

No. 16/27/2019-PA (N)/1053-80
Government of India
Central Water Commission
Project Appraisal Organization

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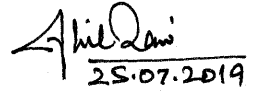
Dated: 25/07/2019

Minutes of the Meeting

Please find enclosed herewith the duly approved Summary Record of Discussions of the 142nd Meeting of the "Advisory Committee of Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD&GR) for consideration of techno-economic viability of major & medium irrigation, flood control and multi-purpose project proposals", held under Chairmanship of Secretary DoWR, RD&GR on 08/07/2019 at CWC, Sewa Bhawan, New Delhi for information and necessary action.

Comments, if any, may kindly be sent to the undersigned within 15 days

Encl: As above.


25.07.2019
(Atul Jain)

**Member Secretary of the Advisory Committee &
Chief Engineer (PAO)**

To,

Members of Committee:

1. Chairman, CWC, Sewa Bhawan, R. K. Puram, New Delhi.
2. Secretary (Expenditure), Ministry of Finance, 1st Floor, North Block, New Delhi.
3. Secretary, Department of Power, Room No. 205, S.S. Bhawan, II Floor, New Delhi.
4. Secretary, Ministry of Environment & Forests & CC, 4th Floor, Prithvi Block, Indira Paryavaran, Jor Bagh, New Delhi.
5. Secretary, Department of Agriculture, Cooperation & Farmers Welfare, R. No. 126, Krishi Bhawan, New Delhi.
6. Secretary, Ministry of Tribal Affairs, Room No. 738, A-Wing, Shastri Bhawan, New Delhi.
7. Director General, ICAR, Room No-108, Krishi Bhawan, New Delhi.
8. Chairman, CEA, Sewa Bhawan, R. K. Puram, New Delhi.
9. Chairman, Central Ground Water Board, Jam Nagar House, New Delhi.
10. Adviser (Power), NITI Aayog, Room No. 248, Yojana Bhawan, New Delhi.
11. Adviser (WR), NITI Aayog, Room No. 230, Yojana Bhawan, New Delhi.
12. Joint Secretary & Financial Adviser, DoWR, RD & GR, Room No-401, S.S. Bhawan, New Delhi.

Special Invitees:

1. Additional Secretary, DoWR, RD&GR.
2. Member (D&R), CWC, New Delhi.
3. Member (RM), CWC, New Delhi.
4. Member (WP&P), CWC, New Delhi.
5. Chairman, GFCC, Patna, Bihar.
6. Joint Secretary (IC&GW), DoWR, RD&GR.

7. Additional Chief Secretary, Water Resources Dept, Govt. of Bihar, Patna.
8. Additional Chief Secretary, Water Resources Dept, Govt. of Jharkhand, Ranchi
9. Principal Secretary, Irrigation Department, Govt. of Maharashtra, Mumbai.
10. Principal Secretary, Irrigation and Water Resources Dept, Govt. of Uttar Pradesh, Lucknow.
11. Chief Advisor (Cost), Department of Expenditure, Ministry of Finance, 2nd Floor, Lok Nayak Bhawan, New Delhi.
12. Commissioner (State Projects), DoWR, RD & GR, Room No-411, S. S. Bhawan, New Delhi.
13. Commissioner (FM), DoWR, RD & GR, CGO Complex, 11th Block, 8th Floor, Lodhi Road, New Delhi.
14. Chief Engineer (IMO), CWC, New Delhi.
15. Chief Engineer (MCO), CWC, Nagpur.

Copy for kind information to:

Sr. PPS to Secretary, DoWR, RD & GR, Room No. 407, Shram Shakti Bhawan, New Delhi.

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development & Ganga Rejuvenation
Central Water Commission

SUMMARY RECORD OF DISCUSSIONS OF THE 142nd MEETING OF THE ADVISORY COMMITTEE FOR CONSIDERATION OF TECHNO-ECONOMIC VIABILITY OF MAJOR & MEDIUM IRRIGATION, FLOOD CONTROL AND MULTIPURPOSE PROJECT PROPOSALS HELD ON MONDAY, 8th July 2019 AT CENTRAL WATER COMMISSION, NEW DELHI

The 142nd meeting of the Advisory Committee of Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD&GR) for consideration of techno-economic viability of major & medium irrigation, flood control and multi-purpose project proposals was held under the chairmanship of Shri U.P. Singh, Secretary to the Government of India, DoWR, RD & GR on Monday, 8th July, 2019 at Central Water Commission, New Delhi. The list of members of the Committee or their representatives/ nominees/ Special Invitees and Officers from various Ministries/ Organizations and representatives of State Governments who attended the meeting is at Annexure-I.

