HIGH COMMISSION OF INDIA

# *Market Survey:*

# *Export of Indian Pharmaceuticals to Namibia*

## FINAL REPORT

**March 2006**

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**Background and Methodology**

This market survey has been conducted at the request of the High Commission of India to investigate the viability of exporting Indian pharmaceuticals to Namibia.

**The aim** and scope of this market survey is to research the market for pharmaceuticals in Namibia in order to give Indian manufacturers and service providers an overview of the market size, conditions and growth opportunities. This survey will define the market parameters in terms of size, growth and structure. **The second aim** of this survey is to help Indian manufacturers and exporters to identify which product segments may offer them the greatest market potential for medicines. **Thirdly**, promotional strategic aimed at assisting Indian exporters seeking to penetrate this market will identified and discussed. Armed with a better picture of market features and trends, Indian exporters can then decide if the cost of the marketing investment necessary to establish a market foothold in the Namibian market is justified by their own projected sales and profit forecasts.

**Fourthly**, the names of potential importers are provided together with the details of the relevant trade fairs where effective promotion can take place.

For the completion of this study the consultant undertook a comprehensive literature review of existing sources of information and data on the economies of Namibia and India (secondary research) with particular focus on the pharmaceutical industry, as well as trading relationship between the two countries.

Secondary research involves collecting market information indirectly from outside sources, i.e. government reports, published trade statistics, academic studies, and private surveys. There is always a risk involved in secondary market research, i.e., collection methods may be flawed, the data may be incomplete, analysis procedures may be incorrect, or dates on the reports may be recent but the information itself is obsolete. Because it is less costly and quicker than primary market research, it is often used by smaller companies, especially those who plan to sell their products through export sales representatives within the foreign market.

As part of the process, questionnaires were sent and interviews were held with Namibian Government authorities, pharmaceutical wholesalers, retailers and stakeholders. Discussions were also held with selected Indian counterparts based in India and South Africa.

**Executive Summary**

Namibia's economy relies heavily on imports. The Republic of Namibia represents one of the most diverse medical markets in the world largely because of the dominance of the South Africa. Rich, urban areas of Windhoek, Walvis Bay, Swakopmund etc. retain many of the high-quality facilities for the white population under the apartheid regime. Rural areas and black townships are only now slowly beginning to develop any kind of modernized health service. Namibia is supplied and serviced through South Africa, which boasts the largest pharmaceutical market in Africa estimated to be about US$1,687 billion in 2005. Pharmaceuticals are in the first top 10 imports of Namibia.

With a population of 1.8 million and a GDP of US$ 2.9 billion, Namibia presents a small, but potentially attractive market to Indian companies, particularly as a gateway to the southern Africa region. Namibia's strengths include a modern infrastructure, a good business climate, and economic and political stability. Since 1990, the Namibian economy has grown by an average of 3.7 per cent per year. Nominal growth in 2003 was a healthy 3.4 per cent, largely due to increased diamond production. Growth in 2000 to 2005 should increase slightly with continued gains in diamond mining and higher expectations for the tourism sector. In 2003, GDP per capita was US$ 1,615, which classifies Namibia as a lower middle-income country using World Bank standards. However, Namibia has one of the world's most skewed income distributions, with the 5 per cent white population having a per capita income several times that of the rest of the population.

Namibia has a stable multi-party democracy and a generally good human rights record. Presidential elections in late 2004 have seen the retiring of founding president, Sam Nujoma in a seamless transfer of power to new president Hifikipunye Pohamba and gave the ruling SWAPO party a three-fourths majority in the National Assembly.

The commercial value of the Namibian healthcare industry is estimated to be approximately N$2 billion, approaching the N$2.5 billion mark soon. Pharmaceuticals constitute about 60 per cent of the entire healthcare industry "cake". What however seems strange about this industry is that it is almost entirely controlled by South African-based pharmaceutical manufacturers and middlemen of multinationals such as Pfizer and GlaxoSmithKline, which supply Namibia through these channels. The Namibian government is trying to break this 'stranglehold' by actively trying to attract more competitive medicines from other countries, particularly India.

There is an efficient national healthcare insurance system in Namibia that works on a reimbursement system for most pharmaceuticals. Generic medicines are favored on most schemes through the Namibia Maximum Price List (NMPL) system introduced in 2005. However, the Government of Namibia subsidies 100 per cent health treatment for low income earners.

Namibia and India enjoy good and increasingly close bilateral political and economic relations. Namibia has often sought close economic ties with India through various high

level visits by the former head of state and business delegations by both countries. In the pharmaceutical industry, a few Indian companies such as Ranbaxy, Hetero Drugs Limited and Medtab are present in Namibia. Their products are registered with the Medicines Control Council (MCC) of Namibia, a statutory body that regulates medicines in the Namibia. Until recently Namibia was extended a credit line by the Indian Import-Export Bank.

According to Dr. Tjio, Registrar of Medicines in the Ministry of Health and Social Services, "because technical and logistical consequences involved, the majority of pharmaceutical companies only register their patents in countries where there is likely to be a substantial revenue generated, and where there is an industry that could produce the patented drugs in accordance with the compulsory license." This according to industry experts explain why South Africa has a large number of patented drugs in contrast to Namibia where a minimum number of anti-retroviral drugs are patented.

There is no production of pharmaceuticals in Namibia. Namibia is a member of the Southern African Customs Union (SACU), which applies a common external tariff (CET) on their imports from third countries. As such, SACU countries operate as one market, working to harmonize their trade and industrial policies for the mutual benefit of all its members. Other member states are Botswana, Lesotho, South Africa and Swaziland. The 2002 SACU Agreement has a built in flexibility that allows for a certain degree of internal regulations by individual member states, for as long as such regulations do not adversely affect other member countries. The 2002 SACU Agreement also provides for a common industrial policy to be developed, which would mean safeguarding each others industrial development interests.

Therefore to gauge the size of the Namibian market for pharmaceutical imports would mean that the entire SACU market with an estimated 48 million people should be taken into account. The fact is that once a good or service is imported into one of the SACU member countries from a third country, that particular good or service can be moved freely (without any tariff requirements) throughout all other SACU member states.

Local merchants rely heavily on suppliers in South Africa for inventory and technical expertise. The concentration of local distribution channels in the hands of a few family-run firms of European decent, has occasionally presented difficulties to foreign firms attempting to enter the local market. To enter the Namibian market, Indian pharmaceuticals would have to compete with imports from South African manufacturers or middlemen of multinational with subsidiaries in South Africa. These very imported products find their way into Angola and other countries in Southern Africa via Namibia. To circumvent these traditional links which have existed for a long period of time, Indian importers should aim to create alternate distribution channels or create joint ventures with emerging black owned firms.

Namibia has no bilateral investment treaty with India. Nevertheless, the legal infrastructure supporting investment, based on the Foreign Investment Act of 1990, is modern and attractive. The economy is still quite closely linked with that of South Africa through the Southern Africa Customs Union (SACU) and the Common Monetary Area (CMA). As a result, exchange rates and interest rates are almost entirely dependent on rates in South

Africa. Namibia has replaced its General Sales Tax and Additional Sales Levy with a Value Added Tax (VAT) system in November 2000.

The official language is English, with German and Afrikaans also widely spoken, including indigenous languages.

## 1. Market Overview

1.1. Assessment of Indian pharmaceutical competitiveness

The Patents Act of 1970 that came into effect in 1972 was developed against the backdrop of an economy that needed a large supply of easily affordable basic medication. The Government of India was also keen on encouraging indigenous manufacture of bulk drugs. The Act thus provided for special amended provisions for pharmaceuticals wherein only process patents were recognized. The patent protection period was also reduced to seven from the date of application (and five years from the date of sealing), instead of 14 years. Given the time it takes to bring a new drug into the market, this virtually eliminated any significant product patent protection for new drugs. Consequently, the Indian market was thrown open to "reverse engineering" which encouraged a number of low cost manufacturers to enter the market with low-cost generic versions of molecules sold globally.

Indian pharmaceuticals entrepreneurs rose to the occasion and the industry grew at double digit rates (around 15% per cent o CAGR) in the last two decades. Currently, the Indian pharmaceutical market exceeds US$4 billion. While this is significant in size, it is still relatively small compared to the global industry which is worth more than US$300 billion. The objectives of self-sufficiency and affordability in basic medicine have been achieved, and monopoly rents enabled by a strict product-patent regime have been avoided.

For example, a few years ago, the costs of treatment for HIV/AIDS were, at far above US$700 per month, more than twice as high as they are today. But then, in 1993, Cipla Ltd., and Indian pharmaceutical company rich in tradition, introduced the AIDS drugs Zidovudine. Stavudine and Lamivudine followed (the latter in 1998). Nevaripine was going to be launched later (2001). They are the elements of the successful virus-inhibiting combination therapy. Cipla offered the AIDS drugs at significantly lower prices than other companies. This in turn provoked the lowering of prices by the international competitors on the Indian market. Today, a packet of then 100-milligram capsule of Zidovudine, produced by Cipla in India, costs less than US$5 (150 rupees). The original product of the British company, theb Glaxo Wellcome is sold for more than double the price in India, Pakistan and Indonesia – and costs five to six times more in the USA and UK.

While the self-sufficiency aim has been achieved, the road traversed by the sector till date has also raised several issues for the incumbents. The new product-patent regime will alter the dynamics of the industry significantly and, the initial effects have already started showing.

The industry has close to 23,000 units as per available estimates. Of this, only around 250 are in the organized sector. The largest player has a market share of less than 6 per cent, while the top 10 players account for only 35 per cent of the entire market. Of the total estimated production, 20 per cent is from bulk drugs. The bulk drugs segment has been growing at an average annual growth rate of 20 per cent. Today the bulk drug sector exports to several developed and developing countries. The industry today has also grown significantly on the exports front. The total value of exports in 2000 was US$1.5 billion. Most of these exports (in value terms) are directed at developed markets including the USA, Germany and the UK.

Thus the industry has really come a long way in its development and the stage is set for it to absorb the new wave of changes and use it for further development.

**Indian pharma companies' new drug pipeline**

| Companies | Molecules in clinical trials |
|---|---|
| Ranbaxy | 6 |
| Dr Reddy's | 4 |
| Sun Pharma | 2 |
| Dabur | 2 |
| Lupin | 2 |
| Wockhardt | 1 |
| Orchid Pharma | 1 |
| Nicholas Pharma | 1 |
| Glenmark Pharma | 1 |
| Total | 20 |

Source: Websites and other public information - 2005

However, the new patent regime will still be a landmark event for the Indian pharmaceutical industry with wide reaching implications on the structure and direction of growth. In one way or the other, domestic growth through reverse-engineering on patent drugs will be impacted adversely. While views differ on the timing and extent of changes, one can apprehend some of the key changes that follow a rational justification.

Thus, once "reverse-engineering closes as an option for the small domestic pharmaceutical companies, they will be stretched to meet their sales growth targets due to limited potential to innovate and introduce new molecules. The competition in products that are not impacted by the product-patent regime is likely to increase, further intensifying the price competition in the Indian market. Also, the competition in exports will stiffen as more and more organized sector players see that as the major area for growth. The smaller players are likely to fall behind in this market scenario and this is expected to lead to a wave of consolidation within the highly fragmented industry. Established players are likely to hunt for smaller manufacturers and niche brands in order to increase their speed of launch of new products in the domestic market and to buy a share in existing brands.

The increasing domestic competition is likely to drive up efforts to capture a greater share of the export market for the bigger players. Already, exports constitute almost 40 per cent of the total production of pharmaceuticals, growing at an average rate of 30 per cent per annum in the last five years. Out of this, nearly 55 per cent comes fro formulations and 45 per cent from bulk drugs. So far most formulations exports have been to semi-regulated market like the former Soviet Union countries, South-east Asia, Africa and Latin America. Going forward one can expect a greater thrust on developed markets like the USA, Europe and Japan.

The USA generic market in particular is considered to provide golden opportunities for Indian companies. The size of the market is placed at US$16 billion in 2004. Indian companies will be expected to continue to eye the generics market in the USA. On the one hand, competition stiffening for the generics market where already the investments and risks required to introduce a generic through the ANDA (abbreviated new drug application) route is very high. On the other hand, the post 2005 scenario will provide unprecedented opportunities for Indian generics manufacturers from the number of drugs going off-patent. In 2005 alone, the drugs going off-patent include glimepride, ondansetron, clarithromycin, fluconazole, pamiotronate, disodium, zidovudin, pravastatin, sodium, pranlukasf, azithomycin, paroxetine, simvastatin and sortaline.

Indian players will need to continue to invest in upgrading their infrastructure in terms of process research skills, good manufacturing facilities approved by the United States Food and Drugs Administration (USFDA), strong bulk drug manufacturing base and competitive manufacturing and capital costs. The other potential challenge for Indian generics exporters will come from the fact that similar product patent regimes will come into force in other less-developed countries as part of WTO agreements.

