STANDING COMMITTEE ON WATER RESOURCES (2016-2017)



SIXTEENTH LOK SABHA

MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

DEMANDS FOR GRANTS (2017-18)

{Action Taken by the Government on the Observations / Recommendations contained in the Sixteenth Report (Sixteenth Lok Sabha) of the Standing Committee on Water Resources}

SEVENTEENTH REPORT



LOK SABHA SECRETARIAT

August, 2017 / Shravana, 1939 (Saka)

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(2016-2017)

(SIXTEENTH LOK SABHA)

MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

DEMANDS FOR GRANTS (2017-18)

{Action Taken by the Government on the Observations / Recommendations contained in the Sixteenth Report on Demands for Grants (2017-18) of the Ministry of Water Resources, River Development and Ganga Rejuvenation}

Presented to Lok Sabha on 10.08.2017 Laid in Rajya Sabha on 10.08.2017



LOK SABHA SECRETARIAT NEW DELHI

August, 2017 / Shravana, 1939 (Saka)

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CONTENTS

| | | | Page |
|-------------|------|---|-------|
| COMPOSITION | N OF | THE COMMITTEE (2016-17) | (iii) |
| INTRODUCTIO | NC | | (v) |
| CHAPTER I | - | Report | 1 |
| CHAPTER II | - | Observations / Recommendations which have been accepted by the Government | 27 |
| CHAPTER III | - | Observations / Recommendations which the Committee do not desire to pursue in view of the Government's replies | 59 |
| CHAPTER IV | - | Observations / Recommendations in respect of which replies of the Government have not been accepted by the Committee | 60 |
| CHAPTER V | - | Observations / Recommendations in respect of which final Replies of the Government are still awaited | 68 |
| | | ANNEXURES | |
| | | I. Office order dated 8 May, 2017 | 69 |
| | | II. Rehabilitation work Awarded Under DRIP Project | 70 |
| | | III. Minutes of the Tenth Sitting of the Standing Committee held on 08.08.2017 | 107 |
| | | IV. Analysis of Action Taken by the Government on the Observations/Recommendations contained in the Sixteenth Report (Sixteenth Lok Sabha) of the Committee | 109 |

COMPOSITION OF THE STANDING COMMITTEE ON WATER RESOURCES (2016-17)

Shri Hukum Singh - Chairperson

LOK SABHA

- 2. Shri Radheshyam Biswas
- 3. Shri Devusinh Jesingbhai Chauhan
- 4. Shri Sudhir Gupta@
- 5. Shri Prakash B. Hukkeri*
- 6. Shri B. Vinod Kumar
- 7. Shri Mohanbhai Kundariya#
- 8. Shri Maganti Murali Mohan
- 9. Shri Sidhant Mohapatra
- 10. Shri Abhijit Mukherjee
- 11. Shri Subhash Patel
- 12. Shri Sanjaykaka Ramchandra Patil
- 13. Shri Vijaysinh Mohite Patil
- 14. Smt. Aparupa Poddar
- 15. Shri Vishnu Dayal Ram
- 16. Shri S. P. Y. Reddy
- 17. Shri Ram Prasad Sarmah
- 18. Smt. V. Sathyabama
- 19. Shri Lallu Singh
- 20. Shri Liladharbhai Vaghela
- 21. Smt. Dimple Yadav

RAJYA SABHA

- 22. Sardar Balwinder Singh Bhunder
- 23. Shri Harshvardhan Singh Dungarpur
- 24. Mir Mohammad Fayaz
- 25. Dr. Bhushan Lal Jangde
- 26. Shri Sanjiv Kumar
- 27. Shri Hishey Lachungpa
- 28. Shri Ananda Bhaskar Rapolu
- 29. Shri Sanjay Seth
- 30. Shri A.V. Swamy
- 31. Shri Pradeep Tamta

[@] Nominated w.e.f. 19.10.2016.

^{*} Nominated w.e.f. 23.11.2016.

[#] Nominated w.e.f. 19.10.2016.

SECRETARIAT

1. Shri Shiv Kumar - Joint Secretary

2. Smt. Rita Jailkhani - Director

Shri Kushal Sarkar - Additional Director
 Smt. Shanta Banerjee Datta - Committee Officer

INTRODUCTION

I, the Chairperson, Standing Committee on Water Resources (2016-2017) having

been authorised by the Committee to submit the Report on their behalf, present the

Seventeenth Report on the Action Taken by Government on the Observations /

Recommendations contained in the Sixteenth Report (Sixteenth Lok Sabha) of the

Standing Committee on Water Resources on Demands for Grants (2017-18) of the

Ministry of Water Resources, River Development and Ganga Rejuvenation.

2. The Sixteenth Report of the Committee was presented to Lok Sabha and laid in

Rajya Sabha on 16 March, 2017. The replies of the Government to all the

recommendations contained in the Report were received on 20 June, 2017.

3. The replies of the Government were examined and the Report was considered

and adopted by the Committee at their sitting held on 08 August, 2017.

4. An analysis of the Action Taken by the Government on the Observations /

Recommendations contained in the Sixteenth Report (Sixteenth Lok Sabha) of the

Committee is given in Annexure-IV.

NEW DELHI;

04 August, 2017

13 Shravana, 1939 (Saka)

HUKUM SINGH, *Chairperson*,

Standing Committee on Water Resources

CHAPTER I

REPORT

This Report of the Standing Committee on Water Resources deals with the Action Taken by the Government on the observations / recommendations contained in their Sixteenth Report (16th Lok Sabha)) on the Demands for Grants (2017-18) of the Ministry of Water Resources, River Development and Ganga Rejuvenation", which was presented to Lok Sabha on 16 March, 2017. Action Taken Notes received from the Government in respect of all the 23 observations / recommendations of the Committee, have been categorized as under:

(i) Observations / Recommendations which have been accepted by the Government (Chapter II):

Para Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 17, 19, 20, 21, 22 and 23

(Total – 19)

(ii) Observations / Recommendations which the Committee do not desire to pursue in view of the Government's replies (Chapter III):

Para Nos. NIL

(Total – NIL)

(iii) Observations / Recommendations in respect of which replies of the Government have not been accepted by the Committee (Chapter IV):

Para Nos. 13, 15, 16 and 18

(Total - 04)

(iv) Observations / Recommendations in respect of which final replies of the Government are still awaited (Chapter V):

Para Nos. NIL

(Total – NIL)

- 2. The Committee will now deal with the action taken by the Government on some of the observations / recommendations in the succeeding paragraphs.
 - (A) Maximum use of Water through 'Per drop more crop'

Recommendation (Para No. 5)

3. The Committee noted that under the Command Area Development and Water Management (CAD&WM) programme, 'per drop more crop' was being emphasised through micro irrigation and Participatory Irrigation Management (PIM). They observed that Culturable Command Area (CCA) had been successfully doubled through micro irrigation in Karnataka. The Committee believed that there should be more emphasis on micro

irrigation to save water use in agriculture which is the largest (approximately 80 percent) user of water. In this regard, they appreciated the commitment of the Ministry to bring 72 lakh ha. area under micro irrigation out of which 7 lakh ha. was proposed to be covered by December, 2019. They further found that the Ministry had proposed to raise the existing target of mandatory 10 percent of area under micro irrigation in the CAD&WM scheme to 30 percent. However the Committee were of the view that all these measures were still in proposal stage and yet to be implemented. Therefore concrete action needed to be undertaken on an urgent basis so as to ensure efficient use of water in agriculture along with increase in the coverage of irrigated area. The Committee, therefore, recommended the Ministry to take appropriate measures in this matter at the earliest in consultation with the Ministry of Agriculture in a time bound manner to achieve the laudable objectives of "per drop more crop" under PMKSY. They desired to be apprised of the details of the action plan in this regard.

