

Regional Trends in Fisheries and Aquaculture

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INFOSA



Presented at the

ICEIDA / UNU - FTP

Workshop on

Fisheries and aquaculture in southern Africa
Development and Management

21 – 24 August 2006

Windhoek Country Club & Resort
Windhoek, Namibia



INFOPECHE Office in SADC Region

**Marketing Information and Technical
Advisory Services for the Fisheries
Industry in Southern Africa**



FISHINFONetwork



Outline

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- SADC fishing sector
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- Historical exports of SADC fisheries
- Main exporting countries
- The main importing countries of SADC Fish
- Intra-regional fish trade
- Obstacles to fish trade in the SADC region.
- Obstacles to fisheries development in SADC

The SADC region

➤ **14 Member states:**

- Angola
- Botswana
- DR Congo
- Lesotho
- Malawi
- Mauritius
- Mozambique
- Namibia
- South Africa
- Swaziland
- Tanzania
- Zambia
- Zimbabwe

- Newest member - Madagascar

- Seychelles –pulled out in 2005
- But is re-applying for membership



The Southern African Development Community comprises of Angola, Botswana, Congo DR, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe and the newest member Madagascar.

The Seychelles pulled out from the regional group in July 2005 and is now an observer. However, it has applied for re-admission as a full member.

The SADC region

- Coastal line of approx. 20,000 km,
- EEZ of 7 million Km²
- West coast - The Atlantic Ocean
- East coast – Indian Ocean.
- Annual fish production - 2,7 million MT
- Annual seafood exports – US\$ 1.3 bn
- Employment in the sector – ca. 250,000

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SADC region covers the southern African coast from the Democratic Republic of Congo to Tanzania including the islands of Mauritius and Madagascar.

The SADC Region has a coastal line of approx 20,000 km, and an Exclusive Economic Zone (EEZ) of about 7 million Km²

On the west coast is the Atlantic Ocean dominated by a highly productive but variable cold upwelling system (Bengula current).

On the east coast is the Indian Ocean with the warmer East current, characterised by stable environment and a greater diversity of species.

Annual fish production is estimated at 2.7 million MT with annual seafood exports amounting to some US\$ 1.3 billion. This constitutes some Direct employment in the marine fishing sector is about 250 000 people, while 1.7 million are dependent on the sector for their livelihood.

These figures are of course very uncertain, for it is extremely difficult to compile reliable information about this. And this fact underscores the importance of getting this information, because it is needed for planning purposes.

SADC Fisheries Resources

- The south – west /west region dominated by demersal and pelagic fish species. Demersal species include hake (ca 500,000 MT /year), Orange roughy, horse mackerel, pilchard, toothfish.

The small pelagics (anchovy, pilchard, round herring) and horse mackerel represent 45 % of total SADC catches.



Our region is special in that we have totally different climates on the east and the west coasts. On the east coast, we have the warm ocean currents of the Indian Ocean, and the species found here are tropical. On the west coast, on the other hand, we have the cold ocean currents from the Antarctic, with cold water species that are also found on the northern hemisphere.

The south – west /west region is dominated by demersal and small pelagic fish species. Demersal fish including hake represents the most important commercial species with production estimated at about 500,000 MT per year.

The small pelagics (anchovy, pilchard, round herring) caught by purse seiners and trawlers in the western and southern regions of SADC represent an annual production estimated at 1.25 million MT (about 45 % of total SADC marine catches).

SADC Fisheries Resources

- South – east/East region: Prawn and tuna - most valuable resources on the east Africa coast. Prawn and other crustacean landings add up to approximately 50,000 MT/year.
- Inland waters – Nile perch (commercially exploited in Tanzania, Uganda and Kenya) tilapia, small pelagics (dagaa, kapenta) and African catfish. Freshwater fish catches amount to 725,000 tonnes annually (26.5% of total).

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South – east/eastern region: Prawn and tuna are the most valuable resources on the east African coast. Prawn in Mozambique and other countries add up to approximately 50,000 MT/year.

Inland resources: main commercial species include Nile perch, small pelagics (dagaa, kapenta), tilapia and catfish (barbel). Freshwater fish catches amount to 725,000 tonnes annually, or 26.5% of the total production.

SADC fisheries sector

Industrial fisheries

- Dominated by European and Asian vessels;
- Trend towards 'nationalisation' of the fishery sector in the region.
- Black Economic Empowerment

SADC fisheries can be divided into two sectors: the industrial sector and the artisanal or small scale sector. In 2004, the total production was about 2.7 million tonnes, of which the industrial sector accounted for about 90 per cent and the artisanal sector about 10 per cent.

Industrial fisheries are still dominated by mostly European and Asian vessels; purse seiners (tuna, small pelagics), longliners (tuna), bottom/mid-water trawlers (horse mackerel and hake),

There is a general trend towards 'nationalisation' of the fishery sector in the region, and especially through the Black Economic Empowerment programmes.

SADC fisheries sector

Small-scale/artisanal fisheries

- ❑ Traditional fishing methods with wooden boats and canoes - beach seine and gillnet.
- ❑ Production for auto-consumption purposes.
- ❑ Artisanal fishery is concentrated on the east coast (Mozambique, Tanzania, Kenya, Madagascar, Seychelles and Mauritius).
- ❑ The sector characterized by high post-harvest losses.
- ❑ Production of these activities is difficult to monitor.



