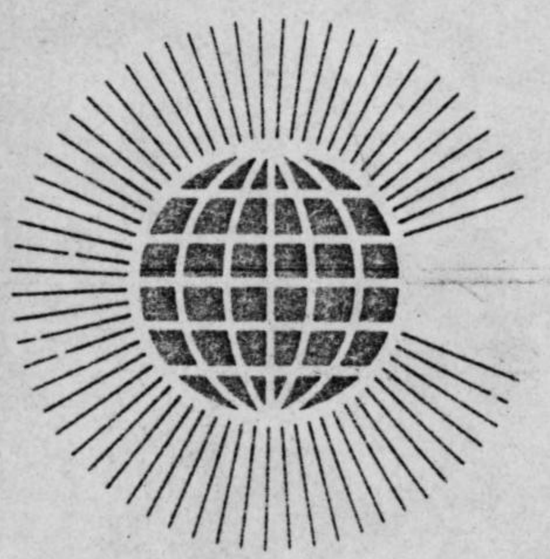
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Commonwealth Fund for Technical Co-operation

The Mineral Industry of Namibia

Perspectives for Independence



Commonwealth Secretariat

THE MINERAL INDUSTRY OF NAMIBIA: PERSPECTIVES FOR INDEPENDENCE

A FACTUAL SURVEY OF EXISTING MINERAL DEVELOPMENTS IN NAMIBIA WITH A DESCRIPTIVE ANALYSIS OF THEIR ECONOMIC, FISCAL AND LEGAL IMPLICATIONS.

A Study by Roger Murray, Consultant

Commissioned by the Commonwealth Fund
for Technical Co-operation

NOTE: The views expressed in this Study are those of the Author and do not necessarily represent the views of the Commonwealth Secretariat.

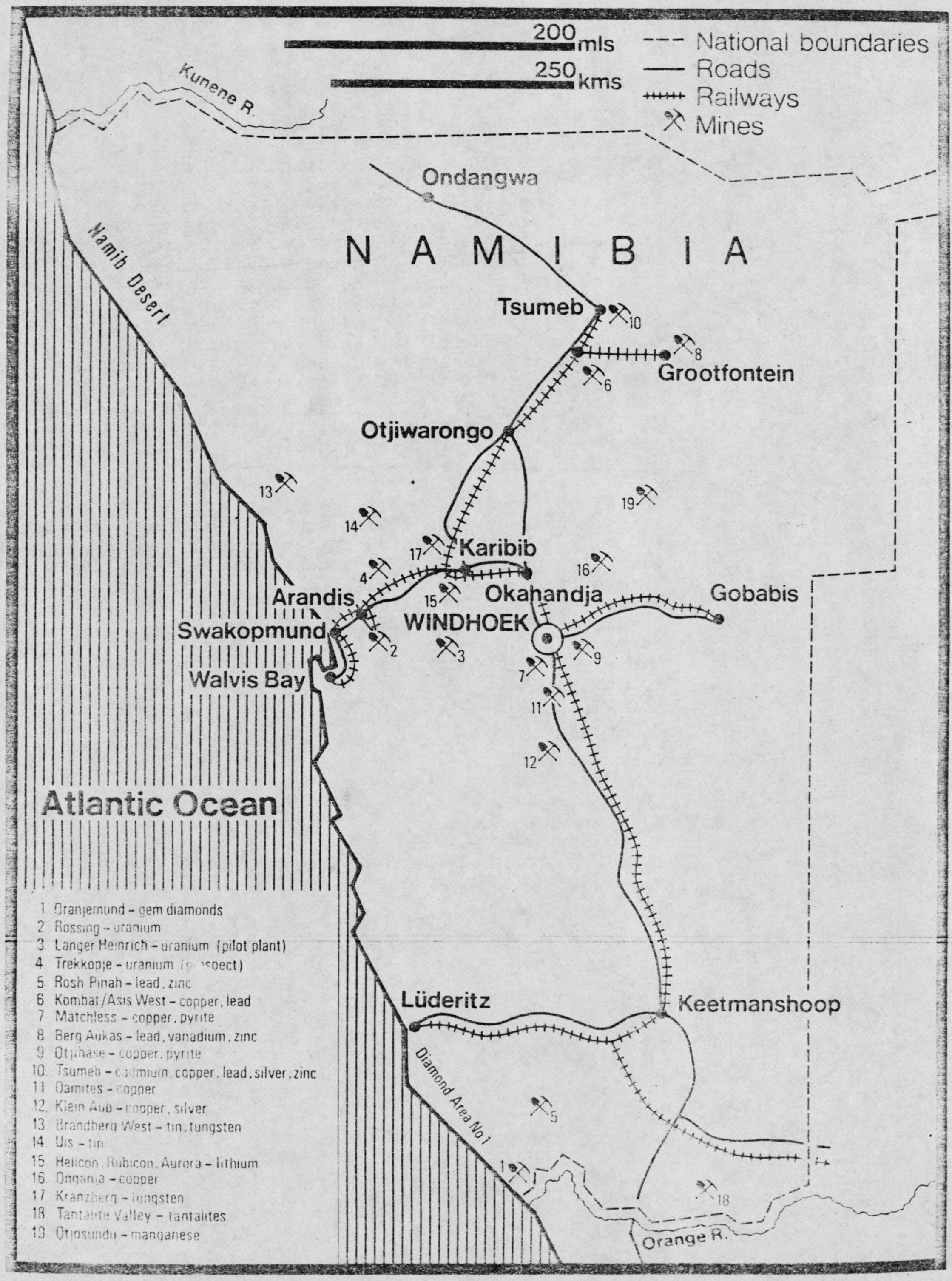
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PREFACE

At their Meeting in Kingston, Jamaica, in May 1975, Commonwealth Heads of Government agreed that Commonwealth multilateral assistance should be made available to help in the developmental and training needs of the people of Namibia. The Commonwealth Secretary-General was subsequently requested by the South West African People's Organisation (SWAPO) to provide them with a factual survey of existing mineral developments, with a descriptive analysis of their economic, legal and financial implications. SWAPO's request was prompted by the need to ensure that an independent Namibia's valuable mineral resources are developed in such a way as to bring as much benefit as possible to its own people.

This study is intended to assist in meeting the need for comprehensive information on which to base the formulation of future policy.

Copies of the study in its penultimate draft form were, with the approval of SWAPO, sent to interested parties including the main mining companies operating in Namibia with a request for their comments and any more up-to-date information that was available. The companies concerned were Amax Inc., Consolidated Gold Fields Ltd., De Beers Consolidated Mines Ltd., Falconbridge Nickel Mines Ltd., Newmont Mining Corporation and Rio Tinto Zinc Corporation Ltd. Two of the companies, Amax and Newmont had no comments to offer. Comments and information provided by the other companies have been taken into account in the preparation of the final study.


200 mls
250 kms
National boundaries
Roads
Railways
Mines
Kunene R.
Ondangwa
NAMIBIA
Tsumeb
Grootfontein
Otjiwarongo
Karibib
Arandis
Okahandja
Gobabis
WINDHOEK
Swakopmund
Walvis Bay
Mamib Desert
Atlantic Ocean
Lüderitz
Keetmanshoop
Diamond Area No1
Orange R.
1 Oranjemund – gem diamonds
2 Rossing – uranium
3 Langer Heinrich – uranium (pilot plant)
4 Trekkopje – uranium (prospect)
5 Rosh Pinah – lead, zinc
6 Kombat/Asis West – copper, lead
7 Matchless – copper, pyrite
8 Berg Aukas – lead, vanadium, zinc
9 Otjihase – copper, pyrite
10 Tsumeb – cadmium, copper, lead, silver, zinc
11 Damites – copper
12 Klein Aub – copper, silver
13 Brandberg West – tin, tungsten
14 Uis – tin
15 Helicon, Rubicon, Aurora – lithium
16 Onganja – copper
17 Kranzberg – tungsten
18 Tantalite Valley – tantalites
19 Otjosundu – manganese

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CHAPTER ONE

Introduction

The extensive mineral deposits of Namibia are amongst the most significant economic resources that will be at the disposal of the future independent government of the country. The importance of the mining industry to Namibia's small, export-orientated commercial economy is generally recognised by commentators - less studied has been the extent to which the mining sector has developed as an adjunct to the more highly-industrialised South African economy, as part of the overall process of Namibia's economic integration with South Africa. The problem of disentangling the indigenous Namibian mining industry from the South African connection to provide for national control of economic resources will be one of the most complex policy issues faced by the future independent government.

The experience of decolonisation throughout the continent and the early years of independence in other African states with large, developed mining industries, has shown this to be in most cases a highly political process. This will particularly be so in Namibia where during the years of South African control a substantial number of the world's transnational mining companies, together with mining/finance firms based in South Africa, have built up considerable interests in the mining sector of the economy. There will be crucial negotiations over existing mining and prospecting rights in accordance with the priorities of national development drawn up by the new government, and difficult choices with regard to the future structure of the industry. The take-over of infrastructural assets currently controlled by South Africa and essential to the continued efficient functioning of the mines will also be an area requiring action by the future Namibian government. These include the railway system and other transport links,harbours, telecommunications, scientific and technical institutions.

A comprehensive programme of national economic development, involving an expanded role for the state through some kind of State Mining Corporation and increased central control over the economy as a whole in order to diversify economic activities, increase employment opportunities and distribute resources more widely than under the economic imperatives of colonialism and apartheid is likely to be a major priority. Continued production by existing mines will be crucial in providing an adequate source of revenue and export earnings for such policies. In this context the restructuring of existing fiscal and legislative arrangements pertaining to mining will constitute one of the most important areas of decision-making. Concern by South Africa that many of the benefits presently accruing to its own economy from mining activities in Namibia will be consequently removed, as well as its fears of a weakened political and strategic situation, has been a central element in South Africa's reluctance to accept the decolonisation of Namibia except on terms which would allow the continuation of the economic status quo.

South Africa's attitude towards developments in Namibia has been motivated in part by the following considerations: the importance of certain minerals for industrial uses in the Republic where there is little or no existing South African

production such as lead and zinc; the strategic significance of Namibian uranium deposits, both as a source of supply to South Africa's major trading partners amongst the industrialised countries and for South Africa's uranium enrichment and nuclear programme. Taxation and export duties on sales of Namibian minerals, particularly gem diamonds, constitute a substantial source of revenue and foreign exchange earnings.

Internationally, despite the lengthy campaign waged by the United Nations to secure the rights of the Namibian people to independence under a government of their choosing, and the successive rulings of the Security Council on the illegality of South Africa's continued administration of the country, the concept of Namibia as a mineral-rich territory of strategic importance is a strong influence. Commercial interests from overseas, including mining firms, which have maintained existing levels of investment or financed new ventures in the territory are now concerned at their future prospects in an independent state.

These special factors, referred to in detail later on, make the task of asserting the sovereignty of the Namibian state over the natural resources of the country, whether along the lines adopted in the neighbouring states of Angola, or Botswana and Zambia, that much more difficult.

As a first stage, this paper attempts to set out the main features which characterise the operation of the mining industry in Namibia, and to raise the issues of economic, fiscal and legal policy which the future independent government will need to resolve. Due to the defensive posture adopted by South Africa in relation to its role in the existing exploitation of Namibian economic resources, much of the material in this report has had to be drawn from non-official sources. Where available, however, South African statistics, reports and documents relating to mineral legislation have been extensively used for the purpose of compiling a balanced picture of mining developments in Namibia. The lack of comprehensive and reliable official statistics means that all figures from whatever source are open to doubt, while many of the 'official' statistics actually provided are especially suspect. The presentation in this report of figures from varied sources necessarily results in tables which in places contradict each other and the text, an unavoidable result in view of the frequently unsatisfactory state of the sources. Nevertheless much has been published in recent years, stimulated by the inexorable movement towards a transfer of power in Namibia, albeit in a widely dispersed manner. The writer has found invaluable the information contained in a number of specialised commercial and mining journals, together with information compiled under the auspices of the United Nations.

CHAPTER TWO

Economic Significance of the Mining Industry

Minerals Mined

The extensive mineral deposits located beneath Namibia's harsh terrain comprising the Kalahari and Namib deserts and rocky, central plateau have provided the major resources for the development of the country's commercial economy. The most important minerals mined in order of production value are gem diamonds, and a large range of base metals, including cadmium, copper, lead, lithium ores, silver, tin, vanadium, tungsten and zinc. To this extensive spread of minerals must now be added uranium, with the commencement of open pit mining operations at the end of 1976 at the Rossing mine, whose importance in years to come is likely to surpass that of diamond production, hitherto the commercially dominant area of mining activity.

Production of these minerals and their related processing facilities contribute a sizeable proportion of the territorial GDP and total exports, although precise figures for recent years have not been released. In 1970, the last year for which official figures were provided on a comprehensive basis, mining comprised R115.1m (30.3%) of the total GDP at current prices of R.379.4m, accounting for R130m (56.3%) of the estimated R234m total exports for that year. In 1960, mining had contributed R47.9m (33.8%) to the GDP at current prices of R141.6m. South Africa's official survey of Namibia published in 1974 gave a figure for the GDP at current prices in 1972 of R455.5m, but made no breakdown of sectoral contributions, an omission characteristic of all subsequent official estimates of the GDP. These figures, although inadequate for accurate analysis, and likely to be an underestimate of total GDP, are sufficient to illustrate the dominant productive role of mining in the economy. The relative share of mining is threefold that of the South African economy, agriculture double, and manufacturing much smaller in its share of the GDP. Mining comprises the major resource basis available to the economy, which is of considerable significance for possible development strategies to be adopted by the future independent government of the country.

The contribution of mining activities to the GDP has further increased since 1970, with the expansion of existing output and commissioning of a number of new mines. The opening of the Rossing mine will eventually have a substantial effect, although this may be partly offset by the closure of base metal mines as deposits are worked-out. An analysis for the UN Institute for Namibia has estimated the 1977 GDP at R1135m, with mining accounting for R375m, over three times the 1970 official figure for mining production. As a proportion of GDP, mining increased only slightly to 33%, due to the substantial growth of commercial agricultural output (cattle and karakul sheep ranching) and production from the pelagic fishing industry. Their joint contribution in 1977 was estimated at R198m (18%) compared to R60.7m (16%) in 1970. The importance of the mining industry is further emphasised when it is considered that with the exception of diamonds, and henceforward uranium, the mineral deposits are not of the same magnitude of those in the Republic, and not all are economically exploitable.[1]

In contrast to South Africa, no deposits of precious metals such as gold and platium have been located, although small gold seams exist amongst certain copper orebodies, and together with pyrite at the Otjihase mine.

A number of other mineral deposits are currently worked on a small scale, or have been exploited intermittently in the past, while other known mineral resources have yet to be developed for mining purposes. These include beryllium, columbite, feldspar, gypsum, iron ore, kyanite, marble and sillamanite, manganese and metallurgical fluospar, some of which have been mined in sizeable quantities. There are also reserves of caesium and rubidium rare metals, orthite and rare earth tantalites, silver-bearing bismuthite and radio-active minerals including thorium. Semi-precious stones such as aquamarines, amethysts, beryl, garnet, heliodor chrystal (found nowhere else), quartz, topaz and tourmalines are located in recoverable quantities in various pegmatite and petallite outcrops. Over 120 different metals have been identified at the Tsumeb mine many of them in exceptionally well-developed chrystal forms.[2]

Extensive oil prospecting has taken place in the last ten years without positive results: a number of transnational oil corporations took out concessions areas leased by SOEKOR (Southern Oil Exploration Corporation) a South African para-statal. Most of these had been relinquished for a combination of commercial and political reasons by the end of 1975. But geologists believe there are good prospects of locating oil, especially off-shore. In 1974 methane gas was struck in the joint Texaco-Chevron (Standard Oil California) concession area some 130kms out from the Orange River mouth. Although a SEDCO-135, one of the largest type of drilling rigs was moved to the area in 1975 no further developments have been reported. The presence of a substantial oil field is suspected in the north, adjacent to the mouth of the Cunene River, and thick sedimentary deposits found off the port of Walvis Bay also suggest the presence of oil. Offshore drilling by SOEKOR for geological data has apparantly revealed the existence of a coal field but no information as to its locality have been published, and the development of undersea coal deposits would in any case be technically complex and expensive. There have also been unconfirmed reports of coal deposits in northern Namibia. The lack of existing indigenous fuel minerals has been frequently cited by South Africa, together with the scarcity of water, as a major constraints on a more balanced development of the economy, including the establishment of manufacturing and processing industries.

The power needs of the mines and urban areas are currently provided by oil imports and the supply of South African coal to the 90MW thermal power station at Windhoek and other generating stations linked to the major centres by the ESCOM electricity grid. The existing dependency on South Africa ought to be greatly reduced once the Cunene hydro-electric power scheme becomes fully operational with a capacity of 240MW. The first of three 80MW diesel generators was installed at the Ruacana power station in January 1978, with two further units scheduled for installation by the end of the year. The Angolan government, which controls the Cunene headwaters, has refused to divert water via the Calueque weir upstream from Ruacana, but joint operation of the scheme should become feasible with the establishment of an independent Namibian government. The opening of the Rossing mine provides Namibia with access to a second energy source, which might in future be used for the generation of electricity from nuclear power stations.

The mining industry is highly sensitive to fluctuations in world market prices, with the bulk of the base mineral output sold on forward contracts through the commodity exchanges of the industrialised nations, as well as direct to European and Japanese refineries. In recent years Namibian copper producers have in many cases been operating at a loss due to the trough in world copper prices since the end of 1974. However prices of other commodities such as lead, tin, vanadium and zinc have remained firm during this period, and there has been a substantial increase in the sales value of diamonds and uranium, which are likely to be the principal minerals mined for a considerable time. Although a number of mines, including the Tsumeb mine, are estimated to have proved reserve levels sufficient for only 15-20 years further mining, the overall potential of the mining industry remains high and it is likely to retain its importance for at least several decades. Prospecting activity, especially in respect of copper and uranium, has been extensive during the 1970's, and in view of Namibia's geological structure the prospects for the location of further major mineral occurrances are promising.

Six mines and their associated smelting, refining and concentrating facilities currently dominate output, the generation of surplus and employment- Oranjemund (diamonds), Tsumeb (copper/lead/zinc), Rossing (uranium), Oamites(copper), Berg Aukas(lead/vanadium/zinc)and Rosh Pinah(lead/zinc). In 1969, according to the most recent official figures, there were nine large mines, 13 medium-size mines and 34 smaller mining and quarrying operations.[3] Since then a further seven mines have been opened at Matchless (1970), Oamites (1971), Onganja (1972) Asis Ost (1974) and Otjihase (1975) all copper producers, as well as the Rosh Pinah lead/zinc mine (1971), the Krantzberg tungsten mine (1973) and Rossing.

Although comparisons of the mineral output of different countries can often be misleading, one authoritative source on world mining developments ranks Namibia 17th in terms of production by value in the world, and 4th in Africa (after South Africa, Zaire and Zambia).[4]

Diamonds

Since 1908, when the first gemstone was discovered in the sands of the Namib desert, diamonds have been mined continuously in Namibia, with short breaks in the 1930's when the depression made production uneconomic. The alluvial deposits along the Atlantic coastline north of the Orange River are amongst the world's richest deposits, with 98% of the diamonds recovered of gem quality. The diamonds are located in marine conglomerate or in rock gullies covered by up to 13 metres of sand overburden, and were laid down in sedimentary beaches thousands of years ago. The mining process involves the removal of the sand overburden, and then the retrieval of the diamondiferous gravels for treatment, sorting and grading. As soon as one area is mined out it becomes the dumping ground for overburden from an adjacent section - up to two million metric tons of sand may have to be removed to uncover an area of 300 sq. metres.

In 1919 the rights to the deposits previously mined by German companies were purchased by Sir Ernest Oppenheimer of Anglo American, and Consolidated Diamond Mines of South West Africa Ltd,wholly-owned by De Beers Consolidated Mines Ltd, has since enjoyed a virtual monopoly of diamond production. Diamond production and export has been supervised by the South African Government, through the Diamond Board of South West Africa, set up in 1921, whilst the former 'Sperrgebeit' (Prohibited Area) of German times has been delineated into two strictly supervised regions, known as Diamond Areas Nos.1 and 2. Production is marketed by the De Beers Central

Selling Organisation (CSO),which on behalf of various producers markets approximately 80% of the world's diamond production through London to the major world cutting centres of Antwerp, New York and Tel Aviv. Output from the Namibian open-cast alluvial workings averaged until recently some 1.6m carats a year,but in 1977 production increased to a record 2m carats (1.69m in 1976 and 1.7m in 1975). The average stone size of 0.72 carats in 1977 was however appreciably lower than the 0.95 carats per stone attained in 1976.

Although the volume of diamond output is small in relation to world production, the high proportion of gemstones makes the value of Namibian production far greater than that of many larger producing countries. Although the 1975 diamond production totalled 49.4m metric carats, major producers such as Zaire (17m) and the USSR (12m) have predominantly industrial outputs, so that Namibia with barely 10% of Zaire's output is a bigger gem producer. Only the combined output of the South African producing mines is greater, while Angola's large gemstone production has fallen substantially since 1974.

Huge tracts of coastal concessions have been cleared of diamonds since 1919, involving a continuous expansion of the area covered by mining operations, exploitation of the foreshore and sea-mining operations. Systematic mining was commenced in the foreshore Western block area in 1970, with workings now extending 197 metres seawards of the high water mark, with sand overburden of 15 to 25 metres. Since 1971 CDM has leased diamond prospecting and mining rights in foreshore and sea concessions from a fellow subsidiary, Marine Diamond Corporation, which however retains certain rights in respect of any oil discoveries. The current agreement expires on 31 December 1978,with a further extension subject to government approval. CDM holds the mineral rights over Diamond Area No.1 under its present concession until 31 December 2010. Sampling of gravels found in the deep waters beyond the five kilometre limit was initiated in 1972. Some of these areas, including the Pomona Diamond Field are in the Walvis Bay and 13 'Penguin Island' areas over which South Africa purported to assert sovereignty on 1 September 1977.

Mining installations include four treatment plants the latest of which was commissioned in January 1977. A recovery plant and 100-tonne per hour sampling plant have been established to handle foreshore mining, and a 20-tonne per hour sampling plant was commissioned in 1975 to treat Orange River terrace gravels. A 50G sampling plant began operation in December 1977 with a target rate of 50,000 tonnes a month for use in an extensive sampling programme of existing deposits. Treatment plant improvements and modifications raised the amount of terrace treated during 1977 to 14.9m tonnes compared to 12.9m tonnes in 1976,with an increase in the recovery grade from 13.15 to 13.43 carats per 100 metric tons. Prospecting at Arrisdrif on the north bank of the Orange River has indicated that persistent diamond concentrations are most likely to occur close to the outer meander bank. CDM's major capital investment of R30m is in a fleet of heavy earth-moving machines which operate on a 24-hour basis, while some R65m has been spent in recent years in order to maintain and increase output. Huge profits have been regularly made at CDM, in 1977 accounting for 22% of the total De Beers net profit of R637m. CDM's operations and the marketing of diamonds are described in Chapter III.

There are several other South African-owned diamond companies which do not appear to have any sizeable regular output, including the Diamond Mining and Utility Company (SWA) (Pty) Ltd, with concessions in Diamond Area No.2, and a small mine

WORLD PRODUCTION OF DIAMONDS (Million metric carats)

	1973	1974	1975	
Zaire	17.0	17.0	17.0	(92% industrial)
USSR	12.0	12.0	12.0	(80% industrial)
S. Africa	7.8	8.0	7.8	(60% industrial)
Botswana	2.4	2.4	2.41	(85% industrial)
Ghana	2.3	2.4	2.25	(90% industrial)
Angola	2.2	1.94	0.75	(75% gem)
Sierra Leone	1.7	1.7	1.43	(60% industrial)
Namibia	1.6	1.6	1.74	(98% gem)
Tanzania	0.6	0.6	0.6	(50% gem)
Venezuela	0.5	0.5	0.6	(70% industrial)
Liberia	0.6	0.6	0.6	(60% gem)
C.A.E.	0.4	0.4	0.4	(66% gem)
Ivory Coast	0.3	0.3	0.3	(60% industrial)
Brazil	0.3	0.3	0.4	(50% gem)
Others	0.1	0.1	0.1	
World Total	49.8	50.14	49.38	

(Source: Mining Annual Review 1976).

at Lorelei. Significant diamond deposits have been located in the area of the Huns Mountains near Keetmanshoop, and there is strong interest in exploiting these by companies based in the United States.

Base minerals

Copper is mined by a number of companies, and was first located in the Otavi range in the north-east, where the Tsumeb mine has been in operation since 1910. The Tsumeb Corporation Ltd. controls four mines and is the major copper and base metal producer: details of output and finances are contained in Chapter III. Until recently it accounted for over 90% of mineral output together with CDM. Tsumeb's potential was described in the following terms by the Administrator of South West Africa in his annual report of 1922; 'both from the richness and the size of its orebodies, Tsumeb rates as one of the greatest base metal propositions in the world.'[6] The complex copper-lead-silver-zinc orebody at Tsumeb is located in a broad arch of Precambrian rock stretching southwards from the Cunene River.

Tsumeb operates the only copper smelter in Namibia, opened in 1962: concentrates are processed into blister copper for export, and as well as Tsumeb production, concentrates from other producers are handled on a toll basis. The smelter capacity was increased from 80-90,000 tonnes to 140,000 tonnes in 1976 at a cost of $11.5m to process copper from the Otjihase mine (q.v.) In 1977, 46,200 tonnes were smelted (36,100 in 1976). The low copper price caused the closure of the Kombat and Asis Ost mines in 1976, but development of the high-grade Asis West copper orebody continued, with production due to commence by the end of 1978 when operations at the Kombat mine are also to be resumed. Copper is also mined at Matchless near Windhoek, where further development work was halted at the end of 1977 as part of a cost reduction programme.

A second copper producer, Klein Aub Koper Maatskappy Beperk, a South African-owned venture managed by General Mining/ Federale Mynbou began operations at the Klein Aub mine in Rehoboth during 1966. Initially reserves were estimated at 1.7m metric tons with a 3% copper content, and have now been revised upwards to 6m tons. The capitalisation of R4.5m was recouped in the first two years of operation of the mine. In 1974, before the effects of the low copper prices were felt, production of 7,840 metric tons resulted in a gross income of R3.2m and a net income of R1.3m,with; ores smelted at Tsumeb for export to West German refineries. An extensive capital programme of recent years mean that production can be expanded once market conditions are seen to improve - production in 1977 amounted to 4,849 metric tons. Silver is also produced at the mine in undisclosed quantitites, but sufficient to off-set the poor copper prices. General Mining also holds rights to the Okasawa copper orebody at Witvlei in the east, and its mining potential is reviewed periodically.[7]

An important copper mine was opened at Oamites, also in the Rehoboth area, in November 1971 by Falconbridge Nickel Mines, a Canadian mining company. An initial investment in the Oamites Mining Company (Pty) Ltd of R5m was made on a joint-venture basis by Falconbridge and the South African IDC (Industrial Development Corporation), and until 1975 net profits were substantial. In 1977, 17,000 metric dry tons of copper concentrate were produced (19,000 in 1976); although mill throughput increased by 19,000 tonnes to 620,000 tonnes in 1977 a lower mill head grade of 1.20% copper caused a drop in concentrate output. Sales revenue increased slightly to C$10.5m (C$10.1m in 1976) but a loss of C$0.45m was incurred compared to a C$0.19m net profit in 1976. In 1974 net earnings of C$1.9m were made on net

earnings of C$13.7m and output of 19,000 tonnes. Ore reserves at end-1977 were 3.5m tonnes, with a 1.19% copper grade and 0.54 ozs/tonne of silver. In 1974 a drilling programme at a copper/zinc sulphide deposit near Okahandja was completed at a cost of R2m: estimated reserves are 4m tons grading of 1.5% copper with silver and zinc values, and a mining grant applied for. Plans for a two-year development programme for a mine with a 35,000 ton per month milling capacity were postponed at the end of 1974, and the mine placed on a care and maintenance basis until improvement in the copper price. Falconbridge has also located significant sulphide mineralisation at its Swartmodder prospect in the same area, and drilling for evaluation purposes continues.

The Otjihase copper mine which began production in 1975 was planned as a major operation by Johannesburg Consolidated Investments. The deposit consists of a huge sulphide orebody of 16m tons, with a 2% copper content, and recoverable quantities of gold, pyrite, silver and zinc. The mine was brought into production at a capital cost of R41.7m, including capitalised interest payments and pipeline financing, the most expensive mining development in recent years next to the Rossing project. The mine was commissioned in commercial terms from July 1976, but the target monthly milling rate of 100,000 metric tons, providing an annual output of some 24,000-30,000 tonnes of copper concentrate for smelting by Tsumeb prior to export, was never reached because of successive technical problems. Even once these were resolved the low copper price and increased operating costs made the mine economically unviable: during the first full year of operation to 30 June 1977, it incurred a net loss of R6.2m, and further anticipated losses of R12m forced JCI to make a provision of R18.2m for the year. Total losses and progressive capital expenditure at that point amounted to R60.7m most of it incurred by JCI. Total production to June 1977 amounted to 15,850 tonnes of concentrate only, with a further drop in production for the third quarter of 1977 to 3,589 tonnes, and an increased loss of R2.7m. In January 1978 the mine was placed on a care and maintenance basis. The mine's closure cost about 1,000 jobs (90% African) and raised problems for Tsumeb which will receive cash payments in compensation for loss of smelting tolls to 1980, while increasing costs at Rossing, where pyrite, produced as a by-product formed an input into the uranium oxide treatment plant.

In 1974, Rio Tinto Zinc, RTZ, located a huge low-grade copper orebody of 100m metric tons at Vioolsdrift on the Haib River in the south, and has completed an 18 month drilling programme. The ore grading was originally estimated at between 0.35% and 1% copper, but RTZ has stated this to be incorrect while declining to provide a prccise figure for the grade due to commercial reasons. Valuation of the deposit was to be finalised by the end of 1978. The low profile reflects sensitivity over the Rossing mine.

There are a number of other small copper mines, for which no production data is published, as they are operated by locally owned companies. These include the Khan mine, Swakopmund, Otjozonjati mine, Windhoek, the Kaoko copper mine, Outjo, and Bernina mining at Khorixas, the intended capital for the Damara 'homeland'.

Lead and zinc are currently produced at three mines; Tsumeb, the Berg Aukas lead/vanadium/zinc mine near Grootfontein, operated by the South West Africa Company, and the Rosh Pinah lead/zinc mine, operated by ISCOR, the South African Iron and Steel Corporation. Refined lead processed at the Tsumeb refinery is the second base metal export mineral after blister copper. In 1977 output of refined lead by

Tsumeb was 42,700 metric tons (39,600 in 1976) including 'custom metal' refined on toll. At Berg Aukas, a steady output of lead sulphides, lead-vanadates, zinc silicates and zinc sulphides has continued since the 192o's and the mine is the sole vanadium producer. In 1975, the last year full details were published, production totalled 41,773 metric tons of concentrate compared to 50,708 in 1974. Zinc oxide is produced from zinc silicate concentrate by a Waelz kiln. In May 1978 underground operations were suspended. (see also Chapter III).

Since its opening in 1971, the Rosh Pinah mine in the south has become Namibia's foremost zinc producer. The deposit was located as early as 1904, but was not developed until 1967, when ISCOR acquired the rights to the Lorelei prospect and established Imcor Zinc (Pty) Limited to operate the mine. The ore reserves are estimated at 5m metric tons with a 6% zinc content, and minor quantities of lead and silver. Mining is by the open pit method and fully mechanised, and the handling rate of 100,000 metric tons of ore/waste a month, was scheduled to increase to 160,000 metric tons as of August 1976. Production for the year ended 30 June 1977 amounted to a record 40,281 tonnes of concentrate grading 48.4% zinc and 11,876 tonnes of concentrate grading 45% lead: most of the latter is refined by Tsumeb. In 1975, development was initiated to increase the ore grade to 10% combined metals, in view of the anticipated exhaustion of the first mining area.[10] The zinc is sold on the basis of term contracts to the Zinc Corporation of South Africa, in which ISCOR has a 33% interest, for refining at Zincor's electrolytic plant at Springs in the Transvaal. This saves South Africa an estimated R8m a year in foreign currency for zinc imports.

ISCOR also operates Namibia's major <u>tin</u> producer at Uis, situated north-west of Walvis Bay, an area of extensive pegmatite mineralisation. Uis began operations in 1958 on an open-pit basis, and its concentrator capacity was substantially increased from 47,000 to 72,000 metric tons of ore per month, on being acquired by ISCOR in 1968. The deposits are massive, but the tin grade is only 0.146%. In the year to 30 June 1977 the mine produced 1,247 tonnes of concentrate grading 63.7% tin, mainly shipped to the ISCOR steelworks. Tin has also been produced since 1942 at Brandberg West in the same area. Production in 1972 amounted to 635 tonnes of mixed tin/tungsten concentrate; the mine was placed on a care and maintenance basis in 1973 and reopened in the second half of 1975, when production comprised 73 tonnes. Reserves are estimated at 6m metric tons grading 0.15 tin and 0.079 tungsten. Profitability of the mine has increased due to higher tin prices. Tungsten deposits at Warmbad in the south have yet to be developed. At Krantzberg, near Omaruru, substantial tungsten deposits have been worked since 1973 by the US-controlled Nordex Joint Venture Limited. The concentrator has a feed capacity of 500 metric tons per day. In 1974 the mine produced 280 tons of 70% tungsten dioxide concentrate, and the ore reserves were sufficient for a 7 to 10 year operation.

