

## Varkala's Underground Legacy: Exploring the Tunnels Historical Significance

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### ABSTRACT

Varkala, a coastal town in Kerala, India has received significant attention due to its potential in promoting inland navigation. Historically the region has been an important trade and transit route, with its network of backwaters and rivers playing a vital role in local transportation and trade. This paper explores the prospects of enhancing inland navigation in Varkala, focusing on its economic, environmental, and infrastructural impact. The study highlights the advantages of developing a sustainable inland navigation system, which can ease road congestion, reduce transportation costs, and provide eco-friendly alternatives for cargo movement. Additionally, it emphasizes the importance of improving the existing waterways system. Varkala could witness a boom in inland navigation, benefiting local communities and contributing to the border development of Kerala's transport network.

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## INTRODUCTION

Varkala is a coastal town situated in the district of Thiruvananthapuram. Varkala is one of the important religious and tourist destinations in Kerala. Also historically Varkala is a very prominent place. An extensive backwater system runs almost parallel to the coast of Travancore from south to north. Their natural position facilitated the network of water communication from one end of the country to the other. The construction of the Varkala tunnel promises to further enhance the state's inland water navigation system by providing a direct and efficient passage through the region's challenging topography. This tunnel is expected to offer an alternative to overburdened roadways and reduce

congestion while promoting sustainable and eco-friendly water-based transport. The Varkala tunnel will improve the connectivity between key waterways, facilitating smoother navigation of goods and passengers through the backwaters and linking coastal towns with the inland regions. It will also support the growth of trade and tourism in the region, providing economic benefits to local communities. As Kerala aims to revitalize its inland water transport system, the Varkala tunnel stands as a critical project that could pave the way for more efficient and sustainable maritime transport in the state, contributing significantly to regional development and environmental conservation<sup>1</sup>.

## FINDINGS AND ANALYSIS

Varkala tunnel is an outstanding aspect in the realm of the historical predominance of this region. Before the development of roads and railways, the canal was used as an important means of transportation. It was Diwan Venkata Rao, who initiated the idea of inter-connecting kayals through canals. In 1824 Rani Parvathy Bai sanctioned the construction of two Canals, one connects to Trivandrum with the backwaters of Kadinamkulam, and the other connects the Quilon and Paravur backwaters. The first canal is the name Parvathy Puthanar and the other one is known as Quilon canal. With the construction of Parvathy Puthanar and Paravur canals, inland navigation from Trivandrum to the Varkala cliff was possible. In 1867, the British engineers cut two tunnels through Varkala hills to facilitate inland navigation. The tunnels were dug out by the Government in one of the hills in 1867 to establish continuous water communication with the coastal region. Anjengo Lake paved the way for water transport by connecting Thiruvananthapuram, the capital city of the state of Kerala. The reign of Dharmaraja of the erstwhile state of Travancore was treated as an era of administrative and cultural progress. During the period of Ayilyam Thirunal<sup>2</sup>. T. Madava Rao, the dewan by giving stress on the need of convenience of navigation and constructed tow tunnels in Varkala hills. The work of the Varkala barrier canal was very expensive.

The construction of the canal was started in 1867. The free flow of water, which is located at Varkala Hill without any interruption, was the main intention behind this construction. It took nearly nine years (1867-77) for the government for the correction of this project. The scheme was aimed at the complete inland water. Communication from Thiruvananthapuram to the Railway station of Beypore. Finally, the venture is consummated by cutting and two tunnels on of 1,000feet and other 2500 feet. In 1812 Sir .T.Madava Rao, the then Diwan of Travancore was a good administrator<sup>3</sup>. Communication and irrigation received his attention and gave special attention to the field of irrigation and communication and tried to

develop the communication and irrigation setup. He was busy building new roads and canals in all parts of his administrative jurisdiction. The Varkala Tunnel was completed during his period. Out of these two tunnels, the first one was opened to traffic on 15th January 1857 and the second was completed and opened to traffic in 1890. The Varkala tunnel was an important inland root for the transportation facility of the people. It to a certain extent influenced the statics economy. Before the construction of these tunnels travelers used to long land and tough, covering land root sea beach and climbing over the summit of the cliff that stretches into the sea.