Small-scale/artisanal fisheries operate simple fishing boats and canoes, using mostly beach seine and gillnet.

Most of their activities are generally carried out for home consumption or subsistence purposes. Due to its characteristics, the output of these activities is difficult to monitor.

Artisanal fisheries are concentrated on the east coast, and are particularly important in Mozambique, Tanzania, Angola, Madagascar, Seychelles and Mauritius. However, with the exception of Namibia, artisanal and subsistence fishery exists in all SADC countries.

SADC Protocol on Fisheries

- A regional adaptation of FAO's *Code of Conduct for Responsible Fisheries*
- Signed in 2001
- Goal: to promote responsible and sustainable use of living aquatic resources



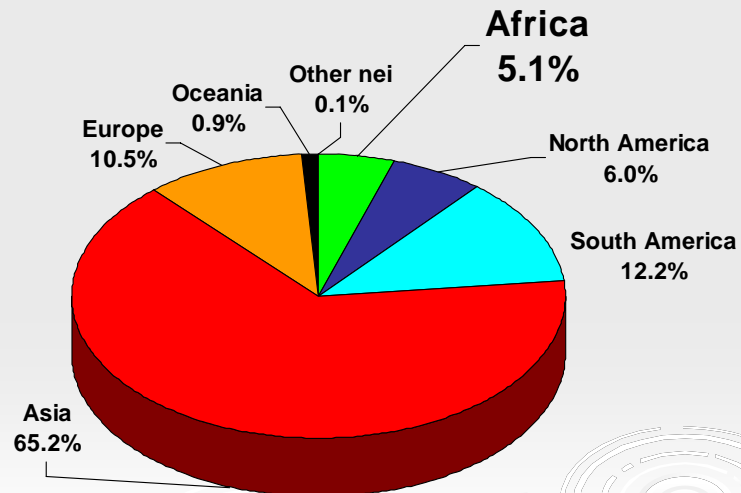
The Protocol on Fisheries for the Southern African Development Community (SADC) (the 'Fisheries Protocol') was signed in 2001. The goal of the sector is to promote responsible and sustainable use of the living aquatic resources and aquatic ecosystems in order to enhance food security and human health. The specific policy objectives are to promote effective management of fish stocks, protect and preserve fish resources, promote aquaculture and mariculture development and promote trade in fish. The strategies of the Sector include establishing a regional stock assessment and fisheries management system; promoting regional trade; and building capacity for better fisheries management.

Some of the issues covered by the Fisheries protocol include:

- National responsibilities
- International relations
- Management of shared resources
- Harmonization of legislation
- Law enforcement
- Access agreements
- High seas fishing
- Artisanal, subsistence and small scale fisheries
- Aquaculture
- Protection of the aquatic environment
- Human resources development
- Trade and investment
- Science and technology
- Information exchange

Africa in a world perspective

Share of global production in per cent

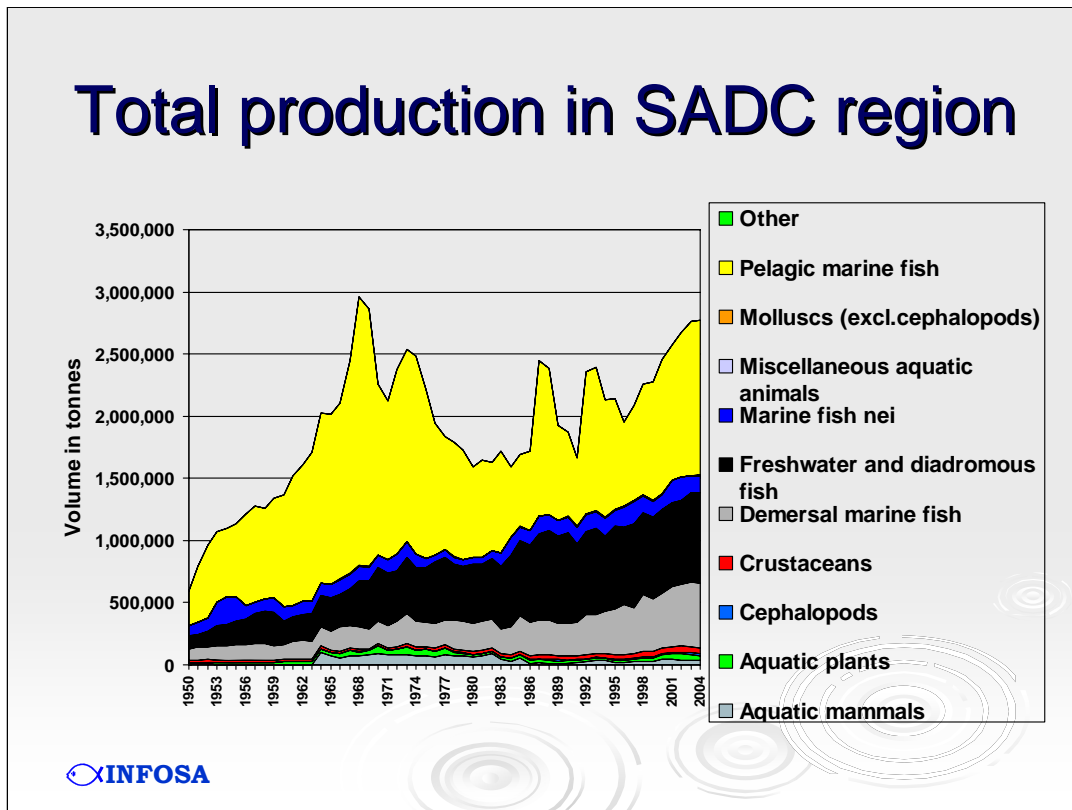


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Although Africa is a huge continent, with an enormous coastline, the continent only accounts for 5.1 per cent of the world's total fish production (capture plus aquaculture) (2004). Asia accounts for an astounding 65.2 per cent, and this share is growing.

