

<b>FISHERY COUNTRY PROFILE</b>	<b>Food and Agriculture Organization of the United Nations</b>	<b>FID/CP/SWZ</b>
<b>PROFIL DE LA PÊCHE PAR PAYS</b>	<b>Organisation des Nations Unies pour l'alimentation et l'agriculture</b>	
<b>RESUMEN INFORMATIVO SOBRE LA PESCA POR PAISES</b>	<b>Organización de las Naciones Unidas para la Agricultura y la Alimentación</b>	<b>April 2008</b>

## Swaziland

### 1 General geographic and economic data

Area:	17,203 km <sup>2</sup>
Water area:	160 km <sup>2</sup>
Population (1996 Census):	1,136,334
GDP at purchaser's value (2007):	US\$ 2.6794 billion
GDP per head (2007):	US\$ 2, 338.00
Agricultural GDP (2007): (5.85%)	US\$ 156, 326.00

### 2 Fisheries data

2003	Production	Imports	Exports	Total Supply	Per Caput Supply
	tonnes liveweight'				kg/year
<b>Year 2005</b> Fish for direct human consumption	67	4,101	1,597	2,581	2.4
<b>Year 2007</b> Fish for animal feed and other purposes	3				

<b>Estimated Employment (2003):</b>	
(i) Primary sector (including aquaculture):	Employment in the Sector still at informal level
(ii) Secondary sector:	Ditto
<b>Gross value of fisheries output (the most recent year):</b>	NA
<b>Trade (2006):</b>	
Value of fisheries imports:	US\$ 7,874,000
Value of fisheries exports:	US\$ 1,870,000

### 3 Fishery areas and main resources

Swaziland is a landlocked country that shares borders with South Africa and Mozambique. There are no natural lakes, swamps or floodplains that are of a significant importance. However, a number of dams have been constructed principally for hydropower and irrigation purposes e.g. Hendrick Van Eck, Lumphohlo, Maguga, Mkimkomo, Mnjoli and Sand River Dams. There are other smaller dams that are spread all over the country but predominantly in the lowveld (the ecological zone most prone to drought in the country) for water supply for human and livestock uses. These dams (smaller dams) are normally stocked with Tilapia species. This is mainly done to improve the food security (which is always a challenge) of those communities. There is also the Jozini Dam, which is shared between Swaziland and South Africa, but more than 98% of it is in South Africa. It should be noted that it is very difficult to monitor the fishery as the major part of the dam is in South Africa, yet there is a lot of fishing (comparatively) taking place there.

The common fish species that are exploited are the tilapias (*T. mossambicus* and *T. rendalli*) and catfish (*Clarius garipinus*). Species that are mainly targeted for sport fishing (angling) include largemouth bass (*Micropterus salmoides*), rainbow trout (*Salmo gairdneri*) and tiger fish (*Hydrocynus vittatus*).

It is worthy to note that the contribution of capture fishery in particular and the fisheries sector in general to the national economy is negligible because of the little amount of fisheries resources in the country.

However, aquaculture is making significant contribution to the country in term of food security, with regards to improving the nutritional status of the low-income group of the population, and income generation for the local people but at a subsistence level.

## 4 Fishery sector structure

### 4.1 Overall fishery sector

The Fisheries Sector in Swaziland is wholly inland and relatively small and not well developed. But it plays a significant role in contributing to food security, particularly for the poverty prone members of the society. The two major components of the sector are aquaculture and capture fishery. There is growing interest in angling as a recreational activity.

#### **4.1.1 Capture Fishery**

Capture fishery in Swaziland is very minimal. There is very little of recorded capture fishery occurring at present due to the reasons stated above. The seine net fishing is currently prohibited. Communities have been encouraged to form groups or identify a person who will fish and then sell to the communities in a few of the dams, however, even this exercise is not bearing much fruit and monitoring is almost non-existent. In 2001 the catch per annum was 100-150 mt according to FAO Fishstat. This is due to the fact that one of the sugar cane company authorized one fisher to fish in their dam (Sand River Dam) with strict instruction to follow management procedures, i.e. using appropriate fishing gear and keeping proper records. Due to some illegal fishing occurring in the country a decrease in fish stocks has been noted in some of the dams. The main culprit is poverty. People fish in an effort to simply meet their basic needs.

#### **4.1.2 Aquaculture**

Aquaculture is another major activity encouraged by the government. There are fishponds located all over the country. The average size of the fishponds is 200 m<sup>2</sup>. The most common fish farmed in Swaziland are *Oreochromis mossambicus* (Tilapia) and *Clarias Gaiepinus* (Catfish). Rainbow trout (*Salmo giardeneri*) and the Common carp (*Cyprinus carpio*) are also cultured.

