

Special Purpose Planning: River Valley Region



Course: Regional Planning and Rural Development (CC-05)

M.A. Geography (Sem.-11)

By

Dr. Md. Nazim

Professor, Department of Geography

Patna College, Patna University

Lecture-3

Concept:

River valley region is an important natural region which may be taken as a unit in regional development planning. It includes the area drained by the main river and its tributaries. It is an integrated physically and socially region and may be used as an ideal unit of planning region.

River valley planning is an ecologically sound and economically cost effective means of getting together both the development and conservation. The idea involved in developing the entire river basin is to induce development on a region-wise basis so that all natural resources are freely available to all the sub-units of the basin. Hence the concept of river basin planning is visualized as a part of regional development approach.

Separate planning for River Valley Region:

The irrigation commission (1972) of India has recommended the following policy for the formulation of river basin plan,

- *Basin plan should present a comprehensive outline of land-water resources to meet the regional and local needs.*
- *Various engineering works should be done in the basin to meet needs on demand (b) priority wise use of water resources (c) priority of projects.*
- *The plan should be periodically reviewed and revised as required in the light of changing needs and supplies.*

It is based on water induced development to induce economy and needs co-operation for interstate river basin.

Objectives:

1. *Environmental issues -pollution, sedimentation ,diseases*
2. *Safety issues from floods - people , crops*
3. *Economic viability –agriculture, industry and services*

Problems of River Valley Region:

1. *No proper land-water management for the suitability and use of land and water for various crops.*
2. *Lack of alternative rural economy.*
3. *Floods –uncertainty of crops, life and property.*
4. *Low production per hectare.*
5. *Dependence of agriculture on rainfall.*
6. *Lack of rural structural facilities.*
7. *Wastage of rain water.*
8. *Soil erosion.*
9. *Problem of drinking water.*
10. *Forest erosion.*
11. *Lack of scientific test of soil for crop suitability and proper planning*

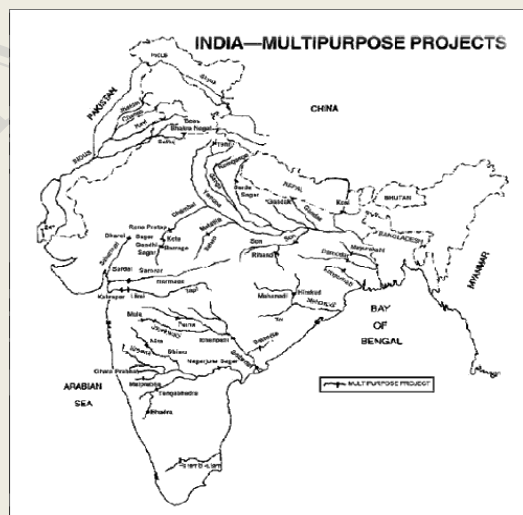
Planning and Prospects:

- a. *Agriculture*
- b. *Fisheries*
- c. *Aquaculture*
- d. *Industry*
- e. *Hydrological power*

Flood resistant crops –Variety of Rice developed by International Rice Research Institute, Manila in 2004 as “Swarna Submergence-1” and practiced by rice research in Dhaka.

The drainage basin of a river basin has proved to be an economically viable, physically integrated and widely accepted regional unit for planned development. The river basin is a natural relatively easily delineated area. It owes within it many of the elements of the resource endowment, linked for the most part by cultural and ecological process, surface configuration, soils, vegetation and climate are among those elements linked with water within the drainage basin .

