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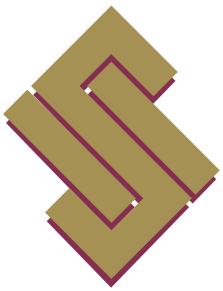



# ASSESSING THE POTENTIAL OF THE MANUFACTURING SECTOR IN NAMIBIA

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**List of Acronyms**

| | |
|---|---|
| AGOA | Africa Growth and Opportunity Act |
| AIDS | Acquired Immune Deficiency Syndrome |
| BoN | Bank of Namibia |
| CBS | Central Bureau of Statistics |
| CSIR | Council for Scientific and Industrial Research |
| DTI | Department of Trade and Industry |
| ECB | Electricity Control Board |
| EDB | Economic Development Board |
| EPZ | Export Processing Zone |
| ESKOM | Electricity Supply Commission |
| ETSIP | Education and Training Sector Improvement Programme |
| EU | European Union |
| FDI | Foreign Direct Investment |
| FIAS | Foreign Investment Advisory Services |
| GDP | Gross Domestic Product |
| IDA | Industrial Development Agency |
| IDC | Industrial Development Corporation |
| ISCOR | Iron and Steel Corporation |
| KWh | Kilowatt Hour |
| MIDP | Motor Industry Development Programme |
| MIGA | Multilateral Investment Guarantee Agency |
| MTI | Ministry of Trade and Industry |
| NDP2 | National Development Plan 2 |
| NIC | Namibia Investment Centre |
| ODC | Offshore Development Company |
| OECD | Organisation for Economic Cooperation and Development |
| SACU | Southern African Customs Union |
| SADC | Southern African Development Community |
| SDI | Spatial Development Initiative |
| SIP | Strategic Investment Projects |
| SME | Small Medium Enterprises |
| SSA | Sub-Saharan Africa |
| TEO | The Enterprise Organisation |
| UHT | Long life shelf milk |
| UK | United Kingdom |
| US | United States |
| USA | United States of America |
| VAT | Value Added Tax |
| WTO | World Trade Organisation |

## Executive Summary

This paper attempts to evaluate the potential of the manufacturing sector of Namibia. In so doing, it has identified and assessed potential (current and future) manufactured products which could enhance the economic growth rate of this sector in the country with a view to achieving the goals of Vision 2030. The study has further identified factors which constrain the growth of the manufacturing sector in Namibia and suggests possible policy options.

1. It has been established that the country has a number of manufactured products which have potential for expansion. The key existing products identified are: paint, tiles and slabs, tables, beds, cupboard, school and office furniture, kitchenware, beer, carbonated water and soft drinks, steel windows and door frames, polished diamonds, hand-woven carpets, field shoes, textiles and clothing, as well as salt (coarse, fine, rock and table) amongst others items.

2. There are a number of possible markets to which the existing products that are currently being produced although not at their optimal levels, could be exported. These markets include: the SADC, the EU, the US, Australia, as well as East Asia.

3. The country has the potential of engaging in the production of other manufactured products which are currently not being produced. These products entail: swimming pools salts, bathing salts, leisure garments (i.e. hanging shirts and T-shirts), pencils, desks and chairs as well as cassava planting for fuel production. It is encouraging to note that the country has ventured into producing pineapples and intend to can them and produce pineapple juice.

4. The Manufacturing sector of Namibia is faced with a number of constraints. The major constraints mentioned by survey respondents were mainly; the cost of electricity, high transport and port charges, unfair competition from well-established South African manufacturers, the availability of cattle for local slaughtering and processing, tense labour relations, especially in the fishing sector, and the HIV/AIDS pandemic and its severe impact on labour productivity. The sector was also faced by problems relating to the access and cost of technology, as well as the availability of skilled labour.

5. There is an acknowledgement amongst manufacturers of the role which the Government plays in terms of promoting manufactured products overseas. Manufacturers believe that the Government should make a concerted effort to explore and market Namibian products in the Asian market. This is especially of relevance to the leather goods industry.

6. The case studies of countries such as South Africa, Ireland and Singapore, reveal four major policy lessons for Namibia. Firstly, all these countries have designed and implemented clear industrial policies and strategies for promoting their manufacturing sectors. Secondly, these countries have identified and targeted specific sub-sectors within their broader manufacturing sectors. The Irish manufacturing strategy has for example, targeted chemicals, electronics, electrical and telecommunication equipments as some sub-sectors. Thirdly, the use of taxation as a policy instrument in promoting industrial development is a

common feature of all the industrial policies in the countries chosen for the case study. The importance of well managed and effective institutions also emerges as a common feature from all these countries which were reviewed.

7. Related to these findings, the paper recommends that the Ministry of Education, in collaboration with the Ministry of Labour and Social Welfare as well as the National Planning Commission should formulate and implement a policy which is geared towards training the required number of qualified and skilled artisans, technicians, engineers, researchers and business managers for Namibia. The implementation of the Education and Training Sector Improvement Programme (ETSIP) will go a long way in strengthening the supply of skilled labour to meet the labour market demands in the economy. The Ministry of Home Affairs should also facilitate the importation of special skills which are critical for the efficient and effective operation of the private sector. This will help in terms of filling the shortcoming of skills in the private sector. It is important that mechanisms are established to ensure the effective transfer of skills to local workers.

8. The Ministry of Agriculture, Water and Forestry in collaboration with representative bodies such as the Meat Board, should ensure the implementation of policy measures which are targeted at the local value addition for the livestock industry (i.e. both cattle and small stock). The paper also recommends that such policy measures should be accompanied by an adequate infrastructural development i.e. feedlots. Other valued added activities such as the Hoodia plant and the Devil's claw should also be promoted by the Ministries of Trade and Industry and Agriculture.

9. The Ministry of Trade and Industry and other relevant stakeholders such as the private sector should devise a manufacturing strategy for Namibia centred on the existing and potential sub-sectors which are identified to be important for the industrialisation process of Namibia. A number of studies have identified several key sub-sectors with potential in the manufacturing sector namely; food processing and other agro-industries; leather and leather products; textiles and clothing; wood and wood products; the production of construction materials, such as cement; paper products and stationery. A sub-sector which needs a closer examination is that of leather and leather products. This sub-sector offers a great potential in terms of the products which could be produced such as shoes, handbags, belts, furniture for houses and interior fittings for cars. A key issue which should be addressed by both the Government and the private sector is capacity building in the sub-sector (i.e. both managerial and technical capacity). The manufacturing strategy for Namibia must thoroughly examine all the sub-sectors and should have clear action plans for their implementation, as well as proper monitoring and evaluation mechanisms for all the sub-sectors, to yield desirable results. The strategy must take into consideration the findings of the Commonwealth Study on the Development of Clusters of Small Enterprises and Cottage Units.

10. The Ministry of Trade and Industry should play a facilitating role with regard to the entry of Namibian products into foreign markets. The role of the MTI is expected to be in the areas of organising trade missions and exhibitions, as well as the negotiation of preferential international trade agreements with possible markets within the context of the SACU.

11. The Ministry of Trade and Industry should create awareness amongst Namibian manufacturers of the existence and possible usage of article 26 of the SACU 2002 Agreement on infant industry protection. This may assist the country with the protection of strategic industries of national importance and enable these industries to compete with well-established industries within the customs union and beyond.

12. The Ministry of Trade and Industry should further strengthen the capacity of the Directorates tasked with the promotion and conduct of research in the manufacturing sector of the country. It is particularly important that the census of manufacturing establishments be conducted every 5 years by the Directorate of Industrial Development as required by the policy. The census results provide valuable statistics required for industrial planning and policy formulation, and their implementation. The coordination of the research and policy efforts need to be encouraged between the different private and public sector institutions involved in the manufacturing sector, to create a combined force and eliminate a duplication of efforts.

## 1. Introduction

One of the most significant problems facing African economies remains the difficulty of increasing the share of the manufacturing output within the overall national output. The manufacturing sector is generally characterized by a small capacity and a lack of significant investment which prevents large scale production from meeting the international demand for manufactured goods. Africa needs to achieve higher growth rates in the medium and long run. This will require an increase in investment and address issues related to human development, particularly HIV/AIDS.

In Namibia, manufacturing[1] is conducted within the framework of the industrial development policy and is therefore guided by clear principles. The main principles of the industrial policy of the country include equality, the reduction of poverty and increased growth through product and market diversification. The policy furthermore gives preference to the promotion of small and medium-scale businesses in recognition of their capacity to create jobs. This policy framework is guided by broader national documents such as the National Development Plan 2 and Vision 2030 which suggest that the contribution of the manufacturing sector should grow significantly, in order to achieve the objectives of the national development policy.

Since Independence, Namibia has had a limited industrial development and continues to import most of the manufactured products, mainly from South Africa. This is evidenced by the limited range of manufactured products which the country is able to export. In addition, the sector is characterized by structural weaknesses and the operational constraints of high input costs such as those of electricity and transport.

Manufacturing has an unusually low share in the national output, employment and exports of Namibia compared with countries such as Singapore, South Africa and Ireland. In Namibia the manufacturing sector accounted for an average of 10.3 percent of the GDP for the period 1995-2005, 8 percent of total employment in 2001, and 34.8 percent of exports for the period 1995-2005. In the case of South Africa, this sector accounted for an average of 17.4 percent of its GDP for the period 1998-2004, 9.0 percent of employment and 40 percent of its total exports. In Singapore, this sector accounted for 27 percent of its GDP in 2005, 25 percent of its total employment and more than 50 percent of its exports. The case study country with a significant manufacturing sector is Ireland where the manufacturing sector accounted for 46 percent of the GDP, 29 percent of employment and 80 percent of its total exports.

In addition to the relatively low share of manufacturing in the GDP, employment and exports, the growth of the manufacturing sector output in Namibia has been relatively low, registering an average growth rate of 2.9 percent for the period 1995 -2005. This rate of growth is not sufficient to achieve the national development goals as set out in Vision 2030 in which the Namibian economy is expected to achieve an annual GDP growth rate of around 7 percent.

1 Manufacturing is defined as an economic activity which entail the physical or chemical transformation of materials or components into new products, whether the work is performed by power driven machines or by hand, whether it is done in a factory or workers' home or whether the products are sold wholesale or retail, for further details see, "Ministry of Trade and Industry: Guidelines for the Inspection of Possible Manufacturing Companies, undated, *mimeo"*.

Against this backdrop, the main objective of this study is, therefore, to identify and assess potential (current and future) products within the sector which could be growth enhancing, with a view to suggest possible policy options of increasing the manufacturing output in order to achieve the goals of Vision 2030. The study will also identify factors which constrain the growth of the manufacturing sector in Namibia and suggest possible policy options in this regard.

The remainder of the paper is organized as follows: Section 2 reviews the literature, while section 3 discusses the Namibian manufacturing sector. Section 4 provides an analysis of the survey design and results, while section 5 discusses strategies and measures adopted in other countries to increase their manufacturing output. Section 6 derives lessons for Namibia from the experiences of other countries. Policy recommendations are given in section 7, while section 8 concludes the report.

# 2. Literature Review

## 2.1 Theoretical literature

The theories about the potential of the manufacturing sector to increase the growth of the economy indicate that the sector has a significant potential to stimulate economic growth. It is argued that growth in the manufacturing sector is attributable to a high productivity of labour, capital, and enhanced technology. Productivity refers to the relationship between production of the output and all the resource inputs used in accomplishing the assigned task. In an attempt to respond to the global competition and remain competitive, manufacturing companies have in fact made concerted efforts to capitalise on intellectual properties and the core competence available within the enterprises. An enterprise with a workforce that may exhibits a willingness to learn and develop skills through cumulative production experience, would be able to achieve a substantive improvement in productivity. According to Pilat (1994), high productivity of factors of production could increase manufacturing output considerably. This increase in productivity in the sector is attributed to the effort of manufacturing concerns to respond to the diversified consumer needs and the acquisition of technology.

Kaldor (1966, 67, 68) in his theory on manufacturing output argued that the growth of the GDP was positively related to the growth of the manufacturing output, not simply in a definable sense (because manufacturing is part of GDP) but in a fundamental causal sense related to the production characteristics of the manufacturing activity. He further argued that as the economy developed, there was a shift of the labour force from the agricultural sector to the manufacturing sector which led to an increased productivity in both sectors. Similarly, Hirschman (1958) argued that the manufacturing sector was superior in its linkage effects and stimulus to economic growth vis-à-vis the agricultural and the service sectors.