The tilapia is sourced locally, while other species are imported from South Africa. In 2007, there were about 40 community ponds around the country stocked with tilapia and catfish mainly.

Of the two fisheries sub-sectors in the country, fish farming has the highest potential for further development. All that is needed are the resources to enable prospective investors to engage themselves into business.

### **4.2 Inland sub-sector**

As earlier indicated the fisheries sector in Swaziland is wholly inland. In both aquaculture and capture fishery the exploitation is at subsistence levels at present.

#### **4.2.1 Catch profile**

Catch data even from the least fishing is not readily available. But it has to be noted that the capture fishery is very small in the country. Effort needs to be made with regards to data collection and analysis.

#### **4.2.2 Means of fishing / production**

Not applicable to Swaziland.

### **5 Post harvest use**

#### **5.1 Fish utilisation**

Almost 100% of fish utilized in a meaningful way (i.e. with economic value) is imported from neighbouring countries. The contribution from aquaculture and capture fishery at present is insignificant with regards to macroeconomics. Imported fish come into the country already processed and/or ready to cook. Fish imports include fresh and chilled and/or frozen fish, fish fillets and other fish products salted, dried and smoked fish products as well as fishmeal. All fish and fish products except fish meal are imported for human consumption. Fishmeal is exclusively used in animal feeds as a major protein supplier.

As indicated by the figures on fish imports, the concept that Swazis are not fish eaters is long out of tune. There has been a major shift in the consumption pattern with regards to fish consumption in the country. More and fish and fish products are being consumed locally.

#### **5.2 Fish markets**

So far, Swaziland serves as the market destination for fish and fish products from neighbouring States. Apart from tinned fish products widely distributed in the country, most of the fresh or frozen fish products end up in the urban areas where there are better refrigeration facilities.

### **6 Fishery sector performance**

In economic terms, the input of this sector is negligible and GDP for the sector has not as yet been calculated. In respect of social and ecological consideration, the impact differs. Swazis fish for self sufficiency and the present set up is mainly at subsistence level, providing for family. Although fish farming is promoted vigorously, care is taken to avoid the degradation of the environment. Overexploitation is guarded against to protect and conserve the biodiversity.

#### **6.1 Economic role of fisheries in the national economy**

Fishing does not play a significant economic role in Swaziland.

## **6.2 Supply and Demand**

No study has as yet been carried out to evaluate the supply and demand for fish and fish products in Swaziland. It is not even safe to suggest that the current level of fish imports indicates the demand of fish in the country. However, in 1997 the annual per capita supply of fish in Swaziland was 11.6 kg and decreased considerably to 2.4 kg in 2003. It is doubtful whether any increases in local fish production can be generated from resource improvement of reservoirs and small water bodies. The foreseeable future predicted is the reliance on imported fish and fish products.

## **6.3 Trade**

Swaziland is a net importer of fish and fish products for local consumption. The country is not yet at any stage of development to contemplate any fish export.

## **6.4 Food security**

The contribution of fish and fish product to food security has not as yet been estimated. However, it should be highlighted that this sector is insignificant in economic terms in the country. But it has to be mentioned this refers only to local production including the capture fishery. The impact of the fish imports is also not available.

## **6.5 Employment**

The real figure with regards to employment is not known and the Central Statistics Office normally lumps the sector with 'others'.

## **6.6 Rural development**

Swaziland is gifted with river resources; this makes it conducive for inland fishery developments. Fish surveys have been conducted to assess the potential for sustainable fishing. This was carried out to assist the rural communities in the development of fish farming and to promote the consumption of fish at household levels.

# **7 Fishery sector development**

## **7.1 Development prospects/strategies**

### **7.1.1 Main areas for opportunities**

The country's climate is conducive to the development of aquaculture in Swaziland. However, the main constraint to aquaculture development may be summarised as follows:

- Lack of fingerlings for aquaculture production and restocking of dams
- Inadequate funding for the Fisheries Section by Government
- No data collection and analysis system as yet

- Loss of fisheries biodiversity due to recurring droughts and overexploitation.
- Limited fisheries research.
- Shortage of fisheries personnel