In addition to competing with the innovators and other generic manufacturers for a share of the generics pie, some companies with strong manufacturing capabilities are likely to adopt a more collaborative approach with lower risks and returns. It could be in the form of contract manufacturing for formulations or the bulk drugs (active pharmaceutical ingredients). This kind of collaboration is interesting from the point of view of big pharmaceutical companies to leverage the low cost manufacturing capabilities of Indian companies. It also allows value manufacturing business. The patent protection post 2005 should give a significant fillip to contract manufacturing work from global majors. This could also manifest in global majors taking stakes in Indian companies or setting up new subsidiaries for contract manufacturing.

Indian pharmaceutical industry is very interested in the export of its pharmaceutics. Developing countries, like Namibia are an important market for Indian manufacturers because they produce high quality products at very competitive prices. But free trade is hampered by national and international patent rules. For a patent does not only constitute the sole right to produce a product but also to import it. Despite these barriers, India's drugs exports exceeded in the year 2005 US$2 billion. The success story of the pharmaceutical sector is part of a wider but less known "economic miracle".

## 1.2. Overview of the Namibian pharmaceutical industry

Namibia represents one of the most diverse medical markets in the world largely because of the dominance of the South African companies. Rich, urban areas of Windhoek, Walvis Bay, Swakopmund etc. retain many of the high-quality facilities for the white population under the apartheid regime. Rural areas and black townships are only now slowly beginning to develop any kind of modernized health service. Namibia is controlled through South Africa, which boasts the largest pharmaceutical market in Africa estimated to be about US$1,687 billion in 2005.

The commercial value of the Namibian healthcare industry is estimated to be approximately N$2 million, approaching the N$2.5 billion mark soon. Pharmaceuticals constitute about 60 per cent of the entire healthcare industry "cake". What however seems a challenge in this industry is that it is almost entirely controlled by South African-based pharmaceutical manufacturers and middlemen of multinationals such as Pfizer and GlaxoSmithKline, which supply Namibia through these channels.

The contribution to health improvement by the pharmaceutical industry is immense. So too, is the part played by the industry in restraining health care costs, although most major advances in pharmaceutical healthcare occurred after 1950. Namibia's economy relies heavily on imports. Pharmaceuticals are in the first top 10 imports of Namibia.

Since coming into power in1990, the SWAPO government has been determined t redress the years of neglect in the public primary healthcare sector. As a result, the focus of attention has shifted away from the tertiary and medical research sectors towards primary care, leading to severe budget cuts within the public health sector. While the latest drugs remain exclusive to the high tech hospital sector, rural areas continue to suffer from shortages of the most basic medicines and profile healthcare concern in South Africa in the HIV/AIDS epidemic; the country has one of the highest infection rates in the world but little money to purchase treatments that are commonly available in the west.

The pharmaceutical industry is, in fact, a very unstable market with regard to maintaining a lead position. The reason for this is innovation. New products are constantly introduced into the market and as such, companies wishing to hold their position must innovate. Companies cannot rest on their laurels content with a market lead. A study over the last ten-years showed how only 4 products in the top 20 in 1988 were still in the top 20 in 1997. The other 16 had all been overtaken by superior new products and the commercial positions had plunged.

Studies of innovative behavior in South Africa, and hence Namibia have demonstrated clear economic advantages in allowing products to enter markets at the manufacturers' risk and at prices of their choosing. Customers, be it patients or reimbursers, clearly benefit from a downward pressure on prices brought about by free access to markets.

However, since Namibia is an importer of virtually 99.9 per cent of its pharmaceutical needs, the country is heavily dependant on international trade and WTO rules pertaining to medicines. Below is a table ranking countries where pharmaceutical imports to Namibia, has its origins.

**Leading Import sources of medicines and pharmaceuticals to Namibia 2004/5**

| Rank | Country |
|---|---|
| 1 | United States of America |
| 2 | Germany |
| 3 | South Africa |
| 4 | United Kingdom |
| 5 | Belgium |

| | |
|---|---|
| 6 | Switzerland |
| 7 | Netherlands |
| 8 | France |
| 9 | Italy |
| 10 | China |
| 11 | India |
| 12 | New Zealand |
| 13 | Thailand |
| 14 | Malaysia |
| 15 | Singapore |
| 16 | South Korea, Turkey |
| 29 | Zimbabwe |

Source: ASYCUDA – Ministry of Finance, Namibia

The Namibian pharmaceutical market, which is a prescription market, is made up of two components. First, the Private Sector where patients are often reimbursed through medical schemes. Second, the Regional and State Sector where patients receive drugs from hospitals, where products are supplied to government agencies from manufacturers through the central tender system. In the 2005/06 budget, Government expenditure on pharmaceuticals was approximately N$200 million. The total healthcare expenditure over same period was approximately N$1.6 billion.

1.3. Local market Demand and Trends for pharmaceutical products

The contribution to health improvement by the pharmaceutical industry is immense. So too, is the part played by the industry in restraining health care costs, although most major advances in pharmaceutical healthcare occurred after 1950.

The Namibian pharmaceutical market is a prescription market. The issue of medicines is made through formal channels and the reimbursement systems by medical aid schemes require a prescription. In commercial value terms, the Namibian healthcare market including pharmaceuticals is estimated to be worth about N$2 million, soon reaching the N$2.5 billion mark. The significance of the pharmaceutical market is clear, in that it represents more than half of this total, mostly due to diseases such HIV/AIDS, malaria and tuberculosis.

There are 800 doctors and 200 pharmacists in the country (source: Medical Board and Pharmacy Board). Because the local healthcare system in Namibia is made up of two components, the market demand for pharmaceuticals in Namibia can mainly be so determined: the Private Sector and Public Sector.

The market size for drugs and medical consumables are presented below from figures supplied by the Ministry of Health and Social Services.

| | 2001-02 | 2002-03 | 20003-04 | 20004-05 |
|---|---|---|---|---|
| Total government healthcare | 1,278,389,000.00 | 1,385,680,000.00 | 1,560,295,000.00 | 1,581,649,000.00 |

| | | | | |
|---|---|---|---|---|
| expenditure(N$) | | | | |
| Drugs and medical consumables expenditure (N$) | 98,261,308.01 | 94,993,329.97 | 91,509,735.80 | 200,000,000.00 |

Government expenditure on drugs and medical supplies for 2003/4 fiscal year is N$91,509,735.80 and the figure for 2004/5 increased to approximately N$200 million. The total healthcare expenditure over the same period was N$2 billion in 2005. In the government health facilities, the proportion of generics is up 70 per cent. The private sector may represent 60 per cent branded products while generics make up to 40 per cent.

Prices charged to the Private Sector, are, on average, higher than those charged to the Public Sector. This reflects differential abilities to pay, causing a degree of cross-subsidization and spontaneous redistribution between the two sectors.

It is essential to compare the prices charged in the Private Sector with the prices charged elsewhere in markets with similar levels of income. Because of historic legacies, income levels of patients in the State Sector are undesirably low. It is therefore essential to compare Namibian prices with prices charged by selling organizations in other disadvantaged markets.

One international study sought to discover how much a basket of some of the best selling products in Namibia would cost in other countries. The sample was restricted to the top 0 products in Namibia in 1995, ranked according to sales value. The prices, weighted by market share, were then added up to find out how much the hypothetical basket would cost. Namibian prices were found to be way below each of the price indices of the USA, Denmark, Holland and Germany, and above the level in the UK.

For the State Sector, prices could be lower for affordability by the poor. In one study, medicines through state tender prices were shown to result in an expenditure level of only 23 per cent below that which would have been paid to the lowest price source anywhere in the world. In another study with a wider range of products, the savings where 11 per cent on what would have been paid to the cheapest alternative sources.

Therefore, Indian pharmaceutical companies are well placed to provide generic medicines more cheaply to countries in Sub-Saharan Africa. At the same time, investor friendly countries such as Namibia can be used as a hub for manufacturing and to provide research test-beds for new innovations within medicine. Increasingly fewer diseases will remain to be conquered for example, AIDS many well be successfully treated within the next two decades, As a result, more attention will be paid to drugs which improve life style, for example, mood changers, enhancers of sexual performance, and anti-ageing products.

## 1.4. HIV/AIDS and Drugs

Namibia ranks as one of the five countries most affected by HIV/AIDS in the world with an overall prevalence of 20 per cent among sexually active adults. This means that one in five Namibians aged 15-49 is infected and likely to die within the next seven to ten years.

Recognizing that reported cases are by far the minority of those that actually occur, both the Ministry of Health and Social Services and UNAIDS estimate that the actual number of Namibians living with HIV/AIDS at the end of 2002 was 250 000 out of a population of 1.8 million. Aids has already caused the life expectancy at birth in Namibia to fall from 58.8 years in 1995 to 43,2 years in 2001. When costs associated with the rapidly increasing burden of medical care are added to the cost of year of productive economic life forgone, the financial burden of the epidemic is staggering. It is estimate that the indirect costs of HIVAIDS added to the direct costs to the Namibian economy by the year 2001, which is an equivalent of 20 per cent of GDP.

The vast majority of people infected with HIV are poor and black while young women are at greatest risk of infection. It should also be noted from the outset that there is an undeniable link between the HIV prevalence rate of Southern Africans (not only Namibians) and the generally poor socio-economic status of the majority of the sub-continent's inhabitants – very much similar to India. More than 60 per cent of the employed people in Namibia earn less than N$1,500.00 or US$120.00 monthly. The richest 20 per cent of Namibian households have 65 per cent of all income. The poorest 20 per cent of households have only 3 per cent of all income.

The availability of anti-retroviral medication at a cost that many people in sub Saharan Africa simply are nor able to afford is a problem that is receiving more and more attention in the media, with affected governments and also within the for a number of intergovernmental and international organizations such as the World Trade Organization (WTO). Therefore, Namibia by virtue of its membership to the WTO has to comply with agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs).

The other problem that faces countries like Namibia is that unlike more industrialized nations in Africa (such Kenya, South Africa, Ghana and Nigeria), it does not have the capacity to manufacture pharmaceuticals locally at this stage and for that reason, it is important to distinguish between those countries that would be able to make use of compulsory licensing and those who would regard parallel or grey importations as the most viable solution to access to essential medicines. Compulsory licensing would be an option for the more industrialized southern African countries who could exploit a pharmaceutical patent without the permission of the patent holder to produce generic medication, whereas parallel importation is the viable option for countries like Namibia, Botswana, Swaziland and Lesotho and other who could probably import essential medicines from a country where it is being sold for a reduced price, or to import a generic which is produced in a country where there is limited or no patent protection. This is really where the greatest opportunity for Indian pharmaceutical products exists to make a footprint in the Namibian market.

The current registration of patents pertaining to drugs in Namibia is minimal. More specifically, there are very few if any anti-retroviral medicines that are registered in Namibia at the present moment. As there are very few drugs that are currently registered, the Government is not in any way prevented from importing generic medication from countries where local legislation does not accord intellectual property protection to anti-retroviral medication. Unfortunately, despite the existence of the various exemption clauses under TRIPs, the threat remains that developed countries might resort to extra-judicial means to pressurize developing countries like Namibia to comply with the narrow interpretation of

the TRIPs provisions (such as the unilateral imposition of economic sanction, a retaliatory watering down of the Africa Growth and Opportunities Act (AGOA) or even the decreasing of development aid).

It would appear from the above, that developing countries such as Namibia would derive the most benefit by focusing on the parallel importing of generics from countries where there is minimal patent protection such as India. In view of this, there is consensus that generic medicines for the treatment for diseases such as HIV/AIDS, TB and malaria be imported not withstanding the WTO provisions. Therefore, Namibian Government has sought to conclude agreements with India and Brazil in order to import these generic medicines and to for broader application to include other diseases, according to Dr. Tjio, the Registrar of Medicines in the Ministry of Health and Social Services.

Initially, pharmaceutical companies preferred to cut price deals on antiretroviral drugs to low income countries like Namibia rather than lose ground to generic companies such as India's Cipla and Ranbaxy. Thus bowing to huge international pressure, major pharmaceutical companies have made significant efforts to make their patented antiretroviral drugs available in Africa while, ensuring that they – not generic manufacturers – maintain market control in the continent.

In South Africa, South African-based Aspen Pharmacare and India's Cipla-Medpro have been awarded the "lion's share" of the generica antiretroviral orders, and Abbott, Boehringer Ingelheim, Bristol-Myers Squibb, GlaxoSmithKline and Merck's South African subsidiary MSD have been contracted to provide "substantial quantities" of brand-name drugs that have no generic alternatives, according to South Africa's Business Day. As a result, companies such as Merck and Eli Lilly have licensed local manufacturers to produce their patent-protected drugs. The first South African company to obtain licenses to produce anti-AIDS drugs still under patent, Aspen now offers six different antiretroviral drugs.

Indian pharmaceutical company Ranbaxy have come up with an innovative strategy to make a footprint in this market. For example in Southern Africa, Ranbaxy agreed to jointly supply cheaper antiretroviral drugs to 3 countries. Through this, high quality low-cost antiretroviral drugs would be distributed by governments, aid groups, AIDS management companies and retail pharmacies in Namibia, South Africa and Botswana.

## 2. Competitive Analysis

2.1. Domestic production and Registration of pharmaceutical products

There is no production of large scale commercial pharmaceutical products in Namibia, except for a number of lotions, perfumes and traditional medicines. The Namibian pharmaceutical market is controlled through South Africa, which boasts the largest pharmaceutical market in Africa estimated to be about US$1,687 billion in 2005.

