

No. 16/27/2013-PA (N)/

1657-1680

GOVERNMENT OF INDIA
CENTRAL WATER COMMISSION
PROJECT APPRAISAL ORGANIZATION

510(S), SEWA BHAWAN,
R. K. PURAM,
NEW DELHI-110 066
Date: 12.08.2013

Sub: 118th meeting of the Advisory Committee for consideration of techno-economic viability of Irrigation, Flood Control and Multipurpose Project proposals held on 30.07.2013.

Enclosed please find herewith a copy of the summary record of discussions of the above meeting held on 30th July 2013 in the Conference Room of Ministry of Water Resources, Shram Shakti Bhawan, New Delhi for information and necessary action.

Encl: As above

Vinay Kumar 12.08.2013
(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, (1st Floor) North Block, New Delhi.
3. Secretary, Department of Power, S.S. Bhawan, 11th Floor, New Delhi.
4. Secretary, Ministry of Environment & Forests, 4th 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. Secretary, Department of Irrigation & Flood Control, Government of Assam, Secretariat, Guwahati-781006.
19. Principal Secretary, Water Resources Department, Government of Bihar, Sinchai Bhawan, Patna.
20. Secretary, Irrigation & Public Health, Government of Himachal Pradesh, Sachivalaya, Simla-171002.
21. Principal Secretary, Irrigation Department, Government of Uttar Pradesh, Sachivalay Annexe, Lucknow-226 001 (U.P.)
22. The Secretary (Irrigation), Government of Uttarakhand, Sachivalaya, Dehradun - 248 001.
23. CE, FMO, CWC, New Delhi.

Copy for information to:

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

**Summary Record of Discussions of the 118th Meeting of the Advisory Committee on
Irrigation, Flood Control and Multi - Purpose Projects held on Tuesday, July 30, 2013 for
Consideration of Techno-Economic Viability of Water Resources Projects**

The 118th meeting of the Advisory Committee on Irrigation, Flood Control and Multi-purpose Projects of Ministry of Water Resources was held under the Chairmanship of Shri Alok Rawat, Secretary to the Government of India, Ministry of Water Resources on Tuesday, July 30, 2013 at 04:00 P.M. in the Conference Room of Ministry of Water Resources, Shram Shakti Bhawan, New Delhi. Names of members or their representatives and special invitees who attended the meeting and their Ministries / organizations are placed at **Annex-I**.

Shri Alok Rawat, 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 items. Member Secretary indicated that eleven schemes of flood management formulated by Governments of Assam, Bihar, Himachal Pradesh, Uttar Pradesh and Uttarakhand would be discussed in the meeting.

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

I. Confirmation of the Summary Record of Discussions held during 117th Meeting of the Advisory Committee.

The Summary Record of Discussions of the 117th meeting of the Advisory Committee of Ministry of Water Resources on Irrigation, Flood Control and Multi-purpose Projects were circulated vide letter No. 16/27/2013-PA (N)/866-93 dated 12.04.2013. It was informed by the Member-Secretary that observations of Ministry of Finance on the Summary Record as intimated vide their letter No. 15(3)/CAC/2010 dated 29.05.2013 have been replied vide CWC letter No. 16/27/2013-PA (N)/1463 dated 23.07.2013 and no further comments have been received. The Summary Record of Discussion of 117th meeting of the Advisory Committee was confirmed by the Committee.

II. Project Proposals Considered by the Advisory Committee

Initiating discussions on the project, Secretary to the Government of India and Chairman, Advisory Committee observed that the cost estimates of projects were based on Schedule of Rates (SoR) ranging from 2011 to 2013 and in some cases SoRs adopted for project proposals even within one State were not of the same year. After deliberations the Committee decided that appraising organizations namely, Central Water Commission and Ganga Flood Control Commission ought to persuade the Project Authorities to formulate the project proposals with cost estimate at current price level. Thereafter, Members and Special Invitees of the Advisory Committee discussed in detail the project proposals. Summary of discussions and decisions taken were as follows.

