

No. 16/27/2015-PA (N)/

1033-1060

**GOVERNMENT OF INDIA**  
**MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION**  
**CENTRAL WATER COMMISSION**  
(Project Appraisal Organization)

Room No. 510(S), Sewa Bhawan,  
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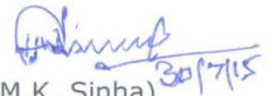
Date: **30.07.2015**

**Sub: 126<sup>th</sup> meeting of the Advisory Committee for consideration of techno-economic viability of major & medium irrigation, flood control and multi-purpose project proposals held on Thursday, 16<sup>th</sup> july, 2015 in New Delhi**

A copy of the Summary Record of Discussions of the subject meeting held on 16<sup>th</sup> July 2015 in New Delhi is enclosed herewith for information and further necessary action please.

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

Encl.: As above

  
30/7/15

(Dr. M.K. Sinha)  
Chief Engineer (PAO)  
& 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, IInd Floor, New Delhi.
4. Secretary, Ministry of Environment, Forests & Climate Change, 4<sup>th</sup> Floor, Prithvi Block, Indira Bhawan, Jor Bagh Road, New Delhi.
5. Secretary, Ministry of Tribal Affairs, Room No. 738, A-Wing, Shastri Bhawan, New Delhi.
6. Secretary, Department of Agriculture & Cooperation, Room No 126, 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), NITI Aayog, Yojana Bhawan, New Delhi.
11. Sr. Adviser (Power), NITI Aayog, Room No-107 Yojana Bhawan, New Delhi.
12. Joint Secretary & Financial Adviser, Ministry of Water Resources, RD & GR, Room No-401 S.S. Bhawan, New Delhi.

**Special Invitees:**

13. Member (WP&P), CWC, New Delhi.
14. Member (D&R), CWC, New Delhi.
15. Member (RM), CWC, New Delhi.
16. Chairman, GFCC, Sinchai Bhawan, Patna-800015.
17. Commissioner (State Projects), Room No-411, S.S.Bhawan, MoWR, RD & GR, New Delhi.
18. Commissioner (FM), NoWR, RD & GR, CGO Complex, Lodhi Road, New Delhi
19. Chief Advisor (Cost), Department of Expenditure, Ministry of Finance, Lok Nayak Bhawan, New Delhi
20. Principal Secretary, Water Resources Deptt, Govt of Maharashtra, Mantralaya, Mumbai-400032.
21. Principal Secretary, Department of Irrigation & Flood Control, Government of Assam, Secretariat, Guwahati-781 006.
22. Secretary, Irrigation Department, Govt. of Karnataka, MS building, 6<sup>th</sup> Floor, Karnataka Govt. Secretariat, Dr. Ambedkar Veedhi, Bangalore- 560001
23. Secretary, Public Works Department, Secretariat, Govt. of Tamil Nadu, Channai-9
24. Managing Director, Karnataka Neeravari Nigam Ltd., Bangalore, Karnataka
25. Secretary, Water Resources Deptt, Govt. of Bihar, Sinchai Bhawan, Patna-800015.
26. Chief Engineer (PPO), CWC, New Delhi.
27. Director, SM Directorate, CWC, The Summary Record of Discussions may please be uploaded in the CWC website.

**Copy for information to:**

28. Sr. PPS to Secretary (WR, RD & GR), Room No-407, Shram Shakti Bhawan, New Delhi

Government of India  
Ministry of Water Resources, River Development & Ganga Rejuvenation  
**Central Water Commission**

**SUMMARY RECORD OF DISCUSSIONS OF THE 126<sup>TH</sup> MEETING OF THE ADVISORY COMMITTEE FOR CONSIDERATION OF TECHNO-ECONOMIC VIABILITY OF MAJOR & MEDIUM IRRIGATION, FLOOD CONTROL AND MULTI-PURPOSE PROJECT PROPOSALS HELD ON THURSDAY, 16<sup>TH</sup> JULY, 2015 IN NEW DELHI**

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The 126<sup>th</sup> meeting of the Advisory Committee of Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, 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 Shashi Shekhar, Secretary to the Government of India, MoWR, RD&GR on Thursday, 16<sup>th</sup> July, 2015 at 11:00Hrs in New Delhi. The list of members of the Committee or their representatives / nominees and Special Invitees and Officers from various Ministries / Organizations and representatives of State Governments, who attended the meeting, is at **Annex-I**.