Schonberger (1986) and de Ron (1997) stressed that the principles of world class manufacturing required technological innovations and the identification of manufactured products which could impact on the GDP growth. Technological innovations referred to the increased use of machinery in the production process in the work place to produce goods and services.

## 2.2 Empirical literature

Empirically, a number of studies have examined the potential of the manufacturing sector in relation to the growth of the economy. Solow (1956) using the growth accounting model in Hong Kong, Korea, Singapore and Taiwan (Four Tigers) found that the accumulation of capital and the increase in the labour force participation rate had a relatively minor effect, whereas technological progress instead accounted for most of the growth in output per capita. Further studies have reconfirmed the validity of these conclusions. This shows that the economies of these “four tigers” have succeeded because they have learned to use technology faster and more efficiently in their manufacturing sectors than their competitors.

Similarly, a study by Kim and Lau (1994), comparing manufacturing as a source of economic growth in Germany, France, Japan, the UK and the US vis-à-vis the Four

Asian Tigers showed that the most important source of economic growth in the Four Asian Tigers was capital accumulation, accounting for between 48 and 72 percent of their economic growth. This was in contrast to the group of the five industrialised countries, in which technical progress has played the most important role, accounting for between 46 and 71 percent of their economic growth.

In addition to this using, the extrapolation method in the Four Tigers, Sarel (1997) showed that it was not only the technological progress which was important for the growth of the manufacturing sector, but also the accumulation of capital and labour productivity. He concluded that although the manufacturing sectors of these economies accumulated capital and increased labour more quickly than others, growth in productivity due to technological innovation also accounted for a significant portion of their income.

Evidence from the empirical literature indicated that it was crucial to identify products in order to increase the manufacturing output of the country. In this regard, Mbendi (2000) identified leading manufactured products of South Africa to include motor vehicles, chemicals, metals, electronics, textiles, clothing and footwear, agro-processing, diamond processing, cement, sugar, processed food, machinery and mechanical appliances. Empirical analyses showed that through these products and many others which were not identified as leading products, the country had been able to increase the growth of its manufacturing sector and therefore the growth of the economy. Important products also varied from one economy to another, depending on resource endowment, capacity, skills and technological advancement.

In an effort to diversify its economy, the Government of Lesotho had furthermore identified various manufactured products, particularly clothing, textiles, leather goods and footwear amongst others. A number of products which were also expected to stimulate the contribution of the sector to economic growth and development had been identified in the *Export Diversification Study*[2] which entailed among others items, electronics, furniture, bricks and stones, medication, car parts and diamonds.

In Namibia, a study by Zaaruka and Namakalu (2002) identified mainly metals and agro-based products to have the potential to diversify the non-traditional export basket of the country and therefore contribute to the growth of the output of the manufacturing sector in the country. Namibia could also consider other products such as mushrooms, cotton for the textile industry and explore the possibility of using its sea weed for medical laboratories, human food and animal food supplements[3].

In summary, the evidence from both the theoretical and empirical literature emphasizes technological advancement as being important in the growth of the manufacturing sector. Evidence also showed that the accumulation of capital and the productivity of both capital and labour were crucial to accelerate the growth of manufacturing activities in the economy. In the same vein, the identification of products which would lead the growth of the manufacturing sector might have substantial impact on the economy.

[2] For further details, please see Sandrey, R. et al (2005), Lesotho: Potential export Diversification Study, Trade Law Centre for Southern Africa, July 2005.

[3] New Era, March 1, 2006, Namibia Seaweed Another Economic Avenue, Windhoek, Namibia.

# 3. Namibian Manufacturing Sector

## 3.1 Overview of the manufacturing sector in Namibia

Activities in the manufacturing sector in Namibia have to a great extent been concentrated in the food sub-sector which has accounted for an average of 44.8 percent of the total manufacturing output during the period 1995-2005 (Table 1). The second largest sub-sector within manufacturing included sub-sectors such as textiles and leather goods; wood; paper and printing; chemicals and plastics; non-metallic minerals; basic metals; fabricated metals and machinery and equipment. The fish processing sub-sector has also represented a significant share of the manufacturing sector in the country, accounting for an average of 20.0 percent of the sector, while meat processing is the smallest contributor to the sector with a share of 5.8 percent. There was evidence of linkages between the economic sectors of Namibia and the manufacturing sector through inputs being generated from the agricultural (i.e. meat for processing, milk for dairy products) and the fishing (i.e. fish for processing) sectors in particular.

In addition to the above products, Namibia has also ventured into the production of value added products such as textiles and clothing, the polishing and processing of diamonds, as well as the refining of copper and zinc. This new area of the manufacturing sector of the country has created the strongly desired backward and forward linkages within the Namibian economy, particularly with the mining sector.

**Table 1: Composition of manufactured products (in percent)**

| Years | Meat Processing | Fish Processing | Food and Beverages | Other Manufacturing* | Total Manufacturing |
|---|---|---|---|---|---|
| 1995 | 8.4 | 26.7 | 36.9 | 28.0 | 100.0 |
| 1996 | 11.1 | 11.4 | 48.2 | 29.2 | 100.0 |
| 1997 | 7.0 | 17.0 | 46.8 | 29.2 | 100.0 |
| 1998 | 6.4 | 26.6 | 44.7 | 22.3 | 100.0 |
| 1999 | 6.7 | 21.7 | 48.9 | 22.7 | 100.0 |
| 2000 | 5.1 | 23.1 | 46.0 | 25.8 | 100.0 |
| 2001 | 5.5 | 19.0 | 46.7 | 28.9 | 100.0 |
| 2002 | 4.3 | 21.3 | 45.8 | 28.6 | 100.0 |
| 2003 | 3.6 | 22.6 | 42.6 | 31.1 | 100.0 |
| 2004 | 3.2 | 18.8 | 42.3 | 35.9 | 100.0 |
| 2005 | 3.0 | 11.5 | 43.7 | 41.8 | 100.0 |
| 2006 | 2.5 | 15.3 | 47.2 | 73.0 | 100.0 |
| ***Average*** | ***5.8*** | ***20.0*** | ***44.8*** | ***29.4*** | ***100.0*** |

Source: CBS, National Accounts

*Other Manufacturing refers to textiles and clothing, diamond, zinc and copper processing, respectively.

Table 2 indicates that the food sub-sector registered the highest average growth rate of 5.9 percent within the manufacturing sector and was followed by the Other Manufacturing sub-sector with an average growth rate of 4.2 percent for the period 1995-2005.

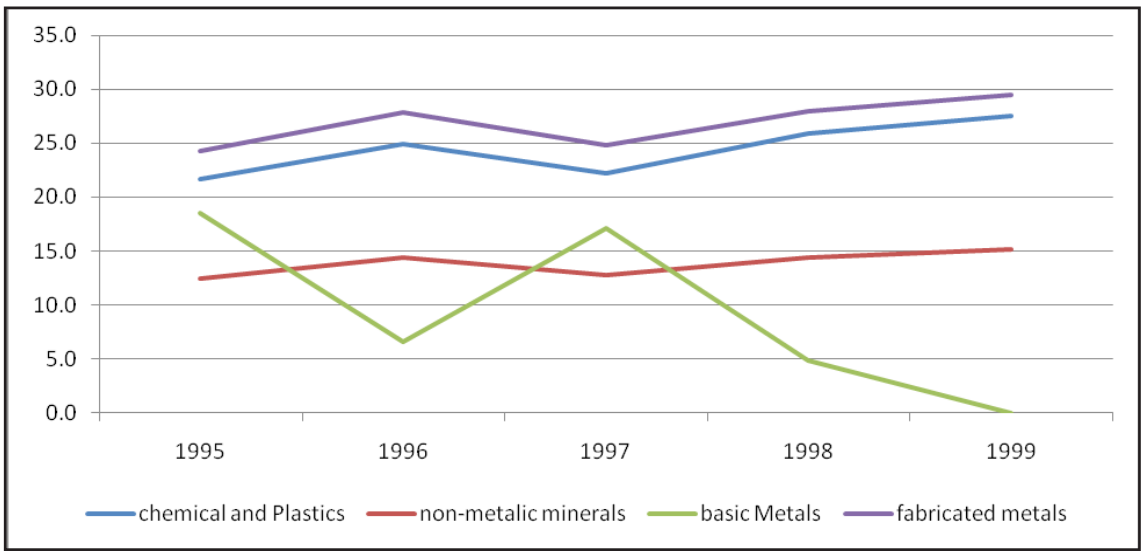
**Table 2: Growth of manufacturing sub-sectors, annual percentage changes, constant 1995 Prices**

| | Meat Processing | Fish Processing | Food Products | Other Manufacturing | Total Manufacturing |
|---|---|---|---|---|---|
| 1995 | -0.9 | -14.4 | 9.0 | -1.4 | -1.9 |
| 1996 | 3.6 | -64.4 | 8.7 | -9.0 | -16.2 |
| 1997 | -28.3 | 88.8 | 11.5 | 17.6 | 18.0 |
| 1998 | 8.0 | 35.7 | 10.9 | -10.0 | 8.9 |
| 1999 | 12.6 | -21.1 | 4.7 | -7.5 | -3.7 |
| 2000 | -9.7 | -14.2 | 1.9 | 24.9 | 3.6 |
| 2001 | 6.4 | -15.3 | 4.4 | 18.3 | 5.5 |
| 2002 | 2.1 | -10.1 | 8.3 | 20.5 | 9.6 |
| 2003 | -11.6 | 51.1 | -0.3 | 2.6 | 5.2 |
| 2004 | -8.6 | -3.0 | 1.4 | 9.2 | 3.0 |
| 2005 | 7.7 | -4.7 | 5.0 | 0.3 | 2.1 |
| 2006 | -11.2 | -36.9 | 4.9 | -15.4 | -8.6 |
| ***Average*** | -2.5 | -0.7 | 5.9 | 4.2 | 2.1 |

Source: CBS, National Accounts

An analysis of the composition of the sub-sector Other Manufacturing shows that within the sub-sector, the highest contributor is the Fabricated Metal Category, accounting for (23.1 percent) on an average for the period 1995-2006, followed by chemicals and plastics,( 20.8 percent), basic metals, (19.5 percent) and non-metallic minerals, (11.5 percent), respectively for the same period.

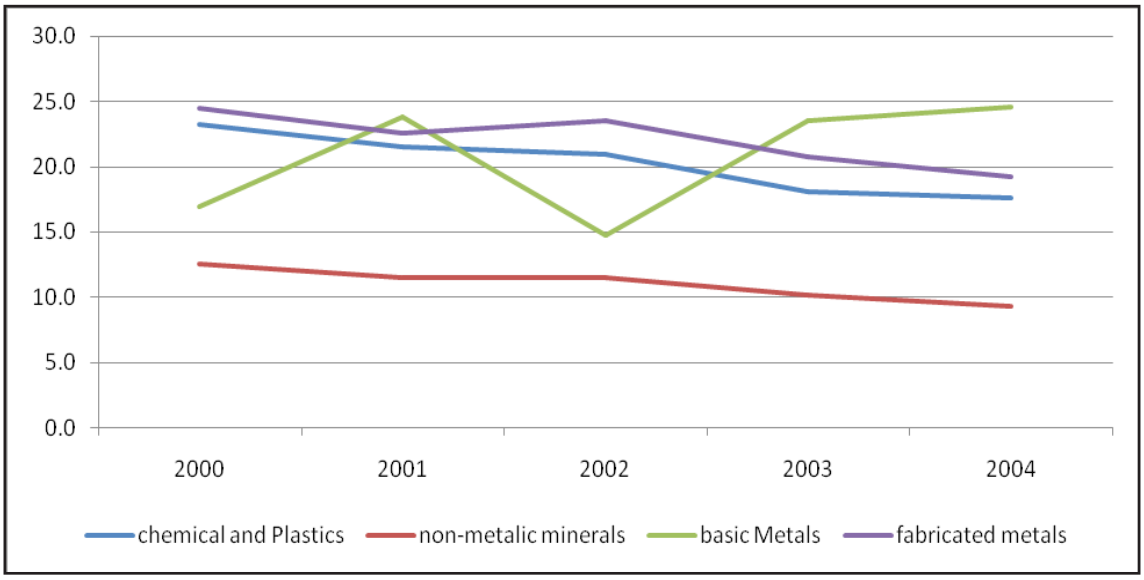
**Figure 1: Composition of Other Manufacturing (percent)**




Source: CBS, National Accounts

Figure 1 illustrates the composition of Other Manufacturing for the sub-period 1995-1999. On an average during this sub-period, the highest contributor was the Fabricated Metal Group with an average of 26.9 percent. It was followed by the Chemical and Plastics Group which accounted for about 24.4 percent of Other Manufacturing and then the non-metallic minerals (13.8 percent) as well as basic metals (9.4 percent).