Our region, the SADC region, accounts for only 1.76 per cent of the world's total fish production.

Total production in SADC region

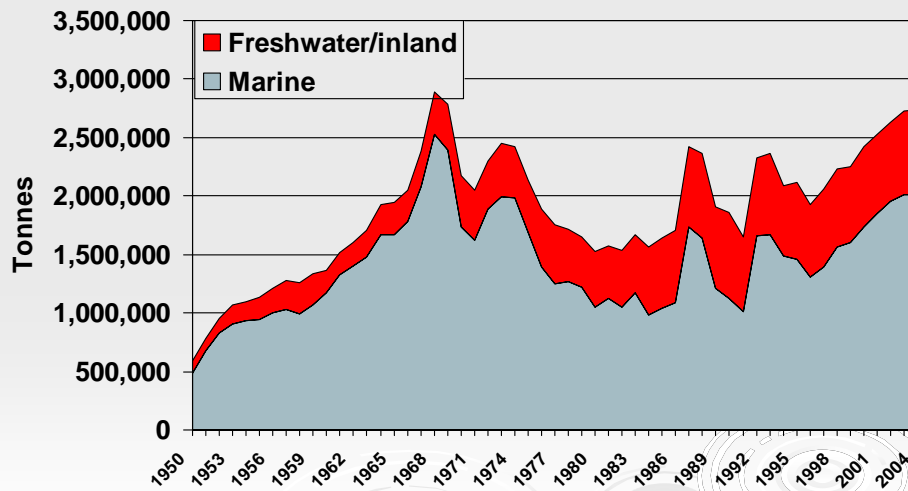


Total fish production shows an increase over the past five years. However, several fish resources are considered to be heavily overexploited, especially the most valuable species, hake, lobster and Nile perch.

The largest species groups are pelagic marine fish (45.6% of total), freshwater and diadromous fish (26.5%) and demersal marine fish (19.0 %).

As we see from this graph, the growth in landings for most species has been relatively steady, while for the pelagic marine species, there are rather dramatic ups and downs. This is caused both by natural phenomena, such as El Nino, but also by overfishing.

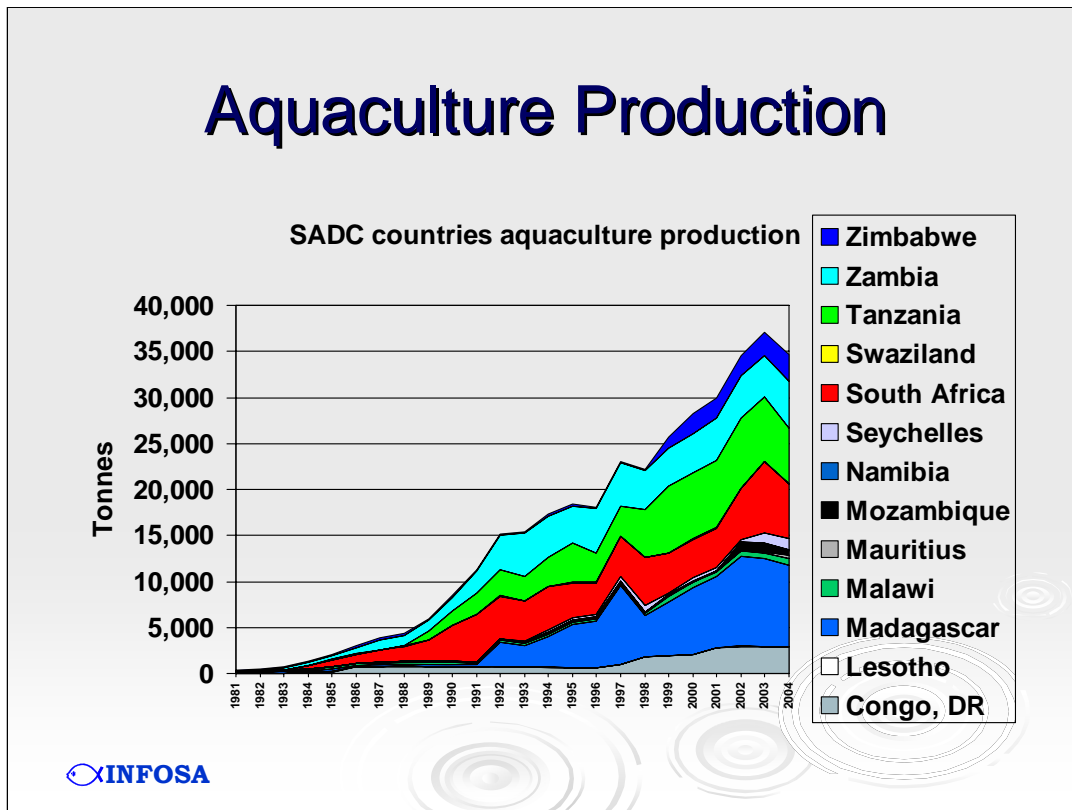
SADC countries capture fisheries Marine vs. Freshwater



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In 2004, landings from marine waters were about 2.0 million tonnes, while production from inland waters were about 725,000 tonnes. The share of inland water landings in relation to the total has increased over the years.

