

I/44225/2021

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन नदी विकास एवं गंगा संरक्षण
विभाग
केंद्रीय जल आयोग
लागत मूल्यांकन) सिंचाई-2 निदेशालय



Government of India
Ministry of Jal Shakti
Dept. of water Resources, RD & GR
Central Water Commission
Cost Appraisal(Irrigation)-2
Directorate

Sub: - Comprehensive Project Report of Ken-Betwa Link project- Examination of Cost Estimate of “Bina Complex Irrigation and Multipurpose Project” (Part of Ken Betwa Link Project Phase-II) – regarding.

- Ref- 1. CWC Lr. No. 4/11/2019/NP-II/Vol-I/3040-51 dated:16.08.2019
2. Reply to CWC Lr. No. 10/10/2010/CA(I)/1161-62 dated 17.08.2017
3. CWC Reminder Lr. No. 10-A/43/2019/CA(I)-2/268-269 dated 24.12.2019
4. MPWRD Lr. No. 221/TS/CWC/BINA/2020/ dated 12.10.2020

The Cost Estimate of Comprehensive Project Report of Ken-Betwa Link Project for an amount of Rs.35111.24 Cr. at PL 2017-18 was received vide letter under reference (1) for examination of Cost aspects. In this Report, the Cost Estimate of “Bina Complex Irrigation and Multipurpose Project” (Part of Ken-Betwa link Project Phase-II) amounting Rs.4318.88 Cr. has also been submitted. Vide letter at reference 4, the Project Authorities have submitted compliance to the letter at reference (2) and the cost estimate of the project has been changed to 4579.58 crores. The discussion on the Cost Estimate of Kotha Barrage and Lower Orr Project has been held with NWDA officials on 22.12.2020 regarding the compliance to comments submitted on all the three components. The compliance submitted by the project Authority vide letter under reference (4) has been examined and further comments are as under-

General Comments

1. The status of clearance of the project from other Directorates of CWC/other Central Agencies may be indicated.
2. For calculation of the cost of B-Land, factors of 2.5, 3.0 and 4.0 have been taken on rates as per Collector Guidelines in case of Kotha Barrage, Bina and Lower Orr Projects. The rates may be adopted uniformly for all the three Projects under Ken Betwa Phase II.
3. The rates adopted using MPRRDA SOR 2017 may be updated as per latest SOR available (MPRRDA SOR 2019 or latest) and a copy of the same may be provided for checking of estimates of approach roads used in Unit II (Canals) and Unit III (Power House). Further a copy of PWD Building SOR may be provide for checking of estimates of various items under Unit III(Power House).

Unit-I :-

Abstract

छठवाँ तल तल (दक्षिण), सेवा भवन
राम कृष्णा पुरम, नई दिल्ली-110066
दूरभाष: 011-29583254/3450
ई मेल: cai2dte-cwc@gov.in

जल संरक्षण- सुरक्षित भविष्य



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Conserve Water – Save Life

I/44225/2021

1. The Corporate Environment Responsibility (CER) mentioned under Indirect Charges (Page 4) and in Annexure I –Abstract of Cost (Page 6) may be taken as 0.5 % of the project cost as per MoEF OM dated 01.05.2018.
2. As per Clause 18.10 of CWC Guidelines for Preparation of DPR of Multipurpose Projects, the recoveries on account of temporary buildings is kept generally at 15 % of the cost. The reason for keeping no provision under V- Receipts and Recoveries by way of transfer/rent of temporary buildings may be indicated.

B – Land

1. The rate in lakhs per km adopted for construction road (Rs 1042 lakhs per km) (page 16 and 17) may be justified by way of sub estimate or rates certified by local/state PWD Authorities.

C-Works

1. The PWD SOR adopted for item at Sl No 10 (Page 34) may be provided.
2. The rates mentioned against items at Sl No 16 (i) (0 to 10 degrees vertically downwards) (page 26) Sl No 23(x) (Page 27) and Sl No 5 (Page 64) may be corrected as per MPPWD Unified Schedule of Rates.

M-Plantation

1. The approved cost of plantation should be taken from State Forest/ Horticulture Department and accordingly the cost entailed may be worked out. The protection and look after plants work may be kept 2 to 3 years as per CWC guidelines.

X- Environment and Ecology

1. A copy of approved EMP plan may be provided to this office.

Unit-II:-

D - Regulators

1. The PWD SOR adopted for item at Sl No 5 and 7 (Page 89) may be indicated.

G-Bridges

1. The reference PWD SOR (i.e. MPWRD USR 2017) adopted in the calculation of Abstract for Bridges (Page 92-94 and Page 113-116) may be corrected. Also the PWD SOR year used in calculation of Nalla crossing may be corrected.

L- Earthwork

1. As per CWC Guidelines, this head generally contains provision for excavation and lining work only. The provision of transmission line (L1) (Refer General Abstract of Unit II Canals Page 84) may be shifted to S-Power Plant and Electrical System while that of Pump House (L2) and Rising Mains (L3) and some other related components of L4 may be shifted to C- Works.

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1. A copy of PWD Building SOR may be provide for checking of estimates of various items under Unit III (Power House).
2. The estimates under this Unit may be bifurcated into two subheads i.e.- J- Power Plant Civil Works and S-Power Plant and Electrical System.
3. Further no sub estimate or supporting document has been provided for (2) Equipment Component for the power Houses. The same may please be provided.

Other observations on the Cost Estimate would be communicated during further examination of the estimate. Further, official(s) from NWDA well conversant with Cost Estimate may be requested to attend this office with necessary documents for finalisation of the cost estimate.