4. The Ministry in its action taken note has replied as follows: -

"Ministry has initiated the enhancement of Micro Irrigation with the Command Area Development and Water Management (CAD&WM) scheme. The approved guidelines for implementation of CAD works of 99 prioritised AIBP projects, with a provision of coverage of 10% of CCA in each project, have been circulated among States. Farmers can also avail the assistance under Per Drop More Crop beyond prescribed coverage under CAD&WM guidelines. Further, the draft EFC Note on new proposed 'Incentivisation Scheme for Bridging Irrigation Gap (ISBIG)' is under examination in Ministry of Finance. Ministry of Finance has advised to circulate the draft EFC Note to Ministry of Agriculture & Farmers' Welfare, Ministry of Rural Development and NITI Aayog, and this is under process.

Department of Agriculture Cooperation & Farmers Welfare is laying importance on efficient use of water for agriculture and emphasis for higher coverage of Micro Irrigation. During 2015-16, an area of 5.72 lakh ha. was brought under Drip and Sprinkler irrigation against the target of 5 lakh ha. During 2016-17 higher targets were set for Micro Irrigation and till the end of February, 2017 about 6.5 lakh ha. have been reported to have been covered under Micro Irrigation. It is expected to cover about 8 lakh ha. during 2016-17. Increasing trend for higher coverage of Micro Irrigation is being ensured and it is targeted to cover about 1.2 million ha. during 2017-18.

Besides, with a view to provide impetus to micro irrigation in the country, the Union Finance Minister, in his budget Speech 2017-18 has announced creation of a dedicated Micro Irrigation Fund to be instituted with NABARD with an initial corpus of Rs.5000 crore for encouraging public and private investments in modern irrigation methods such as sprinkler and drip irrigation as also water use enhancing practices to realize the objective of 'Per Drop More Crop'."

The Committee are happy to note that the Ministry has initiated measures to incentivize alternative methods of irrigation such as mandatory coverage of 10 percent of Culturable Command Area under micro irrigation in each of the 99 prioritised projects of Accelerated Irrigation Benefits Programme (AIBP). Further farmers have been allowed to avail the assistance under 'Per Drop More Crop' beyond mandatory coverage under the Command Area Development and Water Management (CAD&WM) guidelines. Also draft EFC note for 'Incentivisation Scheme for Bridging Irrigation Gap (ISBIG)' has been sent to the Ministry of Agriculture & Farmers' Welfare, Ministry of Rural Development and NITI Aayog as advised by the Ministry of Finance. The Committee further observe that the Department of Agriculture Cooperation & Farmers Welfare is emphasising greater coverage of micro irrigation with a target to cover about 1.2 million ha. area under it during the year 2017-18. They also note that a dedicated Micro Irrigation Fund has been proposed to be instituted with NABARD with an initial corpus of Rs.5000 crore for encouraging public and private investments in modern irrigation methods such as sprinkler and drip irrigation as also water use enhancing practices to realize the objective of 'Per Drop More Crop'.

However the Committee believe that large scale application of Micro Irrigation methods is yet to be achieved. In this connection, the Committee would like to know the outcome of mandatory coverage of 10 per cent of Culturable Command Area in the 99 Priority Projects indentified under the AIBP in terms of the extent of total area covered so far under Micro Irrigation in these projects. Further they also desire to be apprised of the total area covered under micro irrigation out of the targeted 1.2 million ha. during 2017-18. Having noted that the proposed ISBIG scheme is still at the conceptual stage i.e. the Expenditure Finance Committee's (EFC) Note for implementation of the ISBIG scheme is being discussed, they would like to recommend the Government to expedite the process to enable its implementation at the earliest. Further, although creation of a Micro Irrigation Fund with a corpus of Rs. 5000 crore was declared in the Budget 2017-18, the Ministry has not clarified as to how this fund is

being utilised/ proposed to be utilised for propagating Micro Irrigation in their reply. They, therefore, recommend the Ministry to clearly spell out the modus operandi for utilisation of the Micro Irrigation Fund. They would also like to be apprised of the details of investments made, if any and expenditures made so far from this fund to promote the Micro Irrigation methods.

(B) Central Ground Water Board

Recommendation (Para No. 6)

6. The Committee noted that Central Ground Water Board (CGWB), a multidisciplinary scientific Organisation had been entrusted with the responsibility to develop and disseminate technologies, monitor and implement national policies for the scientific and sustainable development and management of ground water resources. Further, the Central Ground Water Authority (CGWA) had been constituted as per the orders of the Supreme Court of India under sub section (3) of Section of the Environment (Protection) Act, 1986 - for the purpose of regulation and control of ground water management and development. They observed that allocation for CGWB had been raised by Rs. 68.20 crore to Rs. 240 crore in BE 2017-18 as compared to BE 2016-17 to provide for enhancement of salary and related component as a result of implementation of 7th Pay Commission Report and shifting of salary component from Plan to Non Plan allocation. They further observed that as on 31 January, 2017 the Board had incurred an expenditure of Rs. 161.27 crore. Further, the Board had so far compiled data on ground water resources over 8.89 lakh sq. Km. area, prepared aguifer maps for 5.20 lakh sq. Km. area, carried on 58 inspections of ground water in various States and Union Territories and prepared 113 Ground Water Year Book. They also noticed that the proposal for strengthening and restructuring of CGWB was being examined. However ground water situation in the country is at an alarming stage and despite all the measures and efforts made by the Board so far, it has not been able to effectively manage and regulate the use of ground water - which is fast depleting as a result of over drawl and contamination/ pollution.

As per the Ministry's own admission, there was a serious need for strengthening the Board both in terms of manpower and equipment as also closer coordination with the State Governments. Further State Ground

Water Departments also needed to be strengthened with domain specialists. The Committee, therefore, recommended the Ministry to impress upon the State Governments to take desired steps for strengthening the State Ground Water Departments in whose collaboration, the Board could effectively manage and develop ground water resources. The Committee were also concerned by the fact that the CGWA was not able to monitor and control the use of ground water by various industries as it was not equipped with adequate manpower to carry out these activities. The Committee were, therefore, of the view that there was an urgent need to overhaul the structure of CGWB so as to enable it to function in a more effective manner. Therefore, they recommended the Ministry to initiate immediate steps to restructure and modernise the Board to infuse more expertise by recruitment of specialists in the field and use of advance equipment. Further, the Committee were of the view that in order to strengthen monitoring and regulation by CGWA, it was imperative to completely separate CGWA from the CGWB (including the Management of Authority and Board) with clear demarcation of their activities to enable it to function in an independent manner. Therefore, the Ministry should take utmost measures to address the issue of inadequate manpower so as to ensure better monitoring of use of ground water and its contamination by the CGWA. They desired to be apprised of the details of action taken in this regard at the earliest.