Aquaculture Production



Aquaculture is still in its infancy in the SADC region. The current production includes mainly seaweed, tilapia, shrimp, oysters and other molluscs.

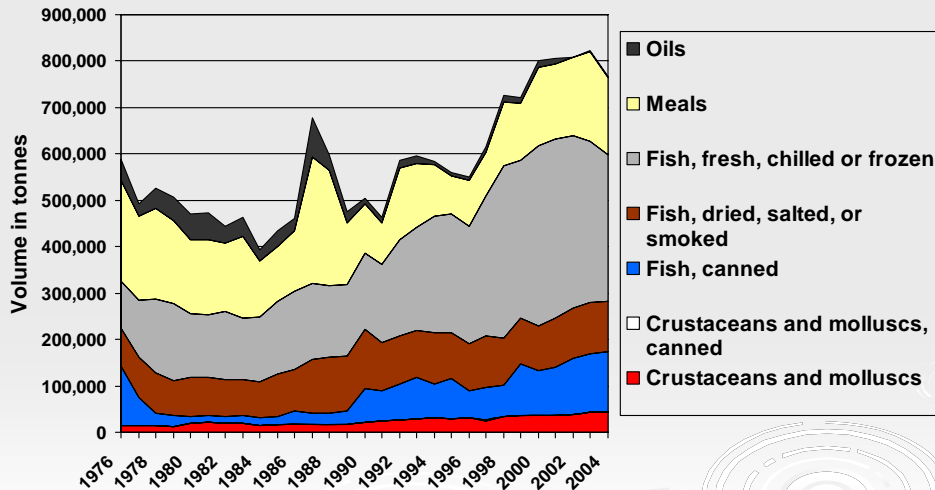
Good potential for aquaculture production exists in the region, due to favourable environmental conditions and unpolluted inland and coastal waters. In addition, there are many native species suitable for aquaculture.

The expansion of small-scale aquaculture is gathering momentum in areas where there is physical potential (land, water, temperature); where there is a perceived need for fish for food or income; and, most importantly, where extension services promote aquaculture. It has occurred primarily through increased surface area under water as more and more farmers adopt fish farming as a complementary farming activity. Levels of productivity remain relatively low, in line with production levels of other small-holder crops.

Major freshwater species in the region are trout and tilapias (*Oreochromis andersonii*, *O. macrochir*, *T. rendallii* especially). Some African catfish (*Clarias gariepinus*) and common carp (*C. carpio*) are also produced. Freshwater prawns (*Machrobraccium rosenbergii*) are produced in Malawi and Zimbabwe, while Mozambique and Madagascar grow marine prawns such as the Black Tiger (*Penaeus monodon*). Crocodiles are reared in South Africa (70 MT), Zambia and Zimbabwe. Of the marine species, oysters and abalone predominate in South Africa and Namibia.

In 2004, FAO estimated the total aquaculture production in the SADC region at only 35,000 MT/yr, representing only 0, 4% of the total world production. The major producer is by far Madagascar (8,743 MT) followed by South Africa (6,012 MT) and Tanzania (6,011 MT). Other countries produced from 5,000 MT (Zambia) to 2,955 MT (Zimbabwe). No aquaculture production was reported from Angola and Botswana.

Processing and utilization of fish Volume in tonnes



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There is limited processing and value-added production in the SADC region. The main exception is South Africa, which has a well developed processing industry.