Below is the list of Namibian pharmaceutical imports by HS Code supplied by the ASYCUDA office within the Ministry of Finance.

**Namibian Imports of Pharmaceuticals by HS Product Code**
**2004/5**

| HS | Description |
|---|---|
| | |
| | --World-- |
| | 30 Pharmaceutical Products |
| | 3004 Oth Medicament, Dosage |
| | |
| 300490 | Other 3004 |
| 300420 | Antibiotics |
| 300431 | Insulin, No Antibiotic |
| 300439 | Hormone etc, No Antibiotic |
| 300440 | Alkald, N Horm/Antibiotic |
| 300410 | Penicilin, streptomy |
| 300450 | Vitamins |
| 300432 | Medicaments Cont Cortex Hormones etc doses |

Source: ASYCUDA – Ministry of Finance, Namibia

The registration of branded drugs may take two years and that of generic drugs only three months. A company, as soon as it is formed, is allowed to proceed with registration of the products it intends to manufacture, in order to minimize delays.

Some large Indian pharmaceuticals manufacturers have already found their way into the Namibian market, mostly through first having a presence in Namibia and then appointing agents/representatives to market and sell in the local market. These companies are Cipla Medpro, Ranbaxy, Cadila Pharmaceuticals and Hetero Drugs Limited. Below is a list of major supplier of pharmaceuticals and medical devices, as obtained from the Medicines Control Council (MCC).

| Supplier Name | Country of Registration |
|---|---|
| | |

| **Pharmaceuticals** | |
|---|---|
| | |
| Missionpharma | Denmark |
| Drug Holding Company | Egypt |
| EIPCO | Egypt |
| Sanavita | Germany |
| Hetero Drugs Limited | India |
| Medtab | India |
| Cipla Medpro | India |
| Geka Pharma | Namibia |
| Taeuber & Corssen | Namibia |
| Adcock Ingram (Namibia) | Namibia |
| Erongo Agencies | Namibia |
| Zenith Enterprises | Namibia |
| Vita Pharmacy | Namibia |
| Nampharm | Namibia |
| Healthcare Medical | Namibia |
| Blood Transfussion | Namibia |
| Omnimed | Namibia |
| Fabupharm | Namibia |
| Genmed | Namibia |
| Placita | Namibia |
| Ranbaxy | India |
| Cadila Pharmaceuticals | India |
| Sonke Pharmaceuticals | India & RSA – JV |
| Barrs Pharmaceuticals | RSA |
| Pharmacare | RSA |
| Lundbeck | RSA |
| Sabre Pharmaceuticals | RSA |
| Bristol-Myers Squibb | RSA |
| Fresenius Kabi | RSA |
| Servier | RSA |
| Resmed | RSA |
| | |
| **X-Ray items** | |
| Stephan Buchmann | Germany |
| Siemens | Namibia |
| Erongo | Namibia |
| Medlab Services | Namibia |
| Bio dynamics | Namibia |
| IDA | Netherlands |
| X-Ray Sundries | RSA |
| | |
| **Non-Pharmaceuticals** | |
| | |

| | |
|---|---|
| Drug Holding Company | Egypt |
| Alitom | Hong Kong |
| Genmed | Namibia |
| Sabilian Technologies | Namibia |
| MS Supplies | Namibia |
| Placita | Namibia |
| Disposible Medical Products | Namibia |
| Adcock Ingram (Namibia) | Namibia |
| Tecmed | Namibia |
| Commodity Exchange | Namibia |
| Wagtech | Namibia |
| Omnimed | Namibia |
| Medlab Services | Namibia |
| Healthcare Medical | Namibia |
| Erongo Agencies | Namibia |
| Stephan Buchmann | Namibia |
| Geka Pharma | Namibia |
| Nampharm | Namibia |
| Evergreen | RSA |
| 3M | RSA |
| Pharmpak | RSA |
| | |

All pharmaceuticals coming into Namibia have to be registered with the Medicines Control Council (MCC), an independent body, which is responsible for drug regulation in the country. The MCC is a statutory body given life through the Act of Parliament No. 13 of 2003: Medicines and Related Substances Control Act, 2003. It replaces the Medicines and Related Substances Control Act 101 of 1965.

The requirements to register drugs in the country are as follows:

Persons who may for a registration of a medicine -
(1) Only-
(a) a person residing and doing business in Namibia;
(b) the manufacturer of a medicine manufactured in a country outside Namibia by virtue of a registration with the medicines regulatory authority of that country;
(c) a nominee residing in Namibia of a manufacturer referred to in paragraph (b) and authorized by the manufacturer;
(d) a subsidiary of a manufacturer referred to in paragraph (b) doing business in a country outside Namibia, provided the subsidiary -

(i) applies for the registration of products owned by the manufacturer; and
(ii) submits proof that the manufacturer partly or wholly owns the subsidiary; or

(e) the holder of a permit issued under section 31 (4) of the Act to manufacture and sell a medicine or a scheduled substance, may apply for the registration of a medicine as contemplated in section 19 of the Act.

(2) Applicants referred to in subregulation (l)(b) and (d) must produce satisfactory proof to the Council -
(a) of his or her or its registration as a pharmaceutical manufacturer by the medicines regulatory authority of the country where the medicine is manufactured; and
(b) that he or she or it holds a current certificate of good manufacturing practice issued by that medicines regulatory authority.

(3) With reference to applicants referred to in subregulation (l)(b) and (d) and (d), the Council may make such investigations or cause such investigations to be made, as it deems necessary to establish any fact contemplated in subregulation (2).

(4) Every applicant referred to in subregulation (1) must mention in the application the name, business address and telephone number of a pharmacist or other technical representative with appropriate knowledge of all aspects of the medicine in respect of which registration is applied for, who is responsible for communication with the Council.

(5) Every applicant referred to in subregulation (1) who is not resident in Namibia must appoint a local representative (who may be the nominee contemplated in subregulation (l)(c), who may act in respect of medicines and scheduled substances as contemplated in the Act.

(6) A local representative referred to in subregulation (5) must have legal authorisation from the applicant concerned to take responsibility for the medicine in respect of which registration is applied for on behalf of the applicant concerned and will be answerable to the Council in respect of the quality of the medicine concerned.

Application form and other requirements in respect of application for registration of a medicine
4. Subject to regulation 5, every application for the registration of a medicine must be submitted to the Registrar on the prescribed forms, together with as many copies thereof as the Council may from time to time determine.

Samples, labels and other things to accompany application for registration
5. An application for the registration of a medicine must also be accompanied by-
(a) three samples of the final product in the smallest of each of the package available for sale to the public or, if such product is not yet so available,

three samples in containers in which the applicant intends to make it available for sale to the public;

(b) samples of all advertising material package inserts and patient information leaflets which may be in draft form indicating the information which the applicant intends to use;

(c) if so requested by the Council or the Registrar, samples of the raw materials used in the manufacture of the product or reference standards used in the testing of the final product;

(d) a proposed label for use on the medicines;

(e) a certified copy of the manufacturing license together with a current good manufacturing practices certificate from the medicines regulatory authority of the country of origin of the medicine concerned;

(f) proof of existence of a manufacturing site, in the form of a site master file; and

(g) in the case of a Schedule 3 or a Schedule 4 substance, a certified copy of a permit to manufacture such substances.

*(Extract from: No. 3 317 Government Gazette 9 November 2004)*

2.2. Government Tenders (short/long-term procurement contracts)

CMS conducts a number of international tenders for different product categories as well as local tenders and direct procurements. The tender process is fully localized within the MOHSS without the involvement of the Tender Board of the Ministry of Finance, except for representation of the Tender Board on the CMS procurement committee, as is required for other ministries. This structure shortens the procurement processing time and allows the MOHSS internal control of the process. However according to Dr. Shangula, Permanent Secretary in the MOHSS, the current tender processing procedures are extremely cumbersome and tedious; they require a group of products delivered by a supplier. These practices have significantly increased the amount of paperwork and the need for signing numerous documents.

The Ministry of Finance established a "Trade Account" for the MOHSS as a tool for ensuring continuous availability of medicines in the public sector. The average annual turnover of the CMS is about N$190 million. The CMS does not directly recover the cost of supplies procured and supplied through the system. Supplies are issued to facilities against allocated budgets of the various health facilities.

Information on supplies is then provided to the Finance Division of the MOHSS, which debits the institution's account to cover the costs of supplies delivered to it. CMS does not apply markup to items supplied to institutions but simply issue at cost. The Trade Account has not been appropriately.

The Procurement and Tenders Pharmacist is also responsible for receiving supplies at CMS, even though assigning this responsibility to the post may not be advisable because doing so does not allow effective separation of responsibilities. Supplies arrive at the receiving section of the CMS and are inspected to ensure conformity to the Purchase Order, quantity ordered, expiry date, and physical conditions.

Various other quality assurance procedures are used by the CMS, such as (i) making visits to all new medicine manufacturers, including those based in Asia and Europe, to conducts Good Manufacturing Practices audits in collaboration with the Medicines Control and Inspections Subdivision and Quality Surveillance Laboratory (QSL); (ii) testing of medicine samples submitted by new suppliers; and (iii) post-purchase medicine testing prior to

acceptance of consignment. Quality control tests are conducted by the QSL, which is located on the premises of the CMS. For example, during fiscal year 2002/3, 63 batches of pharmaceuticals procured by the CMS were tested at the QSL, of which 13 or 20 per cent did not meet specifications.

## 2.3. Niche Markets: Generic Medicines

Healthcare encompasses a huge spectrum of products and services which are difficult to define as a single market. For the Namibian context healthcare is basically defined as all those products and services related to the health industry ranging from medical disposables to medical equipment and services as rehabilitation therapy. Within the overall market for healthcare products, one of the largest market segment s cover medicines. Total market demand in Namibia for generic medicines is estimated to be at 45 per cent of the total market of about N$1.2 billion in 2005. This suggests that an ever increasing share can be attributable to generic medicines. These are defined as copy-cat product previously patent protected pharmaceutical products.

In the government health facilities, the proportion of generics is up 70 per cent. The presence of 30 per cent of ethicals means that that proportion cannot be found as generic products. In the private sector, branded products may represent 60 per cent while generics make up to 40 per cent.

In a number of these market segments of the overall healthcare market, Indian manufacturers have already succeeded in establishing a reputation and should use that to retain a significant market presence.

The term 'generics' is widely used but its definition is not always consistent between countries. Generics are usually produced by a manufacturer different from the inventor of the original product and are marketed when intellectual property protection rights are exhausted – usually 15 years. In general, the market share of generics is significantly lower in price-controlled environments than in non-price controlled ones.

It is this market for generic medicines which must be of particular interest to Indian manufacturers and exporters to establish a market presence in the Namibian pharmaceuticals and healthcare market.

However, based on research conducted by the Namibia Economist, local doctors point out that a generic medicine is always about 15 years outdated, since the original holder of the patent does not stop its research. Instead, the big pharmaceutical companies, once they have fashion medicine, keep filing new patents in an effort to prolong their exclusive right to their chemical formula. This is commonly-accepted medicine company strategy.

Further to the advantage of generic medicine in Namibia, twelve medical aid schemes came up with a pricing scheme that will reduce the costs of medicine by as much as 65 per cent if service providers are prepared to prescribe generic medicine instead of branded medicine. The scheme called the Namibia Maximum Price List (NMPL) came into effect on 1 September 2005.

Generic medicine is considerably cheaper than branded medicine but has the same chemical composition as the original products. Hein Venter, the Chairman of the Medical Aid Fund Administration Forum Forum says that the NMPL will benefit mostly the poorer members of society and that because of the affordability of the medicine generic drugs manufacturers are particularly welcomed to enter the Namibian market.

The NMPL will be applicable on all acute and chronic medicines for which a generic equivalent is available. The NMPL will set a price for medicines in a particular medicine class with the same active ingredient. The ceiling price will be the maximum price paid by the medical aid fund. Any price difference will be borne by the member. The medical schemes said members of the schemes will not be forced to accept bay of the cost effective medicines n the NMPL list. "It will stretch a member's dollar in a medical scheme", said Venter on the benefits that the member will receive.

## 3. End-user Analysis

3.1. Survey of potential Buyers in Namibia

There are a number of companies contacted as part of this market survey that expressed interest in doing business with Indian pharmaceutical manufacturers and/or exporters. This could be in the form of direct purchases, agents or distributors or representatives.

Indian pharmaceutical manufacturers and exporters are however particularly encouraged to establish their own distribution networks in Namibia in order to maximize returns. This can be done through entering into joint-venture partnerships with Namibian entities that would also allow the supplier good standing when bidding for Government Tenders and facilitation of registration of medicines and the Quality Surveillance Laboratory (QSL) testing.

