's largest uranium oxide complex costing over \$300 million and with a capacity of 5,000 tonnes of yellowcake a year worth about \$450 million at current market prices. After serious initial technical problems, Rossing is moved toward full production in 1979-80 and by the end of 1978 was at or above a 4,000 tonne annual rate.

A complex of similar size is under construction (a pilot plant is said to be in operation) at Langer Heinrich (in the hill country between Windhoek and the coast) and several additional propsects are viewed as promising.

Political problems exist. Rossing was developed after the 1966 revocation of the Mandate and therefore is, under the International Court of Justice decision, based on unlawful agreements. Its managing agent and majority equity (but not voting power) holder is RTZ. Its major financier is South Africa's Industrial Development Corporation (via loan capital). In addition, major forward oxide sales - equally invalid or unlawful under the World Court opinion - have been made at prices well below current levels.

Diamond output in 1979 (1,900,000 to 2,000,000 carats) is likely to be worth about \$625 million at full selling price and about \$550 million at the price at which Consolidated Diamond Mines sells to its Republic parent. Of this about a quarter or less represents production cost and three quarters CDM pre tax profit. Namibian output is entirely by CDM (De Beers) in the area north of the coastal border town of Oranjemund. Reserves are estimate at 15 to 20 years - but standard De Beers policy is to identify reserves formally only up to that period so the actual potential life is unclear even on known diamond bearing sand dunes and encloseable shallows much less on marine (closed as uneconomic at a time when prices were half present levels and demand relatively stagnant) or less fully prospected zones.

Namibia produces about 2 million carats of a world total of the order of 55 million (1.75 million of 49.4 million in 1975). However, world gem diamond output is of the order of 12 million carats so in that market Namibia ranks third after South Africa and the USSR with about a sixth of total output. Production is totally by shifting sand and gravel in dune country and enclosed paddocks in shallow waters - the diamonds are alluvial carried by the Orange River and Benguela current.

The oldest mineral industry - indeed with a pre colonial history - is copper. Three major groups - (Tsumeb) Newmont/Ammax, Falconbridge (Oamites mine), and Johannesburg Consolidated (Otjihase mine) have a total capacity near 75,000 tonnes metal equivalent with Tsumeb having smelting capacity of perhaps 60,000 tonnes. The industry has been badly hit by the post 1974 collapse of copper prices and is operating at a loss. Otjihase has been closed after the failure of attempts to sell it to Tsumeb. Development at existing mines as well as on proved or semi proved new prospects is at a low level. The Falconbridge and Johnnies (Johannesburg Consolidated) units pose the same political problems as Rossing and Langer Heinrich - they were developed after the Mandate's revocation.

Lead (up to 75,000 capacity including concentrates - probably 70,000 tonne smelter capacity at Tsumeb) and zinc (about 25,000 tonne metal equivalent, all exported as concentrate) are largely produced by Tsumeb in association with copper. Other significant producers are ISCOR (South African state corporation) and SWACO (South West Afirca Company).

Other minor mineral products include germanium, cadium, lithium, tin, silver, wolfram (exported wholly or largely as concentrates) and salt. Proven reserves of limestone exist as well as a plan and design for a cement plant but, like exploitation of several copper, lead, zinc and minor metal ore bodies, this has been held up by the onset of transition to independence.

Prospects for coal and iron ore are unclear; certainly deposits exist but their size, quality and technical composition are not adequately known. While known petroleum prospecting results have not shown oil nor proven the viability of gas, the geological prospects are promising and the present absence of major international company interest probably relates to political as much as geological uncertainty.

Independent Namibia does not - in its first few years - need major new prospecting or development beyond completion of Langer Heinrich. Its requirements are to keep the existing sector operating, raise the Namibian share in surplus, acquire a substantial strike in ownership and control, sort out the morass of formal and substantive invalidity or illegality surrounding post 1966 mines and contracts, lay the groundwork for rapid Namibianization of middle and senior level positions, end the "contract" system and provide fully adequate wages, family housing and trade union rights.

INDUSTRIALISATION: THE SECONDARY SECTOR

Manufacturing

Namibian industry is dominated by export processing (Tables 15, 17). About half of the 7.5% of GDP accounted for by manufacturing is from fish tinning, mealing and oil extraction and meat packing and tinning plus a tin factory. This is a decline from the early 1970s because of a fall in the fish catch and resultant 60% or more underutilization of capacity.

The balance of manufacturing consists of such activities as brewing, maize milling, sawmilling, printing and publishing, transport equipment maintenance and repair. Even such fairly standard activities as wheat flour milling, petroleum refining, textiles spinning and weaving and cement production are absent. This partly relates to the small market size (made smaller by unequal income distribution) and partly to the fact that Namibian industry would to date have no protection against South African production. Because the Republic's manufacturing is highly cartelized, a new entrant would probably face predatory competition while a cartel member would usually have little incentive to upset the arrangements by opening a new plant in Namibia. The larger units are South African owned - via the Republic subsidiary of the UK parent in the case of Metal Box - the smaller ones settler owned. Three firms dominate fish processing. South African breweries own the brewery; three firms dominate meat packing and tinning. Anglo-American accounts for a high proportion of manufacturing - especially in fish and meat processing - through a number of its industrial subsidiary and associated companies. Apart from Anglo, Metal Box, and a minor Standard Telephone cable plant, TNC's do not seem to be prominent in this sector.

Independence will create both pressures and opportunities to alter this pattern. Some of the more probable areas include:

- a. further development of meat packing and tinning to handle the 60-80% of exported cattle now shipped live to South Africa;
- b. a tanning and leather goods industry based on cattle hides and goat plus non-karakul sheepskins as well as some pre-export processing karakul pelts and wool;
- c. further smelting capacity plus a copper refinery and perhaps a development of the present small electric wire and cable plant (oddly based on imported refined copper and Republic markets);

- d. garments and other labour intensive broad market consumer goods industries geared to Namibian demand;
- e. if agricultural production can be diversified, agri-industrial manufacturing for Namibian markets e.g. cotton textiles, cigarettes, sisal sacks, sugar;
- f. construction materials starting with a cement plant - a R42 million 250,000 tonne plant was carried to design stage in 1978-79 and postponed for uncertainty rather than general viability reasons - and including some metal fabrication plus more basic equipment repair and spare parts fabrication.

Beyond this very general list it is not now possible to project. What opportunities exist in light engineering and chemicals supplying ranching, mining and/or other sectors is not clear. Similarly the opportunities for producing consumer goods for regional exports will remain uncertain technically, economically and politically until some time after independence.

With independence Namibia is almost certain to adopt an independence tariff system with no preference for South African goods. However, its early use is likely to be fiscal more than protective until special cases for selective protection are demonstrated.

Construction

Construction is dominated by three large South African based contractors, one South African based construction machinery firm and the direct labour sections of the territorial ministry of works and of three South African state corporations (railways, posts and telecommunications, power). They probably encompass three quarters of the sector's 4-5% contribution to GDP. The balance is handled by small local contractors and household construction of own homes. The limited supply of building materials - sand and gravel, some timber from the Oshakati mill - has already been noted.

The sector will need major restructuring at independence for five reasons:

1. none of the existing major units is self contained - all use planning and design capacity and usually skilled personnel and equipment from Republic parent units - a pattern unlikely to be acceptable to Namibia or the Republic;
2. the government and state corporation units are likely to lose most of their locally based senior personnel

and possibly equipment.

3. the new state's different priorities will require an enhanced buildings and works programme;
4. reuniting households with the end of contract and minimum upgrading of shack housing will require construction of living units for at least 150,000 urban, mine and ranch households;
5. major irrigation works and/or railway upgrading/port expansion to service Botswana will require major specialized capacity.

The fourth and fifth issues require separate approaches. Providing access to skill upgrading (especially for small team foremen), finance and materials should allow ranch, mine and neighbourhood groups to do a significant share of home construction and also create a small scale African construction team base households could hire to build low to middle cost housing. Large specialized contracts, on the other hand, will need to go to international tender (or negotiation) for some years.

Medium scale building and civil engineering (and major maintenance) will require Namibian firms. These may initially need to be joint ventures with foreign firms or - in the case of government and parastatal units - initially dominantly expatriate managed. International tender is not feasible on contracts of this size and a totally foreign owned sector - apart from a South African owned one - would be almost as hard to create initially as a joint venture/technical assistance one and harder to use as a vehicle for promoting employment of Namibian materials and designs and upgrading of Namibian skills.

XI

SERVICES AND INFRASTRUCTURE: THE TERTIARY SECTOR

The Present and Its Limits

The existing services sector has four main roles - handling exports, distributing imports, meeting the demand of the upper income European community, handling the civil side of keeping the African "in his place" (both literally and figuratively).

That this pattern will not be satisfactory to an independent Namibia is clear enough. Except with respect to the fourth role what needs to be or can be done is less clear. Changing the structure of production is a precondition for reducing the share of services supporting export production and

import distribution. Indeed most of the present infrastructure is broadly suitable for a more nationally oriented production structure if one is achieved. Until that happens it is critical to keep exports and imports moving.

Even after its reduction in size, the expatriate community will be significant in size and relatively affluent. To the extent it uses private sector services the supply will also have fallen with departures. There may be approximate balance and in any event it is hard to imagine either forcing closure of hairdressers or bothering with tourist parks and luxury restaurants can have any particular priority during the first years of independence. The tourist industry - largely South African and German (relatives of settlers?) in clientele will probably disintegrate on both the supply and demand sides. Whether this sectoral closure is a good thing or not is somewhat irrelevant, the personnel and institution creation (or partner negotiation) needed to preserve a significant tourist industry have much more urgent uses.

Segregated public facilities clearly will be integrated. That will not - in the cases of health, water and housing - reduce the per capita expatriate use and is a general strategy imperative not a detailed service sector restructuring proposal. In the case of education either a special school or schools for children of expatriates or - probably better - benign approval of foreign community run and financed schools for expatriate children will need to be considered. Both have proven reasonably workable and moderately conflict free, at least for a long interim period, in Tanzania.

Priority Issues

The immediate priorities specifically relating to services are likely to lie elsewhere. They relate to finance, external trade, internal distribution, transport and basic public services.

In each case the first problem will be to avert disintegration of the existing system but also to achieve either significant structural changes or additions or both.

The most critical public services are education, urbanization, agricultural sector support and health. The first three have been sketched in relation to personpower, natural resources and industrialisation. Health requires not dismantling the existing hospitals - as opposed to removing racial barriers at their doors - but in adding mass oriented preventative medicine, environmental sanitation, mother and child care, rural health center and dispensary/first aid post elements to create an integrated, universally accessible

national system. Experience in Tanzania, Mozambique and SWAPO's own programmes in Zambia, Angola and the semi-liberated areas should provide a foundation from which to build.

Finance and External Trade

If the new state is to achieve a reasonable degree of economic control - or indeed to avert chaos - it will be forced to establish a dominant position in both finance and external trade.

An economy as open as Namibia's can hardly be planned or managed in the absence of such instruments. In the case of Namibia, there is the more urgent concern that continued use of the rand and of South African financial and external trade firms is clearly unsatisfactory and may well prove impossible.

The critical financial institution is a central bank - one which is completely lacking today. Assuming a desire to achieve a reasonable degree of economic control for the state and a need to economise on institutions its functions might include:

1. currency issue, government debt issue and management, foreign reserve management;
2. foreign exchange budgeting (including exchange control, transfer price monitoring and - to the degree necessary - import licensing);
3. domestic credit budgeting (including target level setting and management);
4. regulation of financial institutions including powers and capacity to ensure they implement credit and foreign exchange plans;
5. data collection and analysis as well as research capacity in areas relevant to the Bank's other functions.

The evident model is the Bank of Tanzania but, in fact, the South African central bank has and uses the majority of these powers. Planning, training, recruiting expatriates for and activating a central bank on these lines will be an arduous, albeit feasible, task and if decided on will require early priority attention.

With such a central bank, the existing commercial banks - in particular Standard and Barclays if they shifted their Namibian subsidiaries from being responsible to South African units to reporting direct to London head offices -

might be useable at least for an interim period. Joint venture and/or "fadeout" arrangements might be negotiable.

Development banks - perhaps one for agriculture, one for housing and one for other sectors - will be needed but perhaps less urgently. Term loans from banks and government budget equity or long term debt provisions might prove a viable interim solution. In the absence of any truly territorial insurance company, a national one (perhaps as a joint venture with an Indian or experienced African national insurance company) appears to have some priority.

External trade requires restructuring as well as gap filling. On the export side a metals, a livestock products and a fish products corporation are needed. In the case of metals, price monitoring to limit transfer pricing might be adequate initially but a sole export selling unit on the lines of Zambia's single channel copper export firm, Memaco, which buys from the mines and resells abroad would seem to deserve careful study especially in respect to private or foreign managed joint venture mines. The livestock corporation will need to identify and to secure new markets for beef and advise on the required processing facilities. In the case of karakul, it should probably bypass the South African based firms to sell direct at the major European auctions. The fish products company, somewhat similarly, would need to identify and develop direct sales of tinned fish, fish oil and fish meal to industrial economy markets - almost certainly a less difficult task than in the case of beef.

In the case of imports, specialized products in the hands of established firms - e.g. petroleum products, vehicles, mine supplies and machinery - can probably be counted on to pose few urgent problems beyond institution of price monitoring. For basic commodities - in particular food, pharmaceuticals, agricultural imports, construction materials - the situation is likely to be different.

These products are at present imported almost 100% from the Republic and either by South African firms or by small local firms with little experience in locating non-South African sources. The continuation of concentrated dependence on Republic sources would be politically costly, economically a gamble both as to cost and as to certainty and politically economically likely to increase the new state's levels of vulnerability and uncertainty. Therefore, creating an import location, purchase and procurement capacity in a limited list of key products will probably need to be on the priority list for the services sector.

Domestic commerce will also require at least some attention. Marketing of agricultural exports from the ranch on is state regulated and either state or private oligopoly managed. No new private sector firms are likely to spring up so that the domestic as well as the export side will need to be

handled by the specialist companies.

The same may be true of essential imports, e.g. food, medicine, farm supplies. At the least, standby wholesale and distribution capacity should be designed and probably run in on at least part of the business to serve as one form of price control.

If new agricultural sources are to be encouraged and tapped, then again it may be necessary to provide some link between producing units and urban markets. Ranchers and peasants have little experience in this field and the existing commercial sector not much more.

Retail trade - beyond technical assistance (e.g. training of personnel, accounting and auditing services) to retail cooperatives springing from genuine neighbourhood, village, workplace or production unit member initiatives, is unlikely to be an appropriate early priority. Some retailers will stay, some African ones will expand, many new ones are likely to set up in business. A vacuum is unlikely. Centralized state trading at retail level poses very serious problems and has a poor record in Africa even in cases in which import/export/wholesale state trading has been relatively efficient. Genuinely locally based retail cooperatives have a better record but require time to become established and to multiply.