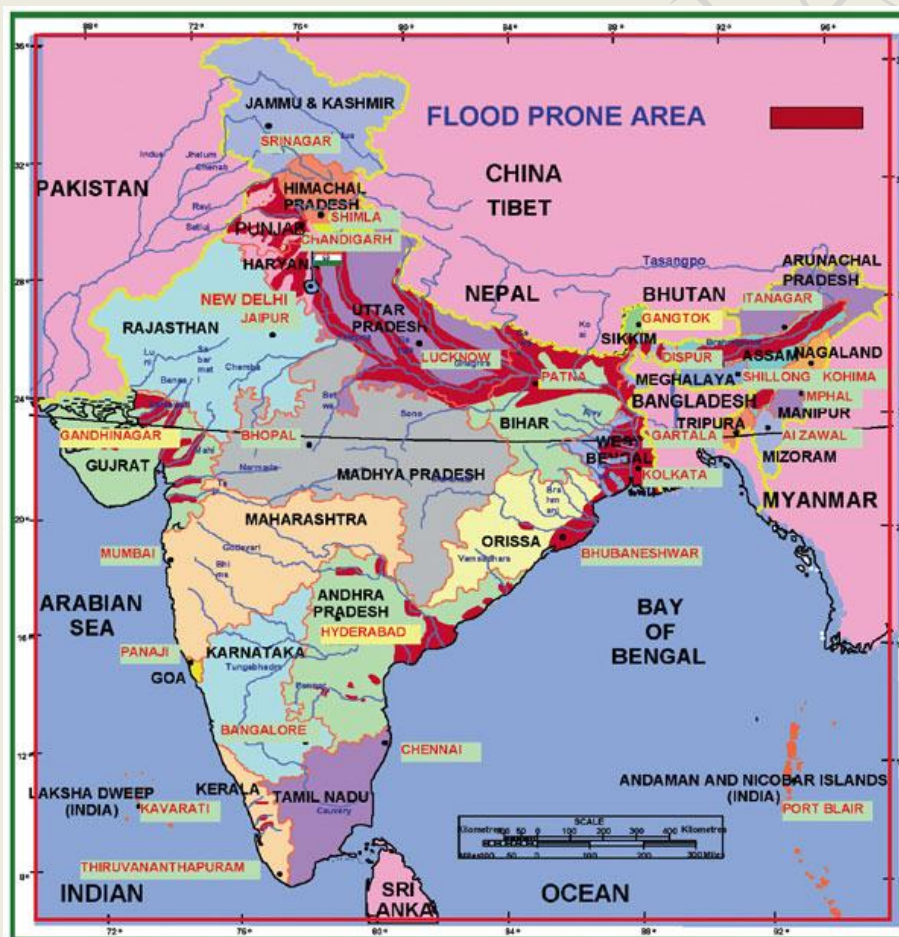
The river basin was taken up first in the United States as a unit for regional planning in 1933 when TVA (Tennessee valley authority) was erected. In India – in March, 1948 the Damodar Valley Corporation (DVC) was set up as a central govt. agency for the purpose of river basin development. The main objective was to control floods and making provision for irrigation, power generation , navigation , water supply, soil conservation, fishery development etc.



Watershed Area

Watershed is a geographical area that drains out rain water to a common point. Size of the rainwater forms the basis for its further classification –e.g.-sub- watershed – 100- 150 sq km, Meso- watershed- 10 to 100sq km, Micro- watershed -1 to 10 sq km and Mini - watershed – less than 1sq km.

1. At least 500 hectares 2. Study of slope 3. Soil and water resource of area 4. Present land use 5. Functional structure 6. Ecological aspects at micro- level



Purpose of the Planning:

- 1. Water conservation*
- 2. Rainwater harvesting*
- 3. Solution of drinking water*
- 4. Irrigation facilities*
- 5. Forestry and fishery*
- 6. Agriculture and Aquaculture*

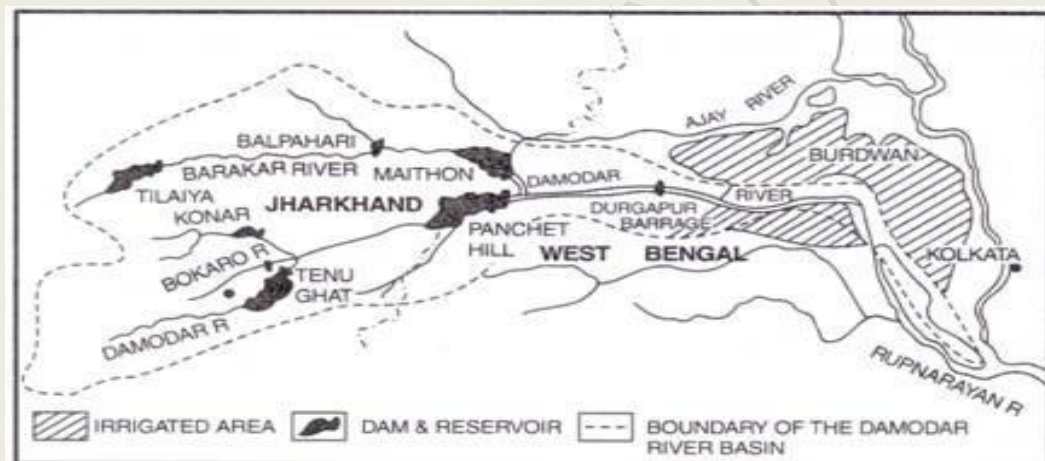


FIG. 18.3. The Damodar Valley Project

River Valley Region as a unit for Planning: Problems

- *It does not have physical, social and economic uniformity and hence needs multi-level planning.*
- *It may have multi-national boundaries.*
- *Disparity in the pace of development.*
- *Inter-state controversy*