Bihar

- a) Scheme for Extension of embankment from Manoubar to Phuhia with protection work at vulnerable points and brick soling road on top of embankment in between 96.50 km to 110.48 km of right Kamla Balan Embankment in Darbhanga, Saharsa and Samastipur districts in Bihar (Flood Control, Estimated Cost Rs. 56.65 Crore at October 2012 Price Level):

The project proposal envisage extension in left over reach on the right side of Kamala Balan embankment from 96.50 km to 110.48 km (total length 13.98 km) with 125mm thick brick on edge in width of 3m on top and 30cm thick boulder pitching on slope of the embankment with launching apron 6m X 1.20m at 98.50 km (in a length of 105m), at 99.00 km (in a length of 135m) and 101.70km (in a length of 240m) for protection of flood prone area. The works of project would be completed in a period of 24 months. The scheme on completion would provide benefit to 0.46 lakh ha area and 2,25,000 population in Dharbhanga, Saharsa and Samastipur districts in Bihar.

During deliberation, it was noticed by members that no provision in respect of items other than A - Preliminary, B - Land, C - Works, L- Earthworks and O - Miscellaneous were indicated in the TAC Notes. It was confirmed by the State Authorities present that the provision in respect of other items were nil. After deliberations, the Committee accepted the proposal at a cost of Rs.56.65 crore at October 2012 price level (copy enclosed as Annex II).

- b) Bagmati Flood Management Scheme Phase-IV (a) in Bihar (Flood Control, Estimated Cost Rs. 73.45 Crore at October 2012 Price Level):

Bagmati Flood Management Project was accepted in principle by the Advisory Committee in its 91st meeting held in November 2007. While accepting the proposal, the Advisory Committee advised Ganga Flood Control Commission to approach the Committee from time to time for the balance work.

The present proposal envisaged construction of sluice / head regulator at Belwa near Dewapur, construction of retired embankment in a length of 1.732 km starting from 16.92km, revetment in a length of 360 m, restoration of 20 bed bars on the right bank and loosening of shoal in a length of 310m and width of 45m in front of Belwa village. The scheme on completion would provide benefit to 4.39 lakh ha area and 3,40,000 population in Sheohar district in Bihar. The construction period of the project is 24 months.

During deliberation, it was observed that the works of Phase-I and Phase-II were yet to be completed. Members underlined the need for proper monitoring of works of different phases including placing the information on web. Representatives of State Government confirmed that the works were in advanced stages of completion.

After discussion, the committee accepted the proposal for Rs. 73.45 Crore at October 2012 price level (copy enclosed as Annex II).

- c) Anti-Erosion work for Restoration of spur no. 2,3,4,5 and 7; boulder revetment at toe of embankment in upstream and downstream of spur no. 6 in a length of 800 m with 4 number of additional spurs in Ismailpur - Bindtoli Embankment on left bank of river Ganga in Bhagalpur district, Bihar (**Flood Control, Estimated Cost Rs. 38.83 Crore at October 2012 Price Level**):

The proposed scheme envisaged restoration of existing spurs Nos. 2,3,4,5 and 7 constructed along the left bank of river Ganga starting from the downstream of the Vikramshila bridge in 2009 which have been damaged in 2010, 2011 and 2012 floods. 4 new spurs and revetment in about 800 m length had also been proposed in the scheme. The scheme on completion would provide benefit to 42428 ha area and 2,00,000 population in Bhagalpur district in Bihar. The construction period of Project is 12 months.

During deliberation on the project, it was suggested by Principal Advisor Cost, Ministry of Finance that the life of concrete structures should be looked in to. Member D&R, CWC indicated that concrete structures with proper maintenance remain serviceable for a considerably long time. It was noted by the Committee that no concrete structure was proposed in the present scheme. Nevertheless, Chairman, Advisory Committee indicated that the matter could be examined by Central Soil & Materials Research Station for future guidance.

After discussion, the committee accepted the proposal for Rs.38.83 Crore at October 2012 price level (copy enclosed as **Annex II**).

- d) Bagaha Town Protection Scheme (Phase-II) on the left bank of river Gandak in West Champaran district, Bihar (**Flood Control, Estimated Cost Rs. 59.46 Crore at October 2012 Price Level**):

The river Gandak, downstream of Chhitauni Rail cum Road Bridge, gets divided in two streams called Piprasi channel and Bagaha channel. The Bagaha Channel after 2001 started becoming active and attacking the river bank. Government of Bihar formulated a scheme consisting of priority works as phase I of the scheme at an approved cost of Rs.48.91 which was accepted by the Advisory Committee in its meeting held in January 2012. The works of Phase I has now been completed except in a small reach of 125m.