At the outset, the Secretary (DoWR, RD & GR) and Chairman, Advisory Committee welcomed the participants. Thereafter, the agenda items were taken up for deliberations.

(i) Confirmation of the minutes of 141st meeting of the Advisory Committee

CE (PAO), CWC and Member Secretary of Advisory Committee stated that the 141st meeting of the Advisory Committee of DoWR, RD&GR on Irrigation, Flood Control and Multi-purpose Projects was held on 11.02.2019. Summary Record of discussions was circulated vide letter No. 16/27/2017-PA(N)/583-611 dated 18.02.2019. As no comments on the Summary Record were received, Advisory Committee confirmed the Summary Record as circulated.

(ii) Follow up action after the 141st meeting of the Advisory Committee

NIL



(iii) Project Proposals considered by the Advisory Committee

A. Irrigation and Multi-purpose Projects

Two project proposals, viz., 7th Revised Cost Estimate of North Koel Reservoir Project, Jharkhand & Bihar (Major, Irrigation) and 2nd Revised Cost Estimate of Poorna Barrage-2 (Ner Dhamana) Medium Irrigation Project, Maharashtra were proposed for consideration of the Committee. The representative of Chief Advisor (Cost), Department of Expenditure, Ministry of Finance mentioned that where increase in costs is beyond 20% of the firmed-cost estimates, such proposals should first be placed before a Revised Cost Committee (RCC) chaired by the Financial Adviser (consisting of Joint Secretary in charge of the Programme Division and representative of the Chief Adviser Cost as members) to identify the specific reasons behind such increase, identify lapses, if any, and suggest remedial measures for the same. The recommendations of the RCC should be placed for fresh appraisal and approval before the Competent Authority as per extant delegation of powers (Ref. DoE O.M.no. 24(35)/PF-II/2012 dated 05.08.2016).

In this context, it was informed that the Advisory Committee is only considering techno-economic aspects of the revised cost estimates at this stage. Subsequently, before taking up the proposals for approval of the competent authority due procedure shall be followed and all the requirements prescribed by the Department of Expenditure/ Ministry of Finance shall be fulfilled. Thereafter, proposals were taken up for consideration.

1. 7th Revised Cost Estimate of North Koel Reservoir Project, Jharkhand & Bihar (Major Irrigation; Estimated Cost Rs. 3042.16 Crore @ PL 2019, B.C. Ratio 1.352:1)

A presentation on the Project was made by Project Authority. It was informed that the North Koel Reservoir project is situated in the most backward tribal area in Palamau district of Jharkhand. The Project comprises of a 67.86 meter High Dam on river North Koel, a tributary of river Sone, at village Kutku (latitude 23° 40'30"N and longitude 83° 59'00" E) in Palamau district of Jharkhand. The catchment area of the dam is 2885 Sq km and the reservoir so formed has a gross storage capacity of 190 MCM of water. The water will be released in the river in a controlled way and picked up again at 814.13 m long existing Mohammadganj Barrage situated 96 km downstream of the dam site. This barrage site is approx 10 km upstream of the confluence of river North Koel with the river

Sone. The Right Main canal of 110.44 km (31.4 km in Jharkhand and rest in Bihar) is already constructed and Left Main canal is of 11.89 km (entirely in Jharkhand) is under constructions.

The project was originally accepted by the Advisory Committee of MoWR in its 13th meeting held on 19.03.1980 for Rs. 113.17 Crore subject to forest clearance by MoEF. Later on 11.89 km long Left Bank Canal (LBC) was added to the scope of the project. The modified proposal costing Rs. 439.03 Crore envisaging a live storage of 960 MCM to benefit 1.047 lakh ha was considered and accepted by the Advisory Committee of MoWR in September, 1989 in 44th meeting subject to compliance of stipulation of the Ministry of Environment & Forest.

The construction works had started in year 1972. The completion of project was held up due to non-installation of gates of the dam. The MoEF& CC had objected to the installation of gates with the apprehension that water accumulated in the dam would threaten the Betla National Park and Palamu Tiger Reserve. Clearance from MoEF& CC in respect of submergence of forest land of 1007 ha of buffer area of Palamu Tiger Reserve is yet to be obtained.

According to the meeting held on 11.08.2016 at PMO, it has been decided that the F.R.L. of the reservoir will be restricted to 341.00 m for saving of the core area of Palamau Tiger Reserve as a result of deduction of F.R.L. by 26.28 m.

