

# *Mud bank fisheries*



- *Locally known as “chakara” (in Malayalam; meaning dead coast)*
- *Defined-* The calm, turbid regions in the coastal waters of Kerala are called the mud banks
- *Formed-south west monsoon period*
- *Extends from Kannur to Kollam*
- *The sea becomes calm all along the coast and fishing becomes possible*
- *semi-circular shape,*
- *extending up to 8 km from shore*
- *at a depth of 7 to 15 m*




- ❑ Mud banks of Kerala can be defined as those areas of the sea adjoining the coast, which have a special property of dampening the waves resulting in clearly demarcated areas of calm water even during the roughest monsoon conditions of the sea.
- ❑ These areas become distinct from the other areas which may have a muddy bottom.

**God's gift given to Kerala fishermen**



# HYDROGRAPHY OF MUD BANKS

- Mud bank season– May–August.
  - temperature of the waters 26° and 27° C at surface and between 25° and 26° C at bottom
  - Salinity – 28.5 ppt (at the bottom slightly lower than at the surface)
  - Phosphate content is high at the bottom
  - Primary production is high (organic compound formation)
- 

# Formation of mud banks(Murty *et al.*1984)

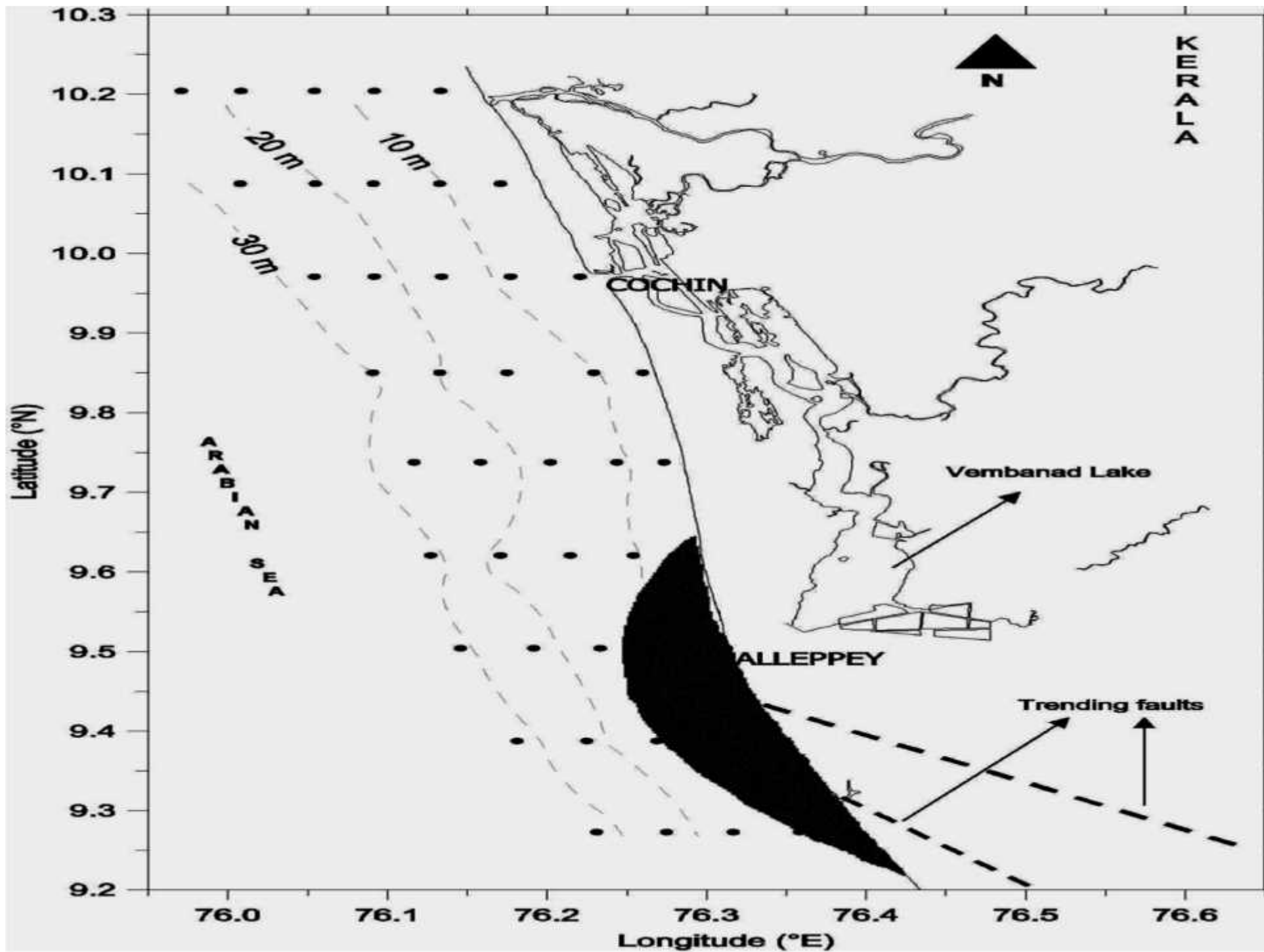
[1] Mud bank formed by subterranean (underground) mud.

[2]Formed by aggregation of coastal mud.

[3]Formed by sediments discharged from rivers and estuaries.