The annual publication of the government of R. Narayana Panikar, states that the Divan T. Madava Rao had no full initiator for the construction of the Varkala tunnel. He entered into this project under the pressure of the Madras Government. However, the work did not attain credible progress for five years, starting from the undertaken of the Endeavour. So the work was handed over to a European company located at Bombay which was under the control of chief engineer Barton. The work under this firm was also very slow in progress. It was only in 1877 that the first tunnel was completed and opened for traffic. Through these tunnels salt, coir, and other products were exported. The tunnel was constructed at a time when the transportation system of the county was very poor. Thus its construction had a great influence on the economic condition of the country<sup>4</sup>.

Varkala, to the north of the Anjengo River, rises the Varkala cliff to about 220 feet extending along the coast six miles north. From there, an inland navigable water communication using a canal, the large estuaries at Quilon, Alleppey, and Cochin .a distance of 130 miles a tariffing coast could made to the Madras Railway Station. Later the chief Engineer Barton to the resident in 1869 the establishment tools and plans with a gang of work people marched to Varkala and operation commenced on the Varkala Barrier. On December 15th, 1869 Barton came to Varkala Barrier to fix the lines and commenced the work. This is best to reproduce her annual report of Mr. Barton, the able and efficient civil Engineer of the Government. Tenders were invited for the canal construction in Travancore. The work consists chiefly of open cutting nowhere exceeding seventy feet in depth and a short length of tunnel, on 2000 feet. The other 900 feet in extended contractors competent and willing to tender for work would obtain free information by applying to the chief engineer to the Travancore government at Thiruvananthapuram.

Advertisements were given through the columns of the newspapers published in Madras and Bombay. The work would be done out of the budget allotment for the canal for the current Malabar year. The supervisor stated that the Thahasildar did not order the owners of the paddy fields no to sow seeds anymore and he did not send any one of his subordinates to send values to the places, houses, trees, etc. included in a portion of the line as he was requested in Mr. Sinclair it was a feat interruption to the work in no attention to be paid this matter should be reported to the Chief Engineer. The supervisor requested the Thahalsidarorder<sup>5</sup>. The owners of paddy fields between Vettur Hills and Kolettottam do not sow paddy fields anymore. The Adhikari (village Officer) of Varkala after giving the supervisor much trouble in sending for him very often before he would attend informed him that he was unable to value the property. Relating to this tunnel, there existed an agreement, which deserves special mention. An agreement was made between George Wells of Noon North Street in the city of West Minster and the civil engineer, an authorized official of the government of His Highness Maharaja of Travancore. The Glenara Terrace adaption part middle, the superintendent is the other part. According to the terms of the agreement, George Summers of the consideration. Hereafter mentioned agreed with the said George Wells that the said George Summons should immediately on been directed to do by the said George Wells proceeded to Travancore in the East indices and overseers of the tunnel works being or about to be carried on Varkala Barrier.

Based on the provision of the agreement Government should provide the said George Summers with good and sufficient lodging, medicine, and medical care during the said term of service but the said George Summers should provide for himself meals, drinks, washing and sufficient wearing apparent to all kinds. In the case of misconduct disobedience or rejection of the duty on the part of the said George Summers or if is suffered due to any injury or rendered incapable of attending property of his employment because of drunkenness or any other causes not arising in the performance of his duties under this agreement the said government or engineer in chief or others superior. Officer therefore there to authorize may at any time thereafter determine. This contract dismisses the said George Summer from such service and in the case of the said George Summers not be entitled to any salary beyond the time of such dismissal. In other words, the benefit would be curtailed.