Of other minerals, the most significant are the sizeable <u>lithium ores</u> found in the Karibib field north-east of Swakopmund. These include deposits of <u>petalite</u>, lepidolite and amblygonite, and the Aurora, Helicon and Rubicon mines have been worked since German times, latterly by SWA Lithium Mines, a company with largely German shareholding including the Metalgesellschaft combine. Details of the company's operations are not published, but in 1974, lithium production amounted to 4,500 metric tons of lepidolite, 1,500 tons of petalite and 60 tons of amblygonite. Other minerals associated with the lithium deposits include what were

described in a 1965 survey as the world's highest grade resources of rubidium rare metal (together with the Bikita deposits in Rhodesia/Zimbabwe), and large deposits of caesium, a heavy alkali metal, but mining activity has yet to be reported. At Karibib there is also regular production on a small scale by locally-controlled companies of beryl, garnet/marble and wollostantite. In the pegmatite belt along the Orange River, mining of orthite and rare-earth tantalites, together with associated deposits of beryl and columbite has been in existence for a number of years through Tantalite Valley Minerals, a small South African-owned producer. Beryl pegmatites are also recovered in the Rossing and Spitzkoppe areas in the Namib.

Abundant resources of metallurgical fluospar in the Omaruru region north of Windhoek have been mined intermittently since WW2, with production reaching a peak of 3,000 tons in 1954. In 1973, production of high quality acid grade fluorspar was initiated by Fluorspar Industries of SWA, 50% owned by Gypsum Industries of South Africa. A 25,000 tons per annum flotation mill was built and shipments to Japan and the United States took place. Output ceased in 1975 due to high operating costs, and a decision to sell off the mining assets rather than invest more capital to make the mine viable was taken.

There are also a number of minerals which appear to have been mined at recent intervals in the past, but about which no current information i available. These include bismuth concentrates, iron ore, manganese ore, graphite, lime, kyanite, sillimanite and precious stones. These minerals were listed as in production as of 1966, when the last official mining statistics were published: available information is inadequate to determine whether and at what levels production has continued (See Table 2). Iron ore/pyrite production was 10,000 tons in 1965 and there are known deposits in the Otavi mountains. Manganese was produced at the Otjosundu mine until 1962, although manganese production appeared to have resumed as of 1965. Production of kyanite and sillimanite from large deposits at Uisib occurred in the 1950's with a production peak of 4,000 tons in 1957, shipped to the United States. Graphite production in 1966 amounted to 400 tons from deposits in the southern Bethanie/Keetmanshoop area. Salt is also produced from brine pans in the Cape Cross/Swakopmund area. In 1975 SWACO commenced production of sodium salts from brine pans at Otjivalunda in Ovamboland, with products of sodium carbonate and sodium sulphate. This was the first known instance of a private mining development in the so-called 'homeland' areas of Namibia, although a number of small deposits have been brought into production by the Bantu Mining Corporation, a state body.

Uranium

Namibia is well on its way to becoming the world's fifth largest producer of uranium oxide (yellowcake), after the United States, Soviet Union, Canada, and South Africa. In 1977 production from the Rossing mine, located 65 kms from Swakopmund in the Namib Desert, was 3,042 tonnes, compared to a South African production of 3,500 toones, and its full rated capacity is of 5,000 tonnes a year, which is expected to be attained during 1979. Radioactive minerals were known to exist in the Rossing area in the Namib inland from Swakopmund for many years, but their full significance was only realised in the 1960's after systematic aerial surveying by the Geological Survey of the SA Department of Mines. The orebody is estimated to be in excess of 500m tons, and is unique in being the first 'porphyry' type of orebody in Alaskite and granite intrusions to have been located on such a large scale. The ore grade is low, estimated at

0.8 lbs per ton, or approximately 0.03% uranium, but the nature of the mineralisation is such that upgrading can be achieved easily and at a high rate of recovery. Rights to the deposit were acquired in 1966 from the prospecting syndicate originally formed by Captain Peter Louw in 1928 after his discovery of pitchblende (as ore containing radium), by the Rio Tint Zinc Corporation Ltd, the British based mining finance house with extensive interests in South Africa and Rhodesia. A further area of mineralisation, about 20 kms from Louw's original find had been located in the 1950's, but little interest had been shown until RTZ became convinced that mines of the future would be based on extensive low-grade deposits, exploited by open-pit methods on a gigantic scale. In 1969, the company announced the development of an open-pit mine, with an initial target output of 60,000 tonnes of ore/waste per day, sufficient for the production of some 2,500 tonnes of uranium oxide. In 1973 the decision to proceed with construction was taken: during the commissioning stage target output was revised upwards to 120,000 tonnes to give an annual production of 5,000 tonnes of oxide, and in 1974 the commissioning of an underground mine was initiated.

The total capital cost of developing the mine was originally estimated at £100m with the project financed by one-third equity, two-thirds loans. As well as loans from West German commercial banks, these included loan finance from the South African Government via the Industrial Development Corporation, IDC, which views the Rossing development as an integral part of South Africa's plans to expand domestic uranium production and begin the commercial enrichment of oxide in the 1980's. Parts of the equity have also been sold off to customers signing long-term delivery contracts, such as Total (Compagnie Francaise des Petroles). RTZ itself held a beneficial interest of 46.5% including 10% via its Canadian Rio Algom subsidiary, but control over the voting rights of all shares is in the hands of the IDC of South Africa and the General Mining/Federale Mynbou group, which hold a large, undisclosed, number of the higher voting 'A' shares.

Construction of the metallurgical plant, uranium ore treatment plant (using the solvent extraction method pioneered at the Palabora mine in South Africa), together with ancillary facilities, including road and rail links, water and power supplies were completed during 1976, and the oxide plant was commissioned in October 1976. During the year to the end of December, a total of 771 short tons of uranium oxide were produced, a far lower tonnage than envisaged, due to severe technical problems, apparantly caused by the abrasive nature of the ore, equipment deficiencies and mechanical weaknesses in some sections of the plant. During 1977 RTZ was forced to carry out a comprehensive re-examination of the mine's prospects and output at full-rated capacity was postponed until 1979; this has obliged RTZ to renegotiate delivery contracts. Major customers are British Nuclear Fuels Ltd., which originally contracted via the UK Atomic Energy Authority for the delivery of 7,500 short tons between 1976-82, France, and Japan which holds a contract for 8,200 short tons between 1976-1985. The Japanese utility companies holding this contract have decided not to proceed with imports at present 'under the prevailing circumstances' according to a statement made to the UN General Assembly in October 1977 by the Japanese delegate. Although the present British Minister of Energy made a pledge while in opposition in 1973 that a future Labour Government would repeal the contract when returned to office, following the 1974 review of Southern African policy, it was decided to continue the contract on the grounds that there were no alternative uranium supplies available.

By the end of 1977 the plant was operating at only 3/5 capacity; a decision was taken to postpone the operations of the underground mine and to effect major plant modifications in the open-pit mine, due to become operational in the third quarter of 1978. This was intended to raise recovery to 85% and increase milling capacity to 40,000 tonnes of ore per day. A production of 4,000 tonnes was expected during 1978 but a further set-back was encountered in fire damage to the main solvent extration plant in May. New capital and loans of $100m ($49m provided by RTZ) were raised to cover the increased costs, bringing the overall cost of the mine's development to approximately £150m.

The stringent secrecy provision of the SA Atomic Energy Act of 1967 which prohibit disclosure relating to the mining, export, and sales of 'source material' mean that full details are not presently available. Existing information clearly indicates that Rossing is the most important mining development since the start of gem diamond production and although no positive cash flow is now expected until 1979, will be a major source of revenue subsequently to an independent Namibian government. General Mining has developed the Langer Heinrich uranium prospect (q.v.) to the pilot plant stage and the feasibility of a second uranium mine will add further to Namibia's strategic significance as a major supplier of uranium to the world market.[12]

Mining in the 'Homelands'

Due to the provisions in force relating to land and mining rights in Namibia, African participation in Namibia's lucrative mining industry has been limited to the provision of largely unskilled and migrant labour. The Mines, Works and Minerals Act of 1968 (q.v.) provides that prospecting licences and mining leases may only be issued to members of non-white groups in respect of land reserved for the use of the ethnic group to whom the individual belongs. While there are no similar restrictions on the granting of licences to whites, since 1969, all applications for prospecting and mining rights in 'homeland areas' must be routed via the Bantu Mining Corporation, BMC, which has a R10m share capital voted by parliament. The Odendaal Commission of 1964, which drew up the blue-print for the consolidation of existing reserves into 'homelands' for the exclusive occupation by classified ethnic groups, proposed that rights over mineral occurances and mines in tribal areas should be 'held in trust' for the various communities by the SA Bantu Trust, with provision for their transfer to appropriate 'homeland' authorities at a suitable point. No such transfers appear to have been made, although royalties in respect of mining rights are theoretically payable either to the SA Bantu Trust or to the relevant tribal authority/homeland legislature. But prospecting fees for private companies in respect of these areas were said to have been substantially cut in 1973, in a move to encourage prospecting. Job reservation provisions which prevent Africans from doing jobs such as sampling or underground welding apply equally to the 'homeland' areas although the Government Mining Engineer may grant exemptions if deemed appropriate.[13]

The areas with the greatest mineral potential according to the SA Department of Mines are Damaraland (radioactive minerals and rare earths) Hereroland (copper) and Kaokoveld (copper/iron). R577,095 had been spent as of 1973 on exploration by private companies, and 21 licences had been granted by the BMC, which itself had spent R500,000 on geological exploration up to 1973, with a further R440,000 budgeted for this purpose in 1974/75. A large drilling programme for copper had been launched in the Kaokoveld at Okohongo, a geophysical survey for iron ore was reported to be underway in Ovamboland, and a long-term geological

survey of the mineral deposits of Damaraland was then being planned. The only actual mining operations started by the BMC as a result of its prospecting activity, are a small sodalite mine in the Kaokoveld (used for mainly ornamental purposes with little industrial application) and a tourmaline mine with by-products in the form of amasonite and quartz chrystals in Damaraland. According to the BMC the sodalite mine was being worked by 'two black entrepreneurs' with BMC technical assistance.

The mines established in Rehoboth, a copper rich area,have had little spin-off effect in terms of local economic development to date. Limited training facilities only are available, while the bulk of the labour force is drawn from the north in the form of migrant labour. In 1970, the Rehoboth Community Association complained that Rehobothers had been promised training as miners by the South African administration and positions of responsibility at the Klein Aub mine, but that since the mine's opening no Rehobothers had in fact received training. Until the imposition of a 'homeland'-type authority in 1976 the Rehobothers were the only indigenous African community to enjoy some measures of representative government. At Oamites, some 20% of the 420 hourly paid employees were Rehobothers as of 1977, with some of them said by Falconbridge to be senior supervisors working in formerly 'white' jobs and earning identical wages and fringe benefits.

In respect of Damaraland in the northwestern Namib, a few Damaras have been employed at the Brandberg and Uis mines; some change in this pattern has occurred with the opening of the Rossing mine, where RTZ policy has been to employ local workers where possible in preference to migrant workers. As of 1977 there were approximately 500 Damara workers at Rossing out of a total African hourly-paid labour force of 2,163.

One of the prospecting areas for uranium was within the delineated Damara 'homeland' at Trekkopje. In 1973, the SA Financial Mail commented: 'Whether these areas will yield the same promising results as Rossing, only time will tell. But even if they do, it will make no difference to the Damaras, since discoveries of oil, precious minerals and stones, as well as uranium in the 'homelands' remain the sole preserve of the State. The best the Damaras can hope for under the circumstances, therefore is a few more jobs on the mines'. The assumption of responsibility for the administration of Namibia by the Administrator-General appointed by South Africa in September 1977, has not altered the pattern of mining in the 'homeland' areas.

Prospecting Developments

The main area of prospecting interest until recent years was base minerals, particularly copper and lead, and a number of mining companies hold current prospecting licences and grants in respect of these minerals. There had been some signs of a mood of caution by mining companies in entering into new commitments in the early 1970's in view of the intensified international pressures for political change in Namibia and the growing influence of the nationalist movement. In 1975, when a number of US oil corporations withdrew from off-shore prospecting activities, the political dimension was admitted to be amongst the considerations prompting the move. But with the discovery of substantial uranium deposits in addition to those of Rossing, a uranium boom has developed.

Two uranium prospects are being developed for imminent production at Langer Heinrich near Tinkas, in the Namib Desert Park by the General Mining/Federal Mynbou group, and at Trekkopje, north-east of Rossing. The Langer Heinrich

deposit is substantial, located in calcrete, a white granite, which due to easy breakability presents some metallurgical problems, but in 1976 work had started at a pilot plant. A similar substantial tonnage of uranium mineralisation exists at Trekkopje, where rights are held by the Goldfields group. The drilling programme has been extended in view of promising results, and the deposits have a similar geological structure to Rossing. Anglo American is prospecting jointly for uranium with Minatome of France and the Union Corporation via Swakop Exploration (Pty) Ltd. A large low-grade, secondary uranium deposit has been located in the Namib desert near Swakopmund within a 28,000 hectare prospecting grant. Aquitaine is also involved in off-shore oil drilling and exploration for base minerals, and other companies with extensive exploration programmes for uranium and other minerals include Falconbridge and JCI.[14] The annual report for 1976 of the South African Council for Scientific and Industrial Research (CSIR) disclosed that deposits of glammonite and marine phosphates considered to be of industrial importance had been located off the Cunene River mouth on the border between Angola and Namibia.

The South African Government plays a major role in encouraging prospecting for uranium and other minerals deemed to be of strategic value. The Strategic Mineral Resources Development Act of 1964, which provided for government financing of prospecting in respect of coal, oil and uranium, was specifically made applicable to 'South West Africa and the Eastern Caprivi Zipfel'. In addition the SA Government has indicated to potential producers, that as was the case with Rossing, the Government would want to acquire an interest in any mine through the Industrial Development Corporation, which would provide financing for the necessary capital expenditure.

Prospecting in general for new mineral deposits is encouraged by the policy of generous write-off provisions for capital invested, relatively low licence fees, royalty rates and taxation (with the exception of diamonds) and the granting of large exclusive prospecting grants. In 1974, new measures specifically aimed at encouraging foreign investors were introduced. Previously, the Government could require up to 50% 'local' (including South African) participation in any mining venture established as a result of exploration, on payment of a half share in the value of assets and the payment of a 10% premium, if justified. A company could thus find itself required to sell off half of the equity of any local subsidiary after an expensive prospecting search had proved successful. This local share has now been cut back to 25%, leaving the promoter with control over his venture (except in respect of uranium and strategic minerals). The local Windhoek Advertiser commented at the time: 'With nationalisation or expropriation of foreign investments almost a daily occurrance elsewhere, this concession could hardly have been better timed'. [15]

Prospecting has also been encouraged by the systematic geological and geophysical surveys conducted by the Geological Survey Division of the SA Department of Mines, on an increasing scale. In 1973, the rate of geological mapping had increased to 17,000 sq kms a year, compared to only 7,000 sq kms in 1964, with a total of 170,000 sq kms mapped in the 1964-1973 period. Geophysical surveys were concerned mainly with locating good quality groundwater supplies. Significantly, in view of the emergent focus on uranium exploration, in 1973 it was stated that a series of airborne radio-metric and magnetometric surveys were to be carried out over an area of 80,000 sq kms in the ensuing five-year period. In 1975, a ten-year programme of regional

mapping started during 1974 was being continued in respect of Namibia, with the main emphasis on the revision of the 1963 edition of the 1: 1,000,000 'Geological Map of South West Africa' and on areas of economic potential. An area of 10,720 sq kms was covered by new mapping, while revision and reconnaissance mapping covered 45,050 sq kms. Altogether 45 new maps ranging in scale from 1:50,000 to 1:250,000 were drawn. Out of a total of 47 new lead/uranium determinations made by the SA Dept. of Mines, Geochronology Division in 1975, 24 were in Namibia. The 1974/75 combined magnetometre and gamma-ray spectrometre serial surveys covered approximately 115,000 sq kms in the Transvaal, Cape and Namibia were completed in 1975 and the 1975/76 survey include 5,600 sq kms in the Okahandja district of Namibia. Significantly it was reported that there had been numerous requests for information on prospecting data contained in exploration company reports. In order to meet this demand, the open-file system was introduced at the Survey's Windhoek Office in October 1975. 30 geological maps ranging in scale from 1:50,000 to 1:250,000 covering a total area of 84,000 sq kms were placed on open-file. In 1975, three aeromagnetic maps on a 1:250,000 scale covering 53,000 sq kms were also available. The Windhoek Branch Office is the largest regional centre of the Geological Survey and its sections include, geological mapping, mineral resources, mineralogical/petrological laboratory, ground-water studies and borehole siting.[16]

Production and Exports

Official production statistics for Namibia, together with details of mineral exports are not made available as a matter of deliberate policy by the South African Government. In 1969 an instruction by the Department of Foreign Affairs forbade the release of official information on the production of specific minerals, prospecting and concessions in the territory. In 1969 also, under the SWA Affairs Act, the Division of Mines of the SWA Administration in Windhoek was absorbed into the SA Department of Mines in Johannesburg. Annual production figures for Namibia last appear to have been made available for 1966, with extracts from these figures published in the official South West Africa Survey, 1967. A subsequent official publication, South West Africa Survey 1974, provided only general figures relating to the value of minerals sold.

In the absence of reliable official figures, the main sources of information on current mining activities are the specialised mining journals published in Britain and the United States, whose editors have access to the records of mining producers, as well as organisations publishing statistical surveys of world mineral output by country. In addition, the details of production at Namibian operations of certain trans-national mining companies are provided in their annual reports.

Figures from the most reliable of these sources are provided in Tables 1 and 3, and can be compared with the official mineral statistics relating to 1966 in Table 2. This diversity of sources, necessary to provide a comprehensive guide to Namibian production can lead to certain discrepancies, caused by different systems of accounting and measurement by producers - this is the case with Tsumeb, where the three main shareholding companies which compile annual figures use different methods. Some confusion arises because of the proportion of blister and refined production by Tsumeb which is processed on toll for other concentrate producers in the territory. Thus if Tsumeb itself is taken as the only source of copper and lead output, it appears that smelter and refined output from Namibia is greater than total mine production of these metals, as in Table 1. It

would also seem that certain South African-owned producers do not make available their production figures relating to Namibia, presumably in the light of the Government's instruction, so that production of certain minerals such as manganese are difficult to trace.

In 1966, the total annual value of production was R127.1m, and this had increased to R130m in 1970, and R230m as of 1976. In 1966, mineral production was as follows: [17]

Diamonds R84.7m (66%)
Blister Copper R19.2m (15%)
Refined Lead R12.3m (10%)
Other R10.9m (8%)

In 1970, while diamonds were still the dominant category, comprising R70m (54%) of the R130m total given for that year, the proportion of base minerals had increased to R60m (46%). This is almost certain to have risen further since then, in view of the expansion of activities at existing base mineral mines and the commissioning of new mines, and the relatively static level of diamond production. While overall production rose only marginally between 1966 and 1970, since then it has risen by 75% to R230m, reflecting the above developments.

This may even be an underestimate, in view of the fact that the official figure for minerals sold in 1973, was also R230m, comprising diamonds, R147m (64%), base minerals R83m (36%), of which blister copper accounted for R34.2m (27%) and refined lead R17m (14%), together accounting for 41% of total base mineral output. While there is no direct relation between mineral output and metals sold in any given year, it is unlikely, in view of the export orientation of the Namibian mining industry, that sales are significantly lower than actual production values. Current production may be worth as much as between R300-400m, particularly in view of the higher prices received for most of the mineral commodities produced in Namibia, with the important exception of copper. The selling price of diamonds was increased in both 1976 and 1977. The current spot price for uranium oxide (yellowcake) is around $40/lb. Although this price does not necessarily apply to Rossing output it suggests that an output of even 1,000 tonnes would be worth up to $80m, and the full rated output of 5,000 tonnes could be worth up to $400m.

The proportion of mineral production exported from Namibia in any given year appears to average between 90-100% of the value of overall output. Thus in 1966, the value of mineral exports comprised R127.8m (See Table 4) out of a total export value of R209.3m. In that year, mineral exports to South Africa totalled R88.4m, a misleading figure, in view of the fact that R85m of these exports comprised diamonds, the bulk of which are re-exported by De Beers to the United Kingdom for sale to the world market by the Central Selling Organisation. South Africa's main imports of Namibian minerals for its own use currently comprise lead (50%) and zinc (90%), of which South Africa is deficient, although plans for a copper refinery in the Cape (q.v.) would lead to the bulk of blister copper being sent to South Africa before being re-shipped as refined copper overseas.

As well as the lack of official figures from South Africa, a further difficulty is caused by the fact that with the exception of the United Kingdom, and since 1976, the United States, most of the major trading partners of South Africa (the EEC countries and Japan) do not distinguish as between South African and Namibian imports in their trade statistics.

Thus unless a commodity is produced almost exclusively in Namibia (such as lead, and until recently zinc) no exact trading figures can be obtained. However it is clear from the available sources, that the bulk of Namibia's blister copper output is shipped in the first instance to Belgium, Japan, the United States and West Germany, refined lead to Italy, the United Kingdom and West Germany, and other EEC countries, lead-vanadate and lithium ores to West Germany.

Walvis Bay

The port of Walvis Bay and its surrounding enclave have been administered as part of Namibia since 1922, although South Africa claims that the transfer of the port from British direct rule in 1886 to the Cape Colony, from 1910 South Africa's Cape Province, left it with full ownership rights. This claim is rejected by SWAPO and the United Nations, and the validity of colonial treaties not consented to by the Namibian people is unlikely to be accepted by the future independent Government of Namibia. The joint communique issued at the end of the summit talks between the five 'Frontline' States and SWAPO in Luanda, 10-11 June 1978, reaffirmed that the territorial integrity of Namibia was non-negotiable and that Walvis Bay was an integral part of Namibia.

In September 1977, a proclamation in the South Africa Government Gazette announced the annexation of Walvis Bay by the Republic in a move evidently designed to deprive the future independent State of its most important economic outlet and a principal shipment point for Namibian minerals and other primary commodities. There had been some discussion by the Walvis Bay muncipality in recent years of the advantages of seeking a free port status, as a means of attracting investment in industrial and processing industries. South Africa's present intention appears to be to administer the area as a part of the Cape Province. However, a recent statement on Walvis Bay made by the South African Government has been interpreted as leaving open "the possibility of Walvis Bay being transferred to Namibia as a result of negotiations between South Africa and the Government of an independent Namibia" (see the analysis by Patrick Laurence, "The Guardian", 29 July 1978).

Walvis Bay is equipped with modern installations for the loading of ore concentrates, has good existing road and rail links to the major mines and principal urban centres and is a major port of call for shipping on the South East Atlantic/Europe trade route.

A physical alternative in the short term would be the use of lighters at Swakopmund, which has the same rail and road links to the rest of the country as Walvis Bay and which could be restored as a lighter port. Swakopmund might also be dredgeable to allow ocean-going ships to come alongside a restored jetty as they did during the German colonial administration up to 1915 or so. While the improvements required to use Swakopmund in this way would be difficult and costly, they could be made to meet the essential needs of the economy until the issue of Walvis Bay was resolved in a manner satisfactory to the future independent Government of Namibia.

In the longer term it would, at very considerable cost, be physically possible to construct a new deep-water port, perhaps at Hentiesbaii, north of Walvis Bay. Some years ago work on a feasibility study of the construction of a new port at this location was carried out by the South African Government. There is an existing port at Luderitz, which however, is badly equipped for handling large cargoes and has poor communications to the interior. These facilities could be improved, although the problem of the rocky

channel which forms the approach and limits the size of ships able to enter the harbour would remain.

According to statistics published by South African Railways and Harbours, which operates Walvis Bay, in the year ended March 1974, out of 638,258 tons of cargo shipped from the port, 181,019 comprised ores and minerals. Cargo landed for that year (imports) totalled 766,284 tons, of which 739,516 comprised general cargo, while cargo transhipped amounted to 51,753 tons, giving a total of cargo handled for the year of 1,456,295 tons. More recently monthly figures for March 1976 (since when South Africa has withheld publication of further statistics) showed that out of a total of 84,150 tons of cargo shipped, 39,002 comprised ores and minerals.

Air transport will, no doubt, continue to be used for high value minerals - almost all diamonds produced in Namibia are currently flown out to world markets after sorting at Kimberley, while the bulk of the uranium from the Rossing mine is flown direct to the customers from the Windhoek airport.

Processing capability

Existing facilities include the Tsumeb copper smelter and lead refinery, the zinc oxide concentrator at Berg Aukas, the Oranjemund treatment plants, and the Rossing oxide solvent extraction plant. There are no other facilities for upgrading mine production, and a substantial proportion of the potential value of Namibia's mineral exports are lost to the national economy. Copper is sold in blister and concentrate form to refineries in Belgium and West Germany, zinc to South African refineries. South Africa views Namibian output as an integral part of its own mineral industry, while for many overseas operators it is cheaper to use existing facilities owned in the industrialised countries. There is clearly considerable potential for the development of processing facilities in Namibia which the volume of output would seem to justify on economic grounds.

In 1974 Newmont announced plans to establish a 120,000 ton copper refinery in the Cape Province, to process output from the Tsumeb smelter and the O'okiep copper mine in the Republic. This would upgrade the blister from 97% copper to 99.8% copper, suitable for industrial use. In 1976 the company announced the indefinite postponement of the project in view of the depressed copper price, and it is doubtful if an independent Namibian government would want its copper to be refined in South Africa.

Since 1969, Namibian zinc output has been sold for refining to the ISCOR refinery in Springs Transvaal, with tin concentrate sold to the ISCOR steel complex. Zinc ore from Berg Aukas is processed into zinc oxides by a Waelz Kiln operated by the subsidiary of Goldfields of South Africa and the Zinc Corporation of South Africa. The entire Rosh Pinah output is also shipped to South Africa for refining, and in 1971 the Minister of Mines described the opening of the mine as a 'milestone in the rapid progress of our country's iron and steel industry'. [18]

Employment

The mining industry is a major employer of African labour. In 1977 total employment was approximately 20,000, including 15,000 migrants from northern Namibia, and 3,500 Europeans, mainly expatriates. On independence there will be major problems involved in training Namibians to replace expatriates, similar to those encountered by Zambia. At present the majority of salaried posts, including managers, technicians, supervisors and foremen are occupied by Europeans. Namibian advancement is blocked by legislated and de facto job reservation. The major employers are CDM, 5,6000, Tsumeb, 5,000, Rossing 2,163 and SWACO 1,100.

Although a number of comprehensive job-training schemes have been introduced in recent years at the major mines, with some prospects of African advancement to junior managerial posts, a substantial training programme will be required on independence to enable Namibia to move towards effective national control of the industry. This problem is now being studied at the United Nations Institute for Namibia in Lusaka where a comprehensive manpower survey has been prepared and its results should prove of major value to the future independent government. In addition to the actual mines, considerable expertise will need to be developed in respect of the technical and scientific government agencies, including most crucially the Geological Survey unit, currently staffed by seconded South Africans.

Depletion of mineral resources

Minerals are by nature a wasting asset, and as in the case of all countries with major extractive industries, the expected life of existing deposits and availability of new reserves is one of the main considerations in determining the pattern of economic development. The South African emphasis has been on the fastest feasible rate of extraction, with little attempt to harmonise mining in line with broader economic considerations. This flows inevitably from the absence of a separate Namibian economic identity during the period of South African administration. For these reasons, prospecting has been encouraged by favourable taxation terms, and lack of restrictions on profit repatriation. This was one of the main recommendations of the Odendaal Commission of 1964, which commented in its report that 'the great progress of the past 15 years was due to the exploitation of three fortuitous natural assets, namely diamonds, base metals, and fish. The first two, will in all probability be worked out in 25 years time...for the future it is therefore essential that a search be made for new mineral deposits'. [20]

Diamonds are expected to support current extraction rates only for another 10-15 years, while the main Tsumeb orebody has steadily declined in metal content over the last 25 years. In 1947 one short ton of ore contained 9.5% copper, 29.3% lead and 3.91% zinc; by 1977 this had fallen to 4.4% copper, 7.05% lead and 1.92% zinc.

In an effort to conserve Namibia's resources for the future benefit of the Namibian people, in 1974, the UN Council for Namibia, which has de jure administrative competence over Namibia in terms of international law, enacted a Decree for the Protection of the Natural Resources of Namibia, which penalises the export of minerals now sanctioned by it.

Foreign Investment

A further significant feature of the mining industry, is the extent to which it has trans-national mining companies involved. The major source of investment in the mining industry is from mining companies based in Canada, France, South Africa, the United Kingdom and the United States. Since most of these companies also have major mining interestsin respect of South Africa this has had the effect of intensifying the integration of Namibia's mining industry with that of the Republic. In addition, many of these companies are themselves interlocking in terms of cross-directorships and equity shareholdings. Thus Anglo American,. De Beers, Charter Consolidated, and JCI have mutual interests in respect of diamond production, while Charter Consolidated, which in effect forms part of the Anglo American group, has a substantial interest in the UK mining house, Selection Trust, while the latter's most important investment is in AMAX. Many of these trans-national companies own joint interests in Namibian operating companies; viz, AMAX and Newmont in respect of Tsumeb, Anglo American and Goldfields in respect of SWACO, General Mining and Rio Tinto Zinc in respect of Rossing.

While a substantial foreign private capital involvement in mining industries of exporting countries inevitably leads to some disparities between national income and GDP, the effects in Namibia's case appear to be exceptional.

In 1964 the position had already been recognised officially and was summarised by the Odendaal Commission:

'In 1946 mining did not contribute such an important share to the GNI as agriculture and fisheries. In the case of agriculture the foreign share is very small, but in the case of mining it is very great, the major part of the ordinary share capital of the two mines (Oranjemund and Tsumeb) which account for 95% of the total mining production being held abroad. It is therefore a feature of the economy that with the development of mining, the ratio of GNI to GDP has diminished considerably'. This need not be so, but for the unrestricted flow of net service payments allowed by South Africa. This major share of national income accruing to non-resident companies, and shareholders is mainly responsible for the current 30% estimated shortfall of the GNI compared to the GDP.

No official figures are now available for private capital investment totals in the economy and the mining industry; in the South West Africa Survey, 1967, figures for 1965 were given as total private investment R92.5m, foreign (i.e. non-South Africa) R49m, or 53% of the total, with 60% of that figure invested in mining. Of the total investment of R58.3m in the mining sector, approximately 50% was of foreign origin. To take only the investment in the Oamites, Otjihase and Rossing mines, a further R325m has been invested in the mining sector since 1970 alone.

The importance attached to the role of foreign investment in mining can be indicated by the remarks made in the course of the official opening of the Oamites mine in 1971. Mr. Dirk Mudge, then a member of the SWA Executive Committee said that the state would always protect the interests of these branches of industry in order 'not to kill the goose that laid the golden eggs'. Over and above its contribution to state revenue, the industry made other important contributions, as a big earner of foreign exchange for South Africa and purchaser of consumer goods. He praised Falconbridge for opening the mine, and said he hoped this economic tie would lead to a better understanding between Canada and South Africa.[21] Dirk Mudge, formerly the Deputy leader of the SWA National Party was the main white politician involved in the Turnhalle constitutional conference - in 1977 he became chairman of the Democratic Turnhalle Alliance and established the (white) Republican Party, and is reported to be funded by mining companies. While comment by major mining groups on these political developments has been relatively guarded, it can be assumed that most hope to be dealing with a government which is not likely radically to alter existing arrangements in respect of the mining industry.

The Chairman of De Beers, Mr. H.F. Oppenheimer, in his statement to shareholders published with the 1975 report of the company, commented:

'Some 25% of De Beers Group profit is normally derived from mining operations in South West Africa. The stability and peaceful evolution of that country is of the greatest concern to us, and since (in normal years) taxation absorbs well over 60% of the mining profits of our operating subsidiary, Consolidated Diamond Mines of South West Africa, the continued efficiency and profitability of these mines, which of necessity have a limited life, must be of equal

concern to the government. The policy of the South African Government is that the constitutional future of South West Africa must be decided by the people of the country themselves, and an important constitutional conference at which all these people are represented is being held in Windhoek. We are watching these developments with the utmost interest and sympathy. While it is impossible at this stage to predict with any certainty what the political future of South West Africa will be, what is certain is that any government of that country will have a major interest not only in the efficient working of the mines, but also in the maintenance of the stable conditions in the diamond market'. [23]

ECONOMIC ACTIVITY ESTIMATES (1977)

Activity	Northern African	Central/ Southern African	Coloured	European	Total 1977
Agriculture Total	215,000	58,500	16,500	6,500	296,500
Small Agriculture	(195,000)	(35,000)	(10,000)	(-)	(240,000)
Large Agriculture	(20,000)	(23,500)	(6,500)	(6,500)	(56,500)
Non-Agriculture Total	96,000	63,500	32,000	30,000	221,500
Mining	(15,000)	(3,000)	(1,000)	(3,500)	(22,500)
Fishing & Fish Processing	3,000	2,000	2,000	500	7,500
Secondary sectors 9/	(13,500)	(5,000)	(5,000)	(4,500)	(28,500)
Tertiary Sectors	(54,500)	(48,500)	(21,500)	(21,500)	(145,500)
Unemployed	(10,000)	(5,000)	(2,500)	(-)	(17,500)
Total	311,000	122,000	48,500	36,500	518,000

Source: Toward Manpower Development for Namibia, UN Institute for Lusaka 1978.

Note: All estimates are approximate. There are no usable comprehensive official data. All estimates are built up from fragmentary micro sectoral data plus rough estimation.

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18. Rogers, Foreign Investment in Namibia, p.26.