(Ashok K. Jeph)
Director

Director, National Projects Directorate, CWC, New Delhi.



**NATIONAL PROJECTS DIRECTORATE
CENTRAL WATER COMMISSION**

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क्र / No.: 4/11/2019/NP-II/Vol-I/ 3040-51

दिनांक / Date: 16 अगस्त / August, 2019.

विषय / Sub: Examination of Comprehensive Project Report of Ken-Betwa Link Project – reg.

संदर्भ / Ref : NWDA Lr. No. NWDA/Tech-II/152/1/2018/Vol-31/1895, dated 13.08.2019.

Comprehensive Report of Ken-Betwa Link Project (Volume – I & II) has been submitted by National Water Development Agency (NWDA) for appraisal / clearance of the project by various Specialized Directorates of CWC.

Earlier, Phase-I of KBLP was accepted in 129th meeting of TAC held on 08.07.2016 for an estimated cost of Rs. 18,057.08 Crore (PL 2015-16), however, Phase-II of KBLP comprising Kotha Barrage, Lower Orr Dam, Bina complex etc. was under appraisal in various Specialized Directorates of CWC.

In this regard, as per the decision taken in the review meeting convened by Hon'ble Union Minister (WR, RD & GR) on 25th September, 2017 and subsequently, the issues raised by Hon'ble Chief Minister of MP regarding implementation of both phases concurrently, a comprehensive report on Ken Betwa Link Project including Daudhan Dam, Lower Orr Dam, Bina complex MPP, Kotha Barrage, repair / strengthening of Bariyarpur Pickup Weir, Parichha Weir and Barwa Sagar Dam etc. having Estimated cost of Rs. 35111.24 Cr at PL 2017-18 has been prepared by NWDA. A comparative statement including changes between proposed components as envisaged in the Comprehensive Report viz-a-viz earlier submitted DPRs of Phase-I & II is also attached herewith for ready reference.

In view of above, it is requested that examination / appraisal / clearance of the said report of the project may please be taken up on priority.

संलग्नक / Encl: One set each of Comprehensive Report (Volume-I & II).

(भूपिन्द्र सिंह / Bhupinder Singh)

निदेशक / Director

प्रति / To,

1. Director, Hydrology (C) Directorate, CWC, New Delhi.
2. Director, ISM-II Directorate, CWC, New Delhi.
3. Director, Irrigation Planning, CWC, New Delhi.
4. Director, CMC Directorate, CWC, New Delhi.
5. Director, Embankment (NW&S) Directorate, CWC, New Delhi.
6. Director, CMDD (NW&S) Directorate, CWC, New Delhi.
7. Director, BCD (N&W) Directorate, CWC, New Delhi.
8. Directors, FE&SA Directorate, CWC, New Delhi.
9. Director, Gates (N&W) Directorate, CWC, New Delhi.
10. Director, Instrumentation Directorate, CWC, New Delhi.
11. Director, Cost Appraisal (Irrigation-I) Directorate, CWC, New Delhi.
12. Director, Cost Appraisal (Irrigation-II) Directorate, CWC, New Delhi.

I/44414/2021



केन्द्रीय जल आयोग / CENTRAL WATER COMMISSION
परियोजना तैयारी संगठन / PROJECT PREPARATION ORGANIZATION
राष्ट्रीय परियोजना निदेशालय / NATIONAL PROJECTS DIRECTORATE



To,
Chief Engineer,
NWDA, Saket
New Delhi

विषय / Sub: Comprehensive Project Report of Ken-Betwa Link project- Examination of Cost Estimate of “Bina Complex Irrigation and Multipurpose Project” (Part of Ken Betwa Link Project Phase-II) – regarding

संदर्भ / Ref : CA Directorate letter NO.T-49030/1/2021-CA-I DTE, dated 13.01.2021.

Sir,

With reference to the above cited letter on the subject, please find enclosed here with the comments/observations received from Cost Appraisal (Irrigation)-2 Directorate, CWC in respect of “**Bina Complex Irrigation and Multipurpose Project**” on cost aspect.

It is requested to kindly arrange to submit compliance to the comments/observations of CWC on priority for taking further necessary action.

In this regard, it is also requested to depute official(s) from NWDA who is well convergent with cost estimate to attend CWC office along with necessary documents for expediting the finalisation of the cost estimate.

Encl. As above.

भवदीय / Yours Sincerely

(Sanjay Kumar)

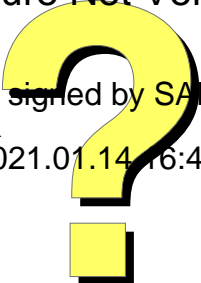
निदेशक / Director

Copy for information to:

- Director (Project Appraisal Central) , Sewa Bhawan , NewDelhi.
- Director (Cost Appraisal (Irrigation)-2 , Sewa Bhawan ,NewDelhi

Signature Not Verified

Digitally signed by SANJAY KUMAR
Date: 2021.01.14 16:45:31 IST





**NATIONAL PROJECTS DIRECTORATE
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क्र / No.: 4/11/2019/NP-II/Vol-I/ 3040-51

दिनांक / Date: 16 अगस्त / August, 2019.

विषय / Sub: Examination of Comprehensive Project Report of Ken-Betwa Link Project – reg.

संदर्भ / Ref : NWDA Lr. No. NWDA/Tech-II/152/1/2018/Vol-31/1895, dated 13.08.2019.