## **7.2 Research**

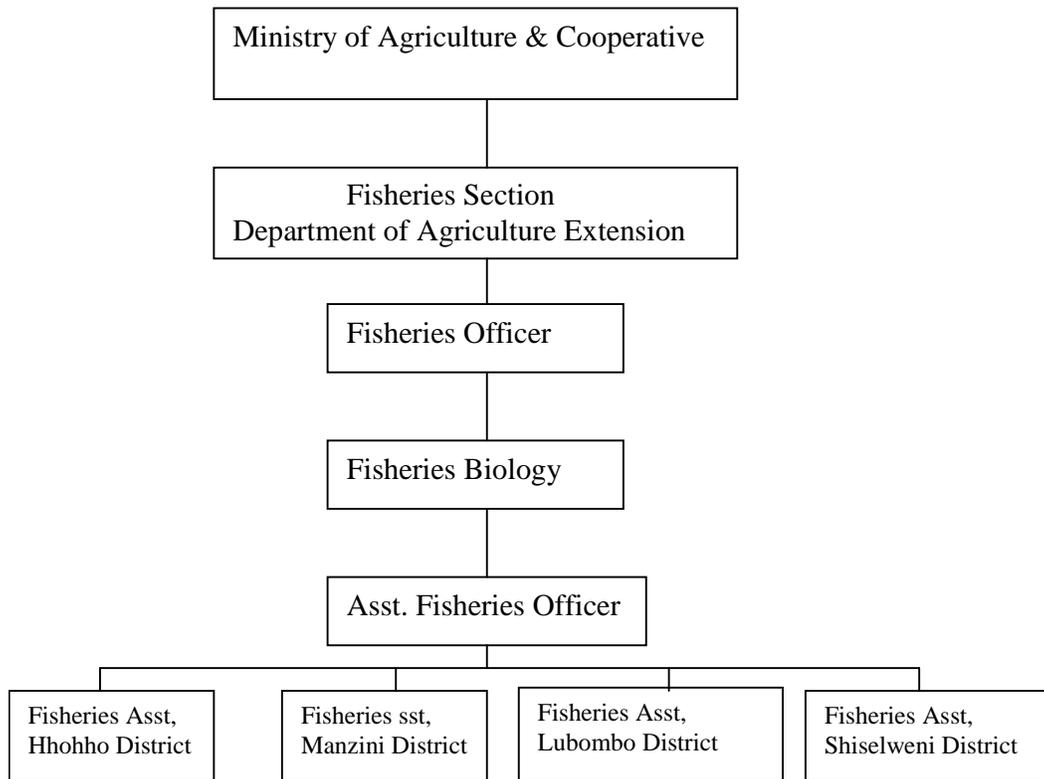
Presently all research activities are carried out by the Fisheries Section of the Ministry of Agriculture through external funded programmes and by students from the University of Swaziland for their dissertation projects. Foreign aid.

There have been no major developments in recent years. Some foreign aid obtained in fisheries are listed below:

1. Support for the development of fisheries and projects by the FAO, UNDP, USAID and US Peace Corps in the early 1970s, which resulted in the report published by Mr. Clay.
2. Minor Fish Survey of 1989 conducted by Batchelor and funded by SARCCUS.
3. Fish and Fisheries Survey of 2002-2003 funded by the Republic of China .

## **8 Fishery sector institutions**

**Fisheries administration, Swaziland**



## 9 General legal frameworks

The legal frameworks governing the fisheries sector are listed below:

- The Freshwater Fisheries Act of 1937.
- The Freshwater Fisheries Regulations of 1937.

Note that the legal framework dates back to 1937 and needs to be revisited and modernised to take into account the new developments in the fisheries sector.

## 10 Management applied to the main fisheries

### 10.1 Main goals/objectives

The development of fisheries and aquaculture in Swaziland is based on the enhancement of production from small water bodies and reservoirs whilst promoting small scale fish farming in rural areas to cater for an additional source of protein as well as income for the rural population.

The actions taken to implement the above strategy are:

- Promotion of fish farming by providing technical advice and assistance to smallholders.
- Developing interest in fishing by introducing new species and stocking dams with commercially viable fish species.
- Expanding the fish hatchery.

## **10.2 Institutional arrangements**

### **10.2.1 Co-management activities**

Currently there are no co-management activities supported by any legal instrument. The country does not have any fisheries policy so far. The Government has just provided funds in the 2008/09 budget to draft a fisheries policy.

### **10.2.2 Rights-based approaches to fisheries management**

There is no defined fisheries policy as yet and thus no right based fisheries management policy.

## **10.3 Management measures**

As Swaziland fisheries is very small, the only management measures is to obtain a fishing permit from the Fisheries Unit.

## **11 Recreational sub-sector**

Fishing for recreational purposes is usually carried out in highland rivers and dams and the species concerned are the bass, breams, and trouts. A total of 144 sport-fishing permits were issued in 2007.

## **12 Fishing communities**

Some illegal and uncoordinated fishing does occur in the country's rivers and dams. In fact a decrease in catch has been observed though it cannot be quantified due to lack of data. It has also been observed that people use unregulated and non-selective netting material for fishing.

## **13. Conclusion**

There is an urgent need to draft a fisheries research programme, review the organisational structure and institutional framework including the legal aspects, set up a data collection and analysis unit for the fisheries sector as much of the present work is being done on an

ad hoc manner. There is also need for long-term technical support and transfer of technology to the Swazi's fisheries Unit.