**Figure 2: Composition of other manufacturing (percent)**



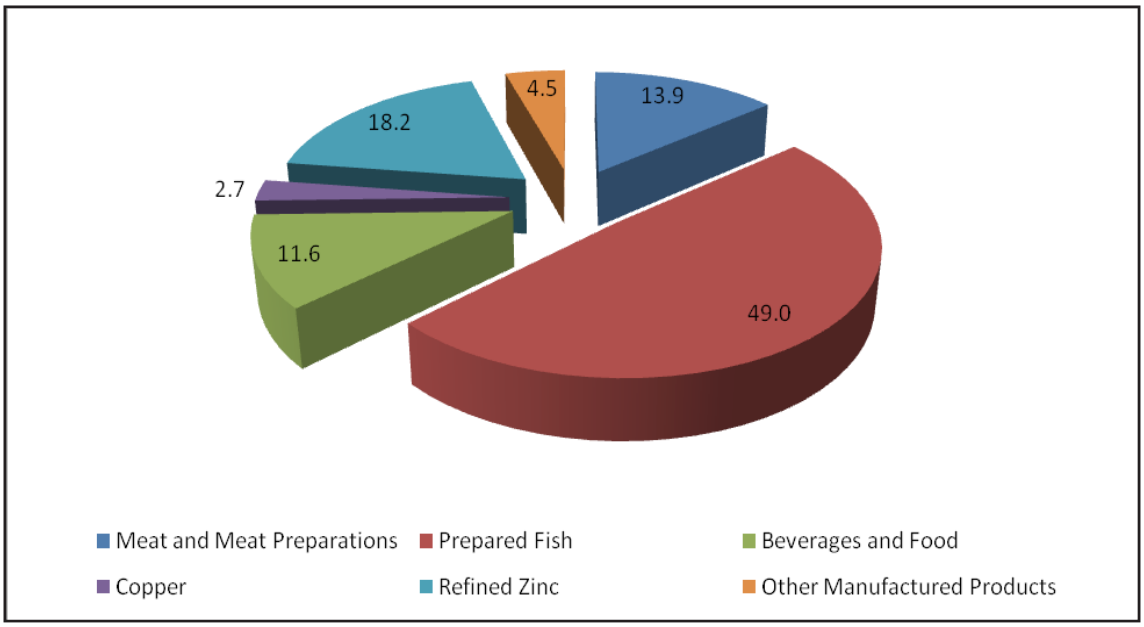

Source: CBS, National Accounts

It is evident from figure 2 that the Group Basic Metal has bypassed the fabricated metals as well as the chemicals and plastics as the highest contributor to the category Other Manufacturing. This could be mainly explained by the intensive efforts to process copper and zinc in Namibia. The processing of these minerals was not taking place on a large-scale in Namibia prior to 1999.

The composition of the manufactured exports of Namibia is shown in Figure 3 for 1995. It is evident that, the basket of manufactured exports of Namibia closely mirrors the key manufactured products namely: processed fish; food and beverages, as well as processed meat. It is imperative however, to note that refined zinc, and other manufactured products which mainly consist of textiles and clothing, as well as diamond cutting and polishing, is gathering momentum, as manufactured products for export. This could be partly attributed to Government efforts aimed at the value addition to the mineral wealth of the country.

Figure 3 illustrates the percentage share of various manufactured products in the total manufactured goods exports in 1995.

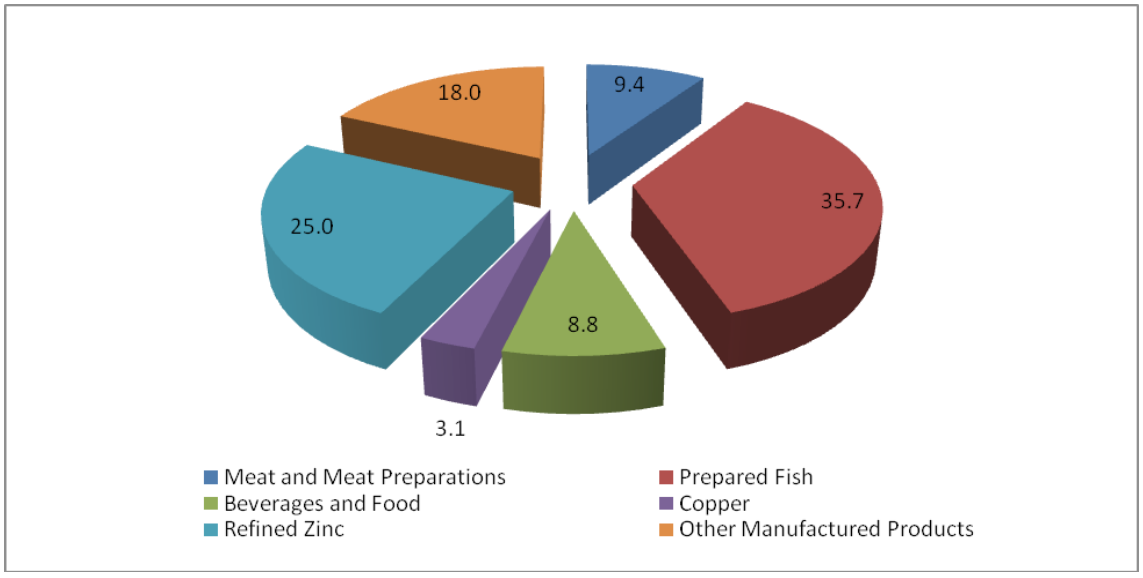
**Figure 3: Composition of Manufactured Exports (percent), 1995**




Source: CBS, National Accounts

Figure 4 depicts the composition of the manufactured exports of the country in 2006. The data shows that the export basket has not yet been fully diversified between the two periods (i.e. 1995-2005). Nevertheless, the share of prepared fish in the basket of manufactured exports has declined from 49.0. percent to 35.7 percent. This implies that there has been a significant structural shift in the composition of the manufactured export basket of Namibia. It is further encouraging to note that the contribution of refined zinc (25 percent) to the manufactured export basket of the country has been increasing steadily.

**Figure 4: Composition of Manufactured Exports (percent), 2006**




Source: CBS, National Accounts

In terms of its contribution to employment, manufacturing is the second largest productive sector employer in the country, after agriculture. Table 3 depicts the sectoral composition of employment in selected sectors of the Namibian economy for the year 2004.

**Table 3: Number of people employed in selected economic sectors**

| Economic Sector | Number of people employed |
|---|---|
| Agriculture* | 102,636 |
| Manufacturing | 23,755 |
| Fishing | 12,720 |
| Mining and Quarrying | 7,563 |
| Tourism | 13,132 |

Source: Ministry of Labour, Labour Force Survey (2004) *Agricultural sector employment also includes underemployment.

Table 4 indicates that in terms of the sub-sectors, contributions to manufacturing employment, the Food and Beverages Sub-sector is the major employer, followed by clothing, dressing and dyeing of the Fur Sub-sector, other Non-metallic Products and then the Basic Metal Sub-sectors.

**Table 4: Number of people employed per manufacturing sub-sector**

| Sub-sector | Number of Employees |
|---|---|
| Food Products & Beverages | 13,262 |
| Textiles | 699 |
| Clothing, Dressing and Dyeing of Fur | 10,483 |
| Paper & Paper Products | 458 |
| Publishing, Printing & Reproduction of Recorded Media | 592 |
| Chemicals & Chemical Products | 538 |
| Rubber & Plastic Products | 507 |
| Other non-Metallic Products | 1,484 |
| Basic Metals | 1,469 |
| Fabricated Metal Products, Except Machinery & Equipment | 1,210 |
| Furniture, Manufacturing | 1,149 |

Source: Report on the Survey of Manufacturing Industries, Ministry of Trade and Industry, 2003

## 3.2 Efforts aimed at increasing the manufacturing output

### 3.2.1 Industrial Policy Framework

The White Paper on Industrial Development in Namibia was formulated in 1992. This policy framework provides the parameters in which industrial development, including manufacturing activities take place in Namibia. The objectives of this policy are to increase manufacturing value added, by stimulating productivity and increase exports. The policy further aims to diversify and integrate the economy through the accelerated growth of the industrial sector, to generate productive employment opportunities and increase income opportunities for Namibians.

The policy framework has achieved the establishment of the Export Processing Zones (EPZ) at Walvis Bay and Oshikango. It should, however, be mentioned that there are EPZ companies operating in other parts of the country. The policy framework has also enabled the Government to put in place incentives for manufacturers and exporters, aimed at encouraging manufacturing and the export of valued added products. In addition, through the policy framework, industrial parks have been established in Windhoek, Ongwediva, Outapi and Nkurenkuru. A combination of industrial parks and SME modules were established also at Ondangwa, and Katima Mulilo. Furthermore, SME modules were also established in Gobabis, Rundu, Eenhana, Ohangwena, Otjinene, Karibib, Mariental, Keetmanshop and Luderitz through the same policy. A multipurpose centre was set up at Otjiwarongo and a business centre at Opuwo. In addition, a Government manufacturing facility was also set up at Ovitoto.

#### 3.2.1.1 Export Processing Zones (EPZs)

The Namibian tax free EPZ regime got off the ground effectively in 1996, after the proclamation of the Export Processing Zones Act (Act No. 9 of 1995) in 1995 and its amendment in 1996 (Act No. 6, of 1996). Key objectives of the regime included: (i) attraction, promotion or an increase of the manufacture of export goods; (ii) the creation or increase of industrial employment; (iii) the creation or expansion of export earnings; (iv) the creation or expansion of industrial investment, including foreign investment; and (v) the encouragement of technological transfers and the development of management and labour skills in Namibia. Since the inception of the EPZ regime in Namibia, the country has attracted a significant interest of both the local and international investment communities. This was because the EPZ regime has been regarded as a vehicle for the export led industrialisation of the Namibian economy. The incentive package it provides is wide-ranging and very competitive. Since its inception, entrepreneurs from around the world have applied for participation in the regime. Some of the foreign sources of investment in the Namibian EPZ regime are China, the USA, Britain, Germany, India, Canada, and South Africa, amongst others.

Companies which have been granted an EPZ status can set up operations anywhere in the country. In addition, there are specially developed industrial parks where they can enjoy the same advantages. Through the Offshore Development Company, the EPZ enterprises also have access to factory facilities which are leased at reasonable rates. An EPZ enterprise may choose to become either an independent factory located anywhere in Namibia, or an enterprise within an industrial park or estate run by a management company. These parks are located in towns such as Walvis Bay, Oshikango and Katima Mulilo. EPZ enterprises

are engaged in diverse economic activities such as the manufacturing of acrylic products, the manufacturing of car parts, the rebuilding and reconditioning of motor vehicles, the polishing of diamonds, electric and electronic components, the refining of zinc, tanning of leather, clothing, kitchenware, teddy bears, candles, copper processing and internet related services. There are no restrictions on the development of the industrial sector. Any form of manufacturing or value-added process is eligible, provided it is focused on exports outside the Southern African Customs Union (SACU).

#### 3.2.1.2 Manufacturing Incentives

The Government of Namibia introduced incentives for manufacturing enterprises in 1993. The incentives offered to manufacturing concerns take two key forms, namely; tax incentives provided for, under the Income Tax Act (Act No.24 of 1981) as amended by Acts No.10 of 1993, No.17 of 1994, and No.12 of 1996 on the one hand. On the other hand, there are also non-tax incentives offered to manufacturing enterprises. Tax and non-tax incentives apply equally to local and foreign companies registered as manufacturers and are provided for both existing and potential entrepreneurs operating in the manufacturing sector. The key objective for providing incentives to registered manufacturers[4] is to give Namibian based entrepreneurs who invest in the manufacture and export of these goods, a competitive edge. Table 5 summarises the set of incentives offered to manufacturers and exporters of manufactured goods in Namibia.

