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## The Study Of Dynamic Behaviour Of Outlet Channels Of Upputeruat Kolleru Lake, India

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The Kolleru Lake is connected to the sea through Upputeru with two channels, old original mouth and new artificial mouth. The purpose of the new artificially dredged channel was to increase the discharge capacity of the lake, especially during extreme flood events, but it completely alters the Hydrodynamics of the Upputeru channel. The artificial dredging of the new channel mouth brings a seasonal shift in old mouth and makes old mouth shallower than prior construction of the new mouth. The shallow old mouth discharge water only when there is a surplus amount of water accumulated in the new mouth and also during extreme flood events. The seasonal shift of the old mouth is due to the lack of sufficient discharge from the main course of the channel, which was diverted through new mouth and because of seasonal change in the offshore circulation in the adjoining sea. The course of the new mouth was also modified by the action of waves, currents and tides of the adjoining sea as there is a change in the distribution of wave energies at both the river mouths due to different seasons. The Reversal of flow pattern was observed at the river confluence, where the new channel was diverted from the old channel.

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