[4]Formed by accumulation of mud resulting from dredging operation





## (1) Mud bank formed by subterranean (underground) mud

- ▶ Seen along the Alleppy Purakkad coast
- ▶ Mud supplied to form mud bank has its origin from the subterranean source which is present in the form of deep underground channels originating from western Ghats and passing underneath the vembanad lake

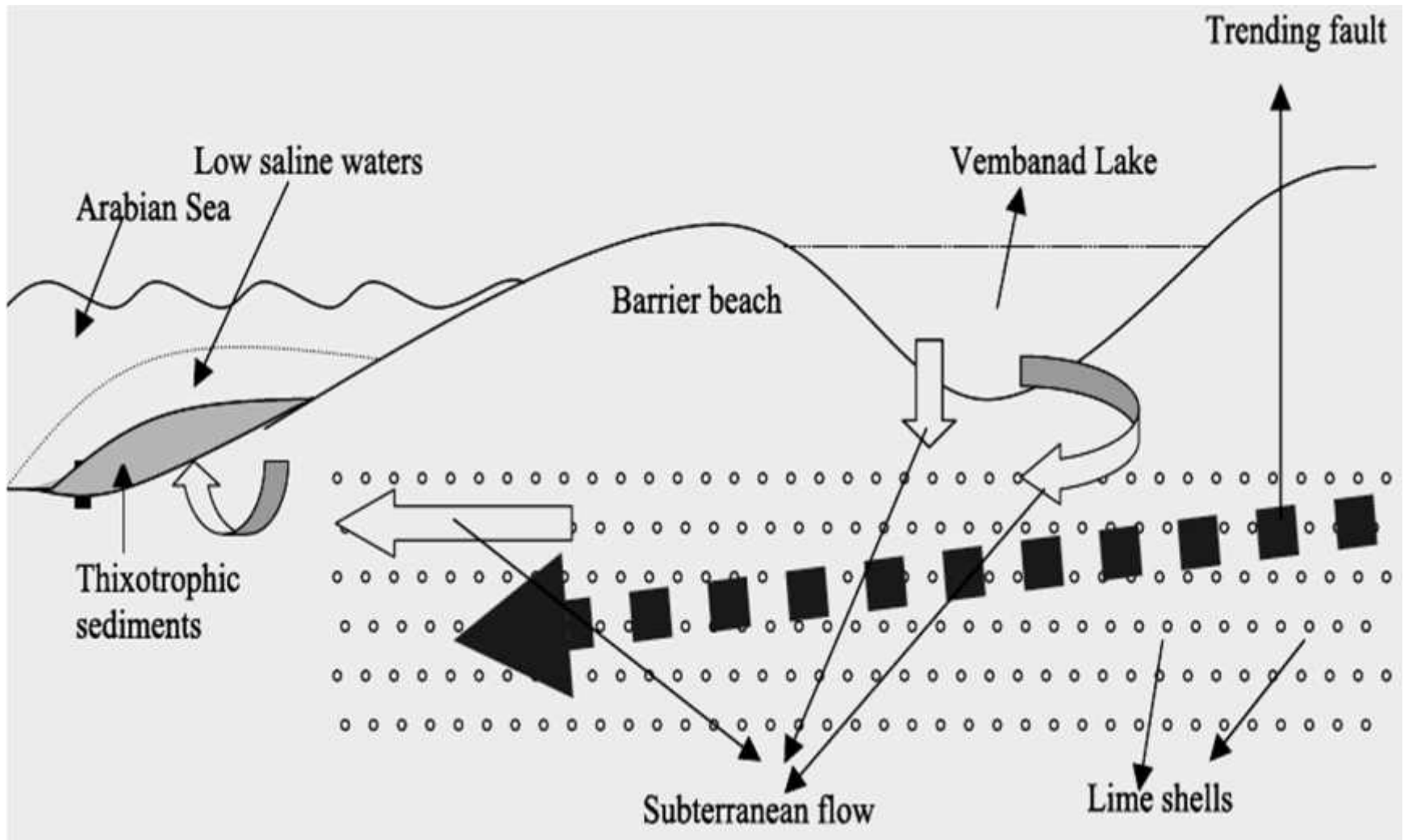


# Cont...

- ▶ When hydrostatic pressure at the foot of the hills of western Ghats increases due to floods during southwest monsoon
- ▶ Together with water load in vemband Lake, the **loose sediments** in channel is pushed up at weaker areas in shallow water regions
- ▶ Mud bank is formed at such areas.
- ▶ Mud bank in this case would be restricted and highly calm







## [2] Formed by aggregation of coastal mud

- ▶ By southwest monsoon, the coastal mud is churned up
- ▶ Brought very close to the shore and a mud bank is formed
- ▶ Eg; Parappanangadi-Tanur mud bank



### [3] Formed by sediments discharged from rivers and estuaries

- ▶ Such mud banks formed at mouth of rivers and estuaries between cochin and ullal (at Netravati river mouth)
- ▶ Sediments brought by the flood water are aggregate always on the southern side of the mouth
- ▶ Held up there for a while by southerly flow of the local current



[4] Formed by accumulation of mud resulting from  
dredging operation

- ▶ Eg; mud bank formed along the vypin–Narakkal coast  
Cochin



