

## **The Congo River - A Review**

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The Congo River (also known as the Zaire River) is the second longest river in Africa after the Nile and the second largest river in the world by discharge volume of water (after the Amazon), and the world's deepest river with measured depths in excess of 220 m (720 ft). The Congo-Chambeshi river has an overall length of 4,700 km (2,920 mi), which makes it the ninth-longest river (in terms of discharge, the Chambeshi is a tributary of the Lualaba River, Lualaba being the name of the Congo River upstream of the Boyoma Falls, extending for 1,800 km). Measured along with the Lualaba, the Congo River has a total length of 4,370

km (2,715 mi). It crosses the equator twice. The Congo Basin has a total area of about 4 million km<sup>2</sup>, or 13% of the entire African landmass.



Aerial view of the Congo River

<b>Countries</b>	Angola, Burundi, Cameroon, Central African Republic, Democratic Republic of the Congo, Gabon, Republic of the Congo, Rwanda, Tanzania, Zambia
<b>Source</b>	Lualaba River
<b>- location</b>	Boyoma Falls
<b>Mouth</b>	Atlantic Ocean
<b>Length</b>	4,700 km (2,920 mi)
<b>Basin</b>	4,014,500 km <sup>2</sup> (1,550,007 sq mi)
<b>Discharge</b>	
- average	41,200 m <sup>3</sup> /s (1,454,964 cu ft/s)
- max	75,000 m <sup>3</sup> /s (2,648,600 cu ft/s)
- min	23,000 m <sup>3</sup> /s (812,237 cu ft/s)



## **Name**

The name River Congo originated from the Kingdom of Kongo which was located on the southern bank of the river. The kingdom in turn is named for the indigenous Bantu Kongo people, in the 17th century reported as "Esikongo". South of the Kongo kingdom proper lay the similarly named Kakongo kingdom, mentioned in 1535. Abraham Ortelius in his world map of 1564 labels as Manicongo the city at the mouth of the river. The tribal names in kongo possibly derive from a word for a public gathering or tribal assembly. The modern name of the Kongo people or Bakongo was introduced in the early 20th century.

The name Zaire is from a Portuguese adaptation of a Kikongo word nzere ("river"), a truncation of nzadi o nzere ("river swallowing rivers"). The river was known as Zaire during the 16th and 17th centuries; Congo seems to have replaced Zaire gradually in English usage during the 18th century, and Congo is the preferred English name in 19th-century literature, although references to Zahir or Zaire as the name used by the inhabitants remained common.

The Democratic Republic of the Congo and the Republic of the Congo are named after it, as was the previous Republic of the Congo which had gained independence in 1960 from the Belgian Congo.

The state of Zaire during 1971–1997 was also named after the river, after its name in French and Portuguese.

## **Basin and course**

The Congo's drainage basin covers 4,014,500 square kilometres (1,550,000 sq mi). The Congo's discharge at its mouth ranges from 23,000 to 75,000 cubic metres per second (810,000 to 2,650,000 cu ft/s), with an average of 41,000 cubic metres per second (1,400,000 cu ft/s).

The river and its tributaries flow through the Congo Rainforest, the second largest rain forest area in the world, second only to the Amazon Rainforest in South America. The river also has the second-largest flow in the world, behind the Amazon; the third-largest drainage basin of any river, behind the Amazon and Plate rivers; and is one of the deepest rivers in the world, at depths greater than 220 m (720 ft). Because its drainage basin includes areas both north and south of the equator, its flow is stable, as there is always at least one part of the river experiencing a rainy season.

The sources of the Congo are in the highlands and mountains of the East African Rift, as well as Lake Tanganyika and Lake Mweru, which feed the Lualaba River, which then becomes the Congo below Boyoma Falls. The Chambeshi River in Zambia is generally taken as the source of the Congo in line with the accepted practice worldwide of using the longest tributary, as with the Nile River.

The Congo flows generally toward the northwest from Kisangani just below the Boyoma falls, then gradually bends southwestwards, passing by Mbandaka, joining with the Ubangi River, and running into the Pool Malebo (Stanley Pool). Kinshasa (formerly Léopoldville) and Brazzaville are on opposite sides of the river at the Pool, where the river narrows and falls through a number of cataracts in deep canyons (collectively known as the Livingstone Falls), running by Matadi and Boma, and into the sea at the small town of Muanda.

The Congo River Basin is one of the distinct physiographic sections of the larger Mid-African province, which in turn is part of the larger African massive physiographic division.



**Course and Drainage basin of the Congo River with countries marked**



**Course and Drainage basin of the Congo River with topography shading**

## **Tributaries**

Sorted in order from the mouth heading upstream.