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Earlier, Phase-I of KBLP was accepted in 129th meeting of TAC held on 08.07.2016 for an estimated cost of Rs. 18,057.08 Crore (PL 2015-16), however, Phase-II of KBLP comprising Kotha Barrage, Lower Orr Dam, Bina complex etc. was under appraisal in various Specialized Directorates of CWC.

In this regard, as per the decision taken in the review meeting convened by Hon'ble Union Minister (WR, RD & GR) on 25th September, 2017 and subsequently, the issues raised by Hon'ble Chief Minister of MP regarding implementation of both phases concurrently, a comprehensive report on Ken Betwa Link Project including Daudhan Dam, Lower Orr Dam, Bina complex MPP, Kotha Barrage, repair / strengthening of Bariyarpur Pickup Weir, Parichha Weir and Barwa Sagar Dam etc. having Estimated cost of Rs. 35111.24 Cr at PL 2017-18 has been prepared by NWDA. A comparative statement including changes between proposed components as envisaged in the Comprehensive Report viz-a-viz earlier submitted DPRs of Phase-I & II is also attached herewith for ready reference.

In view of above, it is requested that examination / appraisal / clearance of the said report of the project may please be taken up on priority.

संलग्नक / Encl: One set each of Comprehensive Report (Volume-I & II).

(भूपिन्द्र सिंह / Bhupinder Singh)

निदेशक / Director

प्रति / To,

1. Director, Hydrology (C) Directorate, CWC, New Delhi.
2. Director, ISM-II Directorate, CWC, New Delhi.
3. Director, Irrigation Planning, CWC, New Delhi.
4. Director, CMC Directorate, CWC, New Delhi.
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6. Director, CMDD (NW&S) Directorate, CWC, New Delhi.
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8. Directors, FE&SA Directorate, CWC, New Delhi.
9. Director, Gates (N&W) Directorate, CWC, New Delhi.
10. Director, Instrumentation Directorate, CWC, New Delhi.
11. Director, Cost Appraisal (Irrigation-I) Directorate, CWC, New Delhi.
12. Director, Cost Appraisal (Irrigation-II) Directorate, CWC, New Delhi.

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Government of India
Ministry of Jal Shakti
Dept. of water Resources, RD & GR
Central Water Commission
Cost Appraisal(Irrigation)-2 Directorate

Sub: - Comprehensive Project Report of Ken-Betwa Link project- Examination of Cost Estimate of “Kotha Barrage Project” (Part of Ken Betwa Link Project Phase-II) – regarding.

- Ref- 1. CWC Lr. No. 4/11/2019/NP-II/Vol-I/3040-51 dated:16.08.2019
2. CWC Lr. No. 10A/34/2017/CA(I)-2/263 dated 11.12.2019
3. MPWRD Lr. No. TS/CWC/KOTHA/2020/216 dated 05.10.2020
4. CWC Lr. No. 10A/34/2017/CA(I)-2/107 dated 20.10.2020
5. MPWRD Lr. No. 22/TS/CWC/KOTHA/2020/256 dated 16.11.2020

The Cost Estimate of Comprehensive Project Report of Ken-Betwa Link Project for an amount of Rs.35111.24 Cr. at PL 2017-18 was received vide letter under reference (1) for examination of Cost aspects. In this Report, the Cost Estimate of “Kotha Barrage Major Project” (Part of Ken-Betwa link Project Phase-II) amounting Rs.708.72 Cr. has also been submitted. Vide letter at reference 5, the Project Authorities have submitted compliance to the letter at reference (4). The discussion on the Cost Estimate of Kotha Barrage been held with NWDA officials on 21.01.2021 regarding the compliance to comments and a copy of further comments were handed to them. The further comments are as under-

1. The compliances to the different comments of CA I2 Dte have been submitted in form of different Annexures in piecemeal manner from time to time. A comprehensive document both in hard bound form and soft copy may be submitted. It should contain different Certificates regarding rates of various components, details of estimates and sub estimates, details of villages submerged, details of land acquisition, supporting documents for estimates etc.
2. The status of clearance of the project from other Directorates of CWC/other Central Agencies may be indicated.
3. For calculation of the cost of B-Land, factors of 2.5, taken on rates as per Collector Guidelines in case of Kotha Barrage appears too high. Some supporting document regarding such high rates being compensated for land acquisition in the state may be provided.
4. The rates adopted using MPRRDA SOR 2017 may be updated as per latest SOR available (MPRRDA SOR 2019 or latest). A copy of PWD Building SOR may be provide for checking of estimates of various items.
5. Details of barrage instrumentation may be provided.
6. As per CWC Guidelines, L -Earthwork generally contains provision for excavation and lining work only. The provision of transmission line (L1) may be shifted to S- Power Plant and Electrical System while that of Pump House (L2) and Rising Mains (L3) and some other related components of L4 may be shifted to C- Works (Refer Unit II Earthworks).
7. Supporting documents for cost estimate of Approach Channel, Transmission line,

Rising Main, Pump House may be provide in detail (similar to Bina Irrigation Complex Multipurpose Project Cost Estimate).

8. A copy of Tarrif Order of Govt of M.P for establishment of S- Solar Power Plant under Unit III may be provided.
9. Estimates of Market rates for VFD, cost of DC (ie Rs 15 per litre), electric works may be provided.
10. The approved cost of plantation should be taken from State Forest/ Horticulture Department and accordingly the cost entailed may be worked out. The protection and look after plants work may be kept 2 to 3 years as per CWC guidelines.