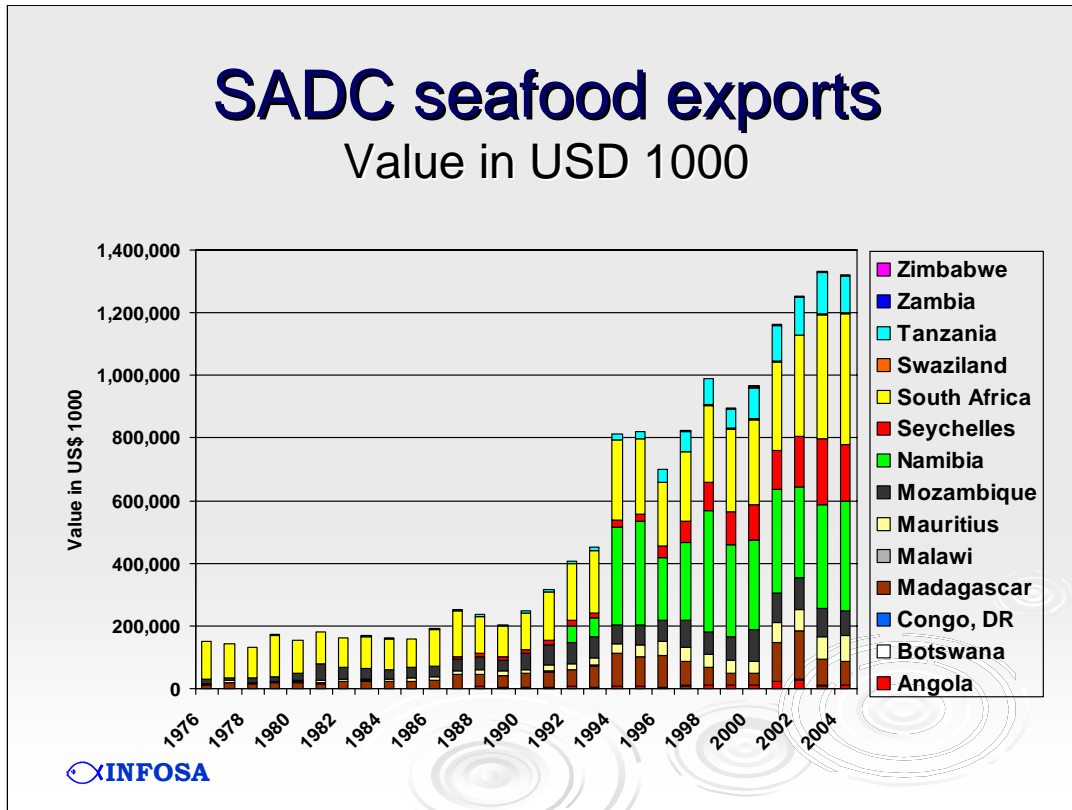
The most common product forms are those which require little or no processing, and practically no value addition, such as selling the fish fresh, chilled or round frozen.

There is a growing canning industry, based on the tuna and small pelagics resources, and there is some production of fish meal. Fish meal and fish oil production are age-old activities that are mostly done in South Africa and Namibia, based on these countries' resources of small pelagics.

For domestic and regional distribution, the most important processing methods are the traditional ones: drying, salting or smoking. Because the cold chain infrastructure has not been properly built up in a number of countries, these product forms will remain important for quite some time yet.

SADC seafood exports

Value in USD 1000



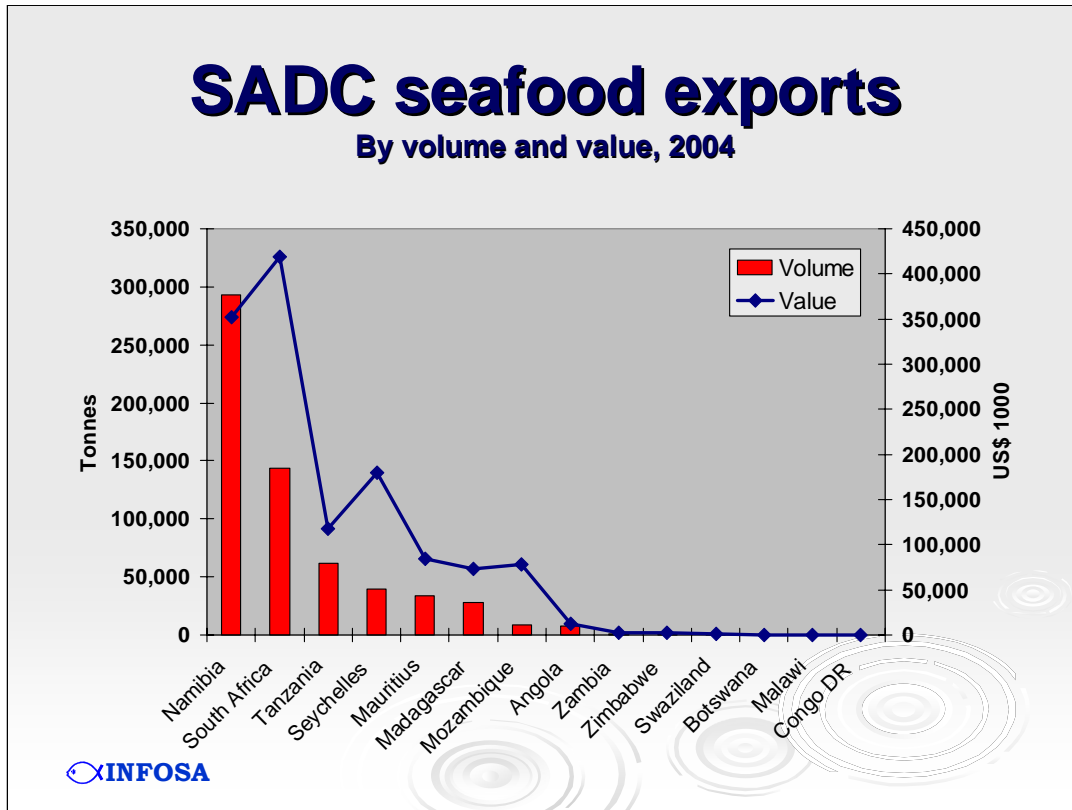
Over the last fifteen years, SADC fish exports have shown a remarkable development. There was a major increase in export value in 1992 when it went up by several hundred per cent from 1991's total exports. A further increase was registered again in 1998 and in 2002 - 2003. Since then exports from the region have been relatively stable in value terms.

In terms of export value, South Africa is the leading nation, followed by Namibia and the Seychelles. In recent years, Tanzania has also developed a significant export trade, based on the Nile perch fishing on Lake Victoria.