Transport and Communications

The nature of the problems affecting this sector have been noted. They include: South African based equipment likely to be driven, hauled or flown away; lack of planning, central management and heavy repair facilities; a high proportion of expatriate (as opposed to settler) personnel employed by South African state or private units and likely to be recalled.

Interim plans for keeping the service going and longer term ones for consolidating and institutionalizing would appear to deserve high priority. They will need to encompass training, recruitment, vehicle/rolling stock/plane replacement, gap filling (e.g. repair units, planning units) and institutional design. The railways, ports, road transport, air transport and posts/telecommunications sectors require separate sub-plans. One is believed to exist in draft form - and with its training component begun - in the case of posts and telecommunications.

Port Facilities

A special problem relates to the main harbour, fishing base and industrial town - Walvis Bay. South Africa may seek to

keep this territory on the basis that it was part of Cape Province before Germany colonized Namibia. The validity of this claim is debateable - for over half a century the Republic administered Walvis Bay as part of Namibia, dismantled the main German port at Swakopmund and built Walvis Bay from a village to a substantial town integrally part of the Namibian economy.

An independent Namibia can hardly use a South African enclave as its main external transit route. If it developed workable - even if interim and/or costly - alternatives, South Africa would probably leave Walvis Bay. Without Namibian traffic and blocked from fishing by Namibian territorial waters, the enclave would be expensive and pointless.

However, that scenario requires that Namibia develop at least interim port capacity. The main possibilities are: Swakopmund, Luderitz, Por Alexandre (or Mocamedes), a new deepwater port (e.g. Cape Cross or Hentiesbaiti). Swakopmund is a relatively unprotected roadstead with a decrepit pier. It is on the main rail line, was once a significant port, has a dredgeable bottom.

Caissons (or old ships filled with ballast and sunk) to create a breakwater, a new jetty, lighters and floating cranes could turn it into a useable interim facility. The problems with Luderitz are more intractable. It is far south of the main sources and destinations of cargo, on a low capacity rail line, with rocky bottom close in shore albeit with a protected deep water anchorage.

The Angolan ports are both several hundred miles from the Grootfontein railhead. The roads to Mocamedes - which has better port facilities are better than those to the less developed Porto Alexandre, but it is also considerably further. A substantial lorry fleet - say 250-300 twenty five tonne capacity articulated vehicles - would be required to handle 200,000 tonnes of cargo a year.

An artificial port could be built at Cape Cross (which has some natural protection) or Hentiesbaiti (which has none). Indeed both were surveyed when the Republic was studying a heavy duty rail line for export of Wankie (Southern Rhodesia) coal in the 1960s. Either would require either a new rail line down from the plateau or a coastal line up from Swakopmund. Costs would total at least \$200 million for port and rail works.

Swakopmund redevelopment, enhanced use of Luderitz and handling northern Namibian traffic via Porto Alexandre or Mocamedes almost certainly is feasible. It would lead to delays and raise costs but an independent Namibia would probably accept this if South Africa sought to hold on to Walvis Bay.

XII

SOUTHERN AFRICAN DEVELOPMENT COORDINATIONThe Colonial Model

Occupied Namibia has been integrated into the Republic economy as a source of export earnings, surplus, beef and fishmeal and as an outlet for ranchers, middle and high level manpower and manufactured goods. Unlike other countries in the region, Namibia does not "export" any substantial number of workers to the Republic - indeed the net flow is the other way with substantial European and "Cape Coloured" flows to Namibia.

This integration is almost totally artificial. The transport link to Cape Town by rail is an economic absurdity. The same is true of exports and imports channelled via the Republic. The common tariff protects South Africa not Namibia. The common currency and financial institutions channel foreign exchange and savings to the Republic. There is no case for the present concentration of expatriates and firms from any one country. That is quite apart from objections specific to South Africa. Some trade would have been rational, but the gearing of the beef industry, the compulsory low price fish meal sales, the two thirds of total imports originating in the Republic - are far above the levels economic or geographic considerations would have built up between independent states and firms engaging in arms length transactions.

The reverse holds of economic integration between Namibia and its other neighbours. With Zambia, Zimbabwe and Botswana they have been and remain negligible to the point of non existence. With Angola they were building up during the last years of Portugese colonialism - the Kunene scheme like Cahora Basa was part of the South African attempt to bolster the staying power of Portugal in Africa via major investment projects also directly useful to the Republic. Since Angola's independence, relations have ranged from armed hostility to open - if undeclared - war.

This absence of integration makes equally little economic or geographic sense. Water, power and transport development do afford substantial areas in which integration of Namibian efforts with one or more of its neighbours is either potentially valuable or literally essential. Personpower development and potentially trade and production coordination also appear to provide scope for mutually beneficial action.

With independence there will clearly be a decline of Namibian subordinate integration into the Republic economic

zone and attempts to build up selective integration with its African neighbours. Some aspects of the probable disengagement from South Africa have already been touched on. Potential for increased links with Angola, Botswana, Zimbabwe and Zambia in the fields of water and power, transport and communication, manpower development, trade and production can be sketched as a basis for more detailed study.

Water and Power

The Kunene River's development requires a broad, long term agreement between Namibia and Angola. Caleuque and any future reservoir and pumping stations are in Angola while Ruacana Falls and any subsequent dams cross the international boundary and should logically be developed to feed both the Namibian and the Southern Angolan power grids.

Negotiating use of Caleuque and allowed interim offtake levels will be urgent to an independent Namibia to allow proper control of water flow to Ruacana and to inaugurate irrigation in the north. A permanent Kunene waters division and power development agreement can be negotiated over a longer term. Since Angola has more water in its south than it needs and would benefit by joint power development, no major problem of principle should hamper agreement.

Okavango rises in Angola, transits Namibia, and sinks into the Okavango Swamp in Botswana where it potentially affords a major asset for arable and livestock farming development in a country almost as water short as Namibia. Again national interests appear compatible. Angola can guarantee a large cross border flow without limiting its own future agricultural development; Namibia probably can use only limited volumes of Okavango water for geographical reasons; safeguarding its future reservoir is key to Botswana but is compatible with substantially greater Angolan and Namibian future drawing on the river.

In the east (Eastern and Central Caprivi) both irrigation and drainage will affect Botswana and Zambia, albeit it is difficult to envisage that it would either limit their probable future use or create flood problems (the drainage would probably end by increasing the Okavango's flow). However agreements are needed, especially as in some areas joint development on both sides of the rivers might afford economies to the states concerned.

Transport and Communication

Namibia has no normal road or rail links with independent African states. The shortest and most urgent link is probably a 30-50 mile one from Katima Mulilo in the Caprivi

(on a heavy duty military highway from the Grootefontein railhead) to intersect the Lusaka-Livingstone highway in Zambia and thus link with routes to Botswana and Zimbabwe. The logical route - except for the ferry or bridge - is entirely in Zambia, but given Zambia's current financial plight Namibian or international finance would appear appropriate.

Links with Angola may depend more on providing ferries and on Angolan roads than on Namibian action. The last few years have seen the development of a military road grid in the North which does reach the frontier at several points. A special case arises if the Republic remains in occupation of Walvis Bay. While the main short term alternative port facility would need to be a resurrected Swakopmund harbour. The problem is neither Namibian roads nor port capacity but doubts as to the condition of the main highway to Mocamedes and the low quality of both the shorter Ruacana - Porto Alexandre road and of Porto Alexandre's facilities.

Botswana - Namibia links would be useful to Namibia by giving access to alternative sources of coal for smelting - currently 100,000 tonnes a year. They would also give more direct access to Zimbabwe than via Zambia. However, the dominant concern here will be Botswana's. Botswana's development of coal, Sua Pan soda ash, agriculture near the Okovango delta and the western copper deposits requires a heavy duty rail line direct to an uncongested port. The logical link - on which a preliminary study has been done on the Botswana side - is probably Selibwe-Phikwe to Sua to Maun to the Ngami Ridge and thence to the Namibian railhead at Gobabis. The link of course is dependent on Namibia's recovering Walvis Bay or building a new deepwater port. It will require upgrading the Walvis Bay-Windhoek and rebuilding the Windhoek Gobabis lines and erecting specialist bulk mineral facilities at Walvis Bay.

Telecommunications may be an area for partial integration with Zambia or Botswana. Present external traffic is routed via the Republic. A ground station for satellite transmission/reception is needed. While not inordinately expensive, use of a Zambian or Botswanan station linked by microwave might lower Namibian capital costs and provide a useful revenue source for the neighbour state's station.

Namibia is unlikely to inherit an airline except on paper. Its immediate national priorities are likely to be domestic service and perhaps - depending on what can or cannot be negotiated with foreign airlines - air cargo service to Europe (beef, uranium oxide, karakul skins, diamond out; spare parts, machinery, high value consumer goods in). Regionally links to Angola, Zambia, Tanzania, Mozambique, Botswana, Zimbabwe are needed and unlikely to be provided

adequately by European carriers. Negotiation to secure extension of services by the relevant national carriers, a joint airline with Botswana (if it were to decide to adopt a more active airline policy) or a Namibian Airline in conjunction with a European carrier (like the early SAS-Thai relationship) operating a negotiated regional service pattern would appear more practical than a full scale, 100% Namibian international airline.

Coastal shipping is not likely to be of great significance. However, if Nigeria could be induced to route some of its vessels via Walvis Bay and Luanda (presumably also Matadi, Pointe Noire, Port Gentil and/or Douala) that would create the potential for coastal trade over the Walvis Bay-Lagos range as well as an additional service to Europe. Similarly the East African National Shipping Line (which includes Zambia) might be induced to consider operating some services via Maputo or Windhoek instead of via the Canal - thus providing transport for trade with the Maputo-Mombasa range. The economics are somewhat uncertain and it might be feasible only if Namibia decided to seek membership in EANSL.

Personpower Development

Initially the tertiary and specialized secondary education capacity of independent Namibia will be very low. In the short run negotiating for places at facilities in its neighbours (particularly Botswana, Lesotho, Swaziland, and specialized institutions in Zambia, Tanzania and Mozambique) could increase the speed with which broadened training of citizens within Africa is achievable.

In the medium and long term, Namibia will need to decide what facilities to provide at home and which to seek abroad. For example, Namibia is hardly likely ever to need a forestry faculty at technical or university level. Should it negotiate a long term entry quota at Dar es Salaam? Seek to be involved in providing faculty and in meeting costs beyond payment of fees at such a faculty? In the case of mining, some facilities in Namibia can be justified but in the medium term an agreement with Zambia to make a joint approach internationally for funds and personnel to expand UNZA's School of Mines and Northern College of Technology to accommodate Namibian needs would appear desirable. Similar concerns apply in other areas including health (Dar medical faculty?), water and hydraulic engineering, fisheries and marine biology (Dar?), crop husbandry (UNZA, Swaziland, Zimbabwe, Dar?). In the veterinary field, Namibia needs substantial facilities but might find specialization in certain areas or levels of training jointly with Botswana (i.e. Botswanan students in Namibia as well as vice versa) desirable. Over a long time period the same might well hold true of mining.

Trade

Namibia's short term potential exports to the region are limited but not non-existent: tinned fish, fishmeal (for animal food), butter and cheese (of which Zambia at least is a not negligible importer), possibly some electrical and telecommunications cable. Realistically the amount could hardly exceed 1% of Namibia's exports (say \$2.5-4 million fish, \$1-2 million fishmeal, \$0.5-1 million butter and cheese and \$2 million other) but it could be a starting point for building up a balanced two way trade expansion with other Southern African Countries.

Zambia and Zimbabwe are logical source of maize for Namibia. Both have had exportable surpluses: which they found hard to realize. Given a road link to Zambia, maize could be transported to Namibia at lower cost than to most other destinations. However, the Zambian collection and dispatch system has, in the past, proven weaker than production, and an independent Zimbabwe may face an interim grain deficit, so that joint agreement on timing of delivery and method of transport (conceivably a joint lorry venture taking 500-1000 tonnes a week) would be needed before Namibia could feel secure in placing the bulk of its normal 50,000 tonne requirement on one or two multi year bulk contracts. If Mauritius, Tanzania or Swaziland sugar can be shipped at reasonable cost, e.g. by EANSU, it is a logical replacement for South African.

Manufactured goods imports which might be procured regionally fall into two clusters. The first e.g. cement, galvanized sheet, fertilizers, petroleum products, textiles, garments, cigarettes are readily identifiable and needed in moderate to large quantities. There are problems in locating a regional state with surplus capacity albeit in the case of garments this does currently apply to Zambia. Angola may be able to export cement, galvanized sheet and some petroleum products depending on how near to capacity it can operate its plants. Zimbabwe might be able to export cigarettes, galvanized sheet, garments and Tanzania garments, textiles and cigarettes.

The second group of manufactured goods imports are those with more variety, more problems of detailed specification and identification and lower unit orders. For most goods the problem will be determining what goods of what specification at what price are available where with what certainty of delivery by the seller and of transport to Namibia. Special attention to this information problem will be needed, otherwise Namibia will tend to import from Europe or Asia because it is easier to determine sources, specifications and prices and less hard to estimate delivery dates even if African sources would in fact be cheaper. A special case is hoof and mouth vaccine where the new Botswana laboratory is the logical

- indeed , probably the only suitable - supplier.

Production

Broader trade build up over time will depend on formal or informal coordination of production development. While not essential, multiyear contracts would assist this process as, in certain cases, would joint ventures.

On the Namibian side possible areas include:

- a. fibre sacks (from century plant, sisal or an intermediate plant);
- b. electric and telecommunications wire and cable (from expanding the existing Standard Telephone plant);
- c. woollen blankets (from local wool);
- d. leather, shoes, other leather products (based on existing hides exports and a greater volume of local slaughter);
- e. some heavy maintenance and spare parts fabrication for railway rolling stock (assuming a rail link to Botswana);
- f. some spare parts for mining machinery (based on a local foundry industry geared to servicing the mining sector);
- g. some chemicals possibly including explosives (again based on capacity designed to service mining);
- h. lead pipes and forged products (if production basically for export is viable);
- i. cardboard boxes and cartons (related to production to service the fish canneries);
- j. cotton textiles (tied to planning a 25-40 million metre mill instead of the 20 million one needed to meet Namibian demand);
- k. animal vaccines (related to 20 million or more dose a year plant needed to maintain present level of veterinary service).

The buildup of significant export capacity would take several years. This is especially true since, except for the lead pipe, leather and leather products cases, the primary target market would be Namibian. A broader market planned for in advance could even in these cases allow economies of scales and lower prices domestically as well as on export sales.

Overall Approach and Priorities

The total list of potential regional integration projects is substantial. Most are bilateral not regionwide. The nature of the key items suggests that attempts to create a Regional Economic Community would be premature and to float a free trade zone counterproductive. However, the number and potential volume suggest that a small, permanent interstate economic coordination commission with a small technical staff and sectoral committees for state officials (ministers) involved in actual joint action in the sectors might be valuable.

The most urgent areas appear to be: Kunene water/power; Katimo Mulilo - Zambia Highway road; maize import arrangements; sement import arrangements; systematic placing of Namibian students in specialized secondary and tertiary institutions.

