



भारत सरकार

Government of India

केन्द्रीय जल आयोग

Central Water Commission

सिंचाई आयोजन | दक्षिण | निदेशालय

Irrigation Planning (South) Directorate

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Sub: Kaleshwaram Project, Telangana - reg.

Ref.: State Govt. of Telangana Lr. No. CE/KPH/DCE/DEE-3/AEE-9/CWC/IP/2018/camp-1, dated 10.05.2018

The point-wise replies to the comments on BC Ratio issued vide this Directorate's letter dated 04.05.2018 alongwith B C Ratio computation of Kaleshwaram Project have been received from the State Govt. of Telangana vide their letter under reference above. The same has been examined and observations thereon are as under.

1. In respect of vetting of quantum of annual energy requirement for surface and ground water estimated as 13829.33 million units (MU) by the project authorities from the concerned State Electricity Department, the project authorities have submitted a certificate from TSTRANSCO indicating the energy requirement for the Kaleshwaram Project approximately as 13558 MU. It has been further stated by the project authorities that the energy requirement estimated as 13829.33 MU by them is close to the energy requirement assessed by the TSTRANSCO. In view of this, no further comments to offer.
2. In respect of the rate of energy charges for estimation of cost of energy per annum for surface and groundwater use, the project authorities have again submitted the letter from TRANSCO which states that the rate of energy charges @ Rs. 3 per unit is subject to acceptance by Telangana State Electricity Regulatory Commission. The energy charges for the purpose of BC Ratio at present accordingly have been considered @ Rs. 3 per unit. As the acceptance in respect of rate of energy charges is subject to Telangana State Electricity Regulatory Commission, the project authorities may ensure the above mentioned rate of energy charges required at their end for the project. No further comments.
3. (a) In respect of the crop yields per ha considered in post project scenario for some of the crops higher than the yields considered in the pre project scenario, the project authorities have replied that the project is in dry and upland areas where rain fed agriculture is being practiced. Moreover, the rainfall is not only low but also very skewed in spatial variation as such the combined of these two factors leads to very low agricultural productivity in pre-project situation. In the post-project scenario, the agriculture will improve significantly in given situation of assured irrigation and optimal input for crop production.

- (b) In respect of the cost of cultivation (viz. seeds, fertilisers, labour charges etc.) per ha considered in post project condition less than the same considered in the pre project condition, the project authorities have replied that the rates have been revised in consultation with State Agriculture Department.

In above aspects, it has been further stated that the agricultural yield in pre-project and post project scenario as well as the input cost has been re-examined in view of CWC comments and the revised statements covering all these aspects have been duly approved by the concerned and verified by the Director of Agriculture, Telangana. The revised details in the prescribed format duly vetted by the Director of Agriculture, Telangana have been appended with the replies by the project authorities.

In view of the above submission by the project authorities, no further comments to offer in above respect. However, PAO, CWC may consider the views of Ministry of Agriculture & Farmers Welfare, GoI in above respect.

4. It has been stated that the average water charges for drinking and industrial supply have been provided by the HMWSSB as Rs. 15 & Rs. 90 / cum respectively. However, the levy charges for raw water @ Rs. 9 / cum for drinking (40 TMC) and Rs. 84 / cum for industrial supply (16 TMC) have been considered in the revised B. C. Ratio calculation after deducting average cost for treatment, transmission and distribution charges etc. as Rs. 6 / cum each for drinking and industrial supply from the average rates of water charges for these sectors provided by the HMWSSB.

With the above mentioned replies and details, the BC Ratio for the project has been worked out by the project authorities as 1.511. Subject to correctness of the information and details provided by the project authorities as mentioned above, the arithmetic calculations of BC Ratio have been examined and found to be in order.


92 (B C Vishwakarma)
Director (IP-S)
11/05/2018

CE (PAO), CWC, New Delhi.

CWCID No.2/1481/IP(S)/2013/319-21 dated: 11 /05/2018

Copy to:

1. Chief Engineer, Kaleshwaram Project, Telangana (Email: cekph.ts.gov@gmail.com)
2. Director (PA-S), CWC, New Delhi

ANNEXURE - I

KALESHWARAM PROJECT			
CALCULATION OF BENEFIT COST RATIO (BCR)			
Figures are in Rs lakhs			
A	Gross Receipts	Without Project Situation	With Project Situation
1	Gross Income of farm produce from New Ayacuts (1825700 Acres)	71359.24	1346949.00
2	Gross Income of farm produce from Stabilised Ayacuts (25% of 1882970 Acres)	18399.42	347300.29
3	Total A : Gross Receipts(1+2)	89758.66	1694249.29
B	EXPENSES:		
1	Total cost of Production for New Ayacuts (1825700 Acres)	17087.56	91602.00
2	Total cost of Production for Stabilised Ayacuts (25% of 1882970 Acres)	4405.89	23618.86
3	Total B : Expenses (1 to 2)	21493.45	115220.86
C	NET VALUE OF PRODUCE		
1	Total gross receipts (Total A.3)	89758.66	1694249.29
2	Minus total expenses (Total B.3)	21493.45	115220.86
3	Net value of produce C = (1-2)	68265.21	1579028.43
D	ANNUAL BENEFITS:		
1	Net value in with Project Situation (C.3)		1579028.43
2	Minus Net value without Project situation (C.3)		68265.21
3	Net annual Agricultural benefits due to Project (D) (1-2)		1510763.22
E	Other net annual benefits due to aquaculture including pisciculture, drinking & industrial water supply, hydro-power generation, animal husbandry, catchment area treatment chargeable to project, canal bank plantation, reservoir periphery afforestation etc		
1	Drinking water supply (40 TMC @ Rs. 9 /cum)		101930.40
2	Industrial water supply (16 TMC @ Rs. 84 /cum)		380540.16
3	Fisheries (Avg. reservoir area x Rate as per fisheries dept.) i.e. (350000 Ha @ Rs. 50000/Ha)		175000.00
	Total E		657470.56
F	TOTAL NET ANNUAL BENEFITS (D3+E)		2168233.78
G	Total Cost of Project		
1	Total Cost of project for without land development charge		8019046.00
2	Cost of land development @ Rs 20000 Per ha for 1825700 acres		147770.13
3	Proportionate 1/3 rd cost of SYP for using its 20 TMC water taken for B/C ratio calculation		24285.33
4	Overall notional cost of project for B/C ratio calculation purpose		8191101.47
H	ANNUAL COSTS		
1	Interest on Capital @10% of Estimated total cost of the project		819110.15
2	Annual Energy Cost of Pumping water for irrigation and other purposes		414879.99
3	Depreciation of the project at 1 % of the cost of the project for 100 years life		80433.31
4	Annual operation and maintenance charge including periodic maintenance at Rs 1175 per Ha of ICA		11297.59
5	Depreciation of the pumping system @ 8.33% of the cost of the pumping system assuming life of the system as 12 years		102307.31
6	Depreciation of the raising mains @ 3.33% of the cost of the raising mains assuming life of the system as 30 years		7112.75
7	Total (H) of Annual costs (1 to 6)		1435141.01
BENEFITS COST RATIO =		F : Annual Benefits	2168233.78
		H7: Annual cost	1435141.01
			1.511