**Table 5: Incentives for manufacturers and exporters in Namibia**

| | Manufacturers | Exporters of Manufactured goods |
|---|---|---|
| Corporate tax | Set at 18 percent for 10 years, where after it reverts to 35 percent. | 80 percent income tax allowance on income derived from exporting manufactured goods produced in Namibia or not. |
| Value Added Tax (VAT) | Purchase of machinery and equipment is exempted | Normal treatment of 35 percent. |
| Stamp and transfer duty | Normal treatment | Normal treatment |
| Establishment tax package | Negotiable rates and terms by a special tax package. | Not eligible. |
| Special building allowance | Factory buildings written off at 20 percent in the first year and the balance at 8 percent over 10 years. | Not eligible. |
| Transportation allowance | Allowance for land-based transportation by rail/road of 25 percent deducted from total cost. | Not eligible. |
| Export promotion allowance | Deduction of 25 percent from taxable income. | |
| Incentive for training | Deduction from taxable income of between 25 percent and 75 percent. | Not eligible. |
| Industrial studies | Available at 50 percent of actual cost. | Not eligible. |
| Cash grants | Covers 50 percent of cost of approved export promotion activities. | Not eligible. |

Source: Ministry of Trade and Industry

[4] A company seeking the status of a registered manufacturer should contact the Namibia Investment Centre or the Industrial Development Directorate in the Ministry of Trade and Industry, which processes applications and make recommendations to the Ministry of Finance.

The total number of companies which have benefited from the incentives for manufacturers and exporters amounts to 104 between 1993 and 2004 representing 27 percent of the total number of 384 manufacturing establishments in Namibia[5]. These companies are engaged in various economic activities within the manufacturing sector which entail, the manufacturing of items such as chrome, aluminium, fish meal, fish oil processing, pharmaceuticals, bricks and interlocks, plastic bottles, books and plastic papers amongst others. The companies which benefit from the incentives scheme must apply to the Ministry of Trade and Industry, while final approval lies with the Ministry of Finance. It is therefore, expected that revenue consideration plays a crucial role in approving the manufacturing status of a given company.

#### 3.2.1.3 Industrial Parks[6]

To facilitate the growth and development of manufacturing activities in Namibia, a plan was formulated in 1995 for the development of industrial parks and small and medium enterprise (SME) modules on a number of sites in the country. A plan was launched to purchase land and buildings (premises) in order to provide industrial facilities for either lease or sale to both domestic and foreign investors and local entrepreneurs. Thus far, industrial parks have been constructed at the following centres in Namibia: Khorixas, Omuthiya, Opuwo, Otjiwarongo, Ovitoto, Ondangwa, and Windhoek, respectively.

#### 3.2.1.4 SME manufacturing[7]

The Namibian SME Policy document entitled: “Namibia: Policy and Programme on Small Business Development” was formulated by the Ministry of Trade and Industry in 1996 and was adopted by the Cabinet in 1997. This policy document places an emphasis on the role of SME manufacturing and thus calls for the expansion and diversification of the sector.

It has been argued in the policy that: “along with the EPZ programme, the SME sector will take a lead in our drive towards greater beneficiation and value addition to Namibian raw materials”. It is further stated that: “given the nature of our raw material endowment, the limited size of the domestic market and the structure of our industries, the greatest opportunities for growth in Namibia lie in the small business sector and manufacturing of niche products for export”. Consequently, manufacturing will be supported by means of access to finance and markets, as well as business advisory services, SME modules, common facility centres and vendor development programmes.

In addition, the policy makes reference to diversifying activities away from low value-added, crowded activities, such as hawking or catering and emphasises the importance of demonstrating commitment to manufacturing, crafts, trades and other industrial businesses and the increase of their representation amongst SMEs to 30 percent.

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5 According to a nationwide Survey conducted by the Ministry of Trade and Industry titled: “Report on the Survey of Manufacturing Industries, 2003”, there are 384 manufacturing companies operating in the 13 regions of Namibia.

6 Industrial parks are carefully planned and self-contained industrial environments, with emphasis on high quality but affordable industrial premises.

7 The SMEs Policy document is being reviewed by the Ministry of Trade and Industry.

# 4. Survey Design and Analysis of the Results

## 4.1 Design of the field survey

This section provides a detailed analysis of the survey results. The survey was conducted during the period June-July 2006 in Windhoek, Arandis, Swakopmund and Walvis Bay. Companies operating in the various activities of the manufacturing sector of Namibia such as beer brewing, maize milling, the production of windows and door frames, marble and granite processing, salt processing, the production of leather goods (shoes, handbags, belts, leather jackets, cellular phone pouches, wallets and pouches), the production of industrial and domestic laundry washing powders as well as cleaning products, were interviewed by means of an administered questionnaire.

Other companies which manufacture packaging materials and cans for various industries (i.e. fishing, dairy, wholesalers, retailers), joinery, woodwork and the manufacture of tables, beds, cupboards, school and office furniture, steel processing ( manufacture of marking machines and marking heads), the production of sweets, the production of paints, the manufacture of beauty products (hair products, body lotions from local oontanga, petroleum jelly), the manufacture of dairy products (milk, cheese, yogurt), hand woven carpets made of wool, diamond cutting and polishing, meat processing and packaging, fish processing, and the maintenance and repair of earthmoving equipment, were also interviewed.

The criteria used to select the companies interviewed, involved geographic location and the nature of economic activities. The focus of the study was to interview major companies in the sector. In this regard, a sample of 40 major manufacturing companies was identified countrywide, of which 26 participated in survey. In addition, relevant institutions which dealt with the manufacturing sector namely, Small and Medium Enterprises Compete (SMEs Compete), the Namibian Manufacturers Association (NMA), the Ministry of Trade and Industry, the Namibia Chamber of Commerce and Industry (NCCI) and the Offshore Development Company (ODC), were also interviewed to solicit their views on the manufacturing sector of the country.

A questionnaire (see appendix G) was administered to the companies interviewed. The objectives of the questionnaire were amongst others to; (i) identify key existing and potential markets for manufactured products (ii) discover factors constraining the growth potential of the manufacturing sector in Namibia (iii) examine the role of the Government and (iv) identify manufactured products in which Namibia had a comparative advantage in producing and exporting. It is worth mentioning that the cooperation of most companies with the research team was commendable in providing and sharing data. Data obtained from the field survey was complemented by secondary sources.

It should be noted that this study has faced a number of limitations the most notable of which were; lack of literature on the manufacturing sector of the country, including literature on the current policy on manufacturing. The availability of quality data at the firm level and lack of resources to cover the whole country, were challenges which confronted the paper.

## 4.2 Markets and prices of Namibian manufactured products

The Namibian manufactured products are marketed; locally, regionally and internationally. Table 6 summarises the information on current products and current markets for products manufactured in Namibia.

The Namibian beer has gained a reputation in different markets such as, Angola, Botswana, Mozambique, Kenya, the UK and South Africa. There are also other products which Namibia could export on a large scale, given the available markets. Such products entail tiles and slabs, dairy products, maize meal and hand-woven carpets amongst others.

**Table 6: Markets for Manufactured Products**

| Key Existing Products | Current Markets | Future Markets |
|---|---|---|
| Paint | Namibia, Angola | Zambia, DRC |
| Tiles, slabs, monuments, grave stones | Namibia, Angola, Italy, France, Germany | SADC, USA, UK, Spain |
| Tables, Beds, Cupboards, School and Office furniture, Counters, kitchenware | Namibia, Angola | Not indicated |
| Beer, carbonated soft drinks, schnapps | Angola, Namibia, South Africa, Germany, UK | Botswana, Mozambique, Kenya, Tanzania, Zambia, Zimbabwe |
| Meat packaging | Namibia, EU, South Africa | Not indicated |
| Marking machines and numbering heads | Germany, Namibia | Not indicated |
| Dairy products, mineral water, fruit juices | Namibia, Angola, Botswana | SADC countries |
| Steel windows and steel door frames, aluminium windows and door frames | Namibia, Angola | Not indicated |
| Maize Meal, Hoodia | Namibia, Angola | Zambia, EU, USA, China, Canada |
| Polished diamonds | EU, USA, Asia and Hong Kong | Not indicated |
| Automotive and washing machines parts | Germany, | South Africa |
| Hand woven carpets, carpet rugs, wall hangings | Namibia, Germany, | Canada, England |
| Field shoes | Namibia, South Africa | Not indicated |
| Textiles and clothing | South Africa, Namibia, USA | Australia, EU, SADC |
| Tin cans, packaging materials | Namibia's fishing industry | Angola |
| Salt (coarse, fine, table, rock) | Angola, Botswana, DRC, Namibia, South Africa, Zambia, Zimbabwe, Ghana, Sierra Leone, Nigeria | Not indicated |

Source: Survey, 2006

### 4.3 Potential products and markets

Depending on the products which the businesses produce, local markets which are available entail shops and supermarkets (wholesalers and retailers, dealers), butcheries, abattoirs, public institutions (schools, hospitals) Government stores, the fishing industry, the construction industry, the mining industry, the agricultural sector, the motor vehicle and garage sub-sector, the beer brewing and soft drink industries, the tourism industry etc. The fact that local manufacturers sell their products to various industries is a good indicator of the linkages that exist between the manufacturing sector and other sectors of the Namibian economy.

**Table 7: Products and potential markets**

| Potential Products | Potential Markets |
|---|---|
| Plates, pencils, handicrafts, desks chairs | Namibia, Angola, EU |
| Large-scale production of tiles, marbles, granite, karakul pelts | Namibia, EU, USA |
| Mineral water bottles, fences | Namibia, Angola |
| Swimming pool salts, bathing salts | Namibia, SADC |
| Large-scale production of hides and skins, leather goods | EU, East Asia and Namibia |
| Processing of Devil's Claw | Germany and France |
| Cassava planting for fuel production | Namibia |
| Metal products and auto components, unique wood, palm and clay | Namibia, EU, USA, East Asia |
| Readymade fish meals | Namibia, EU |
| Further mineral beneficiation (copper, processed diamonds, zinc and energy manufactured items from uranium) | Namibia, South Africa |
| Leisure garments (hanging shirts and T-shirts), inner pads for jackets, large –scale production of hand woven carpets | EU, Namibia |

Source: Survey, 2006 and Commonwealth Secretariat, 2005

It is encouraging to note from the survey results that Namibian producers are determined to produce new products such swimming pools salts, bathing salts, leisure garments (i.e. hanging shirts and T-shirts), readymade fish meals, and the large-scale production of hides and skins as well as other leather goods. Moreover, apart from the local market, they have indicated a number of possible markets (Table 7) to which these products could be exported such as the SADC, the EU, the USA and East Asia. The variety of markets identified will enable producers to diversify their risk portfolio in the export process, provided that they have access to the identified markets. Manufacturers should ensure that their products meet the high quality standards to qualify for entry into the international markets.

Producers interviewed indicated that they were getting fair prices for their products locally, regionally and internationally. This was mainly attributed to the outstanding quality of products manufactured in Namibia. Some of the producers were however, of the opinion that Namibian products found it highly difficult to compete with products from well established South African manufacturers which were imported into the local market given the SACU arrangement and their relatively lower prices. South African producers were able to deliver low priced products because they had economies of scale advantage and, were therefore, able to produce at a low unit cost compared with Namibian producers.

### 4.4 Factors constraining growth potential of manufacturing sector

A number of factors which limited the growth of the Namibian manufacturing sector had been identified by the industry and entailed the following: small domestic markets; expensive input costs, especially in electricity[8]; transport and high harbour charges; the access and cost of technology; unfair competition from well-established South African businesses[9]; the availability of cattle or "throughput" for local slaughtering; the HIV/AIDS pandemic; tense labour relations, particularly in the fishing industry; and the low level of labour productivity within various sub-sectors of the manufacturing sector.

In addition, other constraints identified included: the high investment cost of machinery and equipment, a lack of shelf space for Namibian products in the local supermarkets, a low level of branding or marketing of Namibian products, a lack of skills; the tender regulations and Government procurement policies which gave preference to low cost offers irrespective of whether the tenderer was a foreign or local company; access to raw materials/inputs into the production process; accessibility and the cost of capital especially for SME manufacturers; the limited sizes of business premises; the low demand for locally produced products; market accessibility of local products in local markets; and relatively high tax rates for manufacturers[10]. It goes without saying that in some of the manufacturing industries, the country lacked access to international best practices in terms of the methods of production. The above constraints have been identified, in spite of Government policy efforts aimed at developing and nurturing the manufacturing sector in the country.

### 4.5 The role of the Government in the Manufacturing sector

There is an acknowledgement in the manufacturing industry that the Government has done well in marketing Namibian products overseas, but it is felt that concerted efforts should be made to explore the Asian market, particularly for the sale of leather products.