The companies listed below would be willing to enter into long-term mutually beneficial agreements with Indian pharmaceutical manufacturers and/or exporters:

Central Medical Stores (Ministry of Health and Social Services)
FabuPharm (Pty) Ltd
Better Life Pharmaceutical Manufacturers & Marketers (Pty) Ltd
Geka Pharm (Pty) Ltd
NamPharm (Pty) Ltd
INTERSANA
Genmed
Mitzi's Medical Depot
Erongo Medical Agencies (Pty) Ltd
Oshakati Pharmacy
Placita
Medicine 2000 Pharmacy
Pama Pharmacy
Zenith Enterprises
Healthcare Medical
Omnimed

*For more information, please contact Guru Investments & Consulting (Pty) Ltd at* guru@iway.na

3.2. Trade fairs/shows and Promotion strategies pharmaceutical products

Trade shows provide foreign suppliers (exporters) with an opportunity to display their products to a wide variety of potential buyers. Generally lasting for several days, shows combine formal presentation of merchandise, receptive buying audiences, and a consolidated time frame. Shows also provide both suppliers and buyers of all types of goods with an opportunity to connect with others in the industry.

In Namibia, trade shows are held year round, with the biggest ones in second half of the year. Therefore, in order to gain exposure to the Namibian marketplace, it is recommended that potential Indian exporters participate in locally organized trade shows or fairs.

There are a number healthcare products and services trade shows held in Namibia, where interested suppliers can showcase their products. However, since most Namibian wholesalers and distributors actually procure their merchandise via South Africa, it may also be worthwhile to attend South African trade fairs to target a wider audience with considerable influence in the Namibian economy.

Of particular note in Namibia is the Northern Namibia International Trade Fair, held every year in Ongwediva, which is situated in the northern part of Namibia and therefore also attended by businesses from southern Angola.

| | |
|---|---|
| May | Comex Namibia |
| August | Northern Namibia International Trade Fair |
| September | National Pharmacy Week |
| June | Medical Professionals Congress |
| October | Windhoek Show |
| September | Windhoek Agricultural & Industrial Show |

The Namibian Trade Shows take place in Windhoek, Walvis Bay and Ongwediva.

*For more information, please contact Guru Investments & Consulting (Pty) Ltd at* guru@iway.na

There are also a number of other promotion strategies open to Indian manufacturers seeking to penetrate the African market in general and the Namibian market in particular. For those companies that have set up manufacturing facilities to initially serve the Indian sub-continent or have acquired production facilities from a multinational in the region by means of a buy-out, their first step should be to consolidate their own international marketing capabilities. This means, thoroughly researching the market by desk research and by visiting suitable trade fairs, distributors and retail outlets.

Utilizing the services of a locally based marketing consultant or industry expert to analyze product suitability and recommend packaging design as well as formulating an optimum sales and promotional strategy is an effective investment.

Suitable trade and business development missions are also recommended. These could be facilitated jointly between the Indian and Namibian Governments.

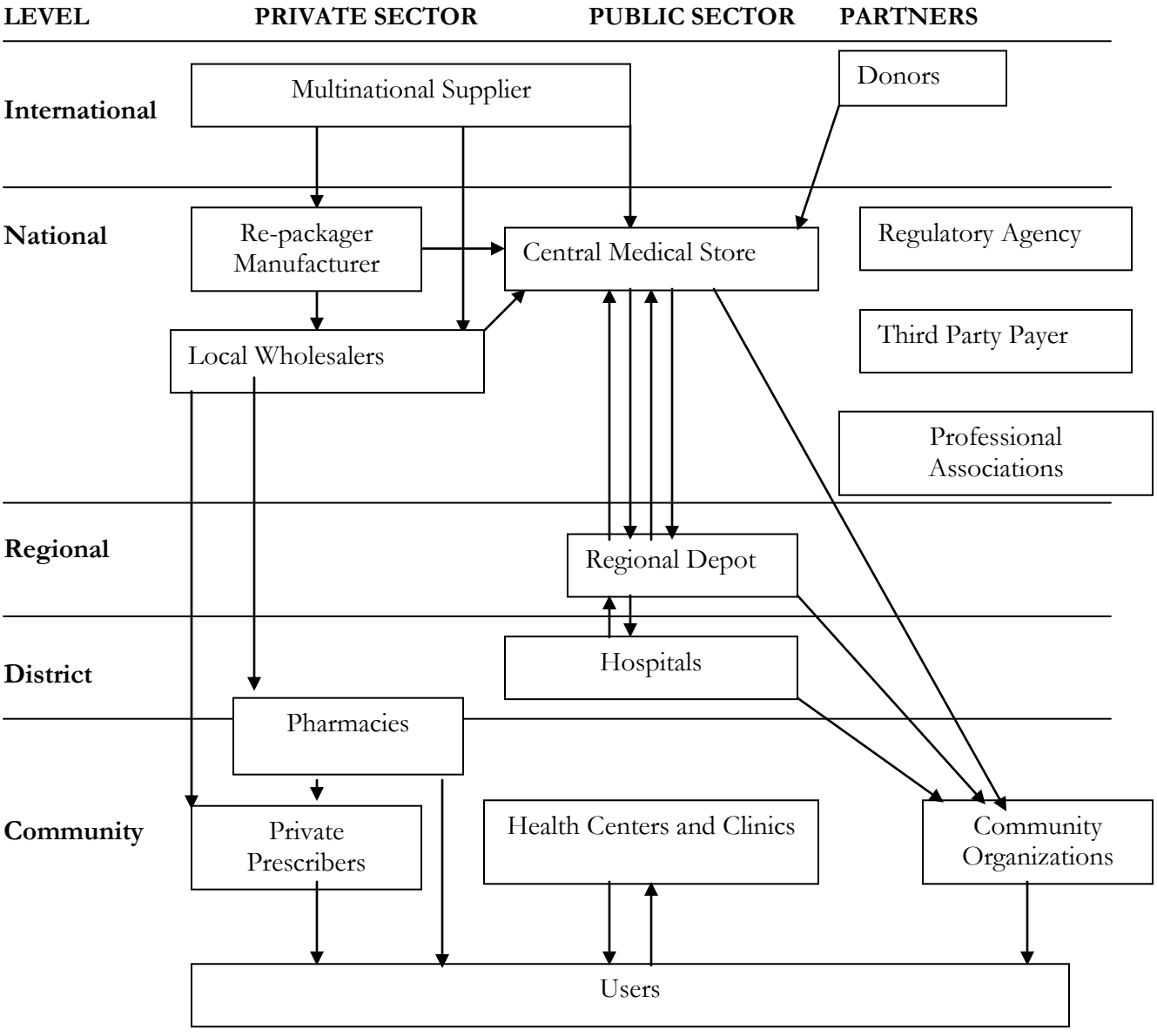
### 3.3. Distribution considerations for pharmaceutical products in Namibia

In order to gain an insight to the supply and distribution considerations for the Namibian pharmaceutical market, it is important to note that the Namibian market is a prescription market. The issue of medicines is made through formal channels and the reimbursement systems by medical aid schemes require a prescription.

Therefore, the Namibian pharmaceutical market has two main overlapping wholesale/retail structures, the system of insurance reimbursement on certain medicines coupled with

prescription regulations covering others. The public sector is an entirely different system and not as straightforward as the private sector.

The diagram below illustrates the channel of distribution for medicines in Namibia.




Namibia also has in place the Rational Pharmaceutical Management Plus (RPM Plus) Program funded by the United States Agency for International Development (USAID). The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities – pharmaceuticals, vaccines, supplies and basic medical equipment – of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

In the Public Sector, Namibia operates on a classical central medical stores model called the Central Medical Stores (CMS) situated in Windhoek, the capital city, under the Ministry of Health and Social Services (MOHSS). The CMS procures, stores, and distributes more than 600 medicines listed in the national essential medicines list, including antiretroviral drugs, medicines for treating and preventing opportunistic infections, and medicines used for the prevention of mother-to-child transmission (PMTCT) program. It does the same or more than 800 medical supply items. Items are distributed to two RMS, one in Oshakati in the northwest and the other in Rundu in the northeast. CMS also makes direct supplies to 46 hospitals, health centers, and clinics situated in the Windhoek area, and other facilities in the country, such as Oshakati Hospitals and Katima Mulilo Hospital.

Dr. Norbert Forster, Under Secretary in the MOHSS, indicated that through the assistance from USAID, Namibia has been reviewing the entire CMS system as it is beset with numerous problems in its current form. The assessments from the review all rejected the status quo of continuing the classic CMS supply model, and most suggested transitioning to an autonomous supply agency system.

Autonomous supply agencies are often constituted as parastatals, either under the country's Ministry of Health or as independent organizations with a board of directors or trustees from several government ministries and non-governmental organizations. Their primary client is usually the government. Because of its potential for improving efficiency and flexibility associated with the private sector style of management, while maintaining sufficient public sector supervision to ensure that the agencies provide high quality essential medicines at reasonable prices in public sector, many developing countries are adopting this model, which appears to offer new opportunities and features for improving CMS performance to provide high level of service efficiently and cost-effectively.

Dr. Forster however noted that after considering this recommendation, MOHSS decided to opt for the traditional central medical store model with strengthening of the various components and systems. That is so, because the autonomous brings with it potential risk, as it requires the given away control (funds, procurement decisions in terms of needs etc) to an agency that may not even be more effective than the current system.

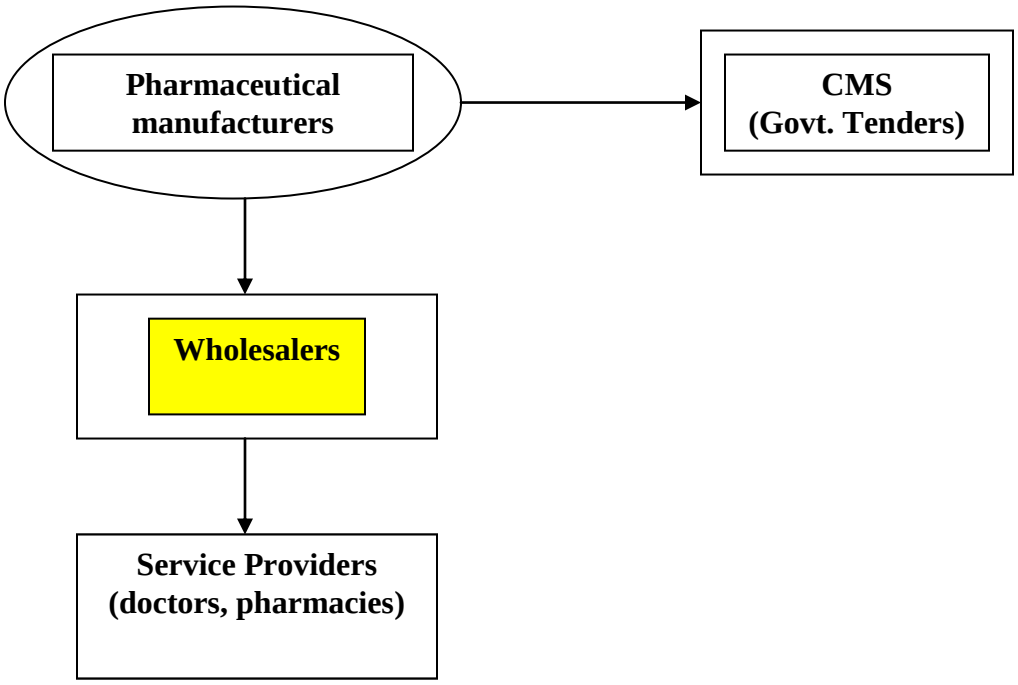
In the private sector the procurement and distribution process is less complex. Pharmaceutical manufacturers have local representatives whose responsibility is to market the products directly to service providers such as doctors, pharmacists and the CMS. Below is a list of pharmaceutical manufacturers with representatives in Namibia.

| **Manufacturer Name** | **Country of Origin** |
|---|---|
| | |
| Pfizer | USA |
| Cipla Medpro | India |
| Abbot | USA |
| GlaxoSmithKline | UK |
| Wyeth | UK |
| Roche | USA |

| | |
|---|---|
| Schering-Plough | Germany |
| Merck | USA |
| Eli Lilly | USA |
| Novartis | UK and Netherlands |
| Boehringer-Ingelheim | Germany |
| Aspen | South Africa |
| 3M | Belgium |
| Ranbaxy | India |
| Bayer | Germany |
| Adcock Ingram | South Africa |
| Cadila Pharmaceuticals | India |
| Hetero Drugs Limited | India |
| Sonke Pharmaceuticals (Pty) Ltd | India & South Africa (JV company) |
| Bristol-Myers Squibb | South Africa |

Very few of these companies actually manage their own warehouses for storage and point of distribution, as they do make the orders themselves. In fact, determined by the demand from the service providers, these wholesalers order medicines from the pharmaceutical manufacturers and sell directly to the doctors and pharmacies. Therefore, the pharmaceutical manufacturers like Pfizer do not sell directly to the doctors and pharmacies. They only hand out samples, perform product explanations/laboratory tests and conduct what they call "indirect selling". The model for the private sector is illustrated in the diagram below.