7. The Ministry in its action taken note has replied as follows: -

"Ministry of Water Resources, RD & GR had constituted a Committee to revise the Model Groundwater Bill. The Committee in the revised Model Groundwater (Sustainable Management Bill), 2017 has emphasised that for effective implementation of the provisions of the ground water legislations in the State, the State Ground Water Departments need to be adequately strengthened. Therefore, the Committee had requested the Ministry to emphasise the issue of Strengthening the Groundwater Departments while circulating the Model Groundwater (Sustainable Management) Bill, 2017 to the States. The Model Bill has been submitted to NITI Aayog for concurrence. After getting the concurrence of NITI Aayog and approval of Minister (WR, RD&GR) it will be circulated to the States for adoption.

As regards restructuring of Central Ground Water Board (CGWB), Ministry of Water Resources, RD & GR had constituted a Committee on restructuring the Central Water Commission and Central Ground Water Board under the Chairmanship of Dr. Mihir Shah, former Member, Planning Commission. The Committee has recommended for restructuring of Central Ground Water Board and Central Water Commission in view of the present challenges in the Water Sector. The report of the Committee is under consideration of the Ministry.

As the Central Ground Water Authority (CGWA) has been constituted vide orders of the Hon'ble Supreme Court, legal opinion has been sought as to whether CGWA can be completely separated from CGWB. However, with a view to improve the functioning and performance of Central Ground Water Authority(CGWA), Ministry of WR, RD & GR has appointed separate Chairman for Central Ground Water Authority and Central Ground Water Board. Further, a Committee under Member Secretary, CGWA has been constituted to critically examine the guidelines and suggest suitable changes or modifications.

Ministry has directed that two Regional Directors of CGWB will assist Chairman CGWA in addition to their existing responsibilities. Deployments from CGWB on replacement basis by way of transferring officers who have completed 3 years tenure in CGWA is being considered."

The Committee note that the allocation for the Central Ground Water Board (CGWB) had been 8. raised by Rs. 68.20 crore to Rs. 240 crore in the Budget (2017- 18) mainly for the enhancement of salary and related components as per the recommendation of the 7th Pay Commission. The Committee further observe that the issue of strengthening of State Ground Water Departments has been emphasised in the revised Model Groundwater (Sustainable Management Bill), 2017, which has been submitted to NITI Aayog for their concurrence after which it will be circulated to the States for adoption. The Committee also observe that restructuring of CGWB is yet to be initiated as the Report of the committee on restructuring the Central Water Commission (CWC) and Central Ground Water Board (CGWB), headed by Dr. Mihir Shah is under consideration of the Ministry. With regard to separation of Central Ground Water Authority (CGWA) from CGWB, the Committee find that the Ministry has sought legal opinion on this issue as the CGWA was constituted vide orders of the Hon'ble Supreme Court. However, the Ministry has appointed separate Chairman for CGWA and CGWB to improve the functioning and performance of CGWA. The Committee also note that two regional directors of CGWB will assist the Chairman, CGWA - in addition to their existing responsibilities. Further CGWB will deploy officers who have completed 3 years tenure in CGWA by way of transferring them to CGWA. A committee has also been constituted under the Member Secretary, CGWA to critically examine the guidelines and suggest suitable changes or modifications.

While taking note of the measures initiated by the Ministry for better management of ground water resources, the Committee feel that fast implementation of required changes is the pivotal issue to be addressed. In this connection, the Committee are surprised to note that while the increased allocation of Rs. 240 crore for CGWB has been mainly kept for the enhancement of salary and related components, nothing has been mentioned with regard to allocation of funds for activities/works/programmes/schemes of the Board in the Ground Water Sector. They therefore desire that the Ministry should apprise the Committee about the expenditure made in this sector so far (head/activity/works/programmes/schemes wise). The Committee also desire that the Ministry should make utmost efforts to implement the revised Model Groundwater (Sustainable Management Bill), 2017. The Committee would like to be apprised of the developments so far made in this regard. Further keeping in view the alarming situation of ground water resources, the Committee are of the opinion that there is an urgent need to restructure and modernise the concerned regulatory bodies viz. CGWB and CGWA to prevent the excessive use of ground water resources. Having noted that the Report of the committee on restructuring the Central Water Commission (CWC) and Central Ground Water Board (CGWB) is still under consideration, the Committee express their anguish over the lackadaisical approach of the Ministry. They, therefore, recommend the Ministry to initiate measures for implementations of the recommendations contained therein expeditiously. The Committee are also disappointed to note that no concrete action has so far been taken to strengthen the manpower of the CGWA except for the proposed transferring of a few officers from CGWB. As CGWA has been entrusted with the crucial task of control, management and development of ground water resources by way of regulating its extraction and monitoring, the Committee recommend that strengthening its manpower should be given topmost priority. The Committee would like to be apprised of the measures taken/ proposed to be taken in this regard.

(c) National Water Mission

Recommendation (Para No. 13)

9. The Committee noted that the National Water Mission (NWM) was approved during the year 2011 with the main objective of conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources development and management. Implementation of various activities by NWM included carrying out Baseline studies, Formulation of State Specific Action Plans (SSAPs), HRD & Capacity Building activities, Establishment of demonstration projects and setting up of National Bureau of Water Use Efficiency (NBWUE). The Committee noted that as compared to the BE allocation of Rs. 25 crore for the year 2016-17, the RE allocation was Rs. 5 crore where as the actual utilisation was only Rs. 3.50 crore. About the reasons for under utilisation of resources, the Ministry had informed that the implementation of NWM through outsourcing and redeployment was a time consuming process and lack of adequate staff was a hindrance in achieving the goals envisaged. The Committee also noted that for the year 2017-18, Rs. 15 crore had been allocated and various activities were proposed to be taken up during this financial year which inter-alia included (i) Preparation of State Specific Action Plans for Water sector-9 States/UTs, (ii) Human Resource Development and Capacity Building-25 programmes, (iii) Baseline Studies-21 water resources projects, (iv) Implementation of Pilot/ Demonstration projects and Improving Water Use Efficiency Projects-5, (v) Organising Regional Conventions of Water User Associations, (vi) Undertaking NWM-Industry association collaborative activities to improve Water User Efficiency. Further, with regard to establishment of National Bureau of Water Use Efficiency (NBWUE), during examination of DFG (2013-14), the Committee had been informed that it would be operational in the year 2013-14, however, it was a matter of concern that even after more than 3 years the NBWUE was yet to be set up and made functional. While recollecting the apprehension made in the 3rd Report on DFG (2015-16), wherein it had been observed that with the slow pace of work, the actual implementation will not take place even after decades, the Committee deplored the lackadaisical attitude of the Ministry. The Committee, therefore, strongly

recommended the Ministry to form the NBWUE within this financial year as it would go a long way in meeting the objectives of National Water Mission (NWM). The Committee also recommended the Ministry to have a permanent solution for having adequate staff in the National Water Mission (NWM) directorate so that there was no further delay in achieving the goals of National Water Mission (NWM) due to informal arrangements, outsourcing and redeployment of staff.

