

Class- X

Revision Worksheet No.- 7

Date: 15-02-21

Geography

Topic_Name- Water resources

Q1) Short answers

a) What do you mean by irrigation?

The man-made arrangements of supplying water to the fields are known as irrigation.

b) Name one State where tank irrigation is important. Give three disadvantages of tank irrigation.

Tamil Nadu is the state where tank irrigation is important.

The disadvantages of tanks:

(i) They occupy large areas of land which could be used for cultivation.

(ii) There is also a lot of evaporation as these tanks are usually shallow.

(iii) Construction entails much expenditure.

c) What is meant by Rain Water Harvesting?

It is the term used for capturing the rain water which would normally fall off and get wasted.

It is used for the garden, washing clothes, etc.

d) Why is canal irrigation more popular in Northern India?

(i) The rivers are perennial as they are fed by the melting snows, (ii) The surface of the land is almost flat and soft. Hence it is easy to dig canals, (iii) The demand for irrigation is great in North India as a variety of crops are grown, (iv) Type of cultivation is intensive.

e) Mention two advantages of rainwater harvesting.

Two advantages of rainwater harvesting are:

(i) Recharge of groundwater

(ii) Conservation of water, reduces surface runoff

f) Mention two advantages that surface wells have over inundation canals.

Wells are an independent source of irrigation. It may be used as and when the necessity arises.

(i) Wells are simplest and cheapest source of irrigation, can be dug at any convenient place.

(ii) Inundation canals are 'flood-water' canals and have water in them only when the river is flooded during the rainy season

- g) Name two states in which tube wells are extensively used. Give a reason to explain its importance as a source of irrigation.

Tube wells are extensively used in Punjab and Haryana because the land is soft to bore and availability of electric power.

- h) Give two advantages and one disadvantage that tube wells have over surface wells.

Advantages: Tube wells do not result in evaporation of water like surface wells. It irrigates large area (400 hectares).

Disadvantage: However tube wells are only possible in areas where the groundwater level is not too low power is needed to drain water.

- i) Where are tanks most widely used in India? Why?

Tanks are mostly used in peninsular India. This is because

- (i) Peninsular India consists of hard impervious rocks which favours the storage of water.
- (ii) Depression in the plateau region can be used as Natural tanks.

Q2) Long Answers

- a) What are the favourable conditions in India for the development of irrigation?

(i) Perennial Rivers: There are a number of rivers which flow throughout the year because they are fed by the melting of snows.

(ii) Suitable spots for the construction of dams: Along the Indian streams there are many places suitable for construction of dams or embankments across the streams for impounding the water.

(iii) Inexhaustible store of underground water: A large proportion of the rain water finds its way underneath the surface by percolation and remains stored in the aquifer rock-layer. This underground water can be tapped for irrigation when required.

(iv) Arable land is level: Arable lands in India are confined to the northern plains and also parts of deltaic India which are level and suitable for the construction of canals.

(v) Abundance of natural depressions in Southern India: Peninsular India is mostly a plateau region with rolling uplands. There are a number of natural depressions. Only an earthen embankment is required to check the outflow.

- b) What are the reasons that necessitate artificial irrigation?

Or

What is the importance of irrigation?

Artificial irrigation has to be resorted to for the following reasons:

(i) Indian rainfall is periodic. Most of the rainfalls is in four months from June to September. The remaining eight months are dry.

(ii) Rainfall is not well distributed during the rainy season. During the four months of the monsoon, there are spells of dry weather. There are regions where the rainfall is scanty, e.g.,

Rajasthan, Punjab, Haryana, the interior parts of Peninsular Plateau get much less rain than is required.

(iii) Agricultural crops are varied. The requirements of water varies for different crops. Rice requires heavy rain. Sugarcane, tobacco, vegetables also require regular and abundant supply of water.

(iv) Ample supply of water is required during the period of growth.

(v) India is a hot country. Evaporation is rapid.

(vi) Drought conditions. In India droughts commonly occur. This becomes a problem not only for agriculture but also the economy of the entire country.

c) With reference to well irrigation, answer the following questions:

(i) Name two states in which well irrigation is widely used.

Uttar Pradesh, Punjab, Haryana.

(ii) Name two types of well used for irrigation in these states.

Ordinary / Surface wells and tube-wells

(iii) Describe two methods of drawing water from the wells.

The prevailing methods are the Persian Wheel, Lever Method, Inclined plane method

(iv) Give two advantages and two disadvantages of wells.

(iv) Advantages: (a) easy to dig and construct, (b) cheap

Disadvantages: (a) wells can irrigate a very small area about half an hectare of land.

(b) In times of drought they run dry. (c) Besides there is strain on the animals.

d) Give (i) two advantages of tube-wells as a method of irrigation, (ii) What are the conditions necessary for tube-wells.

(i) (a) Tube-wells can irrigate a larger area about 400 hectares,

(b) They are definitely better in times of drought when surface wells dry up.

(c) The process of irrigation is quicker and more convenient

(ii) The conditions necessary for tube wells are:

(a) Sufficient ground water.

(b) Cheap electric power must be made available.

e) Why should we save rain water ?

(i) Approximately, 40% of water used in summer is used outdoors, for the garden and trees. This is the period when water shortages occur and cities have to resort to restricting water supply.

(ii) The more rain water is used, the less will go into the sewers it gets mixed with oil and other toxic residues from the cities.

(iii) Saving water saves money and helps the environment. The more rain water is used, the less the need to use chlorinated water or chemically treated tap water.

(iv) There is saving on water bill to the extent of 30% to 50% for domestic users and 80% for

commercial users of the treated drinking water from the mains. Having metered water is the best way of appreciating this difference.