The project was last accepted by the Advisory Committee of MoWR, RD&GR for an estimated cost of Rs. 2391.37 Crore (PL 2016-17) (6th RCE) in the 132nd Meeting of the Advisory Committee held on 06.03.2017.

The need for 7th RCE arose mainly due to price rise of labour and materials, additional proposed entire new lining and remodeling of enroute structures in both LMC & RMC, inclusion of Gaya Distribution System and considerable rise in land acquisition cost of Gaya Distribution System with some increase due to additional provision of structures and change in design.

After completion of the project, 114021 hectare land under drought prone area of Palamau, Garhwa, Aurangabad and Gaya district will be irrigated.

The sub-headwise variation in cost between present proposal and that approved earlier as 6th RCE was presented during the meeting which is given below:

Sub Head	Approved amount in 6th RCE (Rs. in Cr.)	Approved amount in 7th RCE (Rs. in Cr.)	Variation (Rs. in Cr.)	Remarks
Unit-I Dam				
Land	872.00	617.31	-254.69	Provision of Rs 872.00 Cr. was kept under 6th RCE out of which Rs 479.16 Cr. expenditure has been made to Forest Department. Further, the additional requirement under R&R amounting to Rs 117.58 Cr. and Rs 20.56 Cr. for revised Bio Diversity plan has been kept under 7th RCE
Works	79.82	90.05	10.23	Variation is due to additional requirement of installation of Gantry Crane and its accessories and additional gates (4 nos).
Others	89.79	93.43	3.64	
Sub-Total	1,041.61	800.79	-240.82	
Unit- II (i) Barrage				
Land	19.74	17.67	-2.07	As per actual
Works	110.56	116.98	6.42	Change in quantity as per actual requirement
Others	108.30	111.43	3.13	
Sub-Total	238.60	246.08	7.48	
Unit- II (ii) Canals				
LMC				
Land	39.65	26.84	-12.81	As per actual
Lining	0.85	21.27	20.42	Variation is due to entire lining of canal
Structures	4.31	6.59	2.28	Variation due to work as per awarded rates
Distributaries and Minors	25.62	5.08	-20.54	Development cost taken as Rs 40000/- per Ha (approx) for estimation
Sub Total- LMC (a)	70.43	59.78	-10.65	
RMC				
Land	56.64	334.03	277.39	Variation is due to additional requirement of land acquisition in Gaya portion
Lining	224.73	528.79	304.06	Variation is due to entire lining of canal in lieu of patch lining
Structures	34.73	180.55	145.82	Variation is due to remodeling of en-route structures
Distributaries and Minors	249.18	430.11	180.93	Variation is due to additional requirement in Gaya and Aurangabad District
Sub Total RMC (b)	565.28	1,473.48	908.20	

Others (c)	475.44	462.03	-13.41	
Sub-Total Canals (a+b+c)	1,111.15	1,995.29	884.14	
Grand Total	2391.36	3042.16	650.80	

Note: Additional provision for Gaya distribution system has been kept amounting to Rs 383.62 Cr in 7th RCE which was left inadvertently in 6th RCE (Rs 277.39 Cr for land acquisition and Rs 106.23 Cr for construction of distributary system including water courses)

After detailed deliberations, the proposal of 7th Revised Cost Estimate of North Koel Reservoir Project, Jharkhand & Bihar (Major Irrigation) at an Estimated Cost Rs. 3042.16 Crore @ PL 2019 was accepted by the Advisory Committee of DoWR, RD & GR.

2 **2nd Revised Cost Estimate of Poorna Barrage-2 (Ner Dhamana) Medium Irrigation Project, Maharashtra (Estimated Cost Rs. 888.43 Crore @ PL 2016-17, B.C. Ratio 1.042:1)**

A presentation on the 2nd Revised Cost Estimate and the revised project proposal was made by the Executive Director (ED), Vidarbha Irrigation Development Corporation, Government of Maharashtra. The Project envisages construction of a barrage of length 218.025 m with 12 nos. of Vertical Gates of size 15 m x 7.5 m, Un-gated waterway of 12 bays having 15 m clear span of each bay on both ends of gated portion, Approach Bridge of length 677.325 m and 507.461 m on left and right side of the un-gated portion including Earthen embankment of 100 m and 81 m length on left and right flank respectively. The water required for irrigation will be lifted from the pump house on the left side of the barrage through Rising Main and will be distributed to the Delivery Chamber and thereafter, through the Pipe Distribution Network (PDN) proposed for irrigation system on both the banks to provide irrigation benefits to 6954 ha area in drought prone areas of a Akola district in Maharashtra State.