10. The Ministry in its action taken note has replied as follows:-

"Observations of the Hon'ble Committee have been noted. The proposal is being reconsidered as part of Integrated Water Management Efforts. A holistic review of the scheme including in relation to National Bureau of Water Use Efficiency (NBWUE) is being undertaken as appraisal and approval process for the remaining period of 14th Finance Commission period.

Regarding recurring manpower problem at NWM, the Ministry is formulating a revised manpower / consultants policy for attracting the best talent adequately for the Mission with attractive packages. Once it is finalised, NWM will go for new selection process."

11. The Committee note with utter displeasure the concise reply furnished by the Ministry with regard to the implementation of the scheme of the National Water Mission (NWM). They note with great concern that the proposal for establishing the National Bureau of Water Use Efficiency (NBWUE) is being reconsidered as a part of Integrated Water Management Efforts and NWM scheme will be reviewed during appraisal and approval process in the remaining period of the 14th Finance Commission. The Committee further note that the Ministry is formulating a revised manpower / consultants policy for attracting the best talent for the Mission with attractive packages. The Committee find that the Ministry, instead of fast resolution of problems and making the scheme of NWM fully operational, is delaying the process by initiating a review of the scheme. They feel that with such state of affairs, their earlier apprehension regarding formation of National Bureau of Water Use Efficiency (NBWUE), stated in their third Report on Demands for Grants (2015-16) may become a reality. While disapproving such attitude on the part of the Ministry, the Committee reiterate that the setting up of NBWUE should be given top priority and the Ministry should make sincere efforts to form it at the

earliest. They would like to be apprised of the details of action taken in this regard. Further the revised manpower policy should be finalised at the earliest to resolve the issue of staff crunch at the NWM directorate - which has hindered the achievement of the goals of NWM.

(D) River Basin Management

Recommendation (Para No. 14)

12. The Committee noted that the scheme of River Basin Management (RBM) consisted of two broad components namely Investigation of Water Resources Development Scheme (IWRDS) and Brahmaputra Board. IWRDS was being implemented by (a) National Water Development Authority (NWDA) and (b) Central Water Commission (CWC). The NWDA had completed 137 water balance studies of basins/sub-basins and catchments up to 71 diversion points, toposheet studies of 74 reservoirs and of 37 link alignments, storage capacity studies of reservoirs, 32 pre-feasibility studies, 16 feasibility studies and 4 Detailed Project Report (DPR) towards the implementation of inter-linking of rivers in the country. In addition, 36 Pre-Feasibility Report and 2 Detailed Project Report had also been completed for Intra-State Link proposals of State Government. Responding to a specific query regarding problems encountered in implementation of activities / works under this scheme, the Ministry had informed that the most important challenge in the Inter Linking of Rivers (ILR) Programme was achieving consensus of concerned State Governments on various link projects. Government was, however, pursuing the Interlinking of River programme in a consultative manner and had called Special Committee on ILR chaired by Hon'ble Minister (WR,RD&GR). Views and observations on the Interlinking of Rivers Programme had been received from various State Governments, experts and other stakeholders in the meetings of the Special Committee for Interlinking of Rivers (ILR). This special Committee would consider all such observations appropriately while planning and formulating the ILR projects. While acknowledging the larger vision of inter linking of rivers the Committee recommended the Ministry to come out with the Report of Special Committee on ILR at the earliest. The Committee desired to be apprised about the action taken on the recommendations of the aforesaid Special Committee on ILR.

13. The Ministry in its action taken note has replied as follows:-

"Under the National Perspective Plan (NPP) for water resources development through inter basin transfer of water prepared by this Ministry, NWDA has identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for preparation of Feasibility Reports (FRs). After survey and investigations, FRs of 14 links under Peninsular Component and 2 links in the Himalayan component have been prepared.

Based on the concurrence of concerned States, four priority links for preparation of Detailed Project Reports (DPRs) have been identified viz; Ken-Betwa link project Phase-I & II, Damanganga-Pinjal link, Par-Tapi-Narmada link and Mahanadi-Godavari link. The DPRs of Ken-Betwa Phase I & II, Daman-Ganga-Pinjal, Par-Tapi-Narmada have been prepared and shared with the respective States. The DPR of Ken-Betwa link project Phase-I has been accepted by the Advisory Committee of MoWR, RD & GR and its statutory clearances have been offered. The Techno-economic clearance of the DPR of Ken-Betwa Link Phase-I has been accorded in July, 2016 subject to environment, wildlife and forest clearances from MoEF & CC. Further, as the Ken-Betwa link project was declared as National Project in 2009 and the project will benefit the drought prone areas of Bundelkhand region in Uttar Pradesh and Madhya Pradesh, a cabinet proposal to consider funding pattern of 90% by the Central Government and 10% by the State Governments against prevailing sharing pattern of 60:40 between Centre and States is being pursued by the Ministry.

As directed by the Hon'ble Supreme Court vide its judgment dated 27.02.2012 in the Writ Petition (Civil) No. 512 of 2002 on 'Networking of Rivers' along with Writ Petition No. 668 of 2002, a Committee called "Special Committee on Interlinking of Rivers" has been constituted under the Chairmanship of Hon'ble Minister of Water Resources for the implementation of Interlinking of Rivers programme vide Gazette Notification dated 23rd September, 2014.

Twelve meetings of the Special Committee for Interlinking of Rivers (ILR) have been held so far and the last meeting was held on March 08, 2017 at New Delhi. Irrigation/Water Resources Ministers of various States along with their Secretaries attended the meetings. Views and observations on the Interlinking of Rivers Programme have been received from various State Governments, experts and other stakeholders in the meetings of the Special Committee for Interlinking of Rivers (ILR). The Special Committee is considering all the suggestions/observations appropriately while planning and formulating the ILR projects.

The Committee, after considering the views of all the stakeholders, is proceeding ahead to expedite the objectives of the interlinking of rivers as per terms of reference. Vigorous efforts have been taken up for generating consensus with development of alternative plans and also setting out road maps for implementation of mature projects.

In the first meeting of the Special Committee for Interlinking of Rivers (ILR) held on 17.10.2014, it was decided to constitute four specific sub-committees:

- i. Sub-committee for comprehensive evaluation of various studies/reports (Sub-Committee I). Seven meetings of Sub-committee-I have been held so far. The last meeting was held on 26.07.2016:
- ii. Sub-Committee for system studies for identification of most appropriate alternate plan (Sub-Committee II). Ten meetings of Sub-committee-II have been held so far. The last meeting was held on 03.03.2017;

- iii. Sub-Committee for Restructuring of National Water Development Agency (Sub-committee III) has completed the assigned task and submitted its report to the Ministry of Water Resources, RD&GR on 21.09.2015; and
- iv. Sub-committee for consensus building through negotiations and arriving at agreement between concerned States (Sub-committee IV). Two meetings of Sub-committee IV have been held so far and the last meeting was held on 30.10.2015.

The Special Committee for Interlinking of Rivers (ILR) has not submitted any report so far. However, the status on progress report and constitution of "Special Committee on Interlinking of Rivers" in compliance of Hon'ble Supreme Court judgment dated 27.02.2012 in the matter Writ Petition (Civil) No. 512 of 2002: 'Networking of Rivers' along with Writ Petition No. 668 of 2002 were reviewed by the Cabinet in the meetings held on 18.11.2015 and 15.11.2016.