The proposal of Bagaha Town Protection Scheme (Phase-II) envisaged revetment work downstream of Goriyapatti in a length of 1700 m and near Poor House in a length of 300 m with provisions of launching apron in crated box, boulder pitching on slope in crated panel with crated capping over geotextile filter, residual works of Phase I in a length of 195m with provision of launching apron and boulder pitching in crated panel and crated capping over geotextile filter. The scheme would prevent large scale bank erosion caused by the meandering tendency of the river Gandak, affecting 2500 ha area and 1,00,000 population at several locations in Bagaha town of Bihar. The duration of project is 12 months.

During deliberations, Principal Advisor Cost, Ministry of Finance mentioned about apparent inconsistency in the computation of benefits due to implementation of the project. Principal Secretary (WR), Government of Bihar assured to revisit the computation. After taking into considering the benefit accruing from project, it was found the scheme was techno-economically viable. Government of Bihar has formally submitted the computation of benefit and cost which has also been accepted by Ganga Flood Control Commission (copy enclosed as Annex III).

After discussion, the committee accepted the proposal for Rs. 59.46 Crore at October 2012 price level (copy enclosed as Annex II).

Uttarakhand

- e) Project for construction of studs and Marginal Bund for Protection of Population and Agricultural Land of Villages Situated at Banks of River Ganga in District Haridwar, Uttarakhand (Flood Control, Estimated Cost Rs. 34.85 Crore at 2012-13 Price Level):

The proposal envisaged construction of marginal embankment and anti-erosion works in form of spurs / studs to save population and agriculture land from inundation / erosion of river Ganga and one of its tributary namely river Rawason at four locations. The project would protect an area of 4344 ha and total population of about 12,360 in Haridwar district of Uttarakhand.

During deliberation, it was opined that three years of construction period of the project could be shortened. The representative of Government of Uttarakhand indicated that the project could be completed in 24 months. A formal communication in this regard dated 1.08.2013 received from Government of Uttarakhand, is placed at Annex-IV.

After discussion, the committee accepted the proposal for Rs. 34.85 Crore at 2012-13 price level.

Himachal Pradesh

- f) Swan River Flood Management project from Daulatpur Bridge to Gagret Bridge in main Swan River & all tributaries joining main Swan River from Daulatpur Bridge to Santokhgarh Bridge in District Una, Himachal Pradesh (Flood Control, Estimated Cost Rs. 922.48 Crore at March 2013 Price Level):

The proposal envisaged construction of embankments and anti-erosion works (total length 387.58 km) on both the banks of main Swan river from Daulatpur bridge (RD 58390) to Gagret bridge (RD 47500) as well as 55 number of tributaries joining the main Swan river on both banks. Apart from that, 22 RCC culverts and 1740 RCC pipe drainage structures have also been proposed. The project would provide benefit to 7163.49 ha area and 2,35,834 population in Una district of Himachal Pradesh. The project would be

completed in 48 months. CWPRS conducted the mathematical model studies of the project. Design and safety requirements as suggested by CWPRS have been taken in to account in the Detailed Project Report.

On the basis of hydraulic and morphological studies conducted by Central Water & Power Research Station, Pune (CWPRS), a scheme for flood protection between Jhalera Bridge (RD 19160) to Santokhgarh Bridge (RD2500) –Phase I was accepted by the Advisory Committee in its 72nd meeting held in January 2000. The works of scheme have been completed. Phase II between Gagret Bridge (RD47500) Jhalera Bridge has also been completed by the Government of Himachal Pradesh recently.

After discussion, the committee accepted the proposal for Rs. 922.48 Crore at March 2013 price level.

- g) Channelisation of Chhounchh Khad in Tehsil Indora, District-Kangra, Himachal Pradesh (Flood Control, Estimated Cost Rs. 179.59 Crore at March 2013 Price Level):

The scheme envisaged channelization of Chhounchh Khad by constructing embankments in a length of 34 Km on both the banks along with anti-erosion works in the river side to save the area from the fury of the flood of Chhounchh Khad. The project would provide benefit to 1740.30 ha area and 8175 population in Kangra district of Himachal Pradesh. The construction period of project was 48 months.

Chhounchh Khad which is 34km long does not have any flood protection works. Flash floods cause damage to agricultural land and public & private properties almost every year rainy season. Hydraulic and morphological studies for evolving suitable measures in the Chhounchh Khad were conducted by Central Water & Power Research Station. The proposal has been formulated duly considering the findings of study.