**Private Sector Supply Model for Namibia**



As for the privately owned wholesalers, the 2 biggest wholesalers in Namibia are Geka Pharma and Nampharm, both of whom are Namibian owned. However, there are also a number of other wholesales or warehouses in Windhoek and around the country. They are listed below.

| **Wholesale/Warehouse Name** | **Country of Registration** |
|---|---|
| | |
| **Pharmaceuticals** | |
| | |
| Geka Pharma | Namibia |
| Taeuber & Corssen | Namibia |
| Adcock Ingram (Namibia) | Namibia |
| Erongo Agencies | Namibia |
| Zenith Enterprises | Namibia |
| Vita Pharmacy | Namibia |
| Nampharm | Namibia |
| Healthcare Medical | Namibia |
| Blood Transfussion | Namibia |
| Omnimed | Namibia |
| Fabupharm | Namibia |
| Genmed | Namibia |
| Placita | Namibia |
| | |
| **X-Ray items** | |
| Siemens | Namibia |
| Erongo | Namibia |
| Medlab Services | Namibia |
| Bio dynamics | Namibia |
| | |
| **Non-Pharmaceuticals** | |
| | |
| Genmed | Namibia |
| Sabilian Technologies | Namibia |
| MS Supplies | Namibia |
| Placita | Namibia |
| Disposible Medical Products | Namibia |
| Adcock Ingram (Namibia) | Namibia |
| Tecmed | Namibia |
| Commodity Exchange | Namibia |
| Wagtech | Namibia |
| Omnimed | Namibia |
| Medlab Services | Namibia |
| Healthcare Medical | Namibia |
| Erongo Agencies | Namibia |

| | |
|---|---|
| Stephan Buchmann | Namibia |
| Geka Pharma | Namibia |
| Nampharm | Namibia |

## 4. Market Access

4.1. Product Eligibility under Preferential Trade Agreements

There are no existing bilateral trade agreements between Namibia and India, although the two countries enjoy good and increasingly close bilateral political and economic relations rooted in the liberation struggle for Namibia.

4.2 Logistical and Financial infrastructure

Depending upon the terms of payment as agreed upon at the time of contracted sale, the supplier will generally be able to collect payment upon delivery. In general, retailers will require some type of extended payment terms. The use of extended payment terms can be an effective way for new suppliers to break into the Namibian market. This must be taken into account when developing your market entry plan.

There are several possible ways in which buyers might arrange payment:

Letter of Credit (L/C). A Letter of Credit from the buyer's bank serves as a guarantee of payment upon receipt of product. Payment is received when the supplier takes the letter to the bank along with documentation of acceptable product delivery, proof which allows funds to be drawn from the buyer's account.

Extended Payment Terms. Some L/Cs are written as Delivery + 30, 60 or 90 days. In these cases, the supplier receives the payment 30, 60 or 90 days after the acceptable delivery of the product to the buyer.

Open Account. Many Namibian wholesalers and particularly retailers are used to purchasing products on open account terms. Open account means that the supplier provides a line of credit to the buyer. The buyer makes full or partial payment on pre-agreed to dates, usually in 30, 60 or 90 days. Open account is typically used between companies that are familiar with each other. It eliminates the fees and documentation requirements of an L/C.

Use of Financing. There are certain banks and financial institutions that specialize in trade financing. The key is to locate trade financing programs that will enable the suppliers to receive payment when the goods are shipped, while allowing the Namibian the extended payment terms they are used to receiving. Guru Investments & Consulting (Pty) Ltd can provide further assistance if the use of trade financing is part of the market entry strategy.

Currency. The vast majority of Namibian buyers will require that the transaction be conducted entirely in U.S. dollars (US$). Thus any possible currency risk will be borne by the Indian companies.

Inspect Goods for Quality

In general, buyers of pharmaceuticals will know, or will independently verify, the quality of the goods so the supplier need not spend time or money on a quality verification process. The manufacture of pharmaceuticals should incorporate quality verification to ensure consistency, durability, and safety, particularly for the public. It should be kept in mind that all medicines entering Namibia should be registered with the Medicines Control Council (MCC) as per No. 13 of 2003: Medicines and Related Substances Control Act, 2003.

## Order Fulfillment & Delivery Schedules

The expected lead-time for product can vary, but there are general guidelines to be kept in mind. Any samples that may be required are expected to reach the prospective buyer in between two to four weeks, while actual order fulfillment is understood to take longer, often between one to two months. Again, in timing, openness and consistency are of utmost importance. Delivery capabilities should be discussed at the beginning of any partnership and stated assurances must be met in order to maintain trust between parties.

## Packaging for Export

It is imperative that product be packed appropriately for air and ocean transport.
Every single item being shipped, regardless of size or value, must be labeled, both on outer packaging and (for pharmaceuticals) individually, with country of origin. Exterior packaging requires, in addition to country of origin notice, a copy of the product invoice visible on the package. Dollar amounts must be provided in U.S. dollars and product listing and information must be given in English. Names and addresses of both the shipper and consignee must be provided. The packing list, matching the export paperwork, should also be attached, usually on the side of the package. Packing should ensure that product would not be damaged by a fall of three feet (approximately waist-high).

## Labeling to Meet Namibian Requirements

Each package must be labeled legibly and conspicuously. In addition, each individual good must be marked with name of country of origin (unless specifically exempted from country of origin marking requirements.) In general, crude substances, metal bars, articles made more than 20 years prior to importation, articles incapable of being marked, articles for which the marking of the containers will reasonably indicate the origin of the articles (the marked container reaches the ultimate purchaser unopened), and goods that are not sold directly to the retail customer are exempted.

Pharmaceuticals entering the retail market of Namibia will require individual marking. Pharmaceuticals not intended for direct sale to who Namibian Customs recognizes as the "Ultimate Consumer," are exempt from marking as long as the persons or company purchasing the goods are made aware of the country of origin.

## Freight Forwarding

Freight Forwarding involves the commissioning of the shipping and landing of product and the coordination of consolidation and de-consolidation of merchandise.

There are four options that exist when picking freight forwarder which are airlines, forwarders, integrators, and truckers. Products forwarded from the India to Namibia, will generally be shipped either by air or sea. Depending on origin, destination, value, weight, and size of the freight, air transportation can cost two to five times more than surface transportation, but it is often the only way to meet the lead-times required in the industry without keeping product in Namibia. Indian exporters will also need to analyze the relative costs of air freight versus Namibian warehousing in meeting short lead times.

### Insurance

International shipping, with goods transported over long distances and subject to a variety of hazards en route, the risk of loss of, or damage to, goods is relatively high. If the loss or damage does occur, the owner looses unless the goods are covered by insurance. Insurance enables the liability for loss or damage to be shared out equitably amongst the many instead of having to be borne by, say, a single cargo owner or ship owner.

An insurance policy is the evidence of a contract between the insured and the insurer, and defines the terms of the agreement between the insured and the insurer. By paying an insurance premium, to an insurer (e.g. an insurance company or underwriter), the insured (e.g. the exporter or importer) earns the right to claim compensation, to cover the full value of product lost, from the insurer for a loss arising from any of the risks covered by the insurance policy.

A facultative policy covers a single shipment. Every risk is discussed separately and a premium agreed upon. Time-consuming, and potentially costly, this method is not recommended for a frequent exporter. An open policy covers all export shipments, within the scope of the insurance. Details of a particular shipment must, however, be declared as they become known.

### Landing Product

Once product is landed in the country of destination (Namibia.), the owner of the goods has to choose whether to enter the goods immediately through Namibian Customs, or to defer the entrance process. Once the products have been cleared they could either be stored at the warehouse for a specific period of time or transported directly to the retailer/buyer.

## 4.3 Deadline and Production/Supply Quotas

Orders to Namibia must be filled on time and in full. A realistic assessment of production capabilities is essential to the development of successful relationships with Namibian partners and buyers.

Indian manufacturers and exporters of pharmaceuticals need to ensure that they will consistently be able to meet the standards that they set. It is generally better to underestimate the timeline a company is able to work within rather than risk being late with shipments due to unforeseen circumstances. Particularly in the area of pharmaceuticals, which can have severe adverse effects to the public, it is increasingly imported that all products are fit for

public consumption and able to meet the requirements of the Quality Surveillance Laboratory (QSL) from the Ministry of Health and Social Service at any give time.

**ANNEXURES**

**Annexure I**

## Hospitals, Health Centers and Clinics

## CAPRIVI

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Caprivi** | **Katima Mulilo** | Katima Mulilo | 220 |
| | | | |
| | | Bukalo Health Centre | 4 |
| | | SangwaliHealth Centre | 3 |
| | | Sibbinda Health Centre | 3 |
| | | | |
| | | Batubaja Clinic | |
| | | Chinchimane Clinic | |
| | | Choi Clinic | |
| | | Itomba Clinic | |
| | | Impalila Clinic | |
| | | Isize Clinic | |
| | | Ibbu Clinic | |
| | | Kabbe Clinic | |
| | | Kasheshe Clinic | |
| | | Kanono Clinic | |
| | | Katima Mulilo Clinic | |
| | | Lisikili Clinic | |
| | | Linyati Clinic | |
| | | Lusese Clinic | |
| | | Mafuta Clinic | |
| | | Mbalasite Clinic | |
| | | Muyako Clinic | |
| | | Masokotwane Clinic | |
| | | Mavuluma Clinic | |
| | | Ngweze Clinic | |
| | | Ngoma Clinic | |
| | | Sachona Clinic | |
| | | Sesheke Clinic | |
| | | Schuckmansburg Clinic | |
| | | | |

**Erongo**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Erongo** | **Omaruru** | Omaruru Hospital | 126 |
| | | | |
| | | Okombahe Clinic | |
| | | Omatjete Clinic | |
| | | Uis Clinic | |
| | | Omaruru Clinic | |
| | | | |
| | **Swakopmund** | Swakop Hospital | 108 |
| | | Arandis Health Centre | |
| | | Henties Bay Clinic | |
| | | Tamariskia Clinic | |
| | | | |
| | **Usakos** | Usakos Hospital | 63 |
| | | Karibib Health Centre | |
| | | Hakhaseb Clinic | |
| | | Otjimbingwe Clinic | |
| | | Spitzkoppe Clinic | |
| | | Tubusis Clinic | |
| | | | |
| | **Walvisbay** | Walvisbay Hospital | 110 |
| | | Kuisebmond Health Centre | |
| | | Coastal Clinic | |
| | | Narraville Clinic | |
| | | Utuseb Clinic | |
| | | Walvisbay Town Clinic | |

## HARDAP

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Hardap** | **Aronos** | Aranos Health Centre | 50 |
| | | Aranos Clinic | |
| | | Gochas Clinic | |
| | | | |
| | **Mariental** | Mariental Hospital | 150 |
| | | Maltahohe Health Centre | |
| | | Mariental Clinic | |
| | | Gibeon Clinic | |
| | | Stampriet Clinic | |
| | | Hoachanas Clinic | |
| | | Kalkrand Clinic | |
| | | | |
| | **Rehoboth** | St. Mary's RC Hospital | 140 |
| | | Rehoboth Health Centre | |
| | | Klein-aub Clinic | |
| | | Rietoog Clinic | |
| | | Schlip Clinic | |

## KARAS

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Karas** | **Karasburg** | Karasburg Hospitalf | 100 |
| | | Noordoewer Health Centre | |
| | | Ariamsvlei Clinic | |
| | | Karasburg Clinic | |
| | | Warmbad Clinic | |
| | | Gabis Clinic | |
| | | | |
| | **Keetmanshoop** | Keetmanshoop Hospitalq | 155 |
| | | Bethanie Health Centre | |
| | | Aroab Health Centre | |
| | | Daan Viljoen Clinic | |
| | | Tses Clinic | |
| | | Berseba Clinic | |
| | | Koes Clinic | |
| | | | |
| | **Luderitz** | Luderitz Hospital | 98 |
| | | Luderitz Clinic | |
| | | Aus Clinic | |
| | | Rosh Pinah Clinic | |

**KAVANGO**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Kavango** | **Andara** | Andara Hospital | 100 |
| | | Omega Clinic | |
| | | Kangonog Clinic | |
| | | Shadikongoro Clinic | |
| | | Biro Clinic | |
| | | Divindu Clinic | |
| | | Mutjiku Clinic | |
| | | Shamaturu Clinic | |
| | | Mayara Clinic | |
| | | Old Bagani Clinic | |
| | | | |
| | **Nankudu** | Nankudu Hospital | 196 |
| | | Rupara Health Centre | |
| | | Tondoro Health Centre | |
| | | Nkurenkuru Health Centre | |
| | | Mpungu Health Centre | |
| | | Mbambi Clinic | |
| | | Nzinze Clinic | |
| | | Nepara Clinic | |
| | | Yinsu Clinic | |
| | | Dcaruha Clinic | |
| | | Sikarosompo Clinic | |
| | | Muparara Clinic | |
| | | Nankudu Clinic | |
| | | | |
| | **Nyangana** | Nyagana Hospital | 154 |
| | | Kandjara Clinic | |
| | | Kapupahedi Clinic | |
| | | Karakuta Clinic | |
| | | Katera Clinic | |
| | | Mabushe Clinic | |
| | | Mbambi Clinic | |
| | | Ndonga Clinic | |
| | | Nyangana Clinic | |
| | | Shiyunqwe Clinic | |
| | | | |
| | **Rundu** | Rundu Intermediate Referral Hospital | 300 |
| | | Sambyu Health Centre | 24 |
| | | Mupini Health Centre | 20 |

| | | | |
|---|---|---|---|
| | | Bunya Health Centre | 20 |

## KAVANGO

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| | **Rundu** | Rundu Clinic | |
| | | Nkarapmwe Clinic | |
| | | Kayengona Clinic | |
| | | Kapako Clinic | |
| | | Muveve Clinic | |
| | | Ndama Clinic | |
| | | Kaisosi Clinic | |
| | | Baramansoni Clinic | |
| | | Mile 10 Clinic | |
| | | Mile 30 Clinic | |
| | | Katjinakatji Clinic | |
| | | Ncaute Clinic | |
| | | Sarukwe Clinic | |
| | | Takwasa Clinic | |
| | | Mashare Clinic | |
| | | Gowatjinga Clinic | |
| | | Ncuncuni Clinic | |
| | | Sauyemwa Clinic | |
| | | Mangeti Clinic | |