However, this graph only shows the registered exports. In addition, there is an important "informal" trade in fish products. This is mainly small scale in character and is predominantly between countries of the region.

SADC seafood exports

By volume and value, 2004



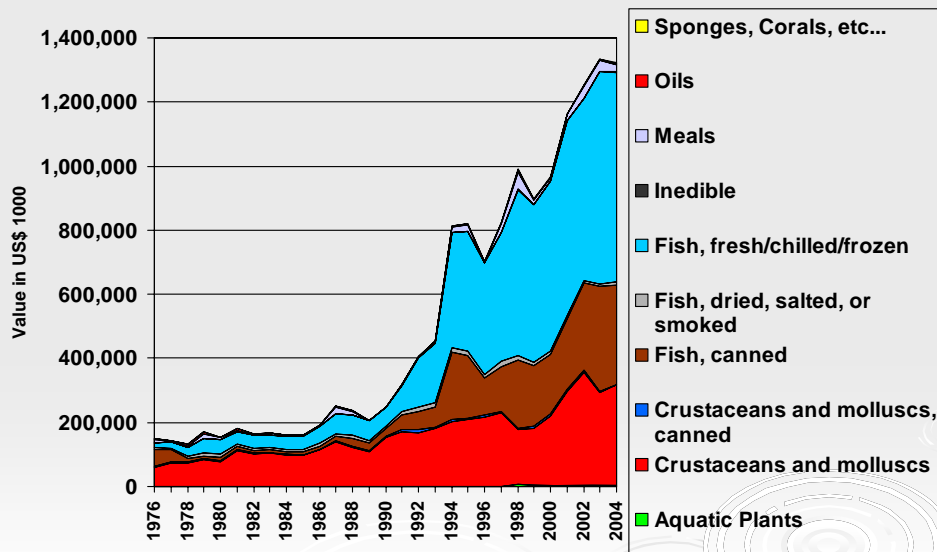
Namibia is by far the main exporter of fish products in SADC in terms of volume, accounting for about 48%, followed by South Africa with 26%.

This is understandable because Namibia is the largest fishing nation in the region and about 90 percent of fish landed in the country are exported. The domestic fish consumption in Namibia is very low and estimated at only 10 percent of the total catch, unlike other countries such as Mozambique, Seychelles, Mauritius and Angola where the domestic markets take up a relatively large share of fish production.

However, South Africa is the largest in terms of value. While most of Namibia's exports consist of round frozen fish, South Africa has an important processing industry and exports a lot of value added products, mainly to the region.

In recent years, Tanzania has developed its export business, based on the Nile perch fishery on Lake Victoria. This consists mainly of fresh and frozen Nile perch fillets, which have a relatively high price.

SADC exports by main commodity

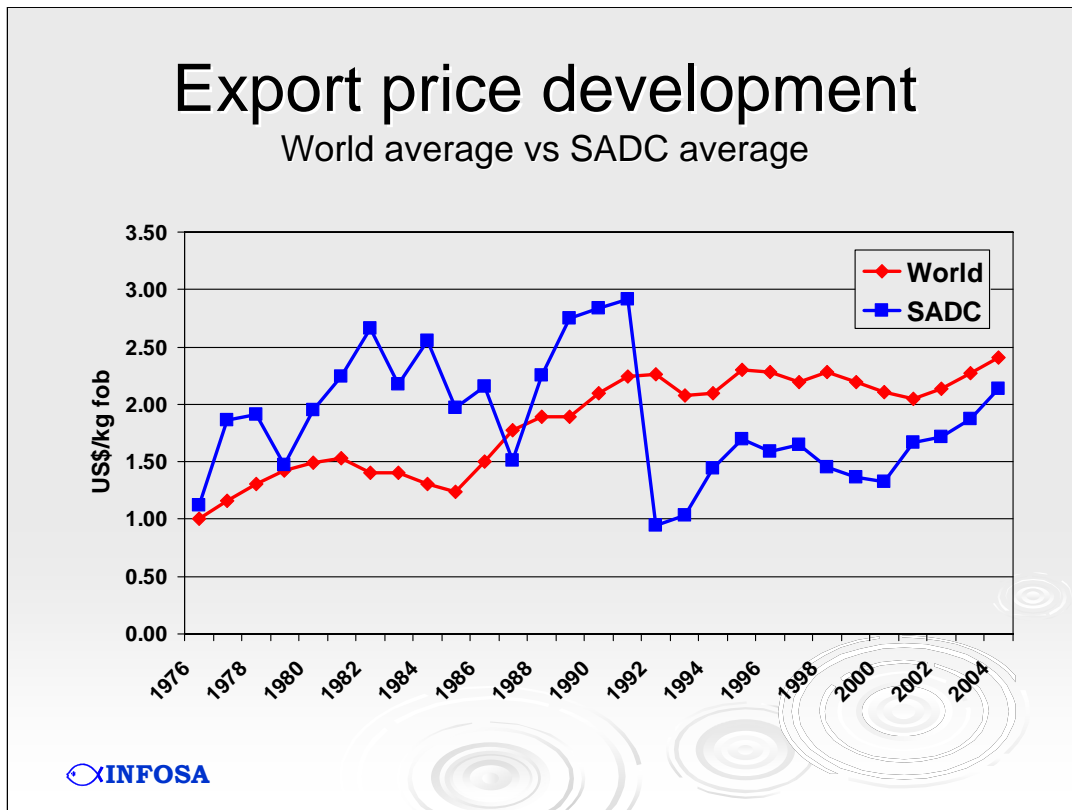


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Fresh and frozen fish is still by far the most common product form in the region. Fresh/iced hake fillets are produced mainly in Namibia and South Africa and are generally destined for export.

