



# Monsoon

## Monsoon Rainfall

Indian continent receives its annual rainfall by the peculiar phenomenon known as monsoon. It consists of series of cyclones that arise in India Ocean.

There are four types of monsoon systems :

1. South West Monsoon
2. North East Monsoon
3. Retreating of South West Monsoon/Winter rainfall
4. Summer Rainfall

### 1. South-west Monsoon (June to September)

- In some areas of eastern India, higher rainfall occurs due to frequent occurrence of depressions and cyclones.
- The peninsular India, south of 15° N, receives less than 500 mm
- Orissa, east M.P., West Bengal and north-eastern states, west coast and Ghats, and sub-montane region extending from north Bihar to Jammu receive more than average annual **1000 mm rainfall**
- The extreme parts of western Rajasthan **receive less than 100 mm**

### 2. North-east Monsoon / western disturbances (December -February)

- During September end, the South West Monsoon penetrates to North Western India but stays on for a full month in Bengal.
- Western disturbances provide good supplemental moisture to the Rabi crops grown on conserved soil moisture in north -west India resulting in their higher productivity.

### 3. Retreating of south west monsoon (September 15-November)

- It is restricted more to Northern India and is received in the form of snow on the hills and as rains in the plains of Punjab



#### 4. Summer Rainfall (March-May)

- Some times in West Bengal and Assam, thunder storms known as 'Norwesters'.
- The summer Rainfall is received from March to May as local storms. It is mostly received rains.

#### Classification of rainfall zones in India

Rainfall (mm)	Zone	Net sown area (%)	(%) Rainfall
<500	Arid	16	Very low
500-750	Semi-arid	17	Low
750-1100	Dry sub-humid	35	Medium
1100-1400	Moist sub-humid	24	High
>1400	Humid mountains	8	Very high

#### Difference b/w Dry land and Rain fed Farming

Constituent	Dry land Farming	Rain fed Farming
Rainfall (mm)	< 800	> 800
Moisture availability to the crops	Shortage	Enough
Growing season (days)	< 200	> 200
Growing regions	Arid and semi-arid, uplands of sub humid and humid regions	sub humid and humid regions
Cropping system	Single crop or Intercropping	Intercropping or double cropping
Constraints	Wind and water erosion	Water erosion