The original proposal of the Purna Barrage medium Irrigation Project was earlier considered by the Advisory Committee of MoWR, RD & GR in its 104th meeting held on 12.05.2010 and was accepted for Rs. 179.279 Cr. (Price Level, 2008-09) and accorded Investment Clearance by the erstwhile Planning Commission on 17.07.2010. Subsequently the proposal of Revised Cost Estimate of the Project was considered by the Advisory Committee of MoWR, RD & GR in its 113th meeting held on 12.01.2012 and was accepted for Rs. 617.46 Crore (Price Level, 2009-10). The erstwhile Planning Commission

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also accorded Investment Clearance to the revised cost of project for Rs. 617.46 Crore (Price Level 2009-10).

The Project Authority have submitted the 2nd Revised Cost Estimate (at Price Level 2016-17) of the project which has been examined in CWC and the revised estimated cost has been finalized at Rs. 888.43 Cr (Price Level 2016-17). The Project Authority have confirmed that there is no change in the scope of the project. However, changes have been made in the distribution system which was earlier an open channel, gravity flow system. The revised proposal envisages replacement of such gravity based open channel system by the piped distribution system, increasing overall efficiency from 49% to 71.25%.

The Chairman of the AC remarked that the overall cost of irrigation per hectare appeared to be too high. The project officials clarified that the project will provide relief to the farmers of the area which is drought prone and suffers from agrarian distress. The project is also included under the Centre's Special Package for completion of irrigation projects to address agrarian distress in Vidarbha and Marathwada and other chronically drought prone areas of Maharashtra.

The project officials informed that besides price escalation, the variation in the revised cost is mainly on account of changes in design of barrage and appurtenant works and introduction of piped distribution network. The Chair enquired that the savings in land acquisition due to change in distribution system from open channel to piped distribution system were not getting reflected in the variation statement. It was clarified by the Executive Director that only a token provision of small area of land acquisition was originally provided for under the open channel system due to non availability of site specific data. As such, the difference in land cost now and then was not getting properly reflected.

After detailed deliberations the proposal of 2nd Revised Cost Estimate of Poorna Barrage-2 (Ner Dhamana) Medium Irrigation Project, Maharashtra at an Estimated Cost of Rs. 888.43 Crore @ PL 2016-17 was accepted by the Advisory Committee. However, it was clarified that acceptance of the revised estimate will not affect the State's eligibility for Central assistance under the Special Package for which the estimated cost has already been frozen at 1st April 2018. As such, any additional cost would have to be borne by the State from its own resources.

B. Flood Control Projects

1. Anti Erosion works on Left bank of river Ghaghara from confluence of river Rapti and Ghaghara up to village Kurah Parasia in District Deoria. (Estimated Cost Rs. 58.83 Crore @ 2018 SOR, B.C. Ratio 2.86:1)

A presentation on the project was made by the Project authority. It was informed that the scheme had been formulated to overcome the damages due to erosion caused by river Ghaghara on its left bank. The project authorities informed that due to recurring flood in the last few years, the village of Kurh-Parasia had been eroded by Ghaghara River. Now the pressure of Ghaghara River was acting towards the village Katalwa and historical Ram Janki Marg. To overcome the problem of erosion, anti-erosion work on left bank of river Ghaghara downstream of the confluence of river Rapti and Ghaghara, had been proposed.

The project includes construction of Daula with slope pitching with launching apron, laying of porcupine in two rows in 2480 m length, raising of existing kachcha road in 750 m length with slope pitching and stepped slope pitching with launching apron in 350 m length.

It was emphasized that the project was urgently required to control severe erosion due to Ghaghara River otherwise large agricultural land would be eroded, Katalwa village would be washed out and the Ram Janki Marg would be damaged.

The representative of Chief Advisor (Cost), Department of Expenditure, Ministry of Finance mentioned that the basis of calculation of net annual benefit after completion of scheme has not been included in the Note. Further, centages @ 6.875%, which are required to be charged on cost excluding GST, has been charged on total cost including GST, which needs correction.

The project was deliberated in detail and Secretary, DoWR, RD&GR discussed about the B-C ratio of the scheme and instructed to submit the relevant supporting documents. The same was submitted by State Govt. and is enclosed as Annex-II. The Estimated Cost gets modified to Rs 58.83 Crores after incorporating the suggestion of the representative of Chief Advisor (Cost) and estimating centage on cost excluding GST.

