

Mullaperiyar Dam

[UPSC Notes]

History of Mullaperiyar dam

The damming of the Periyar river has been tumultuous. Attempted for the first time in 1850, the British efforts collapsed due to the demand for higher wages and cleaner conditions. In 1862, Captain J.G Ryves proposed it again but it was only when the famine of 1876-77 ruined the Madras Presidency that the proposal was taken seriously.

- The process of construction of the dam began in 1882 under the guidance of Major John Pennycuik. The project was completed between 1887-1895.
- A lease agreement was signed between Vishakam Thirunal Rama Varma, the then Maharaja of Travancore, and Periyar Irrigation Works, the British Secretary of State for India in 1886. The lease was for 999 years but after 24 years, the Secretary of the state was granted full rights to the building of the dam.
- After India gained its independence in 1947, the state of Kerala was formed in 1956. The state government deemed the agreement of 1886 to be invalid and demanded it to be renewed. Under the government of C Achutha Menon in 1970, the lease was renewed. The new agreement demanded that the Tamil Nadu government is to pay tax for it per acre and per unit of electricity produced.
- However, over the years, the damn has become a locked-in zone due to its rising safety concerns, hence, the Mullaperiyar Dam Issue.

Periyar River

The Periyar River is one of the few perennial rivers in the country. Here are some facts about it:

- Periyar is the longest river in the state of Kerala.
- It is the source of drinking water for several major towns.
- 25% of the total industries in the state are around the river making it of extreme significance to the economy.
- It also has another damn on it namely the Idukki dam which is in charge of generating hydroelectricity
- It is called the 'Lifeline of Kerala' for all of its contributions to the economy in the form of water supply for irrigation, commercial activity, rich fishery, etc.

Mullaperiyar Dam Issue

Initially, the Mullaperiyar Dam Issue was about the unfairness of the 1886 lease agreement, as felt by Kerala which challenged the lease's validity. However, from 2009 onwards, the issue has focused on the rising safety concerns of the 126-year-old dam and its impact in the event of its collapse on the people living around it and the state.

Both the states of Kerala and Tamil Nadu are in a headlock about the future of the Mullaperiyar Dam. Whether it be the safety and control of the dam or the validity of the lease signed years ago, all components have caused friction between the two states. Both the states have their own arguments that are discussed below:

Kerala's stance:

Kerala has noted the unfairness and validity of the 1886 agreement. However, now at its core sits the safety concerns in the event of the dam's collapse. Kerala wants to decommission the dam. The Mullaperiyar dam has structural flaws and is located in a seismic zone, inaction will endanger many lives in the process.

The Kerala Government has pointed out how it has not objected to giving water to Tamil Nadu but rising its level would put more strain on the dam than it could take. The dam has been leaking and had many structural faults.

Kerala has additionally pointed fingers at Tamil Nadu for taking up an "obsolete" gate operation schedule that dates back to 1939.

Tamil Nadu's Stance:

The Periyar river is essential for the state of Kerala and its diverted waters have acted equally as a lifeline for the areas of Madurai, Theni, Dindigul, Sivaganga, and Ramnath districts by the provision of drinking water and, and also hydropower in the Lower Periyar Power Station.

Tamil Nadu feels that Kerala's move for decommissioning the current dam to build a new one is motivated by the greed of unfairly taxing developing states.

Despite having paid for it, the power supply has not been restored. Tamil Nadu is unable to access data that is in Kerala's terrain.

Dam Safety Act

The Dam Safety Bill of 2019 became an act in 2021 after Rajya Sabha gave it a green light. Its major objectives of it are discussed below:

- The Bill is to help all states and Union Territories adopt a uniform dam safety procedure. It aims to "provide for the surveillance, inspection, operation, and maintenance of the specified dam for prevention of dam failure-related disasters, and to provide for an institutional mechanism to ensure their safe functioning and for matters connected therewith or incidental thereto."
- A National Committee on Dam Safety shall be formed. It will have a three-year tenure and shall comprise the chairman of the Central Water Commission along

- with 10 representatives (at the maximum) from the Centre as joint secretaries, 7 representatives (at the maximum) from the States, and three experts.
- A state dam safety organisation will be put together that will vouch for the dam's safety. This organisation will be given authority over the investigation and gathering of data for the dam's proper study of the numerous features of the design, construction, repair, and enlargement of dams, reservoirs, and structures.
 - This state dam safety organisation is also needed to report events of dam failures and alike to the National Dam Safety Authority. It is also required to keep records of major dam incidents of dams.
 - The National Dam Safety Authority, to be headquartered in Delhi, will be formed under the Act. It will be headed by an officer, not below the rank of Additional Secretary to the Government of India, to deal with problems relating to dam engineering and dam safety management.

Supreme Court Verdicts on Mullaperiyar Dam

The conflict over the Mullaperiyar Dam has been a long one. It has stretched from the Colonial rule to the present democracy in India. There have been a few brushings with the Apex court of the country as well. They have been listed for your ease below:

- 2006: A 3-judge bench at the Supreme Court of India allowed the raising of the water level to 43m (142 ft) in favour of Tamil Nadu's request for increasing water storage that will be used to irrigate 5 villages in the state. This ruling was, however, objected to by the Kerala Government on safety grounds.
 - Kerala Government has been fearful of the dam's safety since the 1970s when the first few cracks of strain were observed on the dam. The dam is over 100 years old and should not be put under any strain, let alone increased pressure. This would endanger the lives of the people living around the dam and a general loss of public property.
 - Kerala then implemented the Kerala Irrigation and Water Conservation (Amendment) Act, 2006 to safeguard all such endangered dams in the state.
- 2010: A 5 member committee was formed under the leadership of Justice A S Anand by the Supreme Court of India to analyse these problems regarding the Mullaperiyar Dam. It sought to have a thorough report within six months. This Committee, too, announced that the Mullaperiyar dam was structural sound and green lit the rise of water storage level after some repairs to the dam.
- 2014: This verdict saw the dismissal of the Kerala Irrigation and Water Conservation (Amendment) Act of 2005 on the grounds of it being

unconstitutional and the Kerala government was accused of interfering in the passage of justice. This verdict, too, upheld the decision to increase the water level from 136ft to 142ft. It also set up a Permanent Supervisory Committee to look after such issues.

Present Situation of Mullaperiyar Dam

In recent times, the issue over the dam's safety rose again after the 2018 flood situation of Kerala and the destruction that the Rishiganga hydroelectric project & Tapovan dam in Uttarakhand left in its wake, killing almost 200 people.

A UN report was recently published that the Mullaperiyar Dam is in a seismically active zone. On top of that, it also has some flaws on the structural level making it an endangered and ageing dam that puts approximately 5 million lives at risk if the dam was to collapse in any form.

The 2014 SC judgement that ordered the setting up of a permanent body to overlook all dam-related issues in the state has had two petitions being filed against its subpar management. In response, the Chief Secretary of Tamil Nadu was ordered to come up with ways to mend this curve. The SC guided that;

- The Chief Secretary of Tamil Nadu will be held responsible for undertaking proper and guided action to mend the rule curve on the committee appointed by the SC.
- The Supervisory Committee is to address the core safety points of concern and formulate a compliance report in four weeks. The core issues to be addressed in it are:
 - Finalisation of the rule curve
 - Overlooking the instrumentation of the dam
 - Establishing the gate operating schedule