The largest, if they materialize, would be Okavango and Kunene water/power development; Botswana - Walvis Bay rail line; the joint production possibilities taken as a group.

The two main themes of Southern African Development Coordination from a Namibian viewpoint will be:

1. reduction of concentrated, unilateral economic dependence on the Republic of South Africa, including building a set of replacement links among the independent states of the region;
2. facilitating structural change consistent with development.

In this respect, the likely Namibian concerns are consistent with the stance taken by the Southern African Development Coordination Conference held by the Front Line States at Arusha in July 1979. The coordination is envisaged as including all genuinely independent states; as coordinating national efforts of two or more states rather than creating regional supranational units and as economizing on scarce high level personnel by minimizing regional secretariats.

XIII

EXTERNAL ECONOMIC COOPERATION

The Occupation Pattern

Under South African occupation Namibia has been treated as a colony - and a closed colony at that. Therefore, official bilateral or multilateral aid or technical assistance in Namibia is notable by its complete absence. Some voluntary

agency (largely church related) assistance in personnel and finance does exist in respect to education, health, social services and defence of Namibians against the regime but numbers and amounts are small.

South African provides the bulk of the public sector personnel. It is very hard to divide these between South Africans serving in Namibia basically as expatriates and "Sudwesters" with a territorial feeling of commitment. In any event the recurrent revenue derived from Namibia exceeds recurrent expenditure in Namibia (excluding that of the South African military forces) so that they do not constitute technical assistance.

The South African state has invested on the order of R1,500 million directly and via state corporations in Namibia. Part has been de facto covered by current revenue/expenditure surpluses but most has not been recovered in that way to date. Whether this can be seen as aid to Namibia - let alone Namibians - is a different matter. The highly inegalitarian, export oriented, foreign exchange and investible surplus generating economy of Namibia was created to benefit South Africa and has done so. What real subsidies there have been - e.g. in the 1930s and 1940s, and again in the late 1970s to ranchers - were to benefit South Africans in "Sudwest" not Namibia or Namibians.

The Liberation Movement

SWAPO has received modest amounts of multilateral (United Nations' agencies and programmes), bilateral (e.g. Scandinavian, Yugoslav, CMEA member) and voluntary agency (e.g. church bodies) assistance. The range of sources and types of programmes is wide but total amounts of funds and goods and especially of personnel are quite small.

Moreover, this experience is also less than directly relevant to an independent Namibia. Three of the four components of cooperation - military, refugee, indirect training, direct training - are special, the first two to a revolutionary guerilla war and the third to the somewhat curious international legal status which makes the United Nations' Council for Namibia, in some sense, a de jure government.

As a result, SWAPO has been able to build up contacts with potential sources of technical assistance but has relatively little experience in developing overall programmes for drawing on them for personnel development and still less for civil government programme planning or support.

Transitional Period

In the transition from occupation through interim administration

to independence, Namibia will need very substantial flows of technical, material and financial assistance. Exactly how much of what types from whom depend on the decisions of the new Namibian state. It will also be influenced by the degree to which South Africa chooses to cooperate with, or to seek to destabilize, Namibia.

It seems rational to assume that independent Namibian government will seek to keep or to hire at least 15,000 expatriates (Tables 8, 9) because of the technical complexity of key sectors of the economy and the very limited number of trained Namibians.

Three subsidiary assumptions also seem reasonable:

- a. many private sector European personnel - particularly in mining - will stay or be replaced by their employers;
- b. South Africa may be willing to second government and cooperation personnel but no independent government can count on this especially as it is unclear what quid pro quo (e.g. in respect to Walvis Bay or "repayment" of South African state investment) would be sought;
- c. at least the most senior and most critical posts for which no Namibians are available will be filled by new expatriates whom the Namibian government will seek through technical assistance channels.

In addition a series of special physical/financial needs will or may arise:

- a. arrangements for interim contract fishing and replacement of the fishing fleet if - as seems very likely - its owners sail from Walvis to Table Bay;
- b. emergency port development (for reactivating Swakopmund, enlarging Luderitz or reaching an Angolan port) if South Africa seeks to retain Walvis Bay to nullify Namibian independence;
- c. urgent supply of roads, air and rail transport equipment and maintenance facilities to replace those removed or made unavailable at independence by South Africans or South Africa (the basic lorry and bus as well as rail services are by Republic corporations with heavy maintenance and headquarters facilities outside Namibia);
- d. finance to allow the creation of a currency since continued use of the rand seems unlikely to be politically credible (or economically desirable) but a quick recovery from South Africa in respect of withdrawn rand seems equally unlikely;

- e. assistance in respect to providing supplies of key imports (e.g. maize) and markets for key exports (e.g. beef) if relations with the Republic are such as to cause massive, early trade dislocation.

Special Characteristics

It is not for outsiders to instruct Namibia on how to coordinate its use of foreign services. Nor is it very profitable to guess at the specific format and timing of Namibian requests. However, it is worth noting several characteristics atypical of normal technical assistance;

- a. the number of personnel - up to 7,500 - needed over a brief buildup period (possibly as short as six months);
- b. the probable need for complete teams to operate key units (e.g. the three main power stations and the high tension grid if the South African power corporation withdraws its personnel);
- c. the need for immediate provision of packages of personnel and equipment (e.g. railway heavy maintenance) to plug gaps in the existing territorial structure or new ones created by South African withdrawal;
- d. the great need for acting within weeks of requests if severe damage is not to result - a need quite at variance with the normally leisurely course of bilateral (let alone multilateral) technical assistance recruitment;
- e. the significant number of very senior posts which at independence cannot be filled by Namibians but, equally, cannot be filled without Namibian involvement in the selection process.

Capital assistance may prove to be tertiary in importance to technical and specific material assistance during the transition period, unless massive willful economic destabilization and wrecking is carried out by European settlers and foreign firms. If there is an orderly handover, following a United Nations supervised transition, then revenues for current expenditure and some capital spending should continue to flow. The immediate need is to keep production and services operating and to carry out critical reorientation of current government activities and of trade, not to start a crash public works programme. Indeed it is doubtful that an independent Namibia can draft even an interim capital plan until several months after independence.

However, the cost of the technical assistance and material cooperation needed will be high. Further, if major disruption - e.g. ranchers killing or decamping with stock, fishing fleet sailing away, one or more major mines closing, South African refusal to provide records or personnel to keep tax collection flowing - occurs, interim funding for the recurrent budget will be needed.

Longer Term

Citizenisation takes time. For at least a decade Namibia will need not insignificant numbers of expatriates. While it may choose to hire more directly, one would be wise to suppose that significant technical cooperation (including TCDC) will be sought for much longer than the transitional period.

Capital assistance will also be sought. Water development (power, large scale irrigation), railway extension (possibly in conjunction with Botswana), a new port of Walvis Bay remains South African occupied, mining development (assuming state participation in that sector) are among the larger and more self evident examples.

Barring a catastrophic transition to independence or massive external destabilization, Namibia will not be among the poorest or most foreign exchange starved countries. Indeed it should be able to achieve - and an independent government would wish to achieve - substantial domestic savings and substantial foreign exchange from export earnings available for capital goods imports (Table 32). However, the costs of restructuring will be high - even though most such investment should have a relatively high pay off even in economic terms - so that substantial long term borrowing may be needed during the first decade of independence.

TABLE 1
CENSUS BASED POPULATION ESTIMATES (1960-1980)

Year	<u>Census Based Estimates</u>				Total
	Northern African ¹	Central/Southern African ²	"Coloured" ³	European ⁴	
1960					
Census	238,047	110,695	58,771	73,464	526,004
1960					
Primate ⁵	320,000	122,500	60,000	73,500	575,000
1970					
Census	427,732	165,773	78,096	90,583	762,184
1975					
Proje- ction ⁶	497,500 ⁷	200,000 ⁷	92,500	100,000 ⁸	890,000
1977					
Proje- ction ⁶	532,500 ⁷	212,500 ⁷	100,000	102,500 ⁸	947,500
1980					
Proje- ction ⁶	582,500	235,000	110,000	107,500	1,035,000

- 1 Persons of Ovambo, Kavango, Eastern Caprivi origin (data by geographic unit of residence not available).
- 2 All other African persons.
- 3 Nama, Rehoboth, "Cape Coloured" persons.
- 4 Afrikaans, German, English speaking communities including contract and short stay.
- 5 1970 Census Date adjusted backward to 1960 assuming population growth rate actually about 2.9%.
- 6 Projections from 1970 Census using approximately 3%, 3.5% and 1.75% growth rates African, Coloured and European communities. (3.5% includes immigration, 1.75% includes change in number of expatriates except military forces.) 1980 projection for Europeans not meaningful if genuine independence is achieved by that year.
- 7 Includes refugees outside Namibia.
- 8 Excludes post 1970 military occupation forces expansion.

NOTE: All data highly approximate and incomplete. Base used is 1970 Census.

TABLE 2
ALTERNATIVE POPULATION ESTIMATES¹

Year	Northern African	Central Southern African	"Coloured"	European	Total
1970 ²	600,000	245,000	90,000	90,000	1,025,000
1977	735,000	300,000	115,000	102,500	1,252,500
1980 ³	802,500	327,500	127,500	(30,000) ⁴	1,307,500
"1985-86" ³	900,000	400,000	150,000	(50,000) ⁴	1,500,000

¹ Based on numerous informal estimates ranging from 1,000,000 to 2,500,000 with most from Namibian sources in the 1,200,000 to 1,500,000 range for mid 1970s. Also related to employment and labour force estimates.

² 1977 estimate adjusted backwards at 3.0% per annum for African, 3.5% for "Coloured", 1.75% for European communities.

³ 1977-80 - "1985-86" pro-forma population growth estimates for African and "Coloured" communities 3.0% and 3.5% per annum. Actual shifts resulting from immigration from Angola, Botswana, RSA are not subject to serious estimate.

⁴ Assumes 7,500 long term or citizen European households of an average size of 4 and 7,500 to 10,000 expatriate and volunteer households of an average size of about 3. Estimate includes expatriates from Asia, Africa, Latin America as well as Europe.

NOTE: All estimates highly approximate.

TABLE 3

POPULATION PROJECTIONS "1980 - 81", "1958 - 86"

A. <u>Population</u>					
Year		Small agri.	Large agri.	Urban Non-Agri.	Total
1977 ¹	African/Coloured	700,000	175,000	275,000	1,150,000
	European	-	20,000	82,500	102,500
	Total	700,000	195,000	357,500	1,252,500
"1980-81" ²	Namibian	407,500 ⁴	275,000 ⁴	575,000 ⁴	1,257,500
	European/Expatriate	-	3,000	47,000	50,000
	Total	407,500	278,000	622,000	1,307,500
"1985-86" ³	Namibian	375,000	350,000	725,000	1,450,000
	European/Expatriate	-	3,000	47,000	50,000
	Total	375,000	358,000	772,000	1,500,000

B. <u>Namibian population shifts</u> (excluding Europeans)						
Sector	1977	Finding "Contract" ⁵	Natural Growth ⁶	Other Moves ⁷	"1985 - 86"	
Small Agriculture	700,000	- 400,000 +	100,000	- 25,000	375,000	
Large Agriculture	175,000	+ 100,000 +	60,000	+ 15,000	350,000	
Urban (Non-Agriculture)	275,000	+ 300,000 +	140,000	+ 10,000	725,000	
Total	1,150,000	-	300,000	-	1,450,000	

C. <u>Population categories "1985 - 86"</u> (excluding Europeans)						
	Pre-school	Full time Students	Labour force ⁸	Household ¹⁰	Aged Disabled	Total
Male	200,000	150,000	325,000	-	40,000	715,000
Female	200,000	150,000	235,000	100,000	50,000	735,000
Total	400,000	300,000	550,000	100,000	90,000	1,450,000

¹ See Table 2.

² "1980 - 81" is a nominal year. What is intended is a "target" for the end of the first year of independence. The population is 1977 estimate plus 3% a year growth.

³ "1985 - 86" is again a nominal year - in this case the target for the end of the sixth year (transition year plus five) in independence. The population is 1977 estimate plus 3% a year growth.

⁴ These projections assume most reuniting of households and some "other moves" have taken place but neither shift is complete.

⁵ Population shifts resulting from reuniting of households divided by "Contract/other migrant labour regimes.

⁶ 3% a year growth of population in sector adjusting for ending "contract" over 1980 - 85.

⁷ Other moves from one sector to another. Projections are net - gross would be somewhat higher.

⁸ Very rough estimates. No usable demographic data appear to exist.

⁹ Full time equivalent numbers are used for part time large agriculture and urban (see Table 5) employment.

¹⁰ Persons not engaged in any significant household income generating activity. (Individuals producing substantial food or housing for self-consumption are included under "labour force" not "Household").

TABLE 4
LABOUR FORCE ESTIMATES (1977)

Group	Households ¹				Individual migrants ⁵	Economical Active Persons			
	Total	Small Agri. ²	Large Agri. ³	Urban ⁴		Small	Large	Urban	Total ⁹
Northern African	147,000	127,000 ⁶	6,000	15,000	75,000	195,000	20,000	96,000	311,000
Central/Southern African	60,000	25,000 ⁶	15,000	20,000	22,500	35,000	23,500	63,500	122,000
Coloured	23,000	8,000	5,000	10,000	12,500	10,000	6,500	32,000	48,500
European	30,000	-	6,500 ⁷	23,500	-	-	6,500	30,000	36,500
Total	260,000	160,000 ⁶	31,500	68,500	110,000	240,000	56,500 ^D	221,500	518,000

- ¹ Primary family units. Assumed average sizes 5 except for European estimated at about 3.5 because of 50% short-term expatriate element.
- ² All non-European ranching and farming as of 1977 falls in this class. Neither subsistence nor traditional is an accurate term because some produce is sold (and more bought) and the present system is by no means the traditional pre-colonial one.
- ³ As of 1977 de facto the European ranching (and very secondarily farming) sector.
- ⁴ All non-agricultural activities classed here.
- ⁵ Workers who have base household units which remain in "small agriculture". Worker is single, short-term, outside home household. "Contract" labour is the dominant but not the only form. Official fishery labour which is seasonal.
- ⁶ Includes refugees outside Namibia.
- ⁷ Relates to household's basic economic activity residence in a substantial number of cases is urban.
- ⁸ Includes adults, children over 12 not in school of households in sector less migrants. Therefore includes de facto unemployed. (Adjusted from East African peasant sector data).
- ⁹ Implied labour force participation rates: 42.5% Coloured and Northern African: 40% Central/Southern Agriculture sector.
- ¹⁰ Domestic service in Large Agriculture sector is de facto omitted thereby understating total economically active population and Central/Southern African economically active relative to other groups.
- NOTE:** All estimates exceedingly approximate. No usable direct Small Agriculture data exist. Data for other sectors are incomplete and out of date. Previous estimates all appear to understate both Small and Large Agriculture and (urban) Domestic Service by large margins.

