# "ENVIRONMENTAL THREATS" [WITH A SPECIAL REFERENCE TO BHARATHAPUZHA]

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# **INTRODUCTION**

The God's own Country "Kerala" have blessed by many world famous rivers actually, among that Bharathapuzha is one of the important river which is also known as Nila. The classic history of Palakkad had fertilized by the Nila a lot, the main tributary of Bharathapuzha originates in the anamalai hills in the western ghats, and flows westward through Palakkad gap across Palakkad, Thrissur, and Malappuram districts of Kerala, with many triturating joining it, including the tirur river. The Bharathapuzha is the lifeline of many cities and village chittur-tattamangalam, mankaraperingottukurissi, lakkidi-thiruvillamala etc but now, in current situation Bharathapuzha faces a lot of environmental threats including sand mining and now it just going to its end. And also loses its flow and fertilisation. In this situation we need to take reasonable precaution to minimise the environmental threats faced by Nila and to prevent it

# **HISTORY**

Bharathapuzha River which has a length of 209 kms is the second longest river in Kerala. It is considered as the Nile of Kerala and is also called as Nila. It is also known by other names such as Kuttipuram puzha and Ponnaniyar. This river originates from Anamalai hills of Western Ghats and flows towards the west direction. On the way, many rivers join Bharathapuzha and finally flow into the Arabian Sea. The river spreads across the Palakkad and Malappuram districts.

The river has many tributaries some of which are Thutapuzha, Gayathripuzha, Kalpathipuzha, Kannadipuzha etc. The river is not suitable for navigation except at areas where it joins the sea. The Bharathapuzha basin is the largest river basin in Kerala. A portion of this river is in Tamil Nadu also. As most of the river lies in dry areas such as Tamil Nadu and Palakkad, the water flow is comparatively less. The construction of dams also resulted in less water flow.

There are 11 reservoirs in this river and there are still some under construction. The largest of all the dams in this river is the Malampuzha dam. Some other dams include Walayar dam, Pothundi dam, Chulliyar dam, Meenkara dam etc. The water from these reservoirs is useful for irrigational purposes. There is a Regulator cum bridge constructed at Thrithala, the main aim of which is water supply. The Bharathapuzha has got some cultural heritage also. It is on the banks of this river in Shornur, that the famous Kerala Kalamandalam is located. The birth place of Kunchan Nambiyar which is Killikkurisimangalam is also on the river banks. Besides these, there are several pilgrim centres such as Thiruvilwamala Sree Rama temple, Thirunavaya temple and Panniyur Sree Varahamurthy temple. A Hindu ritual called as Pithru Tharpanam in which people pay homage to their late relatives is performed from the river banks. Cremation of many persons is also done from here.

### **OBJECTIVES**

1. To know the influence of environmental threats in rivers.

2. To observe and analyse the way in which Bharathapuzha affected by the environmental problems.

3. To find out the ways to reduce or to minimize the environmental threats faced by the nature.

#### CHALLENGES

The river now faces significant challenges for its survival. It is predicted that the river may change its course due to the obstruction of the tall grasses and bushes that has grown in the river. Illegal sand mining mafias are very active and the nexus between the politicians, bureaucrats and these mafias make it extremely difficult to stop this. Organisations which were once very active have now gone on hibernation due to the threat posed by them. Environmentalists have predicted dire consequences and the untimely death of the river within the near future <sup>[</sup>

Social networking sites like Face book have active groups with a purpose of saving the river named as Bharathapuzha Samrakhshana Samithi.

Lack of good flow of water and the presence of check dams in the river are projected as the reasons for the presence of pollution in the water, but environmentalists are not ready to subscribe to this theory entirely. The bridge-cum-regulator at Thrithala, which has helped in keeping the water level in the river even in harsh summers, is pointed out as the biggest reason for stagnancy of water

#### **DEGRADATION**

The river went through a series of challenges which saw it's degradation that has reached a point of no return. People started making the river dirty and left it in the mouth of death. Bharathapuzha is now dirty because of the actions of we human beings. The river water got dirty and it is currently not potable. Until a few decades back, the river used to flow effortlessly during even intense summer. However, due to the sand mining in the last 30 years, the thick sand bed has been completely vanished and has been replaced with grasses and bushes which has become an environmental catastrophe. At the peak of the sand mining period of the mid 1990's, at least 40-50 Lorries carrying tons of pristine sand was a common sight at each 'kadavu' (entrance to the river) of the river every day. Considering the hundreds of the 'kadavu' throughout its length, the amount of sand mined in these years is unimaginable. Today, with almost no sand in many parts of the river, people have started mining sand from underwater which has become a profitable business for many.

