Irrigation : the importance and irrigation methods

Irrigation

The artificial process of applying controlled amounts of water to land to assist in production of crops. Irrigation helps to grow agricultural crops, maintain landscapes, and revegetate disturbed soils in dry areas and during periods of less than average rainfall.

The are four methods of irrigation are:

Surface.

Sprinkler.

Drip/trickle.

Subsurface.

Surface Irrigation

Surface irrigation: In this system, no irrigation pump is involved. Here, water is distributed across the land by gravity**.**

Sprinkler Irrigation: Water is distributed from a central location by overhead high-pressure sprinklers or from sprinklers from the moving platform.

Drip Irrigation: In this type, drops of water are delivered near the roots of the plants. This type of irrigation is rarely used as it requires more maintenance.

Methods of Irrigation

Irrigation can be carried out by two different methods:

- Traditional Methods
- Modern Methods

Traditional Methods of Irrigation

In this method, irrigation is done manually. Here, a farmer pulls out water from wells or canals by himself or using cattle and carries to farming fields. This method can vary in different regions.

The main advantage of this method is that it is cheap. But its efficiency is poor because of the uneven (diffrent) distribution of water. Also, the chances of water loss are very high.Some examples of the traditional system are pulley system, lever system, chain pump. Among these, the pump system **is** the most common and used widely.

Modern Methods of Irrigation

The modern method compensates the disadvantages of traditional methods and thus helps in the proper way of water usage.

The modern method involves two systems:

- Sprinkler system OR Drip system.

Importance of Irrigation:

The importance of irrigation can be explained in the following points:

1- Insufficient and uncertain rainfall adversely affects agriculture. Droughts and famines are caused due to low rainfall. Irrigation helps to increase productivity even in low rainfall.
2- The productivity on irrigated land is higher as compared to the un-irrigated land.
3- Irrigation has helped to bring most of the fallow(uncultivated) land under cultivation.
4- Irrigation has stabilized the output and yield levels.
5- Irrigation increases the availability of water supply, which in turn increases the income of the farmers.

Note:

Irrigation should be optimum because even over-irrigation can spoil the crop production. Excess water leads to waterlogging, hinder germination, increased salt concentration and uprooting because roots can’t withstand standing water. Thus, the proper method is to be used for the best cultivation.