(Ashok K. Jeph)
Director

Director, National Projects Directorate, CWC, New Delhi

File No: T-49030/2/2021/CA(I)-II Dte/124

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Government of India
Ministry of Jal Shakti
Dept. of water Resources, RD & GR
Central Water Commission
Cost Appraisal(Irrigation)-2 Directorate

**Sub: - Comprehensive Project Report of Ken-Betwa Link project-
Examination of Cost Estimate of "Kotha Project" (Part of Ken Betwa Link
Project Phase-II) – regarding.**

The Cost Estimate of Kotha Barrage Major Project (Part of Ken-Betwa link Project Phase-II) is under finalization in this Directorate. Due to non availability of proper systematic documents, it is not possible to finalize the cost estimate of the project. The NWDA officials were telephonically informed from time to time for completing all the shortcomings of the Cost Estimate. It has also been informed to depute state government officials for the discussion on the cost estimate of the project. But, the NWDA officials are not keen to take initiative/interest on this issue. They have deputed a Deputy Director namely Shri H. K. Pandey who has visited to this office once in a month without any requisite information. He was also instructed for deputation of officials from state government from time to time.

On 15.03.2021, Director (Cost Appraisal, Irrigation 2) has spoken to Shri R. K. Jain, Chief Engineer (HQ), NWDA on this matter. Shri Pandey, Deputy Director has visited this office in the morning of 16.03.2021 without requisite documents and has also informed his non-availability for the rest of the week. It is therefore, not possible for this Directorate to complete the scrutiny of the cost estimate of the Kotha Barrage Project. It is once again requested to depute State Government Officials as well as Officials from NWDA well conversant with the cost estimate to attend this office on 17.03.2021 to finalize the cost estimate of the project so that the project can arrive at TAC stage at the earliest.


(अजय शिवलाल बनोदे)
निदेशक

Director, National Projects Directorate, CWC, New Delhi

Copy to

1. Chief Engineer (HQ), NWDA

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Government of India
Ministry of Jal Shakti
Dept. of water Resources, RD & GR
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Cost Appraisal(Irrigation)-2
Directorate

Sub: - Comprehensive Project Report of Ken-Betwa Link project- Examination of Cost Estimate of "Kotha Barrage Project" (Part of Ken Betwa Link Project Phase-II) – regarding.

Ref:- 1. CWC Lr. No. 4/11/2019/NP-II/Vol-I/3040-51 dated:16.08.2019
2. CWC Lr. No. 4/11/2019/NP-II/Vol-I/3086-96 dated:03.09.2019
3. CWC Lr. No. 10-A/34/2017/CA(I)-2/263 dated 11.12.2019
4. CWC Lr. No. 10-A/34/2017/CA(I)-2/89 dated 21.09.2020
5. MPWRD Lr. No. TS/CWC/KOTHA/2020/216 dated 05.10.2020

The Cost Estimate of Comprehensive Project Report of Ken-Betwa Link Project for an amount of Rs.35111.24 Cr. at PL 2017-18 was received vide letter under reference (1) for examination of Cost aspects. In this Report, the Cost Estimate of "Kotha Barrage Major Project" (Part of Ken-Betwa link Project Phase-II) amounting **Rs. 708.72 Cr.** has also been submitted. The observation of the Directorate on the Cost Estimate of Kotha Barage Project were forwarded to NWDA for compliance vide letter cited under reference (3). The compliance to observations has been submitted by NWDA vide letter cited under reference (5). The compliance has been examined and the following comments are forwarded for compliance by Project Authority.

General Comments:

1. The certificate from Project Chief Engineer that quantities and rates taken under various sub-heads of the cost estimate are correct and reasonable.
2. The cost of the project is estimated at 2017-18 Price Level, however the expenditure incorporated in the estimate is till June 2020. The same may be modified accordingly.
3. The 12 percent GST has been uniformly adopted in the estimate. The provision for GST for various items of work may be made under their own subheads.

Unit-I:-

B-lands

1. The copy of collector guideline for the rates adopted in the estimate has not been annexed. Hence, a copy of the collector guideline indicating compensation rates used in the cost estimate may be furnished.
2. The copy of land acquisition policy of Madhya Pradesh government has been submitted. The clause of the policy mentions the cost of compensation as twice the rates of lands plus value of available assets on the land. However the factor of 2.5 has been used in the cost estimate. The justification for adoption of factor of 2.5 in the cost estimate may be furnished

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C-Works

1. The supporting document towards the cost of barrage instrumentation and rate for construction of coffer dam may be furnished

R-Communications

1. The detailed estimate for high level river crossings may be furnished and this item may be shifted to suitable sub-head as per the CWC guidelines. The location where these crossings are proposed may be furnished.

Unit-II:

B-lands

1. The copy of collector guideline for the rates adopted in the estimate has not been annexed. Hence, a copy of the collector guideline indicating compensation rates used in the cost estimate may be furnished.
2. The copy of land acquisition policy of Madhya Pradesh government has been submitted. The clause of the policy mentions the cost of compensation as twice rates of lands plus value of available assets on the land. However the factor of 2.5 has been used in the cost estimate. The justification for adoption of factor of 2.5 in the cost estimate may be furnished

L-Earth Work

1. As per the CWC guidelines, the provision in this sub-head shall cover the main/branch canal(s). The provisions such as Approach Channel Pump House, Transmission line, Rising main etc may be shifted to suitable sub-heads as per the CWC guidelines.
2. The supporting documents for quantity/rate used in cost estimate for Approach Channel Pump House, Transmission line, Rising main may be furnished.
3. The Cost Analysis / guideline of Bureau of Design, WRD, Madhya Pradesh used in the cost estimate of Rising main excavation, Backfilling & CD Works etc. may be furnished.

