



Soils of India



“Soil is the mixture of rock debris and organic materials which develop on the Earth’s surface. The major factor affecting soil formation are relief, parent material, climate, vegetation and life forms”

Layers of Soil (Soil Profile)

Soil consists of three layers which are called **Horizons**.

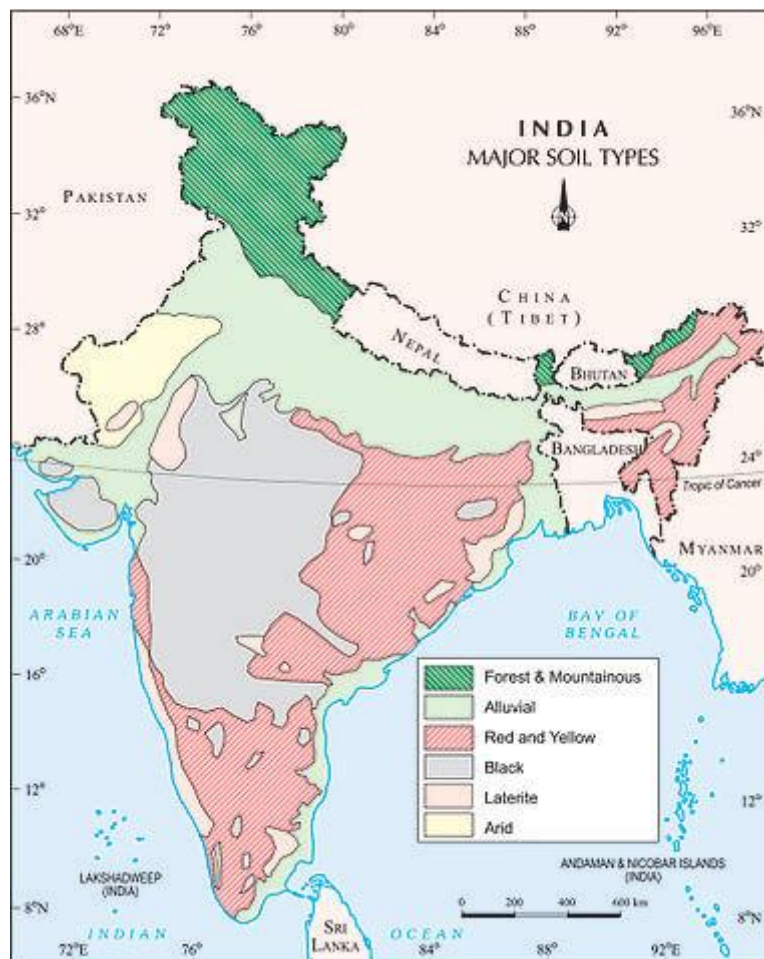
Horizon A – It is the topmost zone, where organic materials have got incorporated with the mineral matter, nutrients and water which are helpful for plant’s growth.

Horizon B – It is a transition zone between horizon A and C. It contains matter derived from horizon A as well as C.

Horizon C – It is composed of loose parent material. It is the first stage in the soil formation.

Note – Below these 3 horizons, parent rock or the bedrock is present.

Classification of Soils



Soil	Location	Colour	Key Points
Alluvial	<p>Northern plains and river valleys</p> <p>Also found in peninsular region; in deltas of East coast and river valleys</p>	Light grey to Ash Grey	<ul style="list-style-type: none"> • These are depositional soils, transported and deposited by rivers and streams • This soil is extensively fertile • Rich in Potash and poor in Phosphorus • Types of Alluvial soil <ul style="list-style-type: none"> ▪ Khadar – New alluvial soil, deposited by floods annually. ▪ Bhangar – old alluvial soil, deposited away from the flood plains. • Both Khadar and Bhangar contains <i>Kankars</i>
Black Soil	Deccan Plateau (Maharashtra, Gujarat, Andhra, MP and some parts of Tamil Nadu)	Black	<ul style="list-style-type: none"> • Also known as Regur Soils • This soil swells and becomes sticky when wet and shrink when dried. So, during dry season, these soils develop cracks. Thus, there is a mechanism of “Self-Ploughing” • Suitable for Cotton plantation • Rich in lime, iron, magnesia and alumina, but lack in Phosphorus, Nitrogen and organic matter
Red and Yellow Soils	<p>Eastern and Southern Part of Deccan Plateau</p> <p>Also found in Odisha and Chhattisgarh and southern part of Ganga Plain</p>	It is red when in crystalline form and yellow when hydrated	<ul style="list-style-type: none"> • Fine grained red and yellow soil is fertile while coarse grained soil is not fertile. • Poor in Nitrogen, Phosphorus and Humus
Laterite Soil	<p>Areas of High temperature and High rainfall</p> <p>Southern India, West Bengal, Odisha, Some parts of</p>	Reddish to Yellow	<ul style="list-style-type: none"> • Not suitable for cultivation; because it lacks organic matter, Nitrogen, phosphate and Calcium while Iron oxide and Potash are in excess. • It is made cultivable by application of manures and fertilizers

