

A research paper on river tamirabarani



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Introduction:

The Tamirabarani River originates from the famous Agasthiyarkoodam Peak in Western Ghats, Ambasumadram Taluk. It flows through Tirunelveli and Tuticorin .

Etymology:

The Thamirabarani contains traces of copper, hence its name (Thamiram means copper in Tamil). The copper content gives it a distinct reddish shade. The river has also been historically known as Porunai. Some scholars interpret the name Tamiraparani as Tamiram (copper) and Varuni (stream or river). They ascribe this origin as the bed of the river is of red soil; when the water flows on the red soil it gives a copper-like appearance.

Historical Reference:

The Ancient Greeks of the time of Ptolemy refer to the river as Solen. Spelt differently as Tamraparani, Tamraparni, Tamiravaruni, etc., the river is mentioned as the Porunai nathi in Tamil poetic literature. It gets recognition and is referred to as the renowned one in Sanskrit literature references to which are as old as that of the Puranas and Epics. Almost all the villages and towns along the course of this river are historical settlements.

One well known example is Aadhichanallur which is a preserved site of the State Archaeology Department from where pre-historic artifacts are excavated. The Tamirabarani river is referred to in ancient Sangam and Tamil texts. In Mahabharatha (3: 88) the river is mentioned as " Listen, O son of Kunti, I shall now describe Tamraparni. In that asylum the gods had undergone penances impelled by the desire of obtaining salvation"

Geographical Notes:

The Tamiraparani originates from the peak of the Periya Pothigai hills of the Western Ghats above Papanasam in the Ambasamudram taluk. The great river like the Cauvery, but unlike most of the other Indian rivers, is fed by both the monsoons – the south west and the north-eastern and is seen in full spate twice a year if the monsoons do not fail. Prior to the bifurcation of the Tirunelveli district, the Tamiraparani was the only major river in Tamilnadu which had its source and end in the same district. After bifurcation, the river traverses the two districts of Tirunelveli and Tuticorin before joining the Gulf of Mannar of the Bay of Bengal at Punnaikayal in Tiruchendur taluk of Thoothukkudi district.

The river is 130 kilometers in length and the Thamirabarani basin is situated between latitudes 8. 21` N and 9. 13` N and between 77. 10` E longitudes. The forty metres deep Vanatheertham waterfalls are located near the origin of the Thamirabarani River. The river is feed by its tributaries as well as by monsoons. The river is joined by its headwater tributaries Peyar, Ullar, Pambar before it flows into the Kariyar Dam reservoir, where it meets Kariyar. The river descends down the mountains near Papanasam, where it forms the Kalyanatheertham falls and Agasthiar falls

Tributaries Of The River:

From the source to sea, the total length of the river is about 125 km., of which its course in Tirunelveli district alone is about 75 km. Originating at an altitude of 1725 m. above MSL at Periya Pothigai hill ranges and integral hill track of Western Ghats in Ambasamudram taluk, it passes through the taluks of Tirunelveli and Palayamkottai of Tirunelveli district and Srivaikundam and <https://assignbuster.com/a-research-paper-on-river-tamirabarani/>

Tiruchendur taluks of Thoothukkudi district. In the Ghats, the chief tributaries of the river are the Peyar, Ullar, Karaiyar, Servalar and the Pambar. These rivers join the Tamiraparani and enrich its course before it reaches the plains. The first tributary which enriches the water of the Tamiraparani in the plains on the right side is the Manimuthar.

Then comes the Gadananathi, which joins the Tamiraparani at Tirupudaimaruthur. Before the Gadananathi's entry into the Tamiraparani, the Gadananathi is joined by the rivers Kallar, Karunaiyar and Veeranathi or Varahanathi which joins the river Gadananathi about 1.5 km north-east of Kila Ambur. The river Pachaiyar is another tributary which joins the Tamiraparani near Tharuvai village in Palayamkottai Taluk. One of the important and affluent tributaries of the Tamiraparani is the Chithar or Chitranathi which arises in the Courtalam hills and receives supply from the rivers Gundar, Hanumanathi and Karuppanathi. The Chithar empties itself into the Tamiraparani in Sivalapperi Village.

The river drains with its tributaries an area of about 4400 sq. km. As most of its extensive catchment areas lay in the Western ghats, the river enjoys the full benefit of both the monsoons which make the river perennial. Since all its tributaries are arising from the Western ghats, the river is prone to heavy floods especially during the North East monsoon. Usage Of The River(Then):

Not much is known about the usage of Tamirabarani River back then. The river has been historically known as Podhigai. It finds mention in the ancient Sangam and Tamil texts. There is an ancient script written as 'Thamirabarani mahathmiyam'.

Usage Of The River(Now):

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The many anicuts, dams and reservoirs on the Thamirabarani river, along with those on the Manimuthar River, provide a large proportion of the water for irrigation and power generation for Tirunelveli District. It is fed by both the monsoons – the south west and the north-eastern and is seen in full spate twice a year if the monsoons do not fail. The Gadanadhi has 6 anicuts and a reservoir of 9, 970, 000 m³, and irrigates 38. 87 km² of wetlands. The Ramanadhi has 7 anicuts, a reservoir of 4, 300, 000 m³, and irrigates 20. 23 km² of wetlands. Pachaiyar River has 12 anicuts and irrigates 61. 51 km² of wet and dry lands.