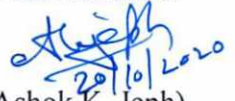
R-Communications

1. The detailed estimate for high level river crossings may be furnished and this item may be shifted to suitable sub-head as per the CWC guidelines. The location where these crossings are proposed may be furnished.

U- Distributaries and Sub Minors

1. The cost of Survey, planning, design and construction of underground pressurised drip irrigation system is taken as Rs. 82402 per hectare in the estimate. The detailed breakup of the per hectare cost adopted may be furnished.

Other observations on the Cost Estimate would be communicated during further examination of the estimate. Further, official(s) from NWDA well conversant with Cost Estimate may be requested to attend this office with necessary documents for finalisation of the cost estimate.


(Ashok K. Jeph)
Director

Director, National Projects Directorate, CWC, New Delhi

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भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन नदी विकास एवं गंगा संरक्षण विभाग
केंद्रीय जल आयोग
लागत मूल्यांकन (सिंचाई-)-2 निदेशालय



Government of India
Ministry of Jal Shakti
Dept. of water Resources, RD & GR
Central Water Commission
Cost Appraisal(Irrigation)-2 Directorate

Sub:- Comprehensive Project Report of Ken-Betwa Link Project- Examination of Cost Estimate of Kotha Barrage Project (Part of Ken-Betwa Link Project Phase-II) - Regarding.

Ref:- T.O. Letter No. 10-A/34/2017/CA(I)-2/263 dated 11.12.2019

The Cost Estimate of Kotha Barrage Project (Estimated Cost: 708.73 Crore) is under examination in this Directorate. The comments of this Directorate on the cost estimate were forwarded vide this office letter cited above. The compliance to the comments is still awaited in the Directorate. In this regard, the project Authorities may be requested to furnish compliance to the comments at earliest for finalisation of the Cost Estimate.

Ashish Singh
21.09.2020
(Ashish Singh Kushwah)
Deputy Director

Director, National Projects, Directorate, CWC New Delhi

CWC ID No. 10-A/34/2017/CA(I)-2/89

Dated 21.09.2020

छठवाँ तल (दक्षिण), सेवा भवन
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Conserve Water – Save Life

भारत सरकार
Government of India
केंद्रीय जल आयोग
Central Water Commission
लागत मूल्यांकन ,सिंचाई . द्वितीय निदेशालय
Cost Appraisal (Irrigation)-2 Directorate

6th Floor(S), Sewa Bhawan
R. K. Puram, New Delhi-66

Sub: Draft Comprehensive Project Report of Ken-Betwa Link project - Examination of Cost Estimate of “Kotha Barrage Project” (Part of Ken Betwa Link Project Phase-II) - regarding.

Ref: Letter No.10-A/34/2017/CA(I)-2/263,dated:11.12.2019.

Reference is invited to above cited letter vide which comments on the cost aspects of “**Kotha Barrage Project**”, Madhya Pradesh (Part of Ken-Betwa Link Project Phase-II) were issued.

In this respect, no compliance has been received in this office till date. The Project authorities may be requested to submit the same at the earliest to expedite the finalisation of cost estimate.

(Rajiv Kumar)
Director

Director, National Projects Directorate, CWC, New Delhi

भारत सरकार
Government of India
केंद्रीय जल आयोग
Central Water Commission
लागत मूल्यांकन (सिंचाई) - द्वितीय निदेशालय
Cost Appraisal (Irrigation)-2 Directorate

Sub: - Comprehensive Project Report of Ken-Betwa Link Project – Examination of Cost Estimate – Regarding.

Ref: - CWC Lr No. 4/11/2019/NP-II/Vol-I/3040-51, dated: 16.08.2019.

The Cost Estimate of Comprehensive Project Report of Ken-Betwa Link Project for an amounting of Rs.35, 111.24Cr. at PL 2017-18 was received vide letter under reference for examination of Cost aspects. In this Report, the Cost Estimate of Kotha Barrage Major Project (Part of Ken-Betwa link Project Phase-II) for amounting **Rs.708.73Cr.** (Unit-I: Head Works amounting to Rs.315.33Cr. Unit-II: Canal System amounting to Rs.340.59Cr. and Unit-III: Solar Power system amounting to Rs.52.804Cr.) has been examined in detail and following observations are made. Since the proposal sent for Comprehensive DPR for Phase-I&II are still under examination in States. These comments of CWC may be treated as initial comments subject to final agreement of the States on KBL Project.

General Comments:

- 1.) The Abstract of Cost of the Project should be prepared as Annexure-I, Soft Copy of the estimate may also be submitted.

Unit: I Head Works (amounting to Rs.315.33Cr.)

A-Preliminary:

- 1.) Construction of temporary approach road of 3.80m average width for Survey Vehicles, item rates are considered as per CSR 2009 for (a) Non hilly terrain @Rs.20,550/- per Km. and Hilly terrain @ Rs.41,100/- per Km. (Refer item No.5, Page 130 of Volume-II).It may please be considered as per CSR 2017-18 rates and submit detailed Estimate with relevant support documents.

B-Lands:-

- 1.) Cost of land considered as 2.50times the average rate as per provision of DPR of MP Government and average rates are taken as per Collector Guide line 2017-18, may please be furnished.

