

# Overview of the Fisheries and Aquaculture Resources in the Democratic Republic of Congo

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**Abstract** The Congo has a maritime coastline of 40 km, covering an area of 2,345,409 km<sup>2</sup>. The fluvial system covers around 34,000 km<sup>2</sup> in a network of more than 33,000 km of rivers, principal tributaries, and streams. There are around 1,000 known species of fish, essentially freshwater and some brackish. The lakes of the Rift Valley contain the richest lacustrine fauna in the world. The family of *Cichlidae* alone has more than 900 species. At the same time, the lakes are profoundly different. Lake Tanganyika has 250 species of fish, of which 216 are endemic, whereas Lake Kivu contains only 32 and 16, respectively. A dense hydrographic network of water surfaces, inundated plains and lakes cover around 86,080 km<sup>2</sup> (3.5% of the national area) and have a considerable aquatic potential. The large peripheral lakes of the East cover around 48,000 km<sup>2</sup> of which 47% are under Congolese jurisdiction. The respective areas belonging to the Congo are: Lake Tanganyika, 14,800 km<sup>2</sup>; Lake Albert, 2,420 km<sup>2</sup>; Lake Kivu, 1,700 km<sup>2</sup>; Lake Edward, 1,630 km<sup>2</sup>; Lake Moëro, 1,950 km<sup>2</sup>. Another two important lakes in the interior, Lake Tumba and Lake Mai-Ndombe, cover (between them) 2,300 and 7,000 km<sup>2</sup>, depending on season (less in the dry season and more in the rainy season). There are also the lakes of the Kamalondo depression (6,256 km<sup>2</sup>), Lake Tshangalele (446 km<sup>2</sup>) and Lake N'Zilo (280 km<sup>2</sup>).

**Key words :** Democratic Republic of Congo, fisheries, lake

## Introduction

The Democratic Republic of Congo (with a surface area of 2,345,409 km<sup>2</sup>) is divided into four topographical regions: a coastal plain which extends about 60 km inland to the foothills of the Mayombe Mountains; i.e., the Niara and Ogouè Valleys of the south-centre lie between mountains; the Bateke Plateau, which serves as watershed to the Ogouè and some of the feeder streams of the Zaire system; and the Zaire Basin, which occupies the whole of the north of the country.

It has 11 provinces where Kinshasa is the capital (Fig. 1). It has a 40 km long coastline.

## Fisheries resources

### Marine fisheries

The DRC has a very small Atlantic Ocean coastline,

and marine production is very modest, accounting in the 1980s only for an estimated 2% of total national fish harvests. Almost all of the marine production reported derives from artisanal units using canoes and beach seines.

### Inland fisheries

There are vast freshwater fisheries resources in the country, contained primarily within the major Rift Valley lakes along the eastern borders with Burundi, Rwanda, Tanzania, Zambia and Uganda, and within the extensive Congo River basin.

*Lake Moëro Luapulais* -a very large lake (4,650 km<sup>2</sup>) lying between the DRC and Zambia. The DRC sector of Moëro Luapula extends over 1,950 km or 42% of the total lake area. Global production for the lake in recent decades is estimated to be at or around 13,000 t/year [1].

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Fig. 5. Lake Albert.

kets in Kinshasa in 1984; and a potential annual yield of 90,000 t or more.

*Lualaba Floodplain/Lakes Complex* -the Upper Lualaba floodplain, also known as the Kamolondo Depression, is about 250 km long by 40 km wide. It contains more than 50 lakes of all sizes, including L. Upemba (530 km). Early 1980s estimates put annual catches in the 10,000 to 16,000 t range [4].

*Flooded forests in Central Congo Basin* -in the Mbandaka region of confluence between the Ubangi and Congo streams, there are vast areas of flooded forests that cover nearly 38,000 km, with fluctuations depending on rainfall and seasonal changes in the Congo River level. Potential annual yield estimates for the region vary widely and range as high as 100,000 to 120,000 t.

*Lake Tumba* -associated with the Mbandaka flooded forest region (Fig. 2), Lake Tumba is a shallow water body with an area of 765 km<sup>2</sup> (variable) that communicates with the Congo River through the Irebu channel, inflowing or outflowing depending on the floods. Tumba hosts 114 species of fish. No recent catch and effort data are available. Potential annual yield has been estimated in the range of 2,000 to 3,500 t by various observers.

*Lake Mayi Ndombe* -is a large, shallow mid-Congo Basin lake of 2,300 km<sup>2</sup> with associated flooded forests and swamps. It discharges via rivers Fimi and Kwa to the Congo. No recent fisheries data are available. Mid-1980s estimates put the number of fishers at around 4,600, and annual catches at around 1,000 t.

*Pool Malebo (= Stanley Pool)* -is a large riverine lake (550 km) shared by the Republic of Congo (330 km) and the DRC (220 km) formed by the widening of the Congo River. Mid-1980s estimates for the DRC

side put the number of fishers at about 5,000, and the total annual catch in a range of 3,000 to 3,500 t [1].

### Fish production

Annual fish productions are shown in the following graphs (Fig. 6-8) [6].

