

Essay on world literature

Environment, Water



Essay

How Are the Major Rivers in Africa Vital to Its Economy?

In terms of total annual runoff (4600 km³) Africa takes third place after Eurasia and South America, and by the thickness of the layer (less than 160 mm) it is inferior to all continents except Australia and Antarctica. The main watershed of the African continent passes through its most elevated eastern edge, so more than 1/3 of the runoff is in the Atlantic Ocean, only about 1/4 in the Indian Ocean, even less - in the Mediterranean Sea. About 1/3 of Africa (about 9 million km²) has no outlet to the ocean and belongs to the inland basins. The surface waters are distributed over the mainland territory extremely uneven, and both the distribution and the mode of flowing waters have a strong dependence on the amount and mode of rainfall in some parts of the continent. Snow and glacial feeding in Africa plays an insignificant role (Philippe Rekacewicz 10).

All the most important rivers of Africa irrigate the vast structural basins, separated from the ocean by tablelands and ridges. The uplifts caused a stir of erosion activity and contributed to the formation in the valleys of many rivers of large rapids and waterfalls. They impede the navigation and greatly reduce the transport value of African rivers, but at the same time they have huge hydropower resources, the use of which is expanded in the last decades in several African states.

The Nile River. The longest river in Africa - the Nile (6671 km) - is the longest river in the world. The Nile basin area is 2870 km². The average water consumption at Aswan is 2600 m³ / s. The river originates at the East African highlands and flows into the Mediterranean Sea, forming a delta. In the

upper stream it takes large tributaries - Bahr el Ghazal (left) and Achva, Sobat, Blue Nile and Atbara (right). Below the estuary of the right tributary of the Atbara the Nile flows through semi-desert, with no tributaries over the last 3000 km (The River Nile Homepage 1).

The Nile in the lower reaches overflows, flooding the entire valley. The Nile tributaries flowing down from the Abyssinian highlands bring a large amount of silt deposited during the flood. This regular fertilization plays an important role in the agriculture of Egypt.

The water resources of the Nile from the ancient times are used for irrigation and natural fertilization of fields, fishing, water supply and navigation. The river is particularly important for Egypt, where around 97% of the population lives in the coastal zone. With the help of the Soviet Union in the late 60s was built a large dam in the valley of the Nile near Aswan, due to which one third of the irrigated land of Egypt was increased, electricity needed to develop the country's economy is produced, and navigation conditions are improved. There have also been built several dams and reservoirs which regulate the flow of water throughout the year (The River Nile Homepage 5). There are the major cities of Khartoum, Aswan, Luxor (Thebes) and Cairo-Giza on the Nile, in the delta - Alexandria. The Nile River north of Aswan is a popular tourist route.

The Congo River. Congo (Zaire, Lualaba) is a river in central Africa, mainly in the Democratic Republic of the Congo. It is the second largest river in Africa by length, but by the basin area and the water content it takes the first place in Africa and the second place in the world after the Amazon River. It is the only major river that crosses the equator twice (Philippe Rekacewicz 34).

Compared with other rivers of the world, the Congo has one of the largest hydropower reserves which are estimated at 390 GW. Approximately 40 HPS are built at the Congo River. The largest hydroelectric power station of the river is Inga, located about 200 km southwest of Kinshasa. Several hydroelectric power plants are built in the area of Shaba - the most important mining areas within the Democratic Republic of the Congo (Alain Nubourgh 3).

The total length of navigable waterways along rivers and lakes of the Congo Basin is about 20 thousand kilometers. The river itself has four major shipping areas: Bukama - Kongolo (645 miles), Kindu - Ubundu (300 km), Kisangani - Kinshasa (1742 km), Matadi - estuary (138 km). The navigable areas of the Congo are connected by railways.

The rivers and lakes of the Congo basin are rich in fish (about 1, 000 species, many of which are of commercial importance: the Nile perch, tilapia, barbell, large tiger fish, freshwater herring and others).

The Niger River. The Niger River is inferior to the Nile and the Congo by the length and area of the basin, but still belongs to the largest rivers of the earth. The Niger length is 4184 km, basin area - more than 2 million km². Its average annual consumption is much higher than consumption of the Nile (9300 m³ / s). The springhead of the river is located on the slopes of the Leone-Liberian upland in southeastern Guinea. The river flows through Mali, Niger, over the boundary with Benin and then through the territory of Nigeria (Philippe Rekacewicz 46).