### **Lower Congo**

Downstream of Kinshasa, there are no important tributaries.

- Inkisi

### **Middle Congo**

- Kwa-Kassai (left) – 2150 km – 881,900 km<sup>2</sup>, 9,900 m<sup>3</sup>/s
- Fimi
- Lukenie
- Kwango
- Sankuru
- Lefini (right)
- Sangha (right) – 1,400 km, 213,400 km<sup>2</sup>, 750 m<sup>3</sup>/s
- Kadéï
- Ubangi (right) – 2,270 km, 772,800 km<sup>2</sup>, 4,000 m<sup>3</sup>/s
- Mbomou
- Uele
- Tshuapa River (left) – 1,000 km
- Lomami River (left) – 1,400 km

### **Upper Congo**

Upstream of Boyoma Falls near Kisangani, the river Congo is known as the Lualaba River.

- Luvua
- Luapula
- Chambeshi

### **Economic importance**

Although the Livingstone Falls prevent access from the sea, nearly the entire Congo above them is readily navigable in sections, especially between Kinshasa and Kisangani. Large river steamers worked the river until quite recently. The Congo River still is a lifeline in a land with few roads or railways. Railways now bypass the three major falls, and much of the trade of Central Africa passes along the river, including copper, palm oil (as kernels), sugar, coffee, and cotton. The river is also potentially valuable for hydroelectric power, and the Inga Dams below Pool Malebo are first to exploit the Congo river.

### **Hydro-electric power**

The Congo River is the most powerful river in Africa. During the rainy season over 50,000 cubic metres (1,800,000 cu ft) of water per second flow into the Atlantic Ocean. Opportunities for the Congo River and its tributaries to generate hydropower are therefore enormous. Scientists have calculated that the entire Congo Basin accounts for 13 percent of global hydropower potential. This would provide sufficient power for all of sub-Saharan Africa's electricity needs.

Currently there are about forty hydropower plants in the Congo Basin. The largest is the Inga Falls dam, about 200 kilometres (120 mi) southwest of Kinshasa. The project was launched in the early 1970s, when the first dam was completed. The plan as originally conceived called for the construction of five dams that would have had a total generating capacity of 34,500 megawatts. To date only two dams have been built, which are the Inga I and Inga II, with a total of fourteen turbines.

In February 2005, South Africa's state-owned power company, Eskom, announced a proposal to increase the capacity of the Inga dramatically through improvements and the construction of a new hydroelectric dam. The project would bring the maximum output of the facility to 40 gigawatts (54,000,000 hp), twice that of China's Three Gorges Dam.

It is feared that these new hydroelectric dams could lead to the extinction of many of the fish species that are endemic to the river.

### **Natural history**



The Congo's formation may have led to the allopatric speciation of the bonobo and the common chimpanzee from their most recent common ancestor. The bonobo is endemic to the humid forests in the region, as are other iconic species like the Allen's swamp monkey, dryas monkey, aquatic genet, okapi and Congo peafowl.

In terms of aquatic life, the Congo River Basin has a very high species richness, and among the highest known concentrations of endemics. Until now, almost 700 fish species have been recorded from the Congo River Basin, and large sections remain virtually unstudied. This is by far the highest diversity of any African river system (in comparison, the next richest are the Niger, Volta and Nile with about 210, 140 and 130 fish species, respectively). Due to this and the great ecological differences between the regions in the Congo basin, it is often divided into multiple ecoregions (instead of treating it as a single ecoregion). Among these ecoregions, the Lower Congo Rapids alone has more than 300 fish species, including approximately 80 endemics while the southwestern part (Kasai Basin) alone has more than 200 fish species, of which about a quarter are endemic. The dominant fish families – at least in parts of the river – are Cyprinidae (carp/cyprinids, such as *Labeo simpsoni*), Mormyridae (elephantfishes), Alestidae (African tetras), Mochokidae (squeaker catfishes), and Cichlidae (cichlids). Among the natives in the river is the huge, highly carnivorous giant tigerfish. Three of the more unusual endemics are the whitish (non-pigmented) and blind *Lamprologus lethops*, which is believed to live as deep as 160 metres (520 ft) below the surface, *Heterochromis multidens*, which appears to be more closely related to cichlids of the Americas than other African cichlids, and *Caecobarbus geertsii*, the only known cavefish in Central Africa. There are also numerous endemic frogs and snails. Several hydroelectric dams are planned on the river, and these may lead to the extinction of many of the endemics.

Several species of turtles, and the slender-snouted, Nile and dwarf crocodile are native to the Congo River Basin. African manatees inhabit the lower parts of the river.

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