19. See Tsumeb Corporation Limited (III), Windhoek Advertiser 17/4/1974.

20. Lazar, Namibia, p.78.

21. Role of Foreign Firms, p.34.

22. Windhoek Advertiser, 23/11/1971.

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OPERATING MINES IN NAMIBIA

Mining Company and Mine	Type of Mineral	Parent Companies
1. Diamonds		
CDM of SWA Limited Oranjemund, Diamond Area No.1	Gemstones	De Beers Consolidated Mines Limited (100%).
Marine Diamond Corporation (Pty) Ltd., Foreshore and sea concessions off DA No.1	Gemstones	"
2. Base Minerals		
Tsumeb Corporation Ltd., TCL Tsumeb, Kombat, Matchless, Asis Ost	Cadmium, blister copper, refined lead, smelter silver, zinc concentrate; 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%) Consolidated 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 Corporation of SA, IDC (25.1%).
Otjihase Mining Company (Pty) Limited Otjihase	Copper concs., pyrite concs., precious metals.	Johannesburg Consolidated Investments (67%).
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.	"
Onganja mine Seeis	Copper concs.	Zapata Corporation via 93%-owned Granby Mining Corporation

Mining Company and Mine	Type of Mineral	Parent Companies
Nordex Joint Venture Ltd., Krantzberg	Tungsten concs.	Nord Resources Corporation (40%) Ebco Mining Company (Bethlehem Steel) (60%)
S.W.A. Lithium Mines (Pty) Limited Karibib	Lithium ores- ambligonite, 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
3. Uranium		
Rossing Uranium Limited Rossing/Arandis	Uranium oxide	Rio Tinto Zinc Corp. (46.5% including 10% held by Rio Algom) IDC (13.2%) Minatome (10%) General Mining (6.8%) Other (23.5%).
Langer Heinrich Uranium (Pty) Limited (in 1978)	Uranium oxide	General Mining/Federale Mynbou (100%)

TABLE ONE

Namibian Production of Metals and Minerals 1972-1975

(metric tons unless otherwise specified)

Commodity	1972	1973	1974	1975	1976
Diamonds[1]	1,600,000	1,600,000	1,500,000	1,747,739	1,693,994
Silver[2]	1,373,000	1,563,000	1,556,000	1,500,000	n.a.
Copper	-	-	-	-	43,000
blister	26,200	22,000	46,775	36,500	
concentrates	22,000	56,000	50,000	55,000	
Lead	-	-	-	-	40,000
refined	68,200	59,000	64,600	44,400	
concentrates	700	20,000	26,000	22,000	
lead/vandate concs.	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

1. Carats
2. Ounces 1.0 metric ton = 1.10 short tons

Source: World Mining, Catalog, Survey and Directory Number, June 1976, 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 discrepencies with those of other non-official sources in the field, particularly with respect to copper and lead production; however these have found to be the most generally reliable).

TABLE TWO

Namibian Production of Metals and Minerals 1963-66
(short tons unless otherwise specified)

Commodity	1963	1964	1965	1966
Diamonds[1]	1,194,630	1,541,373	1,656,234	1,758,956
Lead[2]	65,049	39,174	40,480	22,272
Copper[2]	12,871	6,534	8,842	4,897
Zinc[2]	22,365	15,889	18,619	16,034
Manganese ore	0	0	6,708	25,368
Lithium ores	1,080	1,218	1,669	1,739
Lead, metal	625	52,685	72,791	82,977
V_2O_5-lead concentrate	11,250	11,020	12,650	13,425
Copper, blister	22,904	31,428	32,745	36,412
Silver[2,3]	634,134	328,808	400,437	483,746
Silver, metal[3]	-	-	303,205	179,270
Tin, concentrate	296	402	549	804
Tin-tungsten concentrate	n.a.	739	659	680
Cadmium, metal	-	-	36	145
Cadmium[3]	529	353	599	339
Lead-zinc ore & concentrate	14,579	29,400	15,120	11,320
Zinc concentrate	15,778	17,070	14,430	19,700
Iron ore	16,567	10,451	36,194	41,789
Beryl ore	60	7	58	24
Germanium dioxide[4]	2,243	-	-	2,672
Salt	n.a.	n.a.	69,917	106,989
Graphite	n.a.	n.a.	396	400

1. Metric carats 2. Complex concentrates 3. Troy ounces 4. Pounds

Source: Records of Government Mining Engineer, Johannesburg and Inspector of Mines, Windhoek as appearing in World Mining op cit, June 25, 1967.

These official statistics are the last to have been made available, and provide a far more detailed breakdown of mining production than any since published. Notable are the separate figures given for the production of cadmium, lead and silver metal; the figures for lead are presumably for refined lead. The substantial production of iron and manganese ore and small amounts of beryl and graphite are not revealed elsewhere.

TABLE THREE

Namibian Base Mineral Production compared to other African Producers

('000 metric tons unless otherwise specified)

Mineral	Country	1972	1973	1974	1975	1976	% Namibia
CADMIUM[1]	Namibia	142	104	114	109	83	29%
Mine Prod.	Zaire*	296	278	272	54	266	
	Zambia	16	15	13	8	7	
COPPER	Namibia	21.5	28.3	26.1	25.3	39.3	2%
Mine Prod.	Rhodesia	31.8	32.0	32.0	30.0	30.0	
	S. Africa	161.9	113.7	179.1	178.9	197.8	
	Zaire	437.3	484.9	494.6	494.8	442.7	
	Zambia*	717.7	706.6	698.0	676.9	708.9	
COPPER	Namibia	26.1	35.4	45.8	35.7	36.1	2.05%
Smelter	Rhodesia	30.0	30.0	30.0	30.0	30.0	
Production	S. Africa	171.7	165.5	147.8	149.7	152.0	
	Zaire	428.2	450.0	454.0	462.0	408.2	
	Zambia*	697.3	683.0	709.5	659.0	705.9	
LEAD	Namibia	59.0	63.3	51.3	48.3	42.2	29%
Mine Prod.	Morocco*	86.1	86.4	86.3	69.9	72.0	
	S. Africa	-	-	3.3	3.6	-	
	Zambia	31.4	25.3	24.6	19.4	14.1	
LEAD	Namibia*	64.7	66.7	64.2	44.3	39.6	51%
Refined	Morocco	-	-	-	7.0	7.2	
Production	Zambia	30.2	25.0	24.6	18.9	14.0	
ZINC	Namibia	41.9	33.9	44.9	45.6	45.5	14%
Mine Prod.	Morocco	9.2	n.a.	14.0	18.8	18.0	
	Zaire*	100.0	100.1	81.3	80.4	90.0	
	Zambia	70.5	72.2	58.3	46.9	37.4	

1. Metric tons. *Denotes largest producer. NB Percentage figures are approximate and based on production of all producers, not all shown.

Source: World Metal Statistics, World Bureau of Metal Statistics, London, August 1966, April 1977.

Figures are supplied to the WBMS by major producing companies. In the case of Namibia, figures for blister copper and refined lead are provided by Tsumeb, as are figures for mine production, hence the oddity that in certain years smelter & refined output appears to be greater than mine output, which does not include all Namibian producers. Namibia from these figures appears to be the second-largest cadmium-producer, fourth-largest copper producer (with Rhodesia), largest refined lead producer, and third-largest zinc producer.

Provisional figures for Namibian production in 1977 were: cadmium 83 metric tons, copper (mine production) 46.6, copper (smelter production) 46.2, lead (mine production) 40.8, lead (refined production) 42.7, zinc 38.3 ('000 metric tons) Source: WMS June 1978.

TABLE FOUR

Exports in 1966 (Rm)[1]	Total	To South Africa
Total all exports	209.3	112.7
Total all minerals	127.8	88.4
Diamonds	85.0	85.0
Blister Copper	19.2	-
Refined Lead	12.2	2.1
Lead/Copper/Zinc Concs.	7.8	-
Other (Vanadium etc.)	3.3	1.3

Exports to United Kingdom (£m)[2]

	1972	1973	1974	1975	1976	1977
Total exports	23.2	32.6	21.9	24.3	33.3	26.1
Minerals (cadmium/lead)	0.9	1.6	1.7	0.5	1.9	1.7

(NB all Namibian diamonds are re-exported from South Africa to the UK)

Exports to United States ($m)[3]	1975
Total exports	33.7
Blister copper	23.1
Silver concentrates	4.2
Lead	0.5

Major Importers of Blister Copper[4] (Metric tons)

	1974	1975	1976
JAPAN			
Total imports of blister	62,174	40,014	29,449
From 'South and South West Africa'	13,216	19,508	7,435
WEST GERMANY			
Total imports of blister	98,160	119,850	130,790
From 'South African Republic'	51,530	55,679	62,048
UNITED STATES			
Total imports of blister	118,540	79,186	40,356
From 'South and South West Africa'	33,757	20,760	2,287
This gives a total figure for imports from South Africa and Namibia of:	98,503	101,884	106,000
Combined smelter output	219,200	203,100	168,000
Namibian smelter output (all exported)	46,600	36,400	36,100

Sources: 1. SWA Survey 1967 2. Overseas Trade Statistics of the UK

3. US Department of Commerce 4. World Metal Statistics

CHRONOLOGY OF EVENTS IN THE NAMIBIAN MINING INDUSTRY

1885	Deutsche Kolonialgesellschaft für Sudwestafrika established. (German Colonial Company for SWA).
1885-1900	Various concession companies with exclusive mining and land rights set up.
1892	South West Africa Company Ltd. established in London to take over 'Damaraland Concession' rights. (SWACO)
1900	Formation of the Otavi Minen & Eisenbahngesellschaft (OMEG) (Otavi Mining & Railway Company).
1908	Discovery of gemstones in the Namib desert east of Luderits Bay, and production from alluvial deposits begins.
1910	Production of copper from the Tsumeb mine starts.
1914	Diamond output reaches initial peak of 1.6m carats.
1919	Sir Ernest Oppenheimer of Anglo American obtains option to take over interests of German-owned diamond producers for £3.5m. CDM of SWA incorporated.
1924	Berg Aukas lead and vanadium mine commissioned.
1925/6	Mining sales reach pre-depression peak of £352,000.
1932	Production of diamonds halted as uneconomic.
1933	Tsumeb mine temporarily shut-down.
1932/33	Annual mining revenue down to £10,000.
1934	Diamond production resumed. Diamond Producers' Association set up.
1938	Exports of diamonds up to £816,000.
1940	Otavi company ceases operations - Tsumeb property confiscated.
1942	Brandberg West tin mine opened.
1947	Otavi assets purchased for 1.0m by group of mining companies, Tsumeb Corporation Limited established.
1948	Production of copper, lead and zince from Tsumeb begins.
1950's	Mining industry expands, stimulus provided by demand for raw materials on international markets.
1957	SWACO taken over by Anglo American, Consolidated Goldfields, British-South Africa Company (Charter Consolidated).
1962	Second mine opened by Tsumeb at Kombat.
1965	Klein Aub Copper Company starts production in Rehoboth. Annual mining production R127m.

1966	Rio Tinto Zinc acquires rights to uranium prospect at Rossing near Swakopmund.
1969	Agreement between RTZ and UK Atomic Energy Authority for supply of 7,500 tons of uranium oxide from Rossing's open cast mine.
1970	Tsumeb opens third at Matchless near Windhoek.
1971	Oamites copper mine opened in Rehoboth by Falconbridge of Canada.
	Rosh Pinah lead/zinc mine just north of Orange River brought into production by ISCOR.
1971/72	Production at most Namibian producers halted for period of several months from December 1971 as result of strike by over 15,000 contract workers.
1975	Otjihase copper mine controlled by JCI starts production.
1976	Kombat mine closed due to low copper price.
	Rossing mine starts production by year-end, with rated capacity of 120,000 tons ore/waste per day. Technical difficulties with plant near full output not to be reached until 1978.
	Uranium prospecting boom develops in wake of Rossing development.
1977	Two further uranium deposits said to be economically viable as open-cast mines. Underground mining at Rossing due to start by end of the year.

PROSPECTING RIGHTS HELD BY MAJOR MINING COMPANIES

The list is arranged alphabetically by separate mining company, with each company's claims listed according to the original sequence of the 'claims register' kept in the office of the Mining Commissioner for the territory in Windhoek. Claims are for a minimum period of twelve months. The total number of claims on file as of 1976 was 473.

(* Denotes prospecting licence valid in 1977).

1. Anglo American Corporation (total 8)

Anglo American Prospecting Co. Ltd.	Source material only, Namib Desert Park, Walvis Bay district. 25/6/73-24/6/76. (No. 304)
" " " " " *	Source material only, Namib Desert Park and unsurveyed State land, Swakopmund district. 29/10/73-28/10/77. (No. 340)
" " " " "	All minerals, 2 farms, Rehoboth district. 11/2/74-10/2/76. (No. 346)
" " " " "	All minerals, Rehoboth district. 14/12/74-13/12/76. (No. 422)
" " " " " *	All minerals, 2 farms, Otjiwarongo district. 2/4/75-1/4/77. (No. 442)
" " " " " *	All minerals, Windhoek district. 24/3/75-23/3/77. (No. 441)
" " " " " *	All minerals including source material. Walvis Bay district. 7/7/75-6/7/77. (No. 467)
Anglo American Prospecting Services (Pty) Limited*	All minerals, 3 farms, Rehoboth district. 21/9/75-20/9/77. (No. 471)

2. Aquitaine SA (total 10)

Aquitaine SWA (Pty) Limited	All minerals, 3 farms, Okahandja district. 13/4/74-12/4/76 (No. 357)
" " " "	All minerals, 7 farms, Otjiwarongo district. 2/4/74-12/4/76. (No. 359)
" " " "	Source material only, Namib Desert Park, Walvis Bay district. 30/5/74-29/5/76. (No. 369)
" " " "	All minerals, 13 farms, Windhoek district + 3 farms, Gobabis district. 18/9/74-17/9/76. (Nos. 396, 397)
" " " "	All minerals, 5 farms, Gobabis district, 2 farms, Windhoek district. 12/9/74-11/9/76. (No. 398)

Aquitaine SWA (Pty) Limited	All minerals, 7 farms, Gobabis district, 7 farms, Windhoek district. 12/9/74-11/9/76. (No. 407)
" " " " *	All minerals, Outjo district. 26/2/75-25/2/77. (No. 417)
" " " " *	All minerals, 3 farms Gobabis district, 9 farms, Windhoek district. 17/3/75-16/3/77. (No. 439)
" " " " *	All minerals, Outjo district. 26/5/75-25/5/77. (No. 447)
" " " " *	All minerals, 3 farms, Gobabis district, 1 farm Windhoek district. 12/5/75-11/5/77. (No. 449)

3. Consolidated Goldfields/Goldfields of South Africa

Goldfields Mining and Development Ltd.	All minerals including source source material, 5 farms, Outjo district. 30/12/71-29/12/75. (No. 235)
Trekkopje Explorations (Pty) Limited	All minerals, including source material, 5 farms, Karib district. 26/10/72-25/10/76. (No. 275)
Trekkopje Exploration and Mining * Company (Pty) Limited	All minerals, including source material, certain area in Karibib district. 29/10/73-28/10/77. (No. 332)
Goldfields Mining and Development Ltd.	All minerals, Outjo district, + two further applications. 18/11/73-17/11/75. (Nos. 334, 335, 336)
" " " " "	All minerals, Windhoek district. 18/1/74-17/1/76. (No. 342)
Goldfields Prospecting Co. (Pty) Ltd.	All minerals, 15 farms, Outjo district, 11 farms, Otjiwarongo district. 6/9/74-5/9/76. (Nos. 402, 403)
" " " " "	All minerals, 20 farms, Outjo district, + 19 farms Otjiwarongo district, + 7 farms, Outjo district. 10/12/74-9/2/76. (Nos. 418, 419, 421)
" " " " "	All minerals, 3 farms, Karibib district. 26/2/75-25/2/77. (No. 431)
" " " " "	All minerals, 3 farms, Outjo district. 25/1/75-24/1/77. (No. 432)
" " - " " "	All minerals, 5 farms, Outjo district, 1 farm, Otjiwarongo district. 30/5/75-29/5/77. (No. 450)

4. Falconbridge Nickel Mines Ltd. (total 13)

Falconbridge of SWA (Pty) Limited	All minerals, excluding source material, 5 farms, Rehoboth district 22/1/71-21/1/77. (No. 181)

Falconbridge of SWA (Pty) Limited	*	All minerals including source material, unsurveyed State land Windhoek district. 10/11/71-9/11/77. (No. 217)
" " " "	"	All minerals, 8 farms, Rehoboth district. 6/7/72-5/7/76. (No. 253)
" " " "	"	All minerals, 3 farms, Grootfontein/ Outjo district. 24/7/72-23/7/76. (No. 258)
" " " "	" *	All minerals, 7 farms, Rehoboth district. 20/1/73-19/2/77. (No. 287)
" " " "	" *	All minerals including source material, 3 farms, Okahandja district. 18/7/73-17/7/77. (No. 307)
" " " "	"	All minerals including source material, 12 farms, Grootfontein district. 6/12/73-5/12/75. (No. 331)
" " " "	"	All minerals including source material, 9 farms, Okahandja district. 27/11/73-26/11/75. (No. 337)
" " " "	"	All minerals, 8 farms, Rehoboth district. 2/3/74-1/3/76. (No. 351)
" " " "	"	All minerals including source material, 3 farms, Windhoek district. 11/9/74-10/9/76. (No. 400)
" " " "	" *	All minerals including source material, 8 farms, Windhoek district. 10/1/75-9/1/77. (No. 428)
" " " "	" *	All minerals including source material, 2 farms Rehoboth district. 16/6/75-15/6/77. (No. 458)
" " " "	"	All minerals including source material, 6 farms, Rehoboth district. 2/7/75-1/7/77. (No. 460)

5. General Mining and Finance Company Ltd. (total 6)

Langer Heinrich Uranium (Pty) Limited	*	Source material only, areas of Namib Desert Park. 16/8/75-13/8/77. (No. 321)
General Mining and Finance Co. Ltd.		All minerals, 3 farms, Okahandja district. 4/4/74-3/4/76. (No. 356)
" " " "	"	Source material only, Namib Desert Park. 2/8/74-5/9/76. (No. 401)
" " " "	" *	Source material only, 2 farms, Namib Desert Park. 28/1/75-25/1/77. (No. 435)
Langer Heinrich Uranium (Pty) Limited	*	Source material only, 1 farm, and certain areas of Namib Desert Park. 28/1/75-27/1/77. (No. 436)

General Mining and Finance Co. Ltd.	*	Source material only, Namib Desert Park, 96,185 hectares. 14/2/75-13/2/77. (No. 438)

E. Johannesburg Consolidated Investments Ltd (JCI) (total 12)

B & O Mineral Exploration Co. (Pty) Limited		All minerals, 5 farms, Grootfontein district. 11/12/69-10/12/75. (No. 138)
" " "	*	All minerals excluding source material, Karibib district. 23/3/71-22/3/77. (No. 191)
Otjihase Mining Co. (Pty) Limited	*	All minerals, Windhoek district. 13/5/71-12/5/77. (No. 199)
B & O Mineral Exploration Co. (Pty) Limited	*	All minerals, 3 farms, Windhoek district. 1/9/71-31/8/77. (No. 211)
Otjihase Mining Co. (Pty) Limited	*	All minerals, excluding source material, 5 farms, Windhoek district. 10/9/71-9/9/77. (No. 216)
B & O Mineral Exploration Co. (Pty) Limited		All materials, 19 farms, Gobabis district + 10 farms Windhoek + 5 farms Gobabis districts. 8/9/72-7/9/76. (Nos. 264, 265, 267)
" " "	*	All minerals, 4 farms, Windhoek. 13/6/73-12/6/77. (No. 302)
" " "		All minerals, 2 farms Windhoek. 1/11/74-31/10/76. (No. 414)
B & O Minerals Exploration Co. (Pty) Limited	*	All minerals, 10 farms, Windhoek district. 11/4/75-10/4/77. (No. 443)
" " " "	*	All minerals including source material, Swakopmund/Walvis Bay districts. 9/4/75-8/4/77. (No. 445)
" " " "	*	All minerals, Bothanie district. 4/9/75-3/9/77. (No. 469)
" " " "	*	All minerals, 5 farms, Karasburg district. 4/11/75-3/11/77. (No. 472)

F. Nord Resources Corporation (total 2)

Nord Mining and Exploration (Pty) Ltd.	*	All minerals including source material, Namib Desert Park, 35,000 hectares. 3/5/71-2/5/77. (No. 224)
" " " " "		All minerals Rehoboth district. 21/2/73-20/2/77. (No. 288)

8. Rio Tinto Zinc Corporation Ltd. (total 7)

Haib Exploration (Pty) Limited	*	All minerals except oil and source material. Area north of the Orange river. 22/4/63-21/4/65 renewed to 21/4/78 (No. 17)
Rio Tinto Exploration (Pty) Limited		All materials, excluding oil, source material, Windhoek district. 24/3/69-23/3/76. (No. 124)
" " " "	*	All minerals, excluding oil but including source material Karibib/ Swakopmund district. 69.038 hectares. 29/5/71-28/5/78. (No. 185)
" " " "		All minerals, including source material, Swakopmund district. 28/10/74-27/10/76. (No. 415)
" " " "		All minerals including source material, unsurveyed State land, Karasburg + 3 farms. 20/12/74-19/12/76. (No. 423, 424)
" " " "	*	All minerals, 2 farms, Bethanie district + 3 farms, Luderitz. 10/1/75-9/1/77. (No. 425)
" " " "	*	All minerals including source material, 5 farms, Karibib. 20/5/75-19/5/77. (No. 444)

9. South West Africa Company Ltd/Tsumeb Corporation Ltd. (total 5)

Swaco	*	All minerals, excluding oil, salt, gypsum, limestone and source material. 58,011 hectares, Tsumeb district. 2/1/67-1/1/72 renewed to 2/1/77. (No. 48)
"		Same grant, 24,546 hectares, Tsumeb district. (No. 50)
"		Same grant, 18,070 hectares, Grootfontein district. (No. 51)
TCL		All minerals, 5 farms, Okahanja district. 20/9/74-19/9/76. (No. 404)
"	*	All minerals, 5 farms, Keetmanshoop 20/5/75-19/5/77. (No. 455)

10. Union Corporation (total 1)

Union Corporation Prospecting SWA (Pty) Limited	*	All minerals including natural oil, salt and source material. Unsurveyed State land, Swakopmund district. 16/6/75-15/6/77. (No. 459)

CHAPTER THREE

Role of the Three Major Producing Companies

Ownership and control of the mining industry is concentrated amongst a number of major transnational and South African companies, of which three have exercised a dominant influence. An analysis of the role of Consolidated Diamond Mines, the South West Africa Company, and the Tsumeb Corporation provides considerable insight into the history and development of the mining industry during the colonial period. The operations of the three companies taken together account for over 90% of current output, excluding uranium, and a similar proportion of the gross mining profits, government revenue, and mineral export sales.

Consolidated Diamonds of South West Africa Ltd (CDM)

The Company's significance

Diamond production by CDM in the restricted Diamond Area No. 1, its concession area along the Namib coast north of the Orange River, has been the most significant mining activity in Namibia since the company's formation in 1919. The sale of diamonds, almost of all of which are marketed to world cutting centres via the Central Selling Organisation, provides the largest source of foreign exchange earnings, as well as accounting on average for over 50% of total mineral exports by value, and some 30% of the revenues collected in Namibia. CDM also constitutes one of the most profitable constituents of the whole De Beers Consolidated Mines group. Although annual output is only about one-tenth of the volume of combined production from De Beers-owned mines in Botswana and South Africa, in recent years CDM's contribution to the overall profits of the group has risen as high as 40% in some years.

In 1974, the last year in which separate figures were published, CDM's consolidated profit before tax amounted to R113.3m compared to the overall profit for De Beers of R312.9m, and taxation of R32.7m compared to an overall tax provision of R89.4m, leaving a consolidated profit after tax attributable to CDM of R80.6m compared to R201.3m just under 40% of overall net profits for the group.

In 1975, De Beers purchased the remaining 1.57% minority interests in CDM's equity, from which point onwards the company has been a wholly-owned subsidiary within the De Beers group, with no publication of separate financial statistics. The phenomenal boom in demand for diamonds during 1977, enabled the CSO to notch up a new sales record of $2,073m (R1,082m) in 1977, an increase of 33% compared with the previous year. Diamond prices went up by 9% in 1976, and an unprecedented 32% in 1977. Demand has been particularly high for small sized diamonds of 1½ carats and below, and this was reflected in a selective increase for small stones of 40% last December, and changes in the assortments of uncut diamonds in the parcels offered cutters and polishers at the last of the ten annual 'sights at the London offices of the De Beers Diamond Trading Company. With its high gem content of 98% of total production, CDM will have especially benefited from the boom in demand for diamonds, although in his chairman's statement for 1977, Sir Harry Oppenheimer warned that the growth of investment interest in diamonds as a speculative commodity could be a potentially destabilsing influence and was not regarded as an encouraging sign from the producers' point of view. CDM's output like that of other producers using the CSO marketing system is sold on the basis of the standard selling value, SSV; shipments reaching the CSO from CDM are kept separate until fully sorted onto the London selling assortment; the buying value calculated represents the final London selling valuation less the trading companies' agreed commission. Like qualities are then mixed together into parcels for sale to CSO sightholders. Some 63,000 'cape yellow' diamonds have in addition been sold on average each year to the South African cutting industry (official inquiry into the diamond industry of 1973) at full London selling value, according to De Beers.

A large-scale mechanisation programme has established CDM as the world's most important producer of gem diamonds. From about 150,000 carats a year in the late 1940's, production increased to 1m carats by 1962, and over the

past ten years has averaged between 1.5m and 1.6m carats a year. Operations have increasingly been concentrated in the southern sector of the concession area, where the diamond-bearing marine deposits extend in a narrow coastal strip 100 kms north of the Orange River. CDM's mining headquarters, originally at Luderitz, were transferred to Oranjemund on the north bank of the Orange River next to the sea, which has since developed into the fourth-largest Namibian population centre, with 8,000 inhabitants.

Type of diamonds

The diamonds produced by CDM are remarkable for their good shape, fine colours and quality. Being of alluvial origin, the stones produced at CDM tend to be rounded, which means that a high yield of polished diamond can be obtained from them. Diamonds from different mines have different characteristics in terms of colour and quality. For instance the Dutoitspan Mine in Kimberley, South Africa, produces a high proportion of yellow stones and the Orapa Mine in Botswana produces many stones with a very uneven surface, whilst many Russian diamonds have black carbon internal impurities and the diamond production from Zaire involves a very high proportion of boart (the cheapest category of industrial diamonds). The size of diamond also varies from mine to mine - the mines in Ghana produce only very small stones (few over one carat in weight) whereas the mines in Sierra Leone produce many large stones of over 15 carats.

It is not only their good shape which makes them attractive to diamond cutters because of their high yield, but also their lack of impurities, faults, and their good colour. As a result, CDM production has a higher average price per carat than any other. It is estimated to be worth over $200 per carat, compared with $100 per carat for the production from Namaqualand and $7 per carat for the production from Zaire. (See Appendix for the basis of the average price calculation).

Historical outline

The first mining rights to the area were obtained in 1883 by the German F.A.E. Luderitz, from the Chief of the Bethanie Hottentots in Great Namaqualand. In 1885 these rights were sold by Luderitz to the newly formed Deutsche Kolonialgesellschaft fur Sudwestafrika, the DKG, and in 1908 the DKG accepted the application of the 1905 Imperial Mining Ordinance to its mining concessions in the area known as the 'Sperrgebeit' (closed territory). A notice in terms of the 1905 Ordinance gave the DKG exclusive rights to prospect and win minerals in the area. In 1909 a new company, the Deutsche Diamanten Gesellschaft was formed, the DDG, and an exclusive mining grant within the 'Sperrgebeit' was assigned to it by the DKG. However the DKG retained full title to the mineral rights and receipt of royalties on diamonds mined. The mining rights of the DDG were set out in a 1910 contract with the German Colonial Office.

Although after 1919, a number of German mining concessions were cancelled outright, including many of the DKG's widespread holdings, the DDG's rights in the 'Sperrgebeit' remained intact. Anglo American and De Beers, at that period in intense competition, both sought to gain control of the territory's diamond production after the defeat of the Germans, since the importance of the diamond fields had become generally recognised. In 1919, Sir Ernest Oppenheimer of Anglo American received permission from the Union Government to buy out the owners of the diamond rights - this involved the raising of large cash payments from British and German banks to finance the transaction. CDM was formed as a limited liability company

with its R7m capital raised in South Africa and the United States. The objective was to consolidate the assets of the former German producers, so as to develop the resources as a unified entitity, and represented a major coup for Anglo American in view of the legal complications arising out of the rights of the former German concessionary companies, and the large sums of cash (for the period) involved. It placed the company in a position of great strategic value for the future development of the diamond industry in South Africa. De Beers decided not to seek a minority stake in CDM. In 1923, the Halbschied agreement between the Administrator of South West Africa and CDM, recognised the company as successor in title to the DDG, and also conferred on CDM all mining rights reserved in terms of the 1910 contract to the German Colonial Government. These rights were granted until 31 December 2010, an exceptionally long period, particularly in view of the original conservative estimates of the reserves in the 'Sperrgebeit'.

The principle of monopolistic sale of diamond production from the territory was established from the beginning - overseas sales were entrusted to the Diamanten Regie, a company incorporated in Berlin in 1909, and on which originally producers were not represented. By 1914, the various German producers held most of the share capital and seats on the board, and during the period of martial law under the Union Government from 1915 to December 1920 the Union Government assumed the functions of the Regie. A conference in 1920 between government officials and producers resulted in a decision to establish the Diamond Board for South West Africa in 1921.

In agreeing to the establishment of CDM by Sir Ernest Oppenheimer, the Union Government had specified in a formal reply of 3 November 1919 that this would have to be subject to the reservation of recognition of the rights of the DKG in the Sperrgebiet, and further that: 'It must be distinctly understood that in permitting the transfer of interests from the German owners to yourselves, the Government stipulates that a condition precedent to all others, must be that your corporation and those associated with you, undertake to work the assets of the concession you are acquiring at all times with due and proper regard to the interests of the Union Government and the Territory of South West Africa, and that no transfer of assets you are acquiring will be made to other parties without the consent of the Government'. This reflected The Union Government's concern at any competition between CDM and of other diamond producers in South Africa. In 1914, the South African producers and the Diamanten Regie of South West Africa, had established a pool of producers for sale to the Diamond Syndicate, the short-lived forerunner of the one-channel marketing system of the CSO.

A second company, the South West Africa Finance Corporation Ltd, a wholly-owned subsidiary of CDM, was established to take-over the remaining rights of the DKG. The DKG possessed valuable royalty rights by virtue of its original concessionary position in German South West Africa as well as other property. The Finance Corporation is entitled to a 4.3% royalty on gross proceeds from diamonds mined in Diamond Area No. 1.

At the time of the formation of CDM, estimated reserves were placed at 14-16m carats, most of them obtainable through initially low-cost mining techniques in the north of the concession.

Mining operations were restarted at Kolmanskop and Elizabeth Bay north of Luderitz, and two large concentration plants were built with the capacity to treat up to 4.5m tons of gravel in the area between Luderitz and Elizabeth Bay. In 1927 the diamond riches of the Alexander Bay area were discovered, and in 1928 similar diamond-bearing terraces were located by CDM's geologists on the north bank of the Orange River. It was discovered that under a layer of sand up to 30 metres deep, huge reserves of gem diamonds were situated. However these discoveries were not immediately exploited due to the ensuing world depression, which led to a decline of production from 1930 and a suspension of all operations from 1932 to 1935. With the renewal of operations from 1935, these new deposits gradually took over in importance, and production was exceeding the old northern areas by the 1940's. During this period the controlling interest in CDM was acquired from Anglo American by De Beers Consolidated Mines Ltd. The original estimates of 2.5m carats proved to be a considerable under-estimate, and over 25m carats have since been recovered from the area. Up to 1952 capital expenditure was written off against profit, but since then it has been financed by transfers from the profit and loss account to capital reserves - between 1952 and 1975 some R140m was appropriated in this manner for capital development. The major area of expenditure has been the on-going construction of conglomerate treatment plants, phased in over the last three years to replace field screening plants as reserves have become progressively exhausted at a cost of around R65m. There are a total of four conglomerate plants, and expenditure on additional treatment plants over the next five years to maintain existing production levels is expected to be about R60m.

In 1965 CDM acquired control of the Marine Diamond Corporation, which had initiated sea-mining operations using converted barges, while at the same time commencing foreshore mining between the high and low water marks, mining within the shelter of 25-foot high sand walls. The operations were discontinued in 1971 owing to the difficulty at that point in marketing the small stones obtained. This enabled the development of new techniques to extend the mining area, by using the sand-walls to push back the sea and mine as far as 200 metres beyond the high water mark, and 20 metres below the mean sea-level.

Current Level of Production

De Beers stated in its annual report for 1977 that production by CDM for that year was 2,001,217 carats, compared to 1,693,994 carats in 1976. New recovery plants being built are replacement rather than new productive capacity. New plants have to be built, and modifications to existing plants made, as the areas being mined change, and to handle variations in the ore which now consists of conglomerates rather than gravel. There could, however, be some further small incremental production increase (about 50,000 carats a year) as a result. According to De Beers it is not intended to greatly expand output as the life of the present reserves at current production levels is only medium term, i.e. 10-15 years. But extensive prospecting is continuing in the mining area in the hope of extending the reserves, while there is evidence (the increase in average stone size from 0.73 carats in 1975 to 0.95 carats in 1976) that the richest areas are being mined, although the average stone size declined in 1977 to 0.75 carats.