At the outset, the Secretary (WR, RD & GR) and Chairman, Advisory Committee welcomed the participants and asked the Member Secretary to take up the agenda items.


**(i) Confirmation of the minutes of 125<sup>th</sup> meeting of the Advisory Committee**

CE (PAO), CWC and Member Secretary informed that the 125<sup>th</sup> meeting of the Advisory Committee was held on 25.05.2015. Summary Record of Discussions was circulated vide letter No. 16/27/2015-PA (N)/666-702 dated 05.06.2015. There were some typographical errors in respect of Ghatal Master Plan in Paschim Medinipur and Purba Medinipur Districts of West Bengal and Dolaithabi Barrage Project, Manipur, which were corrected through corrigenda issued vide letter No. 16/27/2015-PA(N) dated 16.06.2015 and 15.07.2015 respectively. No further comment had been received on the Summary Record of Discussion and Corrigenda.

The Advisory Committee, accordingly, confirmed the Summary Record of Discussion of the 125<sup>th</sup> meeting, read with Corrigenda.

**(ii) Proposals deferred in previous meetings of the Advisory Committee**

- (a) Nandur Madhyameshwar Project, Maharashtra (Revised Cost, Major, Cost Estimate Rs. 1482.08 Cr at Price Level 2013-14)**
- (b) Lower Terna Project, Maharashtra (Revised Cost, Major, Cost Estimate Rs. 435.15 crore at Price Level 2011-12)**
- (c) Upper Pravara Project, Maharashtra (New, Major Irrigation, Cost Estimate Rs. 1992.98 Cr. Price Level 2013-14)**

  
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- (d) **Raising and strengthening of embankment with anti erosion measures on left bank of river Saralbhanga from Patgaon to Khalashi Assam District Kokrajhar, Assam (Estimated cost Rs 28.50 Cr; Price Level 2014-15)**
- (e) **Protection of Bramhaputra dyke at Amguri Pichala area from the erosion of river Brahmaputra, District Sonitpur, Assam (Estimated cost Rs. 53.36 Cr Price Level 2013-14)**

CE (PAO), CWC and Member Secretary informed that during previous, i.e., 125<sup>th</sup> meeting, above proposals were deferred for want of State Finance Concurrence (SFC) in respect of projects at (a) to (c) and proper SFC without any conditionality of central assistance in a specific ratio in respect of projects at (d) to (e). In spite of several reminders to the State Governments, the (proper) SFCs for these Projects had not been received. He, further, stated that during the previous meeting, the Committee felt that delay in receipt of SFC may necessitate cost revision and returning the project proposals to the State Government.

After some deliberations, the Advisory Committee decided that these Projects may be taken as 'deemed returned' with the proviso that the State Govt., if they desire, may resubmit the Project Proposal afresh with updated cost for techno-economic appraisal.

**(iii) Project Proposals considered by the Advisory Committee**

**A. Irrigation and Multi-purpose Projects**

1. **Formation of Flood Carrier Canal from Kannadian Channel to drought prone area of Sathankulam, Thisaiyanvilay by interlinking Tamirabarani, Karumeniyar and Nambiyar Rivers in Tirunelveli and Thoothukudi Districts, Tamil Nadu (Major, New, Estimated Cost Rs. 872.45 Crore (PL 2014-15)**

CE (PAO), CWC and Member Secretary informed that the proposal envisages diversion of surplus flood water of 78.30 MCM from Tamirabarani river to Karumeniyar and Nambiyar Rivers, which would benefit Tirunelveli and Thoothukudi Districts, Tamil Nadu with Annual Irrigation of 23040 Ha and drinking water provision to 50 villages. The proposal include improvement of Kannadian Anicut, increasing carrying capacity of Kannadian Channel, construction of 75 km long Flood Carrier Canal, 2 check dams, link canals, 3 railway bridges, etc. The cost of present proposal had been estimated to be Rs. 872.45 crore at 2014-15 Price Level with benefit cost ratio as 1.01, which is acceptable being in drought prone area.