	Maharashtra and Assam		<ul style="list-style-type: none"> In Tamil Nadu, Andhra and Kerala, this soil is suitable for Cashew nut cultivation.
Arid Soils	Western Parts of Rajasthan	Red to Brown	<ul style="list-style-type: none"> Sandy in structure and Saline in Nature. Lacks moisture and humus due to dry climate, high temperature and evaporation Lowers horizons of the soil are occupied by Kankars because of increasing Calcium content downwards.
Saline Soils	Western Gujarat, Deltas of Eastern coast and Sunderban areas of West Bengal	White When nitrates are in excess - Brown	<ul style="list-style-type: none"> Sea water invasion in the deltas promotes the occurrence of Saline soils. Contains high amount of Sodium, Magnesium and Potassium. Infertile; and does not support any vegetation growth. Gypsum is added to reduce the salinity of soil.
Peaty Soils	Areas of heavy rainfall and high humidity Northern Bihar, Southern Uttarakhand, Coastal areas of West Bengal, Odisha and Tamil Nadu	Black	<ul style="list-style-type: none"> Suitable for vegetation growth due to high amount of organic matter.

Soil Erosion

It is defined as the removal of upper layer of soil. It is caused by various agents like water, ice, snow, wind, Plants, animals and humans.

- Generally, the rate of removal of layer of soil is same as the rate of addition of particles but sometimes, this balance is disturbed by the action of natural of human factors, leading to soil erosion.
- Wind erosion is significant in arid and semi-arid regions
- In region with high rainfall and steep slopes, water erosion is significant