Further Developments and Prospecting

In view of the imminence of the establishment of an independant state of Namibia, the CDM head office was transferred from Kimberley to Windhoek in the course of 1977. At the first board meeting held in Windhoek on 25 August 1977,

Sir Harry Oppenheimer announced the formation of a new subsidiary to invest profits derived from diamond mining in new projects whose prospects would not be dependent on the longevity of diamond production. An amount of R25m has been appropriated in the CDM accounts for the new subsidiary's activities which will primarily involve investment in non-diamond mining operations although other forms of diversification have not been ruled out. In his Chairman's statement for 1977, Sir Harry Oppenheimer referred to this development in the following terms: 'It has, of course, for many years been the settled policy of the group to use a proportion of the profits derived from diamonds for investment in other fields. Until this year, however, we had not felt it necessary to make any appropriation of CDM profits specifically for development in South West Africa/Namibia... We remain of the opinion that our operations in South West Africa/Namibia should continue at this stage to be directed mainly, though not necessarily, to prospecting and mining developments for which there are encouraging prospects.'

CDM's ability to fund new ventures derives from its substantial liquidity resulting from its ability to sell accumulated diamond stocks as well as current production in view of the high demand on the world market. As part of the new look for CDM, it was also announced at the August 1977 meeting that R1.5m was to be spent on a technical institute in Ongwediva, Ovamboland, in recognition of the 'hard' work of the Ovambo migrant workers on whose labour the company has always depended. As of 1977, CDM's labour force comprised 5,300 Africans (90% Ovambo), 1,200 Whites, and 300 coloured. After a 'comprehensive job evaluation', an integrated wage scale, forming the base wage for all employee categories, was introduced at CDM in June 1977. The first Ovambo married workers and their families ever to be housed in Oranjemund also arrived in June 1977, according to the De Beers 1977 report, and the selection of and training of African mining supervisors and metallurgical operators was continuing although there was said to be a shortage of personnel with suitable educational qualifications.

In November 1977 CDM announced it would be launching a R5m mineral survey of Namibia the following January, which would cover some 100,000 sq kms in areas to the east of Windhoek, north of Tsumeb and south of Keetmanshoop. The survey is expected to take five years to complete and the results are to be available to all interested individuals and companies, in line with the policy of seeking new opportunities for participating in mineral developments.

In the last four years CDM has spent about R6.7m in prospecting operations in its own concession, the Marine Diamonds concession, and elsewhere in the territory. Prospecting for diamonds has also taken place in concessions held by another CDM affiliate, Tidal Diamonds (Pty) Ltd, which holds prospecting and diamond rights to Diamond Area No. 2 and two adjacent sea concessions. Both CDM and Tidal Diamonds have arrangements with the prospecting subsidiary of Anglo American for the exploration of their concessions for minerals other than diamonds, with De Beers holding a 25% interest in this consortium. Main areas of interest have been uranium prospecting in the Meob Bay area and lead/zinc/silver in the area adjacent to the Rosh Pinah mine. Total Anglo American/De Beers prospecting expenditure in the last four years has been R11m; prospecting for diamonds within the Sperrgebiet has been stepped up in the hope of providing additional reserves and extending the life of the mine.

Taxation

Taxes on diamonds are collected:

1) An export duty of 10% levied on all diamonds produced by CDM, payable on export from the territory. This compares to a 15% duty in terms of South African producers, but a large proportion of this production is sold locally to the cutting industry and therefore not subject to the duty, while the marginal profitability of some mines means that export duty is waived for the Koffiefontein and the Premier mine. Thus while the value received from South African producers is less than 10% of the net proceeds to producers, in Namibia the South African Government receives exactly 10% of the net proceeds after export duty.

2) Diamond Mining Tax of 45% under the South African Income Tax Act, and a surcharge of 4½% (10% on 45%).

3) Diamond Profits Tax of 15% under the Diamond Taxation Proclamation of 1941.

The theoretical state take is about 57% of mining income after export duty - 15% for Diamond Profits Tax, then 49.5% of 85% (after deduction of Diamond Profits Tax) equals about 42% giving a total of 57%. The total take, including export duty, taxation and loan levy of the operating surplus would be about 61.5%, broken down as follows:

Operating surplus	100	
Diamond export tax	10	
Balance	90	
Diamond profit tax	13.5	(15% of 90)
Balance	76.6	
Company tax	38	(49.5% of 76.5)
Profit after tax	38.5	
Total tax	61.5	

According to De Beers figures, the estimated aggregate tax payment by CDM was 65.1%, compared to 67% in 1976 and 62.3% in 1975. This figure also includes payment of the Non-Resident Shareholders' Tax at the rate of 12.5% on all income earned within Namibia and remitted abroad by way of dividends. It is expressed as a percentage of gross national profit to CDM, i.e. gross mining revenue less working costs and capital expenditure allowable under the terms of the existing tax regulations. This figure is not reconcilable with published accounts by CDM; in 1971-4, the average provision for taxation was 34.75%, presumably relating to large scale write-off of capital expenditure. In the last years CDM accounts were published, 1973 and 1974, the provision for tax amounted to 38% and 29% respectively of total profits, and 47% and 36% respectively of profits on diamond mining only. 1973 was the peak year for diamond sales before the record sales achieved in 1976 and 1977. The figures appear to be broadly consistent with each other; in his chairman's statement of 1975, Sir Harry Oppenheimer said that 'in normal years' taxation absorbed well over 60% of the mining profits of CDM. In 1973, the Greef Commission of Inquiry into the diamond industry in South Africa and Namibia, found that the diamond profit tax, income tax and export duty payable in respect of diamond mining amounted to approximately 56% of profits.

CDM Profits and Tax 1971-1974

Rm	1971	1972	1973	1974
Pre-tax profit	51.4	101.1	156.5	113.3
Provision for tax	17.7	37.1	59.9	32.7
SA company tax	N.A.	N.A.	42.6	23.7
SWA diamond profits tax	N.A.	N.A.	17.3	9.0
Post-Tax profit	33.4	63.9	96.5	80.6
Royalty income from SWA Finance Corporation	N.A.	4.6	7.4	4.5

Source: CDM annual reports for 1972, 1973, 1974.

In the last two years 1973 and 1974 in which separate CDM accounts were published total tax payable on profits came to 29% of total profits in 1974 and 38% in 1973, and 36% of profits on diamond mining in 1974 and 47% in 1973. These figures presumably exclude the repayments through the royalty mentioned above and do not include the Export Duty which is presumably payable on the gross sales of the marketing companies. De Beers executives have quoted the overall tax applicable to CDM profits, including export duty, as 60%. In 1973 the Greef Commission of Inquiry into the diamond industry in South Africa and South West Africa found that taxes in total including Export Duty amounted to approximately 56% of profits on CDM.

The level of tax on CDM is not as high as it is on diamond mines in Botswana, which is the only country where recent negotiations over tax for new mines have taken place. Also it is believed that countries like Sierra Leone, Ghana, and Tanzania have increased their tax take from diamond mines to higher than 60% after gaining independence. Furthermore, application of the present tax system for new diamond mines in South Africa, which is based on a lease consideration in turn based on the expected DCF return to the mining company, would throw up a tax rate of well above 60% for CDM as it did for the Finsch Mine and for deposits in Namaqualand.

Actual tax collected from diamond mining in Namibia constitutes the largest single source of revenue currently collected, ranging from 36% to 45%, in the 1975/76-1977/78 financial years, out of the total amount of inland revenue collected. The proportion of diamond revenue out of total inland revenue collected in Namibia over the recent financial years is as follows.

(Rm)	1977/78	1976/77	1975/76
Total Inland Revenue:	179.3	136.4	133.7
Total from Diamonds:	80.6	49.0	48.4
Percentage:	45%	36%	36%
of which Income tax	45.0	22.5	26.5
Diamond profits tax	12.2	9.0	8.9
Diamond Export Duty	15.9	11.5	7.7
SWA Finance Corp (royalty prov.)	7.5	6.0	5.3

Marketing Arrangements

CDM is a key member of the Diamond Producers Association (DPA), established in 1934, representing both producers and the South African Government. The other members are the South African Government as a producer through the State Alluvial Digging at Alexander Bay, the South African Minister of Mines in his capacity as controller of the diamonds produced in Namibia via the SWA Diamond Board, and the Diamond Corporation (a subsidiary of De Beers which purchases diamonds from the producers outside South Africa). CDM is a party to the DPA only on the authority of the Minister of Mines who exercises the control formerly vested in the SWA Administrator, under the Diamond Industry Protection Proclamation of 1939, over the disposal of all diamonds produced in Namibia. The contract establishing and maintaining the DPA is the basis of the De Beers Central Selling Organisation, CSO, which controls the sale of between 80% to 90% of diamonds in the Western world. The contract was renewed in 1976 for a further five years and the details have not been published. The contracts incorporate sales quotas between the members and CDM has a quota calculated on the proportion which its production bears to the total CSO intake from all sources. Control is by three government appointees, including originally the SWA Administrator whose task it was 'to protect the interests of South West Africa', three company nominees, (De Beers, CDM and Premier Mining) and one from the Diamond Corporation. The Diamond Corporation and the De Beers mining companies could deliver large and

small diamonds in the proportion of each size by value which their separate intakes of each size bore to their joint intakes of each size. The joint intake of the DPA is effectively the intake of the CSO and thus each party's sales are a proportion of CSO sales.

Since CDM became a wholly-owned De Beers subsidiary in 1975 it has continued to be represented directly on the board of the Diamond Producers' Association. It is estimated that CDM currently produces around 25% of the total CSO sales each year.

The diamonds are sold from CDM to the Diamond Purchasing and Trading Company (DPTC) in South Africa. The DPTC is now 53% owned by De Beers and 16.8% by the Anglo American Investment Trust. The Johannesburg Consolidated Investment Company,JCI, also has a substantial shareholding worth R43.7m in 1977 in both the DPTC and De Beers. The DPTC sells the gems from production to the Diamond Trading Company (DTC) and the industrials to Industrial Distributors. The DTC is owned 50% by the Anglo American Investment Trust, 28% by the Anglo American Corporation, with most of the remaining 22% held by JCI. The commission deductable from the London selling valuation by the DPTC and DTC in arriving at the buying valuation for CDM shipments is the same as that payable on all other productions selling through the CSO. One independent diamond expert has calculated that the two trading companies made at least 12% to 15% on turnover before tax on the CDM production; according to De Beers the actual commission was less than this. (no actual figure is published). De Beers has also asserted that given the system of separate valuation for each shipment based on the London selling valuation there was no possibility of additional hidden profits by the marketing companies on the reassortment of their purchases of the CDM production, subsidisation of less profitable purchases in open market or other producers like the Russians, or that output from De Beers owned mines are sold on a basis of assortment considerably undervaluing gem stones. the DTC is the main gem marketing company of the De Beers CSO and, in addition to maintaining offices in London and a widely travelling sales organisation,it spends around $30m a year advertising and promoting diamonds. The operating costs of the DPTC and DTC probably total around 2% on turnover including advertising expenditure.

The CDM diamonds are sorted and valued at the DTC/DPA offices in Kimberley, and CDM pays its proportion of the sorting and valuing costs of this office. This is a complicated procedure - the diamonds have to be sorted into over 2,000 categories ranging in price from $1.70 per carat to $3,500 per carat. A staff of about 50 is probably needed to sort the CDM production, of which 10 would be experts of considerable experience, say 15 years. The assortment of diamonds is checked by a team of separate valuers employed by the DPA for this purpose. The diamonds, except for the large Capes are then shipped to London for sale through the DTC office there, with the large Capes sold to diamond cutting firms in South Africa which specialise in handling these types. The most important market for CSO stones is the United States, which regularly imports 80% - 90% of total diamonds from this source, many of which are then re-exported for cutting elsewhere. It was calculated by the 1973 official commission that over 66% of Namibian production of diamonds over 1½ carats in size reached American cutters,who specialise in larger stones from all sources. The US dollar earnings from the re-export of diamonds to the United States are an important element in the trade balance of the United Kingdom.

The standard selling value (SSV) which CDM realises for its sale of diamonds, is the final CSO sales price to clients

less the various sales commissions of the marketing companies. The SSV of the producers' deliveries to the DPA are calculated on the basis of the standard selling assortment made at Kimberley.

Future Marketing

The world market for gems is extremely volatile for two reasons. Firstly, because a large part of the trade, which is capital intensive, is in the hands of small, one man businesses, grouped together in the diamond cutting centres (Antwerp, Tel Aviv, New York and Bombay), which buy and sell on the slightest change in the market. Secondly because the whole business of gem diamonds is something of an illusion - there is very little intrinsic value in a diamond ring and except for the large stones diamond jewellery is probably a poor investment selling as it does at 100% mark up in most jewellers.

This means that the diamond industry from mine to jeweller is heavily dependent on some form of control being kept of production and marketing. At present this is being accomplished very effectively by the De Beers CSO.

It is unlikely that an independent Namibian government would benefit from encouraging CDM to sell outside the CSO as this might damage the structure of the world market and cause prices to fall. The CDM production is attractive because of its high gem content and in good market conditions it might well be possible to sell the CDM output separately. However, demand for diamonds has always been cyclical and within the last five years the demand for both large and small stones has on occasions been extremely weak. It would not have been possible for CDM to have sold its whole production in the open market in these periods without destructive long-term consequences. Instead the surplus output was stockpiled by De Beers into a reserve for sale to the cutting centres when conditions improve in accordance with the basic CSO operating principle that market supply should never exceed demand. The speculative hoarding in the early part of 1978 as a hedge against currency uncertainties is artifically inflating demand creating a further element of long-term uncertainty. As of 21 August 1978, De Beers implemented a further increase in the price of rough gem diamonds of 30%. The surcharge of 40% introduced at the end of 1977, which had been reduced to 10% by July 1978, was dropped with the increase. There had been no significant drop in buying even with the 40% surcharge, and the latest price increase was believed to reflect what the market could stand. As well as the speculative buying, a further element in the increase was the drop in value of the US dollar against the Japanese Yen in the eight months since the last increase of 17% in December 1977. The CSO pricing unit is the dollar; the United States is still the largest market, taking 52% of the world's supply, with Japan second in the buying league as the result of a successful advertising compaign to persuade Japanese brides to wear diamond engagement rings.

A future Namibian government might be best served by seeking to secure better terms for the marketing of its production through the CSO by reducing the profits of the marketing companies and improving the check valuation, although De Beers claims that CDM's sales arrangements with the CSO are at least as favourable as any South African or other producer. It seems unlikely that CDM merits a higher quota of CSO sales than it enjoys at present. However, CDM is in a very strong bargaining position and should be able to secure favourable terms for the marketing of its production. If it does not do so, there are precedents in Sierra Leone, Ghana, Tanzania and Botswana, for the government to intervene to ensure that it does. In particular it would intervene to ensure that excessive marketing profits are not

being made outside the country of production and causing the governments of those countries to lose revenue that properly should accrue to them.

Another area might be an evaluation of the feasibility of establishing a separate diamond cutting industry in Namibia, which the size of the CDM output would in theory, make potentially viable. The 1973 official commission of enquiry rejected a suggestion from the South African diamond cutting industry that the CSO should be required to make the production of Namibia available to the South African cutters on the grounds that since CDM's production had traditionally been available for mixing overseas, any change in the system would disrupt the established marketing pattern. The commission of inquiry also concluded that since diamonds would only continue to be produced on a large scale from known sources in Namibia for about 15 years, an industry dependent on the output of locally produced rough diamonds would only have a limited period of activity, and it therefore rejected the idea of establishing an industry in Namibia at that stage. However, the indication that the life of the CDM deposits may be extended, and the new deposits of diamonds located in the Huns mountains area near Keetmanshoop has revived interest in the idea, and as of 1978 the establishment of a diamond polishing industry was under discussion by certain business interests in Namibia and the United States.

Appendix

Calculation of average price of CDM diamonds

Profits accruing to the Diamond Account at CDM in 1974	R 90 693 000
Add Costs of Production	32 530 000
	123 223 000
Less Increase in Stocks held	7 804 000
Cost of 1974 production	R115 419 000

Quantity produced	1 569 961 carats
Less extra stock	376 640 carats (increase in stock divided by cost of production)
Quantity sold	1 193 321 carats

Average price ex mine (Cost of production ÷ carats produced)	= R 96,72
Increase by 54% CSO price increase in Rand between 1974 and June 1977	+ 52,23
	R148,95
Convert to $ @ 1,15	$171,29
DPTC profit @ 11%	18,84
Price for royalty	$190,13
Export Duty at say 7% to allow for SWA Finance Corporation reduction and sale of Capes in South Africa	13,13
	$203,44
DTC profit at 3%	6,10
Average full selling price	$209,54

Notes:

1. This average price also ties in with the impression of experts who have seen run of mine production from CDM.

2. It is impossible to reconcile the value with tax receipts as there is no information available on capital expenditure since 1974 at CDM or on the way the export duty is calculated particularly with reference to the royalty arrangement with the SWA Finance Corporation. In particular the above calculation does not reconcile with SWA Administration revenue estimates for Diamond Export Duty and this may be payable on export from Namibia before the DPTC profit is made.

Source

Consolidated Diamond Mines, Annual Reports, 1972-1974.
Commission of Enquiry into the Diamond Industry of the Republic of South Africa and the Territory of South West Africa, February 1974.
De Beers Consolidated Mines Ltd, Annual Reports, 1972-1976
W. Greenwell & Co, De Beers Consolidated Mines Ltd, May 1972.

The South West Africa Company Ltd. (SWACO)

The Company's Significance

Although in terms of current mineral output, the South West African Company Ltd., commonly referred to as SWACO, is not one of Namibia's largest producers, it has played a key role in the development of Namibia's mining industry since the period of German colonial rule. Its evolution typifies the assumptions and practices inherent to mining of a colonial epoch. Despite a long history of regular production of lead, tin, vanadium and zinc, the company has not seen fit or been encouraged to develop its own processing and refining facilities, and its products are sold in mainly concentrate form for refining in either South Africa, or overseas countries such as the United Kingdom and West Germany. In addition, SWACO shares the distinction of having been intimately involved with the establishment of Namibia's 'contract' system of migrant labour, which by ensuring the supply of African labour-power from the northern regions has been a major element in keeping down the working expenses and operating costs of Namibian mining companies.

Historical outline

SWACO was incorporated in London on 18 August 1892, with the backing of German financial interests, in order to acquire rights to the so-called 'Damaraland Concession' drawn up by the German colonial authorities. Historically, the term 'Damaraland' refers to the north-central region of Namibia, rather than the area set aside as the Damara 'homeland' in the north-western Namib desert. This concession consisted of exclusive mining rights over 22,000 sq. miles, including known copper and lead deposits situated in the Precambrian ranges of the Otavi mountains in the north-east. Intermittant workings had been carried out by Africans - the first mining expedition sent out by the company noted "the native workers have made a perfect network of holes in the limestone rock, wherever the small veins of copper were seen intermixed". The initial capital was increased to £2 million, but at the outset the company was more interested in land development and speculation than actual prospecting or mining. In 1895 it aquired 50% of the Hanseatic Land and Mining Company, and in 1896 it bought from the Deutsche Koloniale Gesellschaft (floated in 1885) its large Kackoveld Concession, covering an area of 37,000 sq. miles in the north-west under the title of the Kaokoland & Minengesellschaft. SWACO was amongst the more successful of the concession companies set up subsequent to the floating of the DKG, but the Chartered Company pattern of development envisaged by the early German authorities did not have the desired economic effect, due to the reluctance of many companies to lease their land for settlement or mining activities. This was instrumental in creating the pressures for the dispossession of the African communities of their land in the central plateau region, which led to the Herero/Nama wars of 1904-1908 ending in the complete expropriation of all tribal lands.

In 1900, a more significant move was a decision by SWACO to assist in the establishment of the Otavi Minen & Eisenbahngesellschaft, German-owned and with an initial £2 million capital, in order to build a railway to the coast and develop the copper deposits at Tsumeb. SWACO ceded a small, 1000 sq. mile area to the new company, including the Tsumeb deposits in return for a 25% share of profits. OMEG completed construction of a narrow-gauge railway to Swakopmund in 1906, and between the start of regular production in 1907 and the closure of the mine in 1940 produced 2.5

million short tons of ore, mainly copper, lead and zinc.

SWACO had no operating mines until 1921, when a first mine at Abenab near Grootfontein began vanadium production. In 1921, the South African administration recognised the company's continued rights solely in respect of the Damaraland Grant; prospecting was increased, and in 1924, the Berg Aukas mine, producing lead, vanadium and zinc was opened, with other small vanadium deposits brought into production for limited periods. The company has remained Namibia's sole vanadium producer mining one of the world's largest vanadium sources. The company's mining grant was extended initially until 1936, and then for a further five years subject to a £10,000 contribution to a Government aerial survey of the concession. In November 1941 a new grant for five years was extended, this time reduced to a 3,000 sq. mile area in the most promising sector of the Otavi ranges. This grant was renewed at five-year intervals until 1966, when it was further reduced in size to the rights and concessions currently held by SWACO. In 1942, SWACO obtained a prospecting grant for tin in the Brandberg pegmatite field in the north-west, and in 1942 opened a tin mine at Brandberg West. In the period between 1921 and 1945, SWACO produced 52,000 long tons of lead-vanadate concentrates worth R2.5 millions.

On the establishment of the Tsumeb Corporation Limited in 1947, to mine the deposits formerly worked by OMEG, SWACO obtained 95,000 shares, equivalent to an equity participation of 2.5%. Despite the small size of this investment, dividend income accruing to the company from the much more profitable Tsumeb mining operations have provided since 1947 a large proportion of the company's total earnings. In 1948, an agreement was made between SWACO and Tsumeb for the establishment of a joint prospecting company, the Tsumeb Exploration Co (Pty) Limited, with a 25% interest by SWACO and a 75% interest by Tsumeb. In addition SWACO agreed to cede to Tsumeb a further 630 sq. miles of its Damaraland Concession. Subsequently most of SWACO's exploration activities have been conducted via the TEC, substantially reducing its prospecting expenditure.

In 1957 a major shift in ownership took place with the joint acquisition of 90% of SWACO equity by a consortium comprising the Anglo American Corporation, Consolidated Gold Fields Limited, and the British-South Africa Company Limited (subsequently Charter Consolidated). The remaining 10% equity remained in the hands of individual shareholders mainly in Britain until 1976 when an offer for the 2,127,228 issued shares of SWACO was made by Kiln Products Ltd, an unquoted subsidiary company of Gold Fields of South Africa Ltd. At that point ownership of SWACO was as follows: Anglo American, 44%; Goldfields of South Africa, 40%; Consolidated Goldfields, 3%; Charter Consolidated, 25%. Since 1957, Goldfields of South Africa, the 49%-owned South African holding company of Consolidated Goldfields, has acted as technical managers to SWACO. In 1961/2, SWACO produced 11,000 tons of lead-vanadate concentrates, and reserves stood at 880,000 tons, containing 3% V_2O_5, 6.2% Pb and 35% Zn.

The company has been praised for its 'pioneering role' in the 'economic development' of Namibia by the SA Administration. In 1967, during celebrations marking the company's 75th year of existance, 'appropriate ceremonies were held in South West Africa to mark the occasion and many messages of goodwill were received in recognition of the outstanding role which this company has played in the development of the Territory'. (1967 Annual Report).

Current Mining Operations

The business of the company was described in its last published annual report for the year ended 30th June 1975, as 'the mining and treatment of metalliferous ores and sale of concentrates containing vanadium, lead and zinc'.

Mining rights include eleven proclaimed mining areas totalling 2,473 hectares (approx. 9½ sq. miles) in the Brandberg West, Cape Cross, Otjivalunda, Otavi and Grootfontein districts. In addition an exclusive mining grant for 446 hectares (approx 1¾ sq. miles) is held at Berg Aukas; exclusive prospecting rights over five areas totalling 177,671 hectares (approx 686 sq. miles) are held within the original Damaraland Grant; sixty-nine prospecting claims are held in various areas.

The company could provide no 'realistic assessment' of the market value of the property held for mining purposes. But in the case of the 28,500 hectares (approx 110 sq. miles) of freehold land owned by the company, the market value of both land and buildings exceeded book value by £300,000. The land is leased on relatively easy terms to European farmers in Grootfontein district.

In regard to exploration, the company's rights over the five areas it holds are ceded to Tsumeb Exploration Limited with the exception of certain reserved areas, amounting to 14,500 hectares (approx 56 sq. miles) containing-vanadium-bearing deposits, in which the company retained its full rights. In the ceded areas, exploration is on a joint venture basis, with SWACO retaining preferential rights to ore bodies discovered containing vanadium-bearing minerals. This maintained the company's hold on vanadium production in Namibia. In addition the company has its own exploration activities in the Berg Aukas, Brandberg West, Abenab and Baltika-Kupferberg areas. With regard to investment, during 1975 SWACO took its entitlement to 100,000 shares in a 400,000 share issue by the Tsumeb Exploration Company (cost £ 31,051) retaining its 25% shareholding. The 95,000 shareholding in the Tsumeb Corporation itself remained unchanged. Total exploration expenditure in 1975 was £156,000, of which £ 55,000 represented the contribution to the joint venture programme with Tsumeb.

Production

At the Berg Aukas lead, vanadium and zinc mine an expansion programme was completed in 1970, providing for an increased concentrator capacity of 50,000 metric tons to counter a grade fall-off in depth. In addition a Waelz Kiln installation was opened to process zinc-concentrates, operated by Kiln Products Limited, which purchased the concentrates from SWACO. Zinc oxide is sold for refining to the Zinc Corporation of South Africa, Zincor, (39% controlled by GFSA). Capacity at the Springs, Transvaal, electrolytic refinery was increased in 1976 by the completion of a new roaster and acid plant to 75,000 metric tons a year. In May 1978, the underground operations at Berg Aukas were temporarily suspended and mining operations were said to have become uneconomic at current metal prices, especially low zinc prices. Surface operations were to continue with the Waelz Kiln working on surface accumulation. The Brandberg West tin and tungsten mine was to continue to operate at full production.

The total tonnage of concentrates produced in 1975 amounted to 41,773 metric tons (50,708 in 1974). (Financial year ending 30 June).

Production 1971-1975

Concentrates produced (metric tons)

	1971	1972	1973	1974	1975
Lead vanadates	8,197	5,571	6,576	8,348	5,771
Zinc/lead sulphides	7,319	11,089	7,907	12,650	13,092
Zinc silicates	23,674	23,692	27,930	28,710	22,910
Tin/wolfram	595	635	225	-	-
Total	39,785	40,987	42,638	50,708	41,773

Zinc concentrates containing vanadium are shipped to Europe for refining (Belgium and West Germany). 1,400 tons of vanadium pentoxide and 1,200 of lead are produced on average each year. There is a steady demand for all these products, especially vandium, and tungsten, used as alloying elements for steel.

Production of lead vanadates and zinc sillicates was adversely affected due to the ore mined being of a lower vanadium and zinc grade. With regard to the ore milled, which totalled 123,700 (135,000 in 1974), the vanadium grade was 0.70% (1.14%), lead 4.2% (4.7%), zinc 13.8% (20.0%). Combined with the installation of a pre-concentration jig plant this resulted in a higher tonnage of waste discard and lower tonnage mill feed, with total ore hoisted at 209,600 tons, up on the 172,300 tons hoisted in 1974. Nevertheless, the tonnage milled in 1975 despite the eight percent drop on 1974 represents virtually the capacity of the milling section of the plant.

The Brandberg West tin/wolfram mine was temporarily closed in 1973 due to depressed market prices, but was reopened during 1976. In 1972, its last full year of production, 635 metric tons of tin/wolfram concentrates were produced. A programme of waste-stripping was commenced in September 1974, and the grade of ore fed to the mill was expected to improve progressively during the period subsequent to its recommissioning.

In September 1974, production at the Asis Ost copper deposit, operated by Tsumeb Exploration, with a 25% SWACO interest, began on a limited scale, the ore being treated at the adjacent Kombat mine mill (Tsumeb Corporation). Planned milling rate of 10,000 metric tons per month had not been reached as of 1976 due to the low copper prices which affected profitability, and in March 1976 Tsumeb suspended production, which is due to recommence in late 1978. (Newmont Mining Corporation Annual Report for 1976, p.14). The production and marketing of sodium salts from the Otjivalunda brine pans was initiated in July 1974 on a

10,000 ton trial basis. The products include natural trona (sodium carbonate) and thenardite (sodium sulphate), with contracts negotiated with consumers in Namibia and the Republic for limited quantities. A decision to establish a more permanent operation was said by SWACO's chairman to depend on the provision of an all-weather road by the SA Government from Otjivalunda to Ondangwa which was beyond the resources of the company. (Chairman's address, SWACO AGM, 13/11/1975).

The main customers for SWACO's products, are South Africa, Britain and West Germany. While the bulk of the zinc production goes to the Republic, lead-vanadate concentrates are shipped via Walvis Bay for smelting in West Germany at the Hamburg complex of the Norddeutsche Affinerie. Lead sulphides are shipped mainly to Britain after conversion to refined lead at the Tsumeb lead refinery. As of 30 June 1975, 1,200 tons of lead-vanadate concentrate was held in the pipe-line between the mine and the smelter in West Germany with the effect that revenue figures generally include substantial sums realised from sales of concentrate stocks carried over from the previous year.

Financial Results

Net profits for 1975 were £758,151 (£1,026,092 in 1974). This was still, with the exception of 1974, the highest net profit for ten years. Revenue increased by £230,371 to £4,476,240 mainly attributable to improved prices for vanadium and zinc concentrates despite an overall fall in output. Operating and administrative costs rose by 30% to £2,693,000 (£2,064,000), mainly due to a capital expenditure increase to £1,269,000 (£460,000) and wage increases for all employees. Dividend income from Tsumeb fell to £82,000 from £175,000 in 1974, due to the sharp decline in copper and lead prices and increased operating costs at Tsumeb. Depreciation of fixed assets increased to £170,912 to £361,792, as a consequence of the capital expenditure programme.

Taxation

The taxation charge of £765,239 included a provision of £335,000 for deferred taxation and was lower by £362,601 than the charge for 1974. SWACO results benefit by the provisions of the double taxation agreement between Britain and South Africa, which was extended for a further period to include Namibia, by an exchange of letters between the two governments in 1968. SWACO obtains full relief from the British Treasury for taxation paid to South Africa on its operations in Namibia. The company's tax provision for 1975 had the following structure.

	1975	1974
UK Corporation Tax	£ 277,810	466,386
Overseas (SA) Taxation	£ 152,429	537,454
Deferred Taxation	£ 335,000	124,000
Total: -	£ 765,239	1,127,840

The UK tax charge calculated at 52%, is after deducting double taxation relief of £148, 628 (£537,454).

The vulnerability to any pressures from the British Government in the context of future mining arrangements in an independent state of Namibia may therefore have had a great deal to do with the decision to remove control of the company from London to Johannesburg in 1976.

The company's final dividend payment of £199,428 (£196,76) represented 9.4 pence a share, or a total of 17.9 pence (£380,242) after inclusion of an 8.5 pence interim dividend. Retained profits were slightly lower at £377,909.

Labour Policy

In 1975 the company reported that the average number of employees 'in service' in Namibia was 1,100 (990), of whom approximately 1,000 constitute contract workers from Ovamboland. The Company has had a particularly dismal record in its treatment of its African workforce, although increases in basic wage levels in recent years have been relatively substantial. More significantly, from 1926 onwards, the company has had a declared interest of 56% in a subsidiary company, Northern Labour Organisation (Pty) Ltd, which was specifically established in conjunction with Consolidated Diamond Mines, to recruit labour for the mining industry from the 'northern native and extra-territorial reserves'. In 1943, the NLO became part of a new recruiting agency, SWANLA, the South West Africa Native Labour Association, with offices at Grootfontein, the company's Namibian headquarters. Three other shareholders were added, representing the SWA Administration and farming interests. The NLO subsequently was described in the company's accounts as a 'non-operating subsidiary company' which with the sanction of the UK Dept of Trade and Industry, was excluded from the company's accounts as being of 'no value to members'. The 1975 report revealed that the company was to be placed in liquidation as a result of a general meeting of its shareholders, with total net aggregate profits since aquisition of 5,270 to be repaid.

This liquidation followed the decision of the SA Government to dissolve the SWANIA organisation, subsequent to the general strike of Namibian contract workers in December 1971. In contrast to many other companies, SWACO made no statement relating to the strike or to the acknowledged evils of the old system. Instead the company's general manager in Namibia, Mr. W.H. Bailie, until 1975, in his capacity as President of the SWA Association of Mining Companies, issued a statement regretting the demise of SWANLA in 1972. "The closure of SWANLA deprived all employees of an organisation which watched and protected their interests, over and above its functions of obtaining the most suitable layout for employers" (Windhoek Advertiser, 24/3/1972). The same newspaper reported in 1971 that Africans at Berg Aukas were amongst the first to join the general strike organised in December. "Yesterday, 900 workers of the SWA Company's Berg Aukas mine, a few kilometres east of Grootfontein, downed tools. This was virtually the entire Ovambo workforce of the mine and the manager's office at Grootfontein confirmed today that production at the lead and vanadium mine had stopped" (Windhoek Advertiser, 20/12/1971).

In 1971, monthly cash wages for the 1000 Africans, 4 Coloureds, and 160 whites then working at the mine were given as 11, 38, and 160 respectively per month. The wages paid to Africans was above the SWANLA minimum rate. In 1973, The Guardian in a series of special reports by its correspondent Adam Raphael, reported that average monthly pay for Africans was £18.23 (R31) with lowest-paid workers starting at £11.76 (R20), while conditions in the labour compound were 'bleak'. There are no recreational facilities; the kitchens are poor, and when I visited them, dirty and swarming with flies" (Guardian, 8/5/1973). There have been no more recent accounts published in the intervening period. The 1975 report merely stated that "the conditions of service for all employees continued to be improved in line with those of other mining companies" and that "labour

relations between management and employees remained good". The chairman's review for 1975 stated that in October 1974, monthly cash earnings of all African employees averaged R46.72, and this had risen to R66.40 by the end of the financial year in June, exclusive of provisions for free accomodation, food medical expenses and other (non-specified) benefits. He also reported that in the previous two years expenditure had "dramatically improved" conditions in the Berg Aukas compound with an upgrading process to continue.

