

Agroclimatic region

India is an agricultural country where 70% population is engaged in agriculture or allied sector. Different climatic condition in different part of India has set a base for agro-climatic division.

Agro-climatic region is an area with homogeneous agriculture practice and climatic condition.

OBJECTIVE $\Rightarrow$ According to planning commission of India (1989) following are objectives of agro-climatic division $\rightarrow$

- (i) A broad demand-supply balance of major commodity at national level.
- (ii) to provide additional employment.
- (iii) to optimise income of crop producer.
- (iv) to provide framework for scientific and sustainable use of resources.

DEVELOPMENT OF AGRO-CLIMATIC DIVISION SCHEMES

After Stockholm Conference in 1972 emphasis has been given on cropping according to ecology. In 1980 UNEP advised member country for agro-climatic regional planning. In 1983

ICAR proposed a scheme of division of country in agro-climatic regions. Finally in 1989 planning commission divided India into 15 agro-climatic regions.

CRITERIA FOR DELINEATION Most of the scholars have used following criteria for agro-climatic division of India :

- (i) Relief
- (ii) Climate
- (iii) Geological structure
- (iv) Soil
- (v) Cropping pattern
- (vi) Landuse pattern
- (vii) Irrigation.

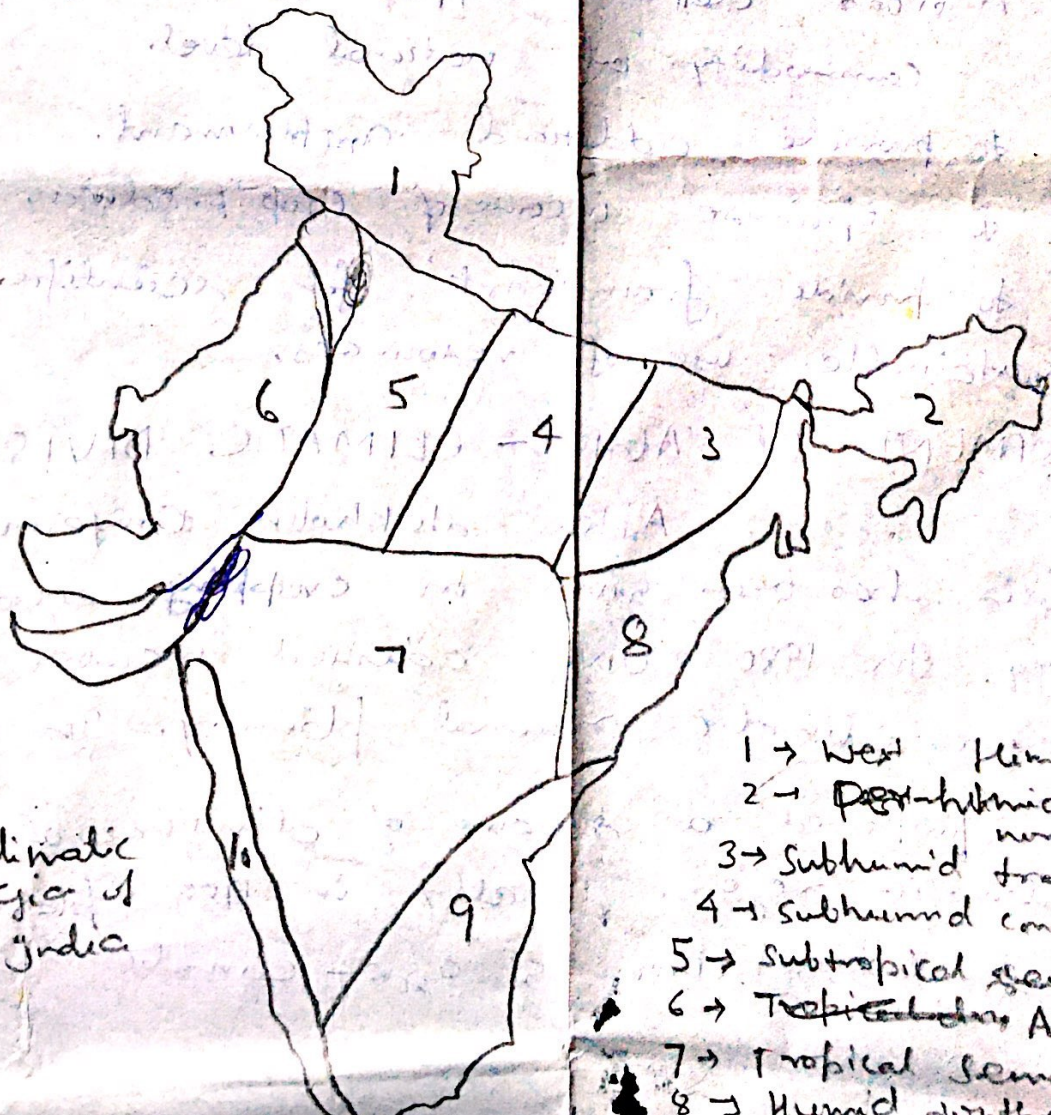


Fig → Climatic region of India

- 1 → West Himalaya
- 2 → Per-humid northeast
- 3 → Subhumid transition
- 4 → Subhumid continental
- 5 → Subtropical semi-arid
- 6 → Tropical arid
- 7 → Tropical semi-arid
- 8 → Humid southeast
- 9 → Subhumid littoral
- 10 → Humid sub-humid

AGRO-CLIMATIC REGION Planning Commission of India has divided it into 15 agro-climatic regions →

(i) West Himalayan region →

Extent → It comprises Jammu Kashmir, H.P., and Uttarakhand
Climate → Temperature in July and January is $5^{\circ}\text{C} - 30^{\circ}\text{C}$ and $0^{\circ}\text{C} - 4^{\circ}\text{C}$ respectively.