C-Works:-

- 1.) A Lump sum provision of amount to Rs.15.00Lakh for River Diversion and care of River during construction and Rs.20.00Lakhs for Barrage instrumentation has been kept in the estimate. Detailed Estimates with relevant supporting documents needs to be appended in the Estimate.
- 2.) Providing and fixing in position of 250mm half round S.W.Pipe in Gravity floor portion, cost taken as Rs.991/- per RM (Refer Sl. No.17,Page 136 of Volume-II), whereas not mentioned the CSR 2017 Item Number. The same may please be appended.

K-Buildings:-

- 1.) Rate of Rs.1000/- per Sq.ft. has been adopted for the construction of 4 nos. Fully furnished Residential Buildings with all amenities & furniture, fixtures, electrical, water supply, fencing, everything complete. Supporting documents/rate analysis for this rate needs to be appended in the Estimate.

O- Miscellaneous:-

- 1.) Lump sum provision of Rs.25 lakh towards preparation of drawings and other miscellaneous works has been kept in this sub-head. Detailed estimate along with relevant supporting documents may be provided.

BS
16/12

M-Plantation:-

- 1.) Details for 5000 Plants and supporting documents for rates may please provided.

R-Communication:-

- 1.) Cross section of Road drawings, details of quantity and SoR 2017-18 of MPRRDA may please be appended.

Unit-II: Canal System (amounting to Rs.340.59 Crores)

B-Lands:-

- 1.) Average rate/ hectare as per Collector Guide line 2017-18, certified copy may please be appended.
- 2.) Land Cost considered as 2.50times to the average rate of land as per provision of DPR of MP Govt. certified copy may please be provided.
- 3.) In detailed Estimate, Private land shown as 5ha., whereas in Abstract of cost, private land shown as 8ha., may please be clarified/corrected.

K-Buildings:-

- 1.) Rate of Rs.1000/- per Sq.ft. has been adopted for the construction of 4 nos. Fully furnished Residential Buildings with all amenities & furniture, fixtures, electrical, water supply, fencing, everything complete. Supporting documents/rate analysis for this rate needs to be appended in the Estimate.

L-Earth work:-

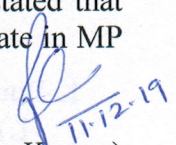
- 1.) SoR of MPCZ, Govt. of MP for rate Transmission Line may be appended.
- 2.) Construction of Pump House items number of SoR 2017-18, may be appended.
- 3.) Manufacturing, supplying, laying in position, aligning, jointing, testing and commissioning of electrical resistance welded/submerged arc welded mild steel delivery pipe 1600 Dia., Pipe of 9.00mm thick (Item No.1, Page 364 of Volume-II) cost, Item No. of SoR 2017-18 may be appended.
- 4.) Bureau of Design WRD, Government of Madhya Pradesh may be provided for Cost of Rising main Excavation, Back filling & CD works + Surge protection + Valves.

R-Communication:-

- 1.) Cross Section of Road drawings and SoR of MPRRDA copy may please be provided.

U- Distributory Minors & Sub Minors:-

- 1.) The rate under Sub-head U-Distributaries Minor & Sub-Minors has been taken as Rs.1.075Lakh/ha which seems to be very higher side. In this regard, Compliance submitted by Project Authority vide Memo No.186/372/D-6/WCB2018, dated:18.07.2018, stated that rate has been taken as per USR of MP WRD 2017-18, No where found the item rate in MP WRD of 01.09.2017. The reference of the item number may be appended.


(Rajiv Kumar)
Director

Director, National Projects Directorate, CWC, New Delhi



राष्ट्रीय परियोजना निदेशालय / NATIONAL PROJECTS DIRECTORATE
केन्द्रीय जल आयोग/ CENTRAL WATER COMMISSION

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ईमेल / email: np1dte@gmail.com, np1dte-cwc@gov.in



क्र. 4/11/2019/NP-II/Vol-I/42-43

दिनांक / Date: 04 February, 2021

To,

The Chief Engineer
NWDA, Saket
New Delhi, 110017

Sub: Comprehensive Project Report of Ken-Betwa Link Project – Examination of Cost Estimate of Kotha Barrage Project (Part of Ken-Betwa Link Project Phase-II)- reg.

Ref.: Cost Appraisal (Irrigation)-2 Lr File No.T-49030/2/2021-CAI DTE, dated 03.02.2021.

Sir,

With reference to the above cited letter on the subject, please find enclosed here with the comments/observations received from Cost Appraisal (Irrigation)-2 Directorate, CWC in respect of “Kotha Barrage Major Irrigation Project” on cost aspect.

It is requested to kindly arrange to submit compliances to the comments/observations of CWC on priority for taking further necessary action.

Encl.: As above.

भवदीय / Yours faithfully,

संजय कुमार
04.02.2021
(संजय कुमार / Sanjay Kumar)
निदेशक / Director

प्रतिलिपि / Copy to :

Director Cost Appraisal (Irrigation)-2 Directorate, CWC with reference to his letter dated 03.02.2021.

I/51707/2021



राष्ट्रीय परियोजना निदेशालय / NATIONAL PROJECTS DIRECTORATE
केन्द्रीय जल आयोग/ CENTRAL WATER COMMISSION

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To,

The Chief Engineer
NWDA, Saket
New Delhi, 110017

Sub: Comprehensive Project Report of Ken-Betwa Link Project – Examination of Cost aspects of Kotha Barrage Project (Part of Ken-Betwa Link Project Phase-II)- reg.