The 1976 ownership transfer

There have been two attempts to transfer control of the company to South Africa, and the success of the second bid has major implications for future developments on independence. De Beers had previously acted to acquire the remaining 1.57% minority interests in the equity of Consolidated Diamond Mines during 1975. This was widely interpreted at the time by financial and mining commentators as indicating De Beers' determination to have full control in the light of any renegotiations of its mining rights in Namibia with a future independent government. Such shifts of control to mining finance houses based in South Africa will affect negotiations or any reorganisation of the mining industry to provide for an increased government take of the mining revenue. Subsequently no complete accounts of SWACO have been published since the 1975 annual report. The company is now incorporated into Kiln Products Ltd, an unquoted subsidiary of Goldfields of South Africa Ltd. which has a 34% beneficial interest; Consolidated Goldfields Ltd. the holding company has a 17% beneficial interest. Other shareholders in Kiln include Anglo American and New Witwatersrand Gold Mining. According to the 1976 GFSA annual report, the company's holding in Kiln represented 10.6% of its portfolio of unlisted investments, with an aggregate value of R10.9m. In the 18 month period to 31 December 1975, Kiln was reported to have made R1.4 million in pre-tax profits, with a production of 47,000 tons of zinc oxide concentrates.

In 1971 the SWACO Board had previously requested permission to transfer management and control of the company to Namibia; after 18 months, no reply had been received from the Dept of Trade and Industry, and the request was withdrawn.

On 29 April 1976, a press statement by SWACO announced that the boards of SWACO and Kiln Products had reached agreement on the offer by Kiln for all the issued 2,127,228 shares of 20 pence each, on the basis of £175 in cash for every 100 shares, or 110 Kiln shares of R1 for every 100 SWACO shares. The cash consideration compared with a middle market value of 140 pence at the time, with residents in Britain compelled under UK Exchange control regulations to take the cash consideration. The offer was conditional on acceptances in respect of 90% of the issued shares of SWACO, formal approval of the Bank of England, and an increase in Kiln's share capital to permit it to implement the bid, a clear indication that Kiln's resources are less than those of SWACO.

Since Gold Fields and Anglo American announced they would accept the offer and the share alternative, with 84% of SWACO's shares, acceptances in respect of a further 6% of the share capital only were required. A number of individual shareholders apparently objected to the bid, but on 2 November 1976, SWACO informed the dissenting shareholders, that their shares had been transferred to Kiln. The result has been to end SWACO's unique status as a foreign public company which still directly operated and held property in Southern Africa without the legal intermediary of a subsidiary or associated company incorporated in the area.

There has been no further detailed information on SWACO's activities since an interim report for the year ended 30 June 1976, which covered the six months to December 1975, and no final report for 1976 was issued. The report stated that sales revenue had increased by 10% over 1975, due to higher prices for lead vanadates and sales of sodium salts, with pre-tax profits for the six-month period of £297,000, with a £236,000 provision for taxation. The production of both lead vanadates and lead sulphides was said to have exceeded sales. The comparative figures for the six-month period to December 1975, and December 1974, were given as:

Lead vanadate	4,128	(3,183)	tons
Zinc sulphide	2,793	(3,349)	"
Lead sulphide	1,410	(1,451)	"
Zinc silicates	9,430	(11,170)	"
Total	17,761	19,153	

In his review for the 1976 financial year, the SWACO chairman had predicted a further fall in net after-tax profit due to grade problems at Berg Aukas, and the time needed to bring Brandberg West up to full production, and ship the concentrates overseas.

SWACO Five Year Financial Survey 1971-1975

£'000

	1971	1972	1973	1974	1975
Revenue from products	2,438	1,748	1,971	4,246	4,476
Investment income	249	36	149	289	260
Operating expenses	1,920	1,660	1,893	2,255	3,056
Net profit	436	24	72	1,026	758
Taxation	286	33	77(i)	1,128(i)	765(i)

(i) Includes deferred taxation

1976 results The 1977 annual report of Goldfields of South Africa gave no production data on the former SWACO mines. It merely reported that Kiln Products had a consolidated after-tax profit of R2.4m for the year ending December 31, 1976; after tax-profit to June 30 1977 amounted to R95,000. Lower revenue from sales together with increased rail and electricity charges were said to have adversely affected profitability - the zinc producer price had fallen from $ 795 to $ 700 in May 1977.

Sources

Consolidated Goldfields Ltd, Annual Reports, 1976, 1977

Goldfields of South Africa Ltd, Annual Reports, 1976, 1977

South West Africa Company Ltd, Annual Reports, 1950 - 1975, and Interm Report to year ended 30 June 1976.

The Tsumeb Corporation Limited

The Company's Significance

'No mine... ever returned so large a cash flow for such a relatively small investment as Tsumeb' (George Sohnge, Tsumeb: A Historical Sketch, 1967).

Tsumeb is the largest base-mineral producer in Namibia, accounting for approximately 80% of Namibia's base mineral output, and 20% of total mineral export earnings. Next to Consolidated Diamond Mines, Tsumeb has been the most profitable Namibian producer. According to AMAX, the majority of its capital investments of $78m since 1947, was derived from retained earnings. Net earnings over the ten-year period 1963-1972 averaged $18m per year. (Report on Tsumeb, AMAX Inc. 1973). Though gross profits in recent years have been hit by the poor world prices for copper and lead, the company is continuing to expand its operations, particularly in smelting and refining concentrates from other base metal mines in Namibia.

A wide-spread of minerals are mined at four mines in northern Namibia, including cadmium, copper, lead, silver and zinc, as well as by-products in the form of arsenic trioxide, germanium and pyrites. The company has the most extensive mining complex outside of the Oranjemund and Rossing mining plants, and produces blister copper and refined lead for export from its smelters at Tsumeb as well as smelting metals from other producers in Namibia on a toll basis ('custom metal'). The company represents the major investment from the United States in Namibia, through its ownership by AMAX and Newmont Mining, and much of its blister output is sold for further refining in the United States. Tsumeb together with the CDM, has traditionally been one of the largest employers of African migrant labour.

Historical outline

The pre-1947 history of the Tsumeb mine has been outlined in the profile of SWACO. In January 1947 Tsumeb was set up as a private company with 4 million RO.50 shares, after purchase of the OMEG property for £1,010,000 from the Custodian of Enemy Property by a consortium: AMAX Inc. (US) 29.6%, Newmont Mining Corporation (US) 29.6%, Selection Trust Ltd. (UK) 14.2%, O'okiep Copper Company Ltd. (a South African subsidiary of Newmont) 9.5%, Union Corporation (SA) 9.4%, SWACO (UK) 2.4%, Others 5.3%. In addition Selection Trust has an additional indirect interest in the 29.6% AMAX stake through its 11.6% holding in the common stock of AMAX. Newmont Mining has held the management contract for Tsumeb since 1947, and appoints the company's general manager, with AMAX playing little direct role in Tsumeb, although its sales and marketing subsidiary, Ametalco Inc. acts as a seller for Tsumeb production. The Tsumeb board comprises fifteen directors appointed by the shareholding companies, with six each from AMAX and Newmont.

Since 1947, according to a report issued by AMAX in 1973 (Report on Tsumeb Corporation Ltd. P.2) a total of $47 million has been invested in Tsumeb, mainly from retained earnings in the building of facilities at the principal Tsumeb mine, employee housing and recreational facilities, a hospital, and the establishment of a vegetable farm and large beef herd in an outlying area to provide fresh vegetables, milk and meat. Tsumeb is in an almost classic sense a 'company town' with most employment dependent on the mine, both directly and in the form of services and

small industrial developments. Situated at the end of the 400-mile railway to Walvis Bay, and immediately south of Namibia's most populous region, Tsumeb is well-situated to be a focus for wider economic development of the north central region. To date the main benefits of the company's presence have been in the creation of revenues via its substantial exports.

Current Mining Operations

Tsumeb is described in company advertisements for operating personnel as a 'large polymetallic base metal mine, operating concentrators, smelters, a lead refinery and two subsidiary mines'. Copper smelting operations include reverbutory smelting, and Pierce-Smith converting of polymetallic concentrates and the usual chalcopyritic concentrates in two separate circuits. Lead smelting and refining operations include concentrate filtering and drying, sinter preparation, updraught sintering, blast furnace smelting, drossing and pyrometallurgical refining, with as by-products refined cadmium, refined As 203 and Retort Bullion. (Mining Journal 23/7/76).

While general details of mining and production activities are provided in the annual reports of the principal shareholders, viz AMAX, Newmont and Selection Trust, details of mining rights and claims are not given. However it can be assumed that Tsumeb holds proclaimed mining areas and exclusive grants for the areas ceded by SWACO within that company's original 'Damaraland Grant'. These include a 1,000 sq. mile area including Tsumeb ceded to OMEG in 1900, and exclusive mining rights over five areas of approximately 630 sq. miles ceded to the Tsumeb Exploration Company (75% Tsumeb-owned) in 1948. As of 1976, according to the prospecting and claims register in Windhoek, Tsumeb had two exclusive prospecting grants for all minerals on farms in the Keetmanshoop and Okahandja districts, and a total of 43 registered claims in the Grootfontein, Rehoboth and Windhoek districts.

The Kombat copper/lead mine was opened in 1962, and the Matchless copper/pyrite mine in 1970. Matchless suspended operations temporarily in January 1972 owing to low mineral prices and the effects of the contract labour strike, and was reopened in January 1973. Production at the Asis Ost copper deposit began in September 1974, and in 1975 development work was started in the Asis West copper deposit adjacent to Kombat.

According to Newmont's 1977 annual report, operations at both Kombat and Asis Ost were suspended in March 1976, due to their unprofitability at current metal prices, with mining not to be resumed until late 1978. The main shaft of Kombat was being deepened and extended to gain access to the Asis West deposit, where reserves total 1.5m tons averaging 7.78% copper and 4.33% lead.

At Tsumeb itself, in 1976 an additional reverbatory smelter was erected to treat concentrates from the newly-opened Otjihase copper mine. The total smelting capacity was to be increased from 80-90,000 metric tons capacity to 140,000 metric tons in 1976, which will involve a greater proportion of total blister and refined output than at present being smelted on a toll basis. This expansion was partly in anticipation of plans to construct an electrolytic copper refinery in the Cape Town area, to be owned jointly by Tsumeb and the O'okiep Copper Company (57.5% Newmont owned). This was originally announced in 1975, but was then suspended until an improvement in the world copper price. The effect will be a further integration of a major portion of Namibia's mining production to the South African mining industry.

Production and Sales

Relatively detailed figures for production and sales at Tsumeb are provided in the annual reports of the three main shareholding companies, with the disadvantage that due to different financial years and accounting procedures, figures are not always directly comparable. In addition AMAX and Selection Trust record production in metric tons, Newmont (which provides the greatest detail as the general managers of the mine) in short tons. While AMAX figures are in terms of sales of blister copper and lead, Newmont figures relate to metals sold and smelter production. Selection Trust provides details in terms of production in concentrate form. Tsumeb's own financial year since 1972 is to 31 December. Despite the difficulties of comparison thereby created, the pattern of Tsumeb production and sales can be set out. Figures are given for three-year periods, on the basis of the most recent statistics provided by the three shareholding companies.

(1) AMAX Inc.
(annual reports for 1975, 1974 - no details given in 1976, 1977)

Metal Sales	1975	1974	1973	
Blister copper	31,000	31,389	29,459	metric tons
Refined lead	52,600	60,872	67,346	" "

(2) Selection Trust Ltd.
(annual reports for 1975, 1974)

Production in concentrates	1975	1974	1973	
Copper	22,182	22,422	23,904	metric tons
Lead	41,757	45,764	51,619	" "
Zinc	1,402	1,275	2,580	" "

(3) Newmont Mining
(annual reports for 1977, 1976, 1975)

Smelter Production
(including custom metal and metal smelted on toll)

	1975	1974	1973	
Blister copper	40,100	51,400	40,000	short tons
Refined lead	48,800	71,400	70,000	" "

Metals Sold	1977	1976	1975	1974	
Copper-Tsumeb	20,500	14,400	25,600	26,300	short tons
Custom	1,700	7,500	8,600	8,300	" "
Lead-Tsumeb	37,500	32,700	48,400	51,200	" "
Custom	7,400	5,100	9,600	16,000	" "
Zinc(concentrate) (Tsumeb)	1,200	2,000	1,700	2,000	" "
Sales in $ US	(R)52.9m	51.6m	75.3m	107.3m	

The Newmont figures reveal, that particularly with regard to copper, production and sales of smelted and refined metal, both Tsumeb and custom metal, reached a peak in 1974, since declining. The main customers for Tsumeb's products

are the United States, West Germany, Belgium, the United Kingdom and Japan. According to Newmont's figures, Tsumeb ran at a net loss in 1975 and 1976 after high earnings in the previous two years, although a small profit of R2.2m was made in 1977. As the latter figure also includes the sales revenue from refined lead and zinc sales, the United States is probably importing a high proportion of the copper produced at Tsumeb. Namibia is also revealed by these figures as the largest single source for blister imports, by the United States.

Financial results

According to Newmont's figures, Tsumeb ran at a net loss for 1975 and 1976 after high earnings in the previous two years as follows:

	1976	1975	1974	1973	
Net income (loss)	(2.0)	(2.8)	21.0	22.5	$m
Newmont dividends	-	0.1	5.7	3.0	"

In 1973, AMAX in its special report on Tsumeb, produced figures covering a ten year period relating to net earnings, average dividends and income taxes paid, as well as specific figures for 1972, and 1971.

$ USm	10-year average (1963-72)	1972	1971
Net earnings	18,000,000 per year	6,450,000	9,450,000
Dividends (all share-holders)	17,190,000 " "	3,700,000	4,770,000
Dividends (AMAX)	4,100,000 " "	1,200,000	-
Income tax paid (Effective rate 36%)	8,435,000 " "	3,000,000	3,870,000

Figures for 1972 are not strictly comparable due to the 39 day strike of African workers from mid-December.

An even more comprehensive set of figures relating to metal sales, net operating income, taxation, earned surplus, and dividends paid, was contained in financial statements for the 1974 and 1973 supplied by Newmont in respect of all its mining operations to the US Securities and Exchange Commission in 1975. A comprehensive break-down for Tsumeb results for the 5½ year period ended 31 December 1974 was provided.(in 1971 Tsumeb changed its accounting period from June 30 to December 31).

The figures revealed a consistent pattern of high earnings and dividends, although from the AMAX figures previously cited for the 1963-1972 period, it would appear that even higher earnings were common throughout the 1960's.

Income Statements of Tsumeb Corporation

as of 31 December 1974 (All figures in $ USm)

		1970 (Jne)	1971 (Jne)	1971 (Dec)	1972 (Dec)	1973 (Dec)	1974 (Dec)
(A)	Sales of metals	75.0	54.0	23.3	48.2	84.6	107.3
	(less operating expenses, etc)	28.5	30.2	18.2	37.7	61.5	68.1
(B)	Net operating income	46.1	24.5	7.2	12.8	32.3	34.8
	Pre-tax Net income	42.8	21.7	5.7	9.6	31.0	32.9
(C)	Taxation (company taxation only)	14.3	7.2	2.3	3.6	9.8	11.9
	Post-Tax Income	28.5	14.5	3.3	6.0	21.3	21.0
(D)	Earned Surplus at end of period	34.8	28.3	26.0	24.5	37.4	39.11
(E)	All dividends	25.9	21.0	5.6	4.7	10.5	19.3

Tsumeb's balance sheet for the year ended 31 December 1974, had the following shape.

	Dec 1974 $USm	Dec 1973 $USm
Total current assets		
(concentrates, metals on hand & in process)	18.8	21.6
Fixed Assets	12.0	16.8
of which mining rights	100,964	100,964
Share capital & reserves		
4,200,000 shares of R0.50 (Registered)	2.9	2.9
4,000,000 shares of R0.50 (Issued)	2.8	2.8
Distributable Reserve		
(Earned surplus)	37.4	39.0
Total Share Capital & Reserve	40.2	41.9

Ore Reserves

There has been a progressive exhaustion of the size of the ore reserves at Tsumeb and of the grade of ore mixed. In 1973, the AMAX report stated that 'at roughly present rates of output and based on present known reserves, the mines have a remaining life of approximately fifteen years' (Report on Tsumeb P.4). Lead and zinc production had also begun to decline due to the lower ore grades milled.

In respect of the Tsumeb mine, the major producer, both ore grades and ore reserves have recently been declining. In 1974, ore reserves were 6,054,000 short tons (4.56% cu, 7.79% Pb, 2.06% Zn); this had declined to 5,568,000 (4.56% cu, 7.75% Pb, 2.06% Zn) in 1975 and 5,165,000 (4.53% cu,

7.43% Pb, 1.96% Zn) in 1976. The grade of ore milled showed a similar grade decline in respect of lead and zinc. The percentage recovery of lead went down from 10.06% in 1974, to 9.73% in 1975, and 9.04% in 1976; from 2.30% in 1974, to 4.27% in 1975, and 4.25% in 1976. The percentage of zinc remained relatively stable at 2.30%, 2.47% and 2.39%, but is not mined in such large quantities as are copper and lead.

Labour Policy

Discrimination in the wages and working conditions as between Tsumeb's white and African employees has been extensive. Until after the 1971 strike, wages paid to contract workers were low, conditions in the Tsumeb compound generally substandard, while salaries and facilities available to white employees were of a high standard. There have been some changes in employment practices in recent years, with a number of Africans now being trained for skilled work, partly due to the shortage of available white artisans. In 1976, a number of white mineworkers quit to return to South Africa.

In 1972, minimum cash wages for African underground mineworkers were £10 per month, with food and accomodation valued at £18 per month; by 1973/4 minimum wages had risen to £15 per month, with average wages at £22.75 a month. By comparison, minimum white wages were £125, with an average of £204 a month. Although not exceptionally high, the range of fringe benefits available include modern rent-free furnished houses, 42 days annual leave, leave bonus of one month's salary plus a service bonus of three month's salary every five years, subsidised medical and free life insurance. According to Newmont annual reports, there was a further (unspecified) wage and bonus increase for African workers in 1975 and a further 20% increase in 1976. For the whole of that year, increases were said to have aggregated 51%, which brings the minimum cash wage up to approximately £27 a month. Also during 1976, a new training centre for Africans was constructed at Tsumeb, with training in work previously restricted to whites, such as welding and mechanical skills. Trained employees will be designated as artisans aids, and would qualify for promotion and higher compensation.

A new townsite of 500 houses for African workers was said to be under construction in conjunction with the Tsumeb Municipality, and as of 1976, 117 houses had been built for occupation by Ovambo workers and their families. According to Newmont's 1977 annual report, 17 families were in residence as of 1977, with an additional 60 Africans and their families being moved into the new houses. A further 40 houses were to become available in 1978. In 1977 a non-racial wage and salary scale was established covering all staff and daily paid employees and there was an average wage increase for African workers of 6%. In 1977, 30 African employees were trained as artesan aides in the training centre, 37 were trained in the mining school as underground team leaders and 32 were promoted to categories requiring technical skills.

CHAPTER FOUR

The Legal Position

Namibia's international status

The transition from Namibia's colonial status to full sovereign independence will have a number of major implications for the future regulation and structure of the mining industry in the territory. The transfer of full title to existing mineral rights from the South African administration to the future independent Namibian government involve what might be termed a number of 'conventional' problems common to the decolonisation process in mineral-rich territories, such as those encountered in Zambia for example. But Namibia's special status in terms of international law as an international territory under the *de jure* administration of the United Nations, and the illegal, *de facto* control of South Africa, provide a very different context.

Since in terms of the principal United Nations resolutions passed on Namibia in recent years, following the revocation of South Africa's League of Nations 'C' mandate on 27 October 1966 and placing of Namibia under the direct responsibility of the United Nations, all South African legislative measures purportedly applied to Namibia are invalid, the future government of Namibia will have in most respects an unusually free hand when it comes to review the existing agreements in the mining sector. In practice, substantial parts of the current mining law (surveyed in detail in Appendix One) may be judged suitable for inclusion in a new legislative regime for mining to be formulated, but mining companies currently engaged in mining and prospecting activities under the South African legislation would be mistaken to suppose that concessions granted under that legislation would necessarily be continued on the terms and conditions previously negotiated with the South African authorities.

The principal controlling legislation is the Mines, Works and Minerals Ordinance, No. 20 of 1968, and regulations published on 1 October 1968 in the Official Gazette of the South West Africa Administration, which repealed the whole of the previous mining law, the Mines, Works and Minerals Ordinance, No. 26 of 1954. The 1968 Ordinance was substantially amended in 1969, by Proclamation R89 of that year, published in the Government Gazette of the South African Government, in order to incorporate changes resulting from the administrative incorporation of most of the major branches of the South West African Administration into the relevant Ministries of the Republic, under the South West African Affairs Act, No.25 of 1969. These involved changes in nomenclature reflecting the placing of mining affairs under the direct control of the South African Department of Mines, ('Minister of Mines' for the 'Administrator of South West Africa', 'Department' for 'Mines Division' etc.), together with a section defining the powers of supervision and control of the mining industry in Namibia by the Department of Mines. Minor changes were also made in the Mines, Works and Minerals in South West Africa Amendment Act, No. 47 of 1972.

Also in 1969, the Deeds Registry Proclamation, No. 37 of

1939, which set out the functions of the Deeds Registry in Windhoek, was amended by the Mining Titles Registration Proclamation, R90 of 1969, which provided for the establishment of a Mining Titles Office in Windhoek for the registration of all documents relating to mining rights granted or acquired under the 1968 Ordinance. The Ordinance governs base minerals, precious metals and stones (including diamonds). Seperate provisions for the prospecting and winning of source material - uranium and radioactive metals - are contained in the Atomic Energy Act, No. 90 of 1967 (See Appendix One).

In restructuring the mineral sector, the future independent government will be in a position to adopt policies in accordance with national priorities. It is likely to seek a renegotiation at the least of all major existing mining rights and concessions, and adopt new guidelines to ensure a greater participation in the profits and revenues generated by the mining industry as a means of financing economic development. This will probably involve a departure from the South African policy of minimal state involvement in mining activities, and the low direct taxation provisions contained in the fiscal regime. Since the independence of Namibia as a single independent economic entity will also involve the termination of a number of South African economic policies detrimental to mining expansion, for example, the high tariff rates on imports, it is not therefore to be assumed that mining companies will be faced with an overall deterioration of their position. There is in fact evidence that a number of the major mining firms are already preparing to come to terms with the new situation; the experience gained in the renegotiation and establishment of new mining ventures in Botswana and Zambia, is likely to prove of value to both sides. In this context the interests of the South African Government and mining corporations in the exploitation of Namibia's resources, which until now have been common, are likely to diverge significantly.

Basic issues about the future of existing mining and general property rights must in large measure depend on the circumstances and timing of the transfer of political power to an independent government. There is a direct parallel in the previous transfer of mineral rights which occurred in 1919 from the German colonial authorities to the Union Government of General Smuts.

Since the German administration was ousted by means of military conquest in 1915, a change of power only subsequently legitimised in the form of the League of Nations mandate, South Africa acted as a victor, transferring title to minerals to the new administrating authorities of the territory by means of legislation enacted unilaterally and in most instances without discussion with those effected. Existing rights and concessions of the colonial companies were in most instances cancelled without any form of compensation, although it should be noted that many of these rights had lain dormant for many years and did not involve any actual loss of plant or equipment. On the other hand, under an orderly and agreed transfer of power from the colonial authorities, as in Zambia in 1964, an order in council will normally contain a provision for the new independent government to succeed in title to rights and contractual obligations of the colonial government. In Namibia, the position could well fall somewhere between these two processes, although it must be anticipated that there may be attempts by the departing South African authorities to commit a successor government to the pattern of existing rights and obligations. Indeed this has

already occurred in the discussions over the proposed 'interim government' for Namibia, envisaged by the delegations participating in the Turnhalle constitutional talks of 1975-1977. The three-tier constitutional structure outlined in the 'Petition for the Establishment of an Interim Government' published by the Turnhalle constitutional committee in March 1977 defined the nature of the future Namibian state as one based on 'the principle of a free economic structure and the inviolability of the possession of land and property'.

If the new government comes to power as a result of an internationally-endorsed negotiated agreement, closely involving the United Nations, the decisions taken will be likely to reflect the attitudes expressed in United Nations resolutions in formulating a policy for existing contracts, concessions and agreements. In this context the background will not be one of a settled title to mining rights or an automatic carry-over of outstanding concessions, with the real prospect that all rights granted by South Africa since 1966, will be treated as invalid.

A survey of the existing mining legislation thus to some extent is academic, although many of the standard regulatory procedures may be retained - but it has the value of outlining the context in which the development of the Namibian mining industry has occurred, as well as providing insight into the likely scenarios involving mining on independence.

The cumulative effect of the various resolutions of the United Nations, combined with the 1971 Advisory Opinion of the International Court of Justice on Namibia, is to place the future independent Namibian Government in a uniquely strong position in terms of law to assert sovereignty over its own natural resources in negotiations with foreign investors in the mining sector. The normal protection which international law accords to a foreign investor whose assets are expropriated by the host government could not extend to investors in Namibia who have made their investments or entered into contractual relations with the South African Government in disregard of the injunctions of the UN Security Council and the Advisory Opinion. Most of the western industrialised countries, in which the head offices of many of the mining firms investing in Namibia are located, have been wary of providing any endorsement of that view, but in the case of the United States, the principle was accepted with respect to those companies and individuals investing in Namibia after the termination of the mandate by UN General Assembly resolution 2145 (XXI) of 1966.

Apart from the specific decisions made over Namibia, the United Nations has also formulated the concept of the sovereignty of states over their indigenous natural resources. In that context it is not unreasonable to anticipate that the government of an independent Namibia would be influenced by the work of the UN Permanent Commission on Sovereignty over Natural Resources, which found expression in General Assembly Resolution 1803 of 1962. This provided *inter alia* that the right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the inhabitants of the state concerned.

Many developing countries have been influenced in their policy decisions on minerals and other natural, primary resources, by the provisions of this declaration, and have

sought to play an active, rather than a merely regulatory, role in the development, commissioning and operation of major mining projects. Thus Botswana took on a substantial role in the provision of the infrastructure necessary for the Selebi-Phikwe copper/nickel project, and in 1975 renegotiated the terms on which the Orapa diamond mine was operated to increase its equity participation to 50% of the capital and obtain a higher share of the profits gererated. To a large extent the desire of governments to be direct participants in the development and operation of mineral resources is now an established feature of the commercial climate, and is no longer seen by companies as an intrinsic threat to the security of their investments.

For instance, Mr. Harry Oppenheimer, the chairman of the Anglo American Corporation, as well as De Beers Consolidated Mines Limited, summarised the attitude of his company at the 1974 annual shareholders meeting thus:

'No government likes its basic industries to be entirely foreign-owned and yet in many developing countries, individual members of the public do not have the resources to invest in industry or, for ideological reasons are prevented from doing so. The only alternative in such cases to full foreign ownership is for governments to take a direct interest. In these circumstances we will willingly accept a partnership between the governments as owners of the mineral rights and private companies that can provide the necessary financial resources and technical know-how'.

These comments are particularly relevant to Namibia given the present absence of a significant Namibian-owned mining company, the financial inability of African citizens to participate to any meaningful degree in mining activities, which is likely to continue for some while after independence, and the likely desire of an independent government to secure the foundations for a national economy free of external control by obtaining shareholdings in the major productive enterprises. Due to its crucial role within the Namibian national economy, the mining sector is certain to be the first priority in a programme to secure Namibian control of the economy. The South African Government makes no compulsory provision for government participation in mining companies, although 25% of equity is supposed to be held by 'local' capital (companies or individual domiciled either in Namibia or South Africa). South African para-statals have increased their stake in Namibian mining in recent years, but with the exception of ISCOR'S majority holding in the Rosh Pinah lead/zinc mine, these are minority holdings, viz the IDC at Oamites and Rossing. Other arrangements involving the South African authorities in mining matters are predominantly regulatory in character. A government committed to a long-term national economic strategy involving further mobilisation of the potential of Namibia's productive resources will require provision to be made for participation in major mining projects, on a joint venture basis with a state mining corporation involving a minimum equity participation, if not outright state owner-ship.

In respect of the Rossing mine, which is crucial to the future expansion of the Namibian economy, RTZ has hinted it would accept a renegotiated partnership arrangement, if only in an attempt to safeguard its investment. In his statement to the 1976 annual general meeting, the chairman Sir Mark Turner, said: 'Your company's presence there (in Namibia) at this time is consistant with British Government policy and we shall, as is our declared and

proven attitude, work with the duly constituted and recognised government of the newly-independent state'.

United Nations policy

In 1969, the UN Security Council, responding to repeated requests from the General Assembly adopted Resolution 264 which recognised that the General Assembly had validly terminated South Africa's mandate over Namibia - this was not accepted by South Africa, which made clear it would not pay any attention to all resolutions adopted in the context of the 1966 revocation. The response of the Security Council was to adopt a succession of resolutions, progressively more stringent, but falling short of enforcement action. In January 1970, the Security Council adopted Resolution 276 reaffirming its previous decisions and explicitly declaring, for the first time, that 'all acts taken by the Government of South Africa on behalf of or concerning Namibia after the termination of the mandate are illegal and invalid'.

Fundamental minimum demands for states with regard to their nationals investing in Namibia were laid down in Resolution 283 of 1970. The operative paragraphs 4-7, called on all states to take a series of measures designed to end any trade or commercial dealings and investments by their nationals in Namibia.

The resolution inter alia called on:

4. all states to ensure that companies and other commercial and industrial enterprises owned by, or under direct control of, the states cease all dealings with respect to commercial or industrial enterprises or concessions in Namibia;

5. all states to withold from their nationals or companies of their nationality not under direct governmental control, governmental loans, credit guarantees and other forms of financial support that would be used to facilitate trade or commerce with Namibia;

6. all states to ensure that companies and other commercial enterprises owned by, or under direct control of, the state cease all further investment activities, including concessions in Namibia;

7. all states to discourage their nationals or companies of their nationality not under direct governmental control from investing or obtaining concessions in Namibia, and to this end withold protection of such investment against claims of a future lawful government of Namibia.

This wording was at the initiative of the US delegation to the UN and closely followed a major policy statement on Namibia made by the US Government in May 1970.

In July 1970, the Security Council asked the International Court of Justice for an advisory opinion on the legal consequences for states of the continued presence of South Africa in Namibia.

In reply the Court declared on 21 June 1971 that: 1) the continued presence of South Africa was illegal and that therefore South Africa was under obligation to withdraw its administration from Namibia immediately; 2) that States Members of the United Nations are under obligation to recognise the illegality of South Africa's presence in Namibia and to refrain from any acts or dealings with the Government of South Africa implying recognition of the

legality of, or lending support or assistance to, such presence and administration; 3) that it was incumbant on states not Members of the United Nations to cooperate in the action taken by the United Nations with regard to Namibia. The opinion was adopted by 9 votes to 2, the British and French judges submitting dissenting opinions.

The Security Council followed this by adopting on 20 October 1971, Resolution 301, which called on states to take a series of measures designed to put an end to, or avoid, any recognition of South Africa's control of the territory. Specifically the resolution declared that:

'franchises, rights, titles or contracts relating to Namibia granted to individuals or companies by South Africa after the adoption of Resolution 2145 are not subject to the protection or espousal by their states against claims of a future lawful government of Namibia'.

On 27 September 1974, the Council for Namibia enacted a decree with the object of protecting the natural resources of the people of Namibia and of ensuring that those resources were not exploited without the Council of Namibia's consent. (Decree No. 1 for the Protection of the Natural Resources of Namibia). The Decree *inter alia* stated that:

1. No person or entity ... may search for, prospect for, explore for, extract, mine process, use, sell, export or distribute any natural resources within the territorial limits of Namibia

2. Any mineral or other natural resource produced in or emanating from the territory taken by any means to any place outside the territorial limits of Namibia without the consent and written authority of the Council for Namibia may be seized and forfeited to the benefit of the Council and held in trust for the people of Namibia

3. Any vehicle, ship or container found to be carrying natural resources produced in, or emanating from the territory shall likewise be subject to seizure and forfeiture

4. Any person, entity or corporation contravening the decree may be held liable in damages by the future Government of an independent Namibia.

The Decree was endorsed by the General Assembly in December 1974, although it has no mandatory force. In a statement to the 4th Committee of the General Assembly at its 29th session, Ambassador R.E. Jackson of Guyana, then President of the Council for Namibia said: 'On the economic front the ruthless exploitation of the resources - particularly mineral and marine - continues unabated and proceed at a pace suggestive of an intention to denude these resources before the Namibians take control of their country's destiny. Despite the judgement of the International Court of Justice, many new and substantial investments were made in Namibia by several major trading partners of South Africa ... Particular note should be taken of the fact that the Decree makes provision for possible liability for damages, to a future Government of an independent Namibia, by any person, entity or corporation found to be in contravention of it'.

In February 1975, Mr. Sean MacBride, the UN Commissioner for Namibia, 1974-1977, announced a programme of action to implement the Decree. This included consultations with leagl experts to determine the feasibility of court action

to block mineral imports in the jurisdiction of countries known to be major purchasers of Namibian commodities, and an ongoing data-tracing operation to identify the main shipment routes for minerals and types and quantities of cargoes exported from Namibia. Copies of the Decree have been circulated by the EEC Commission to all EEC states, while the text of the Decree was published by the Japanese Government in the official bulletin of the Ministry of Trade and Industry.