Average annual rainfall is 150cm.

Soil → Valley and Duns have alluvial soil.
Hilly slopes have thin Brown hilly soil.

Crops → Major crops of the region are Rice, wheat, maize, Barley etc.

Suggestion for development →

(a) Better land use planning →
 $0 - 30\%$ slopes → agriculture
 $30 - 50\%$ slope → Horticulture
 $> 50\%$ slope → tree cover

(b) Populus and Salix species are recommended for dry temperate region.

(ii) Afforestation

(ii) East Himalayan region →

Extent → It comprises Northeastern states and Sikkim (W.B.).

Climate → Temperature in January and July is $11^{\circ}\text{C} - 24^{\circ}\text{C}$ and $25^{\circ}\text{C} - 33^{\circ}\text{C}$ respectively.
Rainfall is over 200cm.

Soil → Soil is brown and unfertile

Crop → Important crops are maize, rice, fruits etc.

Suggestion for development →

(a) Stop shifting cultivation

- (b) Stop deforestation to conserve soil.
(iii) Better agriculture infrastructure should be provided.

(fii) Lower Ganga plain $\Rightarrow$
Extent $\Rightarrow$ It includes eastern Bihar
west Bengal, ~~Chhattisgarh~~

Climate $\Rightarrow$ Temperature in January $\rightarrow 9^{\circ}\text{C} - 27^{\circ}\text{C}$
in July $\rightarrow 26^{\circ}\text{C}$ to 41°C
rainfall is 100 - 200 cm

Soil $\Rightarrow$ Soil is alluvial and fertile.

Crops $\Rightarrow$ Important crops are rice, jute, maize,
potato, etc.

Suggestion for development $\Rightarrow$

(i) Development of export processing zone for
main food.

~~(ii) Better implementation of agriculture plan.~~

(fid) Middle Ganga plain $\Rightarrow$
Extent $\Rightarrow$ It comprises eastern U.P and Bihar.

Climate $\Rightarrow$ Temperature in January $\rightarrow 9^{\circ}\text{C} - 27^{\circ}\text{C}$
in July $\rightarrow 26^{\circ}\text{C} - 41^{\circ}\text{C}$

Average Rainfall is 100 - 200 cm.

Soil $\Rightarrow$ Alluvial and clayey soil is dominant in
the region.

Crop $\Rightarrow$ Rice, wheat, maize, potato, sugarcane is
important crops.

Suggestion for development $\Rightarrow$

(i) Better land use planning

(ii) Market oriented cropping.

(iii) Chaur should be used for paddy culture.

(iv) Reclamation of 50 lakh hectares waste, fallow and
other land.

(E) Upper Ganga plain $\Rightarrow$

Extent $\Rightarrow$ It comprises most part of U.P.

Climate $\Rightarrow$ Temperature in January $\rightarrow 7^{\circ}\text{C} - 24^{\circ}\text{C}$
In July $\rightarrow 26^{\circ}\text{C} - 41^{\circ}\text{C}$

Average annual rainfall is 75-150 cm.

Soil $\Rightarrow$ It has clayey loam soil.

Crop $\Rightarrow$ Important crops are wheat, sugarcane, rice, millet etc.

Suggestion for development $\Rightarrow$

(i) Development of Mixed and Multiple farming.

(ii) Better land use planning

~~(iii) Development of livestock farming~~

(F) Trans-Ganga Plain $\Rightarrow$

Extent $\Rightarrow$ It includes Punjab, Haryana and Delhi, Rajasthan (Rajasthan)

Climate $\Rightarrow$ Temperature in January $\rightarrow 6^{\circ}\text{C} - 23^{\circ}\text{C}$

In July $\rightarrow 24^{\circ}\text{C} - 41^{\circ}\text{C}$

Soil $\Rightarrow$ It has sandy loam soil.

Crop $\Rightarrow$ Important crops are wheat, cotton, sugarcane, rice, millet, oilseed etc.

Suggestion for development $\Rightarrow$

(i) Better water management.

(ii) Development of cattle farming and fodder

~~(iii) Development of hybrid cattle species~~

(G) Eastern plateau and hill $\Rightarrow$

Extent $\Rightarrow$ It includes Jharkhand, Orissa, Sandhanpur and Chhattisgarh plain.

Climate $\Rightarrow$ Temperature in July $\rightarrow 28^{\circ}\text{C} - 33^{\circ}\text{C}$
In January $\rightarrow 12^{\circ}\text{C} - 27^{\circ}\text{C}$