

Examine, with the aid of a labelled diagram or diagrams, the processes that have led to the formation of any one Irish landform of deposition of your choice.

**(30 marks)**

The feature I will be discussing is Delta (eg. Lacustrine delta Lough Tay, Wicklow, and estuarine delta Shannon Estuary, Limerick). A delta is a landform created as a consequence of deposition of alluvium, sand and gravel at the mouth of a river. As the river enters a large body of water they are forced to slow down and therefore lose energy and deposit their load. As fresh water from the river meets the salty ocean water a small electrical charge is created, making the sand, silt and clay clump together and sink. Gradually these layers, or beds, of sediment build up on the river floor at the river mouth. As the tides drop in these areas, and the water level goes down, they can be revealed.

There are three different 'beds' or layers of material, which are important to discuss as they contribute to the formation of the delta. The Forset bed consists of heavier silt and sand sediments which drop first in the river mouth, due to their weight and the sudden drop of river energy, settling on the sea bed at the river mouth. This heavier material is constantly added to from upriver, as it rolls over the delta which has already built up and pushes the delta further out to sea (like a conveyor belt adding to the length of the delta). Next the Bottomset bed consists of the finest clay sediments and are transported out in the water the furthest. They therefore create a layer of material on the seabed which the forest bed will eventually roll out onto. Finally the Topset beds are laid down, on top of the previous two layers, and consist of smaller gravelly sediments.

As the delta builds up above low tide levels, the river usually splits into distributaries (small rivers flowing into the sea). The delta can eventually become stabilised by plants, etc., eg. Bangladesh – Ganges Delta. Also there are a number of types of delta, which are Lacustrine (river enters a lake), and Marine (at the coast).