After discussion, the committee accepted the proposal for Rs. 179.59 Crore at March 2013 price level.

Uttar Pradesh

- h) Proposed Flood Protection works along left bank of river Yamuna in district Baghpat and Ghaziabad, Uttar Pradesh (Flood Control, Estimated Cost Rs. 45.18 Crore at October 2011 Price Level):

The scheme envisaged anti erosion works in the form of studs & dampners at five spots / places and strengthening of existing Alipur Marginal Bund at 6 spots (which have been damaged by the flood water during year 2010 & 2011) to save the area of about 5600 ha and 1,20,2000 population from the active erosion of River Yamuna in Baghpat and Ghaziabad districts of Uttar Pradesh.

It was indicated by the Member Secretary, Advisory Committee that a necessary pre-requisite for consideration of project was concurrence of State Finance Department. The

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representatives of State Government indicated that action had been initiated, which may take two more weeks.

In view of the proposal being incomplete; the Committee was constrained from considering the same for acceptance.

- i) Project for construction of Marginal Bund in Ramraj Khadar along right bank of river Ganga in the district of Muzaffarnagar, Uttar Pradesh (Flood Control, Estimated Cost Rs. 29.39 Crore at 2012 Price Level):

The proposal envisaged construction of 17 km long earthen embankment along the right bank of the river Ganga with provision of 4 pipe-inlets at suitable locations to facilitate drainage in Ramraj Khadar area situated in Jansath tehsil of Muzaffarnagar district to protect the agricultural land of about 7500 ha and 40,000 population.

It was indicated by the Member Secretary, Advisory Committee that a necessary pre-requisite for consideration of project was concurrence of State Finance Department. The representatives of State Government indicated that action had been initiated, which may take two more weeks.

In view of the fact the concurrence of State Finance to the proposal has not been furnished by project authorities, the Committee was constrained from considering the same for acceptance.

Assam

- j) Flood Management of River Dikrong along with river training works on both banks embankment in the Lakhimpur District, Assam (Flood Control, Estimated Cost Rs. 105.96 Crore at 2011-12 Price Level):

Effectiveness of existing embankments of river Dikrong has been deteriorating due to lack of repair, siltation of the river bed and consequential change in river behavior, change in flow pattern due to release of Ranga Nadi hydel project etc.

The proposed scheme envisaged raising & strengthening of existing embankment on both banks (including breach closure at Ahomgaon), construction of new embankment and dowel bund including RCC porcupine bars as pro-siltation device at different erosion affected reaches. The proposed scheme is likely to benefit an area of 9,998 ha and 2,10,700 population from the flood devastation of river Dikrong in Bihpuria Civil Sub-Division of Lakhimpur district, Assam. Construction period of project is 18 months.

Principal Advisor Cost, Ministry of Finance indicated that the finalized project cost was more than the cost of project submitted by project authorities. Member Secretary, Advisory Committee indicated that the increase in cost of the project was due to inclusion of cost of establishment. Representatives of Government of Assam confirmed that the

State Finance concurrence for revised cost had been obtained and circulated a copy of the communication in this regard (Annex V).

After discussion, the committee accepted the proposal for Rs. 105.96 Crore at 2011-12 price level.

- k) Flood Management of river Ranganadi along with river training works on both bank embankments in Lakhimpur district, Assam (Flood Control, Estimated Cost Rs. 361.42 Crore at 2011-12 Price Level):

The scheme envisaged raising & strengthening of existing embankment at vulnerable points on both banks, extension of L/B embankment and construction of dowel bund including Pre- Stressed Concrete porcupine bars as pro-siltation device at identified locations in erosion affected reaches which would provide benefit to an area of 21056 ha and 3,98,275 population in North Lakhimpur district, Assam. The construction period of project is 18 months.

Flood Management Organization, Central Water Commission indicated about certain typographical errors. A corrigendum was placed before the members and invitees for their information (copy placed as Annex VI).

Principal Advisor Cost, Ministry of Finance indicated that the finalized project cost was more than the cost of project submitted by project authorities. Member Secretary, Advisory Committee indicated that the increase in cost of the project was due to inclusion of cost of establishment. Representative of Government indicated that the State Finance concurrence for revised cost had been obtained and circulated a copy of the communication in this regard (Annex V).

After discussion, the committee accepted the proposal for Rs. 361.42 Crore at 2011-12 price level.