TABLE 5
LABOUR FORCE PROJECTIONS TO "1985 - 86"

A. <u>Total Labour Force</u> ¹				
Year	Small Agri.	Large Agri.	Urban (Non-Afri)	Total
<u>1977</u> ²				
African/"Coloured"	240,000	50,000	191,500	481,500
European	-	6,500	30,000	36,500
Total	240,000	56,500	221,500	513,000
<u>"1980-81"</u> ³				
Namibia	200,000	110,000	200,000	510,000 ⁵
European/Expatriate	-	2,000	13,000	15,000
Total	200,000	112,000	213,000	525,000
<u>"1985-86"</u> ⁴				
Namibian	175,000	140,000	245,000	560,000 ⁶
European/Expatriate	-	2,000	13,000	15,000
Total	175,000	142,000	258,000	575,000
B. <u>Namibian Labour Force Calculation</u>				
"1985-86"	Small Agri.	Large Agri.	Urban (Non-Afri)	Total
<u>Potential Labour Force</u> ⁷				
Male	85,000	85,000	155,000	325,000
Female	90,000	90,000	155,000	335,000
Total	175,000	175,000	310,000	660,000
<u>Actual Labour Force</u> ⁸				
Male	85,000	85,000	155,000	325,000
Female ⁹				
Full time	90,000	30,000	45,000	165,000
Half time	-	1/2(50,000)	1/2(90,000)	1/2(140,000)
Total	175,000	140,000	245,000	560,000

Notes to Table 5

- 1 Includes "open" urban unemployed. Categorized by sector of employment not residence, i.e. rural resident engaged full time in construction is classed as Non-Agricultural (Urban) and full time farmer resident in a small town as Small or Large Agricultural.
- 2 See Note 1, Table 3.
- 3 See Note 2, Table 3.
- 4 See Note 3, Table 3.
- 5 Low growth 1977 to "1980-81" is caused by sectoral shifts and increased full time students.
- 6 As calculated part B, this table.
- 7 All persons over 12 minus full time students and aged, disabled (estimated at Table 3 - C).
- 8 In small agriculture calculated as equal to potential labour force. (See Note 8, Table 1.) In other sectors adjusted for part time or non-participation of women in labour force (see Note 10, Table 3).
- 9 Very rough estimates. These are markedly above any recorded female participation ratios in non-agricultural labour force in Africa (though not necessarily above West African probable actual ratios) and above present Namibian urban (non-agricultural) levels.

TABLE 6
ECONOMIC ACTIVITY ESTIMATES (1977)

Activity	Northern African	Central/ Southern African	Coloured	European	Total 1977	Thomas 1970 ¹
Small Agriculture ²	195,000	35,000	10,000	-	240,000	87,500
Large Agriculture ³	20,000	23,500	6,500	6,500	56,500	36,500
Fishing and Fish Processing	3,000	2,000	2,000	500	7,500	7,500
Mining	15,000	3,000	1,000	3,500	22,500	18,000
Manufacturing, Electricity, Water ⁴	5,500	2,250	2,500	2,750	13,000	12,000
Construction	8,000	2,750	2,500	1,750	15,000	12,000
Transport, Communication	7,500	2,500	1,500	1,000	12,500	11,500
Commerce & Finance ⁵	10,500	6,500	3,000	5,000	25,000	19,500
Government	8,000	3,500	3,500	15,000	30,000	(25,000)
Domestic Service ⁶	27,500	35,000	12,500	-	75,000	(8,000)
Other ⁷	1,000	1,000	1,000	500	3,500	(3,000)
"Urban" Employment ⁸	10,000	5,000	2,500	-	17,500	(17,500)
Total	311,000	122,000	48,500	36,500	518,000	259,000
Agriculture Total	215,000	58,000	16,500	6,500	296,500	124,000
Small Agriculture	(195,000)	(35,000)	(10,000)	(-)	(240,000)	(87,500)
Large Agriculture	(20,000)	(23,500)	(6,500)	(6,500)	(56,500)	(36,500)
Non-Agriculture Total	96,000	63,500	32,000	30,000	221,500	135,000
Mining/Fishing	(18,000)	(5,000)	(3,000)	(4,000)	(30,000)	(25,500)
Secondary Sectors ⁹	(13,500)	(5,000)	(5,000)	(4,500)	(28,500)	(24,000)
Tertiary Sectors	(54,500)	(48,500)	(21,500)	(21,500)	(145,500)	(67,000)
Unemployed	(10,000)	(5,000)	(2,500)	(-)	(17,500)	(17,500)

Notes to Table 6

- 1 W. H. Thomas' 1970 estimates based on collection of scattered sectoral and enterprise is the best previously available source. For urban sectors - unless otherwise noted - these estimates are built up from Thomas' estimates adjusted for later bits of micro data (e.g. 4,500 increase in mining employment related to Oamites, Otjihase and Rossing). Figures in () are estimates in cases in which Thomas' sectorial division is not the same as that of this table. Subsequent 1977 estimates by Thomas are broadly consistent except for small agriculture and domestic service.
- 2 See note ⁸ to Labour Force Estimates Table for method of estimation.
- 3 Assumes 5,000 to 8,500 ranch units with average 6 to 10 of employees (other than European owners and managers) per unit. Excludes short term seasonal workers, i.e. 10 per ranch at 5,000 estimates and 6 at 8,500.
- 4 Includes fish tinning and fish meal production.
- 5 Includes non-European traders. Estimates as high as 12,500 have been made for this sector e.g. 4,500 for Ovambo. However, it seems unlikely that those actually earning their basic household income from this sector can exceed 7,500-10,000. Overlaps exist with small agriculture, teachers, tribal officials.
- 6 Assumes 25,000 urban located European households with 3 domestic employees each. Previous estimates of order 7,500 appear absurdly low. Rural domestic employment not estimated (see note ¹⁰ to Labour Force Estimates Table).
- 7 Nominal estimates. Includes clergy.
- 8 Nominal estimates. Suggest 6 - 7% open unemployment among economically active in sectors other than small agriculture from Central/Southern African and Coloured communities and 8 - 9% Northern African. This may be "true" given numbers forced back to "reserve" and nominally engaged in small scale agriculture. It is not, however, an estimate of numbers actively seeking urban sector jobs which is much higher - perhaps of the order of 60,000 - 75,000 including 42,500 - 57,500 who are nominally or actually economically active in small agriculture.

Notes to Table 6 (continued)

- 9 Manufacturing, water, electricity, construction.
- 10 Transport, communication, commerce, finance, government, domestic.

NOTE: All estimates are approximate. There are no usable comprehensive official data. All estimates (including those of Thomas used as base for urban sector) are built up from fragmentary micro sectoral data plus rough estimation.

TABLE 7
OCCUPATIONAL CATEGORY ESTIMATES (1977)

Category	European	Coloured	African	Total
Managerial/Administrative ¹	9,700	250	100	10,000
(Including: Large Agriculture)	(5,000)	(-)	(-)	(5,000)
(Other)	(4,700)	(250)	(100)	(5,000)
Professional/Technical/Para Professional ²	10,300	2,500	4,250	17,000
(Including: Teachers	(2,500)	(800)	(2,800)	(6,100)
Nurses	(800)	(1,000)	(1,200)	(3,000)
Mining	(1,500)	(50)	(50)	(1,600)
Other Engineering	(1,500)	(100)	(50)	(1,650)
Other production	(2,000)	(200)	(50)	(2,250)
Accounting	(500)	(200)	(50)	(750)
Other	(1,500)	(150)	(50)	(1,650)
Clerical/Secretarial	2,500	1,500	2,000	6,000
Supervisory/Foremen ³	4,000	2,000	6,500	12,500
(Including: Large Agriculture)	(1,000)	(1,000)	(3,500)	(5,500)
(Other)	(3,000)	(1,000)	(3,000)	(7,000)
Skilled-Non-Supervisory ⁴	3,000	1,000	1,000	5,000
Semi-skilled ⁵	2,500	7,500	40,000	50,000
(Including: Large Agriculture)	(-)	(3,500)	(15,000)	(18,500)
(Other)	(2,500)	(4,000)	(25,000)	(31,500)
"Unskilled" ⁶	2,000	8,000	80,000	90,000
(Including: Large Agriculture)	(500)	(2,000)	(25,000)	(27,000)
(Other)	(1,500)	(6,000)	(55,000)	(62,500)
Domestic ⁷	-	12,500	62,000	75,000
Small scale non-agricultural self-employment ⁸	2,500	3,500	6,500	12,500
Small agricultural ⁹	-	10,000	230,000	240,000
Total	36,500	48,500	433,000	518,000
(Totals are rounded)				

Notes to Table 7

- 1 Includes proprietors of large and middle sized businesses, middle and senior managers and civil servants.
- 2 Broadly defined. At para-professional and para-technical level division between this category and skilled or semi-skilled labour is a matter of choice.
- 3 Includes skilled and semi-skilled (but not professional or technical) who have significant supervisory or foreman duties.
- 4 Basically skilled artisans requiring over 18 months specialized formal training or in-service equivalent, e.g. linotype operators, senior mechanics.
- 5 Includes workers with specialized on-the-job acquired skills if inexperienced workers would be unable to perform job adequately with six months normal job experience, e.g. junior mechanics, herdsman with responsibility for moving herds and/or lambing and calving.
- 6 Posts not requiring prior experience and satisfactorily performed with six or less months normal job experience, e.g. sweepers, messengers, pick and shovel road workers.
- 7 Some workers highly skilled but not in general possessing skills transferable to other activities.
- 8 Small shops or service establishment not requiring specialized skills readily transferable to other activities, but requiring significant skills or experience not possessed by unskilled worker.
- 9 Some workers are highly skilled but the skills are not transferable to other activities.

NOTE: Estimates are built up from fragmentary data of different dates, sources, methods, reliability. As a result they are highly approximate. They are broadly consistent with Thomas' parallel estimates produced by a similar method but with more access to unpublished official data.

TABLE 8

SECTORAL PERSONPOWER REQUIREMENT AT INDEPENDENCE ESTIMATES

(High and Middle Level Qualification Personnel)¹

Sector	Present	Redundant ²	New Needs ³	New Total	Present Europeans ⁴	New Expats.	Namibians Total ⁵	New to Post
Agriculture ⁶	10,000	1,000	1,500	10,500	750	1,250	8,500	4,500
Fishing	1,000	NB ⁷	-	1,000	100	250	650	150
Mining	5,000	-	100	5,100	2,500	500	2,100	1,000
Manufacturing	3,000	750	250	2,500	1,000	500	1,000	500
Water & Power	1,000	-	400	1,400	200	500	700	400
Construction	2,500	250	750	3,000	250	500	2,250	750
Transport	1,500	-	1,000	2,500	100	200	2,200	1,200
Communications	750	-	250	1,000	50	450	500	350
Commerce	5,000	2,250	250	3,000	650	250	2,100	600
Finance	500	-	250	750	150	200	400	300
Other Services	1,750	250	250	1,750	500	-	1,250	250
Government ⁸	18,000	8,000	12,500	22,500 ¹⁰	1,250	2,700	18,550	12,000
Including Adm. ⁹	(4,500)	(4,000)	(250)	(750)	(-)	(250)	(500)	(500)
Education	(6,500)	(1,500)	(6,250)	(11,250)	(500)	(1,250)	(9,500)	(6,000)
Health	(3,500)	(1,000)	(3,500)	(6,000)	(500)	(500)	(5,000)	(3,000)
Agriculture	(1,500)	(500)	(1,000)	(2,000)	(100)	(400)	(1,500)	(1,000)
Other ¹¹	(2,000)	(1,000)	(1,500)	(2,500)	(150)	(300)	(2,050)	(1,500)
Total	50,000	12,500	17,500	55,000	7,500	7,500	40,000	22,000

- 1 Includes all managerial/administrative (10,000), professional/technical/para-professional (16,800), 2/3 supervisory/foreman 2/3 (8,250) skilled (4,750) plus 1/2 clerical/secretarial (3,250) and 1/7 semi-skilled (7,000). Cross estimated against sectoral data. (See Tables 4, 6).
- 2 Posts either inappropriate, unnecessary or non-priority in an independent Namibia.
- 3 Posts relating to priority programme and institution requirements - see Sectoral Notes below for somewhat more detail.
- 4 Includes personnel replaced by their employers (e.g. mining companies), by voluntary agencies (e.g. churches) and by new management contractors (e.g. for nationalized enterprises).
- 5 Present total 20,000 of whom 10% 2,000 assumed unavailable or unacceptable after independence. 22,000 promotions and new entries with, when possible, brief "upgrading" and gap filling courses.
- 6 Excludes government agricultural services.
- 7 Special case. Immediate post-independence data assure loss of present Fishing Fleet and substitution foreign "contract" fleet with partially Namibian crews. See Sectoral Notes.
- 8 Includes government agricultural services. Excludes police, prison, armed forces.
- 9 Categories not comparable. Present post figure includes "Bantu Administration", "Coloured Administration", "Security" Forces other than army (i.e. police, prisons).
- 10 Excludes army, police, prisons.

NOTE: These estimates are constructed from Sectoral Data, Table 7 and Table 6. They are, therefore, subject to considerable inaccuracy or wrong "time" treatment in independent government programme priorities. Work is continuing on refining the technical data and timing issues by more detailed sector data collection, and re-estimation.

