

NECESSITY OF IRRIGATION :-

→ Throughout the crop period, adequate of water is required near the root zone of the plants for their growth. At times during the crop period the rain fall may not be adequate to fulfill the water requirement. The intensity of rain fall is practically uncertain and beyond the control of human power and it may not be well distributed throughout the crop season or the cultivable area.

⇒ So, irrigation becomes absolutely necessary to fulfill the water requirement of crops.

⇒ The following are the factors which govern necessity of irrigation:

(a) Insufficient Rain fall :-

⇒ When the seasonal rain fall is less than the minimum requirement for the satisfactory growth of crops, the irrigation system is essential.

(b) Uneven Distribution of Rain fall :-

⇒ When the rain fall is not evenly distributed during the crop period or through the cultivable area the irrigation is extremely necessary.

(c) Improvement of perennials crops :-

Some perennial crops like sugarcane, cotton, etc. require water throughout the major part of the year. But the rain fall may fulfill the water requirement in rainy season only. So for the remaining part of the year, irrigation becomes :-

(d) Development of Agriculture in Desert Area

In desert area where the rain fall is very scanty, irrigation is required for the development of agriculture :-

BENEFITS OF IRRIGATION :-

(a) Yield of crops :-

→ In the period of low rain fall or drought, the yield of crop may be increased by the irrigation system.

(b) Protection from famine :-

→ The food production of a country can be improved by ensuring the growth of crops by availing the irrigation facilities. They help a country to prevent famine situation.

(C) Improvement of cash crops :-

→ Irrigation helps to improve the cultivation of cash like vegetables, fruits, etc. like, etc.

(D) Prosperity of farmers :-

→ When the supply of irrigation water is assured, the farmers can grow two or more crops in a year on the same land. Thus, the farmer may earn more money and improve their living standard.

(E) Source of Revenue :-

→ When irrigation water is supplied to the cultivators in lieu of some taxes, it helps to earn revenue which may be spent on other development schemes.

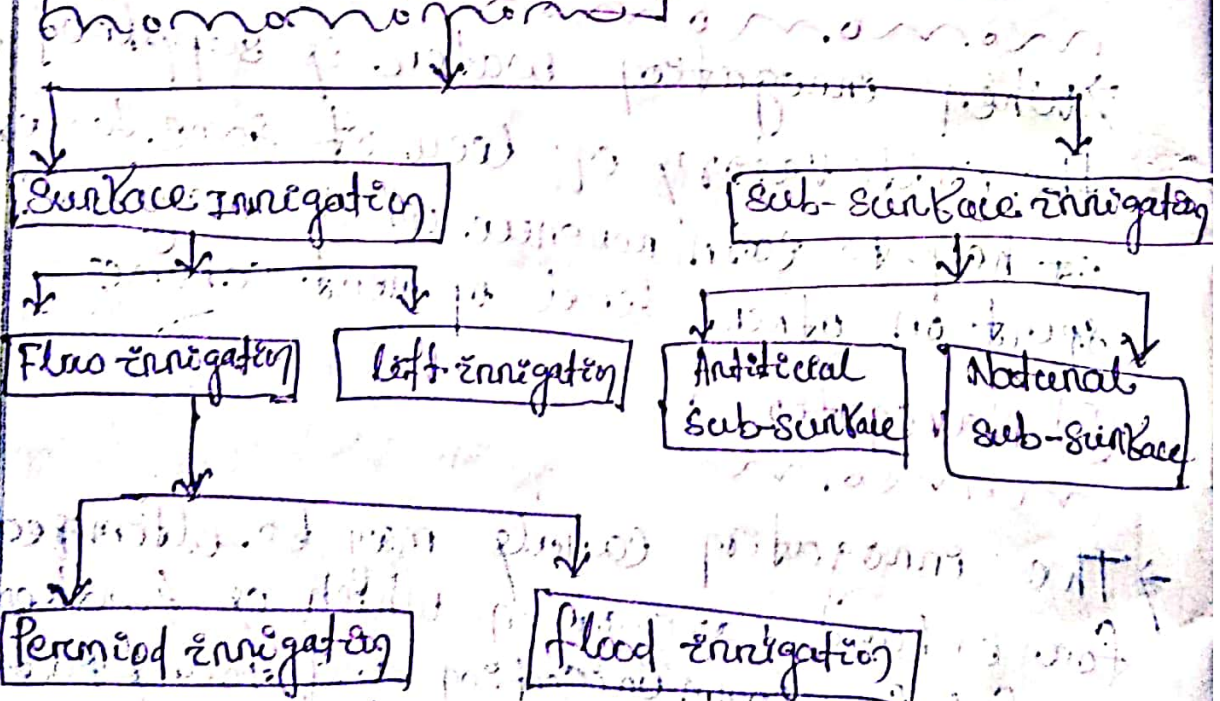
(F) Navigation :-

→ The irrigation canals may be utilized for inland navigation which is further useful for communication and transport of agricultural goods.

Disadvantages of Irrigation :-

- Irrigation may contribute in various way to the problem of water pollution one of these is the seepage into ground water of the nitrates that have been applied to the soil as fertilizers.
- Irrigation may results in marshy land and breeding of mosquitoes causing out break of disease like malaria & dengue.
- Over irrigation may lead to water logging and may reduce crop output & yield.
- Procuring & supplying irrigation water is complex and expensive or costly in itself.

Types of irrigation :-



Surface irrigation :-

- It can be further classified into flow irrigation and lift irrigation.