Canning is particularly important for tuna (Seychelles, Mauritius and Madagascar) and small pelagics (pilchard) in Namibia and South Africa.

However, the lack of freezing facilities and cold stores has necessitated the utilization of traditional processing methods such as sun-drying and smoking still being prevalent. About 80% of the fish consumed in domestic markets are dried and smoked. The labour-intensive sun-drying of small pelagics (dagaa and kapenta) is practiced in Tanzania, Zambia and to a lesser extent in Mozambique.



It is very interesting to note the development of export prices. In this graph, we have compared average world export prices in US\$/kg against the average for SADC.

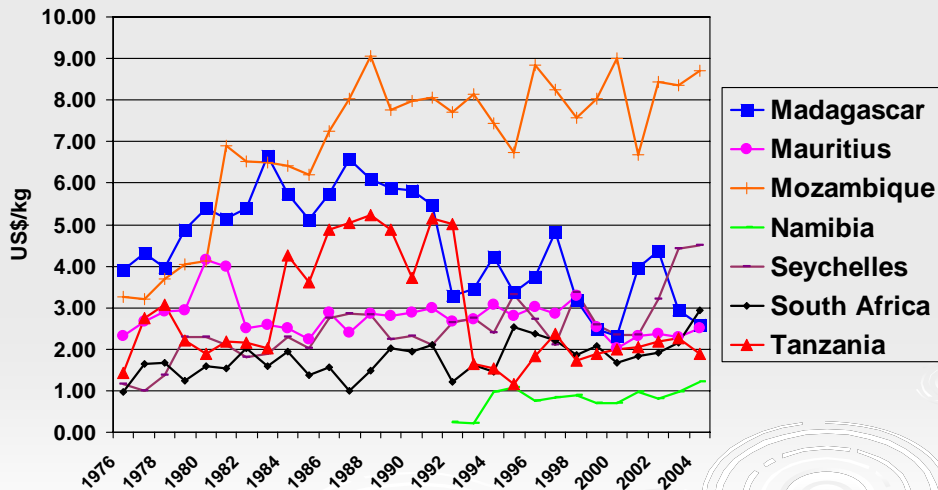
While world prices have had a smoother development, SADC prices were much more up and down until 1992. In 1992, SADC prices dropped dramatically, and far below the world average. The most obvious explanation for this is that Namibia, the largest exporter, became independent in 1990. While Namibian exports of raw material to South Africa prior to independence were not registered as exports because Namibia was under South African rule, after 1992 Namibian exports were registered and the low raw material prices brought the average SADC export prices because of the high volume of Namibian exports.

It also seems that fluctuations in export prices are more pronounced in SADC than in the world average. When world prices fall, SADC prices fall even more, and vice versa.

The encouraging thing about this graph is that SADC prices now seem to approach the world average, although we are still a little behind.

One conclusion that may be drawn from this, is that we need to develop more value-added products with a higher average price. However, this is not necessarily the *correct* conclusion, because what matters to the industry is not the price of the products they produce and export, but the profit margin for their production.

Export price development for the largest exporters



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If we compare developments in export prices for the various SADC countries, we find great differences. Congo DR, which exports almost nothing, - total exports in 2004 were 6 tonnes worth US\$ 446,000 or US\$ 74.33 per kg -, has the highest export price, while Namibia, the largest exporter in terms of volume (293,500 tonnes worth US\$ 352 million in 2004) has the lowest export price at only US\$ 1.20 per kg.

The export price is of course dependent of what is exported, both in terms of species and product form. We know that Mozambique, for example, with a high export price of US\$ 8.70 per kg in 2004, exports mainly shrimp, while Namibia exports mainly round frozen fish (raw material for other countries' processing industry).

It is also interesting to note that there was a drop in Tanzania's export price in the early 1990s, when exports of Nile perch fillets took off. Before that, Tanzanian exports were dominated by high value products such as shrimp and lobster.

Madagascar experienced the same drop around the same time, when it started exporting canned tuna.

The main markets for SADC (2003)

Main importing countries

- European Union (39%)
- USA (17%)
- Japan (18%)
- Africa (Intra-regional trade) (10%) (??)

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The international markets for fish products from the SADC region are mainly concentrated in the EU, Japan and the USA. The EU is the largest export market, in fact larger than Japan and US combined.

EU markets account for 39% of fish imports from SADC, followed by Japan with 18% and USA with 17%.

The region has the potential to increase fish export to some of these markets, taking advantage of duty-free quotas to EU and also the AGOA agreement between the African countries and US on imports of goods.

Intra-regional trade

- Often informal and women-dominated
- Involves small quantities (petty trade to avoid taxation)
- Under-developed
- 2004: ca 250 000 MT distributed within the region - only 9% of 2.7 million MT produced annually

Informal trade of low volume is very common and also go largely un-recorded. It often involves small quantities of fish at a time that pass through the borders this way to avoid taxation. Mostly women dominate this petty trade.