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8 Energy costs in Namibia were particularly cited to be much higher vis-à-vis energy costs in South Africa. According to a study conducted by Emcon Consulting Group for the Namibia Manufacturers Association in 2004, the average cost per kilowatt hour in Namibia is between 57 percent and 69 percent higher than in RSA (20 to 30 c/kWh average).

9 For most of the companies interviewed, it is a challenge to reach the economies scale that South African producers have attained and compete effectively with imported products (mainly) from RSA at this stage.

8 For example in Botswana, the Government charges a flat tax rate for manufacturers of 15 percent compared to Namibia's tax rate of 18 percent for 10 years and 35 percent thereafter.

Despite its acknowledged role, the Government is expected to play an important task, especially in negotiating trade agreements with the rest of the world. This could facilitate tariff preferences for Namibian products in international markets. Manufacturers should also expect the Government to create opportunities to market their products through participation in international trade exhibitions (i.e. trade fairs) and related international trade missions. It goes without saying that the Government is expected to promote industrial products both in the local market and overseas so that these markets gain confidence in products manufactured in Namibia. Efforts aimed at promoting the consumption of Namibian products, such as Team Namibia, are steps in the right direction.

In addition to this the Government, is expected to create a favourable environment in which manufacturers could operate efficiently and effectively. Issues which the Government could consider in this regard include: the relaxation of tender regulations (to make it easier for local companies to obtain Government tenders;) and specifications (i.e. specify tender regulations by taking into consideration the situation of Namibian companies), tax concessions for manufacturers (i.e. proposals were made by the industry to introduce a lower tax rate for manufacturers along the lines of Botswana, where manufacturers pays a special rate of 15 percent). If a lower tax rate for manufacturers was introduced, the Government would have to remove the incentives for manufacturers and exporters, given the fact that a lower corporate tax rate for manufacturers would be an incentive for the industry.

## 5. Experiences from other countries[11]

This chapter draws lessons on the measures to increase the manufacturing output from three different countries in three different continents namely; South Africa in Africa, Ireland in Europe and Singapore in Asia. South Africa was selected as one of the case study countries because it was endowed with natural resources such as gold and diamonds, thus making its economic conditions analogous with those of the Namibian economy. The two countries share a similar socio-economic and political history, characterized by long periods of isolation from active participation in the global economy.

The case study of Ireland was selected because the country was one of the successful recent industrial countries in Europe[12]. In addition, Ireland was a small island economy endowed with natural resources such as mineral resources which included large quantities of lead, gypsum, limestone and zinc, as well as significant exploitable reserves of natural gas and was the neighbour of an economic giant, the United Kingdom (UK). This implied that some of the economic features of Ireland were compatible with those of the Namibian economy, particularly the natural resource endowment and the fact that Namibia was a small open economy which shared geographical borders with the largest economy in Africa (i.e. South Africa).

Although it was imperative that case study countries should naturally possess the characteristic features of Namibia, it was also of importance that countries with different economic characteristics should be used as case studies. This was because it would support Namibia in establishing how fortunate it was given the natural resources endowment at its disposal. As a result, Singapore, an island with no natural resource base and a lack of land had been selected for this reason[13]. The lessons of the 3 case studies showed the following common features.

### 5.1 Clear industrial policy and strategy

Experiences of all 3 case study countries indicated that they had formulated and implemented clear industrial policies and strategies to promote and encourage the growth of their manufacturing sectors. Singapore had for instance adopted an industrial policy which focused on labour-intensive manufacturing and was based on low-cost labour, low-to-middle-level technology and a rapid increase in exports. Ireland had similarly pursued an export centred industrial policy with significant financial and fiscal support from the European union's (EU) structural and cohesion fund[14]. The emphasis in the case of Ireland had mainly been on attracting foreign export-orientated companies which used the country as an industrial production base.

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11 Detailed information on the case studies can be found in the appendix.

12 The state known today as the Republic of Ireland seceded from the United Kingdom in 1922. The state was troubled by poverty and emigration to various extents until the early 1990's. These problems, though, disappeared totally over the course of the 1990s, which saw the beginning of unprecedented economic success, in a phenomenon known as the "Celtic Tiger".

13 In the 1960s, Singapore was a third world country with a Gross National Product (GNP) per capita of less than US$320 and massive unemployment. Infrastructure was poor, there was little capital, and the handful of stries produced only for domestic consumption. Low-end commerce was the mainstay of the economy, and there was little or no direct foreign investment.

14 Representing more than one third of the EU's budget, Structural and Cohesion Funds is an important instrument of solidarity between richer and poorer or disadvantaged regions of Europe. The EU funds constitute substantial financial assistance to the recipient countries and regions that shapes the long-term economic, environmental and social development. For Ireland, total investment under two programming periods 1989 to 1999 amounted to approximately €30 billion, with the Structural Funds and Cohesion Funds contributing €11 billion.

The South African experience showed that the country initially focused on import substitution industrialization, particularly during the apartheid years. However, the new Government had implemented industrial policies which focused on micro-economic reforms, competition, and the opening of an economy to international trade, coupled with measures aimed at broadening the geographical location of industries, through initiatives such as the Spatial development initiative (SDI).

### 5.2 Promotion of specific sub-sectors within the manufacturing sector

Evidence from all the case study countries reviewed demonstrated that they had selected particular sub-sectors within the manufacturing sector on which they had focused. Singapore had for example targeted the expansion of the information technology (computers and related electronics) sub-sectors. As a result, the country was by 1989, the world's biggest producer of disk drives and disk drive parts. Equally, the Irish manufacturing strategy placed more emphasis on the high-tech sectors, particularly chemicals, electronics, electrical and telecommunication equipment, instrument engineering, software development, as well as pharmaceuticals.

The South African experience indicated that the country had focused on mineral assets and, therefore, value addition to minerals. The South African Government has moreover, promoted the motor vehicle sector through the motor industry development programme (MIDP). Other key sub-sectors which had been selected in the case of South Africa included: agro-processing; information and communication technology; mineral and metals, clothing and textiles, and chemicals.

### 5.3 Tax policy as a key tool of industrial development policy

The Irish experience showed that the use of tax policy to promote manufacturing enterprises was crucial to their performance and, thus, their contribution to the national economy. In 1980 the Irish Government introduced a preferential tax rate of 10 percent on all corporate profits arising from manufacturing, which was replaced by a new universal tax rate of up to 12.5 percent in 2003, in line with the requirements of the European Commission. The low corporate tax rate was widely recognized as a crucial policy instrument for the attraction of mobile foreign direct investment projects to Ireland (Murphy and Ruane, 2003).

Similarly, the South African Government had implemented the Strategic Investment Incentives Projects (SIP). This incentive scheme was implemented by the DTI in 2002. The scheme was expected to unlock a multi-billion rand investment hold-up for South Africa. The SIP supported industrial projects, investing at least R50 million in qualifying industrial assets. These projects were expected to increase production within the SA industry and had a potential for long-term sustainability. The SIP incentive programme was managed within the DTI by the Enterprise Organisation (TEO). The programme provided tax credits of between 50 percent and 100 percent of the cost of qualifying projects, with a points system being used to assess the value of individual projects. The SIP incentive was accessible to industrial projects participating within the following sectors:

- The Manufacturing of products: all listed manufacturing activities excluding tobacco and tobacco related products;
- Computer and computer related activities: hardware consultancies, software

consultancies and supplies, data processing (excluding standard secretarial services), and database activities;

- Research and development activities: research and experimental development in natural sciences and engineering (DTI).

In Singapore, the Government provided a comprehensive package of tax concessions and incentives to businesses in various sectors of the economy, including manufacturing, which reflected the direction in which the authorities were trying to steer economic development. The allocation of an incentive depended primarily on such considerations as the amount of investment involved, the technical output, the export potential, the employment opportunities and the general conduciveness to the Singaporean economic activity. Most of the incentives were granted under the Economic Expansion Incentives (Relief from Income Tax) Act and could be subdivided into 4 categories, namely, incentives for manufacturing and service companies, incentives for financial service companies, incentives which were aimed at specific sectors of the economy and incentives which applied to all the sectors of the economy. It was thus evident from all 3 case studies, that the use of fiscal incentives as a tool for industrial development policy was crucial towards the achievement of industrialisation.

### 5.4 Institutions are important for the manufacturing sector

In the case of Ireland, the Government had established the Industrial Development Agency (IDA) in 1949, initially as a Government department and in 1969 as a autonomous state sponsored agency which was tasked with the responsibility for securing new investments from overseas in manufacturing and internationally traded services sectors. It also encouraged existing investors to expand and develop their businesses.

As in Ireland, Singapore established the Economic Development Board (EDB), in 1961 and mandated it with the mission of convincing foreign investors that Singapore was a good place for business. The industrialisation programme of the country began with factories producing garments, textiles, toys, wood products and hair wigs. In addition to these labour-intensive industries, there were also some capital and technology-intensive projects such as the Shell Eastern Petroleum and the National Iron and Steel Mills.

In South Africa, the DTI (a Government Ministry) had as one of its key objectives the stimulation of the development of the manufacturing sector. In this regard, it had crafted an integrated manufacturing strategy for South Africa in 2002. In addition, the South African Government had also established the Industrial Development Corporation (IDC) which focused on the contribution to economic growth, industrial development and economic empowerment through its financing activities. The IDC had financed a variety of manufacturing sector ventures such as agro-industries, chemical industries, mineral beneficiation, metals and machinery, textiles, clothing and leather and footwear industries, as well as wood and, paper industries.

To strengthen the industrial research capacity, the Council for Scientific and Industrial Research (CSIR) has also been established in South Africa. The CSIR was entrusted with the responsibility of conducting relevant research in the following areas: metals and metal processes (aluminium, titanium and magnesium), fibres and textiles and manufacturing Science and Technology. It was evident from this above analysis that strong and relevant institutions would go a long way towards achieving a high rate of output growth in the manufacturing sector of a country.

## 6. Lessons for Namibia

The purpose of this chapter is to extract the main lessons which Namibia could learn from the experiences of countries which have successfully promoted their manufacturing sectors and have achieved a high rate of economic growth. The key idea is to familiarise the relevant authorities with the necessary factors which are essential for a successful manufacturing sector in a given economy.

### 6.1 Industrial policies and strategies

Experience from the case study countries points to the importance of industrial policies and strategies for a successful manufacturing sector. The policies and strategies to promote industrial development need to be clear and focused. Namibia's Industrial Policy of 1992 has prepared plans to further develop the country's key resources for purposes of value addition. Further, the policy also aims at promoting exports and efficient import substitution, economic diversification through industrial growth and better–industrial links, employment generation, particularly for the disadvantaged groups; and an improvement in the geographical location of industries.

It is apparent from this analysis that Namibia has devised and implemented a clear industrial development policy with measurable objectives. The policy on private sector development in Namibia which was drafted for the Ministry of Trade and Industry in July 2006 is a step in the right direction. The policy aims at addressing key crosscutting issues which hamper the development of an inclusive, integrated private sector. It is argued that industrial and SME policies can be important instruments to focus attention on particular segments of the private sector, but they have the disadvantage of missing the big picture (Webster, 2006). Consequently, the private sector development policy has been formulated with the intention of bringing the big picture of the Namibian economy on board. A key issue which must always accompany a clear policy and strategy, is an effective implementation process and this policy must therefore, be accompanied by a plan of action for its implementation, once it has been adopted by the Government.

### 6.2 Identification and promotion of specific sub-sectors

Successful industrialists have targeted particular sub-sectors within the manufacturing sector and have promoted them enthusiastically. In the case of Namibia, the country has developed a Special Industrialisation Programme (SIP) as a vital intervention to bring about an urgent transformation of the economy in terms of production and trade relations (MTI, 1998). The following sub-sectors have been identified as economic activities to produce a broad array of consumer, intermediate and capital goods;

- Food processing and other agro-industries;
- Leather and leather products;
- Textiles and clothing;
- Wood and wood products;
- Production of construction materials, such as cement;
- The cutting and polishing of semi-precious stones and manufacture of jewellery;

- Paper products and stationery;
- Electrical and electronic appliance products;
- Motor vehicle components and;
- Mineral beneficiation.

