## *Soils of West Bengal*

Soil is one of the most precious resources and influencing factors on agriculture and forestry. Soils are economically important because different types of soils of varying nature produce different varieties and amounts of crop leading to economic disparities. In 1965, according to soil survey done by the Department of Agriculture categorized the soils into six groups (Fig 3.6) on the basis of observation and analysis of soil profiles.They are as follows:

1. The laterite soils

2. The Red soils

3. The Alluvial Soils

a) Younger Alluvial Soil

b) Older Alluvial Soil

4. The Tarai Soils

5. The Saline Soils

6. The Red and Gravelly Soils

## 1. The Laterite Soils

These soils are acidic and poor in organic matter. The laterite soils are found the plateau region in the major parts of the districts of Birbhum, Barddhaman, Bankura and Medinipur.

## *2. The Red Soils*

These red soils are transported from Chhotanagpur plateaus by many rivers to form western districts such as Birbhum, Bankura West Dinajpur and Medinipur. These are residual soils and acidic in nature (pH 5.5-6.6); deficient in organic matter and arepoorly irrigated. The topsoils are poor in iron due to leaching and accumulation takes place in deep subsoils. The transported laterites are deposited on the eastern flanks of the lateritic stretch are known as the red soil which are found in the eastern margin of the Rarh plain and the Barind tract of Maldah and West Dinajpur.

## *3. The Alluvial Soils*

The alluvial soil tracts are covering 28, 921 sq km area and are agriculturally important. They occur in the districts of Murshidabad, Birbhum, Barddhaman, Puruliya, Hugli and Medinipur. Alluvial soils are divided into two families depending on the nature of parent materials.

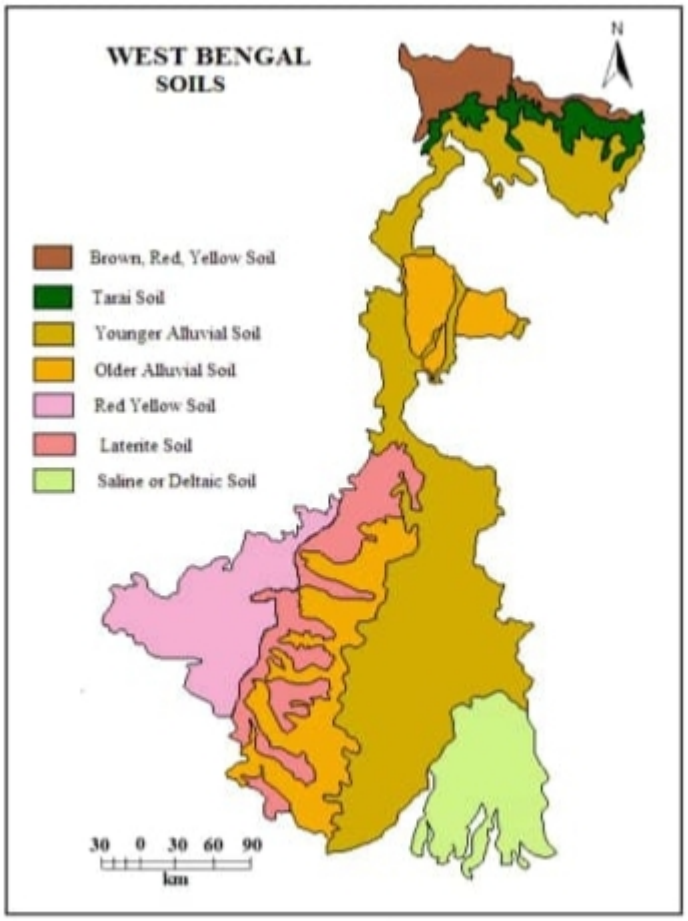
a) Younger Alluvial Soil (Ganga Alluvium): New alluvium formed by Ganga river covers parts of the north Bengal plains and whole of the remaining West Bengal delta excluding the coastal

strip of 24 Parganas and Medinipur. These are the most fertile lands in West Bengal known as 'Khadar'. The Ganga alluvium is rich in plant nutrients and organic matter, and is alkaline in reaction.

b) Older Alluvial Soil (Vindhya Alluvium): The old alluvium soils found along the outer edge of the plateau fringe. This transported soil has lost its original fertility by leaching.

## *4. The Tarai Soil*

Tarai soils are derived from mountain regions of the Himalayas by the hilly rivers i.e.Tista, Mahananda, Torsa, Jaldaka and their numerous tributaries which bring material from heights of above 10,000 ft and deposit it about 200 to 300 ft above sea level. The deposits are mostly sandy and raw humus type and are deep black to gray in colour. They occupy a good amount of paddy area of Jalpaiguri, Darjiling and Koch Bihar districts.




**Source:** NATMO Maps, DST, Kolkata, 2010.

Fig 3.6

## *5. The Saline Soil Mangrove or Coastal Soil*

These types of Soils have been formed by the deposits brought by the tidal current. It is found in 24 Parganas and Medinipur districts. The excess of salt and clay makes the soils unsuitable for the cultivation of rice, vegetables and horticulture.

## *6. The Red and Gravelly Soil*

These thin soils containing large amount of coarse sands are graver, rich in iron but deficient in other minerals and so are less favorable for cultivation. These red soils are found in Puruliya and western parts of Birbhum, Bankura and Asansol.