

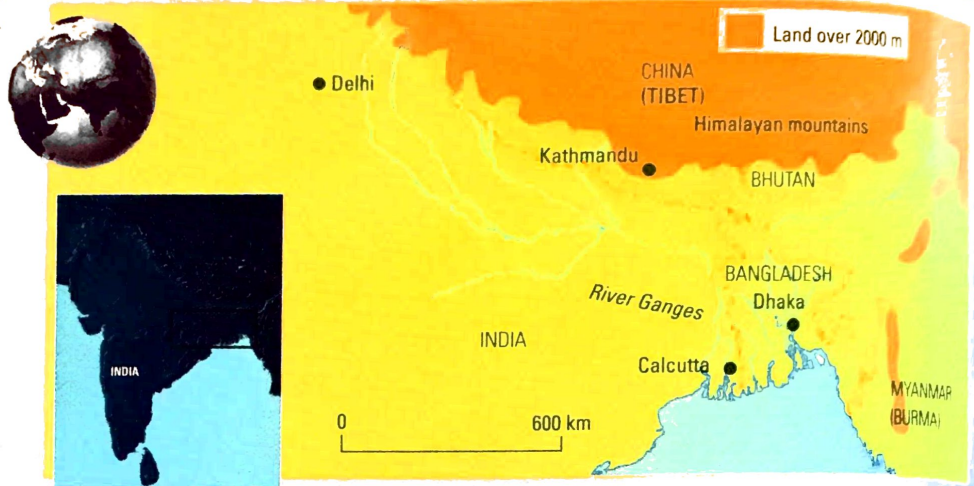
7 Floodplain and delta the River Ganges

The source of the River Ganges is in the Himalayas. The Ganges flows across its floodplain for over 1500 km through northern India. The Ganges delta is found at the mouth of the river as it flows into the Bay of Bengal. The Indian city of Calcutta lies on the western side of the delta, but most of the delta is in Bangladesh (Source 1).

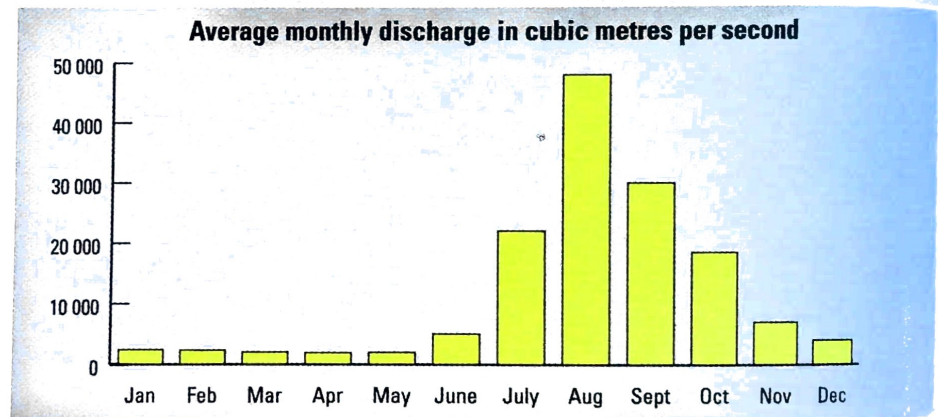
Within the zone covered by the floodplain and delta of the Ganges live some 10 per cent of the total world population. This area is one of the most densely populated parts of the world (see unit 9.1). Most people living here are farmers for whom rice is the main food crop.

The **monsoon** climate brings summer rain, which fills up the River Ganges (Source 2). For centuries the Ganges flooded the land around it between July and October. Each flood left another layer of fertile silt so that there is a great thickness of very rich and easy to work alluvial soils. Today a number of dams control the flooding of the river and supply water for winter crops. There is a neat landscape of tiny fields from which the farmers try to gain the highest possible output by hard work and by using high yielding varieties of rice, wheat and maize seeds (Source 3).

Source 1 The River Ganges



Source 2 Average discharge of the River Ganges



Source 3 The Ganges floodplain is intensively farmed



The delta is an example of a landform of river deposition. The physical features of the delta are labelled on the map and the reasons for the formation of the delta are written below.

Formation of a delta

- 1 The Ganges carries a large load of sediment.
- 2 The flow is slowed down by meeting the denser sea water.
- 3 Sediment is deposited faster than the tides can remove it.
- 4 River flow is blocked by so much deposition that the river splits up into distributaries.
- 5 Distributaries deposit sediment over a wide area, extending new land into the sea.



The *advantage* of the Ganges delta to the people of Bangladesh is that the land is very fertile. The silty soils are also easy to work. All the land is low lying (Source 4). There is water in the channels for irrigation during the dry season so that two or three crops can be grown. Many people can be fed each year.

The *disadvantage* is that the Bangladeshis live in a hazardous physical environment. The risk of being flooded is always present and many people have died. There are so many wide rivers to cross that land

transport is slow and difficult. Access for ships is not easy because many channels are blocked by sand and mud. A wet environment in the tropics is a breeding ground for many diseases. Perhaps worst of all Bangladesh is at the mercy of people living further up river. Nepal has cleared a lot of its forests; the high rates of runoff in the mountains near the source have increased the severity of floods in Bangladesh at the river's mouth. India also uses the river for disposal of its waste products.