## KHOMAS

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Khomas** | **Windhoek** | Katutura Hospital | 749 |
| | | Khomasdal Health Centreq | |
| | | Katutura Health Centre | |
| | | Robert Mugabe Clinic | |
| | | Okuyrangava Clinic | |
| | | Wanaheda Clinic | |
| | | Hakahana Clinic | |
| | | Donkerhoek Clinic | |
| | | Dordabis Clinic | |
| | | Groot Aub Clinic | |
| | | Baumgartsbrunn Clinic | |

**KUNENE**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Kunene** | **Khorixas** | Khorixas Hospital | 110 |
| | | Khorixas Clinic | |
| | | Anichab Clinic | |
| | | Fransfontein Clinic | |
| | | Anker Clinic | |
| | | Erwee Clinic | |
| | | Bersig Clinic | |
| | | Terrace Bay Clinic | |
| | | | |
| | **Opuwo** | Opuwo Hospital | 80 |
| | | Okangwati Health Centre | |
| | | Sesfontein Health Centre | |
| | | Ohandungu Clinic | |
| | | Epupa Clinic | |
| | | Otjimunhaka Clinic | |
| | | Etanga Clinic | |
| | | Orumana Clinic | |
| | | Etoto Clinic | |
| | | Otjondeka Clinic | |
| | | Otjiu Clinic | |
| | | Oruvandjei Clinic | |
| | | Opuwo Clinic | |
| | | | |
| | **Outjo** | Outjo Hospital | 22 |
| | | Kamanjab Health Centre | |
| | | Outjo Clinic | |
| | | Okukuejo Clinic | |
| | | | |

**OHANGWENA**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Ohangwena** | **Eenhana** | Eehana Hospital | 120 |
| | | Eehana Clinic | |
| | | Epembe Clinic | |
| | | Epinga Clinic | |
| | | Omundaungilo Clinic | |
| | | Onambutu Clinic | |
| | | Onangolo Clinic | |
| | | Ongulayanetanga Clinic | |
| | | Oshandi Clinic | |
| | | Oshikunde Clinic | |
| | | | |
| | **Engela** | Engela Hospital | 250 |
| | | Ongha aHealth Cente | |
| | | Odibo Health Centre | |
| | | Engela Clinic | |
| | | Edundja Clinic | |
| | | Endola Clinic | |
| | | Eudafano Clinic | |
| | | Ohangwena Clinic | |
| | | Ohaukelo Clinic | |
| | | Okambebe Clinic | |
| | | Okatope Clinic | |
| | | Omungwelume Clinic | |
| | | Ondobe Clinic | |
| | | Onekwaya Clinic | |
| | | Ongenga Clinic | |
| | | Ohalushu Clinic | |
| | | Onamukulo Clinic | |
| | | | |
| | **Kongo** | Kongo District Health | 60 |
| | | Ekoka Clinic | |
| | | Kongo Clinic | |
| | | Olukula Clinic | |

**OMAHEKE**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Omaheke** | **Gobabis** | Gobabis Hospital | 172 |
| | | Otjinene Health Centre | 6 |
| | | Epako Clinic | 1 |
| | | Epukiro Clinic | 4 |
| | | Epukiro Post 3 Clinic | 1 |
| | | Sending Plaas Clinic | 1 |
| | | Tallismanus Clinic | 4 |
| | | Corridor Post 13 Clinic | 1 |
| | | Onderombapa Clinic | 2 |
| | | Leonardville Clinic | 2 |
| | | Aminuis Clinic | 2 |
| | | Eiseb Clinic | 2 |
| | | Omitara Clinic | |
| | | Blouberg Clinic | |
| | | Witvlei Clinic | |

**OMUSATI**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Omusati** | **Oshikuku** | Oshikuku Hospital | 250 |
| | | Elim Health Centre | |
| | | Okalongo health Centre | |
| | | Othika Clinic | |
| | | Onkani Clinic | |
| | | Olutsidhi Clinic | |
| | | Onaanda Clinic | |
| | | Ogonga Clinic | |
| | | Omuthitugwonyama Clinic | |
| | | Okathitu Clinic | |
| | | Omangalanga Clinic | |
| | | Onhelelwa Clinic | |
| | | Sheetekela Clinic | |
| | | Omutundungu Clinic | |
| | | Olupandu Clinic | |
| | | Lipandayamiti Clinic | |
| | | Epoko Clinic | |
| | | St. Benedict Clinic | |
| | | | |
| | **Outapi** | Outapi Hospital | 120 |
| | | Mahenene Health Centre | |
| | | Omana Watjihozu Health Centre | |
| | | Anamulenge Clinic | |
| | | Outapi Clinic | |
| | | Eengolo Clinic | |
| | | Onawa Clinic | |
| | | Oshaala Clinic | |
| | | Eunda Clinic | |
| | | Ruacan Clinic | |
| | | | |
| | **Tsandi** | Tsandi Hospital | 60 |
| | | Onesi Health Centre | 20 |
| | | Ongulumbashe Clinic | |
| | | Okatseidhi Clinic | |
| | | Onamandongo Clinic | |
| | | Oshitudha Clinic | |
| | | Lilyateko Clinic | |
| | | | |
| | **Okahao** | Okahao Hospital | 100 |
| | | Indiri Gandhi Health Centre | 12 |
| | | Amarika Clinic | |

**OMUSATI**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| | | Uutsathima Clinic | |
| | | Etilysa Clinic | |
| | | Onamatanga Clinic | |
| | | Otamanzi Clinic | |
| | | Oluteyi Clinic | |
| | | Okahao Clinic | |

**OSHANA**

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Oshana** | **Oshakati** | Oshakati Intermediate Hospital | 658 |
| | | Ongwediwa Health Centre | |
| | | Ondangwa Health Centre | |
| | | Ou Nick Health Centre | |
| | | Okatan Health Centre | |
| | | Eluwa Clinic | |
| | | Ekamba Clinic | |
| | | Ompundja Clinic | |
| | | Enkono Clinic | |
| | | Ehafo Clinic | |
| | | Eheke Clinic | |
| | | Uukwiyuushona Clinic | |
| | | Onamutayi Clinic | |
| | | Okaku Clinic | |

## OSHIKOTO

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Oshikoto** | **Tsumed** | Tsumed Hospital | 76 |
| | | Oshivelo Clinic | |
| | | Lombard Clinic | |
| | | Tsumed Clinic | |
| | | Tsintsabis Clinic | |
| | | | |
| | **Onandjokwe** | Onandjokwe Hospital | 350 |
| | | Onyaanya Health Centre | 16 |
| | | Onayena Health Centre | 19 |
| | | Okankolo Health Centre | 16 |
| | | Onamishu Clinic | |
| | | Ndamono Clinic | |
| | | Omuthiya Clinic | |
| | | Omuntele Clinic | |
| | | Olukonda Clinic | |
| | | Onyuulae Clinic | |
| | | Amilema Clinic | |
| | | Ontananga Clinic | |
| | | Onakazizi Clinic | |
| | | Onanke Clinic | |
| | | Onkumbula Clinic | |
| | | Oshingambo Clinic | |

## OTJOZUNDJUPA

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Otjozundjupa** | **Grootfontein** | Grootfontein Hospital | 169 |
| | | Mangetti Clinic | |
| | | Kambat Clinic | |
| | | Tsumkwe Clinic | |
| | | Gam Clinic | |
| | | Omatako Clinic | |
| | | Otjituuo Clinic | |
| | | Grootfontein Clinic | |
| | | | |
| | **Okahandja** | Okahandja Hospital | 82 |
| | | Nau-Aib Clinic | |
| | | Ovitoto Clinic | |
| | | | |
| | **Okakarara** | Okakarara Hospital | 80 |
| | | Okakarara Clinic | |
| | | Coblenz Clinic | |
| | | Okamatapi Clinic | |
| | | Okondjatu Clinic | |
| | | | |
| | **Otjiwarongo** | Otjiwarongo Hospital | 166 |
| | | Otavi Health Centre | |
| | | Orwetoven Clinic | |
| | | Osire Clinic | |
| | | Kalkfeld Clinic | |

## WINDHOEK CENTRAL HOSPITAL

| Region | Health District | Name of Hospital/Health Centre/clinic | Bed |
|---|---|---|---|
| **Khomas** | **Windhoek** | Windhoek Central Hospital | 782 |

Annexure II: Private Hospitals, Health centres and Clinics

## PRIVATE HOSPITAL, HEALTH CENTRE AND CLINICS

| | |
|---|---|
| Standard Bank Namibia Medical Clinic | Windhoek |
| Health Clinic – University of Namibia | Windhoek |
| Rietfontein Clinic | Windhoek |
| Foodcon Occupational Health Clinic | Walvisbay |
| Medsin (PTY) Ltd Clinic International Construction | Windhoek |

| | |
|---|---|
| Medsin (PTY) Ltd Clinic Beston & Sandstein | Windhoek |
| Medisin (PTY) Ltd | Windhoek |
| Medsin (PTY) Ltd Clinic Bonmilk | Windhoek |
| Medsin (PTY) Ltd Clinic Wispeco | Windhoek |
| Medsin (PTY) Ltd Clinic F. P. Du Toit | Windhoek |
| North Dressing Station | Oranjemund |
| Elizabetih Bay Clinic | Oranjemund |
| Namdeb Hospital | Oranjemund |
| Dabaras Clinic | Oranjemund |
| Seaflower | Luderitz |
| Occupational/Primary Health/Clinic | Windhoek |
| Mokuti Lodge Clinic | Tsumed |
| Namibia Breweries Clinic | Windhoek |
| Rietfontein Farming Company Clinic | Windhoek |
| Mbambi Clinic | Rundu |
| Kandjara Clinic | Rundu |
| Lalandii Clinic | Luderitz |
| Windhoek Chairoparactice Clinic | Windhoek |
| Namibia Health (PTY) Ltd t/a Health Force Clinics Swamed Clinic | Windhoek |
| Namibia Health (PTY) Ltd | Windhoek |
| Namibia Health (PTY) Ltd | Windhoek |
| Namibia Health (PTY) Ltd | Windhoek |
| Otjiwarongo Medi-Clinic | Otjiwarongo |
| Windhoek Medi-Clinic | Windhoek |
| St. Benedict Clinic | Oshakati |
| Tilyateko Clinic | Tilyateko |
| Rosh Pinah Clinic | P. B. Rosh Pinah |

## RENEWALS OF LICENSE/REGISTRATION

| | |
|---|---|
| Thaddeus Hospital | Usakos |
| Roman Catholic Hospital | Windhoek |
| Onandjokwe Hospital | Ondangwa |
| Amilema Clinic | Ondangwq |
| Eheke Clinic | Ondangwa |
| Ndamono Clinic | Ondangwa |
| Okaku Clinic | Ondangwa |
| Okukondo Clinic | Ondangwa |
| Omuntele Clinic | Ondangwa |
| Omithiya Clinic | Ondangwa |
| Onkumbula Clinic | Ondangwa |
| Ontanauga Clinic | Ondangwa |
| Meatco (Abbattoir), Clinc | Windhoek |

## UNATTACHED OPERATING THEATRE

| | |
|---|---|
| Bismarck Theatre | Swakopmund |
| Namibia Hearing Centre | Windhoek |
| Swakopmund Health Services Hospice (C.C) | Swakopmund |

## HOSPICE

| | |
|---|---|
| Sacred Heart Hospice Missionary sisters of the Sacred Heart | Windhoek |
| Sacred Heart Hospice | Mariental |

## AMBULANCE

| | |
|---|---|
| MRI Medrescue Namibia | Windhoek |
| Fire and Emergence Services Windhoek Municipality | Windhoek |

## HERBALIST

| | |
|---|---|
| T/Dr Michava S. Chihau Herbalist | Windhoek |

## CHIROPRACTOR

| | |
|---|---|
| Natural Health Clinic<br>Dr Elio Drews | Windhoek |
| Swakopmund Chiropractice Centre/Office?Practice | Swakopmund |

## ORTHOPAEDIC WORKSHOP

| | |
|---|---|
| Orthopaedic Centre | Windhoek |

## DIETITIAN

| | |
|---|---|
| Charlotte Coetzee | Windhoek |

## BIOKINETICS CLINIC

| | |
|---|---|
| Haydn Tanse | Windhoek |

## HOLISTIC PRACTITIONER

| | |
|---|---|
| Doris Ackermann | Swakopmund |

## AEROMED NAMIBIA CC

| | |
|---|---|
| Aeromed Namibia CC | Windhoek |

## CLIN BATH LABORATORAY

| | |
|---|---|
| R. C. Hospital | Windhoek |

**Annexure II**

## REGISTERED PHARMA COMPANIES WITH PHARMACEUTICAL SOCIETY OF SOUTH AFRICA (PSSA)

(NB: Indian companies in Bold)

