

No. 16/27/2012-PA (N)/B - 32

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CB(PAO)

GOVERNMENT OF INDIA  
CENTRAL WATER COMMISSION  
PROJECT APPRAISAL ORGANIZATION

510(S), SEWA BHAWAN,  
R. K. PURAM,  
NEW DELHI-110 066  
Date: 03.01.2013



48 07/01/2013

Sub: 116<sup>th</sup> meeting of the Advisory Committee for consideration of techno-economic viability of Irrigation, Flood Control and Multipurpose Project proposals held on 14.12.2012.

Enclosed please find herewith a copy of the summary record of discussions of the above meeting held on 14<sup>th</sup> December 2012 in the Conference Room of Ministry of Water Resources, Shram Shakti Bhawan, New Delhi for information and necessary action.

Encl: As above

*Vinay Kumar*  
(Vinay Kumar)  
Chief Engineer (PA)  
& Member Secretary of the  
Advisory Committee

To

Members of Committee:

- ✓ 1. Chairman, CWC, Sewa Bhawan, R. K. Puram, New Delhi.
2. Secretary (Expenditure), Ministry of Finance, (1<sup>st</sup> Floor) North Block, New Delhi.
3. Secretary, Department of Power, S.S. Bhawan, 11<sup>th</sup> Floor, New Delhi.
4. Secretary, Ministry of Environment & Forests, 4<sup>th</sup> Floor, Room No- 404/05, Paryavaran, Bhawan, CGO Complex, New Delhi.
5. Secretary, Ministry of Tribal Affairs, Room No. 738, A-Wing, Shastri Bhawan, New Delhi.
6. Secretary, Department of Agriculture & Cooperation, Krishi 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, Man Singh Road, New Delhi.
10. Adviser (WR), Planning Commission, Yojana Bhawan, New Delhi.
11. Sr. Adviser (Power), Planning Commission, Room No-107 Yojana Bhawan, New Delhi.
12. Financial Adviser, Ministry of Water Resources, Room No-401 S.S. Bhawan, New Delhi.

**Special Invitees:**

13. Chairman, GFCC, Sinchai Bhawan, Patna.
14. Member (D&R), CWC, New Delhi.
15. Member (RM), CWC, New Delhi.
16. Commissioner (Projects), Room No-411, S.S.Bhawan, MoWR, New Delhi.
17. Chief Advisor (Cost), Department of Expenditure, Ministry of Finance, Lok Nayak Bhawan, New Delhi.
18. The Secretary (Irrigation & Power), Government of Uttarakhand, Sachivalaya, Dehradun - 248 001.
19. Principal Secretary, Irrigation Department, Government of Uttar Pradesh, Sachivalay Annexe, Lucknow-226 001 (U.P.)
20. Chairman, Uttarakhand Jal Vidyut Nigam Ltd., GMS Road, Maharani Bagh, Dehradun.
21. Member (Co-ordination), GFCC, Sinchai Bhawan, Patna.
22. CE, PPO, CWC, New Delhi.
23. CE, PMO, CWC, New Delhi.
24. CE, UGBO, CWC, Lucknow.

**Copy for information to:**

25. Sr. PPS to Secretary, Ministry of Water Resources, Room No-407, Shram Shakti Bhawan, New Delhi.



**Summary Record of Discussions of the 116<sup>th</sup> Meeting of the Advisory Committee on Irrigation, Flood Control and Multi - Purpose Projects held on Tuesday, December 14, 2012 for Consideration of Techno-Economic Viability of Water Resources Projects**

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The 116<sup>th</sup> meeting of the Advisory Committee on Irrigation, Flood Control and Multi-purpose Projects was held under the Chairmanship of Shri D. V. Singh, Secretary to the Government of India, Ministry of Water Resources at 03:00 P.M. on Tuesday, December 14, 2012 in the Conference Room of Ministry of Water Resources, Shram Shakti Bhawan, New Delhi. List of members and special invitees who attended the meeting is annexed.

Shri D. V. Singh, Secretary to the Government of India and Chairman of the Advisory Committee welcomed the members and invitees of the Committee and asked Member - Secretary, Advisory Committee to take up the agenda. Member Secretary indicated that five schemes would be discussed in the meeting which included three schemes of flood management in Saryu / Ghaghra sub-basin of Ganga basin, one scheme of extension, renovation and modernization in Ganga sub-basin and one multi-purpose scheme in Yamuna sub-basin.

Thereafter, the agenda items were discussed and the following decisions were taken.

**I. Confirmation of the Summary Record of Discussions held during 115<sup>th</sup> Meeting of the Advisory Committee.**

Summary Record of Discussions of the 115<sup>th</sup> meeting were circulated vide letter No. 16/27/2012-PA (N)/1164-97 dated 09.08.2012. Comments of Plan Finance-1 Division, Department of Expenditure were received vide F. No. 41(7)/PF-I/2002 dated 29<sup>th</sup> August, 2012 which was replied vide letter No. 16/27/2012-PA (N)/1571-72 dated 06.09.2012. No other comments on the record of discussions were received. Summary Record of discussions of the 115<sup>th</sup> meeting of the Advisory Committee was confirmed by the Committee.