Constitution of Task Force for Interlinking of Rivers (2015)

The Union Cabinet while approving the constitution of Special Committee for ILR in its meeting held on 24th July, 2014 directed that a committee comprising of experts be constituted to look into the issues relating to inter linking of rivers. In compliance to the direction of Union Cabinet, MoWR, RD & GR vide O.M. dated 13th April, 2015 has constituted a Task Force for Interlinking of Rivers (TF-ILR) under the Chairmanship of Shri B.N.Navalawala, Chief Advisor, MoWR, RD&GR. Task Force will assist the Special Committee for ILR and MoWR, RD & GR regarding the implementation of ILR Programme.

Seven meetings of the Task Force have been held so far and last meeting was held on 11.05.2017."

14. The Committee observe that National Water Development Agency (NWDA) has identified 30 links

- 16 under Peninsular Component & 14 under Himalayan Component for preparation of Feasibility
Reports (FRs) under the National Perspective Plan (NPP) for water resources development through inter
basin transfer of water. They further note that after survey and investigations, FRs of 14 links under
Peninsular Component and 2 links in the Himalayan component have been prepared. Further four
priority links for the preparation of Detailed Project Reports (DPRs) have been identified viz; Ken-Betwa
link project Phase-I & II, Damanganga-Pinjal link, Par-Tapi-Narmada link and Mahanadi-Godavari link
based on the concurrence of concerned States. They also note that the DPR of Ken-Betwa link project
Phase-I has been accepted by the Advisory Committee of MoWR, RD & GR and its statutory clearances
have been offered. However the Committee are surprised to note that though a Committee called
"Special committee on Interlinking of Rivers" had been constituted under the Chairmanship of Hon'ble
Minister of Water Resources, River Development and Ganga Rejuvenation for the implementation of

Interlinking of Rivers programme, in pursuance of the directions of the Hon'ble Supreme Court, no Report has so far been submitted by the Special Committee so far. They further observe that the Union Cabinet while approving the constitution of Special Committee for ILR, had constituted a Task Force for Interlinking of Rivers (TF-ILR) to look into the issues relating to inter linking of rivers which has held seven meetings so far. Keeping in view the importance of inter linking of rivers in addressing the issues of water deficient regions of the country, the Committee desire that the Government should complete the consultations and deliberations with the concerned States in a time bound manner and come out with a target oriented action plan for implementation of inter linking of rivers projects.

(E) Formation of River Basin Authority

Recommendation (Para No. 15)

15. The Committee noted that the Ministry of Water Resources, River Development and Ganga Rejuvenation had constituted a Drafting Committee under the Chairmanship of Justice T.S. Doabia (Retd.) to study the activities that are required for optimum development of river basin and changes required in the existing River Board Act, 1956 for achievement of the same. The Committee had submitted its Report in November, 2012 and has prepared a Draft River Basin Management (RBM) Bill. The Draft RBM Bill proposes to establish a River Basin Authority for regulation and development of waters of an Inter-State River Basin or any specified part thereof and further makes it clear that different Authorities shall be established for different Inter-State River Basin. The Bill also makes provision for the creation of a separate River Basin Authority for a subbasin within an Inter-State River Basin. The Committee had been informed that the draft River Basin Management Bill was under examination by the MoWR, RD and GR - in consultation with different stakeholders. While deploring the delay made in formation of River Basin Authority, the Committee strongly recommended to establish the same at the earliest.

- 16. The Ministry in its action taken note has replied as follows:-
 - "A Committee of 'Group of Officers' has been constituted by the Ministry of WR,RD & GR to examine in detail the report of Doabia Committee and to suggest possible changes required in the draft River Basin Management Bill to make it implementable. This Committee has held one meeting so far."
- 17. The Committee note that the Ministry has constituted a Group of Officers to examine in detail the Report of Justice T.S. Doabia Committee and suggest changes in the River Basin Management Bill drafted by the said committee. However the Committee express their displeasure over the fact that despite a Report about the formation of River Basin Authority and formulation of Draft River Basin Management Bill, the Ministry has not been able to take any concrete steps for establishing the River Basin Authorities which has a significant role to play in integral management of river water resources. Taking note of the fact that the proposed formation of River Basin Authority is still being studied, the Committee again recommend the Ministry to wind up the process of deliberation and consultation on the draft River Basin Management Bill at the earliest in order to facilitate an early formation of River Basin Authorities for each major river of the country. They further desire to be apprised of the findings of the Group of officers constituted for the purpose and action taken thereon.

(F) Ground Water Management and Regulation

Recommendation (Para No. 16)

18. The Committee observed that the scheme of Ground Water Management and Regulation has been implemented during XII Plan with four components of National Aquifer Management (NAQUIM), technological upgradation, particularly Ground Water Management and ongoing activities. They found that an allocation of Rs. 500 crore had been made in the year 2017-18 for this Scheme despite actual expenditure of only Rs. 95.63 crore in the previous year. Although main reasons for underutilization of funds were stated to be the constraints in outsourcing the work of Data Generation for aquifer mapping last year, the Committee were concerned to

note that the Ministry had not been able to utilise the budgetary allocation under this Scheme, as was evident from the trend of allocation and expenditure of the last five years. They observed that an internal mechanism had been proposed to be set up to monitor physical and financial progress of various activities/ works during the current year, besides preparation of standard documents. They also observed that proposed work components for the year 2017-18 included Data Generation for aguifer mapping, which could not be completed in previous While collection of data was an important input for identifying the dimensions of the problem, the Committee were perturbed to find that no tangible benefit had been noticed on the ground to improve the water availability in over exploited blocks / dark zones of the country. The Committee noticed that the data generated will be used for identification of areas for inclusion under the National Ground Water Improvement Scheme, which was proposed to be implemented with a corpus of Rs. 6000 crore. Under this scheme measures were proposed to be taken to recharge the ground water in areas where there was a possibility to do the same and alternative sources of drinking water would be provided to those areas where the ground water quality had been severely affected due to underground pollution and contamination. The Committee were of the view that despite lot of grandiose schemes being implemented/ proposed to be implemented and crores of rupees being spent, the ground water situation had not improved. Rather the problem had gone from bad to worse. Therefore, the Committee were of the view that supply of alternative source of drinking water should be given top priority and immediate measures should be taken towards this in coordination with the Ministry of Drinking Water and Sanitation. The Ministry could also involve the Members of Parliament and State Legislatures in coordinating activities of various Departments to help the people in the affected areas such as in West Bengal, Bihar, Western Uttar Pradesh, Karnataka and Andhra Pradesh, etc. The Committee, therefore, recommended the Government to take target oriented measures in this regard and apprise them of the details of such action plan within three months of presentation of this report.

19. The Ministry in its action taken note has replied as follows:-

"In order to ensure sustainable withdrawal and effective utilization of ground water, including for drinking water supply, and its management a committee has been constituted with Secretary (WR, RD&GR) as convenor and Secretaries of Ministries of Rural Development, Drinking Water and Sanitation, Panchayati Raj, Agriculture & Farmers Welfare and Environment, Forest and Climate Change.