After detailed deliberations, the Advisory Committee accepted the scheme subject to submission of firmed up B-C ratio with the supporting documents. However, the acceptance of the proposal by Advisory Committee of DoWR, RD& GR does not guarantee any eligibility towards release of fund under any existing scheme of DoWR, RD& GR such as FMP etc.

The meeting ended with a vote of thanks to the Chair.



LIST OF OFFICERS PRESENT IN THE 142nd MEETING OF THE ADVISORY COMMITTEE OF DoWR, RD&GR ON IRRIGATION, FLOOD CONTROL AND MULTI-PRUPOSE PROJECTS ON THE MONDAY, 8TH JULY, 2019 AT 03:00 PM IN THE COMMITTEE ROOM (2nd FLOOR), CWC, SEWA BHAWAN, NEW DELHI:

Shri U. P. Singh, Secretary, DoWR, RD&GR

In Chair

Members of the Advisory Committee or their representatives/nominees

S/Shri

- | | |
|--|------------------|
| 1. A.K. Sinha, Member D&R & I/C Chairman, CWC | Member |
| 2. Vishal Pal Singh, Deputy Secretary, Ministry of Power
(Representing Secretary, Min of Power) | Member |
| 3. J S Bawa, Chief Engineer (HPP&I), CEA
(Representing Chairman CEA) | Member |
| 4. Avinash Mishra Advisor (WR) Niti Aayog | Member |
| 5. P. K. Nair, Scientist D, CGWB
(Representing Chairman CGWB) | Member |
| 6. Atul Jain, Chief Engineer, PAO, CWC | Member Secretary |

Special Invitees:

DoWR, RD&GR

S/Shri

1. J. Chandrashekhar Iyer, Commissioner (FM)
2. M.S. Sahare, SJC(FM)

O/o Chief Adviser (Cost)

S/Shri

1. Rachna Chopra, Cost Adviser (ACA)
2. Amardeep Singh, Director (Cost)

Central Water Commission

S/Shri

1. S K Haldar. Member, WP&P, CWC
2. Vijai Saran, Chief Engineer, IMO, CWC
3. D K Tiwary , Chief Engineer , MCO , CWC, Nagpur
4. Balram Kumar, Director, CA(I), CWC
5. Mohd. Amanullah, Deputy Director CA(I), CWC
1. Arun Kumar, Assistant Director, CA(I)-1, CWC
2. Rajiv Kumar, Director, PA(C) Directorate, CWC
3. N. Mukherjee, Director, PA(S) Directorate, CWC
4. Ashish Kumar, Deputy Director, IP(S), CWC
5. Neeraj Kumar Sharma, Deputy Director, IP(S), CWC
6. Sanjay Meena, Deputy Director, PA(N), CWC
7. Durgendra Singh, AD-II, PA(N), CWC

Ganga Flood Control Commission (GFCC)

S/ Shri

1. C K L Das, Member (C), GFCC, Patna
2. Jogender Singh, Member GFCC, Patna

3. Abhay Kumar, Director, GFCC, Lucknow

ICAR, Pusa, New Delhi

S/ Shri

1. Adlul Islam, Principal Scientist, ICAR

Government of Maharashtra

S/Shri

1. Avinash Surve, Executive Director, VIDC, Nagpur Maharashtra.
2. Ankur Desai, Superintending Engineer, Akola Irrigation Circle Maharashtra.
3. Chinmay Wakode, Executive Engineer, WRD, Maharashtra
4. Manoj Bonde, Sub. Divisional Engineer, Minor Irrigation, Akola, Maharashtra.
5. Amoly wagh, Assistant Engineer Gr-II Minor Irrigation, Sub division Akola

Government of Uttar Pradesh

S/Shri

1. Ashok Kumar Singh, Chief Engineer, Irrigation & WRD, Gorakhpur
2. Dinesh Singh, Superintending Engineer, Gandak Flood Circle, Gorakhpur
3. Rajendra Prasad, Executive Engineer, Flood, Works Division, Deoria (UP)
4. Ashok Kumar Dwivedi, Assistant Engineer, Flood Works Division, Deoria (UP)

WAPCOS

S/Shri

1. Sanjay Sharma, GM(I), WAPCOS
2. Sarthak Saluja, Engineer, WAPCOS

Government of Jharkhand

S/Shri

1. Mukesh Kumar, Chief Engineer, WRD, Medini Nagar
2. Aftab Alam , Executive Engineer, P&M Division Dalton Ganj Medini Nagar.

Government of Bihar

S/Shri

1. Sanjay Srivastav, Superintending Engineer, WRD, Govt. of Bihar.