The Delaration on the Liberation of Namibia adopted by the International Conference in Support of the Peoples of Zimbabwe and Namibia, Maputo, May 1977, stated, *inter alia:* 'The Conference solemnly declares that the natural resources of Namibia are the birthright of the Namibian people. The exploitation of these resources by foreign economic interests, under the repressive racist colonial administration and in violation of all principles of the Charter and of the pertinant resolutions of the Security Council and the General Assembly of the United Nations, is illegal and contributes to the maintenance of the illegal occupation regime'.

Policy of UN Member States

United States In May 1970, the United States Government set an important precedent in announcing that it would henceforth 'officially discourage' investment by US nationals; would deny credit guarantees and other assistance for trade with that territory; and withold protection against the claims of a future lawful Government of Namibia. The effects of this action were qualified by the leaving of the decision to invest or not to the individual or corporation concerned, but it remains to date the most comprehensive policy with regard to investment in Namibia adopted by a major trading partner of South Africa. In a Commerce Department publication, Establishing a Business in Southern Africa, companies are informed:

'The president has determined that investment by United States nationals in South West Africa is officially discouraged by the United States Government. Export-Import credit guarantees and other facilities are not available for trade with or investment in South West Africa. United States nationals who invest in South West Africa on the basis rights acquired through the South African Government since the adoption of General Assembly resolution 2145 shall not receive US Government assistance in the protection of such investment against the claims of a future lawful Goverment of South West Africa'.

In a statement delivered to the House of Representatives' Committee on Foreign Affairs by the US Assistant Secretary of State for African Affairs on June 1975 this position was reaffirmed: 'Regarding US investment in trade with Namibia; we continue to inform prospective US investors in Namibia who come come to attention, by letter, and in some cases orally, of our policy of discouraging investment in the territory. They are also informed that the US Government will not undertake to protect investment made following the 1966 termination of the mandate ... We believe that our present policy on investment reflects our concern over South Africa's illegal occupation of Namibia ... We would hope that our investment policy together with our efforts to encourage US firms in Namibia to utilise enlightened employment practices would result in a future lawful Namibian government being favourably disposed towards US investment. However at this stage, it is difficult to predict what position such a government would take regarding US investment'.

United Kingdom The United Kingdom has never accepted the validity of Resolution 2145 adopted by the General Assembly in 1966 which terminated the mandate and vested authority over Namibia in the United Nations. The position of the United Kingdom was and still is that the General Assembly had no competence to terminate the mandate and in purporting to do so exceeded the scope of its authority under the Charter. However in explaining the United Kingdom vote on Resolution 2145 and entering certain reservations Lord Caradon indicated that it was the view of the United Kingdom that South Africa's rights under the mandate had in any event terminated by reason of the failure of the South African Government to fulfil its international obligations. Initially, however, this view did not lead to the conclusion that South Africa's continued presence in Namibia was illegal. In a statement on the advisory opinion of the International Court of Justice, the Under Secretary of State for Foreign and Commonwealth Affairs (Mr. Kershaw) said in the House of Commons on October 1971:

"As we do not accept the illegality of South Africa's presence in South-West Africa, we do not accept either that we should, as the advisory opinion goes on to suggest in its last two paragraphs take practical measures to discourage the South African presence in South West Africa" (Hansard 13th October, 1971, Column 678).

Since that statement was made there has, however, been a substantial shift in the United Kingdom's position. In a statement on 4th December 1974, the Foreign Secretary (Mr. Callaghan) told Parliament that having considered the Advisory opinion of the International Court of Justice, the Government had concluded "that the mandate can no longer be regarded as being in force, that South Africa's occupation of Namibia is unlawful and that it should withdraw".

Some significance has been attached to the use in this statement of the word "unlawful" to describe South Africa's continued occupation of Namibia in contrast to the word "illegal" used in the Advisory opinion and by the Security Council. Focus on this distinction would however appear to be misplaced. In the circumstances of Namibia, it is difficult to see how any legal consequences could flow from the use of the word "unlawful" rather than "illegal". In any event, the Prime Minister of the United Kingdom has without reservation, on two successive occasions, subscribed to a communique at Commonwealth Heads of Government Meetings in which South Africa's presence in Namibia has been described as "illegal". (see the Kingston Communique, 1975 para 23 the London Communique June 1977, para 17).

Mr. Callaghan's statement of 4th December 1974, did, however indicate that the British Government continued to have serious reservations about some elements of the Advisory Opinion. The British Government takes the view that in the absence of a determination by the Security Council under Article 39 of the Charter of the existence of a threat to peace, breach of the peace or an act of aggression, the resolutions of the Security Council relating to Namibia in particular resolution 276 of 1970, are not binding on members of the United Nations. In these circumstances the Government does not believe that the U.K. is under any obligation "to take measures which are in the nature of sanctions" and accordingly does not accept "an obligation to take active measures of pressure to limit or stop commercial or industrial relations of (British) nationals with the South African Administration of Namibia". The British Government does, however, recognise that there is

"an obligation on States not to recognise any right of South Africa to continue to administer the territory".

The British Government does not accept that the Council for Namibia has any competence to legislate for Namibia and accordingly does not recognise the validity of Decree No.1 for the Protection of the Natural Resources of Namibia adopted by the Council and endorsed by the General Assembly. In view of this and also having regard to the contention of the Government that it is not under any obligation to take measures in the nature of sanctions British Ministers have made it clear that they have no intention of interfering with existing contracts which provide for the purchase by British Nuclear Fuels Limited, subsidiary of the UK Atomic Energy Authority, of uranium oxide from the Rossing Mine in Namibia.

While Mr. Callaghan in his statement of 4th December 1974 made it clear that the British Government does not accept the binding character of Security Council Resolutions on Namibia, he told Parliament that "in keeping with the spirit of these resolutions, we have decided to give no further promotional support for trade with Namibia". It should, however, be appreciated that the reference to promotional support for trade with Namibia refers only to the identification of export opportunities and matters of that kind. Normal export credit cover continues to be available from the Export Credit Guarantee Department and ECGD is also ready in principle to provide investment insurance although no application for such cover has been made since the scheme was first extended to Namibia in 1972 or 1973.

In 1962 a double taxation agreement was signed with South Africa and a parallel agreement covering Namibia was signed at the same time. This agreement is still in force. The 1962 double taxation agreement with South Africa has since been renogotiated but the parallel agreement covering Namibia has not. However the undertakings given to South Africa in this agreement are regarded by the British Government as part of the continuing international obligations of the United Kingdom.

Canada While the Canadian Government endorsed the 1971 Advisory Opinion, no specific action on the question of investment by Canadian nationals was initiated until the end of 1977. In April of that year, Canada became one of five Western members of the Security Council, (Britain, Canada, France, West Germany and the United States) engaged in diplomatic endeavours to negotiate an internationally-acceptable transfer of power from South Africa based on the unanimous Security Council 385 of 1976 which called for the holding of free national elections in Namibia prior to the establishment of an independent government.

On December 19 1977, the Canadian Minister for External Affairs, Mr. Don Jamieson, outlined a series of measures designed to limit economic relations between Canada and South Africa. This involved the withdrawal of government-sponsored, commercially-supported activities, and the phasing out of Canadian government account support for transactions involving South Africa by the Export Development Corporation. In respect of Namibia, the statement continued:

'In addition to all of these measures, we are very much concerned about two other aspects of South Africa and South African operations, namely the activities of Canadian companies in Namibia. Once again we have asked the officials of the Department of Finance and others to, as quickly as

possible look into all the implications possible tax concessions and the like which these companies may be obtaining and which are being provided by what is essentially an illegal regime in Namibia by our standards and by our demonstrated conduct at the United Nations.

We are also establishing possible codes of conduct for further investment by Canadians in Namibia. It may be asked - I am sure it will be - why these measures are not introduced immediately. There are two reasons: first, we want to be very sure that we do not penalise Canadian companies which may have been active in that country under legitimate and perfectly acceptable processes. Nevertheless there is unquestionably an incongruity in a situation which permits an illegal regime, by world definition, to be participating with Canadian companies in the manner I have outlined.

There is a second reason why we are witholding, for the time being, any further action. We continue to hope that a means will be found of ensuring that there is a peaceful and satisfactory solution for Namibia, one that will bring about equality - one man, one vote. We hope this can be done through negotiations and the process in which Canada is participating, which relates to the five Western members of the Security Council talking with the Government of South Africa and the other parties concerned'.

West Germany In 1972, during the debate of that year in the UN General Assembly on measures to end South Africa's rule of Namibia, the attitudes of the West German Government, at that point a candidate for full membership of the United Nations, was outlined by its representative in New York. Tax incentives granted to encourage investment generally in developing countries were not provided for investment in Namibia, while contracts promoted by the Government's Development Agency excluded those for Namibia. The German consulate in Windhoek, the sole foreign diplomatic representation in Namibia was to remain open, largely to deal with the affairs of the 30,000 German-origin community, but the consulate was removed from the jurisdiction of the embassy in Pretoria and placed directly under the Federal Foreign Office in Bonn to underline that the consulate did not imply recognition of South Africa's administration in Namibia. In a communication to the UN Secretary General in 1974 the West German Government claimed that the double taxation agreement concluded in 1974 with South Africa excluded Namibia; it is unclear whether this meant disallowance of unilateral relief on tax paid by companies in Namibia since relief is allowed for some states with which West Germany has no such tax agreement.

In October 1977, a decision to close the consulate was made in order to 'safeguard the long-term interests' of the German community - the consulate to remain closed until the accession of an internationally-recognised government for Namibia.

Japan In a statement to the UN General Assembly during its discussion of Namibia in October 1977, the Japanese delegate referred to the need for member states to restrict relations with South Africa in regard to Namibia to the maximum extent possible, and Japan's policy of continuing to enforce measures taken to cooperate with the United Nations. These included a prohibition on direct investment in Namibia by Japanese nationals or corporate concerns within its jurisdiction.

On the issue of uranium, he said, 'both the Government and business circles of Japan have given serious thought to the question of purchasing uranium from Namibia. I can assure members of this body that there is no record showing Japan's importing uranium from Namibia. Regarding a Japanese company's relations with the Rossing Uranium company, my delegation has learned that the Japanese party to the sales contract with that company has decided to hold the contract so that the importation of the uranium envisaged under the contract will not take place under the prevailing circumstances'.

South African Mineral Legislation

The successive concerns of the German and South African administrations was to provide a basically regulatory framework within which private mining operations could be conducted. These have involved relatively straightforward powers: where the application has been more complex has been in the carry-over until relatively recently of elements of the older German legislation in the various mining ordinances formulated by the South West African Administration. Initially indeed, in devising a mining law suitable for the encouragement of mining activities, the South African authorities relied on the same general principles embodied in the German laws. In addition, while the 1968 Mines, Works and Minerals Ordinance has been the main controlling legislation, other older ordinances, relating to control of diamonds and of unwrought precious metals remain in force. There are in fact three distinct periods of mineral legislation, each with their own characteristics: 1885-1915; 1915-1969; 1969 to the present. Most legislation was enacted in the period immediately after the conferring of the mandate in 1919, and in 1969, when the territory's quasi-autonomous position was transformed into that of a virtual fifth province of the Republic.

A consistent theme of the South African policy on mining in Namibia has been the exclusive right to minerals vested in the state. Under the mining laws, the state owns all mineral rights; surface holders cannot prevent exploitation of minerals found on their land. Paradoxically, only in the so-called 'homeland' areas is prospecting for minerals undertaken directly by the state, in the form of the Bantu Mining Corporation, BMC, although in practice many concessions are sub-contracted to private companies. Mining rights and prospecting licences are issued since 1969 solely by the South African Minister of Mines. There is no provision for the leasing of mineral rights to owners of farmland as in the Republic, and farmowners do not own the title to minerals under their land.

The process by which South Africa assumed full rights over minerals in succession to the German administration is of relevance in so far as it provided the context for the mining laws successively enacted since 1919.

In the period of German rule, colonial or concession companies were set up with land and mineral rights over vast areas. One of these the DKG, Deutschekolonialgesellshaft, (German Colonial Company) enjoyed initially almost sovereign rights. The system was found unsatisfactory as the companies proved reluctant to release land for prospecting, or colonial settlement, which slowed economic development and intensified pressures for the seizure of land occupied by African communities.

The Imperial Mining Ordinance of 8 August 1905, provided for general freedom of prospecting within the 'South West African Protectorate' and this was specifically extended in respect of the areas held by the Concession Companies.

Anyone was entitled to explore and to extract 'precious' and 'common' minerals subject to the provisions of the ordinance, although this did not include 'Natives' and 'other coloured people' who had to obtain special consent. The designated minerals were excluded from the landowner's disposal, who otherwise retained full rights of land ownership, and there was provision for payment of compensation for land usage by mine owners, conversion of prospecting to mining fields, where the minowner enjoyed the exclusive right to search for and extract minerals, and the payment of prospecting and mining fees and of a mineral extraction tax to the mining authority. A further significant development of the German period was the establishment of the 'Diamenten Regie', as a Colonial Company with its headquarters in Berlin, to regulate diamond production - by 1914 all its shares had been acquired by the Protectorate Administration, while a separate taxation statute for diamonds was enacted in 1912.

This dual policy of open prospecting and control of diamond production was continued by South Africa and the Imperial Mining Ordinance, considerably amended, remained the nucleus of the mining regime until the passing of Mines, Works and Minerals Act of 1954. From 1915 to 1919 Namibia was under martial law, until the formal transfer of administrative powers via the League of Nations; one of the first actions of the South African Governor-General was to make diamond taxation and royalties, which were previously paid to the Diamenten Regie, payable to the Administration:

Administration

Under the provisions of the Treaty of Peace and South West Africa Mandate Act of 1919, the powers to legislate by proclamation of the Governor-General were delegated to and appointed Administrator. All grants in respect of interests, rights or titles in minerals and state land were henceforward made by the Administrator, subject to the ultimate authority of the South African parliament. The South West Africa Constitution Act of 1925 provided for the establishment of a Legislative Assembly and Executive Committee, with the power to make laws and issue ordinances. But all matters relating to 'minerals, mining, mineral oils or precious stones', together with fees, royalties and taxes payable to the Administration were excluded from its sphere of competence and came under the direct control of the Administrator, who was responsible for the running of the Mining Authority.

In 1949, a major amendment of the 1925 Act, provided for the establishment of a Mines Division for South West Africa, which was placed under the control of the Legislative Assembly; in practice control continued to be exercised by the Administrator, operating through the Executive Committee, and the Secretary for the Territory. According to the 1954 ordinance, which set out the functions of the Mines Division:

'There shall be a department known as the Mines Division which shall be subject to the direction of the Administrator for the Territory ... The function of the Mines Division shall be the control of the mining industry, and the exercise of all rights, powers and jurisdiction vested in the Administrator in regard to minerals, mines and works in the Territory'. These provisions were reaffirmed in the 1968 Mines, Works and Minerals Ordinance, and amended in 1969 to provide for the transfer of direct supervision from the administrator to the South African Minister of Mines.

Mining Rights

A series of proclamations of 1919/20 set out the basis of the mining regime; freedom of prospecting provided for under the 1905 ordinance was extended throughout Namibia, the existing rights of concession companies were initially

suspended, and then for the most part cancelled, with payments due to these companies payable henceforward to the Administration. Mineral rights in respect of both state and private land were vested in the Administration. The entire 1905 ordinance remained in force as amended to provide for control by the Administrator, with grants for prospecting rights made initially by magistrates for each district within the 'Police Zone' (the area of the former Protectorate, excluding Ovamboland and the northern areas including the Eastern Caprivi Zipfel/Strip).

The position was summarised by the Administrator in his 1920 annual report. This is of considerable contemporary interest in view of the expropriation without compensation of the mining rights of the concession companies.

'Underlying the whole of the measures introduced has been the principle laid down by the Treaty of Versailles, under which the Territory is to be governed as an integral part of the Union of South Africa ... Towards the end of 1919, a Commission was created for the purpose of investigating and reporting upon the position of the Concession companies. The Commission made its report on the matter in September, and by Proclamation No. 59 effect was given to the policy of the Union Government on the matter. The main provision of the Proclamation resulted in bringing the whole of the country uniformly under the ordinary Mining Law and special rights held by the Companies were cancelled almost entirely. The huge land-holdings of the Kaokoveld Land and Mines Gesellschaft and some of those of the Deutschokolonialegesellschaft reverted to the Administration. There is no provision for the payment of compensation to any of the Companies for the rights which they proclaimed'.

The main concern was to ensure that the Administration received all receipts generated by the mining industry and the cancellation of any provisions reserving rights of control over the affairs of the company to the German government.

The Administrator's 1920 report emphasised the desirability of a system of unrestricted prospecting as the key to Namibia's economic development, and the need to regulate the rate of diamond production and exports in order to ensure continued high revenue payments. The attempt to make investment as attractive as possible to foreign mining companies has been of primary concern to the South African government at all times.

'The opening of the country to prospecting on the 1st of January followed by the application of the amended mining law, and completed by the completion of this law without modification or restriction to the whole country may be regarded very justly as inaugurating a new epoch ...

'The revenue of diamonds is of extreme importance to this administration. The year 1919 was far and away the most successful year in the whole history of the diamond industry ... diamonds produced in this territory were valued at £2,081,863 and will probably have realised a good deal more ... The question of overproduction is the one and only great danger over-hanging the industry ... nothing will meet the case as regards internal overproduction short of the Government restricting the output of all mines individually, and stopping the issue of fresh prospecting licences'.

This was put into effect by the establishment of the Diamond Board of South West Africa, in 1921, in which the rights of the former Diamenten Regie were vested. The

regulatory powers of the Diamond Board under the direction of the Administrator as set out in the Diamond Protection Proclamation of 1939 are still in force.

Land Disposal and Discrimination

The mining sector is discriminatory between Europeans and Africans, in respect to both legislative restrictions on Africans acquiring mining rights and employment practices of the industry. The South African policy of segregation was extended to Namibia in the initial years of the mandate, and the system of 'Native reserves' initiated by the Germans was adopted. The right to own land or rights in land was restricted to areas specifically set aside for particular communities. With the publication of the proposals of the official Odendaal Commission in 1964 for the establishment of Bantustans or 'homelands' in Namibia this was formalised to apply to members of particular tribes in the areas set aside for their exclusive occupation. Land open to prospecting included what was defined in 1920 as 'Crown Land', i.e. all unalienated land within the 'Police Zone',* however aquired, as well as alienated land in private hands.

Under the terms of the 1968 ordinance, mining and prospecting rights for base minerals in Native reserves was vested in the South African Bantu Trust, with mining concessions leased out by the Bantu Mining Corporation, BMC, established in 1969. In respect of the Rehoboth Gebiet, for whom separate provisions have applied, mining activities were channelled via the district magistrate acting in his capacity as Kaptein of the Rehoboth community. Prospecting licences can be issued to Europeans of 18 and over only. Under section 21 of the ordinance, prospecting licences can be issued to Rehobothers only in respect of claims in the Rehoboth Gebiet, to a 'Native' only in respect of the reserve in which he is 'lawfully resident'; and to coloureds only for any land set aside for their exclusive use. No such land has been set aside in Namibia but for certain purposes the Nama community is officially classified as 'coloured'.

These discriminatory features of the mining law, designed to ensure the control of the white community over the mining sector, will be repealed alongside similar provisions in laws governing, industry, commerce and social affairs. More difficult to overcome will be the legacy of migrant labour, with its accompanying features of low cash wages, payment in kind through the provision of food and accomodation in mining compounds, and the exclusion of Africans from positions above the level of semi-skilled or clerical. The continuing effect of discriminatory employment practices and labour legislation has been comprehensively documented in the report published by the International Labour Organisation in 1977, 'Labour and Discrimination in Namibia'.

Appointment of Administrator-General

In August 1977 South Africa appointed an Administrator-General to head the South African administration of Namibia. He effectively took over the functions formerly exercised by the SWA Administrator, and the SWA Executive Committee. In consequence, a number of functions previously exercised by South African ministries in Pretoria have been formally transferred to the Administrator-General under the provisions of a general enabling transfer proclamation. Amongst the departments so transferred were the Namibian section of Department of Mines, so that in theory, control over mining matters in the territory, previously exercised by the South African Minister of Mines, have been assumed by the Administrator-General. In practice, no changes to the operation of the mining laws in existence had been made. Although

*as defined in the first schedule of the Prohibited Areas Proclamation No.26 of 1928.

rules and regulations issued by South African officials no longer apply automatically in Namibia, the Administrator-General has discretionary powers to delegate responsibility to South African officials and their representatives in Namibia, as well as consenting to the application of South African regulations he deems to be 'in the interest of the territory and its inhabitants'.

CHAPTER FIVE

Existing Fiscal Structure

General Outline

The fiscal regime presently in force in Namibia is similar to those existing prior to independence, and in some cases, following independence, of other African countries with a developed mining sector. The empahsis is on the attraction of external investment, with rates of normal tax payable by companies set at a relatively low-level, which combined with generous write-off provisions for new investment, has had the effect of stimulating a substantial imput of overseas finance capital into the mining sector. In addition to taxation, two other categories of payments are made to the state in the form of fees and rentals on licences and grants, and royalties in respect of minerals mined. With respect to diamonds there is also the special export duty and profits tax.

The system of fee payments, which comprise a relatively minor proportion of the total revenues derived from mining, are outlined in the 1968 mining ordinance, and are of a fairly standard form. More complex are the existing arrangements relating to royalties and the taxation structure. No mention is made of royalty payments in the 1968 ordinance, although clearly royalty payments are due to the state as exclusive holder of the mineral rights in Namibia. Royalties appear to be determined on an individual basis between the Minister of Mines and the individual company, depending on the type of mineral and extraction rate at which it is mined. In the legislation prior to the 1968 ordinance there was provision for the payment of a fixed percentage charge on the value of the minerals extracted, and it is not clear whether this provision still applies. The 1968 ordinance provides for the payment by the holder of an exclusive mining grant or a rental determined by the Minister, in addition to taxation, or any share of profits provided for in the mining grant (section 61).

The taxation structure has been harmonised in recent years with that of the Republic, with the introduction of a PAYE system in 1975. Except for the special provisions relating to diamonds, tax is deducted at a fixed rate from the gross taxable income declared in the year of assessment by the companies - with reductions in respect of taxation in the form of benefication and depreciation allowances, write-off provisions for capital expenditure set against the current gross profits declared. This means that in most new mining developments, no contribution is made to revenues until the payment of all loans raised to finance the development of the mine. Thus the Rossing uranium mine, whose initial cost of £100m has been increased to £140m, is unlikely to provide any public revenue until 1979/80. Under the present arrangements, Rossing appears liable only to the payment of normal taxation, although in view of the expected profitability of the mine once full production has been attained, a future independent government might consider the introduction of a special export levy similar to that in use for the diamond industry.

Since 1969, all taxes derived from mining operations, together with all company taxation, have been paid directly

into the South West Africa Account of the South African Consolidated Revenue Fund. Only a proportion of the revenue is transferred for use by the Windhoek Administration in Namibia, in the form of the annual transfer made to the Territory Revenue Fund, and all foreign exchange earnings and customs revenues from the sale of minerals also accrue directly to the South African Treasury.

The actual proportion of the wealth generated by the mining sector currently accruing to the state under the present arrangements is difficult to quantify using the existing incomplete data. As with pre-independence mining arrangements elsewhere the actual government take is below the nominal rate applied to full operating profit as normally computed, due to the existing generous system of incentives. But in many instances, newly-independent governments have renegotiated existing arrangements to provide for a greater proportion of the gross profits generated by the major mining operations, and in the case of new developments, the negotiations of special mining agreements, providing for a government role in both the equity and fiscal arrangements. A similar policy is to be expected on the part of a new Namibian government, particularly with respect to those well-established mining operations with a long history of high profitability. At present, fiscal provisions apart from taxation are negotiated on a once-and-for-all basis, with no provision for a greater take if profitability turns out to be greater than originally anticipated, leaving the mine owners in most cases at liberty to maximise their profits.

While the state is already obtaining a high overall take in respect of diamonds, over 60% in normal years, according to De Beers, the general concept appears to be that any surplus above what may be regarded as a normal rate of return accrues as of right to the mine owners, rather than to the state, as owner of the mineral rights. Full allowance appears to be made for the view of mining companies that the inherent risks involved justify any above-normal return on investment, since the surplus derived from a rich ore-body may have to be set-off against expenditure and losses incurred in respect of less-successful operations elsewhere. This might have force if those operations were located within the national territory, but the fluidity of existing arrangements would in practice enable mining companies to apply the argument to mines in both Namibia and South Africa. Although in general, an argument can be made that the owner of the mineral rights obtains a fair share of the proceeds through royalties, expressed as a fixed percentage of the value of output, or a fixed percentage of the gross profits, in addition to taxation, the absence of precise information on the payment of royalties by mining companies in Namibia, leaves open the question of whether the existing arrangements provide for an adequate return to the state.

This approach has been altered in the case of many mineral-producing countries, with the emphasis placed on the intrinsic rights of the owner of the mineral rights to the orebody value. Many developing countries' governments, including many African Commonwealth countries, now provide for the mining of new discoveries under special agreements designed to maximise the proportion of profits generated available to the state while providing for what is regarded as a reasonable rate of return on capital invested by companies. The increasing use of quasi-royalty provisions, including equity participation in mining ventures, pre-emption of output, and production-sharing, designed to

cream-off surplus profits from particularly rich ore-bodies, provide a range of methods that could be applied in Namibia.

In respect of the mining of gold, precious metals and other minerals such as uranium in South Africa, there is a two-tier charge consisting of a lease consideration (royalty) and income tax determined by a sliding scale formula progressive in respect of profitability, where profitability is defined as profit, divided by revenue expressed as a percentage. The actual take of the government depends on the actual values ascribed to the elements of the lease formulae, with consideration of the indicated return on capital invested. In the period before the endemic inflation of the last few years, a reasonable rate of return was generally considered to be of the order of 15-20%. Although the percentage of profits payable is in theory high, it would in practice be high only if it were possible to assume the existence of a gold, precious metal, diamond or uranium mine with high profitability, with little or no captial expenditure taking place. In practice, the level of 'profit' accepted for the purpose of determining these levies is considerably reduced below normal or 'accounting' profit by the system of capital allowances and write-off provisions. In addition, all royalties payable to the state are themselves deductable for tax purposes theoretically provided for. Although the lease formulae in use for gold/uranium mines in the Republic are published, no such details are available with respect to the Rossing uranium mine, or the other uranium mines now in the course of development.

For base metal mines, the South African lease and tax provisions are considerably below those for diamonds, gold and uranium and diamond mines. For base metals on state land, the Government accepts a 10% consideration on profits, before the deduction of normal tax, and this rate is likely to be the same with respect to Namibian base metal mines, with determinations made by the Minister of Mines directly, rather than the Mining Leases Board as is the case in the Republic.

Diamond Taxation and Royalties

The most specific date on the operation of the present tax structure is for diamond production, which in most years accounts for over 30% of total revenue collections in Namibia. Over 99% of the diamonds mined are extracted by Consolidated Diamond Mines and the accounts of the company, prior to its full incorporation in the De Beers group in 1975, provide substantial information on the tax position. Three charges are levied on diamonds income tax, diamond profits tax and export levy. Although these amount to a considerable proportion of the profits generated, collection of revenue appears to be, at least for the years for which information is to hand, proportionately lower than for diamond mines in the Republic, although the uniquely high proportion of the gemstones found in the CDM concession ensure regular high profitability.

CDM pays income tax and a 15% diamond profits tax. There is also a 10% Export Duty on all diamonds exported unprocessed and the duty on CDM stones accrues to the SWA administration. However diamond mining companies are permitted to write off all capital expenditure against tax in the year in which such expenditure arises. The tax position of CDM is further complicated by the position of

the South West African Finance Corporation which is its wholly owned subsidiary and is entitled to a royalty of 4.3% on proceeds from diamonds mined in Diamond Area No.1.

According to the 1973 Commission of Enquiry into the Diamond Industry of South Africa and Namibia, the income tax, diamond profit tax and diamond export duty payable amounted to approximately 56% of profits derived from diamonds mined in Namibia. This compared with a total of between 52% and 99% in South Africa, with an average of 69.7%. The basic rate of income tax excluding the 15% loan levy is 45% for diamond mines in South Africa and Namibia with in addition a mining lease consideration in respect of South African mines. The addition of the surcharge and loan levy fixed in relation to income tax brings the total tax take up to 56%; the export duty payable on the value of all rough and uncut stones exported is deducted from the income assessed for tax-purposes. In the case of Namibia, the diamonds profits tax payable under the Diamond Taxation Proclamation of 1941, is also deductable from income assessed for normal tax under the standard income tax provisions.

Due to its pre-eminence as a source of state revenue, diamond taxation is an especially sensitive issue; some friction was caused between the South African Government and De Beers, when following the fiscal reorganisation of 1969, South African loan levy became payable for the first time on CDM profits. In the De Beers annual report for 1969, Mr. Harry Oppenheimer stated that CDM had protested about this to the Minister of Finance;

'It has always been argued by the Consolidated Diamond Mines on the basis of an agreement made in 1913 between the German Imperial Colonial Office and the Deutsche Koloniale Gesellschaft, to which CDM's wholly-owned subsidiary, the South West Africa Finance Corporation Limited is successor in title, that the Administration is bound not to increase diamond mining taxation without the company's consent'.

The Diamond Taxation Proclamation of 1941, was enacted to amend existing provisions relating to duties and taxes on rough and uncut diamonds produced in Namibia, and remains in force as a separate tax provision for diamonds. It provides for taxation on all diamonds subject to control of the Diamond Board. The 10% diamond export duty, is in respect of the gross proceeds of sales, payable by the purchaser to whom they are delivered by the board (the Diamond Producers' Association). The diamond profits tax at the rate of 15% is on the taxable profit of the proceeds of diamonds won within Namibia. Proceeds are defined as the money received from sales of diamonds produced in Namibia. A special tax assessor appointed by the Administrator is responsible for the profits tax paid to the Secretary for South West Africa (now to the Minister of Mines). The profits tax is payable in respect of all diamonds won or found on areas originally converted under sections 39-49 of the German IMO of 1905, held under special title granted by the DKG prior to 1908 or German grants, or agreements of 1922/23 between the Administrator, CDM and the South West Finance Corporation - i.e. Diamond Areas Nos. 1 and 2, including all areas held by CDM.

Profits tax payable on income from mining diamonds in Namibia is deducted from amounts assessed as liable to the profits tax of the Proclamation. Various special deductions

are allowed against the profits tax - the balance of capital expenditure unredeemed at the first year period of assessment can be redeemed over a period of 15 years by equal annual amounts. Interest received on certain of CDM's investments in the Diamond Corporation is treated as franked or non-taxable income.

The diamond export duty and diamond special tax are paid to the Minister of Mines out of the proceeds from the sale of diamonds received by the Diamond Board, which is responsible for collecting these taxes, and paying over the balance to the producers after tax deductions. The amount estimated by the Board as the true market price or selling price within South Africa is deemed as the proceeds of such diamonds in respect of the diamond export duty and diamond special tax.

This existing highly interventional tax regime, provides the future independent Namibian Government with the means of regulating tax proceeds from diamond production in Namibia, although the selling price under the present arrangements is controlled by the companies of the Central Selling Organisation structure.

CHAPTER SIX

Profile of the Economy

Development of the Commercial Economy

Since 1919, a narrowly-based, export-orientated commercial economy has been developed in Namibia. This economy may be characterized as having the following features:-

(1) Primary sector activities predominate. Table I is, of necessity, rather out-of-date since official statistics on Namibia's economy are now largely unavailable being absorbed, as a matter of policy, into South Africa's overall economic accounts. The Table shows, however, the contribution of the various economic sectors to Namibia's Gross Domestic Product in 1960 and 1970. Since 1970 the contribution of mineral production has become increasingly important, that of agricultural and fisheries production has, by comparison, diminished.

(2) A very high proportion of Gross Domestic Product, probably now about two-thirds, is exported. Table 2, which summarises the foreign trade situation in 1966, 1970 and 1974 suffers from the same disadvantages as Table I and, in particular, excludes the contribution to mineral exports now being made by uranium from the Rossing mine.

(3) The exceptional degree of concentration within the commercial economy is shown by the very high share of gross corporate surpluses in Gross Domestic Product. These gross surpluses, which include depreciation and corporate taxation, are estimated to amount to more than 40% of the GDP, and exhibit the degree of domination of the economy exercised by one diamond mining operation, one uranium mining and concentrating complex, and a number of base metal mines and fish-catching and processing firms.

(4) A very high proportion of the value of a Territorial product, almost certainly now in excess of 30%, leaves Namibia (mainly to South Africa) in the form of remittances, dividends, profits and taxes. This outflow of transfers and factor payments accounts for the remarkable statistical discrepancy between estimates of Namibia's national income, which excludes them, and Namibia's Gross Domestic (or Territorial) Product, which includes them. If national income itself was re-defined to measure income accruing directly or indirectly to Namibian nationals (or prospective nationals) only, the discrepancy would of course be very substantially greater. It is this latter discrepancy - the difference between the value of production in a country and the income accruing to its working inhabitants - that is sometimes used as one measure of a territory's "exploitation".

(5) The backwardness of Namibia's agriculture is another striking feature of its economy, despite a certain amount of investment in settler-owned ranches and meat-processing plant. Despite the relative sparseness of Namibia's population in relation to her

arable, or potentially arable, acreage - a substantial importation of grain and other foodstuffs is normally necessary.