TABLE 9
OCCUPATIONAL CATEGORY PROJECTIONS TO "1985-86"

A. Magnitude by category

Category ²	High-Middle ³ Qualification	"1980-81" ¹		"1985-86" ¹		
		Other	Total	High-Middle ³ Qualification	Other	Total
Managers/Admin. ⁴	6,000	-	6,000	7,500	-	7,500
Professionals/ Para-professionals	25,000	-	25,000	32,500	-	32,500
Clerical/Secretarial	3,500	5,000	8,500	4,000	7,000	11,000
Supervisory/Foreman	10,500	10,000	20,500	17,500	10,000	27,500
(Large Agri.)	(6,500)	(4,000)	(10,500)	(12,500)	-	(12,500)
(Other)	(4,000)	(6,000)	(10,000)	(5,000)	(10,000)	(15,000)
Skilled	5,000	-	5,000	6,500	-	6,500
Semi-skilled	5,000	70,000	75,000	10,000	87,500	97,500
(Large Agri.)	(-)	(25,000)	(25,000)	(-)	(37,500)	(37,500)
(Other) ⁶	(5,000)	(45,000)	(50,000)	(10,000)	(50,000)	(60,000)
Un-skilled	-	130,000	130,000	-	155,000	155,000
(Large Agri.)	(-)	(75,000)	(75,000)	(-)	(90,000)	(90,000)
(Other) ⁶	(-)	(55,000)	(55,000)	(-)	(65,000)	(65,000)
Domestic	-	30,000	30,000	-	30,000	30,000
Small Scale Non-Afri Self-employed ⁶	-	10,000	10,000	-	20,000	20,000
Small Agriculture	-	200,000	200,000	-	175,000	175,000
Total employed	55,000	455,000	510,000	78,000	484,500	562,500
(Small Agriculture)	(-)	(200,000)	(200,000)	(-)	(175,000)	(175,000)
(Large Agriculture) ⁷	(8,500)	(103,500)	(112,000)	(14,500)	(127,500)	(142,000)
(Non Agriculture)	(46,500)	(151,500)	(198,000)	(63,500)	(182,000)	(245,500)
European/Expatriates			15,000			16,000
Namibians			495,000			546,500
Namibian Labour Force			510,000			560,000
Unemployed/Security Forces ⁸			15,000			13,500
Unemployed/Total Labour Force			2%			2%
Unemployed/ Urban Labour Force			5%			4%

TABLE 9

B. Target Urban Employment Changes1977 - "80 - 81"

1977 Urban employment - (excluding unemployed) ⁹		204,000
Less:		
Domestic Service Decline	-45,000	
Other Structural changes ¹⁰	<u>-30,000</u>	
		-75,000
Added:		
High/Middle Qualification ¹¹	17,500	
Other Government Service	17,500	
Programmes Special ¹²	25,000	
Other to be identified ¹³	<u>9,000</u>	
		+69,000
*1980/81" Urban employment target		<u>198,000</u>
<u>"1980 - 81" - "85 - 86"</u>		
"1980 - 81" Urban employment target ¹³		198,000
Added:		
High/Middle Qualification ¹⁴	23,000	
Other "Normal" Growth ¹⁵	7,000	
Construction Sector Target ¹⁶	7,500	
Self-employed - Small		
Service Units Target ¹⁷	7,500	
Other to be identified ¹³	<u>2,500</u>	
		47,500
"1985 - 86" Urban employment target		<u>245,500</u>

Notes on Table 9

- 1 See Notes 1 - 3, Table 3.
- 2 Catagorisation parallel to Table 7. Number for 1977 adjusted as at final note to Table 7.
- 3 See Table 7 - Note 1. Apparent change in ratios and rapid expansion over period relates to necessary use personnel with skills below medium term acceptable level (and of vacancies) which by definition possess no skills) in "1980/81".
- 4 Old category included proprietors and therefore 5,000 odd large farm owners/managers. In this table these are assumed to be largely gone (see Table 7) and replaced by "Supervisor/Foreman" leaders on each unit plus supporting teams.
- 5 "1980-81" assumes use some large agricultural unit foreman upgraded without additional training but trained by "1985-86".
- 6 See section B this table.
- 7 From population projections (Table 3) and labour force projections (Table 5).
- 8 No estimate of army/police/prisons has been included. Therefore this residual figure includes both security service employees and urban unemployed. For the unemployed % computations unemployed set at 10,000 and 8,500 respectively, therefore assuming a proforma security force employment of 5,000. The exclusion is justified partly on general security grounds but more particularly on the basis that the Liberation Movement has more technical expertise than UNIN in this field and will use some members of the Liberation Forces as the core for independent Namibian Security Forces.

- 9 Table 6.
- 10 Loss of employment consequential on closure of businesses previously serving European community only and of departure of European employers in other non-critical sectors. Includes 12,500 per Table 7 and 17,500 unskilled and semi-skilled.
- 11 See Table 8.
- 12 Special paraprofessional and small production unit for displaced domestic employees and women moving from rural areas.
- 13 Target to be sought.
- 14 From Part A this table.
- 15 Assumes 15% overall growth of non-agricultural employment growth for 5 years, i.e. slightly under 3% a year.
- 16 This is not in fact a major programme; if labour intensive methods are used a moderate sized dam and irrigation channels would require this order of work force.
- 17 Includes co-operative urban ventures joint owner/operators as self-employed.

NOTE: These projections represent possible targets to be sought, not predictions nor the "natural course of events". They are subject to wide margins of error. The underlying population and labour force projections are too weak for the "unemployment" figure to be taken seriously except as a broad indication of approximate balance if the estimates are broadly right and the target basically achieved.

TABLE 10
 EDUCATION/TRAINING PATTERN ESTIMATES (1977)
 (for economically active population in Namibia)¹

Level 2/	European	Coloured	African	Total
University or equivalent	5,000	25	10	5,000
Other tertiary ³	5,000	25	10	5,000
Secondary or equivalent ⁴	10,000	3,000	2,000	15,000
Other post primary ⁵	7,500	3,000	2,000	12,000
Complete primary	9,000	24,000	19,000	52,000
Substantial primary ⁶	Negl.	9,500	110,000	119,500
Negligible or Nil ⁷	Negl.	9,000	300,000	309,000
	<u>36,500</u>	<u>48,500</u>	<u>433,000</u>	<u>518,000</u> ⁸

- 1 All Namibians outside Namibia are excluded.
- 2 The university and other tertiary may be overestimated for present post holders if older ones have markedly less formal education and more experience and quasi-formal in-service training than new entrants.
- 3 Significant post-secondary education or training (including in-service and part-time) - say minimum 12-18 months full time equivalent.
- 4 Form 6 and Form 4 completions grouped. (Largely Form 4 as Form 6 completion normally leads into further education or training). Also includes 30 months or longer post primary courses, e.g. teacher and nurses training of that level and duration.
- 5 Incomplete secondary and post-primary courses or training programmes of less than 30 months.
- 6 Enough to retain ability to read, write, do simple arithmetic. Say over four years (including sub-standards).
- 7 No education or partial primary education followed by relapse to functional illiteracy.
- 8 For African and Coloured persons who are not economically active in Namibia an approximate breakdown is:

Students	160,000
Substantial Primary	80,000
Negligible or Nil	420,000
Other	10,000

The other (i.e. complete primary or above) category is mainly Namibians outside Namibia including members of liberation struggle, refugees, overseas students. Probably 150-200 University or equivalent, 100-150 other tertiary or equivalent and 600-700 secondary or equivalent).

NOTE: All estimates highly approximate.

TABLE 11
"BANTU" EDUCATION/HEALTH

A. Education

	1973	1974	1975
Pupil enrolment in Primary Classes			
lower Primary (SSA-Std.2)	86,980	93,006	98,926
higher Primary (Std. 3 - Std. 6)	26,254	29,432	31,001
total	113,234	122,438	129,927
Pupil enrolment in Secondary Classes			
Junior Secondary (Form I - III)	2,042	2,427	3,475
Senior Secondary (Form IV - V)	212	205	179
total	2,254	2,632	3,654
Student enrolment in			
teacher training	463	492	576
advanced technical training	-	-	354
trade and vocational training	354	297	-
universities in the RSA	31	approx.37	approx.40
total	848	826	970
Total pupils and students	116,336	125,596	134,551
Total teachers	2,662	2,901	3,142
Total schools, training institutions	493	525	571
Number of pupils/students ²			
per teacher	43.7	43.3	42.6
Number of pupils/teachers			
per school	236.0	240.0	235.6

1 Data from Bantu Education Journal 1975/76.

2 Not counting students enrolled at universities in the Republic of South Africa.

B. Health and Demography

Life Expectancy at Birth	41
Infant Mortality (per 1,000) live births)	177
Birth Rate	45
Death Rate	16

Source: USAID, Development Needs and Opportunities
For Cooperation in South Africa, Washington,
1974, p.66.

TABLE 12

EDUCATION/TRAINING SECTOR: "1985 - 86" TARGET

A. Formal, full time institutions with enrolment directly
related to high/middle qualification needs

Programme	Years Length ²	Total Jobs ³	Annual Course Completions					Total Enrollment		Teaching staff ⁵
			For Jobs	For further Education ⁵	Total ⁶	In Namibia	Abroad	In ¹⁴ Namibia	Abroad ¹⁴	
Quarternary ⁷	1 to 5	1,000	110	-	110	50	60	100	140	(20) ⁶
University ⁸	3 to 5	5,000	550	125	660	550	110	2,375	475	325
Other Tertiary	2 to 4	5,000	550	-	550	500	50	1,625	175	90
Secondary "6" ⁹										
Technical	2	5,000	550	700	1,100	1,100	-	2,600	-	175
Other	2	5,000	550	700	1,100	1,100	-	2,350	-	150
Secondary "1/5" ⁹	5	10,000	900	2,550	3,100	3,100	-	17,500	-	850
Agricultural										
Post-Primary ¹⁰	2 to 3	8,500	765	-	765	765	-	2,500	-	150
Other Technical										
Post-Primary ¹¹	2 to 3	12,500	900	-	900	900	-	2,500	-	125
Teacher Train. ¹²	5	10,000	600	-	600	600	-	3,500	-	150
Other Post										
primary ¹³	2 to 4	12,500	900	-	900	900	-	2,500	-	125
Total	-	74,500	6,375	4,075	9,785	9,565	220	37,550	790	2,250
Primary Graduate				7,650	40,000					

TABLE 12

D. Training programmes at workplaces, part time, short course

<u>Programme</u>	<u>Students</u>	<u>Teaching Staff</u>
Correspondence ¹⁷	25,000	250 ¹⁸
Other formal institutions		
Full time	(In A)	(In A)
Short course ¹⁹	5,000	(In A)
Part time	25,000	(In A)
Workplace - entry,		
refresher, upgrading ²⁰	100,000	1,000 ²¹
Total	155,000	1,000

C. Basic primary and continuing education

<u>Programme</u>	<u>Students</u>	<u>Teaching Staff</u>
Primary school (6 years)	260,000	8,500 (500) ²²
Continuing education	260,000	500 (15,000) ²³
Basic skills ²⁴	(100,000)	-
Applied skills ²⁵	(100,000)	-
Other ²⁶	(60,000)	-
Total		9,000 (15,000)

D. Total education target

	<u>Students</u>	<u>Teaching Staff</u>
Group A	37,500	2,250
Group B	155,000	1,250
Group C	520,000	24,500 (9,000) ²⁷
Total	712,500	28,000 (12,500)

Population age 7 and over 1,050,000

Enrolment ratio 68% (712,500)

Population age 13 and over 750,000

Enrolment ratio 60% (452,500)

Notes to Table 12

- 1 Targets beyond Secondary "6" and above cannot literally be met in 1985-86 because of time lags and the need to deploy some of present secondary school students directly to work on completion of secondary "1 to 5" or Secondary "6".
- 2 Ranges indicate different probable lengths for different courses, e.g. social sciences (including management) might be three years, natural sciences (including agriculture) four, engineering and medicine five in university programme.
- 3 The working assumption is that about 70,000 out of the 78,000 high and middle level qualification posts and about 5,000 others (e.g. some foremen and secretarial) would require formal post primary programmes of one year or longer.
- 4 These output targets assume:
 - a) 1% of year death and retirement of citizen job holders at territory, 2% at secondary and post-primary levels. (The ratios would move toward 2½ - 3% at all levels as age structure of senior Namibian personnel became more balanced);
 - b) 3 - 4% a year typical expansion of jobs;
 - c) phasing out of expatriates over 15 - 20 years with virtually all non-tertiary qualified and 50% of tertiary qualified phased out by 1990 reducing the expatriate personnel at that point to - say - 5,000-6,000;
 - d) some upgrading and retraining of present serving personnel with weak qualifications;
 - e) very gradual expansion (say 3% a year parallel to population growth) of the educational system to 1990 - 91, with a basic reassessment of long term capacity requirements at that date.

Notes to Table 12 (continued)

- 5 Required number of students completing given programme in order to enter another. A - in this column does not mean a "dead end" but that direct continuation to another programme would be unusual.
- 6 The previous two columns do not equal the total column. The "for further education" column includes an allowance for students failing to complete the next programme. However, such students would become available for posts relating to the completed programme so literal addition of the columns would double count.
- 7 Post first (university) degree programmes.
- 8 The distinction between University and other Tertiary is somewhat doubtful. It does not characterize the USA, Japan, China or the USSR to same degree as UK, Continental Europe and - as a result - Africa. The basic division here is that a programme totally concentrated on a fairly specific set of directly applicable skills, e.g. some of institutes cited in Sectoral Notes to Chapter IV, is termed "Other Tertiary". It does not logically follow that these programmes would necessarily be in different institutions from university programmes.
- 9 Division between first five forms and sixth form here on British/Anglophonic West African basis. This is an analytical division not necessarily an institutional one.
- 10 For para-professionals (including field level extension staff), supervisors.
- 11 Some para-technical, skilled, semi-skilled posts.
- 12 For primary school and training programme teachers. Other posts in secondary and tertiary programmes.

Notes to Table 1.2 (continued)

- 13 For example, nursing, health education and other para-medical posts, also some chemical/secretarial jobs.
- 14 The assumed failure to complete programme rate is 15% except for secondary "1/5" and secondary "6" technical for which it is 20%.
- 15 Includes research personnel. The basis for this is that research and teaching will be combined in cash tertiary academic staff member's responsibilities. The figures given do not include educational administrators nor "hotel management" (i.e. dormitory, catering service, transport, estates) administrators. The ratios of students to teachers are possible but at secondary and tertiary level require care in avoiding duplicative programmes leading to very small classes. In secondary and tertiary schools part time tutorial and teaching assistant work should be a normal part of the curriculum for final year students.
- 16 Equivalent time. These are included in University/Other Tertiary Staff.
- 17 A correspondence unit (whether separate or part of a broader Continuing Education Institute) is envisaged.
- 18 Full time core staff only. Assumes the part time use of staff of other institutions.
- 19 Annual total enrolment. Perhaps 500 at any one time. Particular emphasis on needs of post holders with inadequate previous skill acquisition opportunities, e.g. senior Liberation Movement personnel who are necessarily engaged in armed struggle until independence.
- 20 Includes only organized programmes of three weeks (full time equivalent) and above. Annual enrolment given; perhaps 12,500 would be in courses at any one time.

Notes to Table 12 (continued)

- 21 Includes full time training/personnel development staff proportion of time to training.
- 22 Bracketed figure is for trainee teachers (from post-primary programme, spending half time in practice teaching during fourth and fifth years.
- 23 Bracketed figure is total part time personnel including teachers and other holders of appropriate skills.
- 24 For example, basic reading, writing, arithmetic, English.
- 25 For example, agriculture, simple bookkeeping, basic construction skills. Includes Farm Training Institutes.
- 26 For example, political education, drama, dancing.
- 27 Bracketed figures are for full time teachers.

