**What are the factors that affects agriculture in India?**

**1. Physical Factors**

Physical factors affecting agriculture are:

1. climate
2. soil and
3. topography. (तलरूप) **the arrangement of the natural and artificial physical features of an area. Agricultural feild**

**(i)** **Climate.**

Climate plays a dominating role in agriculture. Plants require sufficient heat and moisture for their growth. Normally, regions having maximum temperature of less than 10°C are not suitable for plant growth. In the tropical regions, where temperature is high throughout the year, agriculture is successfully done.

Plant life is not possible in dry areas except that with the help of irrigation. The moisture requirements vary from plant to plant and region to region. In the lower latitudes, where temperature is high, plants need more moisture for their growth (75cm to 100cm).

On the other hand, in the higher latitudes where summers are cool, winds are not dry, rainfall of 50-62 cm is sufficient for plant growth.

**(ii) Soils.**

The richness of soil is another important physical factor affecting agriculture. Soils differ in respect of physical and chemical composition. Soils may be fine or coarse, porous or non-porous. In general fine soils like loam or silt are very fertile. The chemical composition of the soil determines its productivity.

Generally, the soils which are found at the place of their origin, known as residual soils, are poorer than those which have been transported from the place of their origin. The transported soils are rich and have a variety of minerals in them. The transported soils are: (a) loess, transported by wind (b) alluvial, transported by river water (c) glacial, transported by glaciers.

The fertility of the soils decreases with constant cultivation. Soils become infertile if the fertility is not renewed. This can be achieved by leaving the land fallow, by rotation of crop and by use of manures and fertilizers.

Soil erosion and water logging have become major problems with soils as such these should be checked by adopting contour farming, terrace farming, constructing dams and dykes.

**(iii) Topography**.

The nature of topography plays a significant role in the development of agriculture. It determines extent of soil erosion, methods of cultivation and mode of transportation. In the mountainous and hilly regions, soil erosion is common; terrain restricts use of machinery and development of means of transportation.

However, in the flat regions, there is no such problem. Plain regions have fertile soils. The flat topography facilitates use of machines. Means of transportation can be easily developed in the plain areas.

Moreover, dense population in the plain regions provides cheap agricultural labour and a huge market for the products. The alluvial plains, the river valleys and the deltas are very suitable for agriculture.

**2. Economic Factors**

The most important economic factors affecting agriculture are: (a) market (b) transport facilities (c) labour (d) capital (e) Government policies.

**(a)** **Market.**

Market is an important economic factor in agriculture. The distance from the market determines the cost of transportation. Agricultural crops like vegetables etc. are grown near the market.

Sugarcane is grown close to the urban centres, where sugar mills have developed. Similarly, dairy farming is developed around the cities, which serve as markets for the dairy products.

**(b)** **Transport Facilities.**

The development of efficient means of transportation widen the market for agricultural products.

(c) **Capital.**

Agriculture, in the modern times is becoming mechanized. This involves huge capital investments. Purchase of machinery, fertilizers, pesticides and high yielding variety seeds require plenty of money. In India, the farmers are poor.

They cannot afford use of modern farm technology, thus it affects agricultural production. The factor of availability of capital plays a significant role in the development of agriculture.

(d) **Labour**.

The supply of labour determines the character and type of agriculture. Intensive cultivation requires a large supply of cheap labour. Availability of cheap and efficient labour is essential for the cultivation of crops like rice, tea, cotton and rubber. Thus, the factor of availability of labour also plays a vital role in agriculture.

**(e) Government Policies**.

The policies of the Government also influence agricultural land use. The Government may restrict the cultivation of a crop or may force the farmers to grow a particular crop, e.g., area under sugarcane and oil seeds cultivation has increased in India on account of greater emphasis put by the Government on these crops.

Government subsidy or liberal loan in respect of a particular crop helps in larger acreage under that crop. After 1947, the Government of India gave tax relief and concessions to the farmers for growing jute, with the result that in different parts of the country, area under jute cultivation had increased to a large extent.

**3. Other Factors (Technology)**

(i) The level of scientific and technological development has a great bearing on agriculture. Farmers, using primitive methods obtain poor yields. But on the other hand, where farmers are using modern farm technology in the shape of fertilizers, pesticides, machinery and high yielding variety seeds etc. the farm yields are high.

An Indian farmer is poorer in comparison to an American farmer because the later uses modern farm technology. The per hectare yield of rice in India is only 2000 kg as compared to about 5600 kg in Japan. This difference in yield is due to scientific and technological differences.

The system of land tenure also plays a significant role in the patterns and productivity of agriculture crops.