

Advantages of irrigation

Advantages of irrigation can be direct as well as indirect.

I. Direct Benefits

- The grower has many choices of crops and varieties and can go for multiple cropping for cultivation
- Crop plants respond to fertilizer and other inputs and there by productivity is high.
- Quality of the crop is improved.
- Higher economic return and employment opportunities. It makes economy drought proof.
- Development of pisciculture and afforestation. Plantation is raised along the banks of canals and field boundaries.
- Domestic water supply, hydel power generation at dam site and means of transport where navigation is possible.
- Prevention of damage through flood.

II. Indirect Benefits

- Increase in gross domestic product of the country, revenue, employment, land value, higher wages to farm labour, agro-based industries and groundwater storage.
- General development of other sectors and development of the country
- Increase of food production.
- Modify soil or climate environment – leaching.
- Lessen risk of catastrophic damage caused by drought.
- Increase income & national cash flow.
- Increase labor employment.
- Increase standard of living.
- Increase value of land.
- National security thus self sufficiency.
- Improve communication and navigation facilities.
- Domestic and industrial water supply.
- Improve ground water storage.
- Generation of hydro-electric power.

Disadvantages of Irrigation

The following are the disadvantages of irrigation.

- Water logging.

- Salinity and alkalinity of land.
- Ill aeration of soil.

- Pollution of underground water.
- Results in colder and damper climate causing outbreak of diseases like malaria.

Types of Crops:

- 1) **Wet crops**- which lands are irrigated and than crop are cultivation
- 2) **Dry crops**-which do not need irrigation.
- 3) **Garden crops**- which need irrigation throughout the year
- 4) **Summer crop (Kharif)**-which are sown during the south west monsoon & harvested in autumn.
- 5) **Winter crops(rabi)**-which are sown in autumn & harvested in spring.
- 6) **Cash crop** – which has to be encased in the market. As it cannot be consumed directly by the cultivators.

S.No	Crop	Sown	Harvested	Crop
1	Summer season (Kharif crop)			
	Rice	June -July	Oct-Nov	
	Maize	June -July	Sep-Oct	
	Bajra	June -Aug	Sep-Oct	
	Jowar	June -July	Oct-Nov	
	Pulses	June -July	Nov-Dec	
2	Winter season (Rabi Crops)			
	Wheat, Barley, peas	Oct-Nov	March - April	
	Gram	Sep- Oct	March - April	
	Tobacco	Feb-Mar	June	
	Potato	Oct	Feb	
3	Eight Months Crop cotton	May-June	Dec-Jan	
4	Annual crop sugercane	Feb-March	Dec-march	

Seasons:

- In north India the crop season is divided as Rabi & Kharif.

- Rabi crops are called as winter crops and kharif crops are called as summer crops.
- Kharif crops required more water than rabi crops.
- Rabi starts from 1 st oct and ends on 31 march
- In TamilNadu crops are classified as wet and dry crops.

Crops rotation:

Rotation of crops implies the nature of the crop sown in a particular field is changed year after year.

Necessity for rotation

- The necessity for irrigation when the same crop is grown again and again in the same field, the fertility of land gets reduced as the soil becomes deficient in plant foods favorable to that particular crop.
- If different crops were to be raised there would certainly be more balanced feeding and soil deficient in one particular type of nutrient is allowed to recouped.
- Crop diseases and insect pests will multiply at an alarming rate, if the same crop is to be grown continuously. Rotation will check the diseases.
- A leguminous crop (such as gram) if introduced in rotation will increase nitrogen content of soil thus increasing its fertility.
- The deep rooted and shallow rooted crops in rotation draw their food from different depths of soil. The soil will be better utilized.
- Rotation of crops is beneficial to the farmers as there would be rotation of cash crops, fooder and soil renovating crops.

General rotation of crops can be summarized as:

1. Wheat – great millet – gram.
2. Rice – gram
3. Cotton – wheat – gram.
4. Cotton – wheat – sugarcane
5. Cotton – great millet – gram.