TABLE 13

GROSS DOMESTIC PRODUCT ESTIMATES 1920 - 1979

(R000,000 current prices)

Year	Sources	GDP	Primary Sector	Agri-culture/ Fishing	Mining	Secondary Sector	Manufacturing	Construction	Public Utilities ²	Tertiary Sector	Transport, communications	Trade, Housing	Financial Services	Other Services	General Government
1920	A	13.0	9.2	1.7	7.6	0.4	0.3	0.1	-	3.2	(0.8) ³	(0.8)	-	0.8	0.8
1925	A	10.6	6.4	1.3	5.1	0.6	0.5	0.1	-	3.6	(0.8)	(0.8)	-	1.2	0.8
1930	A	13.0	7.2	1.9	5.3	1.0	0.6	0.3	-	5.0	(1.1)	(1.1)	-	1.2	1.0
1935	A	9.8	4.8	0.5	4.3	0.8	0.6	0.2	-	4.2	(0.8)	(0.8)	-	1.5	1.1
1938	A	3.8	0.6	0.7	(Neg) ⁴	0.6	0.5	0.1	-	2.6	(0.4)	(0.4)	-	1.2	0.6
1945	A	8.4	4.8	3.9	1.0	0.6	0.4	0.1	-	2.8	(0.5)	(0.5)	-	1.1	0.7
1949	A	10.4	5.4	5.1	0.4	0.6	0.5	0.1	-	4.4	(0.8)	(0.9)	-	1.7	1.0
1951	A	19.8	11.6	9.0	2.6	1.2	0.8	0.5	-	6.8	(1.6)	(1.7)	-	2.1	1.5
1954	B	22.2	(12.2)	6.4	5.8	(1.6)	1.6	5	6	(8.4)	1.6	2.4	-	2.3	2.1
1959	B	61.0	(40.4)	20.8	20.1	(3.4)	3.4	5	6	(16.7)	3.7	4.6	-	4.4	4.0
1964	B	107.2	(68.0)	22.2	35.8	(7.5)	7.5	5	6	(31.7)	5.4	10.0	-	8.7	7.6
1965	B	141.6	(93.5)	33.5	60.0	(8.7)	8.7	5	6	(39.4)	6.7	12.6	-	10.8	9.3
1968	B	171.3	(66.2)	23.3	42.9	(14.1)	14.1	5	6	(41.0)	6.1	11.0	-	12.4	11.5
1970a	B	122.0	(62.6)	13.2	49.4	(14.9)	14.9	5	6	(44.5)	8.5	8.5	-	13.8	13.7
1970b	D	141.6	69.0	21.1	47.9	18.4	12.7	4	1.4	54.2	12.2	15.8	11.5	6.1	8.8
1972	B	146.7	(82.5)	35.2	47.3	(14.2)	14.2	5	6	(50.0)	10.7	9.7	-	14.5	15.1
1973	C	211.9	143.5	42.8	99.7	(17.0)	-	-	-	(54.4)	-	-	-	-	-
1974a	D	379.4	175.8	60.7	115.1	54.5	35.8	14.8	3.9	149.1	26.7	45.5	30.9	15.9	30.1
1976b	E	273.1	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	D	455.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	E ⁷	615.6	492.0	123.0	369.0	(30.9)	-	-	-	(92.7)	-	-	-	-	-
1974	D	592	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	F	741	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	G	1135	575	210 ⁷	365	160	85	60	15	400	60	135	85	50	70
1979	H	1700	1035	195 ⁷	655	150	80	52.5	17.5	425	65	140	90	55	75

NOTES: 1 The procedures, coverage, categories of the different sources vary. Neither totals nor sectoral components are fully comparable.

2 Water, electricity.

3 Bracketed () Figures are interpolated, not direct from source.

4 Negative value added.

5 Included in manufacturing.

6 Included in other services.

7 Includes forestry.

SOURCES:

A. D.C. Krogh: "The National Income and Expenditure of South West Africa (1920 - 1950), South African Journal of Economics, Vol. 28.

B. Odendaal Report, Table CVIII.

C. R. Murray "The Namibian Economy" in R. Murray et al, The Role of Foreign Firms in Namibia.

D. W. H. Thomas, "The Economy of South West Africa: An Overall Perspective", mimeo.

E. United Nations, Report of Special Committee on Granting of Independence to Colonial Countries and Peoples, A/10023, September 1975.

F. RSA Official Estimate Reported to "SWA Legislative Assembly" by D. Mudge. 1975 Official Estimate R 644 million. Alternative 1975 figures Thomas R755 million and W.S. Barthold R826.4 million (Namibia's Economic Potential, 1977) estimated from fragmentary RSA and unofficial data.

G. Table 15.

H. Table 17.

TABLE 14
GDP/GNP GAP ESTIMATES

Year	GDP	GNP	GNP % of GDP
1946	22.2	20.4	92
1950	61.0	46.4	76
1954	107.2	74.4	70
1956	141.6	85.1	60
1958	121.3	83.2	69
1962	146.7	104.1	71
1969	368.9	278.0	75
1977	1135.0	710.0	63

SOURCE: Odendaal Report Pretoria, 1964.

Financial Mail "Desert Deadlock", 2.3.1973

Table 15.

TABLE 15

1977 TERRITORIAL ACCOUNTS

- A -

Namibian Gross Domestic Product - 1977

(R 000,000)

<u>Sector</u>	<u>Value added</u>		<u>%</u>	
Agriculture	157½	(177½) ³	13.9	(15.2) ³
Peasant Household Use ¹	20	(40) ³	1.9	(3.4) ³
Commercial ²	<u>137½</u>		12.1	
Forestry	2		0.2	
Fishing	40½	(41)	3.5	
Household Use	½	(1)	0.1	(0.1) ³
Commercial	40		3.4	
Mining ⁴	375		33.2	
Primary Sector	575	(595½)	50.7	(51.0) ³
Manufacturing	85		7.5	
Food Processing	50		4.4	
Other Large Scale	25		2.2	
Small Scale ⁵	10	(12½)	0.9	(1.0) ³
Construction ⁶	60		5.3	
Electricity/Water	15		1.3	
Secondary Sector	160	(162½)	14.1	(14.0) ³
Transport/Communication/Storage	60		5.3	
Trade	110		9.7	
Accommodation ⁷	25	(32½)	2.2	(2.8) ³
Financial Services	85		7.5	
Social and Personal Services	50		4.4	
Domestic Service	15		1.3	
Other	35		3.1	
General Government ⁸	70		6.2	
Tertiary Sector	400	(407½)	35.2	(35.0) ³
Gross Domestic Product	1135	(1165)	100.0	(100.0) ³

Notes to Table 15 - A -

- 1 Food produced and consumed in the same household unit.
Estimated at R100 times 200,000 households with some food production. Implies physical output per "subsistence sector" household about one half Tanzanian level.
- 2 Estimated make up of sales in R 000,000
- | | |
|------------------------|------------------|
| Beef | 70 - 75 |
| Milk/Butter | 7½ |
| Small Stock/eggs/hides | 12½ |
| Karakul pelts | 50 - 55 |
| Wool | 2½ |
| Cereals | 5 - 7½ |
| Other crops | 5 - 7½ |
| Total | <u>152½-167½</u> |
| Less Inputs purchased | <u>20 - 25</u> |
| Value Added | <u>132½-142½</u> |
- 3 All bracketed Figures reestimate household consumed output at urban price equivalent (household import parity) instead of farm gate prices (household export parity) or nominal cost of materials.
- 4 Computed as slightly over 80% of export value. Earlier years data shows up to 89% ratios. Downward adjustment is for fuel cost increase and higher import content in uranium.
- 5 Includes £2.5 million (R 5.0 million per note 3) African household produced/consumed handicraft and related value added.
- 6 Approximately 2/3 government construction equivalent to 33 1/3% of capital budget.
- 7 17,500 European houses rental average R1,000; hotels and lodging houses R5 million. African rural houses R2½ million on material cost or R10 million on rental value basis.
- 8 Excludes public enterprises and value added in government construction. Basically Recurrent Budget wages and salaries (R55-65 million).

TABLE 15

- B -

Distribution of Gross Domestic Product (R 000,000)

Household Own Use Production

Wages and Salaries	25		2.2
European ¹	210 (18.5%)		
African/"Coloured" ²	<u>105</u> (9.3%)	315	27.8%
Taxes on Proprietors ³		175	15.4%
Surpluses of Production Units ⁴	15 (1.3%)	620	54.6%
Small European ⁵	105 (9.3%)		
Large European ⁶	<u>500</u> (44.1%)	—	—
		<u>1135</u>	<u>100.0%</u>

- 1 Estimated at 30,000 times R7,000 average. Includes pensions, social security, fringe benefits.
- 2 Estimated at R200 per employee in Domestic Service; R250 large Agriculture; R400 Construction; R500 Fishing and other; R600 Government, Transport and Communication, Commerce, Finance; R1,000 Mining, Manufacturing, Water and Electricity. Includes payments in kind and provident Funds.
- 3 Minerals taxes, company tax, income tax on business undertakings but not income tax on wages/salaries or consumption taxes.
- 4 Net of taxes is listed at Note 3. Gross of depreciation.
- 5 Cash sales related surpluses e.g. livestock, milk, petty commerce.
- 6 Estimated 10,500 business at average surplus of £10,000. Includes individual proprietors, normal partnerships, companies with surplus of £50,000 or less.

90
TABLE 15

- C -

Distribution of Personal Income (R 000,000)

<u>Personal Income</u> ¹	<u>Total (R 000,000)</u>	<u>Per Capita (Rand)</u>
African/"Coloured"		
"Subsistence"	25	22
Wages (including "in kind")	105	91
Other	<u>15 145</u>	<u>13 126</u>
European		
Wages/Salaries	210	1983
Production Unit Surpluses (excluding corporate profits)	<u>105 315</u>	<u>992 2975</u>

1 Derived from Tables 1 and 13 - B -.

TABLE 15

- D -

<u>Gross National Product</u> (Remittance Basis) (R 000,000)		
GDP		1,135
<u>Remittances</u>		
European Wages/Salaries (25%)	52.5	
Small Enterprise Surplus (25%)	32.5	
Large Enterprise	300.0	
State-Recurrent Account ²	60.0	
State Enterprises ³	<u>-20.0</u>	<u>425</u>
Gross National Product		710

- 1 Strictly foreign owned surpluses retained in a territory constitute a deduction from GDP (and a net inflow of foreign investment). Practically most computations work from estimates of remitted foreign earnings.
- 2 The "state" in question is South Africa and thus not a Namibian body. On recurrent account there is a surplus of about R60 million. This is not properly offset by government capital expenditure which in the case of Namibia constitutes "foreign investment". 1976/77 Budget Year surplus on this basis was of the order of £46 million. 1977/78 presumptively will be higher given enhanced diamond tax revenue.
- 3 Operating losses of Posts, Telecommunications, Railways.

Notes: As with exports, South Africa has gone to considerable effort to prevent estimation of GDP. These estimates are made from incomplete data of varying dates and degrees of consistency and reliability. The estimates should be treated as approximations. South African military expenditure in Namibia (except a portion of road and communication spending) excluded. Walvis Bay included.

TABLE 16

POSSIBLE RECONCILIATION 1976 - 77 GDP ESTIMATES

- A -

SWA Estimate

1.	1976 RSA Estimate for "SWA" R 741 million.	
2.	1976 - 77 Growth.	
	General (1%)	7½
	Uranium ¹	
3.	1976 - 77 Price Increase (12%) ²	90
4.	Probable 1977 RSA Estimate	<u>R905 million</u>
5.	Differences in Coverage RSA Estimate and Table 15.	
	'Subsistence' Agriculture	17½
	Commercial Agriculture	17½-15
	Housing/Other Small Scale Activity	20-25
	SWA Account and Parastatal Spending ³	50-55
		<u>R115 million</u>
6.	Probable Differences Due to Transfer Prices of Exports ⁴	
	Agricultural Products	13
	Fish Products	10
	Minerals	22
		<u>R45 million</u>
7.	Total After Adjustments	<u>R1,065 million</u>
8.	Table 15 1977 Estimate	<u>R1,135 million</u>
9.	Unexplained Divergence RSA/Table 15 Estimates	<u>R70 million</u>

TABLE 16

- B -

Barthold Estimate

1. 1976 Estimates	826.4
2. Output Increase	68.6
3. Price Increase	107.5
4. Pro Forma 1977	<u>1,002.5 million</u>
5. Coverage Adjustments ⁵	50
6. Transfer Pricing Adjustments	<u>45</u>
7. Comparable Total	<u>1,097.5 million</u>
8. Unexplained Divergence	
Barthold/Table 15 Estimates	<u>37.5 million</u>

Notes to Table 16 - A - and - B -

- 1 Rossing output 1976 under 750 tonnes, 1977 in 2,500 - 3,000 tonne range.
- 2 1976 price deflator increase over 1975 was 14%.
- 3 Wages, salaries and value added in construction related to "SWA" Account and some Parastatal Account spending are apparently treated as RSA, not "SWA" value.
- 4 Artificial export prices by RSA or overseas companies shifting value added from "SWA" to RSA, UK or USA. Estimated pro forma at 10% for agricultural exports, 15% for fish products.
- 5 Barthold's estimate is adjusted upward by about R85 million on the official estimate cited. The exact items covered are unclear but are not identical to those listed in "A".

TABLE 17
TERRITORIAL ACCOUNTS PROJECTIONS

- A -

Namibian Gross Domestic Product
Projections : 1979 - "1985-86"
(R 000,000)¹

<u>Sector</u> ²	<u>1979</u>		<u>"1985-86"</u>	
	<u>Value Added</u>	<u>%</u>	<u>Value Added</u>	<u>%</u>
Agriculture	162½	11	140 ³	8
Forestry	2½	-	2½	-
Fishing	30	2	42½ ⁴	2½
Mining	655	47	850 ⁵	50
Primary Sector	850	60	1035	61
Manufacturing	80	6	105	6
Food Processing	(40)		(45)	6
Other	(40)		(60)	7
Construction	52½	4	90	8
Electricity/Water	17½	1	20	1
Secondary Sector	150	11	215	13
Transport/Communication/ Storage	65	4	75	4½
Trade	110	8	90	9
Accommodation	30	2	25	1
Financial Services	90	6	75	9
Social and Personal Services	55	4	35	9
General Government	75	5	150	10
Tertiary Sector	425	29	450	27
Gross Domestic Product	1425	100	1700	100

1. 1978 Prices
2. See Notes Table 16.
3. Livestock - 50, Dairying + 10, Crops + 17½
4. Recovery to 1976-77 levels.
5. Increase in uranium oxide, reactivation base metal capacity closed in 1979.
6. Additional meat packing, milling.
7. Including a cement plant but largely small scale.
8. Includes small scale housing, water, urban works. Assumes at least one major rail or irrigation project.
9. Sectors sharply affected by decline in resident European population.
10. General expansion services plus (pro forma) security force salaries.