The Secretary (WR,RD&GR) wanted to be assured of availability of surplus water and reason of continuing with paddy cultivation in a drought prone area. He emphasized need for promoting micro-irrigation and less water consuming crops in the region. CE (PAO), CWC explained that the net surplus water available for the Project has been computed to be 90.24 MCM at 75% dependability by the Hydrology (South) Directorate, CWC based on the data available for the period from 1990 to 2007. The State Govt. representative submitted that only stablisation of existing paddy cultivation

  
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in about one-fourth area is proposed. They undertook to promote micro-irrigation and committed to incorporate the same while preparing plans for Command Area Development works.

CWC has recommended the proposal for acceptance by Advisory Committee. After some deliberations, the Committee accepted the Project proposal with the condition that the State Govt. would promote micro-irrigation and incorporate the same while preparing plans for Command Area Development works.

**2. Karnataka Integrated and Sustainable Water Resources Management Investment Program (KISWRMIP), Tranche-2 (Major, ERM, Estimated Cost Rs. 3593.90 Crore (PL 2013-14))**

CE (PAO), CWC and Member Secretary informed that the proposal envisages strengthening of State and Basin Institutions for IWRM; modernisation of Irrigation System infrastructure and management in Vijayanagara Channel and Tungabhadra Canal Systems through canal lining, improving distribution system, installation of flow measurement & telemetry, Command Area Development works; operational Program Management Systems, Capacity building of Water Users Associations & Agricultural trainings, etc. As a result, annual irrigation would increase from present 2,49,007 Ha to 3,76,625 Ha. The cost of present proposal had been estimated to be Rs. 3593.90 crore at 2013-14 Price Level with benefit cost ratio as 1.79. In spite of several reminders, the State Government has not submitted the State Finance Concurrence till date.

The Secretary (WR, RD&GR) wanted to know the extent of water saving by which the annual irrigation would increase by about 50%. Director (IP-S), CWC explained that canal lining and improving distribution system is expected to increase overall water use efficiency approximately from existing 35% to 52%. In case of Vijayanagara channels, paddy cultivation is proposed to be reduced from 30.9% to 14.18% in kharif season and Sugarcane from 24.20% to 7.57%. On the other hand, Jowar is proposed to be increased from 5.6% to 38.95% in kharif season and groundnut from 14.50% to 23.12% in rabi season. The State Govt. representative assured that water delivery would be regulated for enforcing adherence to the proposed cropping pattern and would take all measures necessary to promote micro-irrigation and adoption of less water consuming crops.

The Secretary (WR, RD&GR) emphasized need to visit the project area for better appreciation of the proposal and to ascertain the feasibility of claims made by the Project Authority. Stressing on the need for promoting micro-irrigation and less water consuming crops in the region, he suggested exploring the possibility of appropriate incorporation in the Project. Agreeing with the suggestion, the State Govt. representative assured to implement these suggestions while preparing plans for Command Area Development works.

JS&FA, MoWR, RD & GR enquired about the norms for cost of irrigation development per Ha, cost of canal lining per square meter, etc. Member (D&R) & in-charge Chairman, CWC explained that these vary widely from State to State, region to region

  
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depending upon project features, use of lift irrigation, micro-irrigation, etc. As such, it might not be feasible to arrive at any norm for cost of irrigation development per Ha. However, cost of canal lining depends on the Schedule of Rates of the concerned State Govt. Director (EA), CWC was asked to brief the JS&FA, MoWR, RD & GR about the cost appraisal of the Project.

In view of the fact that the SFC has not been received till date, the Committee deferred the proposal to next meeting with the observation that delay in receipt of SFC may necessitate cost revision and returning the project proposals to the State Government.