Ref.: Cost Appraisal (Irrigation)-2 Lr File No.T-49030/2/2021-CA (I) Dte/124, dated 16.03.2021.

Sir,

Please find enclosed herewith the letter dated 16.03.2021 received from Cost Appraisal (Irrigation)-2 Directorate, CWC in respect of Kotha Barrage Major Irrigation Project: on cost aspect.

In this regard, it is requested to depute officials from NWDA as well as State Govt. who is well convergent with cost aspects of Kotha Barrage Project to attend CWC office along with necessary documents for finalizing of the cost estimate at the earliest.

Encl.: As above.

भवदीय / Yours faithfully,

Signature Not Verified
Digitally signed by SANJAY
KUMAR
Date: 2021.03.17 17:00:08 IST

(संजय कुमार / Sanjay Kumar)

निदेशक / Director

प्रतिलिपि / Copy to :

1. Engineer-in Chief, Water Resources Department, Bhopal, M. P. - with kind request to arrange well convergent officers of State Govt to coordinate on aforesaid cost aspects with NWDA and CWC.
2. Director: Cost Appraisal (Irrigation)-2, CWC, Sewa Bhawan, New Delhi.



राष्ट्रीय परियोजना निदेशालय / NATIONAL PROJECTS DIRECTORATE
केन्द्रीय जल आयोग/ CENTRAL WATER COMMISSION

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क्र. 4/11/2019/NP-II/Vol-I/1113-4

दिनांक / Date: 21st October, 2020

To,

The Chief Engineer
NWDA, Saket
New Delhi, 110017

Sub: Comprehensive Project Report of Ken-Betwa Link Project – Examination of Cost Estimate of Kotha Barrage Project (Part of Ken-Betwa Link Project Phase-II)- reg.

Ref.: Cost Appraisal (Irrigation)-2 Lr No. 10-A/34/2017/CA (I)-2/107, dated 20.10.2020.

Sir,

With reference to the above cited letter on the subject, please find enclosed here with the comments/observations received from Cost Appraisal (Irrigation)-2 Directorate, CWC in respect of “Kotha Barrage Major Irrigation Project” on cost aspect.

It is requested to kindly arrange to submit compliances to the comments/observations of CWC on priority for taking further necessary action.

In this regard, it is also requested to depute official(s) from NWDA who is well convergent with cost estimate to attend CWC office along with necessary documents for expediting the finalisation of the cost estimate.

Encl. As above.

भवदीय /Yours faithfully,

(अनन्त कुमार गुप्ता/ Anant Kumar Gupta)
निदेशक / Director

प्रतिलिपि / Copy to :

Deputy Director Cost Appraisal (Irrigation)-2 Directorate, CWC with reference to his letter dated 20.10.2020.



**NATIONAL PROJECTS DIRECTORATE
CENTRAL WATER COMMISSION**

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क्र / No.: 4/11/2019/NP-II/Vol-I/ 3040-51

दिनांक / Date: 16 अगस्त / August, 2019.

विषय / Sub: Examination of Comprehensive Project Report of Ken-Betwa Link Project – reg.

संदर्भ / Ref : NWDA Lr. No. NWDA/Tech-II/152/1/2018/Vol-31/1895, dated 13.08.2019.

Comprehensive Report of Ken-Betwa Link Project (Volume – I & II) has been submitted by National Water Development Agency (NWDA) for appraisal / clearance of the project by various Specialized Directorates of CWC.

Earlier, Phase-I of KBLP was accepted in 129th meeting of TAC held on 08.07.2016 for an estimated cost of Rs. 18,057.08 Crore (PL 2015-16), however, Phase-II of KBLP comprising Kotha Barrage, Lower Orr Dam, Bina complex etc. was under appraisal in various Specialized Directorates of CWC.

In this regard, as per the decision taken in the review meeting convened by Hon'ble Union Minister (WR, RD & GR) on 25th September, 2017 and subsequently, the issues raised by Hon'ble Chief Minister of MP regarding implementation of both phases concurrently, a comprehensive report on Ken Betwa Link Project including Daudhan Dam, Lower Orr Dam, Bina complex MPP, Kotha Barrage, repair / strengthening of Bariyarpur Pickup Weir, Parichha Weir and Barwa Sagar Dam etc. having Estimated cost of Rs. 35111.24 Cr at PL 2017-18 has been prepared by NWDA. A comparative statement including changes between proposed components as envisaged in the Comprehensive Report viz-a-viz earlier submitted DPRs of Phase-I & II is also attached herewith for ready reference.

In view of above, it is requested that examination / appraisal / clearance of the said report of the project may please be taken up on priority.

संलग्नक / Encl: One set each of Comprehensive Report (Volume-I & II).

(भूपिन्द्र सिंह / Bhupinder Singh)

निदेशक / Director

प्रति / To,

1. Director, Hydrology (C) Directorate, CWC, New Delhi.
2. Director, ISM-II Directorate, CWC, New Delhi.
3. Director, Irrigation Planning, CWC, New Delhi.
4. Director, CMC Directorate, CWC, New Delhi.
5. Director, Embankment (NW&S) Directorate, CWC, New Delhi.
6. Director, CMDD (NW&S) Directorate, CWC, New Delhi.
7. Director, BCD (N&W) Directorate, CWC, New Delhi.
8. Directors, FE&SA Directorate, CWC, New Delhi.
9. Director, Gates (N&W) Directorate, CWC, New Delhi.
10. Director, Instrumentation Directorate, CWC, New Delhi.
11. Director, Cost Appraisal (Irrigation-I) Directorate, CWC, New Delhi.
12. Director, Cost Appraisal (Irrigation-II) Directorate, CWC, New Delhi.