The important irrigation channels branching off from both the banks of the river Tamiraparani are, South Kodaimelalagian channel, North Kodaimelalagian channel (Kodaimelalagian anaicut), Nathiyunni channel (Nathiyunni anaicut), Kannadian channel (Kannadian anaicut), Kodagan channel (Ariyanayagipuram anaicut), Palayam (Palavur anaicut) channel, Tirunelveli channel (Suthamalli anaicut), Marudur Melakkal, Marudur Keelakkal (Marudur anaicut), South Main Channel and North Main Channel (Srivaikundam anaicut). Of these the first seven anaicuts were constructed during the period of ancient and medieval rulers and the last anaicut namely the Srivaikundam anaicut was constructed and completed by the British in 1869.

List of dams across Thamirabarani river:

1.	Kodaimelaalagain	anaicut	1281.	67	Hectares
2.	Nathiyunni	anaicut	1049.	37	Hectares
3.	Kannadian	anaicut	2266.	69	Hectares
4.	Ariyanayagipuram	anaicut	4767.	30	Hectares

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| 5. | Palavur | anaicut | 3557. | 26Hectares |
| 6. | Suthamalli | anaicut | 2559. | 69Hectares |
| 7. | Marudur anaicut 7175. 64Hectares | | | |

List of channels:

- | | | | |
|----|------------------|-----------------|----------|
| 1. | South | Kodaimelalagain | channel |
| 2. | North | Kodaimelalagain | channel |
| 3. | | Nathiyunni | channel |
| 4. | | Kannadian | channel |
| 5. | | Kodagan | channel |
| 6. | | Palayam | channel |
| 7. | | Tirunelveli | channel |
| 8. | | Marudur | Melakkal |
| 9. | Marudur Keelakal | | |

PollutionAnd Other Problems:

This was an article in a Tamil daily.

Many rivers in Tamil nadu have already become poisoned due to the mixing of industrial wastages and sewages. No measures have been taken to prevent them from degradation. Cooum is the best example for how a river can be degraded into a drainage. Noyyal has been polluted long back by the industries at Tiruppur. Uyyakondan/ Kudamuruti river, which passes through Tiruchirappalli has almost reached the drainage degree. Thamirabarani was the only perennial river in Tamil Nadu. Now, this river also poses a danger of being polluted due to plastic waste.

Water falling from Coutralam falls is named as Sitraaru (Chitra Nadhi in Sanskrit), which is a branch to Tamirabharani is getting polluted by tourists day by day by polythene wastes. The Servalaaru, another branch river of Tamirabarani also getting polluted in its origination point itself by the tourists. Of late, Tamirabarani River is greatly polluted due to rapid industrialization on its banks including pulp, paper, textile, various workshops, photographic industries, various small scale industries leading to the discharge untreated effluents as also human and animal wastes, etc. The waste consists of dye stuff, sulphates, sulphide, copper, zinc, lead, phenolics, chlorides, lingo cellulosic wastes, mercaptans, mercury, etc.

The survey conducted at various canals of Tamirabarani river reveals that the arsenic, chemical and pollution levels are extremely high than the permissible limits. Further the presence of amala plants in the canal greatly absorbs the oxygen level leading to the death of living things. Besides, the increased presence of microbes spreads foul smell in the canals. There are shocking reports that one litre of river water contains more than 1, 300 microbes. The presence of high-level of toxic substances in the river water and its consumption causes irritation and other skin related diseases. There is huge apprehension among the scientists and farmers that if the present situation is allowed to continue, the crops will be greatly affected.

Due to sand mining, the number of fish in the river has met with a drastic decrease. In Tirunelveli, Tuticorin, Virudhunagar districts, people are hesitating to use the “ Jiva Nathi” Tamirabarani’s water for irrigating their fields. The river earlier was the source of water for cooking, consumption and other uses. The hotels, factories and hospitals on the banks of the river

are dumping their hazardous wastes in the river. The settlements on the banks are also polluting the river on their part. The people have been using the river as a place to attend their nature's call. Because of these, some parts of the river has become unfit for human use. Due to the mixing of germs, harmful alloys, factory wastes in the river, the Tamirabharani river is heading towards destruction.

Plans And Projects To Rectify The Problems:

Though the Government has taken many steps to clean rivers, none of them are being carried out properly. Also, the awareness among the people is decreasing day by day. First of all, if the mixing of wastes in the river is stopped, two thirds of the pollution will stop. The river also poses as a breeding ground for mosquitoes as the sewage mixes in the river. If the sewage is diverted, the breeding of mosquitoes will stop. Rivers and streams provide 65% of our nation's drinking water. The second step is to create awareness among the people. Many rivers have been saved due to community projects undertaken by the people. Likewise, if the problems faced by the Tamirabharani river gains awareness, there is scope for positive development.

Conclusion:

The problem is never too late to be solved. The future of the Tamirabharani river will be determined by our actions. Do we want our Tamirabhrani river, the " Jiva Nathi" Tamirabharani to become another Cooum? The question is posed before us. The answer for this question lies in our hands. Through the National River Cleanup Program in the US, 900, 000+ people have cleaned 162, 000+ miles of streams, removing almost 9 million pounds of trash. This <https://assignbuster.com/a-research-paper-on-river-tamirabarani/>

could act as an example for us. The steps taken hereafter, should be proactive and not improvident.