THE LAND OF PAKISTAN

➢ DIFFERENCE BETWEEN WARM AND COLD WATER CURRENT:

Those **currents** that flow from the Equator towards the poles are **warmer** than the surrounding **water** and so they are called **warm currents**. The **ocean currents** that flow from the polar areas towards the Equator are cooler compared to the surrounding **water**, so they are called **cold currents.**

➢ EROSIONAL AND DEPOSITIONAL FEATURES MADE BY RIVER IN ITS DIFFERENT STAGES:

- **<u>FEATURES FORMED BY RIVER EROSION:</u>**
  a) **Land forms: (V –shaped valleys)A stream or river that flows quickly down a steep slope erodes its bed rapidly eventually result in the formation of a deep v shaped valley.**
  b) **River features: (Waterfalls) Where a river flows over alternate bands of hard and soft rocks a waterfall may form and that waterfall erode the river bed more quickly than the river bank.**
- **<u>FEATURES FORMED BY BOTH RIVER EROSION AND DEPOSITION</u>:(Meanders) Bends in the course of a river are called meanders. The river is always working at a meander eroding and depositing. The current in a river flows in a straight lines.**

➢ FORMATION OF LANDFORMS BY EROSION,TRANSPORTATION AND DEPOSITION:

a) **EROSION: The processes by which the earth's surface is worn away by rivers, ice, the sea and the wind. It involves three main processes;**
   1. **Hydraulic action: Cracking and widening in the rocks and lossens fragments.**
   2. **Corrasion: The fragments themselves become smoother and smaller as their corners are worn off by eroding the river beds and banks.**

3. **Corrosion/Solution: Dissolving of some types of rocks, e.g. LIMESTONE**

b) **TRANSPORTATION: The material eroded by the river forms the river's load. There are 4 main ways in which a river moves its load.**

1. Traction: Large stones or boulders in the river's load are rolled along the river bed.

2. Saltation: Bouncing or hopping of fragments of rocks along the river bed.

3. Suspension: Fine particles of silt and clay in the river's load float in the water and they are suspended in water.

3. Solution: The rocks which have been dissolved in water are carried along in solution.

c)DEPOSITION: A river drop of its load i.e deposit it along its course due to a decrease in the river velocity and a decrease in the river's volume.

➢ FACTORS RESPONSIBLE FOR THE GROWTH OF A DELTA:

The conditions necessary for the formation of a delta are:

- **The river must carry a large load**
- **The river must deposit its load faster than the sediment and it can be carried away by currents and tides in the sea.**