**A**

- Abbott Laboratories, Abbott Park, IL, USA [2]
- Aburaihan Pharmaceutical Company, 1, Tirandaz, Tehran-pars, Tehran, Iran [3]
- AC Biotec GmbH, Prof.-Rehm-Str. 1, 52428 JÙlich, Germany [4]
- Aestus Pharmaceuticals Corp., 17-145 Royal Crest Court Markham, Ontario, Canada L3R 9Z4 [398]
- Albonova, Manuel Cordova Galarza OE41-75 [5]
- **Alembic Limited, Alembic Campus, Vadodara - 390 003. Gujarat. India [269]**
- Alfredo Pablo Moro, Rodo 6424 (1440) Capital Federal, Argentina [6]
- ALK Sverige AB, Sweden [7]
- Almirall, Almirall-Prodesfarma, S.A. General Mitre, 151 08022 Barcelona SPAIN [365]
- Alpha RX, 75 East Beaver Creek Road,Unit 10, Richmond Hill, USA [8]
- ALTANA Pharma, Byk-Gulden-Strasse 2, 78467 Konstanz, Germany [9]
- Alza Corporation, Palo Alto, CA [10]
- Amgen, Thousand Oaks, CA [11]
- Amic Laboratories Ltd, Dhaka, Bangladesh [12]
- Amson Vaccines and Pharma, Pvt Ltd, 55 A, Mayo Road Civil Lines, Rawalpindi, Pakistan [450]
- Antec International, , England [13]
- Antisoma, West Africa House, Hanger Lane, Ealing, London W5 3QR, UK [14]
- Apical Pharmaceutical Corporation, PO Box 227721 Miami, FL 33122 [507]
- AstraZeneca International, Alderley Park, Macclesfield, UK SK10 4TG [15]
- Aventis [16]
- Avicennaco.com, 3rd Floor, No. 36, Vozara St., Tehran, Iran [530]

**B**

- **Balsam Pharma Pvt. Ltd., 1012, Anand Mangal III, Ambawadi, Ahmedabad 380009, India [17]**
- Barakat Pharmaceutical Industries - Syria, P.O.Box 5412, Aleppo, Syria [18]
- Barr Laboratories, iNC., 2 Quaker Rd., Pomona, NY 10970 [19]
- BASF [20]
- Bayer Corporation [21]
- Bayer Pharmaceutical, Bayer plc, Bayer House, Strawberry Hill, Newbury, Berkshire RG14 1JA [22]
- Bedson S.A., Buenos Aires, Argentina [23]
- BeiQi Chemicals Co., Ltd., Pharmaceutical Intermediates, No.23 ChaoYang Road, TangShan, HeBei, China, 063000 [208]

- **Belco Pharma, 515, MIE, BAHADURGARH, HARYANA INDIA [285]**
- **Benzochem Lifesciences Pty Ltd, VISHWAM, 8/B, Posal Colony, Chembur, Mumbai- 400071 India [337]**
- Berlex Laboratories, Inc., P.O. Box 1000, Montville NJ 07045-1000, USA [24]
- Beximco Pharmaceuticals Ltd, 17 Dhanmandi R/A,Road No.2, Bangladesh [25]
- **Bharat serums and Vaccines Ltd., 16, Hoechst House, Nariman Point Mumbai21 - INDIA [26]**
- Bilim Pharmaceuticals, Turkey [27]
- Biomedic Laboratories, Luxembourg [28]
- Blansett Pharmacal, Blansett Pharmacal Co, Inc., P.O. Box 638, North Little Rock, AR 72115 [271]
- Blenheim Pharmacal, Inc., 119 Creamery Road North Blenheim, NY 12131 [358]
- Boehringer Ingelheim Pharmaceuticals, Inc. [29]
- Bosnalijek d.d. Pharmaceuticals, Jukiceva 55, 71000 Sarajevo, Bosnia and Herzegovina [30]
- Bristol-Myers Squibb Company [31]

**C**

- Cadila Pharmaceuticals Ltd, Corporate Campus, Sarkhej-Dholka Road, Bhat, Ahmedabad [32]
- **CALYX, 5, Marwah's Complex, Saki Naka, Andheri (E), Mumbai-72,India [33]**
- **Celogen Pharma Pvt.Limited, 411-B, Shree Nand Dham, Sector 11, CBD-Belapur, Navi Mumbai 400614, INDIA [645]**
- **Century Pharmaceuticals Limited, 406, World Trade Centre,Sayajigunj, Vadodara 390 005 Gujarat, India [512]**
- Changzhou Siyao Pharmaceuticals, Changzhou Jiangsu, China [34]
- Chemical Diversity Labs, Inc., 11558 Sorrento Valley Road #5, San Diego, CA 92121 USA [35]
- China Greatvista Chemicals, Baiguan, Shangyu, Zhejiang, China [209]
- Ciba Speciality Chemicals, Basel Switzerland [36]
- CIPAN-Companhia Industrial Productora de Antibioticos, s.a., Lisboa - Portugal [426]
- **Cipla Pharmaceutical, Mumbai Central, Mumbai 400 008, India [37]**
- Ciprod Pharm Ltd, STR. TEPES VODA NR.55 , sector 2, BUCHAREST, ROMANIA [255]
- **Ciron Drugs & Pharmaceuticals Pvt. Ltd., 1, Prabhat Nagar, Ground Floor, Jogeshwari (West), Mumbai - 400 102. Maharashtra, INDIA. [630]**
- **Claris Lifesciences Limited, Claris Lifesciences Limited Corporate Towers, Nr. Parimal Crossing, Ellisbridge, Ahmedabad – 380006 Gujarat, INDIA [517]**
- **Covalent Laboratories Private Limited, Flat No. 109, 1st Floor, Ram's Enclave, Erragadda, Hyderabad - 18, AP., INDIA. [554]**
- CPL Inc., - Bulk Pharmaceuticals & Intermediates, 16020 Swingley Ridge Rd. St. Louis, MO USA [38]
- CSL Limited, 45 Poplar Road, Parkville, Melbourne, Australia 3052 [39]

**D**

- Daewoong Chemical Co., ltd., 906-5 Sansin-ri, Hyangnam-myun, Hwasung-gun, Korea. [40]
- Dafra Pharma, Steenweg op Mol 148, 2360 Oud-Turnhout, Belgium [311]
- Dafra Pharma [299]
- Dales Pharmaceuticals Ltd, Skipton, North Yorkshire, BD23 2RW, UK [41]
- Denk Pharma [298]
- Dilipkumar and Company, 455 Kalbadevi Road, Chikhal House, 1st Floor, [42]
- Dong-A Pharm.Co., Seoul, Korea [43]
- Dow Pharma -- A business unit of Dow Chemical, Dow Pharma The Dow Chemical Company Midland, MI 48667 [417]

**E**

- Eczacibasi Ilac San.Tic. A.S., Istanbul, Turkey [44]
- Elan Corporation, Dublin, Ireland [45]
- Eli Lilly and Company [46]
- Endo Pharmaceuticals Inc., 100 Painters Drive, Chadds Ford, PA 19317 [47]
- Eskayef Pharmaceuticals Bangladesh Ltd., 2/C, North East Darus Salam Road, Mirpur-1, Dhaka-1216, Bangladesh [379]
- Esteve Group, Barcelona, Spain [48]
- Ethypharm, France [49]
- Eurocaps Soft Gels, Tredegar, Gwent [50]
- **Ezee Soulnature Healthcare Pvt Ltd, J-195 Saket, New Delhi 17, India [51]**

**F**

- F H Faulding & Co Limited, Australia [54]
- Farma-Tek / TURKEY, Istanbul [53]
- Farmacie Petrone Srl., Via Napoli 101 Napoli - Italy [52]
- First Horizon Pharmaceutical, 6195 Shiloh Road Alpharetta, GA 30005 [351]
- **Fleming Laboratories Limited, Plot # 48, Temple Rock Enclave, Tarbund 'X' Roads, Secunderabad 500 009, Andhra Pradesh, India [55]**
- Formatech [56]
- Fougera, Melville, NY [57]
- Fujisawa Healthcase Inc, U.S.A. [58]

**G**

- **G. Amphray Laboratories, Bombay, India [59]**
- G.A. Company Ltd., 65,Dilkusha C/A Dhaka-1000 [527]
- Genentech, Inc [60]
- Germany [156]
- Gerolymatos Group of Companies, 13 Asklipiou Str. 145 68, Kryoneri, Athens, Greece [61]
- Gilead, Foster City, CA [62]

- GlaxoSmithKline [63]
- Global Pharmaeuticals, 3735 Castor Ave. Phila. PA 19124 [64]
- Granard Pharmaceutical Sales & Marketing, LLC, 1500 Meeting House Road Sea Girt, New Jersey 08750 [280]

**H**

- Hamilton Laboratories, 217 Flinders Street Adelaide, Australia [65]
- Hangzhou Chyszern Bio-tech Co.,Ltd, Rm102 Bldg12 Chaohui Rd.152 [348]
- Hasco-Lek, Pharmaceutical & Nutraceutical Production Company, Poland [66]
- Hawthorn Pharmaceuticals, Inc., P.O. Box 2248, Madison, MS 39130 [67]
- Healderm Hellas SA, 27 Hansen Str, 111 44 Athens, Greece [68]
- Hermal GmbH (Germany), Scholzstr. 3, 21465 Reinbek, Germany [69]
- Himalaya USA WebSite, 10440 Westoffice Drive, Houston, Texas 77042, USA [70]
- **Hiran Orgochem Ltd, Mumbai, India [396]**
- Hoechst, now Aventis (1999) [71]
- Hoffmann-La Roche [72]
- Hughes-Medical Corp, 1508 Bay Road Suite 715 Miami Fl 33139 [542]

**I**

- I.F.LAB, 5, Murmanskaya St., 02660 Kiev, Ukraine [73]
- ILSANTA, Moletu pl. 11 2021 Vilnius, Lithuania [74]
- IMPAX Laboratories, ,30831 Huntwood Avenue, Hayward, CA 94544 [75]
- Incepta Pharmaceuticals Ltd, Ahmed Mansion, 24, Shantinagar (Chamelibagh), Dhaka-1217, Bangladesh [76]
- **Indoco Remedies Limited, Indoco Remedies Limited, Indoco House, 166 CST Road, Kalina, Santacruz (East), Mumbai - 400098, Maharashtra, India. [259]**
- Indukern Chemie Canada Inc, Toronto, Canada [77]
- Insitute of Isotopes Co., Ltd. (IZOTOP), , [78]
- Irza Pharma, 109-College Rd., G.O.R. - I, Shahrah-E-Quaid-E-Azam, Lahore, Pakistan [330]
- Isotec Nutrition (Pty) Ltd, P O Box 260418 Excom 2023, South Africa [79]

**J**

- **Jai Group, GD-87, Vlshakha Enclave, Pitampura,Delhi - 110088 INDIA [598]**
- Janssen Pharmaceutica [81]
- Janssen-Cilag [80]
- Jiheng Pharmacy Co., Ltd., No. 368 Jianshe St., Hengshui City, Hebei, China [82]
- Johnson & Johnson [83]
- Julphar - Gulf Pharmaceutical Industries, P.O. Box 997, Ras Al Khaimah, UAE [84]

**K**

- **K-Genix Group, 5 Arun Chambers, Mumbai, India [87]**

- **Kalpdrum Enterprises, India [85]**
- Key Oncologics (Pty) Ltd South Africa, 171 Katherine Street, Building 1, Sandton, 2144, South Africa [86]
- Kinetek Pharmaceuticals Inc., 1779 West 75th Avenue, Vancouver, BC, V6R 3A2, Canada [88]
- KOBEC Pharmacals, 28 Saint John Park, Lahore - Cantt, Pakistan [89]
- Kraeber GmbH & Co. - Pharmaceutical Raw Materials, Waldhofstra§e 14, D-25474 Ellerbek, Germany [90]

**L**

- L.S. Raw Materials Ltd, Harav Kook 30/3, Petach Tikva 49315, Israel [97]
- Laboratorios ATRAL, s.a., Lisboa - Portugal [427]
- Laboratorios Saval S.A., Panamericana Norte 4600, Chile [91]
- Lek d.d., Pharmaceutical and Chemical Company, Ljubljana, Slovenia [92]
- **Lenit Pharmaceuticals, 743, Urban - Estate, Phase 2, Dugri, LUDHIANA.Punjab. India [93]**
- Leo Group, Industriparken 55, DK-2750 Ballerup, Denmark [94]
- LEO Pharmaceutical Products Sarath Ltd., 8 Rodon Street Athens Greece [416]
- **Li Taka Pharmaceuticals Ltd, Himalaya Estate, 16 A,Shivaji Nagar, Pune 411 005. India [422]**
- Lichtwer Pharma AG, Wallenroder Strasse 8-10, 13435 Berlin [95]
- **Lifecare Labs, 102 Doyen Chambers Behind Saradhi Studio, Ameerpet Hyderabad , INDIA [237]**
- LOSAN Pharma GmbH, Germany [96]
- **Lupin Limited, Laxmi Towers, "B" Wing, 5th Floor Bandra Kurla Complex Mumbai – 400 051 India [487]**