Cause of Soil Erosion

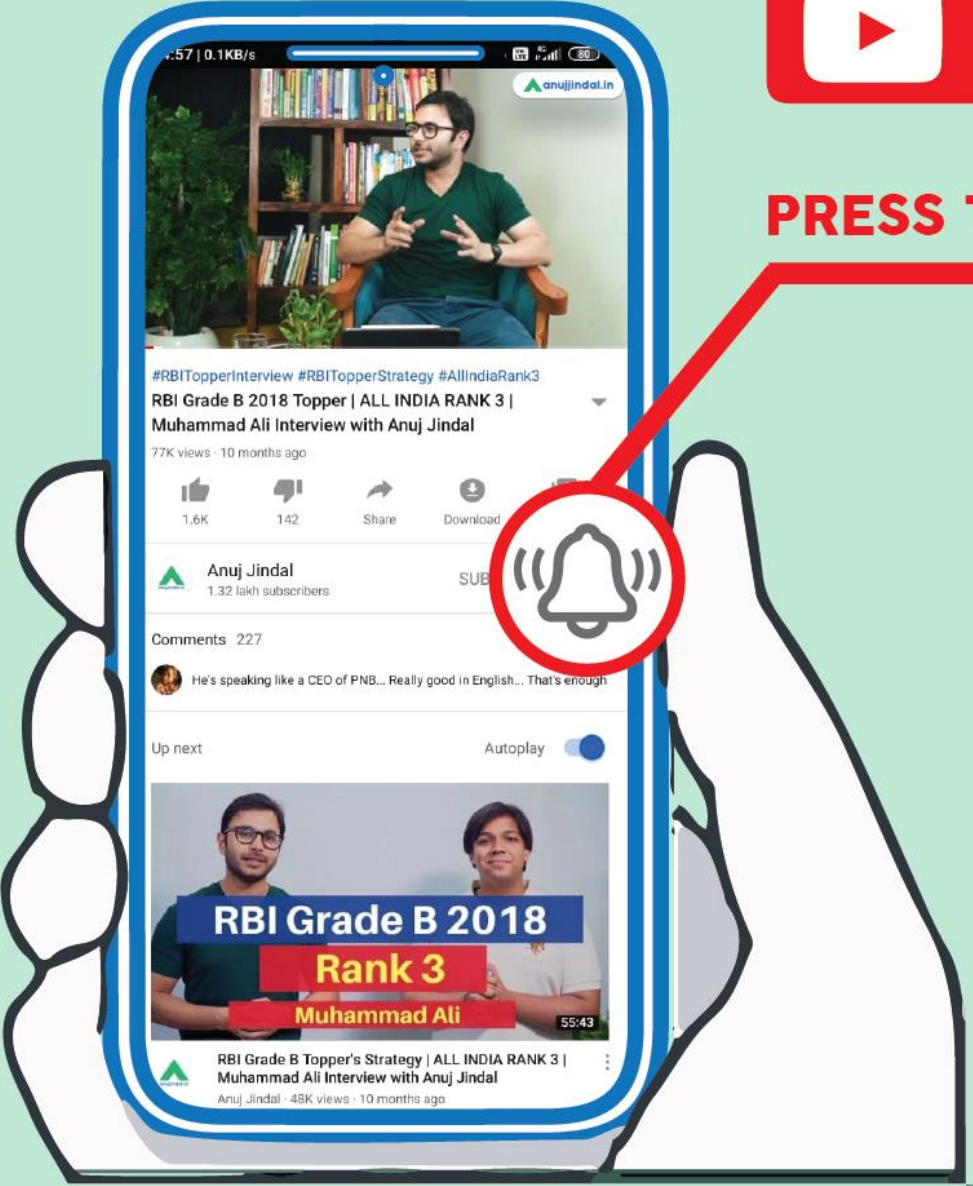


Soil Conservation

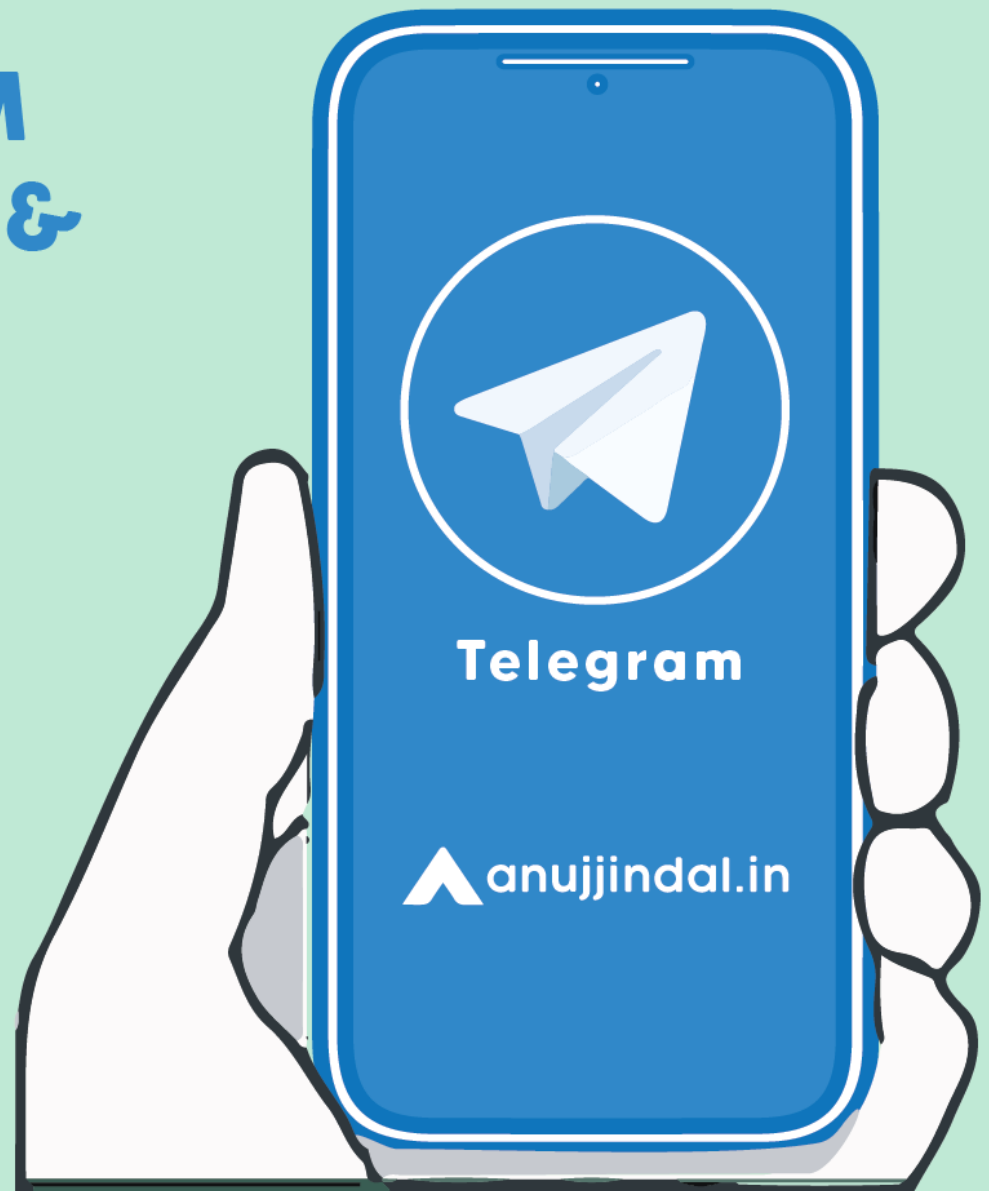
- Afforestation – Planting new trees and plants. It will reduce soil erosion because plants and trees keep soils bound in locks of root.
- Crop rotation – Between harvesting of a crop and planting of other, farmers grow grass or other crops to prevent soil from being vulnerable to external agents like wind, water etc.
- Terrace farming – Farming is done by cutting steps on slopes of hills. This slows down the flow of water and soil removed from one step is deposited on next step.
- Building dams – Protects the crops from floods.

 **SUBSCRIBE**

**&
PRESS THE "BELL ICON" !**



Join our
TELEGRAM
CHANNEL &
GROUP





HALL OF FAME



All Indian Rank 01

Rajendran S

SEBI



All India Rank 03

Ali

RBI



All India Rank 06

Aditya Sood

RBI



All India Rank 10

Sameer

RBI



All India Rank 11

Abhishek

RBI



Cleared RBI Grade B