Further, Central Ground Water Board is actively involved in the State Government endeavours for supply of drinking water. Statewise details are as follows;

West Bengal

Central Ground Water Board is constantly maintaining liaison with the different departments of Central and State Govt., Universities, Municipalities and NGOs' etc. in West Bengal for providing technical guidance, interchanging ideas regarding ground water related problems and comments on proposed sources of Public Health Engineering Department (PHED) for water supply in rural areas. Central Ground Water Board was/is specially associated with the following Committees specially related to supply of drinking water -

- State Level Scientific Source Finding Committee for Adequacy of Source and State Level Project/Scheme Sanctioning Committee. Different drinking water supply schemes are approved by this committee.
- Core Committee of Arsenic Task Force, Govt. of West Bengal.
- Committee of Arsenic Task Force, Kolkata Municipal Corporation, Kolkata.
- Core Committee of Fluoride Task Force, Govt. of West Bengal.
- Drinking Water Scarcity in drought affected areas of West Bengal.

Bihar

Central Ground Water Board is actively involved in the various drinking water supply activities of the States like 'Har Ghar Nal Ka Jal' PHED etc. Besides, Central Ground Water Board has constructed 28 high discharge arsenic free deep tubewells in arsenic affected areas of Bihar and handed over to PHED, Govt. of Bihar. CGWB also envisaged constructing 40 deep tubewells in arsenic affected Brahmpur block, Buxar district, Bihar for drinking purposes which will be handed over to PHED, Govt. of Bihar.

Karnataka

Regional Director, CGWB is the Chairman of the State Technical Agency (STA) which is responsible for clearing the technical aspects of the Schemes for Drinking Water Supply from surface water sources for piped water supply schemes in areas where there is short supply in ground water, and quality issues.

Further, Regional Director, CGWB, SWR, Bengaluru is also a Member of the SLSSC (State Level Scheme Sanctioning Committee). SLSSC is clearing the schemes received from STA after technical clearance. Principal Secretary, Rural Development & Panchayat Raj

Department (RD&PR), Govt. of Karnataka is heading the SLSC. A representative from Ministry of Drinking Water and Sanitation, Govt. of India is also a Member of SLSSC, apart from members from other State and Central Departments.

Andhra Pradesh

Regional Director, Central Ground water Board is a Member of the State Level Scheme Sanctioning Committee (SLSSC), which approves all the drinking water Schemes of the State. Principal Secretary to the Government, Panchayatraj & Rural Water Supply is the Chairman of the Committee and Dy. Adviser (Water Quality), Ministry of Drinking Water & Sanitation, Government of India along with other Expert Members from line Departments are Members of the Committee.

As per the priority of the Government for sanction of Schemes in cluster of Over-Exploited and quality affected areas, Multi-Village Supply (MVS) schemes from transporting water from major reservoirs/surface sources are being considered.

In all the meetings, the Board is laying stress on sustainability of drinking water Schemes through construction of appropriate rain water harvesting structures. Further, as a Member of the Committee, the Board is involved in deliberations and suggestions in finalization of the drinking water schemes being implemented in the State from time to time.

Western Uttar Pradesh

Central Ground Water Board, Northern Region, is one of the members of State Level Scheme Scanning Committee (SLSSC) for National Rural Drinking Water Supply Programme (NRDWSP) constituted under the Chairmanship of the Principal Secretary, Rural Development, Government of UP. The meetings of the Committee for approval of various drinking water supply schemes in the State are convened regularly by the Executive Director, State Drinking Water and Sanitation Mission and attended by officers of CGWB. Representative of CGWB provide required technical inputs in respect of schemes discussed during the meetings.

Copy of the Ground Water Year Books issued by CGWB, Northern Region annually is provided to UP Jal Nigam, the Department responsible for supply of drinking water in Uttar Pradesh State. In addition, copies of the compiled data of Ground Water monitoring being carried out by CGWB 4 times a year are also provided to UP Jal Nigam. The Department utilizes the data in preparing its water supply schemes."

20. The Committee note that the Ministry has again formed a committee for the sustainable withdrawal and effective utilization of ground water. They further observe the works/activities being undertaken/carried out by the Central Ground Water Board (CGWB) in the States of West Bengal, Bihar, Karnataka, Andhra Pradesh and Western Uttar Pradesh for addressing the ground water issues. However the Committee cannot help to point it out that these States are still reeling under the severe

problem of contamination of ground water in the absence of alternative sources of drinking water. The Committee find that despite various measures taken by the Ministry/CGWB to alleviate the water related woes, the ground reality continues to be pathetic and no tangible impact has been seen so far. They are further distressed to note that the reply furnished by the Ministry does not indicate any measure for involving local representatives viz. Members of Parliament and State Legislatures in coordinating activities of various Departments to help the people in the affected areas. The Committee therefore reiterate that the Ministry should devise immediate, target oriented measures to resolve the problem of ground water and its contamination. They would also like to be apprised of the details of works undertaken and expenditure made under the scheme of Ground Water Management and Regulation till date and its State-wise impact made/likely to be made in the affected areas of the country.

(G) Namami Gange –National Ganga Plan

Recommendation (Para No. 18)

21. The Committee observed that basic thrust of 'Namami Gange' programme, set up during the Union Budget 2014-15 to undertake Ganga rejuvenation and conservation by amalgamating all the existing measures by 2020, was abatement of pollution in the river through measures such as interception, diversion and treatment of waste water, rehabilitation and amalgamation of existing Sewage Treatment Plants (STPs), Common Effluent Treatment Plants (CETPs) for major industrial clusters, interventions on rural sanitation, solid waste / pious refuse management, sewerage network, etc. They noted that under this programme, a total expenditure of Rs. 2440.50 crore had been made in the last three years. Further total expenditure by National Mission for Clean Ganga was Rs. 4,321.05 crore, out of Rs. 20,000 crore approved by the Cabinet. While appreciating the ambitious programme of Namami Gange, which aimed at cleaning and rejuvenating Ganga by December, 2020, the Committee were concerned to note that the implementation of this programme had not been able to keep pace due to changes in policy with regard to preparation of Detailed Project Reports (DPRs) by States and model for implementation of projects. Now the DPRs had been revised with the main focus on Infrastructure

and Development and Sewage Treatment Plants (STPs) - which would be implemented through hybrid annuity based public private partnership (PPP) model. The Committee found that currently 5 CPSUs had initiated Condition Assessment and Feasibility Study (CA&FS) for all 118 towns. However, the details of CPSUs entrusted with this work had not been furnished. The Committee therefore, desired to be apprised of the details of 5 Central Public Sector Undertakings (CPSUs), which had been selected to prepare CA and FSs including the status of such studies and further preparation of DPRs. They would also like to know the number of STPs selected on hybrid annuity based PPP model and the status of work on these projects.