#### Actions required for saving the river

• Controlled mining of the sand if not completely stopping it. Sand beds which got created in millions of years were completely removed within a few years of human greed and mismanagement. Creation of sand is a very slow process and is considered as the veins of the river. Although a total ban is impossible and impracticable, strict regulations need to be put in place for sustainable mining of sand. Experts suggest that a portion of the revenue from sand mining has to be allocated for river management.

- Strict regulations for hotels, hospitals and households on managing their waste. Regulation has to be put in place and enforced for managing waste generated by hospitals and hotels.
- Planting trees like Banyan, Jackfruit, Teak, or Mango can enhance the water table and the water quality as these trees can hold large amount of water in its roots and will slowly discharge it during summer. This method has found to be successful in many parts of the world in reviving rivers.
- Planting and growing mangroves wherever possible: Mangroves acts a barrier protecting the river banks from soil erosion. The ecosystem within the mangroves are varied and complex and help aquatic species to thrive in rivers.
- Constructing check dams: Check dams slow down the flow of the river where by recharging the ground water and increasing the water table.
- Besides illegal sand-mining, hundreds of acres of the riverbed, dried up during the summer, have been converted into vegetable farms. The authorities have not yet taken any action against this.
- Though the Shoranur municipality has issued only limited number of passes to mine sand from the Bharathapuzha, passes issued by local bodies in Thrissur district are used to illegally transport sand from Palakkad district.
- The Bharathapuzha Protection Committee secretary, Indanur Gopi, said that illegal sand-mining was carried out with the connivance of the Revenue, Water Resources and Police officials.
- Roads were cut through the riverbed in Shoranur recently to smuggle the 40-ft high heap of sand, costing crores of rupees, mined from the river during the construction of the Shoranur-Cheruthuruthy check dam recently.
- Hundreds of trucks lined up on the dried-up riverbed, violating the ban on the entry of vehicles on the river course, are an everyday sight in the region. Also, hundreds of people can be seen transporting sand in gunny bags on head loads in the Shoranur-Pattambi areas.
- Indiscriminate and illegal sand-mining affects the drinking water supply schemes and threatens the very existences of the river. Sand mining has affected water supply schemes in Ottapalam, Shoranur and Pattambi, which depend on the Bharathapuzha water. Every year the depth of the well dug in the middle of the river course for drawing water for the water supply schemes had to be increased due to the depletion of the water table, Mr. Gopi said. The first biodiversity study on the Bharathapuzha conducted by the University Grants Commission in 2001 had found indiscriminate sand-mining as the main reason for the degradation of the river. It found that "indiscriminate sand-mining is a dominant environmental issue throughout the river basin. The entire riverbed is cut up and run over by a very large number of trucks that descend on it daily to transport sand for customers all over South India. The situation is disastrous between Pattambi and Thirunavaya, where both legal and illegal sand quarrying goes on unabatedly."
- Despite various studies on the destructive effects of widespread sand mining, the authorities were turning a blind eye to the destruction of the Bharathapuzha river valley system, said P.S. Panikkar, secretary, Malampuzha Dam Protection Committee.

# **CONCLUSION**

Dying river Bharathapuzha, also known as River Nila, is fast becoming a source of health hazards for the people of several panchayaths and municipalities on its banks. The river is the source of drinking water for lakhs of people living on its banks from places east to Ottapalam to ponnani in the west. The water authority, which took the sample of water for examination from the river near Pattambi down found that it posed health problems to the people who depend on it for life.

Lack of good flow of water and the presence of check dams in the river are projected as the reasons for the presence of pollution in the water. But, environmentalists are not ready to subscribe to this theory entirely. Now, the time has come to save the life of rivers and to reduce the environmental threats by adopting adequate techniques.

# **REFERENCE**

# WWW.WIKIPEDIA

# ARTICLES FROM SEVERAL NEWSPAPERS

MAGAZINESetc