- iii. In the end, Secretary to the Government of India, Ministry of Water Resources and all members of the Committee thanked Shri Rajesh Kumar, Chairman, Central Water Commission, who is superannuating on 31.07.2013, for his valuable contribution for development of the water sector and contribution to the working of the Advisory Committee.

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

Annex - I

**List of Members / their representatives and Invitees who participated in the 118th Meeting of the
Advisory Committee on Irrigation, Flood Control and Multi-purpose Projects of Ministry of Water
Resources held on July 30, 2013**

Shri Alok Rawat, Secretary to the Government of India, Ministry of Water Resources **In Chair**

Members, Advisory Committee or their representatives / nominees

S/Shri

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|----|--|-------------------|
| 1. | Rajesh Kumar, Chairman, Central Water Commission | Member |
| 2. | S. K. Kohli, JS&FA, Ministry of Water Resources | Member |
| 3. | R. P. Mathur, Member (TT&WR) (Representing Chairman, Central Ground Water Board) | Member |
| 4. | Avinash Mishra, Joint Advisor (WR), Planning Commission New Delhi (representing Advisor, Planning Commission) | Member |
| 5. | Adul Islam, Principal Scientist, NRM Division (Representing Director General, Indian Council of Agricultural Research) | Member |
| 6. | J. S. Bawa, Director, (Nominee of Chairman, Central Electricity Authority) | Member |
| 7. | Jagat Vir Singh, Deputy Commissioner (NRM), (Nominee of Secretary, Ministry of Agriculture) | Member |
| 8. | Dr. P. V. Subba Rao, Scientist-B, (Nominee of Secretary, Ministry of Environment & Forests) | Member |
| 9. | Vinay Kumar, Chief Engineer, Project Appraisal Organization | Member- Secretary |

Special Invitees:

Ministry of Water Resources

10. Pradeep Kumar, Commissioner (SP)

Ministry of Finance

11. P. K. Aggarwal, Advisor (Cost)

Central Ground Water Board

12. Dr. S. K. Gupta, Scientist-D

Central Water Commission

13. A. B. Pandya, Member(D&R)
14. Devendra Sharma, Member(RM)
15. K. N. Keshri, Chief Engineer (FM)
16. C. P. Singh, Director, FM-I

17. Virendra Sharma , Director(HWF)
18. S. N. Pande, Director (PA - S)
19. Ajay Kumar, Director, PA(N)
20. Rajesh Yadav, Director, FMP
21. S. L. Meena , Deputy Director
22. A. K. Singh, Deputy Director

Ganga Flood Control Commission, Patna

23. Bibhas Kumar, Chairman
24. S. K. Sahu, Member

State Government Officers

Assam

1. Haren Kakati, Chief Engineer, Water Resources Department
2. Khanindra Barman, Assistant Executive Engineer, Water Resources Division

Bihar

3. Arun Kumar Singh, Principal Secretary, Water Resources Department
4. Indu Bhushan Kumar, Superintending Engineer, Monitoring
5. Dinesh Prasad, Executive Engineer, Flood Monitoring Division No-4
6. Uday Kumar, Resident Engineer, WRD Bihar

Himachal Pradesh

7. Vineet Chawdhary, Addl. Chief Secretary
8. R. K. Sharma, Engineer-in-Chief, Irrigation and Public Health
9. Parvez Akhtar, Chief Engineer, Irrigation and Public Health
10. R. K. Kenwer, Chief Engineer, Irrigation and Public Health
11. N. K. Trivedi, Superintending Engineer, Irrigation and Public Health
12. P. K. Sharma, Executive Engineer, Irrigation and Public Health
13. N. M. Saini, Executive Engineer, Irrigation and Public Health

Uttar Pradesh

14. P.N. Singh, Special Secretary, Irrigation Department
15. A. K. Gupta, Chief Engineer, Irrigation Department
16. T. K. Goyal, Superintending Engineer, Irrigation Department
17. Rajeshwar Singh Yadav, Executive Engineer, Head Works Division
18. O. P. Sharma, Executive Engineer, Irrigation Division

Uttarakhand

19. D. P. Jugran, Chief Engineer (Garhwal), Irrigation Department
20. Vinod Kumar Pant, S.E., Irrigation Works Circle
21. Arun Kumar Negi, Assistant Engineer, Irrigation Construction Division