An extract from the letter to Diwan to the chief Engineer regarding the agreement is as follows:-“The Terms of the agreement entered into with George Summers are satisfactory upon hearing from you as to the when Mr. Summers may be expected at Madras and the probable amount that should be advanced to

him at that place. And thereby sent the necessary instructions to messes”<sup>16</sup> in Dec 29 it was reported by the Chief Engineer that a portion of the big tunnel at Varkala observed with cracks on the roof portion of the tunnel. He suggested that experts should be brought to examine the two tunnels. He proposed to invite a practical security engineer from Kolar Gold fields for his purpose. It was also requested that Diwan spare the service of the Senior Railway Officer to inspect the Varkala tunnel<sup>6</sup>. He also suggested certain temporary protective measures to be carried out to prevent the leakage of water in addition to the examination of the same by inviting a Chemical Examiner from the government of Madras.

Meanwhile, the Chief Engineer reported that the result of the analysis of the leakage water from the tunnel was sent to the Chemical Examiner of Madras for opinion. In the reapply, it was stated that there was nothing in the water to damage the brick-and-mortar mortar. Heeding to this was His Highness the Maharaja had been pleased to sanction the estimate forwarded with Rs. 6470 for providing new wooden rits and planting at the bulged portion of tunnel number two. The tunnel was built with a length of 10-12 feet and others is no apparent bond between brickwork in the adjoining Length. The crown of the arch was built in blocks of brickwork supplemented by cement. The tunnels have long been very wet and at the time of construction, drain pipes were inserted below the springing to carry the water accumulating from springs at the back. The depth of the canal water in the tunnel varied between 3’6’ and 6’8’ according to the nature of the flood. In the river and there is a depth of about of silt on the floor. Tunnel number one was opened to traffic on 18th January 1877 and number two was completed for traffic in 1880.

In Kerala history, the Varkala barrier canal also deserves special mention. During the period of Vishakam Thirunal, the completion of the underground tunnel at Varkala occurred<sup>7</sup>. The examiner of the canal across the Varkala hills is considered in the state, as an important center of tourist attraction. The king provided an excellent boat in the tunnel for the tourists and picnic parties. Now the tunnel is termed as unsafe and therefore closed for traffic. However, it serves as a remarkable example to even show the legacy of British rule.

## CONCLUSION

The tunnels of Varkala, hidden beneath the surface for centuries, hold a profound significance in understanding the region's complex history. The historical importance of Varkala place is remarkable.

But presently, the historical importance of this place is facing the element of neglect. This is evident in the case of Varkala tunnels. It was a great historical event aimed at the navigation. Also, it shows the legacy of British rule in India, especially Kerala. When the transportation of facilities is improved in the country, this old system of transportation remained only in pages of history. The protection of historical monuments like the Varkala tunnel is an asset to the cultural heritage of Kerala. The tunnels constructed during the reign of the Travancore kingdom served as a clandestine passage for the royal family, a hideout for rebels, and a sacred pathway for pilgrims. These subterranean structures not only facilitated the movement of people and goods but also played a crucial role in shaping the region's cultural, social, and economic fabric. This study's findings have significant implications for rich cultural tradition and scenic beauty now become fast developing tourism spot and deserves special mention in Kerala cultural history.

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## END NOTES

<sup>1</sup> A Sreedhara Menon, *A Survey of Kerala History*, Kottayam, 2007, P342.

<sup>2</sup> File No. 3437, Bundle No.74, *Tunnels of Varkala Progressing*, State archives Trivandrum, 1879.

<sup>3</sup> File No. 3437, Bundle No.74, *Varkala Tunnel Opening*, State Archives Trivandrum, 1168.

<sup>4</sup> File No. 3499, Bundle No. 75, *Tunnels I and II Completion*, State Archives Trivandrum, 1877-78.

<sup>5</sup> K.V. Subrahmanya Aiyar, *Travancore Archaeological series*, Thiruvananthapuram, 1999, P.85.

<sup>6</sup> *Administrative Reports of Travancore for the years 1864-65, 1866-67, 1869-70*, Travancore Government press, Trivandrum, 1872.

<sup>7</sup> T.K.Velupillai, *Travancore State Manual, Vol 1*, Trivandrum, 1940.