Intra-regional trade in the SADC region is currently underdeveloped. We estimate that only some 250,000 tonnes of fisheries products were exported within the region, which represent only about 9 percent of the 2.7 million tonnes produced annually. However, this estimate could certainly be wrong, for it is extremely difficult to monitor this intra-regional, petty trade.

Obstacles to fish trade in SADC region

- Lack of adequate infrastructure (transport facilities, cold storage and distribution)
- Lack of foreign exchange services
- Lack of export credit facilities
- High taxes and import duties
- Lack of knowledge about sources of reliable marketing information.
- Increasing complexity in import regulations on main markets

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Barriers to further increases in intra-regional fish trade include inadequate infrastructure for large trade volumes (transport facilities, storage and distribution).

Furthermore, foreign exchange is lacking and export credit facilities are poorly developed.

The imposition of high tariffs, compounded by lack of harmony of currencies, combined with harassment by corrupt officials at customs, have prevented African countries from trading between themselves. High import tariffs have also posed a problem for the development of more south - to - south trade.

Lack of information and education hampers access to appropriate technology for fish preservation and processing as well as ability to access information on resources and markets (prices).

There is an increasing complexity in import regulations and requirements on main markets. This has created problems for many exporters, but it is particularly difficult for developing nations to deal with these new complexities.

Obstacles to fisheries development

- Corruption
- Poor fisheries management
- Lack of knowledge
- Exploitation by developed nations
- Overfishing and destruction of habitat
- Black economic empowerment is a flop



There are some obstacles to general fisheries development that we cannot overlook.

Corruption is still a major problem in many countries in the region, although it must be said that in recent years some countries have been better able to cope with this and to weed out the worst cases.

Fisheries management is still not up to par, - for a number of reasons. One major reason is that proper, science-based fisheries management is very costly, and only a few nations have been able to introduce this. Another reason is the lack of fisheries management expertise and experience in many countries.

There is a general lack of knowledge in the region, particularly with regard to market conditions. As nationals have taken over ownership and operations of the fisheries, they have unfortunately not been able to take over the market contacts. Basically, they are just selling to those companies that were previously operating the fisheries, without knowing about alternative markets.

It must be said that many nations' fisheries resources have been over-exploited during colonial times, and this has been a very difficult situation to rectify. To some extent, nations in our region are still being exploited by developing nations (often the former colonial masters).

Overfishing and the destruction of habitat, particularly nursing grounds for juveniles, has put a great strain on the resources, and are still doing so. In some areas, there is a need to "repair" the sea bed, which is now often ruined by bottom trawling and the disappearance of vegetation.

Lastly, the nations of the region have launched so-called black economic empowerment programmes. But I regret to have to say that black economic empowerment has mostly been a flop. There are many reasons for this, and I wish I had time to go into it. To some extent, the naivety of the authorities must take some of the blame, along with the reluctance of some foreign joint venture partners to work loyally towards this goal. We obviously need a new approach to black economic empowerment if it is to work properly.

Obstacles to aquaculture development

- Access to finance
- Access to finance
- Access to finance

➤ **MONEY**

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I know that Dr. Forbes of the Namibian Ministry of Fisheries and Marine Resources will elaborate on this issue in a later presentation, as Namibia has been addressing the issue specifically over the past 18 months, so I will just mention the most important obstacle as we have experienced it. .

The SADC region has a potential to develop aquaculture, both marine and freshwater. However, the main reasons this has not happened yet, can be summed up in a few points:

- Lack of access to finance
- Lack of access to finance
- Lack of access to finance
- Yes, the industry does not have the money to develop.

Until we get financing arrangements that work, or until we can educate the financial institutions to understand and evaluate aquaculture projects, aquaculture development in southern Africa will not develop to its potential. It should also be mentioned that many of our countries in the region lack adequate investment incentives that would attract foreign investors.

There are of course other obstacles to development, but financing is the overshadowing obstacle at the moment.

Does Southern Africa have a future?



In view of developments over the recent decades, and in view of the obstacles that I have mentioned, many investors are asking themselves: Does Africa, and southern Africa in particular, have a future?



My answer is: a qualified Yes. Southern Africa can have a future if the authorities are able to address some of the most important issues and problems. And if we are able to attract external assistance, both in the form of technical assistance and in the form of financing. Of particular importance is the need to attract private investors. I am sorry to say that very few, if any, of the countries in our region have attractive investment incentives. Botswana may be the exception. Without attractive and competitive investment incentives, such as tax holidays, repatriation of profits, duty free imports of machinery and materials for export production etc etc, our region will surely lose out to other countries, particularly in Asia.

Above all (and this point is targeted at the politicians among you), we need to be realistic about our own capabilities and willing to accept the truth about the state of our affairs. We have to accept that we are far behind others, still, and that we are lacking in a number of areas, including basic education. If we only beat our chests and shout that we are the best in the world, we are not going to make it, for it is simply not true. We must have the courage to be realistic about our own shortcomings, and then do something to improve.

We must always try and improve ourselves, and if we do not recognize the need for improvement, we will move nowhere.

This process starts with every single one of us.

Thank you.

**Thank you for your
attention!**



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