(6) Namibia exhibits an exceptionally wide divergence in per capita income levels between different categories of its inhabitants. An independent analysis in 1977 made the following calculations -

"Namibia's Gross Territorial Product is of the order of $1,250m. Assuming a population of the order of 1,000,000 (SA's official 1974 figure of 852,000 is almost certainly a serious underestimate particularly in respect of Ovambos), this gives a territorial output per capita of the order of $1,250 - above the world average of c. $1,000, and very much above the $100 - $500 range for virtually all independent sub-Saharan African states. A rough breakdown of Territorial Product suggests that something like $500-600m represents corporate gross surpluses (including depreciation and taxation); $200-250m is the gross surplus of individual European proprietors, partnerships and small companies; $250-300m is European wages and salaries; $50-75m is wages and payment in kind to African and Coloured workers; and $50-75m is the production of individual African and Coloured peasants, small-scale farmers and small business proprietors. It is clear that total African and Coloured incomes can hardly exceed $200m or c. 15% of total Territorial Product. While the implicit range of $125-200 per capita might be argued to be the same as in some independent African states, the share is very different".[1]

(7) Published budgetary data appear to indicate that while revenues collected in respect of Namibia exceed recurrent expenditure, the South African government has financed from its own resources substantial capital expenditures, especially in respect to the Cunene scheme. On the basis of conflicting data different analysis of Namibia's fiscal viability have been made. The more optimistic assessments seem sounder - assuming the independent Namibian economy, especially the mining sector, can be run at levels now those prevailing in 1977, with the Rossing mine moving to full capacity and copper prices recovering by 1980. In that event Recurrent Revenue of R400m would be a distinct possibility enabling the financing of an expanded Recurrent Budget, contributions towards capital budget items, and domestic borrowings. The structural data indicates that Namibia is potentially highly fiscally viable, and likely to be less dependent on external grants and loans for basic capital expenditure than a majority of African states.

South Africa's official view that 'national constraints' precluded a policy of self-sustaining economic growth and made the continuation of South African budget subsidies and capital market loans vital was set out in its 'South West Africa Survey' of 1967 and 1974. Those were said to involve the lack of water, the small domestic market and widely scattered centres of population and the need to import basic goods and services for the commercial economy. A recent analysis by the German Development Agency of West Berlin comes to the conclusion that more important constraints are artificial bottlenecks caused by the close economic links with South Africa. (Namibia's economic potential and existing economic ties with the Republic of South Africa, August 1977)

In the 1974 official survey, the territory's economy was said to be 'still in its infancy' but a slight shift of emphasis may be noted in the statement that continued 'economic progress can only be guaranteed by continued access to South Africa's economy, in particular the supply of skilled manpower and specialised services and the provision of financial resources for private and public investments.

But that is not the only view that is taken of Namibia's prospects even within South Africa. In 1973, the Financial Mail, in a detailed economic survey concluded that:

> "On the evidence of past and present export performance, it is reasonable to assume that an independent SWA could now be generating substantial surpluses. For although it would have cost the earth to establish its present structure *de novo*, assuming South Africa had withdrawn, it is doubtful whether an independent SWA would have required infrastructure on quite the scale South Africa has seen fit to establish. It remains a moot point how much of it is really vital for continued economic development".

The same magazine in October 1976 pointed out that Namibia had a favourable balance of payments that was likely to improve and even described it as having "a relatively balanced economy", compared with other developing countries in Africa.

This discrepancy between the two views of Namibia's independent economic potential is facilitated by two paradoxes implicit in the economic characteristics that have already been described. The first paradox is that Namibia, in terms of its ratio of resources to population, is a naturally rich country, the bulk of whose indigenous inhabitants remain very poor. The second paradox is that it is possible for the Republic of South Africa's Government to claim to be subsidising the existing SWA Administration at the same time as the South African economy, as a whole and South African citizens gain a preponderant net benefit from the Namibian economy's operation. These paradoxes, in turn, can be used to give support to two apparently contradicting propositions:- One, that the Namibian economy is so dependent upon South Africa, that it is bound to require continued access to South African markets and continued South African technical and financial support. The other, that the Namibian economy's dependency upon, and domination by, South African interests has acted and continues to act as an impediment to the prospect of Namibia's own indigenous inhabitants obtaining full access to their country's potential prosperity. The first proposition is that advanced by the South-African Government; the second is argued by this paper.

Effects of South African control

Since the 1969 administrative merger, which completed the progressive incorporation of Namibia into the Republic, South Africa has continually asserted that far from exploiting the territory, it is in fact subsidising the economy, through its programme of capital expenditure (mainly in relation to the Cunene Hydro-Electric scheme and Bantustan developments) and revenue transfers to the SWA Administration. But this claim ignores the benefits accruing to South Africa through Namibia's foreign exchange earnings, customs and exise receipts, and large sums deposited in commercial banks and building societies by investors in Namibia, and the SWA Administration itself.

The 1969 merger was described, again by the Financial Mail as: 'a clear-cut declaration of intent to retain control of the territory into which South Africa has poured so much in terms of infrastructural development, and from which it derives such substantial economic returns'.

TABLE ONE

Contribution of the Economic Sectors
to the GDP - 1960 - 1970

Sector	R.million 1960[1]	%	R:million 1970[2]	%	R.million 1977[3]
Primary Sector	69.0	48.7	175.8	46.3	575
Agriculture, forestry, fishing	21.m	14.9	60.7	16.0	210
Mining	47.9	33.8	115.1	30.3	365
Secondary Sector	18.4	13.0	54.5	14.4	160
Manufacturing	12.7	9.0	35.8	9.4	85
Construction	4.3	3.0	14.8	3.9	60
Electricity, gas, water	1.4	1.0	3.9	1.0	15
Tertiary Sector	54.2	38.3	149.1	39.3	400
Transport	12.0	8.5	26.7	7.0	60
Commercial Trade	15.8	11.1	45.5	12.0	135
Finance; insurance	11.5	8.1	30.9	8.1	85
General Government	8.8	6.2	30.1	7.9	70
Total GDP	141.6	100.0	379.4	100.0	1135

Source: 1. South West Africa Survey 1967

2. W.H. Thomas The Economy of South West Africa

3. Towards Manpower Development for Namibia, UNIN

TABLE TWO

Foreign Trade 1966 - 1977

Commodity Exports	1966[1] R.m	1970[2] R.m	1973[2] R.m	1977[3] R.m
Agricultural Products	32.6	49	98	130
Karakul pelts	15.9	25	50	65
Livestock Products	16.6	24	48	65
Fishery Products	48.9	56	80	65
Canned Fish	14	16	25	25
Fishmeal	22.4	28	40	35
Other	12.5	12	15	15
Mineral Products	127.8	130	190	460
Diamonds	85.0	70	100	250
Uranium	-	-	-	70
Blister Copper	19.2	25	40	70
Refined Lead	12.3	18	28	45
Zinc and other (cadmium, lithium, manganese, silver, tin, vanadium)	11.3	17	22	25
Total Exports	209.3	234	368	655
Exports as % of SDP	67%	62%	62%	58%
Commodity Imports	170	180	288	n/a

Sources
1. South West Africa Survey 1967 p 103-4
2. W.H. Thomas, The Economy of South West Africa
3. UN Institute for Lusaka, Towards Manpower Development for Namibia, Table 15, p.103 (Slight adjustment of certain figures made by author in light of 1978 economic trends).

Notes
1. All post-1966 estimates are based on an calculation from fragmentary data on different dates, coverage and accurancy. The Republic of South Africa has gone to considerable effort to make it impossible to compile Namibian external trade data. All estimates are therefore approximate.
2. All estimates include products of and exports through the Port of Walvis Bay and tradé to and through South Africa.

In fact from a wider and more critical perspective of existing economic developments in Namibia it becomes clear that while natural constraints will continue as major difficulties in future economic planning, many of the other alleged barriers to self-sustaining economic growth could be removed by the action of a future Namibian government willing to assert its economic and financial independence from South Africa. In particular, it has been argued by restricting the current out-flow of profits and dividends, increasing the government take in the form of royalties and taxation from the major mining enterprises, and obtaining a share of the customs and excise receipts proportionate to the value of Namibia's imports, an independent government could be in a position to begin the diversification away from the existing dependency on South Africa. Increased revenues would also enable resources to be ploughed back into state-sponsored water and power schemes, and into improving living standards through the development of domestic agriculture, which apart from the livestock production on the white-owned farms, remains largely of a subsistance nature, contributing only some 5% by value to Namibia's GDP.

In 1964, the Odendaal Commission of Enquiry described mining, fishing and agriculture as 'the three pillars of the economy' and this is likely to remain the position throughout the transition period to independence and for a considerable time to come. The character of Namibia's commercial economy has been in large measure conditioned by the emphasis on mining activities involving large capital imports from South African based and overseas companies. But analysis suggests that some of the consequences of intensive mining activity, particularly the role of the sector in accentuating the dualistic nature of Namibia's economy, will require revised policies in the years to come.

The mining sector is the largest contributor to GDP, the main source of government internal revenue, and as the principal export, a major generator of foreign exchange earnings and customs and excise receipts. Mineral products accounted for approximately 52% of total exports in 1974, a lower percentage than in 1966 when according to the last official figures to be released, minerals accounted for 61% of total exports. This change is due to the increase in the value of canned fish and karakul pelts sold on world markets, where prices have moved ahead proportionately faster than for minerals. However, the increases in the price of gem diamonds during 1977, and the onset of production from the Rossing mine will have the effect of increasing the proportion of minerals to over 60% of the total value of exports once more. Of government revenues collected in Namibia, in 1977/78, revenue collected from mining activities accounted for R75m out of R169m, or about 45%, and this has been the average contribution over the last ten years. In 1969, according to figures provided in a White Paper on the fiscal re-arrangement of that year, mining accounted for 45.7% of the revenue collected in the 1969/70 financial year. In addition a substantial proportion of the non-residents shareholder tax, undistributed profit tax and customs and excise duties collected by Pretoria will be drived predominantly from the mining sector, so that the total proportion of mining in the total revenue take is likely to be between 50-60%.

One of the main consequences of the nature of the development of the commercial economy and the structure of South African control of Namibia's economic resources has been a continued outflow of repatriated profits and dividends. The mining sector, with its high degree of capital

penetration by overseas investors, is the main source of this outflow. Although South Africa maintains a policy of foreign exchange controls, these are not applied in respect to capital flows between Namibia and the Republic.

The mining industry provides employment for 16-20,000 people, 95% of whom are African contract labourers. But the R24.4m paid out in wages in 1973 was divided in a ratio of about 6:1 as between European and African employees. Such disparities in the levels of remuneration are reflected in per capita income figures. In 1962 annual per capita income for the population of the 'Police Zone', the predominantly white area, was estimated at R352 compared to R17 for the northern areas containing 70% of the African population. Later official figures for 1967 gave an average national income per capita of R360: R1602 for European and R61 for Africans from the northern one. The consequent low purchasing power of 88% of the population, rather than the small overall size of the population, is a main reason for the limited domestic market, which South Africa claims precludes self-sustaining economic growth.

Income disparities are the manifestation of the fundamental dualism of the economy, with the commercial economy confined to the area of the southern sector of the country, or the 'Police Zone' as it is still known officially. This area comprising two-thirds of the total land area of Namibia contains most of the known mineral resources, land suitable for animal husbandry, diamond areas, towns, ports and communications infrastructure. In the remaining third of the country, comprising both former African reserves inside the Police Zone, and the northern 'extra-territorial' reserves, now consolidated in 'homelands' on the pattern of the Odendaal blue-print of 1964, economic activities are principally subsistance in character, based on small stock-rearing, cattle, maize and millet growing, with migrant labour the main source of cash income. Thus the expansion at a rapid rate of the commercial economy has been linked to the maintenance of a backward subsistance economy through the mechanisms of separate development and exclusive land occupation. The preservation of a reserve supply of labour, in impoverished conditions had led a recent commentator to conclude that 'Namibia is an economy built in effect on forced labour'. He argues: "White ownership of the bulk of the useable ranch lands and of the arable land near white population centres, combined with limitations on African and Coloured farming, means that agricultural development has made the options either between contract labour or starving. This is as true of the Blacks employed by the 8,000 - 10,000 European farms as it is of the large labour force of the handful of major mines and fishing firms which dominate the economy".

The development of the mining industry in Namibia has to be seen as both accelerating the country's growth rate, and intensifying its dualistic nature. Precisely because of this dualistic nature, conventional measures of economic growth have to be interpreted with great caution. Thus between 1946 and 1960 the GDP increased from R22.2m to R122.0m - an average annual rate of approximately 6.0% - and by 1970, the GDP had increased further to R379.4m. This latter increase represents an average rate of growth of 10.6% in current prices, or 8.1% at constant prices. Given an estimated annual rate of population growth of 2.9%, the per capita GDP may be calculated to have increased by about 5% per annum throughout the 1960s. This would have been a relatively high rate of growth by comparison with similar resource-based developing countries.

But these impressive growth rates have to be interpreted, as we have seen, with two specific reservations. First, in increasing proportion of the GDP is being 'siphoned off' abroad in factor payments and transfers, as indicated by the discrepancy now thought to be in excess of 30% between GDP and National Income. Second, the distribution of income between factors and persons within Namibia is all-important in determining to what extent growth figures actually represent an improvement in the status of the majority. Here the evidence suggests that the process of rapid growth has actually accentuated the already huge disparities in income levels between the African and European communities, with personal income increases, capital accumulation and the economic power that goes with it remaining concentrated almost exclusively in the hands of the South African and transnational companies and of the European resident community.

Financial Policies in Namibia

A South African Government White Paper published in 1969 showed the following revenue/expenditure pattern for the SWA Administration in the period 1945 to 1969:-

Rm	Expenditure	Ordinary	Capital	Revenue	Accumulated Surplus
1945/46	4.6	2.5	2.1	4.9	4.6
1951/52	15.8	8.4	7.3	17.8	4.5
1961/62	35.8	20.3	15.5	21.4	10.4
1965/66	53.7	28.7	25.0	68.8	18.4
1968/69	79.0	41.0	38.0	88.9	14.7

For the year 1968/69, the percentage contribution to inland revenue of taxes other than customs receipts is shown as follows:-

Individual income tax	4.8
Diamond mine taxation	17.1
Other mine taxation	6.4
Overseas shareholder tax	1.8
Undistributed profit tax	0.1
Other company tax	9.3
Diamond export duty	10.4
Diamond profit tax	11.8
Licenses	10.1
Departmental receipts	4.0
Total	75.8%

On the basis of these figures, the direct contribution to revenue by the diamond mining industry can be seen to have been 39.3%. Personal income tax (on whites) was levied for the first time in 1942/3. Customs and excise duties have consistently been a major component in revenues collected. Until 1969, these duties were collected by the Government of South Africa, but handed over to the SWA Administration.

Until the passing of the SWA Affairs Act, No.25 of 1969, Namibia had a large degree of fiscal autonomy, with revenue collections (except customs and excise on external trade) and expenditure allocations the responsibility of the SWA Administration and Legislative Assembly. Revenue collections were paid into the SWA Territory Revenue Fund (TRF); annual estimates of expenditure to be defrayed were prepared by the Administrator and submitted to the Legislative Assembly (composed of 18 members elected on the white-only suffrage) for approval. These covered mainly recurrent expenditure.

In 1944 the Territorial Development and Reserve Fund (TD & RF) was set up as a separate source of finance for capital works and emergency relief (drought/stock epidemics etc). Large allocations have regularly been made to this fund out of annual surpluses on the Revenue Fund, and these were used at the discretion of the Administrator alone. Amounts allocated from the Revenue Fund have ranged between 50% and 70% of the total expenditure, and in many cases, these have remained unspent at the end of the financial year. This policy was criticized by sections of the white business community and in the pages of the Windhoek Advertiser newspaper.

With the expansion of the commercial sector, mainly due to boom conditions in the mining industry, revenue increased 18-fold between 1945/46 and 1968/69, the last full financial year before fiscal incorporation, from R4.9m to R88.9m. Expenditure increased 17-fold over the same period from R2.5m to R79m, with the increase especially marked from 1964/65 when greater intervention by the SA Government was initiated. Despite this phenomenal growth in revenues, the fiscal approach of the SWA Administration remained one of cautious conservatism, with the emphasis on accumulating surpluses on the Revenue Fund. This policy arose from the dependence of the SWA Administration on internally-generated revenue for both current and capital expenditure. Since the territory did not have the status of a province it could not receive central government subsidies, while as it was not an independent financial entity, it could not raise loan finance from international sources in the way an independent sovereign state could. Expenditure in Namibia by the South African Government (now claimed as one of the main 'benefits' of economic integration) only began in the years following the 1964 report of the Odendaal Commission, which recommended a massive programme of state-financed public works to develop power and water resources, and to speed the economic developments of the reserve/homelands. Between 1964/65 and 1968/69, some R52m was advanced to the SWA Administration towards the financing of Odendaal-recommended projects. As shown in Table B, the bulk of the expenditure by the SA Government is through the departments of Bantu Administration and Water Affairs in connection with homeland developments and financing of the Cunene scheme.

These figures appear to confirm the basic viability of Namibia's financial structure. It is only in the years since 1969, and particularly the last three financial years, that public expenditure in Namibia has considerably exceeded fiscal revenue from all sources.

In only seven of these 24 years was expenditure allowed to exceed revenue, and some of this was accounted for by exceptional expenditures necessitated by the drought of 1959-62 and the foot-and-mouth epidemic of 1961-1962. In 1964/65 and 1965/66 for example, 12% and 22% respectively of the annual revenue was added to the accumulated surplus

of previous years. Apart from loans granted by the SA Government towards karakul sheep breeding, and loans to white farmers via the Land and Agricultural Bank, curre and capital expenditure and economic activities were financed out of internal revenue. A major consequence this fiscal conservatism was that little positive effor was made to offset the income disparities, and differen in the level of social services and communications, of African and European communities. Basic infrastructure remained at an entirely rudimentary level in most of African inhabited areas until after 1968/69, when the S Government began to spend substantial amounts on buildi up facilities within the designated 'homelands' under t auspices of the 'Self-Government for Native Nations in Act', No. 54 of 1968.

Thus in April 1969, the TD & RF had an outstanding bala of R 75.5m, mainly in four accounts:

Land Settlement and Development (i.e. white settlers)	R 7m;
Government Building	R15m;
Road Construction	R15m;
Local Authorities	R13m

In contrast the Native Affairs account had a balance of only R56,000. A total of R170.5m had been allocated to TD & RF by 1969/70, with a large proportion of these fu invested in commercial banks and building societies in Republic.

The most comprehensive details of the accounts of the S Administration are provided in the reports of the SA Controller and Auditor-General. In the report on the 1974/75 accounts, figures for investments in South Afri by the SWA Administration were given as follows:

R35.4m invested with the Public Debt Commissioner and other financial institutions (as of March 197

R15.0m invested at call;

R14.7m invested in long-term stocks;

R 5.6m invested with building societies.

The report gave the figure for direct expenditure by th SWA Administration on 'non-whites' as R5.5m (out of a t recurrent expenditure of R95.5m but excluding expenditu by SA Government ministries). Cumulative revenue figur and expenditure figures in Namibia from 1920/21 to 1972 were also given:

Revenue:	R1,117,079,452
Expenditure:	1,103,382,799
Surplus:	13,696,653

This accumulated surplus had increased to R 14.9m in 1973/74 when revenue amounted to R 87.9m and expenditure to R86.7m. The subsequent revenue/expenditure accounts are provided in Tables C and D.

The 1969 fiscal merger

A number of attempts to tighten fiscal links between Namibia and South Africa had been made since 1945, but it was not until the appointment of the Odendaal Commission in September 1962, that South Africa clearly signalled its intention of carrying out a complete fiscal incorporation. An earlier Commission of 1951 had recommended a merger, but no action had been taken in view of opposition expressed by the white business community.

When the white paper based on Odendaal's recommendations was tabled in April 1964, details of the proposed financial rearrangements were not revealed until after the verdict of the International Court of Justice in 1966 on the Ethiopia/Liberia suit. But the then SA Prime Minister, Dr. Verwoerd, said during the debate on the white paper: 'The Republic has much interest in all the schemes for great developments there because it will benefit from them both economically and politically'.

The Odendaal proposals were put into effect through the 1969 SWA Affairs Act, whose main provisions have already been discussed. With regard to financial matters, Section 22 of the Act, provided for payment of the following categories of revenue into the specially-constituted 'South-West Africa Account' of the SA Consolidated Revenue Fund.

a) all revenue from the territory relating to scheduled matters;

b) all interest received by the Minister of Finance from the Land and Agricultural Bank of SA on the portion of capital from the former SWA Land and Agricultural Bank consisting of SWA Administration loans;

c) moneys appropriated by the SA parliament;

d) moneys accruing to the account from any other source.

The effect of the transfer was to leave the SWA Administration with a greatly-diminished total budget. Even a pro-Government economist such as G.M.E. Leistner in his study of the financial relationship admits that 'SWA has lost control over a large part of the revenue collected' although he maintains that revenue receipts have been 'more stable' than hitherto. They are certainly lower in the cause of the SWA Administration, despite the provision for the transfer to the Revenue Fund of the Territory an annual amount charged on the SWA Account of the Consolidated Revenue Fund. This is calculated according to a formula of considerable complexity, with value of the formula related to average revenue and expenditure in Namibia in the five years prior to 1969.

As can be seen from Table C, this allocation is now the largest single source of revenue for the SWA Administration, which otherwise depends on personal income tax, licences and loan recoveries; however it is much lower than the total revenue which in view of the expansion of mining activities would otherwise have accrued directly to Namibia since 1969. Thus as shown in Table A, while total inland revenue for the 1975/76-1977/78 financial years was respectively, R98.1m, R91.8m and R130.9m, the statutory transfer to the SWA Administration for those years amounted to R50.9m, R48.9m and R53.9m only.

In practice therefore the South African Government retains direct control over 50% of the annual revenue collected from Namibia (between 60-70% once the customs and excise collections are included) with which it has been able to finance its programme of current and capital expenditure on 'homeland' developments and infrastructural projects. Thus annual receipts, and accumulated reserves of the SWA Administration have shrunk substantially since 1969, whilst expenditure by South Africa, with its hold over the revenue generated by Namibia's productive economic sectors has increased substantially. Hence there is now an overall deficit between total revenue received by both the SA Government and SWA Administration, and combined expenditure in Namibia. This had reached R34.2m in 1976/77, and was projected to be R57.4 for 1977/78, and is chiefly supplemented by South Africa and the accumulated credit balance of the SWA Reserve Fund, which had a balance of R20m in 1976/77. In other words, the accumulated surpluses from internal revenue generated in Namibia are now being used partly to subsidise deficits created mainly through the expansion of South African-controlled expenditure. Although the effect of inflation on recurrent expenditure would in any case have reduced surplus revenues, it would probably not have led to an overall deficit of these proportions. This deficit could be compensated for by an increase in the proportion of customs and exise levies credited to Namibia on independence. Much of the expenditure by South Africa includes items unlikely to be continued by an independent Namibian government.

The current cost of the substantial SA military presence in Namibia is estimated in the region of R400m a year, although this is not disclosed as a separate item.

The Namibian state will however have to bear the costs of the railway system, which currently runs at a substantial loss, telecommunications and postal system.

The Cunene hydro-electric scheme

The largest single power project initiated by the SA Government was a hydro-electric and irrigation scheme along the Cunene River on the border with Angola. The first phase of the scheme was scheduled for completion by the end of 1977, but construction came to a halt during 1976 following the troubles in Southern Angola, by which time an estimated R200m of the R230m basic project cost had already been spent. This has been financed through appropriation of R188m to date from the SA Government to SWAWEC (the SWA Water and Electricity Corporation) of which R123 is loan capital and R65m by way of an increase in the share capital of the IDC.[2] The scheme, when completed, will provide a power station at Ruacana Falls and irrigation dam at Calueque (which would add markedly to the agricultural potential of northern Namibia as well as ensuing larger and more dependable water supplies for mineral, industrial and urban use).

The financing of the infrastructure comprises a substantial proportion of the net amounts provided by the SA Government for expenditure in Namibia. Work is carried out by SWAWEC in association with the Dept. of Water Affairs, and ESCOM, the state electricity corporation. In 1972, SWAWEC undertook the responsibility for supplying electricity in bulk in Namibia, which as well as planned supplies from Cunene, included output from three coal-fired power stations in Windhoek and Walvis Bay which are run integrally with a joint capacity of 130 MW. These had been linked as of 1975 to 11 towns and 9 mining undertakings through a central transmission network built by ESCOM.

The network was due to be connected to output from the Ruacana power station located just inside the Namibia border which is to have a capacity of 240 MW, in 1978. But because of anticipated shortfalls caused by delays on the Cunene Scheme, a further 28 MW power station was commissioned from Walvis Bay in 1976.

The Cunene Scheme itself is only part of a blue-print drawn up several years ago by the SA Government for an expenditure of around R1000m on water and power schemes. In August 1974 the SA Government initiated an ambitious R595m plan for the development of water resources up to the year 2000. The largest schemes are for R155m and R178m on north-western and north-eastern water projects in the 'homelands' on which so far less than R1m has been spent. Altogether a total of some R20m has been spent to date by the Dept. of Water Affairs. Significantly this department was transferred to the authority of the Administrator-General appointed by South Africa in September 1977. A future Namibian Government will no doubt wish to re-examine the assumptions behind this massive series of projects, which included a grid of canals and pipelines hundreds of miles long, to link water resources and dams in the Fish River in the south, the Kunene river in the north and the Okavango river in the north-east, with the major consumption centres in Windhoek, Walvis Bay and the mining towns. Much of this expenditure on infrastructure corresponds with the pattern of previous developments, in being aimed primarily at bringing further benefits to the existing areas of the commercial economy, and to existing centres of urban settlement.

Consequences of Financial Relationship with South Africa

The close financial links between the economies of Namibia and South Africa have clearly diminished the independence of Namibia's financial and economic capability. The mechanisms of the 1969 administrative merger ensure that Pretoria directly controls the allocation of the bulk of the revenue generated with Namibia, while the incorporation of Namibian foreign exchange and customs earnings into those of the Republic are of direct benefit to South Africa. No formula has been disclosed for the division of such revenues as between South Africa and Namibia, but the experience of Botswana/Lesotho/Swaziland in renegotiating the customs pool arrangements since independence, would suggest that Namibia probably receives a lower proportion of overall receipts than the high level of its commodity trade would justify. The establishment of Botswana's own currency last year, had a detrimental effect on South Africa's foreign exchange reserves, and the effects of Namibia establishing its own financial system following independence would be likely to be proportionately greater in view of Namibia's overall trading surplus.

A thorough analysis of recent trends in the foreign trade and capital movements of Namibia, which is crucial to any evaluation of the validity of Namibia as an autonomous economic entity, is impossible due to the absence of publication of seperate trade and capital flows. But whereas many developing economies are hampered by chronic deficits on their balance of payments, the evidence available with respect to Namibia suggests that it is capable of maintaining a surplus trading and balance of payments position. The latest estimates of export/import trade show the value of imports (R288m) some R80m lower than the value of exports (R368) for 1974.

In the 1960's about half of the exports went to South Africa, while almost 90% of imports originated in the Republic. The official view of this trend is that this

trade link is advantageous to Namibia because of the stability of prices, convenient marketing channels, and good quality and low prices of imports. It is in fact more likely that Namibian exports would obtain the same if not higher prices, for all the major export commodities if these were sold directly to overseas markets. This might require the establishment of independent export marketing structures. Two possible examples are gem diamonds and canned fish; the latter are currently marketed exclusively by the SA Federale Marine agency.

With regard to imports, Namibia obtains the bulk of its processed foodstuffs, semi-durable and durable manufactured consumer goods from South Africa, the main exceptions being mining equipment and machinery, which are imported from West Germany and the United Kingdom. Namibia has no real interest in South Africa's policy of import protection and import substitution, which substantially increases the net cost of these commodities. Namibia is in effect being made to help bear the cost of South Africa's own structural balance of payments problems - thus since March 1977 its imports have been subject to a 15% import surcharge, while South African cost inflation on manufactured goods is estimated to be adding very substantially to Namibia's import bill. The high tariff import policy of South Africa can also be said to have impeded Namibia's own economic development with the existence of captive market in Namibia for South African manufacturing firms which have generally not sought to establish local capacity; there is also evidence that Namibian maize and dairy products may have been deliberately discouraged.

Once independent, Namibia would be in a position to pay in hard currency for all its imports and would benefit by importing these direct from exporting countries shopping around for suppliers with the lowest prices. Probably some products, such as steel, would remain cheaper to import from South Africa, especially in view of transport costs.

No details are available either about the receipt and payments for services and the capital flow, but it is likely that Namibia's current account position could improve sharply through the ability of an independent government to reduce the high level of net service payment, at present estimated at around R200m. This deficit contains items such as freight and insurance payments, interest and dividends falling due to foreign investors, remuneration to foreign entrepreneurs, and payments for patents, royalties etc.

On the capital account, too, there is thought to be at present a net outflow of about R100m a year, mostly as a result of the transfer of 'funk' funds to South Africa and elsewhere. One effect of the continued political uncertainty over Namibia has been steady transfer of private savings from banks in Namibia to South Africa by the white business community in anticipation of a possible freezing of assets after independence. The concession on capital write-offs granted to non-Namibian mining companies is also contributory to the outflow of funds. This is sufficient to offset the substantial inflow of recent years caused by the large-scale prospecting activities and the opening of new mines.

It can be expected also, that much of the capital ploughed back by the major mining companies is in fact reinvested in South Africa, rather than Namibia, both in the short and the long-term. Capital flow is at present totally unimpeded and unregistered as between Namibia and South Africa,

and therefore impossible to trace on an individual basis.

A further drain on Namibia's base is the prescribed investment in South African Government securities imposed on non-SA companies. For these reasons, South Africa would clearly like to maintain for as long as possible a central banking link between the two countries, enabling foreign exchange to accumulate as part of South Africa's overall reserves, as well as maintain close control over fiscal policy. The continuation of close economic and financial links has been accepted by the Turnhalle conference, one reason for South Africa's interest in seeing a Turnhalle-based government come to power which would be in a position to institutionalise these links.

The sensitivity of the South African authorities on this issue is shown by what happened when Professor Wolfgang Thomas, a Cape Town economics lecturer and member of the Turnhalle sub-committee on finance, early in 1977 apparantly complained about the reluctance of officials to divulge statistics relating to Namibian sources of revenue payments. His attempt to have a discussion of Namibia's financial position was rejected by a majority of the members of the committee and he was almost immediately deported.

Alternative Economic Resouces

It must be concluded that, although handicapped by the lack of readily-available power and water supplies, an independent Namibia would have an adequate resource-base to enable a substantial diversification of the economy, financed by a continued flow of mining revenues. In particular there is considerable scope for the expansion of industrial activities, both in relation to the processing of Namibia's main primary export goods, and in the form of import-substitution industries, to cut down on the substantial import bill from South Africa. The completion of the Cunere Hydro-Electric scheme would make possible industrial development and provision of employment facilities in the populous northern area.

Current industrial activities are geared mainly to the fishing industry, with some light industry in the Windhoek and Walvis Bay areas. Manufacturing only accounts for a small part of the GDP, 9.4% in 1970, with an annual output of around R36m, less than the combined value of production by agriculture and the fishing industry. The main reason for the extremely limited development has been the close trading relationship with South Africa, with a dependence on SA supplies of basic and finished commodities. Fish processing and canning factories in Walvis Bay account for a sizeable chink of so-called manufacturing output.

There is also potential for the development of a much more diversified agricultural sector, in particular for the protection of cash crops for consumption and export. The northern areas, particularly the north-central Okavango Valley region could be the sites for production of maize, sorghum, sugar and cotton-growing. Such developments would also provide opportunities for substantial increases in employment.

References

1. Africa Bureau Fact Sheet, No. 51, June 1977.
2. Annual Report of the IDC, year ended June, 1976.
3. SA Financial Mail 15.4.1977.
   W.H. Thomas op cit

REVENUE AND EXPENDITURE ESTIMATES OF THE
SA GOVERNMENT IN RESPECT OF NAMIBIA

TABLE A

Estimate of Revenue Received on the
South West Africa Account
(Financial years ending March 31)

Revenue Head (Rm)	1975/76	1976/77	1977/78
Part I:			
Inland Revenue			
Tax on Income			
Diamond Mines	26,465	22,530	45,000
Other Mines	10,000	2,098	1,000
Companies (Other than mining)	15,149	18,707	20,829
Diamond Export Duty	7,681	11,510	15,930
Diamond Profits Tax	8,917	9,000	12,210
Undistributed Profits tax	230	120	80
Transfer duties	1,200	1,000	1,000
Stamp duties/fees	1,000	750	650
Prospecting and Claim Licences	434	363	360
Loan Recoveries	2,730	1,876	1,831
Interest	3,366	2,168	1,923
Contribution in connection with Bantu Administration	16,740	16,844	22,866
Rental from state property	154	173	182
Fines/forfeitures	330	180	180
General	3,683	4,496	7,067
Total Inland Revenue	98,079	91,815	130,993
Customs & Excise Namibian share of customs pool 1/	27,900	35,700	37,660
Total Part I:	125,979	127,515	168,653
Part 2:			
SWA Territorial Revenue Fund 2/	2,451	2,865	3,171
SW Finance Corp. Ltd.	5,280	6,000	7,470
Grand Total:	133,710	136,380	179,294

1/ in terms of section 22 (1)(d) of Act 25 of 1969
2/ in terms of section 22 (2)(c)
3/ in terms of section 5 of ordinance 21 of 1953
Source: Estimate of Revenue, Republic of SA, Treasury, R.P.4 - 1976, 1977

TABLE B

Estimate of Expenditure Defrayed from the South West Africa Account

Vote and Title (Rm)	1975/76	1976/77	1977/78
Part I:			
Bantu Administration & Development	43,756	51,176	58,000
Bantu Education	3,072	3,730	4,475
Transport	1,753	1,402	1,900
Labour	111	112	121
Mines	554	666	664
Interior	143	181	200
Public Services Commission	198	200	200
Social Welfare & Pensions	3,842	3,887	4,601
National Education	397	490	569
Agricultural Economics	2,575	2,644	2,200
Agricultural Credit	3,256	3,200	3,229
Agricultural Tech. Services	7,034	6,960	7,045
Health	1,280	1,350	1,670
Planning and Environment	291	353	158
Miscellaneous Services*	50,888	48,923	53,927
Inland Revenue	335	309	344
Customs and Excise	148	155	165
Commerce	120	130	170
Industries	3,410	1,666	1,270
Justice	1,046	1,068	1,197
Prisons	1,000	1,040	1,183
Community Development	1,671	1,700	1,711
Public Works	3,850	6,000	7,793
Water Affairs	20,320	30,000	37,000
Forestry	110	102	39
Coloured, Rehoboth and Nama Relations	12,034	13,987	17,415
Part 2:			
SWA TRF	2,451	2,865	3,171
SW Finance Corp. Limited	5,280	6,000	7,470
Total Parts I and 2	170,927	190,296	207,266

*This represents a statutory transfer to the SWA Territory Fund in terms of the formulae prescribed in section 22 (2) (b) of the 1969 Act.