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन नदी विकास एवं गंगा संरक्षण विभाग
केंद्रीय जल आयोग
लागत मूल्यांकन (सिंचाई)-2 निदेशालय



Government of India
Ministry of Jal Shakti
Dept. of Water Resources, RD & GR
Central Water Commission
Cost Appraisal (Irrigation)-2
Directorate

Sub: - Comprehensive Project Report of Ken-Betwa Link Project- Examination of Cost Estimate of "Lower ORR Major Irrigation Project" (Part of Ken Betwa Link Project Phase-II) – regarding.

Ref:- 1. CWC Lr. No. 4/11/2019/NP-II/Vol-I/3040-51 dated:16.08.2019.
2. CWC Lr. No. 4/11/2019/NP-II/Vol-I/3086-96 dated:03.09.2019
3. CWC Lr. No. 10-A/20/2017/CA(I)-2/211 dated 26.09.2019
4. NWDA Lr. No. CE(N)/LKO/T-16(54)/Phase-II/Lower Orr dated 25.10.2019
5. NWDA Lr. No. राजविअ /अप्रभो/तक-40/783-86 दिनांक 29.09.2020

The Cost Estimate of Comprehensive Project Report of Ken-Betwa Link Project for an amount of Rs.35111.24 Cr. at PL 2017-18 was received vide letter under reference (1) for examination of Cost aspects. In this Report, the Cost Estimate of "Lower Orr Major Irrigation Project" (Part of Ken-Betwa link Project Phase-II) amounting **Rs.3065.14Cr.** has also been submitted. The discussion on the Cost Estimate of Lower Orr Project had been held with NWDA officials and NWDA has now submitted the compliance to comments vide letter cited under reference (5). The compliance has also been examined and the following further comments are forwarded for compliance by NWDA for the finalization of the Cost Estimate.

General Comments:

1. The certificate from Project Chief Engineer that quantities and rates taken under various sub-heads of the cost estimate are correct and reasonable.
2. There is substantial increase in CCA of the Project (from 45047 Hectares to 90000 Hectares); therefore the fresh copy of clearance from the concerned Directorate of the CWC may be furnished.
3. The soft copy of the cost estimate (linked excel sheet) may be furnished.

Unit-I :-

B-lands

1. The certificate from Revenue department for per hectare cost for Private (Culturable/ Unculturable) land may be furnished.
2. The provision for NPV for Forest Land under submergence of Lower Orr Dam may be shifted to suitable sub-head as per the CWC guideline.

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Tel: 011-29583254/3450

K-Buildings

1. The cost of buildings has been considered as 50 percent of the total cost of the buildings assuming that part of existing buildings and infrastructure facilities created for construction of Rajghat Project will be utilised. The detailed requirement of buildings and actually to be constructed may be worked out.
2. The cost for provision such as fencing/boundary wall, lawn gardens, electrification charges are made on percentage basis. The justification for norms for various percentage provision adopted may be furnished.

O-Miscellaneous

1. The supporting documents for the rates used in the analysis of rates for electrification may be furnished.
2. The justification for adoption of time frame of 04 years for Maintenance and Service may be furnished.

P-Maintenance

1. The justification for norms/ percentage provisions adopted may be furnished.

R-Communications

1. The provisions such as Hiring/ Rental Charges and Maintenance of Telephones may be shifted to appropriate sub heads as per the CWC guidelines. The detailed estimate towards the cost may be submitted.
2. The alignment map of the proposed roads may be furnished.

Unit-II: (For Gravity flow 50,000 Hectare)

D-Regulators

1. The cost of Head Regulator has been rounded up 32.00 lakh against the estimate cost of 31.57 lakh. The rounding off of the cost of may be avoided subhead wise.

F-Cross Drainage Structure

1. The supporting documents for per unit cost adopted for Drainage Syphons, Aqueducts, Super passages, under tunnels may be furnished.

G-Bridges

1. The supporting documents for per unit cost adopted for VRB, DRB may be furnished.

H-Escapes

1. The supporting documents for per unit cost adopted for escapes may be furnished.

1. The justification for adoption of time frame of 04 years for Maintenance and Service may be furnished.

N-Reservoirs and Tanks

1. The provision for Construction of balancing reservoir for feeding the 50,000 Hectare CCA may be shifted to suitable subhead as per CWC guideline.

R-Communications

1. The alignment map of the proposed roads may be furnished.

Unit-II (For Lift Irrigation 40,000 Hectare)**K-Buildings**

1. The justification for Plinth area and Plinth area rate adopted in the estimate may be furnished.

L-Earth Work

1. As per the CWC guidelines, the provision in this sub-head shall cover main/branch canal(s). The provisions such as VT Pump, electrical works and civil work for rising approach channel & Pump house may be shifted to suitable subhead as per the CWC guideline.
2. The supporting documents for rate adopted may be furnished.

N-Reservoirs and Tanks

1. The provision for Construction of Distribution Chamber for 40,000 Hectare CCA may be shifted to suitable subhead as per CWC guidelines.

R-Communications

1. The alignment map of the proposed roads may be furnished.

Other observations on the Cost Estimate would be communicated during further examination of the estimate. Further, official(s) from NWDA well conversant with Cost Estimate may be requested to attend this office with necessary documents for finalisation of the cost estimate.


(Ashok K. Jeph)
Director

Director, National Projects Directorate, CWC, New Delhi

