

## MULTIPURPOSE RIVER VALLEY PROJCT

**TIME** : 80 minutes

**OVERVIEW** : Students will use Google Earth creation Tool to see importance of multipurpose river valley projects for economic and social development of the country.

**SUBJECT/TOPIC: MULTIPURPOSE DAMS IN INDIA**

**AGE LEVEL : GRADE 10**



**Learning Objectives :**

1. Students will understand the role of Multipurpose Dams for generating electricity, flood control, navigation etc.
2. Students will analyze the importance of Multipurpose dams for forests and fisheries.
3. Students will identify the relation between Multipurpose Dams and economic and social development of the country.



**Inquiry :**

How Multipurpose river valley projects can be used without causing any adverse environmental impact in respect of degradation of soil content which arises due to waterlogging.



## Materials Needed :

- Access to [Google Earth](#).
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- Link for Multipurpose dams In India with Google Earth Creation Tool:

[https://earth.google.com/earth/rpc/cc/drive?state=%7B%22ids%22%3A%5B%221Q\\_ZR2J6eLAT58KC5vXRa9MzRTQROtvEn%22%5D%2C%22action%22%3A%22open%22%2C%22userId%22%3A%22104891647035000594916%22%7D&usp=sharing](https://earth.google.com/earth/rpc/cc/drive?state=%7B%22ids%22%3A%5B%221Q_ZR2J6eLAT58KC5vXRa9MzRTQROtvEn%22%5D%2C%22action%22%3A%22open%22%2C%22userId%22%3A%22104891647035000594916%22%7D&usp=sharing)

- Google Earth Engine: Timelapse  
[http://thumbnails.cmucreatelab.org/thumbnail?root=http://storage.googleapis.com/earthengine-timelapse/herwig/earthtime\\_annual\\_1984\\_2016/v05/&boundsLTRB=1488431.7955582868,766226.5782409963,1491380.7603706864,769175.543053396&width=250&height=250&frameTime=0&format=mp4&fps=2.5&tileFormat=mp4&labelsFromDataset&nframes=33](http://thumbnails.cmucreatelab.org/thumbnail?root=http://storage.googleapis.com/earthengine-timelapse/herwig/earthtime_annual_1984_2016/v05/&boundsLTRB=1488431.7955582868,766226.5782409963,1491380.7603706864,769175.543053396&width=250&height=250&frameTime=0&format=mp4&fps=2.5&tileFormat=mp4&labelsFromDataset&nframes=33)
- Student internet access.



## Lesson Summary:

- **Engage:** To make students understand the importance of multipurpose river valley project for economic growth of the country.
- **Explore:** To understand the relationship how economic social growth is related to these projects by giving various examples of electricity generation, navigation, flood control etc.
- **Explain:** Role of Multipurpose dams for development of agriculture, industry and infrastructure series which help to raise the standard of living of people of adjoining areas. Limitations of multipurpose river valley projects such as restriction on natural flow of river and sediment deposit at riverbed shall also be discussed in detail.
- **Revise:** Advantages of Multipurpose projects
- **Apply:** Identify the role of Multipurpose projects to develop recreational facilities for the development of the country.



## Sustainable Development Goals :



## Culminating Task :

How Multipurpose projects can be used For the development of Industry and Employment generation and how to deal with limitations of multipurpose river valley projects.



## Textbook Chapter: CLASS X NCERT GEOGRAPHY: MULTIPURPOSE RIVER VALLEY PROJECTS.

### Engage (5 minutes)

1. Project the map of Multipurpose river valley projects in India.
2. Prompt students to see, think for this first source.
3. Discuss the following questions:  
What are the objectives of multipurpose river valley projects?  
What are the advantages of making multipurpose dams?

### Explore (25 minutes)

1. Teachers introduce the first source of information using Google Earth Creation Tool. Explore the areas and explain different types of dams in different parts of country.
2. Ask students to record observations or evidence as it relates to the inquiry.
3. Discuss the following questions:  
What are the parameters to build multipurpose dams on river.  
How multipurpose dams helps to generate alternative source of energy.

### Explain (20 minutes)

1. Introduce Google Earth Voyager story on Alternative sources of energy and role of dams for development of agriculture and hydroelectricity. Discuss following questions:  
How multipurpose dams help people to raise their standards of living
1. Students work in small groups to discuss the ways to reduce the limitation caused due to this project.
2. Allow time for students to share their ideas with class and ask questions about the ideas of others.

### Revise (10 minutes)

1. In their small groups ask students to discuss the following questions:  
How multipurpose river valley projects can be used without causing any adverse environmental impact.
2. Ask students to record observations shared by other students in class.

### Apply (80 minutes)

1. Ask students to reflect on outcomes and communicate findings on the role of Multipurpose river valley projects to develop recreation facilities for the development of the country.
2. Ask students use findings to draw conclusions and generate a solution to a problem that how Multipurpose river valley projects can be used without causing any degradation of soil content which arises due to waterlogging.
3. Allow time for students to share their presentations with the class.

### Evaluate: Exemplar Response and/or Rubric

- Tools for assessing mastery of learning objectives to be used by teachers or students for self or peer assessment.  
Google Voyager Story  
Google Earth Creation Tool

#### Additional Resources

- Google Earth Engine: Time lapse
- Multipurpose river valley projects article
- List of National projects of ministry of water resources in India: Wikipedia
- [ncert.nic.in](http://ncert.nic.in) : [Multipurpose river valley projects in India](#)

#### Options for Differentiation

- Extension: Explore effects of degradation of soil due to waterlogging and adverse effects on environment due to multipurpose river valley projects.
- Introduce fewer or additional sources of information for students to gather evidence.

#### Credits

Written by Mrs. Meghna Sood and designed by Mrs. Meghna Sood  
School Name: Loreto Convent School