**M**

- M B & C, Damascus, Syria [101]
- Madaus AG, D-51101 Cologne [98]
- Mallinckrodt [99]
- Masters Int, Masters House, Sandridge Close, Harrow, Middlesex, HA1 1TW, UK [219]
- **Matrix Laboratories Limited, 1-1-151/1, IV floor, Sairam Towers, Secunderabad, India. [100]**
- Matrix Pharma Pvt Ltd, Plot 12, Sector 15, Korangi Industrial Area, Karachi, Pakistan. [619]
- Mead Johnson, USA [102]
- Meditalent Enterprises Ltd., 5F-1, 51, Sec. 1, Ming Sheng E. Rd. Taipei, Taiwan [103]
- Megapolis Company, Kharkov, Ukraine [104]
- Merck & Co., Inc., Whitehouse Station, NJ [105]
- METKINEN OY, Mantyharjunkatu 21, Littoinen, 20660, Finland [106]
- **Micron Group, 28, Lohar Chawl, Mahim, Mumbai 400016 [262]**

- Mustafa Nevzat Ilac Sanayii A.S., Tarcan Sok. 5/1 80290 Gayrettepe, Istanbul, Turkey [107]

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- Nobel Ilac, Istanbul, Turkey [233]
- Norwich Pharmaceuitcals, Norwich, NY [108]
- Novabiomed Inc, 14 Anderson Blvd, Kentville, NS, Canada B4N 5G9 [109]
- Novartis, Basel, Switzerland [111]
- Novartis Pharmaceuticals Canada Inc., 385 Bouchard Blvd., Dorval, Quebec H9S 1A9 Canada [113]
- Novartis Pharmaceuticals US, Novartis Pharmaceuticals Corporation One Health Plaza East Hanover, NJ 07936-1080 [312]
- Novartis US, East Hanover, NJ [112]
- Novartis: Hypertension & Health for Professionals, Switzerland [114]
- Novo Nordisk, Novo Alle, Bagsvaerd, Denmark [110]
- NPpharm, France [116]
- NPS Pharmaceuticals [115]
- NV Organon [119]

**O**

- **Obzone Pharmaceuticals Pvt. Ltd., 1, Prabhar Nagar, Jogeshwari (W), Mumbai - 102, INDIA [631]**
- **Orchid Chemicals & Pharmaceuticals Ltd., Chennai, India [117]**
- Ordain Health Care [118]
- Otsuka Pharmaceutical Company [120]

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- Paddock Laboratories Inc. [121]
- Panacea Biotec [122]
- PBN PHARMA LLC, 311 South Wacker Drive Suite 2350 Chicago, Illinois 60606 [465]
- Pfizer Inc., USA [124]
- **Phaarmasia Ltd., Hyderabad, India [125]**
- Pharco Pharmaceuticals on the web, P.O.Box 12 Sidi Gaber Alexandria - EGYPT [126]
- Phares Drug Delivery, Kluenenfeldstrasse 30 Muttenz CH 4132 Switzerland [127]
- Pharmaceutical Wholesalers NZ Ltd, Whitianga, New Zealand [128]
- **Pharmed Medicare, Pharmed Gardens, Whitefield Road, Bangalore 560034, India [131]**
- Pharmion Corporation, 4865 Riverbend Road, Boulder, CO 80301, USA [132]
- Phil Pharmawealth, Inc., Philippine Stock Exchange, Ortigas Center Pasig City, Philippines [133]

- **Plethico Pharmaceuticals, Plethico Pharmaceuticals Ltd. First Floor , Crimpage Corporation Street No. 17, Plot no. 57 MIDC Andheri Mumbai - 93 [273]**
- PLIVA - Lachema a.s., 277 11 Neratovice, TovarnÕ 157, Czech Republic [134]
- Presutti Laboratories, 1685 Winnetka Circle Rolling Meadows, IL 60008 [531]
- Promed Group, 210, Ashirwad Commercial Complex, Green Park [135]
- Proteome Factory AG - Pharma Service, Dorotheenstr. 94, D-10117 Berlin [136]
- **PSA Chemicals And Pharmaceuticals Pvt Ltd., 605, Arenja Corner Sector 17, Vashi, Navi Mumbai 400 705. INDIA Tel : 91 22 55913600 Fax : 91 22 55913601 [410]**
- PT Darya-Varia Laboratoria, Indonesia [137]
- Purdue Pharma L.P., 100 Connecticut Ave. Norwalk, CT 06856 [138]
- PVS Pharma, Aronskelkweg 7, 2241 WC Wassenaar, The Hague, The Netherlands [239]

**Q**

- Qualiphar, Rijksweg 9 2880 Bornem Belgium [640]
- QuantumLead, Russian Federation 125319, Moscow ul. Usievicha 8-131 [224]

**R**

- R & S Pharmchem Co., Ltd, 1403C No.308 North Zhongshan road, Hangzhou, CN [586]
- **Radico Remedies, A/B35, Joshi Colony, IP Extension, Patparganj Delhi-110092 [403]**
- **Ranbaxi, New Delhi, INDIA**
- ReceptoPharm, Inc., 1537 NW 65th Avenue Plantation, FL 33313 USA [624]
- Reko Pharmacal, 13 Km, Multan Road, Lahore, Pakistan [220]
- Reliable Biopharmaceutical Corporation, St Louis, MO [140]
- Reliant Pharmaceuticals, Inc., 110 Allen Road Liberty Corner, NJ 07938 [235]
- REPHCO Laboratories Ltd., Natun Bazar, Barisal, Bangladesh [315]
- Rhone-Poulenc Rorer, now Aventis (1999) [139]
- RIA International, 9 Whippany Road, C3, Whippany NJ 07981, USA [141]
- Richter-Pharma, Austria [142]
- Roche [143]
- Roche Bioscience, Palo Alto, CA, U.S.A. [144]
- RTP Pharma, Inc., Ile-des-Soeurs, Canada [145]

**S**

- S & D Chemicals Ltd, 131 Finchdene Square Unit 7 Scarborough, Ontario M1X 1A6, Canada [158]
- SAIA Pharmaceuticals, Karachi, Pakistan [564]
- Salus International, Mlynska Street 3, 40-098 Katowice, Poland [146]
- Samaritan Pharmaceuticals, 101 Convention Center Drive Suite 310 Las Vegas NV 89109 [147]

- Sanbe, Jl Tamansari 10, Bandung 40116 West Java - Indonesia [148]
- Sandoz [149]
- Sankyo Co., Ltd., Japan [150]
- Schein Pharmaceutical, Inc., 100 Campus Drive, Florham Park, NJ 07932 [151]
- Schering, Germany [152]
- Schering Health Care UK Ltd, U.K. [153]
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- **Selvok Pharmaceutical Co., 147, GIDC, Antalia, Bilimora - 396321, Gujarat, India [401]**
- Sepracor [160]
- Servier, 22 rue Garnier, 92200 Neuilly Sur Seine, France [161]
- Shraddka Exports, 518, Sarvoday Comm. Centre, Nr. G.P.O., Ahmedabad-380 001, India. [162]
- Sigma Pharmaceuticals Ptd Ltd, 96 Merrindale Dr, South Croydon 3136, Australia [163]
- Slimfit Pharmaceuticals Pvt. Ltd., 31/3-A Abu Bakar Block New Garden Town Lahore. [488]
- SLPharmalabs, 1300 First State Blvd. Suite C Wilmington, DE 19804 [506]
- Solka Laboratories Inc., Managua, Nicaragua [166]
- Solvay, a group of Chemicals and Pharmaceuticals companies, 33, rue du Prince Albert 1050 Brussels - Belgium [167]
- SP Pharmaceuticals, LLC, 4272 Balloon Park Road, NE, Albuquerque, NM 87109 [169]
- **Sparsh Bio-Tech Pvt. ltd., Plot No.1,Survey No.242/243/244, Village Lakhabavad, Jamnagar - 361006. Gujarat.INDIA [367]**
- Square Pharmaceuticals, 48, Mohakhali C/A, Dhaka-1212, Bangladesh [168]
- Square Pharmaceuticals Ltd., 48, Mohakhali C/A, Dhaka-1212, Bangladesh [547]
- **SRS Pharmaceuticals, 6 National House, 27 Raghunath Dadaji Street, Fort, Mumbai 400 001 INDIA [170]**
- STADA Pharamceuticals, 5 Cedar brook Drive, Cranbury, NJ 08512 [171]
- Steigerwald, Darmstadt, Germany [172]
- **Strides Arcolab Limited, Strides House, Bilekahalli, Opp.IIMB, Bannerghatta Road, Bangalore-560 076, India [173]**
- **Sun Pharmaceutical Industries Limited, Sun Pharma, Acme Plaza, Andheri Kurla Road, Andheri (East), Mumbai 400 059 [336]**
- Suntin Pharma, Hong Kong [175]
- Suzhou Dawnrays Pharmaceuitcal Co., Ltd., Wuxain Economic Development District, Suzhou, China [176]
- Suzhou Industrial Park Minsheng Medicament Chemical co., Ltd, No.17, Fengmen Road, Suzhou, China [177]
- Synthetic Blood International, Inc., 3189 Airway Avenue, Building C, Costa Mesa, CA 92626, USA [178]
- Synthon BV, Microweg 22, Nijmegen, The Netherlands [180]
- Synweb - Synthelabo [179]

**T**

- Taro Pharmaceutical Industries Ltd., Hawthorne, NY [181]
- **Tashima Inc., No.2, Sheetal, 8th Main, 2nd Cross, Byrasandra Layout, Jayanagar I Block East, Bangalore - 560 011. India [182]**
- Tejay Pharmaceuticals Ltd, PO Box 34315, Lusaka, Zambia, Zambia [183]
- Teva Pharmaceutical Industries, Israel [184]
- **Thykn (India) International, C-111, Kailas Esplanade, LBS Road, Ghatkopar (W), Mumbai - 86, India [185]**
- Tianjin Tianmao Technology Development Corp. ltd., B-1-602,huachang, tibei, hexi district, Tianjin China [210]
- Tillomed Laboratories Ltd. (UK), 3 Howard Road, Eaton Socon, St Neots, Cambridgeshire, PE19 8ET, UNITED KINGDOM [529]
- **Titan Pharmaceuticals, 210,Kanara Business Center (KBC), Behind Everest Garden, Bombay 400 075 [186]**
- **Torrent Pharmaceuticals Limited, off Ashram Road, Ahmedabad - 380 009, India. [187]**
- Triskel Integrated Services, Switzerland [188]
- TTY BioPharm, 4th Floor, 170, Section 3, Min-Chuan East Road, Taipei, Taiwan [189]

**U**

- UCB, Allée de la Recherche 60 B-1070 Brussels Belgium [595]
- **Ultra-Tech Speciality Chemicals Pvt. Ltd., 113, J.K. Chambers, Sector-17, Navi Mumbai 400 705. [190]**
- UNIPHARMA, Damascus-Syria [191]
- Upsher-Smith Laboratories, Inc., 6701 Evenstad Drive Maple Grove, MN 55369 1-800-654-2299 [214]

**V**

- Vanguard Medica, Chancellor Court, Surrey Research Park, Guildford GU2 5SF [192]
- VersaPharm Incorporated, 1775 West Oak Parkway STE 800, Marietta, GA 30062, USA [193]
- Vianex S.A., P.O. Box 52894 - 14610 Nea Erythrea, Greece [194]
- **Vida Labs, 98/11, wilson garden, bangalore 560030 India [247]**
- **Vindas Chemical Industries Pvt.Ltd, 210 Adamji Building 413 Narsi Natha Street Masjid Bunder Mumbai 400 009 India [245]**
- ViroPharma Incorporated, 405 Eagleview Boulevard, Exton, PA [195]
- Vyteris, 13-01 Pollitt Drive Fair Lawn NJ 07410 [196]

**W**

- Warner-Lambert, now Pfizer [197]
- WDFPharma, 402,28 Yanyu Road,Jiaojiang,Taizhou, 318000, Zhejiang, China [198]

- World Chem Corporation, 405, Anand Mangal-II, C.G. Road [199]
- WorldMolecules/MDD Inc., 77-1350 Winding Trail, Canada [200]
- Wyeth, USA [201]
- Wyeth (Espana), Spain [203]
- Wyeth Australia Pty Ltd, Locked Bag 5002, Baulkham Hills BC, NSW 2153, Australia [202]

**Y**

- YalePharma Worldwide, POB 34888, Bethesda, MD. 20827 [384]
- Yamanouchi Pharma Technologies, Inc., Norman OK [205]
- **Yash Pharma, 14, Ruby House, L. J. RoadMahim - West, Mumbai - 400016, India [206]**

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- Zeneca Life Sciences Molecules [207]

**Annexure III**

## Act No. 13 of 2003: Medicines and Related Substances Control Act