Similar to the sub-sectors identified by the MTI, the Commonwealth Secretariat study (2005) on the Development of Clusters of Small Enterprises and Cottage Units has also identified the sub-sectors which have already been mentioned as providing a key potential for the Namibian industrialisation process[15]. In this regard, it is therefore, imperative that the MTI should seriously consider devising a manufacturing strategy centred upon these sub-sectors with clear action plans for their implementation. A sub-sector which needs a closer examination is that of leather and leather products. This sub-sector offers a great potential in terms of the products which could be produced such as shoes, handbags, belts, furniture for houses and cars, etc. A key issue which should be addressed by both the Government and the Private Sector is capacity building in the sub-sector (i.e. both managerial and technical capacity). It goes without saying that a proper monitoring and evaluation mechanism needs to be built into such a strategy to yield desirable results.

It is the intention of the Government to encourage industrial development with particular emphasis on the following focus areas:

- The provision of industrial infrastructure;
- Equity participation, where necessary, in new manufacturing operations to ensure their successful take-off;
- Support of joint ventures and partnerships between local and foreign investors by securing equity for Namibians;
- The creation of mechanisms which give priority in Government procurement to locally manufactured products and long-term contracts to locally based manufacturers.

In addition to these areas, there is a need for Government support in terms of identifying markets through detailed market research and analysis, advertisement and branding of Namibian products as well as a thorough knowledge of and expertise in the value chain management process in the Namibian economy.

### 6.3 Tax as a tool for Industrial Policy

The use of fiscal incentives to promote industrial development has been widely noted in all the case study countries. In this regard, the Ministry of Trade and Industry should be commended for introducing and implementing incentives for manufacturers and exporters with a view to stimulate economic growth, employment creation and establish Namibia as a gateway location in the Southern African region. It is also encouraging to note that these incentives are mainly geared towards enticing manufacturing businesses to produce goods for both the local and export markets. These incentives include the export processing zone; the foreign investment act and special incentives for manufacturers and exporters. Experience from Ireland has however, suggested that it may be worthwhile to have a relatively lower flat corporate tax rate (10 percent in the

[15] A summarised version of the key findings of this study is provided in Appendix A of this paper.

case Ireland for manufacturers and 12.5 percent otherwise) for a specific sector, instead of using incentives.

### 6.4 The role of institutions in promoting the manufacturing sector

A common feature in successful industrialisation experiences is the critical role which strong and well-managed institutions play in this process. Such institutions have played an active role in promoting domestic and foreign investment into the manufacturing sectors of successful industrialists. These institutions have also participated proactively in policy formulation,

coordination and implementation in the manufacturing sector. A critical aspect which must be taken into consideration in developing institutions is their overall effectiveness, capacity and quality to implement, evaluate and monitor policies and strategies aimed at developing the manufacturing sector.

At Independence, Namibia established various institutions with clear mandates to promote the manufacturing sector in the country. One of these institutions is the Directorate of Industrial Development within the Ministry of Trade and Industry. The Directorate is divided into 2 sections namely;

- **Economic Planning:** A section which gauges the viability of development projects, particularly their economic viability. It does this by engaging in feasibility studies, research and surveys of potential development areas. The aim is to facilitate the efforts of the developers / investors with complementary assistance, as is deemed necessary.

- **Industrial Statistics:** The primary objective of this section is to produce industrial statistics required for industrial planning and development. The main task is to conduct regular censuses in the manufacturing sector.

The Directorate has a division focusing on **Small Scale and Informal Industries Enterprises.** This division has the function of articulating and implementing a development programme which will contribute to the improvement of productivity at small and informal industrial levels. This division is very important for Namibia, given the important role that SME play in creating employment opportunities for the unemployed. An important institution which promotes investment in all sectors of the Namibian economy is the Namibia Investment Centre (NIC). The NIC plays an important role in organising investment related conferences and events thus, facilitating interactions between the Government and the Private Sector. The Centre acts as host to internal missions and visiting business delegations. In addition to the above institutions, the Government in collaboration with the Namibia Manufacturer's Association (NMA) and the Namibia Chamber of Commerce and Industry (NCCI) have established a consultative body on regulations, trade measures, the review of investment and trade agreements, product and market development and any other issues which are of major concern to Namibian economic development.

In summary, Namibia has formulated and implemented a clear policy on the development of the manufacturing sector. The Government has however, not developed and executed a clear-cut manufacturing strategy for the country, despite the identification of the various sub-sectors which should drive the industrial development process of the country. In this regard, efforts by the Office of the Prime Minister in collaboration with the Namibian Manufacturers' Association and the Bank of Namibia to design a manufacturing strategy for Namibia are a step in the right direction.

## 7. Policy Recommendations

This study has evaluated the potential of the manufacturing sector in Namibia by means of identifying products (current and future) which could enhance the growth of the sector and thus the overall economic growth rate of the Namibian economy to attain the objectives of Vision 2030. The study identified factors which hinder the manufacturing sector from achieving its full growth and production potential. Given the findings as discussed in the study, the following specific recommendations which the relevant Government Ministries should consider, are therefore being presented as follows;

- The shortage of skilled labour is one of the most important constraints to economic growth in the manufacturing sector and the overall economy of Namibia. In this regard, the Ministry of Education in collaboration with the Ministry of Labour and Social Welfare as well as the National Planning Commission, should formulate and implement policies which are geared towards making the right number of qualified and skilled artisans, technicians, engineers, researchers and business managers available in Namibia. The implementation of the Education and Training Sector Improvement Programme (ETSIP) will go a long way in strengthening the supply of skilled labour to meet labour market demands in the economy.

- The Ministry of Agriculture, Water and Forestry, in collaboration with representative bodies such as the Meat Board, should carry on with the implementation of policy measures which are targeted at local value addition for the livestock industry (i.e. both cattle and small stock). Nevertheless, the paper also recommends that such policy measures must be accompanied by an adequate infrastructural development i.e. feedlots. Other value added activities such as the Hoodia plant and Devil's claw should also be promoted by the Ministries of Trade and Industry and Agriculture.

- The Ministry of Trade and Industry and other relevant stakeholders (the private sector), should devise a manufacturing strategy for Namibia, centred on the sub-sectors (existing and potential) identified as being important for the industrialisation process of Namibia. A number of studies have identified key sub-sectors with potential in the manufacturing sector namely; Food processing and other agro-industries; Leather and leather products; Textiles and clothing; Wood and wood products; the production of construction materials, such as cement; paper products and stationery etc. A sub-sector which needs a closer examination is the leather and leather products. This sub-sector offers a great potential in terms of the products which could be produced such as shoes, handbags, belts, furniture for houses and cars, etc. A key issue which should be addressed by both the Government and the Private sector is capacity building, (i.e. in terms of both managerial and technical capacity). The manufacturing strategy for Namibia must thoroughly examine all the sub-sectors and should have clear action plans for their implementation as well as proper monitoring and evaluation mechanisms for all the sub-sectors, to yield desirable results. The strategy must take into consideration the findings of the Commonwealth Study on the Development of Clusters of Small Enterprises and Cottage Industries.

- Manufacturers have identified potential markets to which their products could be exported. It is therefore, important that the Ministry of Trade and Industry plays a facilitating role regarding the entry of Namibian products into foreign markets. The role of the Ministry of Trade and Industry is expected to be active in the areas of

organising trade missions and exhibitions, as well as in negotiating international trade agreements within the framework of SACU, with possible markets where such agreements do not already exist. Preferential trade agreements could be negotiated with countries such as China, Japan, Indonesia, Malaysia and India, given the demand for leather goods in East Asia.

- The MTI should create awareness amongst Namibian manufacturers of the existence and possible usage of article 26 of the SACU 2002 Agreement on infant industry protection. This may assist the country in protecting strategic industries and enable them to compete with well-established industries within the customs union and beyond.

- The MTI should further strengthen the capacity of Directorates tasked with promoting and conducting research in the manufacturing sector of the country as well as implementing policies and strategies. More specifically, the Directorate of Industrial Development should carry out the national census of manufacturing establishments in Namibia every 5 years, in terms of the policy document. The census results provide the valuable statistics required for industrial planning and policy formulation. It goes without saying that the, coordination of research and policy efforts needs to be encouraged among the different private and public sector institutions involved in the manufacturing sector to create synergy and eliminate a duplication of efforts.

For Namibia to realize its goal of producing the identified products, it is of the utmost importance that the country should concentrate its efforts to encourage manufacturers to be globally competitive and innovative. The quality of the products must be good and a continuous improvement of product quality is one of the key strategies to maintain the price competitiveness of Namibian products.

## 8. Conclusion

The purpose of this study was to assess the potential of the manufacturing sector in Namibia and identify potential products within the manufacturing sector which could be growth enhancing. The study was further aimed at identifying factors which constrain the growth of the manufacturing sector. Finally, it has investigated possible policy options, to increase the manufacturing output in order to achieve the goals of Vision 2030.

The paper concludes that there was a significant potential for the Namibian manufacturing sector. In this regard, a number of products which could be produced more optimally have been identified and have included the following: tiles and slabs, mineral water bottles, steel windows and door frames, polished diamonds, cheese, marula jam, cereals etc. The country could moreover, venture into the production of new products such as; pencils, fences, swimming pool and bathing salts, the large-scale production of leather goods (shoes, leather bags), mattresses, fuel production from cassava, metal products and auto components, unique wood, palm and clay products, leisure garments (hanging shirts and T-shirts, felts (inner pads for jackets) made from wool, as well as the large-scale production of hand-woven carpets.

A number of constraints facing the Namibian manufacturing sector were identified in this paper and the key items are as follows:

High input costs, particularly electricity, transport and harbour charges, the availability of quotas for the fishing industry and low “throughput” for the meat processing industry, unfair competition from well-established South African companies and a small domestic market which leads to an absence of economies of scale in the manufacturing sector.

In addition, low levels of labour productivity, coupled with the negative impact of the HIV/AIDS pandemic on the workforce, the lack of shelf space for Namibian manufacturers in the Namibian supermarkets, the low level of branding and marketing of Namibian products as well as the availability of highly skilled professionals, were identified as other constraints which face the sector. In this regard, the problem with importing much needed skills particularly pertaining to the process of acquiring work permits, were significantly noted. The availability and accessibility of international best practices in terms of production methods and technology was also noted as a key challenge for manufacturers in the country. Thus, plans to establish the technology and entrepreneurship centres in the country should be concretised.

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## Appendix A: Development of Clusters and Small Enterprises

The MTI asked the Special Advisory Services Division (SASD) of the Common Wealth Secretariat to conduct a study on the Development of Clusters and Small Enterprises and Cottage Units in 2004 which was published in July 2005.

**The main objectives of the study were as follows namely to;**

- Review the Namibian SME sector and carry out a strengths, weakness, opportunities and threats (SWOT) analysis with a view to identifying specific sub-sectors or areas in which Namibia has a comparative advantage and which can be included in the envisaged clusters.
- Review the Namibian and regional markets and recommend specific markets, which can be exploited by Namibian SMEs.
- Estimate the cost of operationalising the facilities including management and training costs and recommend various alternatives, which should be considered in mobilising the necessary resources for its establishment.
- Identify collaborating partner institutions and develop a strategy for collaboration in the
  development and establishment of the clusters.
- Make recommendations, where necessary, on any policy issue, which would require Government intervention for the success of the project.
- Recommend how SMEs within the cluster can obtain short and long term finance and draw up procedures for accessing funds in collaboration with financial institutions.

Against the above objectives, the study identified the following sub-sectors within the manufacturing sector in which Namibia has revealed comparative advantages;

- Food and agro processing, including fish processing;
- Gemstone cutting and polishing;
- Leather goods;
- Handicrafts: wood carvings, basket making, pottery etc;
- Clothing and;
- Metal products (auto components)

It is argued that a revealed comparative advantage[16] is evident in raw materials or in the primary processing stage in all the identified sub-sectors except in the case of handicrafts and clothing. Phase two sub-areas have an advantage in terms of skills bases (handicraft) and also in operating in domestic fragmented markets (clothing).

The following recommendations with specific reference to the identified sub-sectors were derived from the study namely to:

16 Revealed comparative advantage (RCA) measures are an indirect method of estimating a country's comparative advantage in a sector or product. The RCA ratio ranges from -1 (no ehports) to +1 (no imports). The former indicate a comparative disadvantage and the latter comparative advantage.

**Establish a food and agro-processing centre** in the Northern region at Oshakati because of its well-developed infrastructure (roads, a new railway connection, electricity, water) and the presence of a larger market. The centre will assist entrepreneurs in setting up new business ventures in the food and agro-sector and facilitate small entrepreneurs with the development and testing of their products for quality assurance. A feasibility study has been conducted on how to

add value to agro- products. A site has been secured and cleared in Oshakati and the implementation will commence as soon as funds are available for the project.