The most fertile lands are in the inner delta and estuary delta of the river. The river brings 67 million tons of silt a year. A lot of dams and hydro

systems are built at the river. At the border with Sahara the Niger is of great importance in the irrigation system: there constructed several dams and canals, and created a large area for rice cultivation. The dams Egrett and Sansanding lift water for the irrigation canals. The largest hydroelectric complex of Niger, Kaïndzhi, was built in the 1960s (FAO: Irrigation potential in Africa).

The navigation at the river is also developed only in some areas, especially from the city of Niamey to its flowing into the ocean. The river has a large number of fish (perch, carp, etc.), so fishing is well developed among the local population. The seaport is located at the river flows into the Gulf of Guinea in the city of Port Harcourt. This river also facilitates the transport of goods in the settlements located far from the Atlantic Ocean.

The Zambezi River. The Zambezi - the largest river in South Africa and the largest of the mainland rivers flowing into the Indian Ocean. Its length is 2736 km, area of basin - 1330 km². The average annual flow of the Zambezi is very large (16, 000 m³ / s): it is more than 1.5 times higher than flow rate of the Niger and many times greater than the average consumption of the Nile. The Zambezi originates at an altitude of 1000 m on the watershed plateau of Congo - Zambezi. On its way the river crosses the flat structural basins and plateaus which separate them, forming numerous rapids and waterfalls. The major attraction of the Zambezi is Victoria Falls, one of the greatest waterfalls in the world (Philippe Rekacewicz 58).

The navigable value of the Zambezi due to sharp fluctuations of water availability is low. For larger vessels, it is available only in the lower reaches over 450 km. The hydroelectric resources of the Zambezi are used by

countries located in its basin. A powerful hydroelectric complex Kariba is built in Zimbabwe below Victoria Falls, above the dam of which created a reservoir of the same name - one of the largest in the world. Another large hydroelectric complex - Cahora Bassa - located on the territory of the Republic of Mozambique, but produced by it energy is used by several states in Southern and Eastern Africa (Richard Beilfuss 14).

The population of the Zambezi river valley is estimated at approximately 32 million people. About 80% of the population is engaged in agriculture and the floodplains of the upper river provide a fertile soil. Fishery is very intense, as the local fishermen increase by people from arid places, who make long journeys to feed their families. In some cities of Zambia on the roads going to the river the informal taxes are levied on fishing for people coming from other parts of the country. As well as fishing for food, sport fishing is an essential element of the economy in some areas of the river. Between Mongu and Livingstone are several safaris that serve tourists - anglers. Also fish are caught for the sale to aquarium hobbyists.

CONCLUSION

Africa's economy is the smallest, after Antarctica. Agriculture is still a major sector of the economy. The rivers and lakes, groundwater of the continent have a great economic significance, because they are widely used for irrigation. A significant hydro construction is conducted in many parts of Africa: reservoirs and irrigation canals are created. Africa accounts for nearly one fifth of all stocks of world hydropower. All this has negative consequences, in particular leads to reheating of lands, to artificial division of some rivers on isolated shallow areas, and causes various human diseases.

The lack of water in most parts of Africa leads to real "water famine", which makes hundreds of millions of Africans suffer. The fresh water on the continent is of paramount importance, because its vast areas are among the arid and semi-arid lands.

Works Cited

Philippe Rekacewicz, Delphine Digout. Major river basins of Africa. 2005.

The River Nile Homepage. Where is the Nile and Why is it Important?

<http://www.utdallas.edu/geosciences/remsens/Nile/>

Alain Nubourgh, Belgian Technical Cooperation (BTC). Weetlogs. scilogs. be.

Retrieved on 2011-11-29.

Richard Beilfuss. David dos Santos. Patterns of Hydrological Change in the Zambezi Delta, Monogram for the Sustainable Management of Cahora Bassa Dam and The Lower Zambezi Valley. 2001.

FAO: Irrigation potential in Africa: A basin approach, The Niger Basin. 1997.