Sanskar Vijay



Cleared RBI Grade B

Sanjay Meena



Cleared RBI Grade B

Yash Gupta



Cleared RBI Grade B

Ila Sahu



Cleared RBI Grade B

Argha Banerjee



Cleared RBI Grade B

Suchana Ghosh



Cleared NABARD

Vinay Verma



Cleared NABARD

Lal Chand Kumar



Cleared NABARD

Krishna Kumar Singh



Cleared NABARD

Anshu Goel



Cleared NABARD

Jatin Kumar



Cleared NABARD

Atul Yadav



Cleared SEBI

Abhishek Kumar



Cleared SEBI

Vishwanidh Singh



Cleared SEBI

Gopika Jayan



Cleared SEBI

Vasant Kesari



Cleared SEBI

Swetha Bodagala



NET with 98 Percentile

Anushka Keshri



JRF with 96.92 Percentile

Vaishali Jadon



NET with 89.27 Percentile

Srishti Gupta



JRF with 72 Percentage

Abhishek Mohanty



NET with 68 Percentage

Dinesh Mohan



JRF with 64.66 Percentage

Adhwaresh Pandey

ENROLL NOW !

[youtube.com/anujjindal](https://www.youtube.com/anujjindal)

[anujjindal.in](https://www.anujjindal.in)

Call us at : +91 9999466225