**II. Project Proposals Considered by the Advisory Committee**

**a) Anti erosion works from km 0.650 of Retired bund -1 of Sakraur Bhikharipur Ring bund to km 13.600 of Main bund of Sakraur Bhikharipur along left bank of river Saryu / Ghaghra in Gonda district, Uttar Pradesh (Flood Control, Estimated Cost Rs. 41.51 Crore at 2010 Price Level)**

The scheme envisages protecting the Sakraur Bhikharipur Ring Bund in Retired Bund-1 part along left bank of River Saryu and Ghaghra in Gonda district of Uttar Pradesh by construction of (i) 10 new spurs between 11.6 km and 13.6 km of Sakraur- Bhikharipur Ring bund, (ii) launching apron and slope pitching works in a length of 750m between 0.4 km and 1.14 km of the Bund, and (iii) restoration work of damaged portions of the existing spurs at 0.95 km and 11.6 km. The total cost of scheme is Rs. 41.51 crore at 2010 price level. During deliberation, two points were indicated by Members which related to statistics on population in the protected area and unit rates of some of the items in the cost estimate. Regarding large



km long Lolpur Vikramjot Embankment and 5 regulators along left bank of river Ghaghra, (ii) flood protection works from 7.3km to 8.6km, from 10.45km to 10.925km, from 12.86km to 13.5km of Vikramjot – Dhuswa embankment; (iii) flood protection works from 0.66km to 2.35km, from 4.01km to 4.32km of Kashipur - Dubaulia embankment; (iv) flood protection work from 0.39km to 2.382km of Kataria – Chandpur embankment; and (v) flood protection work from 3.3km to 5.5km of Gaura Saifabad embankment besides closing of spills in this reach.

During deliberation, besides cost of land and earth work, a point emerged about inclusion of the cost of proposed and ongoing works in the present scheme. In this regard, the Project Authorities indicated that the work already executed would not serve any purpose without execution of the remaining works and hence two works i.e, works already taken up / continuing and proposed have been included in the present scheme.

The committee accepted the proposal after deliberation.

**d) Extension, Renovation and Modernization (ERM) of Malan Canal System, Uttarakhand (Medium-ERM, Estimated Cost Rs. 11.40 Crore at 2010-11 Price Level)**

The proposal envisages repair and renovation of existing Malan Canal system including field channels and gules to restore lost irrigation potential of 753 ha and to create additional irrigation potential of 41 ha. The total cost of the scheme is Rs.11.40 crore at 2010-11 price level. The Canal system was constructed during pre independence period and the canal system is in dilapidated condition due to siltation and non-maintenance of the system. The issue of yield per hectare adopted in the scheme came up during deliberations. It was indicated by the Secretariat that as per the Guidelines of Appraisal, the yield of crop etc certified by the State Agriculture Department is to be adopted in formulation of the Detailed Project Report. The Project Authorities indicated that the yield per hectare has been approved by the Agriculture Department, Government of Uttarakhand.

The committee accepted the proposal after deliberation.

**e) Lakhwar Multipurpose project, Uttarakhand (Multipurpose, Estimated Cost Rs. 3966.51 Crore at May-2012 Price Level)**

Lakhwar Multipurpose project in Uttarakhand envisages construction of a 204m high dam on river Yamuna near Lohori village about 72 km from Dehradun in Uttarakhand. The benefits to accrue from the project include generation of 300 MW power, 33780 ha additional irrigation and 78.83 MCM of water for domestic and industrial purposes. The cost of the project is Rs. 3966.51 crore (excluding interest during construction (IDC)) at May 2012 Price level. The cost of irrigation/drinking water component has been worked out as Rs.2578.23 crores (65% of total cost) and the cost of power component has been worked out as Rs.1388.28 crores (35% of total cost).

To recall the evolution, the project proposal namely, Lakhwar Vyasi Multipurpose Project was accepted for investment by the Planning Commission in January 1976 at a cost of Rs. 140.97 crore (price level 1975). The Lakhwar Vyasi Multipurpose Project was declared National Project in 2008. Subsequently in July 2010, Govt of Uttarakhand submitted the Detailed Project Report (DPR) of Lakhwar Multipurpose project for techno-economic appraisal in Central Water Commission and DPR of Vyasi Hydro Electric Project (HEP) in Central Electricity Authority. The DPR of Vyasi HEP has since been accepted by CEA in October 2011.

During deliberations, the subject of mandatory clearance by Ministry of Environment & Forests, Ministry of Tribal Affairs, apportionment of cost to irrigation, power and drinking / industrial use of water, cost per Mega Watt of power generation vis-à-vis Vyasi hydro electric project were discussed. The representative of Govt. of Uttarakhand informed that all the mandatory clearances namely, environment, forest and tribal affairs and concurrence of the State Finance Department have been obtained. Reacting to a query about updating of forest clearance, the representative of Government of Uttarakhand informed that all the 768.15 ha of forest land, required for Lakhwar Multipurpose Project had been acquired and about 35% construction work of Lakhwar Dam was completed till 1992 when the work stopped due to shortage of funds and therefore, updating of the forest clearance is not required.