TABLE 17

- B -

Distribution of Gross Domestic Product (R 000,000)¹

	1979	%	"1985-86"	%
Household Production For Own Use	25	2	50	3
Wages and Salaries	390	28	750	44
African/"Coloured"	(130)	(9)	(500)	(29)
European	(260)	(18)	(250)	(14)
Surpluses of Production Units	810	56	500	29
African - Private	(20)	(1)	(40)	(2)
African - State	(NA)	(-)	(225)	(13)
Small European	(90)	(6)	(25)	(1)
Large European	(700)	(49)	(210)	(12)
Taxes on Proprietors	200	14	400	24
	1425	100	1700	100

1. See Notes Table 16- B.

- C -

Personal Income ¹ (R 000,000)	1979	"1985-86"	
	Total	Total	Per Capita (Rand)
African/"Coloured"	195	590	407
Household Production	25	50	34
Wages	130	500	345
Other	20	40	28
European	350	275	5500
Wages/Salaries	260	250	5000
Production Unit Surpluses (excluding corporate profits)	90	25	500

1. Derived From Tables 6, 7, 16 - B.

Table 17 (concluded)

- D -

Gross National Product	(Remittance Basis) ¹		(R 000,000)	
	1979		"1985-86"	
GDP	1425	(100%)	1700	(100%)
<u>Remittances</u> ¹	-475	(33%)	-125	(7%)
European Wages/Salaries	(-57½)		(-50)	
Small Enterprise Surplus	(-22½)		(-10)	
Large Enterprise	(-320)		(-65)	
State - Recurrent Account	(-100)		(Negl.)	
State Enterprises	(+25)		(-)	
<u>Gross National Product</u>	950	(67%)	1575	(93%)

1. See Notes Table 16 - D.

TABLE 18

NAMIBIAN VISIBLE EXPORTS
1966 - 1977 (R 000,000)
(Current Prices)

	<u>1966</u>	<u>%</u>	<u>1970</u>	<u>%</u>	<u>1973</u>	<u>%</u>	<u>1977</u>	<u>%</u>
Agricultural Products	32.6	15.6	49	20.9	93	26.6	130	20/18
Karakul Pelts	15.9	7.6	25	10.7	50	13.6	60-65	10
Wool	()		()		()		2-3	0.3
Meat & Products	(16.6)	7.9	(24)	10.2	(48)	13.0	60-65	10
Other	()		()		()		2-3	0.3
Fishery Products	48.9	23.4	56	23.8	80 ⁴	21.7	65	10/9
Fish Meal	22.4	10.7	28	11.9	40	10.8	30-35	5
Tinned Fish	14.0	6.7	16	6.8	25	6.5	20-25	3
Other ¹	12.5	6.0	12	5.1	15	4.4	10-15	2
Mineral Products	127.8	61.1	130	56.3	190 ⁴	51.7	465-515	70/74
Diamonds	85.0	40.6	70	29.8	100 ³	27.8	250-300 ⁵	36/40
Uranium	-	-	-	-	-	-	80-105 ⁶	14
Copper	19.2	9.2	25	10.6	40	10.9	50-60	9
Lead	12.3	5.9	18	7.7	28	7.5	37½-47½	6
Zinc and Other ²	11.3	5.4	17	7.2	22	5.6	25-30	4
Total Visible Exports	209.3	100.0	234	100.0	368 ⁴	100.0	660-710	100
Exports as % of GDP	67%		62%		62½		58/62% ⁷	

Notes:

- 1 Fish, Oil, Lobster, Seal Products, Frozen Fish.
- 2 Tin, Vanadium, Cadmium, Lithium, Manganese, Silver.
- 3 Alternative estimates R127m to R147m appears likely to be more nearly accurate.
- 4 Alternate estimate by Barthold, R380m-£230m minerals, 60m fish and products, 90m agricultural products.
- 5 Estimated from 1976-77 volume and price increases and alternatively from calendar 1977 tax estimates and normal ratio of tax to exports.
- 6 Assumes 2,000-2,250 tonnes concentrate exports of 3,000 produced.
- 7 Coverage of 1977 GDP estimate is broader than earlier ones. On the 1973 GDP comparable basis the ratio would be 65-69%.

Notes to Table 18 (continued)

Sources: 1966 - South West Africa Survey 1967
1970 - 1973/74 - W. H. Thomas, "The Economy of
South West Africa", mimeo.
1977 - Various sources.

- Note:
1. All post 1966 estimates are based on calculations from fragmentary data of different dates, coverage and accuracy. The Republic of South Africa has gone to considerable effort to make it impossible to compile Namibian external trade data. All estimates are, therefore, at best approximate.
 2. All estimates include products of and exports through Walvis Bay.
 3. All estimates include trade to and through the RSA.

TABLE 19

NAMIBIAN EXPORT PROJECTIONS
 1979 - "1985-86" (R 000,000)¹

	1979	%	"1985-86"	%
Agricultural Products	130	13	70 ²	6
Karakul Pelts	65	6.5	40	3
Wool	2½	-	2½	-
Meat and Products	60	6	25	2
Other	2½	-	2½	-
Fishery Products ³	30	3	40 ²	3
Fish	10	1	12½	1
Tinned Fish	10	1	17½	1.5
Other	10	1	10	1
Mineral Products	850	85	1140	91
Diamonds ⁴	475	47	475	38
Uranium ⁵	275	27	550	44
Copper ⁶	30	3	50	4
Lead ⁶	40	4	32½	3
Zinc and Other ⁶	30	3	32½	3
Total Visible Exports	1010		1250	
Exports as % of GDP	71%		74%	

1. In 1978 Prices.
2. Assumes significant transitional damage to sector not fully made good by "1985-86".
3. Sector badly damaged by overfishing.
4. Assumes static output post 1977.
5. Assumes 4,000+ tonnes 1979; 8,000 tonnes 1985-86.
6. Some capacity closed in 1979; assumed to be reactivated by "1985-86".

TABLE 20

BALANCE OF PAYMENTS ESTIMATES¹
(ROO,000)

<u>Visible Trade</u>	<u>1977</u>	<u>1979</u>	<u>"1985-86"</u> ¹²
Visible Exports	700	1000	1250
Visible Imports	<u>450</u>	<u>700</u>	<u>1150</u>
	<u>+250</u>	<u>+300</u>	<u>+100</u>
 <u>Invisible Trade</u> ²			
Services Exports	15	15	5
Services Imports	<u>65</u>	<u>90</u>	<u>125</u>
Services Balance	<u>-50</u>	<u>-75</u>	<u>-100</u>
 <u>Remittances</u> (- means outflow)			
a. Individuals from Income	-52.5	-57 $\frac{1}{2}$	- 50 ¹³
b. Small Proprietors from Income	-32.5	-22 $\frac{1}{2}$	- 10 ¹⁴
c. Large Firms from Income	-300	-320	- 65 ¹⁴
d. Government Recurrent Account ³	-60	-100	Negl.
e. Railways, Telecoms. Recurrent Account	<u>+20</u>	<u>+25</u>	<u>N.A.</u>
Remittances Balance	<u>-425</u>	<u>-475</u>	<u>-125</u>
 <u>Long Term Capital</u> ⁴ (- means outflow)			
a. Individuals	-50	-75	-5
b. Small Term Proprietors	-50	-75	-5
c. Large Firms ⁵	+60	+50	Negl.
d. Government Capital Account ⁶	+115	+125	+50 ¹⁵
e. Parastatals Capital Account ⁷	+ 30	+ 30	+110
f. Reduction Financial Institution Claims on South Africa	<u>+100</u>	<u>+150</u>	<u>N.A.</u>
Long Term Capital Balance	<u>+205</u>	<u>+205</u>	<u>+150</u>
 <u>Short Term Capital</u> ⁸	+ ?	+ ?	+ 25
<u>Central Bank</u> ⁹	?	?	- 50 ¹⁶
<u>Errors and Omissions</u> ¹⁰	+ 20	+ 45	?

Notes to Table 20

- 1 See Tables 15, 17, 18, 19. Estimates are all approximate. No official data are made public. Since there is no RSA/Namibia exchange control barrier invisible, remittance, banking system and commercial credit data probably do not exist in any systematic form.
- 2 Excludes interest, dividends - these are included in remittances.
- 3 Recurrent revenue from exceeds recurrent expenditure in Namibia.
- 4 Items a and b represent capital flight. Very crude estimates. These appear to have been financed largely by running down deposits with financial institutions (or increasing borrowing from them). As these institutions have held net investment/deposit balances in the Republic as part of the counterpart to Namibian deposits, f (reducing claims on South Africa) should offset a, b. Errors in f and a, b guesstimates should, therefore, be largely cross-cancelling.
- 5 Basically mineral prospecting plus Langer Heinrich development.
- 6 Derived from 76-77 Estimates.
- 7 Derived from 76-77 Estimates. Railways and Harbours, Post and Telecommunications (R18 million) and rough guess as to other parastatal (e.g. electricity, water) capital spending not financed through government budget or from territorial operating surplus.
- 8 Probably a net inflow because of decline of outstanding fish processing unit end of year claims from 1976 because of low 1977 catch. No data available.
- 9 Pro forma. Given that there is neither a territorial central bank nor a separate currency this item would be the net change of currency (South African) in circulation in Namibia. Some remittances and capital flight have taken the form of notes thus reducing circulation in Namibia. However, inflation has presumably had the opposite effect so the net movement of currency circulation is unclear. No data exist and no official estimates are available.

Notes to Table 20 (continued)

- 10 Balancing item.
- 11 1979 and "1985-86" in 1978 prices.
- 12 High speculative.
- 13 Assumes exchange control but relatively liberal remittances for resident expatriates.
- 14 Assumes dividend control but allowance some dividends abroad.
- 15 Includes grant technical assistance.
- 16 i.e. R50 million addition to Central Bank external reserves. (Assumed target level R250-350 million. Initial level by conversion of rand, R50 million; additions year 1-4 of independence R100-150 million.)

TABLE 21
 LAND USE PATTERNS 1976
 (000 hectares)¹

	Total	European Ranches	African Areas
Total Area	82,400	37,700	32,600
Arable	700	100	600
Of which irrigated ²	(.07)	(.07)	(-)
Permanent Pastures	52,900	36,800	16,100
Forest, Woodland ³	10,400	400	6,000
Waste and Other ⁴	18,300	370	9,850
Permanent Water ⁵	100	30	50

Notes:

- 1 All estimates except total area highly approximate.
- 2 Approximately 1,500 ha. Hardap Scheme and 5,500 spot irrigation.
- 3 Includes a proportion of very sparse savannah woodland.
- 4 Desert, bare rock, swanp and urban.
- 5 Small lakes.

Sources:

FAO, Production Yearbook, 1977.

Namibia, Food and Agriculture Sector, 1975.

Southern African Development Coordination Conference, Agriculture, Forestry and Fisheries, 1979.

A.M. Mramba, Possibilities for the Future Development of Livestock Ranching In an Independent Namibia, 1977.

TABLE 22

COMMERCIAL AGRICULTURE ESTIMATED SECTORAL ACCOUNTS 1977 - 78
(R 000)

European Cash Sales		162.5	
European Production Used to Pay Labour		1.5	
African Cash Sales		10.0	
		<u>174.0</u>	
Beef	85.0	European Wages	4.0
Dairy	7.5	African Wages	15.0
Smallstock, Eggs, Hides	12.5	Cash (7.5)	
Karakul	55.0	Kind (715)	
Wool	2.5	Implements	20.0
Cereals	5	Operating Inputs	25.0
Other	6.5	Gross Fixed Investment	15.0
	<u>174.0.</u>	Financial Charges	10.0
		Net Operating Surplus	<u>85.0</u>
			<u>174.0</u>

Notes: A tentative estimation from scattered data of different dates.

Sources: Estimated from data in:

C. Nixon, "Land Use and Development in Namibia", 1978.

A.M. Mramba, Possibilities For the Future Development of Livestock Ranching In An Independent Namibia, 1977.

G. Max, "Wage Survey", 1976.

Windhock Observer, various issues 1978-79.

TABLE 23
LIVESTOCK PATTERNS 1913-1976

Animal	Year	(000)		
		Total	European owned	African owned
Cattle	1913 ¹	206	183	23
	1958	3,222	2,078	1,150
	1960	2,440	1,832	608
	1965	2,347	1,543	805
	1970	2,500 ²	2,130	370 ²
	1971	2,810	1,940	870
	1976	2,875	2,000	875
Sheep	1960	3,131 ³	2,654	477 ³
	1965	3,839	3,641	199
	1970	4,000	3,750	250
	1971	4,100	3,825	275
	1976	5,085 ⁴	4,750 ⁴	335
Goats	1960	1,359	525	834
	1965	1,541	625	916
	1970	1,700	650	1,050
	1971	1,750	675	1,075
	1976	2,026	800	1,226
Sheep & Goats	1913 ¹	1,034	738	316
Pigs	1965	20	20	-
	1970	24	24	-
	1971	26	26	-
	1976	30	30	-
Poultry	1965	339	-	-
	1970	400	-	-
	1971	410	-	-
	1976	500	-	-
Horses, Asses Mules	1976	111 ⁵	-	-

Notes to Table 23

- 1 Police Zone only - excludes Kaokoveld, Ovambo, Okavango, Caprivi.
- 2 Underestimate. More likely total 3,000 and African 870.
- 3 Rehoboth figure of 344 (versus 49 in 1965) incredible. Probably correct figure was 34 in which case African 167, Total 2,821.
- 4 Probably overestimated. 4,335 total and 4,000 European appears more likely.
- 5 Excludes Turnhalle members.

Sources: Compiled from

FAO, Namibia Prospects for Future Development, 1977.

Production Yearbook, 1977.

Republic of South Africa, Bureau of Statistics, Report No. 3, 1964.
South West African Survey, 1967.

A.F. Calvert, South West Africa Under The German Occupation.

T.W. Laurie, London, 1916.

A.M. Mramba, Possibilities For The Future Development Of Livestock Ranching In An Independent Namibia.

TABLE 24EUROPEAN CATTLE HERDS, OFFTAKE
(000)

Year	Number of Head of Cattle kept by White Namibians	Offtake (Culling-rate)	
		Total ¹	on the hoof exports to the RSA
1968	1,500	317	259
1969	1,980	312	241
1970	2,130	417	306
1971	1,940	502	353
1972	1,950	583	435
1973	1,500	507	n.a.
1974	1,880	276	n.a.
1975	n.a.	n.a.	n.a.
1976	n.a.	n.a.	328 ²
1977	2,000	400	320

Notes:

1 In recent years, some 33,000 head of cattle have been slaughtered annually in Namibia to supply the Namibian public with fresh meat.

2 Estimate

Sources: South African Financial Gazette, Supplement on South West Africa, August 30, 1974, p.9.
ECA, Summaries of Economic Data, Namibia 1973, 6th Year, No.2.
South West Africa Survey 1974, Department of Foreign Affairs of the Republic of South Africa, 1975, p.34.

TABLE 25
KARAKUL PELT EXPORTS 1960-1976

	Export of South African and Namibian Karakul Pelts ¹	Average Price per Karakul Pelt ¹	Number of Namibian Karakul Pelts Exported ²	Value of Namibian Karakul Pelts Exports
Year	Number	Rand	Number	million Rand
1960	2,747,659	4.38	1,648,595	7.2
1970	5,148,396	5.78	3,089,037	17.9
1971	5,388,182	8.09	3,232,909	26.2
1972	5,514,011	9.96	3,308,406	33.0
1973	5,009,443	9.21	3,005,665	27.7
1974	4,692,500	9.33	2,815,500	26.3
1975	4,841,995	11.90	2,905,197	34.6
1976	4,809,802	17.82 ³	2,885,881	51.4

Notes:

- 1 Source provides this column.
- 2 Calculated on the basis of column 2 on estimate that 2/5 of total production originates in the Republic of South Africa and 3/5 originates in Namibia.
- 3 The price rise is partly due to the devaluation of the Rand by 15%.