**Create a common facility centre for leather goods** at Ondangwa. This is intended to facilitate the development of small unit for the manufacturing of leather goods. The MTI has attempted to procure consultants to conduct a turnaround strategy for the Northern Tannery at Ondangwa. The chances of reviving this venture seem remote at this stage.

**Start a cluster for handicrafts** at Rundu/Katima Mulilo due to the large number of artisans and co-operatives in these towns. It has been also recommended that **cottage emporiums for handicrafts be established** in Windhoek and Swakopmund for effective marketing purposes. **Clothing manufacturing clusters** are also proposed for Ondangwa and Rundu. Thus far progress shows that a common facility centre for wood was established at Rundu. On the remaining proposals in this category no major progress has been made.

**Start a metal cluster product** (focusing on the manufacture of auto-components) in the Ondangwa industrial park. No major progress has been made with respect to this recommendation.

The study further recommends the establishment of other institutions such as **cluster development resource centres** to train entrepreneurs and maintain a data bank with national business information and international best practices on cluster development. There are also a number of cluster initiatives which are recommended in the study and they include; common raw materials, a mutual credit guarantee scheme, marketing consortia, purchase consortia etc.

The importance attached to the role of a **public-private partnership** in successfully implementing the recommendations of the cluster development study, is emphasised in the report. In this regard, it is recommended that a **steering committee,** chaired by the Permanent Secretary of the MTI should be established to serve as an overall–coordinating body to monitor the implementation of the cluster development programme. As the result of the progress made in these areas, this committee has not yet been officially constituted.

**Way forward**

The MTI should take further action in respect of the various issues which were identified in the Cluster Development Study as being feasible. Such activities are the following:

- The establishment of the **gemstone cutting and polishing centres** in, Karibib and Opuwo;
- The establishment of the **cottage market outlet for handicrafts** in Windhoek and Swakopmend for effective marketing purposes;

- **The start of a metal cluster product** (focusing on the manufacture of auto-components) in the Ondangwa Industrial Park;
- The establishment of other institutions such as **cluster development resource centres** to train entrepreneurs and to maintain a data bank on national business information and international best practices on cluster development;
- A continuous engagement between the **public and private sectors** on critical issues should be maintained;
- That a **steering committee which** should coordinate and monitor the progress in implementing the Cluster development programme be officially constituted by the MTI.

## Appendix B: Case study of Singapore[17]

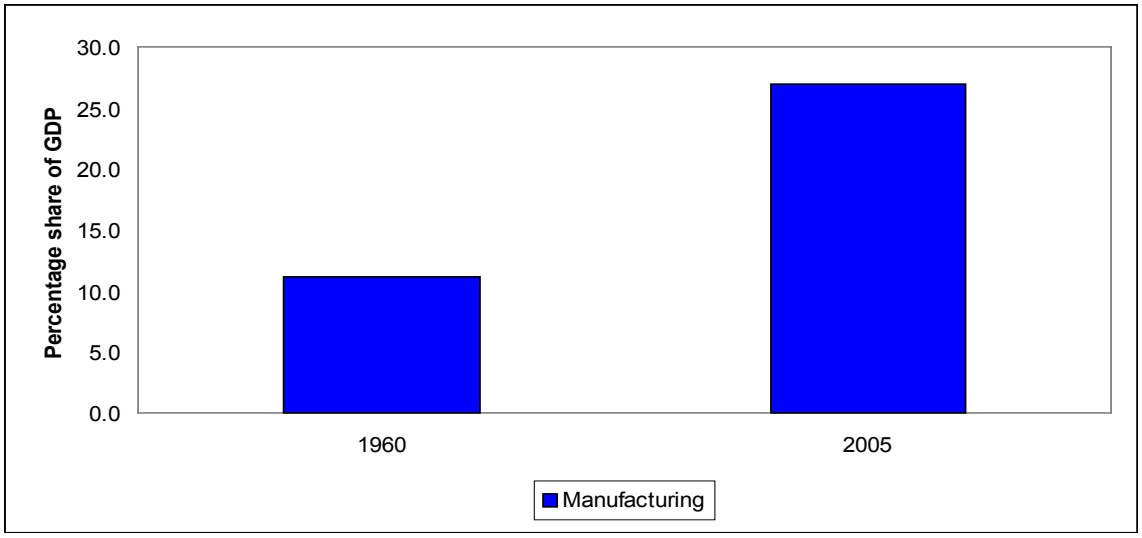
Singapore entered nationhood in the 1960s with a mixed legacy. The manufacturing sector was small, accounting for only 11.2 percent of the GDP in 1960 with low productivity. During the 1970s, the Country adopted an industrialisation policy which placed an emphasis on labour intensive-manufacturing based, on low-cost labour, low to middle-level technology and a rapid increase in exports. This policy had not yielded sufficient desired results because the use of high level technology in the manufacturing sector was proving to be the required option. By the late 1970s, however, the Government adopted a policy replacing the labour-intensive approach to manufacturing with the skills and technology intensive, high value-added approach to industrialisation. The purpose of the policy was to promote industrialisation as a way of diversifying the economy.

The manufacturing sector continued to be the mainstay of the economic growth of Singapore, despite the absence of natural resources or an agricultural base. The total output in the manufacturing sector grew by about 7.7 percent per annum during the period 1991-2005. As a result, its contribution to GDP had increased from 11.2 percent of GDP in 1960 to reach a respectable share of 27.0 percent of the GDP in 2005 as shown in Figure 5. This implied that the sector was one of the key engines of economic growth in the economy.

The growth of the manufacturing sector of Singapore was mainly underpinned by the following policy measures:

- Targeting certain sub-sectors (i.e. computers and electronic products) for expansion.
- Fiscal (Tax) incentives which attracted foreign direct investment to Singapore

**Figure 5: Manufacturing sector in GDP (1960 and 2005)**




Source: Statistics Singapore

[17] This case study is mainly based on the information obtained from the Monetary Authority of Singapore and the website, www.countrystudies.us/singapore

- Creation of a favourable business climate and investment in a human resource development coupled with the discipline of the labour force.

- Creation of high-tech manufacturing cluster which alone accounted for about half of the manufacturing work force and contributed more than 50.0 percent of the total manufacturing output of US$90.9 billion.

## Appendix C: Case study of South Africa

Manufacturing emerged slowly in South Africa during the late 19th century, in response to dramatic developments in the natural resource extraction sectors, in particular in mining. During the early 20th century, the Government (the apartheid Government) began to support the infant manufacturing sector through protectionist policies. The apartheid regime put various institutional measures in place to extend the manufacturing development, through such structures such as the Electricity Supply Commission (Eskom), the Iron and Steel Corporation (Iscor), and the Industrial Development Corporation (IDC). The focus of the industrial policy of the apartheid regime was on import substitution industrialization and resource beneficiation (DTI, 2002).

The post-apartheid Government which was committed to avoid deindustrialisation and was determined to accelerate economic growth and employment creation, placed the emphasis on the manufacturing sector as a vital force in achieving these objectives. As a result, the following policy measures were implemented:

- Microeconomic policy reforms within the context of a broader strategy of transforming the national economy and improving the standards of living of all citizens of South Africa.
- Policies aimed at opening the economy to the outside world in terms of South Africa's commitment to the World Trade Organisation (WTO), creation of competitiveness (competition policy and establishment of sector-specific regulators) of the economy in general and the manufacturing sector in particular, were also implemented.
- A policy and legislation on small businesses was also implemented.
- The spatial development Initiative which was aimed at widening the geographical localities of manufacturing establishments countrywide, as well as improving investment, production and development in previously marginalized communities of South Africa was also implemented (DTI, 2002).

It was therefore, evident that the post-apartheid Government had shifted the industrial policy focus away from costly subsidization through the general export incentives scheme (GEIS)[18] and had implemented supply-side policy measures. Since 1994, a wide range of policy interventions had been implemented. The DTI (2002) notes however, that: "it is difficult to judge the exact impact of these initiatives, given the time lags in their effects being felt, and the absence or inadequacy of monitoring and evaluation systems". Despite this, it was clear that through a combination of policy interventions and an array of external and internal forces, there had been significant structural changes in the economy as demonstrated by the industrial performance and many enterprises had responded to increases in domestic competition and greater export opportunities. The contribution of the manufacturing sector to GDP averaged 17.4 percent for South Africa during the 1998-2004 period.

[18] The Government of South Africa, through the Department of Trade and Industry, introduced the GEIS on April 1, 1990. The GEIS is an export subsidy on the local content of the exported product. The GEIS was intended to counteract the anti-export bias in the SouthAfrican economy. The programme operated for an initial 5-year period ending March 31, 1995, but was restructured in that year to restrict its use for primary products and to abolish the program on December 31, 1997 in compliance with South Africa's commitments under the World Tradd Organization.

## Appendix D: Case of study of Ireland

Ireland is a small, modern, trade-dependent economy with growth averaging a robust 7 percent for the period 1995-2004. The Per capita GDP is 10 percent above that of the 4 big European economies (Germany, France, the United Kingdom and Italy) and the second highest in the EU after Luxembourg. Agriculture, once the most important sector of Ireland, has now been dwarfed by industry and services. The manufacturing sector constitutes 46 percent of Irish GDP, 29 percent of the labour force and 80 percent of exports. Dominated for many years by textile companies like Fruit of the Loom, the sector is now largely made up of high-tech, high value multi-nationals such as Dell, Intel, Pfizer and IBM.

The Irish manufacturing sector produces products such as the following:

- 25 percent of the European computers are now made in Ireland,
- Drugs, confectionery beer, Guinness
- High quality glass and crystal,
- Software and machinery.

The sector now faces increasing competition from cheaper Eastern European countries such as Poland and many Asian countries such as China, particularly in the lower skill areas such as the manufacturing of confectionery. The industrial production growth rate was 3 percent in 2005.

Ireland initially pursued an inward-looking approach to industrialisation which was characterized by the promotion of indigenous industries and economic self-sufficiency behind protective barriers. This approach had been successful in the initial stage. After the Second World War, however the Irish economy rapidly deteriorated, resulting in a massive emigration and balance of payment problems which lead to a financial crisis in 1956. As a result, a new outward looking strategy which focused on the opening up of the economy, which stimulated exports and attracted foreign direct investment, was implemented in the 1960s.

As part of its outward looking industrial policy, Ireland established the Industrial Development Authority (IDA) in 1949 as part of the Department of Industry and Commerce. In 1969, IDA Ireland was incorporated as an autonomous state sponsored body under the Industrial Development Act and was entrusted with the responsibilities for all aspects of industrial development which covered both indigenous and foreign investment and start-up enterprises in the country. Since 1994, IDA Ireland had focused exclusively on the promotion and development of foreign direct investment (FDI) in Ireland, in the manufacturing and international service sectors.

The Irish strategy of promoting growth in the manufacturing sector which is FDI focused, identified three key industries namely; electronics, chemicals and pharmaceuticals as best suited to Ireland and then set about selecting the strongest companies in these industries as sources of FDI projects. Ireland identified the US as the most likely major source of FDI in this regard.

The high-tech sector of industry has been particularly important in driving the growth of the Irish economy during the 1990s. The pharmaceuticals, electronics, electrical and telecom equipment, instrument engineering and software development have increased

the output, export and employment at a very fast pace. Over two-thirds of the personal computers sold in Europe are produced in Ireland.

In 1999, Ireland became the largest exporter of software products in the World in terms of the absolute value and volume of exports. More than 40 percent of all Personal Computers (PC) packaged software, including 60 percent of business application software, which are sold in Europe, are produced in Ireland.

A fundamental reason for the development of a strong, expanding, high-tech, industrial sector in Ireland lies in the fact that Ireland is the most profitable location for investors in Europe as a result of the low operating costs, low corporate taxes and generous incentives available for investment. The United States (US) Department of Commerce figures show, that for more than a decade, US manufacturing companies have on average achieved after tax returns of 24 percent per year, on their investments in Ireland.

