

CHAPTER - 13

FINANCIAL ASPECTS

13.1 Foreign exchange element

13.1.1 Plant, machinery, instruments etc.

The main works of the project are the earth work on dams and canals, concreting of overflow and non-overflow sections of the dam, providing steel radial gates for spillway; excavation of tunnel, installation of turbines, generators, draft tubes in the power houses. For all these works, the machineries and equipments required are available within the country and need not to be imported from other countries.

13.2 Financial resources

13.2.1 Present position of the scheme regarding its inclusion in the plan etc.

The present policy of the Government (both at central and at state level) is to increase irrigation potential by proposing new schemes. Ken-Betwa link project is one of such schemes that will cover the water short areas of the states of Madhya Pradesh and Uttar Pradesh where irrigation percentages are low. It is also aimed at removing the regional imbalances in the field of irrigation. So that development takes place uniformly. For these reasons the Central Government is always providing more outlays to the new schemes provided that all the old schemes are implemented first and it is hoped that larger outlay will also be provided for this project.

13.2.2 Requirement of funds for the scheme

Total amount of fund required for the project has been estimated as Rs. 1988.74 crore (1994-95 price level). Headwise requirement of funds is given as below:

A	Main Project	
	Unit-1: Headworks	Rs.367.92 crore
	Unit-II: Canals (Link and enroute command)	Rs.572.44 crore
	Unit-III: Power	Rs. 50.72 crore
B	Ken command: Canal system	Rs.554.11 crore
C	Betwa command: Cost of four Upper Betwa projects	Rs.443.55 crore
	Grand Total	Rs.1988.74 crore

13.3 Revenues

13.3.1 Sources of revenue

The sources of revenue in Ken-Betwa link project are anticipated as below:

- (a) Irrigation water rates
- (b) Betterment levy
- (c) Sale of power
- (d) Irrigation cess

13.3.1.1 Irrigation water rates

Irrigation water has been charged on per hectare basis from each land holder who either enters into agreement for supply of water or on demand for irrigation. This charge is in addition to the land revenue paid by them.

13.3.1.2 Betterment levy

With the introduction of irrigation and improved method of cultivation, the yield of the crops and value of land will appreciably increase. Therefore, the land owners are to pay some share to the Government for this increase in the value of their lands. The betterment levy has been proposed to be charged as per the rates prescribed by State Government of Madhya Pradesh. The rates are Rs. 20/- per ha for the first five years, Rs. 30/- per ha for the next fourteen years and Rs. 40/- per ha for the 20th year. No betterment levy is to be recovered after 20th year. The recovery will start after 3 years of the commencement of irrigation. The total contribution from the betterment levy has been worked out as Rs.2182.264 lakhs spread over 20 years.

13.3.1.3 Irrigation cess

Total revenue from the irrigation cess @ Rs.10/- per ha of C.CA. has been worked out to be Rs. 993.71 lakhs for the whole project.

13.3.1.4 Revenue from power

The average rate for sale of power has been taken as Rs. 1.12 per unit for the firm power. Demand charges have been accounted for on the basis of Rs. 168.00 per KW of installed capacity. Gross amount of revenue per year has been worked out as Rs. 2056.32 lakhs.

13.4 Construction schedule

The construction of the dam, canal and power house will take 9 years including the pre-construction year.

13.5 Working expenses

The working expenses, maintenance and depreciation charges of the canal and dam including appurtenant works have been calculated at the rate of Rs. 180/- per ha of annual irrigation.

13.6 Interest charges

While working out the financial return, the interest charges on the capital outlay have been taken as 10% for both irrigation and power components.

13.7 Phasing of expenditure

The project has been planned to be completed in 8 years period excluding pre-construction year. The phasing of the expenditure has been planned and the yearly expenditure chargeable to irrigation and power is assessed accordingly.

13.8 Development of irrigation

The commencement of irrigation is expected to be in the 6th year of the start of construction of the project and at the end of the 15th year full development of the irrigation is expected to be achieved. Financial Statements for the yearwise development of irrigation in the enroute, Ken and Betwa commands and cropwise development of irrigation in these commands respectively have been prepared.

13.9 Financial return

Statements of financial return for irrigation, power components and for the project as a whole have been worked out separately.

13.10 Benefit-Cost Ratio

The values of produce before and after canal irrigation in the Enroute command, Ken command and Betwa command have been calculated based on the crop yields and their rates as obtained from the State Government.

The B.C. ratio for the project as a whole (including power component) has been worked out and the same is obtained as 1.87. The net annual benefits from the irrigation component are obtained as 449.79 crore.

13.11 Internal rate of return

The internal rate of return for irrigation component of the project has been obtained as 13%.