22. The Ministry in its action taken note has replied as follows:-

"Five CPSUs, namely Water & Power Consultancy Services (WAPCOS), Engineers India Limited (EIL), National Building Construction Corporation (NBCC), National Project Construction Corporation (NPCC) and Engineering Project India Limited (EPIL) have been engaged for preparation of condition assessment and feasibility studies. Initially 113 towns were allotted to them, which has been reduced to 108. Among them CA&Fs reports for 106 towns have been received. CPSU wise distribution of the CA&FS reports are detailed below:

| | NATIONAL MISSION FOR CLEAN GANGA (CPSU WISE) Abstract of 118 Towns identified Along the River Ganga | | | | | | | | | | |
|-------|--|------------------------|----|----|-----|-------|-------|-----|----------------------------|----------|------|
| S. | State | Original Class of Town | | | | Total | CA&FS | Pen | | | |
| No. | | Work Order | I | II | III | IV | V | VI | Towns After Revision | Received | ding |
| 1 | WAPCO S | 13 | 0 | 0 | 3 | 3 | 3 | 4 | 13 | 13 | 0 |
| 2 | EIL | 38 | 16 | 12 | 8 | 2 | 0 | 0 | 38 | 38 | 0 |
| 3 | NBCC | 19 | 15 | 0 | 4 | 0 | 0 | 0 | 19 | 19 | 0 |
| 4 | NPCC | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 5 | EPIL | 42 | 28 | 7 | 2 | 0 | 0 | 0 | 37 | 35 | 2 |
| Total | | 113 | 59 | 20 | 17 | 5 | 3 | 4 | 108 | 106 | 2 |

Till date following STP projects have been taken up in Hybrid Annuity based PPP model:

Two STPs in Haridwar with a total capacity of 82 MLD (68 MLD for Jagjeetpur and 14 MLD at Sarai); AA&ES issued, tenders invited. Last date of tender submission is 2nd June 2017.

One STP at Ramana Varanasi, with a capacity of 50 MLD; AA&ES issued, tenders invited, last date of tender submission is 29th May 2017.

One STP at Mathura, with capacity of 92 MLD is being forwarded for Third Party Appraisal.

Few more projects will also be taken up under hybrid annuity based PPP model based upon response received for the above mentioned projects."

23. The Committee note that 5 Public Sector Undertakings (PSUs) viz. Water & Power Consultancy Services (WAPCOS), Engineers India Limited (EIL), National Building Construction Corporation (NBCC), National Project Construction Corporation (NPCC) and Engineering Project India Limited (EPIL) have been assigned the task of preparing Condition Assessment and Feasibility Studies (CA&FS) in respect of 108 towns. CA&FS reports have been received in case of 106 towns. However they note with utmost concern that so far only 4 Sewage Treatment Plant (STP) projects (2 at Haridwar, 1 at Varanasi and 1 at Mathura) have been taken up. They further note that few more projects are expected to be taken up under hybrid annuity based Public Private Partnership (PPP) model. However keeping in view the slow pace of work, the Committee are constrained to believe that the targeted completion of cleaning of Ganga river by December, 2020 may remain unaccomplished. The Committee, therefore, desire that the Ministry should fast track the projects under hybrid annuity based PPP model to ensure cleaning of the river expeditiously. They would also like to be apprised of the details of the total expenditure incurred by the National Mission for Clean Ganga so far (head wise) and outcome achieved thereby.

(H) Installation of STPs

Recommendation (Para No. 20)

24. The Committee further observed that establishment of STPs had been targeted to be completed by September, 2018 as per the milestones set under the Namami Gange programme. But as of now, sewage treatment capacity of only 1,017 mld. had been created and further treatment capacity of 1,187 mld was under construction / at approval stage, leaving a gap of 2,618 mld. The Committee had serious apprehension that corresponding capacity could be created in the remaining one and half years. They, therefore, recommended that as resolved by National Ganga River Basin Authority (NGRBA), the work of setting up STP projects should

be completed expeditiously to meet the target of cleaning Ganga by 2020. In order to achieve this, the Committee recommended that installation of STPs should be closely monitored with monthly submission of progress report based on actual ground level implementation progress town wise for all the 118 towns situated on the bank of river Ganga. In addition to taking up establishment of STPs on a war footing manner, the Committee also emphasised the need to focus on minimizing waste generation and disposal of waste in alternative eco-friendly manner. The Committee believed that awareness programmes should be initiated to publicize the use of electric crematoria to increase its acceptance among masses.

25. The Ministry in its action taken note has replied as follows:-

"Recommendation of Hon'ble Standing Committee has been noted for compliance."

In this regard, in order to make faster and effective implementation of projects, Project Management Consultants (PMCs) are being appointed for effective supervision of works on ground at the state and centre level. At state level PMCs are hired mostly for works specific or town specific for necessary reporting of projects along with information and photographs of actual progress of works.

In addition, for effective monitoring of projects, Tata Consulting Engineers (TCE) has been selected to support NMCG along with regular submission of monthly progress reports to capture actual implementation of work on ground.

The aspect of awareness about Electric Crematoria has been covered along with other communication activities. However, specific communication activities will be carried out to popularize and increased use of Electric Crematoria."

26. The Committee note that installation of Sewage Treatment Plants (STPs) is being supervised by Project Management Consultants (PMCs) at the State and Centre level. The State level PMCs have been assigned the work of reporting the progress of projects along with information and photographs of actual progress of work. The Committee further observe that Tata Consulting Engineers (TCE) has been selected for monitoring of projects with regular submission of monthly progress reports to capture actual implementation of work at ground level. While appreciating these measures taken by the Ministry to oversee the progress of work at ground level, the Committee would like to know the outcome of such

monitoring in terms of identifying bottlenecks, timely adoption of remedial measures, faster implementation of STP projects, additional treatment capacity created thereby etc.

(I) Monitoring mechanism

Recommendation (Para No. 21)

- 27. The Committee further observed that selection, monitoring of STP projects to be operated on hybrid annuity based PPP model and release of payments to them, had been proposed to be done on the basis of certification / recommendation of independent agencies like IITs and local Governments. Further, Real Time Water Quality Monitoring (RTWQM) system had been proposed to be created at every outlet of the project. They found that out of 113 RTWQM stations targeted to be installed by 2020, so far only 5 RTWQM stations had been installed and further 31 such stations were expected to be installed by March, 2017. All this, again demonstrated the sluggish manner in which the mammoth task of cleaning Ganga had been progressing. They further observed that concerns of misappropriation of funds, monitoring of all projects and regular submission of reports would be addressed by appointing Project Management Consultant - for which Tata Consulting Engineers had been selected. The Committee would like to be apprised of the details of the monitoring mechanism created for overseeing the success of different projects in cleaning the river. They also desired that the monitoring reports should be uploaded in public domain as an important feedback / information about the success of ongoing operation for cleaning Ganga. The Committee therefore, recommended to make it compulsory for monitoring agency to submit its monitoring report every three months, which should be uploaded on Ministry website for an objective assessment of the programme by all the stakeholders including general public.
- 28. The Ministry in its action taken note has replied as follows:-

"For effective monitoring of projects, a Management Information system (MIS) is being created to capture information pertaining to ongoing, in-pipeline and completed projects, where the main dashboard page is demarcated into:

