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Central Water Commission on Kerala Floods

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The Central Water Commission (CWC) has found that the congestion in the carrying capacity of the Vembanad Lake made the Kerala floods more severe.

- Despite of being the **largest lake in Kerala, Vembanad Lake** could only absorb a fraction of the water that drained into it from overflowing rivers.
 - The Vembanad Lake was able to absorb only 0.6 billion cubic metres (BCM), of the 1.63 BCM caused due to excessive rainfall and inundated over 480 sq km and **inflated to nearly three times its size**, severely affecting districts such as Kottayam and Allapuzha.
 - The capacity of the lake might be less due to the following reasons-
 - **Siltation** which is a natural process. Since the lake is in eco-sensitive zone, dredging was also not allowed to reduce the siltation.
 - Vembanad is a coastal lake which also **interacts with the backwaters** and there could have been **backflow** because the outlet was unable to discharge as much into the ocean.
- **High rainfall** and **lack of reservoirs** in the **upper reaches of the rivers** that drain into the lake, worsened the flooding.
- While squarely blaming the **two spells of intense rainfall** during the month of August, the commission noted that the dams neither attenuated the floods nor aggravated them.
- However, the Idukki dam acted as a flood cushion by absorbing much of the runoff resulting into lesser outflow from the dam than inflow during the intense spell of rainfall.

Recommendations

- **Increasing the capacity of the spillway** through which rivers such as Pamba, Manimala, Achenkovil and Meenachil drain into the lake and the barrage through which the lake spills into the ocean.

- **Review of rule curves for reservoirs** based on historical data to determine how much water should be released each month over the monsoon period.

Reservoir Regulation Procedure (Rule Curve)- The operating criteria, guidelines, and specifications that govern the storage and release function of a reservoir.

Central Water Commission (CWC)

- The Central Water Commission is the apex technical organisation in the country for development of water resources and is attached organization of the Ministry of Water Resources.
- The Commission is responsible for initiating, coordinating and furthering, in consultation with the State Governments, the schemes for control, conservation, development and utilization of water resources throughout the country for the purpose of irrigation, flood management, power generation, navigation etc.