In Chapter 3 of Class 10 Geography, you will learn about water resources. The chapter begins with a discussion of the freshwater resources on Earth and how a water shortage develops. The chapter examines the benefits and drawbacks of building river dams. The chapter ends with a discussion of rainwater harvesting as a method of water conservation. The CBSE Notes for Class 10 Geography Chapter 3 on Water Resources are provided here.. These notes cover all the important topics which are discussed in the chapter with MindMap to remember the full chapter and animated video to even boost learning up to 400%. These notes are also available in PDF format for offline reading.

Water

Only a small percentage of the water that covers three-quarters of the earth's surface is freshwater that may be used. A renewable resource is water.

Water Scarcity and the Need for Water Conservation and Management

Water resources' accessibility varies over both time and space.

- Over-exploitation, excessive consumption, and unequal access to water among various social groups are the causes of water scarcity.
- In order to increase the irrigated areas for dry-season agriculture, water resources are being overutilized.
- There are some places where there is enough water to suit everyone's needs. But due to the poor quality of the water, those communities continue to experience water constraints.

We urgently need to manage and conserve our water resources:

- To protect ourselves from risks to our health.
- To maintain our ability to eat, our way of life, and constructive endeavours.
- In order to stop the destruction of our natural habitats.

Multi-Purpose River Projects and Integrated Water Resources Management

We used to conserve water in the past by building complex hydraulic structures like dams made of stone debris, reservoirs or lakes, embankments, and irrigation canals. By erecting dams in the majority of our river basins, modern India has carried on this legacy.

Dams

A dam is a structure that blocks, directs, or slows the flow of water; it frequently results in the creation of a reservoir, lake, or impoundment. The reservoir is referred to as the "dam," not the building.

Uses of Dam:

Dams are built:

- To collect rainfall and rivers in order to later use it to irrigate land.
- To produce electricity.
- To supply water for both home and industrial needs.
- Flood prevention.

• Inland navigation, fishing, and recreation.

Effects of Dam Construction

- River regulation and dam construction alter the rivers' natural flow.
- Aquatic life's habitats in rivers are in worse shape.
- Aquatic wildlife finds it harder to migrate when rivers are fragmented.
- Dams built on floodplains submerge the existing plant and soil, which over time causes it to decompose.
- Many new environmental initiatives, including the "Narmada Bachao Andolan" and the "Tehri Dam Andolan," have been sparked against the construction of huge dams..
- Many times local people had to give up their land, livelihood and their control over resources for the construction of the dam.

The majority of the project's criticisms stemmed from its failure to meet the goals for which they were designed. The majority of the dams were built to manage floods, although they have also generated floods. Dams have also resulted in significant soil erosion. Excessive water consumption has caused earthquakes, water-borne illnesses and pests, and pollution.

Look at the map below to see India's Major Rivers and Dam :



Rain Water Harvesting

Rainwater harvesting is a simple way of collecting rainwater for future use. The gathered rainwater can be stored, used in various ways, or immediately used for recharge.

For Rain Water Harvesting, many methods have been used in various places.

- People in hill and hilly areas have created diversion channels for agriculture, similar to the 'guls' or 'kuls' of the Western Himalayas.
- Rooftop rainwater collection is a prevalent practice in Rajasthan for storing drinking water.
- People in the flood plains of Bengal created inundation canals to irrigate their land.
- Agricultural fields in dry and semi-arid regions were turned into rain-fed storage structures that enabled water to stand and saturate the soil, such as 'khadins' in Jaisalmer and 'Johads' in other parts of Rajasthan.
- The tankas are constructed within the main house or the courtyard and are part of the well-developed rooftop rainwater harvesting system. This is primarily done in Rajasthan, notably in Bikaner, Phalodi, and Barmer, to save rainfall. Many homeowners have built underground rooms adjacent to the 'tanka' to keep the room cold throughout the summer.

Tamil Nadu is the first state in India to make rain water harvesting system collection structures mandatory for all residences. There are legal mechanisms in place to penalise defaulters.

Mind Map for Class 10 Geography Chapter 3 – Water Resources - Download from Website

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Here is the link to the playlist of class 10 Social Science animated Videos -

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