## Appendix E: Domestic Production and Imports of horticultural products in Namibia (Metric Tonnes)

| Products | Imports | Domestic Production |
|---|---|---|
| Cabbages | 3,768 | 2,891 |
| Carrots | 2,166 | 845 |
| Cucumbers | 438 | 40 |
| Lemons particularly in the lower 3anGreats (SW | 1084 | 6 |
| Lettuce | 750 | 257 |
| Mangoes | 579 | 320 |
| Onions | 5,962 | 6,974 |
| Oranges | 2,738 | 1007 |
| Peppers | 434 | 84 |
| Potatoes | 14,390 | 2,534 |
| Tomatoes | 3,448 | 2,646 |

Source: Namibia Horticulture Development Initiative, 2004

## Appendix F: Operational EPZ Companies as at August 2006

| Company Name | Economic Activity | Employment |
|---|---|---|
| 1.Namibia Press and Tools International | Manufacturing of motor vehicle components | 34 permanent |
| 2. Transvehco | Refurbishing of motor vehicles | 28 permanent<br>3 temporary |
| 3. Namgem Diamond Manufacturing | Polished Diamond Manufacturing | 116 permanent |
| 4. Borris Marking Systems (Pty) Ltd. | Manufacturing of marking machines, numbering heads and steel types. | 123 permanent. |
| 5. Marine Ropes International | Manufacturing of ropes and associated products | 10 permanent<br>2 temporary |
| 6. Namzinc<br>Trading as Skorpion Zinc Mine | Zinc refinery | 609 permanent.<br>18 temporary |
| 7. Namibia Industrial Composites (Pty) Ltd. | Manufacturing of products for the abrasive industry | 25 permanent |
| 8. Ongopolo Processing | Processing of blister copper and arsenic trioxide | 218 permanent.<br>5 temporary |
| 9. Afway Minerals Namibia (Pty) Ltd. | Beneficiation of sepiolite and export of cat litter and other sepiolite-based products | 2 temporary |
| 10. Clear Stones Investments | Diamond cutting and polishing operations | 25 permanent |
| 11. Namcot Diamonds | Diamond cutting and polishing operations | 286 perm |
| 12. Ramatex Textiles Namibia (Pty) Ltd. | Manufacture of textile yarn, knitted fabric and clothing | 513 permanent<br>32 temporary |
| 13. Starline Shipping (Pty) Ltd. | Manufacture of ladies brassieres and underwear | 30 permanent<br>2 temporary |
| 14. Northern Tannery (Pty) Ltd. | Tanning and finishing of leather | 36 permanent |
| 15. Progem (Pty) Ltd | Cutting and polishing of semi-precious stones | 8 permanent |
| 16. Mars Investment Holdings (Pty) Ltd. | Diamond cutting and polishing | 64 permanent |
| 1.7 Hard Stone Processing (Pty) Ltd. | Diamond cutting and polishing | 33 permanent |
| 18. Flamingo Garments | Manufacture of garments | 3,296 perm |
| 19. Fatima Plastics | Manufacture of plastic bags, tables, chairs, vegetable<br>rakes and kitchen wares | 76 permanent<br>25 temporary |
| 20. Lev Leviev Diamond (LLD) Namibia | Cutting and polishing of diamonds | 435 perm |

Source: ODC

## Appendix G: Non-Operational EPZ companies

| Company Name | Economic Activity | Status |
|---|---|---|
| 1.Johanna Haida Teddybears | Manufacturer of teddybears | Disinvested |
| 2.Indigo Sky Gems | Manufacture of gem stones, 500 | Closed down |
| 3. Namtex | Manufacture of textile products | Disinvested |
| 4. Hoersch Bathroomware | Manufacture of acrylic bathroom accessories | Closed down |
| 6. Namibia Fashion Knits | Manufacture of ladies fashion wear | Closed down |
| 7. Oshikango Paint Manufacturers and Distributors | Manufacture of paints | Closed down |
| 8. Oshikango Foam Mattresses | Manufacture of foam mattresses | Closed down |
| 9. Chinese-Namibia Friendship | Manufacture of textile products | Closed down |
| 10. Basic Namibia | Bulk-break and warehousing activities | Disinvested |
| 11. N. F. Imports and Exports | Manufacture and assembly of light industrial vehicles | Disinvested |
| 12. Super Holdings | Manufacture of plastic household products | EPZ cancelled |
| 13. Northern Namibia Foam | Manufacture of foam mattresses and related products | Closed down |
| 14. Namibia Polymer Industries | Manufacture of plastic packaging material | Closed down |
| 15. Double V Manufacturing | Manufacture and assemble of electronic products | Closed down |
| 16. The Tax Free Warehouse | Warehousing of consumer goods; furniture, appliances, audio equipments, sundry goods | Closed down |
| 17. Global Textile Manufacturing | Manufacturing of underwear | Closed down |
| 18. Barlington Distillery | | Disinvested |
| 19. Loja Do Pova | Manufacturing and assembling of vehicle components | Cancelled |
| 20. Barden EPZ Enterprise | Manufacturing and assembling of motor vehicles | Closed down |
| 21. Zennith International | Import, process and export of chicken and other related products | Closed down |
| 22. New Sun Household | Manufacturing of aluminium kitchenware | Disinvested |
| 23. Aditja Overseas Industry | Export of garments | Disinvested |
| 24. Namibia King Lion Clothing | Manufacture of jeans, shirts and under clothes | Closed down |
| 25. Goran Enterprises | Manufacturing of table napkins, toilet paper and re-export of general commodities | Disinvested |
| 26. Wenice Electronics | Assembly of electronic items | Closed down |
| 27. Chen Electronic Developing Import, Export and Trading | Assembling of TVs, video machines, VCDs and radios | Closed down |
| 28. Kalahari Candles | Manufacturing and exporting of candles Disinvested | Disinvested |
| 29. Luso International | Cold storage of frozen food stuffs and dry storage of different products | Closed down |
| 30. Sarnow Porcelain | Manufacturing of porcelain products | Closed down |
| 31. Leveland Shoe Company Namibia (Pty) Ltd. | Manufacturing of footware | Closed down |
| 32. Southern African Metals and Minerals Group (Pty) Ltd. | Processing of imported cobalt heteroginite ore into value added cobalt | Closed down |

| Company Name | Economic Activity | Status |
|---|---|---|
| 33. Hansa Polymers | Manufacture of polypropylene woven sacks/ fabrics, flexible intermediate bulk containers and leno sacks | Closed down |
| 34. FSI Trading Namibia<br>FSI Agricom | Assembling and re-export trade | EPZ<br>Cancelled |
| 35. Lichen Clothing Namibia | Manufacture textile yarn, knitted fabric and clothing | Closed down |
| 36. Tai Wah Garments | Manufacture garments | Closed down |
| 39. Namibia Stone Processing | Manufacturing of marble stones | EPZ<br>Cancelled |

## Appendix H: QUESTIONAIRE

### *PART A: BACKGROUND INFORMATION*

1. Name of the company:……

   Town/City…….

2. Name of the respondent:……

3. Position:……

4. Signature:……

5. Physical Address:……...

6. Postal Address:…….

7. E-mail address:…….

8. For how many years has your business been in operation?

   ……

   ……

   ……

9. In what type of economic activities/sector (products) is your company involved?

   ……

   ……

   ……

10. What are the key existing markets for your products? Are there plans to venture into new markets?

    ……

    ……

    ……

11. Could you please briefly tell us about developments in the level of employment in your business for the period 1990-2005 and expected employment for the period 2006-2007?

| | Number of Employees | |
|---|---|---|
| | General Staff | Management |
| 1990 | | |
| 1991 | | |
| 1992 | | |
| 1993 | | |
| 1994 | | |
| 1995 | | |
| 1996 | | |
| 1997 | | |
| 1998 | | |
| 1999 | | |
| 2000 | | |
| 2001 | | |
| 2002 | | |
| 2003 | | |
| 2004 | | |
| 2005 | | |
| 2006 | | |
| 2007 | | |

## PART B: COMPANY FINANCIAL INFORMATION

11. How were the developments in output and turnover over the period 1990-2005 and what are the expected developments for 2006-2007?

| | Output (Units) | Sales turnover before tax N$ |
|---|---|---|
| 1990 | | |
| 1991 | | |
| 1992 | | |
| 1993 | | |
| 1994 | | |
| 1995 | | |
| 1996 | | |
| 1997 | | |
| 1998 | | |
| 1999 | | |
| 2000 | | |
| 2001 | | |
| 2002 | | |
| 2003 | | |
| 2004 | | |
| 2005 | | |
| 2006 | | |
| 2007 | | |

12. Could you please briefly tell us about developments in the level of investment (company capital base) and exports of your business over the period 1990-2005 and what are the expected developments for 2006-2007?

| | Level of investment (N$ 000') | Level of exports (N$ 000') | |
|---|---|---|---|
| | | FOB | CIF |
| 1990 | | | |
| 1991 | | | |
| 1992 | | | |
| 1993 | | | |
| 1994 | | | |
| 1995 | | | |
| 1996 | | | |
| 1997 | | | |
| 1998 | | | |
| 1999 | | | |
| 2000 | | | |
| 2001 | | | |
| 2002 | | | |
| 2003 | | | |
| 2004 | | | |
| 2005 | | | |
| 2006 | | | |
| 2007 | | | |

14. What are the major constraints facing your business that you think the Government must resolve and h/w should it go about doing that?

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…….....

15. In your opinion, do you think that the manufacturing sector in Namibia has been growing as expected, and if not why?

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16. Do you get fair value (price) for your products overseas and if not, how could you maximise this?

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…….....

17. Is there a scope for business expansion in the manufacturing sector in general and your business in particular? What additional products could your business produce?

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……

…….....

18. Did you carry out a feasibility or viability study to assess the viability of these products and possible markets?

……

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…….....

19. Do you think the Government should help in identifying and exploring markets for Namibian products overseas (i.e. market intelligence surveys) and why?

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…….....

20. If you take the manufacturing sector, do you think there are some products in Namibia that could be produced cheaper or products in which the country has comparative advantage in producing and exporting?

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21. If the answer to the question 20 above is yes, what are these products and why do you think Namibia has a comparative advantage in these products?

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## Appendix I: List of people interviewed

| Name of Person | Position | Institution |
|---|---|---|
| 1. Mr. J. Mostert | Financial Manager | Meat Corporation of Namibia |
| 2. Mr. N. Pretorius | Director | Swachrome |
| 3. Mr. O. Shigwana | Managing Director | Namibia Stone Processing |
| 4. Mr. F. Schultz | CEO | Scandia Kitchen |
| 5. Ms. J. M. Carvill | Owner/Manager | Karakulia |
| 6. Mr. H. Schier | Owner/Manager | African Leather Creations |
| 7. Mr. C. Williams | Senior Member | Dantago Clothing |
| 8. Mr.K. Kapwanga | Managing Director | LLD Diamonds Namibia |
| 9. Mr J. Van Eden | Factory Manager | Metal Box |
| 10. Mr. D. De Koker | Cost Accountant | Metal Box |
| 11. Mr. F. Welman | Managing Director | MondiPak Namibia |
| 12. Mr. P. Namundjebo | General Manager | Offshore Development Company |
| 13. Mr. E.Kaiyamo | Assistant Manager | Offshore Development Company |
| 14. Mr. A. Reyelo | Managing Director | Cadilu Fishing |
| 15. Mr. D. Kirsch | Plant Manager | Namibia Press and Tools |
| 16. Mr. K. Zarnow | Group Secretary | Salt Company |
| 17. Ms. U. Kessler | Manager | Capricorn Sweets |
| 18. Mc. C. Ballmer | Office Manager | Borries Marking Systems |
| 19. Mr. W. Hettasch | Managing Director | Wispeco Namibia |
| 20. Ms. Shindondola | Marketing Manager | Pewa Beauty Specialist |
| 21. Ms. A. Butkus | Owner/Manager | Omautiro Detergents |
| 22. Mr. W. Kaura | Manager | Kaitoo Leather Products |
| 23. Mr.H. Venter | Sales Director | Plastic Packaging |
| 24. Mr. K. Van Graan | Managing Direcdor | Namib Mills |
| 25. Mr. D.Norval | Manager | Namibia Breweries |
| 26. Mr. H. Niedemeier | Managing Director | Neo Paints |
| 27. Mr. D. Van Jaarsveld | Managing Director | Namibia Dairies |
| 28. Mr. C. Goachab | Director | SME Compete |
| 29. Mr. D. Meyer | Consultant | SME Compete |
| 30. Mr. H. Fourie | CEO | Namibia Manufacturers Association |
| 31. Ms T. Kaapanda-Ausiku | Trade Advisor | Namibia Chamber of Commerce and Industry |
| 32. Ms L. Meroro | Investment Promotion Assistant | Offshore Development Company |