## **B. Flood Control Projects**

### **1. Revised detailed project report for construction of embankments along river Jhim and Jamura (Adhwara Group) from Sonbarsa Bajar to Sonbarsa village in Sitamarhi District, Bihar (Estimated cost Rs. 134.20 Cr)**

CE (PAO), CWC and Member Secretary informed that the proposed scheme benefitting a population of 5.26 lakh and 17,400 ha of agricultural land, is a revised scheme, which was initially approved by Advisory Committee in its 102<sup>nd</sup> meeting held on 28.01.2010 for an estimated cost of Rs. 64.52 Cr. An amount of 3.0 Cr was released as first installment of Central Assistance for which utilisation certificate has already been submitted by the State Govt. The scheme has been examined in GFCC and found techno-economically viable at revised cost of Rs. 134.20 Cr at 2013-14 Price Level with Benefit Cost ratio of 1.10.

CE (PAO), CWC and Member Secretary informed that during the previous meeting, the Committee wanted to know reasons for more than four times increase in the provision for land from Rs. 22.70 Cr in year 2010 to Rs. 91.56 Cr in the present proposal. The Secretary (WRD), Govt. of Bihar informed that earlier estimate was made on adhoc basis. Now the provision has been made for actual requirement of about 360 acre as per the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.

The Secretary (WR, RD & GR) enquired about the sustainability of flood management through construction of embankments. He suggested instituting a study to look into the root causes of floods, sustainable means of flood management through dredging and appropriate use of dredged material along with the feasibility of living with the floods. Socio-economic aspects and livelihood issues should also be studied to arrive at optimal ways of flood management. Member (RM), CWC and Chairman, GFCC agreed with the proposal to institute a study in this regard. Agreeing with the suggestion, the Secretary (WRD), Govt. of Bihar stated that the present proposal is in line with the Master Plan prepared by GFCC. Considering that the Project is in progress, it might be desirable to complete the Project to derive benefits from investments already made.

The project has been recommended by GFCC for acceptance by Advisory Committee. After deliberations, the Advisory Committee accepted the proposal.



**2. Revised Bagmati Flood Management Scheme Phase-II, Bihar (Estimated cost Rs 1283.50 Cr)**

CE (PAO), CWC and Member Secretary informed that the proposal relates to revision in the cost estimate from Rs. 596.51 Cr accepted in 2011 to Rs. 1283.50 Cr. primarily due to increase under subhead Land (415%) and under subhead Works (471%). The Scheme would benefit a population of about 123.85 lakh and 3.13 lakh ha area in the districts of Sitamarhi, Muzaffarpur, Samastipur and Darbhanga. The scheme has been examined in GFCC and found techno-economically viable at a Benefit Cost ratio of 1.14.

CE (PAO), CWC and Member Secretary informed that during the previous meeting, issues of large increase in provisions for land as in the previous proposal and works were raised. The Secretary (WRD), Govt. of Bihar informed that reasons for large increase in provisions for land are the same as in case of previous Scheme. Large increase in provision for works is necessitated due to requirement of raising and strengthening of embankments as indicated by the Model studies by CWPRS, Pune. He, further, stated that the almost 60% works have been completed and therefore, it might be desirable to complete the Project to derive benefits from investments already made.

The Scheme has been recommended by GFCC for acceptance by Advisory Committee. The Committee, reiterating the need to institute a study to arrive at sustainable ways of flood management, accepted the proposal.

**3. Bagmati Flood Management Scheme Phase-III (a), Bihar (Estimated cost Rs 912.45 Cr)**

CE (PAO), CWC and Member Secretary informed that the proposed scheme envisaged raising and strengthening of existing Bagmati right embankment for Ch 123.52 km to 165.52 km (42 km), Ch 198.52 km to 246.02 km (47.5 km), and Ch 246.02 km to 264.02 km (18 km) in addition to anti flood sluices and allied works. The Scheme would benefit a population of about 12 lakh and 2.90 lakh ha area in the districts of Samastipur, Darbhanga, Khagaria and Begusarai. The scheme has been examined in GFCC and found techno-economically viable at a Benefit Cost ratio of 1.20 with estimated cost of Rs 912.45 Cr.

CE (PAO), CWC and Member Secretary informed that during the previous meeting, issues of large provisions for land and works, as in the previous proposal, were raised. The Secretary (WRD), Govt. of Bihar informed that reasons for large provisions for land and works are the same as in case of previous Scheme.

The Scheme has been recommended by GFCC for acceptance by Advisory Committee. The Committee, reiterating the need to institute a study to arrive at sustainable ways of flood management, accepted the proposal.