As regards apportionment of cost among irrigation, drinking water and hydro-power, it was informed by the CWC that IS:7560 – 1974 "Guidelines for Allocation of Cost among different Purposes of River Valley Projects" has been adopted while appraising the DPR. Further, it was indicated by the Secretariat that the DPR was appraised in Central Water Commission in respect of civil aspects while Hydro-Project Appraisal Unit of Central Electricity Authority appraised electrical and electro-mechanical components of the project proposal including cost related issues. As regards lesser cost per Mega Watt of power generation in comparison to Vyasi Project, the representative of Government of Uttarakhand informed that the cost per Mega Watt of power generation depended upon many factors and Vyasi Hydro electric Project being run-of-river scheme, the storage is considerably less than Lakhwar Multipurpose Project which is basically a storage scheme.

After discussions, the Committee accepted the Lakhwar Multipurpose Project.

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



**List of Members and Invitees who participated in the 116<sup>th</sup> Meeting  
of the Advisory Committee of MoWR on 14.12.2012**

Shri D. V. Singh, Secretary to the Government of India, Ministry of Water Resources. In Chair

**Members of the Committee:**

S/Shri

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|----|---|-------------------|
| 1. | Rajesh Kumar, Chairman, CWC, New Delhi  | Member            |
| 2. | M. S. Aggarwal, Advisor (WR), Planning Commission, New Delhi  | Member            |
| 3. | S. K. Thakur, Director (Finance), MoWR, New Delhi (Representing Financial Advisor, Ministry of Water Resources)             | Member            |
| 4. | B. Rath, Additional Commissioner, DAC, Ministry of Agriculture, New Delhi (Representing Secretary, Ministry of Agriculture) | Member            |
| 5. | Arun Kumar, Regional Director, CGWB, New Delhi (Representing Chairman, CGWB)  | Member            |
| 6. | Vinay Kumar, Chief Engineer, PAO, CWC, New Delhi  | Member- Secretary |

**Special Invitees**

S/Shri

**a) Ministry of Water Resources**

7. G. Aranganathan, Commissioner (Indus), MoWR, New Delhi.
8. Pradeep Kumar, Commissioner (Projects), MoWR, New Delhi.
9. Shiv Nandan Kumar, Sr. Joint Commissioner, MoWR, New Delhi.

**b) Ministry of Finance**

10. P. K. Aggarwal, Advisor (Cost), Office of Chief Advisor (Cost), New Delhi.
11. V. K. Shukla, Director (Cost), O/o Chief Advisor (Cost), New Delhi.

**c) Central Water Commission**

12. A. B. Pandya, Member (D&R), CWC, New Delhi.
13. Devender Sharma, Member (RM), CWC, New Delhi.
14. B.G. Kaushik, Chief Engineer (PPO), CWC, New Delhi.
15. S. Biswas, Director, NP-I (PPO), CWC, New Delhi.
16. Ajay Kumar, Director, PA (N), CWC, New Delhi.
17. Bashishtha Rai, Deputy Director, PA(C) Dte, CWC, New Delhi.
18. S. A. Khan, Deputy Director, M&A, UGBO, CWC, Lucknow
19. Puneet Kumar Mittal, Deputy Director, NP-I (PPO), CWC, New Delhi
20. A. K. Singh, Deputy Director, PA (N) Dte., CWC, New Delhi.

**d) Central Ground Water Board**

21. Y. B. Kaushik, Scientist 'D', CGWB, R. K. Puram, New Delhi

S/Shri

**e) Ganga Flood Control Commission**

22. Bibhas Kumar, Chairman, GFCC, Patna

23. S. Masood Husain, Member (Coordination), GFCC, Patna

**f) State Government Officers**

**Uttara Pradesh**

24. Deepak Singhal, Principal Secretary, Irrigation Department, Govt. of Uttar Pradesh.

25. A. K. Ojha, Engineer-in Chief, Irrigation Department, Govt. of Uttar Pradesh.

**Uttarkhand**

26. Dr. S. S. Sandhu, Principal Secretary (Power), Govt. of Uttarkhand, Dehradun.

27. Shubash Kumar, Chairman, Uttarakhand Jal Vidyut Nigam Ltd., GMS Road, Maharani Bagh, Dehradun.

28. G. P. Patel, Managing Director, Uttarakhand Jal Vidyut Nigam Ltd., GMS Road, Maharani Bagh, Dehradun.

29. D. P. Jugran, Chief Engineer (Ganga Ghati), Irrigation Department, Govt. of Uttarkhand, Dehradun.

30. Sandeep Singhal, Director (Project), Uttarakhand Jal Vidyut Nigam Ltd., Dehradun.

31. Pankarj Kulshreshta, DGM, Uttarakhand Jal Vidyut Nigam Ltd. GMS Road, Maharani Bagh, Dehradun.

32. H. K. Katiyar, Executive Engineer, Garhwal Irrigation Division, Irrigation Department, Govt. of Uttarkhand, Pauri.