Source: Estimate of Expenditure, Republic of SA, Treasury.

NOTES ON TABLES A AND B

Revenue

The role of diamonds as the principal source of revenue is immediately apparant from the figures in Table I. Taking the income tax, profits tax and export duty together, tax from diamonds comprises 35%, 33%, and 43% respectively in each financial year of the total inland revenue and customs and excise collected under Part I. This gives an average of 37% over the three-year period. The percentages remain similar, with the addition of royalties payable to the SW Finance Corporation under Part 2, as a proportion of totals under Parts I and 2.

In contrast, revenue collected from other mining companies is low due to losses made by base-metal producers as a result of low copper prices combined with the generous capital write-off provisions, which enable companies to reduce taxable income over a period. Together with income from prospecting and claim licences, the proportion of the total under Part I derived from mining sources average 41% for the three-year period. Also a substantial portion of the undistributed profits tax and of customs and excise receipts represent mining profits and exports.

Expenditure

The four main categories of expenditure are Bantu Administration, Coloured Relations, Water Affairs and the Statutory transfer to the Revenue Fund of Namibia in Windhoek. The bulk of the expenditure under Bantu Administration is in respect of subsidies to 'homeland' governments, buildings and infrastructure for those areas, and under Coloured Relations in respect of development. The only substantial item that a future independent government in Namibia would seem likely to continue is the expenditure on Water Affairs, the largest amount being in respect of the Cunene hydro-electric scheme. Whereas much of the expenditure listed under the various ministry headings is of a recurrent nature, most of the expenditure on water projects is capital expenditure; in 1977/78, R27.6m out of the R37.0m total.

Although there is a net deficit of revenue compared to expenditure for each of the three years, this could be eliminated by the removal of the expenditure currently being made in respect of Bantu Administration, Coloured Relations, etc.

REVENUE AND EXPENDITURE ESTIMATES OF THE SOUTH WEST AFRICA ADMINISTRATION

TABLE C

Estimates of Revenue Collected/SWA Territory Revenue Fund

Revenue Head (Rm)	1974/75	1975/76	1976/77
Ordinary & Miscellaneous Revenue	95,676	89,788	96,163
Of which: Income Tax			
Individuals	8,500	12,000	17,000
Company*	1,900	2,228	2,605
Non-Resident Shareholders	N.A.	4,000	4,500
Licences (liquor/dogs/ fishing/boats/hunting/ vehicles)	2,000	2,095	2,106
Departmental Revenue (transfers from Republic/ education/hospital fees/ nature conservation/tourism	N.A.	10,647	14,615
Miscellaneous Revenue			
Contribution from the SWA Account of the SA Cons. Rev. Fd.	43,000	50,000	45,569
Proceeds on investments	N.A.	2,000	2,000
Sales Duty*	N.A.	5,000	4,940
Other	N.A.	448	723
Loan Recoveries	6,400	10,100	10,700
Total:	102,100	99,900	105,800

*Includes amounts received from SWA Account of the SA Consolidated Revenue Fund in terms of sections 22 (2) (c) and 22 (4a) of the SWA Affairs Act 1969.

Source: Estimate of Revenue presented to the SWA Legislative Assembly, 1975, 1976

Total real revenue on the SWA Territory Revenue Fund is less than the above total, since the transfer from the SA Consolidated Revenue Fund is appropriated from revenue collections by SA in Namibia (see table I).

	1974/75	1975/76	1976/77
Total real SWA Administration Revenue	59,100	49,900	60,231
Total SWA Account Revenue (table I)	133,300	133,710	136,380
Total Revenue in Namibia	192,400	183,610	196,611

TABLE D

Estimates of Expenditure from Territorial Revenue Fund and Territorial Development and Reserve Fund (TD & RF)

Territory Revenue Fund (Rm)	1974/75	1975/76	1976/77
Vote and Title			
Administration	N.A.	5,500	6,290
Legislative Assembly		196	210
Education		14,454	15,365
Works		5,677	5,955
Health		12,886	13,625
Roads		1,471	1,603
Nature Conservation		4,191	4,800
Transport		3,190	3,975
Pensions		2,639	2,690
Audit		216	253
Local Government		1,385	1,572
Supplimentary		475	591
Law Administration		566	440
Planning		180	200
Sub-Total	45,502	53,034	57,569
Appropriation to TD & RF	50,015	51,500	62,000
Total	95,517	104,534	119,569
TD & RF			
Government Buildings Acc.	N.A.	11,000	16,000
Roads Construction Acc.		29,000	34,500
Local Authorities		11,000	10,750
Surplus (Deficit)	6,593	(4,634)	(13,769)
Accumulated Surplus	21,500	16,900	6,100

Source: Estimate of Expenditure presented to the SWA Legislative Assembly.

APPENDIX ONE

Details of Mining Legislation

(A) The Mines, Works and Minerals Ordinance of 1968

Definitions

'Base mineral' means all minerals other than precious minerals;

'Coloured person' means a person who is not a white person or a Native person and who is generally accepted as a Coloured person, including a Burgher of the Rehoboth Gebeit, but not including anyone who although a Coloured person by descent is 'generally accepted' as a native;

'Mineral' means by substance, whether in solid, liquid or gaseous form, occurring naturally in or on the earth or bed of the sea and having been formed or subjected to a geological process, including sea bird guano, but excluding - water, soil, san, clay, gravel or stone (other than limestone or marble) if required for agricultural, building and industrial uses;

'Native' denotes a person who is a member of an aboriginal race or tribe of Africa or who is 'generally accepted' as such;

'Native reserve' means any land area in the territory mentioned in section 4 of the SWA Native Affairs Administration Act, No. 56 of 1954;

'Natural oil' means any liquid or solid hydrocarbon or combustable gas existing in a natural condition of the earth's crust, not including coal or bituminous shales or other stratified deposits from which oil can be obtained by destructive distillation;

'Owner' in relation to - (a) claims or mining areas, grant areas or works or machinery means any person who is the immediate holder or owner, including lessees; (b) private land, means the person in whose name the land is registered in the Deeds Registry, including lessees of land owned by the Administration; (c) the Rehoboth Gebeit means the magistrate of Rehoboth in his capacity of Kaptein of the Rehoboth Baster Community; (d) a Native reserve means the SA Bantu Trust;

'Precious minerals' means (a) the precious metals (gold, silver, platinum and irridium, the platinum group metals and ores, as well as slimes, concentrates, slag, tailings, residues or amalgam containing such metals); (b) precious stones (diamonds, rubies, emeralds and sapphires plus ores, concentrates, gravels or conglomerates); (c) any other metals or substances declared by the State President in the Government Gazette under the ordinance;

'Rehoboth Gebeit' denotes the territory referred to as the Gebeit in Proclamation No. 28 of the Administration in 1923 (confirming rights to land granted under the German administration);

'Source material' means source material as defined in Section 1 of the 1967 Atomic Energy Act (uranium, thorium and sunstances containing these elements in certain concentrates are designated source materials);

'SA Bantu Trust' means the SA Bantu Trust constituted by section 4 of the SA Bantu Trust and Land Act, No. 18 of 1936;

'White person' means a person who in appearance obviously is, or who is 'generally accepted' as a white person, not including anyone who although in appearance obviously white, is 'generally accepted' as a Coloured person.

Ownership and Control of Minerals

Ownership of all mineral resources is vested in the state without qualification. In terms of section 2 (1) of the ordinance, 'the right of prospecting and mining for and disposing of precious and base minerals in the Territory, including its territorial waters and continental shelf is vested in the Administration'. In respect of 'any 'Native reserve' the right of mining and prospecting for base minerals, excluding natural oil and source material, is vested in the South African Trust. The provisions of the ordinance respecting base minerals' does not effect the provisions of any other law relating to prospecting for, winning and disposing of source material'. No mining activity in precious or base minerals may be carried out without a prospecting licence, grant of an exclusive prospecting grant or mining right, title to a mining area or any other special right. A distinction is drawn between ownership rights to private land, and mining activities on private land, with no rights over minerals claimable by the land-owner.

The right to apply for prospecting licences and mining grants is limited to Europeans of 18 years or more, companies registered under the Companies Ordinance No. 19 of 1928, and foreign companies complying with the provisions of that ordinance. Section 63 of the ordinance provides that without a special permit issued on the instructions of the Minister of Mines, no person can prospect, peg claim or mine in any game park, the area beyond the Police Zone, falling outside the Rehoboth Gebeit, or a Native reserve.

The ordinance makes no provision for any participation by the state in mining ventures; within the provisions of the ordinance terms relating to mining concessions are individually negotiated with the administration. However section 86 makes provisions for the expropriation of rights - 'whenever it is necessary in the public interest for public purposes to expropriate either wholly or in part any prospecting and/or mining rights granted under this ordinance or any prior law, the Minister shall have the right to do so, on payment of compensation to be determined, in the absence of mutual agreement, by arbitration.

Producers of precious metals are required to sell these through a commercial bank of the territory and submit an assay certificate with price and quantity details to the mining commissioner (section 87) while no base or precious minerals can be exported, except in terms of an export licence issued by the mining commissioner, which is to be produced in the case of export by sea to the collector of customs at the port where the minerals are shipped (i.e. Walvis Bay).

Administration

The original provisions of the ordinance providing for the Mines Division of the Territory of South West Africa to supervise the mining industry and exercise all rights, powers and jurisdiction vested in the Administration, subject to the direction and authority of the Administrator through the Secretary of the Territory, were entirely replaced by the 1969 amendment act, to wit: 'The Department (of Mines) shall, subject to the directions of the Minister, through the Secretary of Mines of the Republic of South

Africa supervise and control all the functions and duties vested in the Department by this ordinance or any other law in regard to minerals, mines, works or machinery in force in the Territory'. The Minister appoints a Chief Inspector of Mines, with general supervision of mines and works; inspectors of mines and works; and a mining commissioner.

With regard to the registration of mining rights, the Schedule of the Mining Titles Registration Proclamation of 1969, provided for the establishment as of 1 April 1969 of a Mining Titles Office in Windhoek in which are registered all documents relating to rights granted or acquired under the 1968 ordinance or any other laws relating to mines or minerals.

The Office is under the control of a Registrar of Mining Titles appointed by the Minister of Mines, with powers and functions conferred by the Proclamation and also in respect of the registrar of deeds, with responsibility for the registration of land ownership deeds in the Deeds Registry Office.

Prospecting Rights

Prospecting under the authority of a prospecting licence can be carried out in that portion of the territory within the Police Zone, except for areas closed by legislation. No prospecting or claim pegging can be carried out in respect of towns, land reserved for public purposes, or land withdrawn from prospecting/pegging except with the written permission of the mining commissioner, or in respect of private land under cultivation, or near to buildings without the written permission of the land owner.

A prospecting licence is issued for a period of one year, and allows a prospector to peg claims in all parts of the territory available for exploratory activities, with the exclusive right to prospect for minerals on claims registered in his name, to transfer claims to another party with a valid licence.

No mining is to be carried out on any land until the land is pegged off, registered as a claim, and in the case of private land, until the claim holder has a written agreement with the landowner on compensation terms, and has a permit authorising mining from the mining commissioner. There is no limit to the number of claims that may be pegged in the area of a prospecting licence, however quadruple fees are levied against claims not converted to mining areas within two years of pegging. Claim fees at the rate of two rands per claim per month were payable at the office of the mining commissioner as of 1968 until the claim lapses or until a mining area fee becomes payable.

Exclusive Prospecting Right

Section 60 of the ordinance provides for the granting by the Minister of Mines to the holder of a prospecting licence, the exclusive right to prospect for any particular mineral(s), for a given period. The Minister may add any mineral(s) to the exclusive right to prospect, and the rights are embodied in a deed of grant, signed by the Minister and styled a prospecting grant and registered in the Mining Titles Office in a 'prospecting grant register'. The rights cannot be ceded, leased or transferred without the consent of the Minister of Mines.

Exclusive Mining Right

Section 61 of the ordinance also provides for the obtaining of an exclusive right to mine minerals by every holder of an exclusive prospecting grant, in respect of the grant area, on the discovery of a workable deposit, provided sufficient financial resources can be shown to be available. The right to mine is embodied in a deed of grant, styled a

mining grant, registered in the grants register of the Mining Titles Office. Every mining grant so obtained continues until the mineral(s) involved have become exhausted, or for the period prescribed in the grant.

Mining Areas

The holder of a prospecting claim is able to apply at any time for a mining title over his claim in respect of any base/precious minerals existing in payable quantities, and the conversion of his claim into a mining area or areas by a deed of conversion. If the proposed area is situated on private land, no mining operations can begin until a written agreement providing the landowner with compensation in respect of the use of land has been entered into, lodged with the mining commissioner, and a permit is issued by the latter.

The owner of a mining area has the exclusive right to prospect for, mine and dispose of all minerals specified in the deed of conversion.

The shape, size and dimensions of the mining area are the same as for the prior existing claim. Every owner is obliged to begin regular mining operations within a period of two years from the date of the deed of conversion; the duration of the mining area right is not prescribed by the ordinance.

To convert a claim to a mining area, the claim holder has the obligation to obtain confirmation of his title to the claims to be converted; to survey, demarcate and prepare a diagram of the area; to publicise the conversion at his own expense and have objections heard by the mining commissioner, and to register the conversion in accordance with the law relating to the registration of mining titles in the Mining Titles Office.

Private land owners have rights to compensation and security in respect of operations by a prospector of mine-owner. Disputes between landowners and mining owners over their respective rights are referred to a board of adjudicators by the mining commissioner. Section 70 provides for the compulsory purchase of farming land, by mine owners on the direction of the Minister of Minės, if it appears that farming and mining cannot both be carried on simultaneously.

Mining rights lapse if the exclusive right to mine in a given grant area is terminated, or abandoned; of the mining area is abandoned by the owner. Mining areas are forfeited if the owner defaults in respect of mining area fees, or by virtue of any forfeiture notice published by the mining commissioner in the Government Gazette.

The general tenor of the provisions of the 1968 ordinance is in general more regulatory than the 1967 mining act in South Africa. Specifically there is no provision for the holding of mineral rights by private individuals and companies in respect of private land as is the case in the Republic. Until the change in the regulations relating to prospecting, foreign companies could only obtain a 50% participation in any mining and prospecting grant. In order to boost the amount of foreign capital invested in the Namibian mining industry, overseas mining companies have since been able to obtain up to 75% of any prospecting grant, and only need take on 'local' participation when the mining stage is reached, and an operating company needs to be registered.

(B) Diamonds: Diamond Industry Protection Proclamation, 1939

In addition to the provisions relating to the prospecting and mining of precious stones under the 1968 ordinance, this proclamation, (amended by Proclamation R.88 of 1969) provides for the 'regulation, control, development and protection of the diamond industry of South West Africa'.

Section 1 lists definitions of 'Claim' 'Claimholder' 'Diamonds' 'Tax' etc.

Section 3 of the proclamation defined the constitution and functions of the Diamond Board, set up in 1921, as a corporate body with perpetual succession. Its members are the Administrator (since 1977 the Administrator-General) and producers in the ratio of either 1:2 out of 3, or 2:3 out of 5; its functions are to supervise all agreements relating to production, quotas and sales, including the valuation and delivery of diamonds from producers to purchasers. This provides a direct government role in diamond production and a Namibian government will have the right to appoint its own representative to the board.

The stipulations with regard to diamond production and trading are extremely comprehensive. Every producer, must deliver all diamond production to the Board if required; no person other than the Board has the right to export diamonds, and the export of diamonds is entirely at its discretion. Only the Administration has the right to sell or dispose of diamonds found and won in Namibia and the Administration is authorised to market all diamonds. Any other form of sales are void and of no effect.

In the event of any contravention of these provisions, the diamonds in question are forfeited to the Administration, and if they cannot be seized physically, their value is recovered by the necessary court action. Any sale of diamonds not produced by the seller are also forfeit to the Administration. Wide powers are provided to magistrates and the police to seize uncut diamonds believed to be sold in contravention of the Board's authority, and the Board has the right to order the search of claimholder's property.

The proclamation also delineates the areas of the prohibited diamond areas, Diamond Area No. 1 and Diamond Area No. 2, in which all entry is illegal unless under a permit issued by the Board or under authority of the Administrator. Section 25 states that no 'Native or Coloured person' is allowed within the areas except in the bona fide employment of a claimholder; that they cannot leave the area save in the company of a European, and that if found in a working area without a permit may be arrested on sight.

(C) Uranium: South African Atomic Energy Act, 1967

This act provides the South African Government with overall control of uranium mining and production. Section 2 of the act vests the sole right to produce nuclear or atomic energy in the state, and provides for the control of processing, enrichment, reprocessing, possession and disposal of source material. Any substance containing uranium in excess of the equivalent of 0.006% U_3O_8 is 'prescribed material' and its export is controlled.

Supervisory powers are exercised by the Atomic Energy Board, which was established under the 1948 Atomic Energy Act, and whose functions and powers were redefined by the 1967 act.

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e also stringent secrecy provisions in the act,
whic the main reason that precise information relating
to the Rossing mine and other uranium developments in
Namibia cannot be made available by the companies concerned.

Section 30 of the act reads:

'No person shall, without the consent in writing of the Atomic Energy Board, in consultation with the Minister if deemed necessary, communicate, transmit, or make known to any person, whether in or outside the Republic, or use, any information in regard to reserves of ores containing any source material or the annual output of such material or ores by any person or the price paid to any person in respect of such mayerial or ores or any investment or research, or any discovery or invention relating to processing, reprocessing, enrichment or the use of any source material or special nuclear material or nuclear or atomic energy, or any such investment or research financed wholly or partly by the Board of the State, or relating to prospecting or mining for or treatment of ores containing source material'.

Significantly, in view of the discovery of the Rossing deposits, this act provided for immediate application of its provisions to Namibia, which had not been so with the 1948 act. In contrast to the laws relating to diamonds, which were promulgated by the Administration of the territory, and provide for a regulatory board in Namibia, the effect of the 1967 act was to assign control of Namibia's uranium industry to South Africa.

(D) Precious Metals: Unwrought Precious Metals Proclamation, 1938.

The proclamation continues in force, amended in respect of certain nomenclature terms by Proclamation R.87 of 1969. It provides for the 'better control' of unwrought precious metals. These are defined as in the 1968 ordinance, 'unwrought' meaning unmanufactured precious metals in any form, or any substance containing precious metal.

Section 2 of the proclamation limits the issuing of a licence to deal in precious metal by the Secretary of Mines to any European who produces a certificate of fitness. No person is authorised to deal, buy or sell precious metals unless the holder of a licence, or a banker, or in possession of such metals won from a registered mining area or claim.

(E) Petroleum Legislation

There is no specific legislation on petroleum, and the conditions for petroleum exploration concessions are negotiated on an *ad hoc* basis, generally following the guidelines of the 1968 ordinance in respect of prospecting terms etc. Exploration rights are granted for a period of 18 months, in the form of lease areas from SOEKOR, the Southern Oil Exploration Corporation. Exploration must commence within 9 months of the issuing of the right; if oil is discovered the holder of the rights may convert part of the exploration company into a mining area, or transfer his rights to an approved company. (US Department of the Interior, Survey of Mining and Petroleum Laws of the World, 4. Africa, P.162).

CHRONOLOGY OF MINERALS LEGISLATION

a) 1885-1915 German period

1905	Imperial Mining Decree provides for freedom of prospecting.
1906-1914	Decree put into force against opposition of concession cos.
1909	Diamenten Regie set up to control diamond marketing.
1912	Diamond taxation ordinance.

b) 1915-1969 First South African period

1915-1919	Arrangements made for payments of diamond taxation to SA Governor-General.
1919 September	Report of government commission to investigate position of mining companies in the territory.
September 20	Treaty of Peace and SWA Mandate Act No. 49 of 1919, provided for application to Namibia of SA land acts, and that no titles, rights or interests in state land be granted without the authority of the SA parliament.
December	Proclamation 23 of 1919, mining royalties and all payments formerly payable to concession companies vested in the SWA Administration.
	Proclamation 24 of 1919, amendment of certain provisions of IMD of 1905.
1920 January	Whole country opened for prospecting.
March	Crown land disposal Proclamation No. 13 of 1920, provided for extension of provisions of Crown Land Disposal ordinance of 1903 (Transvaal). Africans deprived of right to own land except in 'reserved' areas-former German 'Crown' land becomes 'State' land.
November	Mining law amendement Proclamation No. 59 of 1920, special rights of concession companies cancelled.
1921	Diamond Board Establishment Proclamation No. 4 of 1921, vested in the SWA Administration former powers exercised by 'Diamenten Regie'.

1925	SWA Constitution Act, Proclamation No. 42 of 1925, control of mining industry placed in hands of SA Administrator and excluded from powers of SWA Legislative Assembly, Mining Authority created.
1928	Prohibited Areas Proclamation 26 of 1928, delineates the 'red line' marking the boundary between the 'Police Zone' and 'northern native and extra-territorial reserves'.
1932	Mining Rights (SWA) Act No. 26 of 1932, amended the Mandate Act of 1919 so as to validate all rights and titles held in terms of the IMD of 1905 and provided for the extension of its provisions to the port and settlement of Walvis Bay.
1938	Dealing in Unwrought Precious Metal Proclamation No. 5 of 1938.
1939	Diamond Industry Protection Proclamation No. 17 of 1939.
1949	SWA Constitution Amendment Act No. 23 of 1949, Mines Division for SWA set up, Administrator henceforward exercises responsibility for mining with the SWA Executive Committee.
1952	Report of commission of enquiry into mining legislation in the territory.
1954	Mines Works and Minerals ordinance No. 26 of 1954, established powers and functions of Mines Division, first systematic mining law. Distinction between rights of mine owner and land owner.
1968	Mines Works and Minerals ordinance No. 20 of 1968, repeal of 1954 ordinance. Redefines powers of the Mines Division, provides for the Administration, via the Secretary of the Territory to supervise and control the mining industry and exercise all rights, powers and jurisdiction vested in the SWA Administration.

c) <u>1969 - Second South African period</u>

1969 March	SWA Affairs Act No. 25 of 1969, 'mining and matters relating to minerals' transferred to the SA Dept. of Mines in Pretoria.
April	Amendment of the Dealing in Unwrought Precious Metals Proclamation, R87 of 1969.
	Amendment of the Diamond Industry Protection Proclamation, R88 of 1969.
	Amendment of the Mines Works and Minerals Ordinance, R89 of 1969.

	Mining Titles Registration Proclamation, R90 of 1969, provides for the establishment of a Mining Titles Office for registration of all documents relating to rights granted under the 1968 ordinance.
1972	Mines Works and Minerals in SWA Amendment Act No. 47 of 1972.
1975	SWA Diamond Industry Protection Act No. 3 of 1975, provides for exclusion of certain land by Minister of Mines from Diamond Areas I and 2.

d) <u>SA laws applicable to Namibia</u>

1964	Strategic Minerals Resources Development Act No. 88 of 1964 as amended by Act 14 of 1974, state funds for strategic minerals.
1967	Atomic Energy Act No. 90 of 1967 as amended provides for state control of all matters relating to uranium production.

APPENDIX TWO

Fiscal Provisions - licence fees, royalties and taxes

(A) Licence fees and rentals

A series of payments for the various grants obtainable were specified in the ordinance of 1968.

Prospecting licence:	a fee of R25 a year is payable by the prospector for every licence issued (section 20).
Claims:	a claimholder must pay R2 per claim per month until the claim either lapses or is converted into a mining area. Quadruple fees are levied in respect of claims not so converted after two years. (Section 30).
Withdrawal fee:	In respect of an area withdrawn from pegging for a six-month period, a withdrawal fee is payable on the calculation of R2 per month for every 1000 hectares withdrawn. (Section 17).
Mining areas:	Every owner of a mining area pays a fee at the rate of R2 per hectare or part of a hectare a year, to be paid six months in advance. (Section 47).
Exclusive Prospecting Right:	section 60 (2) of the ordinance merely provides for the payment by the holder of such grant of a rental determined by the Minister of Mines.
Exclusive Mining Right:	the mining grant provides for the payment by the holder of such grant to the Administration, in addition to taxation, or any share of profits as may be provided for in the mining grant, a rental determined by the Minister of Mines. (Section 60 (4)).

The absence of any set percentage or fixed amount for rental dues is characteristic of the ordinance, where the majority of fiscal provisions appear to be determined on an individual basis between the Minister of Mines and the companies concerned.

In general, surface fees and rentals are of a minor significance, and tend to be set at levels regarded as reflecting the surface value of the land for alternative uses. However the power of the Minister of Mines to fix rentals in respect of exclusive mining rights is significant, since in certain cases (e.g. in respect of precious stones, uranium) they could be substantial and assume the nature of a royalty payment.

(B) Royalties

A mineral royalty can be described as the charge levied by the owner of the mineral rights for the alienation of the orebody, involving various methods of payments by mining companies for the permission to extract, process and dispose of minerals. It can also be viewed as a compensation to the government for the exhaustion of a national asset, and therefore, ideally should be fixed at some figure relating to the value of the value of the minerals as they

lie in the ground.[1/] In general royalties in Namibia have usually been set at a low level, in order to encourage foreign investment, with mining activity viewed as a welcome activity to 'open-up' the country's resources.

The German legislation had provided for the payment of an extraction tax on output, but this had disappeared by the time of the consolidation of mining laws in 1954. Provision for the payment of all fees and royalties to the SA Administration, was as has been noted before, one of the main concerns in the transition period of the early mandate days. An output royalty was provided for under the 1920's legislation, and in the absence of information to the contrary it can be assumed that this is still in force, although the rate may have been altered.

In 1928, a special booklet prepared by the Administrator for the Wembley Exhibition of that year to publicise the advantages of investment in Namibia stated:

'To obtain full beneficial occupation, prospecting claims must be converted into mining areas. Claims can be converted at any time; the mine owner must pay a claims tax, and an output royalty of 2% of the value of the minerals before treatment'. (SWA: Its Possibilities).

This type of formulae forms part of the framework of arrangements in force in several African mineral producers. The South African Mining Rights Act of 1967, provides for the payment on every lease granted of a royalty or a percentage of profits derived from the operation, to be determined on an individual basis by the Minister of Mines, on the recommendation of the Leases Board. The Leases Board does not operate in respect of mining grants in Namibia, and no similar body has been set up in Namibia. Instead, payments were determined until 1969 by the Administrator, and since then they have been set by the South African Minister of Mines.

(C) Income Tax

For all mineral mines, exepting diamond, tax rates are the same as those levied in respect of commercial enterprises. Total tax charges are set out in the Income Tax Act of 1962 of the Republic, as amended, whose provisions have been made fully applicable to Namibia, with certain local variations in terms of the Income Tax Ordinance of 1961 (mainly relating to allowances). Tax charges include as well as 'normal' income tax (basic tax, surcharge and compulsory loan levy), a non-resident shareholders' tax, an undistributed profits tax and a non-residents tax on income.

Act 90 of 1969 repealed the SWA Companies Ordinance of 1928 and all companies registered in Namibia are regarded as having been registered in terms of the 1926 Companies Act of South Africa. All companies registered since 1969 have been registered in terms of the 1926 Act. In terms of Act 89 of 1969 all companies operating in the territory are taxed by the South African receiver of revenue in terms of the Income Tax Act of 1962.

Normal Tax

The rate of normal tax payable on taxable profits of companies (excluding dividends) is 35%. In addition there is a 7.5% tax surcharge on non-dividend income, and a 15% loan levy, a compulsory loan to the South African Government at a 5% simple interest rate, repayable within a period of seven years as determined by the Minister of

Finance. (The percentages of the latter apply to the normal tax take and not to the whole of taxable income). This gives a total tax take of 42.9%, which is considerably lower than for companies in South Africa, where the basic tax rate is 40%, giving a total tax take of 49%. This provides theoretically for revenues from both royalties and income tax around 48-50% compared to 55-57% in respect of South Africa.

In practice, actual tax paid as a percentage of profit may-be lower due to the application of the capital allowances. Namibia's largest base metal producer, the Tsumeb Corporation, according to figures provided by AMAX the effective rate of tax paid by Tsumeb over the ten-year period 1963-1972 was 36%. More recent figures available from Newmont show an effective rate of tax for 1973 of 32%, and for 1974, of 35%. This is on average about 7-9% below the theoretical tax take, and it may be assumed that a similar pattern will hold for all Namibia's major producers, with the rate reduced in relation to exceptional levels of capital expenditure for new mines such as Rossing and the Otjihase copper mine.

Non-resident shareholders' tax

A rate of 12½% is charged on dividends declared since March 1967 in respect of dividends payable (a) to shareholders not resident in South Africa; (b) to a non-South African Company; or (c) to companies managed and controlled in Namibia. This latter provision represents an official recognition of the high proportion of foreign non-resident ownership of companies operating in Namibia.

Undistributed profits tax

Rate of 33 1/3% is charged on the 'distributable balance' determined for any year of assessment (amount by which 'distributable income' of a company exceeds income actually distributed by it, less deductions in respect of normal tax and all prospecting investments. Tax-exempt companies include subsidiaries in which 75% of the issued capital is owned by mining companies, which are 'specially assessed companies', and non-South African companies where not more than 50% of total net profits were earned within South Africa and Namibia (i.e. most of the trans-national mining companies operating in Namibia).

Non-Residents tax on income

A rate of 10% is charged on interest accruing in favour of a person not ordinarily resident in the Republic or Namibia, and any amount of interest accruing on a company registered outside both countries, if the person liable is ordinarily resident or carries on business in Namibia (on or after 1 April, 1969).

Exempt income includes dividends received by or accruing in favour of non-residents dividend, and residents dividends for non-South African company shares. These exemptions account for the capital outflow from Namibia in the form of dividends from foreign-owned mining companies, which is one of the causes of the discrepency between territorial product and national income noted in section II.

Allowances

Sections 36/37 of the Income Tax Act provide for substantial capital and redemption allowances in respect of mining expenditure. Capital costs can be written down against operating profits, and this continues until operations have produced a sufficiency of profit to pay tax on the remainder of the mining life of the deposit. Thus tax liability only arises when all pre-production financing costs have been paid-off. In respect of Namibia, there is a special three-year write-off concession granted to all foreign-owned mining companies.

These allowances are in lieu of other allowances otherwise granted in respect of wear and tear, and for new and unused machinery or plant brought into use, for which 25% of the total cost may be deducted for tax purposes in a machinery initial allowance. Other deductions include expenditure in respect of prospecting activities for which a mining lease has not been granted. In respect of base mineral processing, a 20% benefication allowance against the cost of new machinery and plant, plus 15% on the cost of buildings used in the benefication process is allowable. Benefication here means the process by which a base mineral is refined to produce 'an intermediate product' whose value is substantially greater than that of the unprocessed mineral. These allowances are also granted in respect of an additional process on top of normal mining operations, or in respect of extensive extra capacity designed for export.

A series of special arrangements for companies in Namibia were provided for in the 1976/77 application of the Income Tax Act, relating to the introduction of the PAYE tax system during 1975. A company's 'transition period' was defined as the first year of assessment ending during the 12 months ending 31 December 1975. The 'SWA Territorial Amount' (i.e. the taxable income) for any year of assessment, was defined as the amount that would have been determined as the taxable income derived in Namibia if the company had not been entitled to deductions or to set off any balance of assessed loss, and in the case of a company not managed or controlled in Namibia, any amount not derived by it from operations established in Namibia on a permanent basis, unless a similar amount had been derived from a Namibian source in the year of assessment prior to the company's 'transition period'.[2]

In the absence of systematic data, the effects of these provisions cannot be accurately determined. But the principal result seems to have been to procure something of a tax-holiday for companies operating in Namibia during 1975. The De Beers annual report for 1975, reported that although on the basis of sales, profits in 1975 should have been 5% lower than for 1974, in fact they increased by R19m to R221m, because the introduction of the pay-as-you-earn tax collection system resulted in a non-recurring benefit of R29.6m, which reduced the overall tax provision. Another company, Marine Products Limited, which has extensive fishing interests, and a 10% equity stake in the Klein Aub copper mine, summarised the position in its 1975 annual report:

'Companies deriving income from within South West Africa were not formerly required to pay provisional tax and may qualify for deductions from income in the period of transition from the position where tax was paid say ten months after the financial year to one where tax becomes payable at six-monthly intervals while it is being earned. SWA subsidiaries so qualify, and practically the whole of their 1975 income will be tax-free. Tax of R257,000 is payable on taxable income which would otherwise have attracted tax of R2,960,000'.

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1/ See Brown. R., and Faber. M., Mining Agreements, Law and Policy, Commonwealth Secretariat, 1977, Ps 30-4, P. 79.

2/ This summary is based on the information contained in the South African Blue Book for 1976/1977, the section on income tax.

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