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

  
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**126<sup>TH</sup> MEETING OF THE ADVISORY COMMITTEE FOR CONSIDERATION OF TECHNO-ECONOMIC VIABILITY OF MAJOR & MEDIUM IRRIGATION, FLOOD CONTROL AND MULTI-PURPOSE PROJECT PROPOSALS HELD ON THURSDAY, 16<sup>TH</sup> JULY, 2015 IN NEW DELHI**

**LIST OF PARTICIPANTS**

- |  |                 |
|--|-----------------|
| 1. Shri Shashi Shekhar, Secretary, MoWR, RD & GR | <b>Chairman</b> |
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**Members, Advisory Committee or their representatives / nominees**

**S/Shri**

- |   |                  |
|---|------------------|
| 1. C.K. Agrawal, Member (D&R), and in-charge Chairman, CWC  | Member           |
| 2. Dr. D. Saha, Member CGWB, (representing Chairman, CGWB)  |                  |
| 3. Jagmohan Gupta, JS & FA, Ministry of Water Resources, River Development & Ganga Rejuvenation     | Member           |
| 4. Jaideep Singh Bawa, Chief Engineer (i/c) (representing Chairman, Central Electricity Authority)  | Member           |
| 5. Dr. M.V. Nemade, Director (Cost) (representing Secretary, Ministry of Finance)                   | Member           |
| 6. Avinash Mishra, Joint Advisor, NITI Aayog (representing Advisor (Water Resources))               | Member           |
| 7. Dr. P.V.S. Rao, Scientist-C, MoEF & CC (representing Secretary, MoEF & CC)                       | Member           |
| 8. Bhajan Lal, Assistant Commissioner (representing Secretary, Deptt. of Agriculture & Cooperation) | Member           |
| 9. Dr. M.K. Sinha, Chief Engineer, Project Appraisal Organization, Central Water Commission         | Member Secretary |

**MoWR, RD & GR/ Central Water Commission**

**S/Shri**

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| 1. Narendra Kumar, Member (RM) & Member (WP&P), CWC                      |
| 2. Pradeep Kumar, Commissioner (State Projects), MoWR, RD & GR           |
| 3. Navin Kumar, Chief Engineer (IMO) & Chief Engineer (PPO), CWC         |
| 4. Manish Tripathi, Director (Finance), MoWR, RD & GR                    |
| 5. Virendra Sharma, Director, CA(HWF), CWC                               |
| 6. Pramod Narayan, Director, Project Appraisal (S), CWC                  |
| 7. Vivek Pal, Director, Project Appraisal (N), CWC                       |
| 8. B.C. Vishwakarma, Director, IP(S), CWC                                |
| 9. R.P.S Verma, Director, EA, CWC  |
| 10. Vimal Kumar, Deputy Director, EA, CWC                                |
| 11. Sudhir Kumar, Deputy Director, Project Appraisal (South), CWC        |
| 12. A.K. Singh, Deputy Director, Project Appraisal (North), CWC          |
| 13. M.S. Saravana Kumar, Deputy Director, Project Appraisal (North), CWC |



## **Ganga Flood Control Commission**

### **S/Shri**

1. G.S. Jha, Chairman,
2. A. Parmesham, Member (C)
3. A.K. Sinha, Member (Planning)
4. Anil Jain, Director (C)

## **State Governments**

### **Bihar**

#### **S/Shri**

1. Dipak Kumar Singh, Secretary, WRD
2. Dinesh Prasad, Executive Engineer, FLM Division
3. Uday Kumar, Resident Engineer, WRD

### **Karnataka**

#### **S/Shri**

1. R. Rudraih, M.D., KNNL, Deptt. of Water Resources
2. Mallikarjun, Chief Engineer, KNNL

### **Tamil Nadu**

#### **S/Shri**

1. PL. Valliappan, Chief Engineer, WRD
2. A. Malaichamy, Superintending Engineer, WRD
3. R. Ramachandran, Executive Engineer, WRD
4. S. antony Anbarasan, Executive Engineer, WRD
5. A.S. Nagarajan, Assistant Executive Engineer, WRD