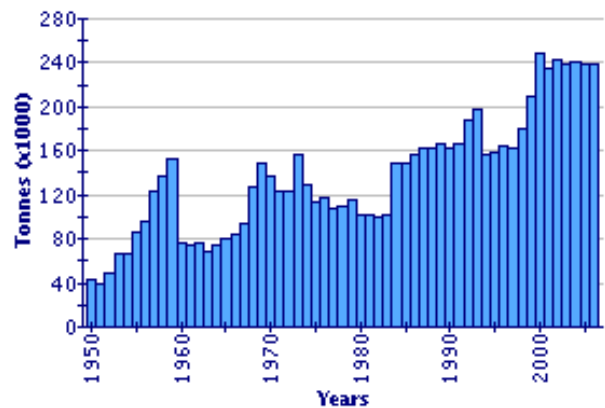


Fig. 6. Fish production form 1950-2006.

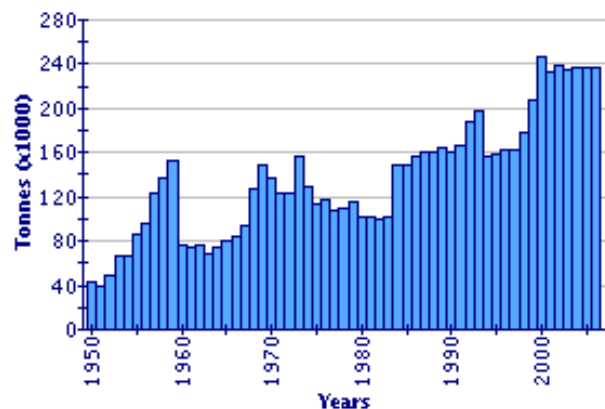


Fig. 7. Capture production from 1950-2006.

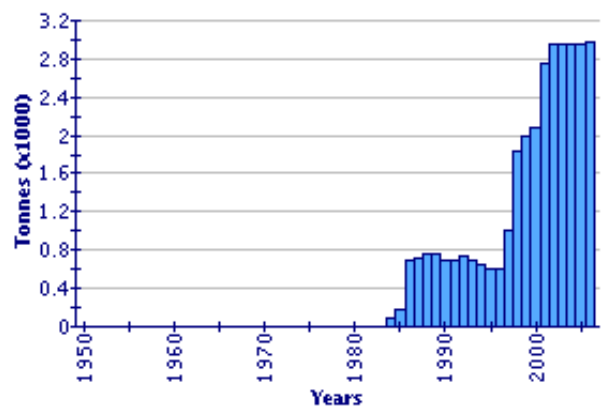


Fig. 8. Aquaculture production from 1950-2006.

## Utilization of the catch

Most of the marine catch is marketed as chilled or fresh fish in Kinshasa markets. Inland catches are marketed in cured form, either as smoked, sun-dried or salt-dried product, except for markets in the immediate vicinity of landing sites, where fresh product is available. Industrial processing (freezing) facilities exist at Kalemie on Lake Tanganyika, but their present status is unknown. Waterborne transport plays a critical role in fish distribution and marketing throughout the eastern Rift Valley lakes region and within the Congo River Basin. Fish is a very popular food item in most areas and demand is exceedingly high. However, the isolated location of many of the water bodies and non-existent or extremely disintegrated infrastructure impose severe limitations on distribution and marketing possibilities. FAO estimates for 1998 put the national per capita fish supply at 5.9 kg [5].

## Economic role in the national economy

It is difficult to provide a reliable reading on the present contribution of fisheries to the national economy due to the almost complete lack of recent data. It is clear, however, that both the marine and inland sectors overall have undergone significant decline, attendant upon the highly unstable political and economic circumstances that have prevailed in the country over the past decade. In the past, the marine fisheries depended on agreements to work off coastal waters of neighbouring states, since the national coastline and territorial waters are of such limited length and area. As far as is known, it has not been possible to maintain these earlier agreements. Moreover, the poor economic climate has led to physical deterioration of the fishing fleet due to lack of maintenance, spares, fuel supplies, etc. Yields from the inland fisheries are thought to be substantially depressed from previous levels due to shortage of essential inputs and marketing difficulties related to infrastructural breakdowns.

## Development prospects

For the marine sector, there is no fleet capable of extensive deep-water operations and there would be little rationale for developing fleet capacity under present conditions of global fisheries exploitation [1]. Protracted political instability and economic malaise have justified the inland fisheries in a much reduced state, and devel-

opment requirements for the immediate term are for restoration of sector performance through infrastructure and input provision. Conditions in the country continue to be unsettled and unpredictable, particularly in the eastern zones around the Rift Valley lakes, and project undertakings will obviously have to wait upon the restoration of civil order. When it becomes feasible to do so, reconnaissance and project formulation exercises urgently need to be carried out on a case by case basis in order to collect updated information on the state of harvest and post-harvest activities, and to determine rehabilitation requirements for each of the major fisheries.

## Research

Little fisheries or aquaculture research has been undertaken in recent years due to widespread civil strife and economic collapse and the withdrawal or forced closure of international fisheries assistance programmes. A partial exception has been the eastern lakes region, where DRC fisheries researchers have been able to participate to some extent in several regional projects.

## AID

Many internationally- and bilaterally-funded research and technical assistance activities have been undertaken in the forty years since Independence in 1960, including the IFIP, LTR and LTBP projects noted above. It was agreed that a central planning and monitoring unit should be established to serve as the executive secretariat on a national committee on fisheries. FAO also assisted the sector, when a draft law providing a general legal framework for both marine and inland fisheries was formulated under project GCP/INT/400/NOR (in 1985) and also executing the project "Sustainable Development of Fisheries in West Africa (GCP/INT/735/UK).

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