Sources: Karakul Board, Annual Report for the Finance Year Ended 30 June 1974, Windhoek; Information by Mr. Manning of the Karakul Board, January 31, 1977, Windhoek.

TABLE 26
CROP PRODUCTION ESTIMATES 1971-1976
(hectares, tonnes)

Crop ¹	1971	1972	1973	1974	1975	1976
Wheat						
Area	600	600	700	700	700	700
Production	600	600	700	700	700	700
Maize						
Area ²	30,000	32,000	32,000	32,000	32,000	32,000
Production	10,000	12,000	12,000	12,000	12,000	14,000
Millet						
Area ²	48,000	49,000	50,000	51,000	52,000	53,000
Production	17,000	17,500	18,000	18,500	19,000	19,500
Sorghum						
Area ²	6,000	7,000	7,000	7,000	7,000	9,500
Production	2,000	2,300	2,300	2,300	2,300	2,300
Total Grain						
Area	84,600	88,600	89,700	90,700	91,700	93,200
Production	29,600	32,400	33,000	33,500	34,000	36,500
Roots and Tubers						
Area	12,500	12,500	13,000	13,500	14,500	14,500
Production	105,000	105,000	110,000	115,000	120,000	125,000
Pulses						
Area	3,300	3,300	3,300	3,400	3,400	3,400
Production	5,900	6,000	6,200	6,300	6,400	6,600
Fresh Vegetables						
Production ³	16,500	17,000	17,500	18,000	18,500	19,000
Total						
Area ⁴	104,500	108,600	109,400	112,100	114,200	115,900
Production	157,000	160,400	166,700	172,800	178,900	187,100

110
TABLE 26 (continued)

Notes:

- 1 All data are highly approximate trend estimates. They do not take account of weather and, therefore, actual annual output fluctuations.
- 2 Probably grossly underestimated. Outputs may be closer to correct as yields, per hectare appear to be grossly over-estimated.
- 3 Production and implicit acreage probably seriously underestimated.
- 4 Apparent gross underestimate. 1960 South African Agricultural Census Data (Report No. 1 of 1963) show about 640,000 hectares under cultivation - 66,000 European and 574,000 African.

Sources: Data from FAO, Namibia: Prospects For Future Development, 1977.

TABLE 27
COASTAL FISHERY CATCH 1966-77
(000 tonne)

Year	Catch of South African Fishing Boats				Catch Quotas		Fish Products Manufactured in Namibia		
	Pilchard	Anchovey	Others ¹	Total	Pilchard	Total	Fish-meal	Fish body oil	Canned Pilchard
1966	.	.	.	.	.	730.0	.	.	.
1967 ²	915.1	10.7	0.1	925.9	.	.	172.5	38.5	83.7
1968 ²	1,331.1	142.1	0.2	1,473.4	.	.	238.4	68.3	80.3
1969 ²	1,109.1	179.8	2.4	1,291.3	.	.	202.7	45.2	79.1
1970	509.7	197.1	0.8	707.6	.	.	156.3	43.9	90.1
1971	309.8	266.7	83.3	659.8	498.7	1,038.7	135.4	27.2	57.1
1972	363.7	144.6	16.6	524.9	.	.	112.3	28.1	110.5
1973	396.0	301.7	9.2	706.9	.	.	143.1	46.8	135.0
1974	554.7	252.8	26.1	833.6	568.3	940.5	161.2	28.3	186.6
1975	545.4	194.4	19.4	795.2	568.3	940.5	146.6	28.3	194.0
1976	447.3	94.1	31.1	572.5	475.3	940.5	106.1	19.1	172.8
1977	.	.	.	.	250.0	940.5	.	.	.

Notes:

1 Red-eye, mackerel, maasbanker.

2 From 1967-1969, two South African fish-meal factory ships caught and processed considerable quantities of pilchard off the Namibian coast.

Sources: South African Fishing Industry Handbook and Buyer's Guide, 13th Edition 1976/77, Capetown (undated), p.43.

The South African Shipping News and Fishing Industry Review, September, 1976, p.42.
Africa Research Bulletin, Vol. 14, No. 2., 31st March, 1977, p.4208C.

TABLE 28

OFFSHORE CATCH ESTIMATES 1975

(000 tonne)¹²

Country	t	%
USSR	209,320	42.6
Spain	169,885	34.6
Poland	37,122	7.6
Cuba	28,652	5.8
Republic of South Africa	19,715	4.0
Bulgaria	8,750	1.8
Italy	6,780	1.4
Israel	6,000	1.2
Japan	5,103	1.0
Total	419,327 ³	100.0

Notes:

- 1 Groundfish including hake, redfish, bass and congers.
- 2 Between latitude 150° south and latitude 30° south, i.e. within an area somewhat longer than the Namibian coastline.
- 3 Incomplete.

Source: International Commission for the South East Atlantic Fisheries (ICSEAF).

TABLE 29

MINES, MINERALS, MINING COMPANIES

<u>Mining Company and Mine</u>	<u>Type of Mineral</u>	<u>Parent Companies</u>
<u>1. Diamonds</u>		
CDM of SWA Limited		De Beers Consolidated
Oranjemund, Diamond Area No. 1	Gemstones	Mines Limited (100%)
Marine Diamond Corporation (Pty) Ltd., Foreshore and sea concessions off DA No. 1	Gemstones	De Beers
<u>2. Base Minerals</u>		
Tsumeb Corporation Ltd., TCL Tsumeb, Kombat, Matchless, Asis Ost.	Cadmium, blister copper refined lead, smelter silver, zinc concentrates by-products, arsenic trioxide, germanium	AMAX Inc (29.6%), Newmont Mining Corporation (29.6%) Selection Trust (14.2%) O'okiep Copper Company (9.5%) Union Corporation (9.4%) SWACO (2.4%).
South West Africa Company Limited SWACO Berg Aukas, Brandberg West, Asis Ost	Lead vanadate concs., lead and zinc sulphides, zinc sillicates, tin/ tungsten concs.	Anglo-American (44%) Consol- idated Goldfields CGF (43%) Charter Consolidated (2%) 11% other until 1976. Then Kiln Products Ltd. (100%).
Kiln Products Limited Berg Aukas	Waelz kiln production zinc oxide concs.	Goldfields of South Africa GFSA (55%) unlisted subsidiary.
Oamites Mining Company (Pty) Limited Oamites	Copper concs., Silver ores.	Falconbridge Nickel Mines (74.9%), Industrial Development Corpor- ation of SA, IDC (25.1%).
Otjihase Mining Company (Pty) Limited Otjihase	Copper concs., pyrite concs., precious metals.	Johannesburg Consolidated Investments (67%), Minerts.
Klein Aub Koper Maatskappy Beperk Klein Aub	Copper Concs.	General Mining/Federale Mynbou (100%).
Imcor Zinc (Pty) Limited Rosh Pinah	Lead and zinc concs.	ISCOR (100%).
Uis Tin Mining Company Ltd. Uis	Tin Concs.	ISCOR (100%).
Onganja mine Seois	Copper concs.	Zapata Corporation via 93%- owned Granby Mining Corporation

TABLE 29 (continued)

<u>Mining Company and Mine</u>	<u>Type of Mineral</u>	<u>Parent Companies</u>
Nordex Joint Venture Ltd., Krantzberg	Tungsten concs.	Nord Resources Corporation (40%) Ebco Mining Company (Bethlehem Steel) (60%)
S.W.A. Lithium Mines (Pty) Ltd., Karibib	Lithium ores, ambli- gonite, lepidolite, petalite.	Metallgesellschaft AG (100%).
Dr Bergers Mines (Pty) Ltd., Karibib	Marble, wollostonite.	Dr Bergers Mines
Bantu Mining Corporation Oshakati	Sodalite	SA Government
Tantalite Valley Minerals (Pty) Limited Karasburg	Tantalite	Tantalite Valley
<u>3. Uranium</u>		
Rossing Uranium Limited Rossing/Arandis	Uranium Oxide	Rio Tinto Zinc Corp. (45.5%) IDC (13.2%) Rio Algom (RTZ) (10%) Minatomes SA (10%) General Mining (6.8%) Other (14.5%)
Langer Heinrich Uranium (Pty) Limited (Under Development)	Uranium Oxide	General Mining/Federale Mynbou (100%)

Notes:

- 1 Anglo American, De Beers, Johannesburg Consolidated and Charter Consolidated are jointly controlled. South African.
- 2 General Mining, Federale Mynbou, Minerts and Union are South African controlled.
- 3 ISCOR and IDC are South African state corporations.
- 4 Newmont and AMAX are US controlled. O'okiep is controlled by them jointly; Selection Trust by AMAX.
- 5 Bethlehem Steel is US controlled.
- 6 Falconbridge is Canadian and Zapata joint Canadian-US controlled.
- 7 RTZ and Consolidated Gold Fields are British controlled. Kiln is controlled by Consolidated.
- 8 Metallgesellschaft is German controlled.

TABLE 30
MINERAL, METAL PRODUCTION 1972-76
(metric tons unless otherwise specified)

<u>Commodity</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Diamonds ¹	1,500,000	1,600,000	1,500,000	1,747,739	1,693,994
Silver ²	1,373,000	1,563,000	1,556,000	1,600,000	n.a.
Copper	-	-	-	-	43,000
blister	26,200	22,000	46,775	36,500	
concentrates	22,000	66,000	60,000	66,000	
Lead	-	-	-	-	40,000
refined	68,200	59,000	64,600	44,400	
concentrates	700	20,000	26,000	22,000	
lead/vandate cones	4,500	9,000	6,000	5,000	
Cadmium	100	100	100	100	
Zinc	-	-	-	-	30,000
Silicate concentrates'	29,000	28,000	24,000	20,000	
Sulphide concentrates	43,400	43,000	40,000	40,000	
Zinc Oxides	23,900	28,000	32,000		
Lithium ores	-	-	-	-	n.a.
amblygonite	n.a.	51	60	n.a.	
lepidolite	n.a.	3,500	4,500	n.a.	
petalite	n.a.	3,500	1,500	n.a.	
Tin	-	-	-	-	
metal	660	-	-	-	-
concentrate	-	1,060	1,100	1,117	800
Wolfram	-	120	230	n.a.	
Uranium	-	-	-	-	1,500

Notes:

1 Carats

2 Ounces

Source: World Mining, Catalog, Survey and Directory Number, June 1973, June, 1977, New York

(The figures are prepared by World Mining editors from 'a variety of individual sources'. As such their accuracy cannot be guaranteed and there are some discrepancies with those of other non-official sources in the field, particularly with respect to copper and lead production; however these have been found to be the most generally reliable).

TABLE 31

RECURRENT BUDGET SUMMARY 1976-77

<u>Revenue</u>	<u>Item</u>	<u>%</u>
Income Tax	26.5	14
Company Tax	83.7	45
Value Added Tax	7.4	4
Duty	36.0	19
Repayment of loans, interest	7.0	4
Other income	26.2	14
Total Revenue	186.8	100
<u>Expenditure</u>		
White:	74.0	53
General administration	12.2	
Education	15.0	
Health	14.2	
Other social expenditure	8.3	
Economic services	24.3	
African:	53.6	38
Bantu administration	49.5	
Bantu education	3.5	
Coloured:	13.0	9
Administration	12.0	
Education	1.0	
Total Expenditure	140.0¹	100
Security Police	4.5 ¹	
Military expenditure	250.0 ²	

Notes:

1 Excludes Security Policy which is in SWA Budgets.

2 In RSA not SWA Budget; rough estimates of portion relating to Namibia.

Source: Data derived from Tables 32, 33, Economic Development in Namibia.

TABLE 32

GOVERNMENT REVENUE AND EXPENDITURE

(R 000,000)

	1978/79 ¹ (Estimated Actuals)	"1985/86" ⁴ (Projected Estimates)
<u>Revenue</u>		
Diamonds	190	200
Company Tax	125	135
Profits Tax	30	30
Export Duty	35	35
Other Company Tax	16½	200
Uranium	-	125
Other Mining	-	25
Other	16½	50
Income Tax	37½	65
Loan Levy	25	-
Customs and Excise	45½	50
Sales Tax	8	50
Licenses	2	2½
Departmental Revenue ³	13	15
Proceeds on Investments ⁴	3	50
Loan Recoveries	7½	5
Miscellaneous	8	12½
	356	650
<u>Expenditure</u> ⁵		
Recurrent	215 ⁶	350-400 ⁷
Capital	140 ⁶	350-400 ⁸
	355	700-750
Domestic Borrowing	-	25
External Grants/Borrowing	-	50

Notes:

- 1 1978/79 Consolidation of South West Africa Account, Consolidated Revenue Fund (RSA) and Territorial Estimates of Revenue and Expenditure (SWA). Diamond revenue adjusted for probable outcome above estimates.
- 2 "1985-86" assumes higher excess profits and company taxes, somewhat more progressive personal income tax, about the same rates of indirect tax.
- 3 1978/79 excludes an item appearing as expenditure in RSA and revenue in SWA Accounts in respect of "Coloured - Rehoboth - Nama" expenditure.

- 4 "1985/86" assumes profit from Central Bank and a few other state bodies paid into general revenue but R 175 million retained for parastatal investment.
- 5 The sectoral breakdown of existing accounts is not very revealing. Further, it is based on colour divided services in a manner making reconstruction of the Figures along lines comparable to a "1985/86" budget almost impossible.
- 6 "Security" expenditure not included.
- 7 Assumes basic service provision approaching universal coverage. Includes some security expenditure.
- 8 Assumed public sector investment budget:

Government (R 000,000)

Recurrent Revenue	300
Domestic Borrowing	25
Foreign Grants/Borrowing	50
	<hr/>
Total Revenue	375
	<hr/>

Government Projects	325
Investment in Parastatals	50
	<hr/>
Total Expenditure	375
	<hr/>

Public Enterprises (Parastatals)

Retained Surplus	175
Local Borrowing (Net)	30
Foreign Borrowing (Net)	100
State Investment	50
	<hr/>
Total Resources	355
	<hr/>

Investment	350
State Loan Repayment	5
	<hr/>
Total Uses	355
	<hr/>

Consolidated Public Sector Investment	675
	<hr/>

General Note to Tables

Tables 1 through 10, 12-13, 15-16, 18, 20 derived from Toward Manpower Development For Namibia, United Nations Institute for Namibia, Lusaka and Tables 21,23, 24, 26 largely constructed from FAO sources.

Tables 11, 24-25, 27-28 derived from W.S. Barthold Namibia's Economic Potential and Existing Economic Ties with the Republic of South Africa, German Development Institute, Berlin.

Tables 29 and 30 derived from The Mineral Industry of Namibia: Perspectives for Independence, Commonwealth Secretariat, London.

Tables 31 and 32 derived from RSA and SWA Estimates and W.H. Thomas, Economic Development In Namibia.

In the absence of either complete or reliable official statistics most tables constructed in large measure from a wide array of newspapers, journal, company and observer reports and estimations.

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