- Physical and financial progress of various projects of NMCG like Sewage Management (STP project, Sewage Network Project), Development of Ghat and crematoria, Bio Diversity Projects etc., along with stages of projects i.e. completed, ongoing or inpipeline projects;
- Physical progress will be monitored by mapping the project milestones with projects and month wise progress will be updated.
- Completed Projects will be measured with the effluent parameters to check whether the STP s are functioning effectively conforming to the Norms.
- Also the priority projects along the main stem of Ganga and hotspots can be easily tracked and their present conditions can also be captured;
- Apart from these the MIS will also ensure monthly progress status updates with e-mail alerts to concerned stakeholders and escalation matrix will be provided.
- Automated Report Generation facility will be provided;
- Actual site photograph uploading facility will be provided to verify the monthly percentage of physical progress mentioned in system.
- Application will provide information about the held up and delayed projects.
- All information will be captured in graphical representation as well as on database mode.
- The monthly progress report would be available on the website of NMCG."
- 29. The Committee are happy to note that a Management Information system (MIS) is being created to capture information pertaining to ongoing, in-pipeline and completed projects, wherein both physical and financial progress will be monitored. The Committee, however find that no specific time frame has been mentioned as to when the MIS is going to be functional. <u>They would therefore, recommend that MIS should be created at the earliest to help flow the desired information to the concerned policy makers so that objectives of Ganga cleaning and its rejuvenation are achieved at the earliest.</u>

(J) Brahmaputra Board

Recommendation (Para No. 23)

30. The Committee had been informed that in order to make the functions of the Brahmaputra Board more effective, the Ministry of Water Resources, River Development and Ganga Rejuvenation was considering restructuring of the Brahmaputra Board since 2004 for putting up an altogether new set up under a new Act of Parliament. However, due to certain constraints, envisaged in setting up a new organisation in place of the existing Brahmaputra Board, it was felt by the Ministry that an attempt be made to make the Brahmaputra Board

more effective and efficient within the ambit of the existing Act. The Committee were also told that all the works such as execution of drainage development scheme, Preparation of Master Plans, Preparation of DPR of drainage development schemes, Multipurpose Projects and Protection of areas from floods of Brahmaputra river would be continued during 2017-18. Special emphasis would also be laid on the protection of Majuli Island from floods and erosion and it would be undertaken with financial assistance from the Ministry of Development of North Eastern Region.

Going through the figures for the year 2011-12 to 2016-17 made available to them on Budgetary allocation and expenditure for Brahmaputra Board, the Committee found that there had been nearly 100% utilization of funds by the Brahmaputra Board, all these years. However, despite this achievement, the Committee expressed their dissatisfaction over this and also drew attention of the Ministry to the fact that virtually the ineffective performance of the Board in resolving various problems in the North East States Board was due to the Board being run from Delhi as Senior Officers of the Board were stationed in Delhi. On this, a representative of the Ministry had admitted that at present the Board was Guwahati centric and 95% of the works taken up by the Brahmaputra Board related to Assam. The Secretary, MoWR,RD and GR also had candidly stated that the Senior Officers of the Board should be stationed in North Eastern States instead of being stationed in Delhi. While the Committee felt that the Brahmaputra Board is supposed to look after the entire North Eastern Region, it had failed in its objectives for catering to the requirement of other States of the Region except Assam.

The Committee felt unhappy with the lopsided Assam centric activities of the Brahmaputra Board and concentration of its top officers in Delhi. The Committee, therefore, recommended that the officers and Staff of the Board should be stationed in an appropriate manner in all the North Eastern States depending on the requirements, by revisiting the priorities in taking up projects and chalking out strategy and programmes in order to give impetus to activities regarding water management in all the States of NE Region as per the Board's mandate.

31. The Ministry in its action taken note has replied as follows:-

"In order to make the Brahmaputra Board administratively and operationally more efficient within the ambit of existing Act by revamping its technical and non-technical cadre, an elaborated exercise was conducted by this Ministry and discussions were made in a meeting held on 06.02.2017. In the meeting it was felt that Brahmaputra Board may open Regional Offices in each State of North East, including a separate office at Majuli Island. Based on the discussion, a minutes of the meeting was issued vide letter dated 13.02.2017 wherein probable cadre restructuring of the Brahmaputra Board was mentioned and Br. Board was requested to take a final decision in the matter. Accordingly, the matter was taken up as the agenda of the Board Meeting of Brahmaputra Board held on 11.04.2017. It has been decided to open Regional offices in all 8 North East States and North Bengal to be heeded by either a Deputy Chief Engineer or Superintending Engineer. The technical & non-technical cadre has been made pyramidical and robust. The new structure proposes the footprints of Brahmaputra Board in all 9 States to take up planning, execution, Flood Protection & Anti-erosion works.

The additional charge for the post of Vice-Chairman, Brahmaputra Board has been assigned to Shri P.M. Scott, Chief Engineer, B&BBO, Central Water Commission, Shillong.

Shri Iltaf Hussain has been promoted as Secretary and Shri C.M. Das has been promoted as Chief Engineer (Level-II) in Brahmaputra Board. Both these officers are stationed at Headquarter of Brahmaputra Board at Guwahati.

Central Water Commission was requested to post four officers of Central Water Engineering Services cadre against the vacant posts in Br. Board on loan basis. In response, CWC vide their Office Order dated 1st March, 2017 have posted Shri Asit Chaturvedi and Ms. Jyotika Pegu in the Brahmaputra Board on loan basis.

The advertisement for filling up the posts of General Manager and Chief Engineer (Level-I) in Brahmaputra Board has been published in Employment News dated 25-31 March, 2017.

The State Governments of Arunachal Pradesh, Assam, Mizoram, Meghalaya, Nagaland, Sikkim and West Bengal has been requested to recommend name of suitable officers for appointment as Financial Adviser in Brahmaputra Board on loan basis vide letters dated 16.11.2016, 13.12.2016 and 11.01.2017.

The Recruitment Rules in respect of posts of Chairman, Vice-Chairman and Financial Adviser in Brahmaputra Board have been approved by Department of Personnel & Training and forwarded to the Legislative Department, M/o Law & Justice for the vetting. The process of regular appointment will be initiated as and when the Recruitment Rules are notified."

32. The Committee observe that the Ministry has proposed to improve the functioning of the Brahmaputra Board by opening Regional offices in each State of the North East including a separate office at Majuli island. They note that in the Board meeting held on 11 April, 2017 it has been decided to open Regional offices in all the North East States and North Bengal which will be headed by either a Deputy Chief Engineer or Superintending Engineer. They also note that the additional charge for the

post of Vice –Chairman, Brahmaputra Board has been assigned to Chief Engineer, Brahmaputra and Barak Basin Organisation, Central Water Commission. Further the Central Water Commission has been requested to post four officers of Central Water Engineering Services cadre against the vacant posts in Brahmaputra Board on Ioan basis. Also, the State Governments of Arunachal Pradesh, Assam, Mizoram, Meghalaya, Nagaland, Sikkim and West Bengal has been requested to recommend names of suitable officers for appointment as Financial Adviser in the Brahmaputra Board. Recruitment Rules for appointment to the posts of Chairman, Vice Chairman and Financial Adviser, have been approved by the Department of Personnel and Training and sent to the Legislative Department, Ministry of Law and Justice for vetting.

The Committee find that though the Ministry has initiated certain steps for improving the operations of the Board, these are only stop gap measures. The Recruitment Rules for filling up the posts of higher officials viz. Chairman, Vice Chairman and Financial Adviser have not yet been finalised. Also it is not clear as to when the Regional Offices of the Board are going to be set up. The Committee, therefore, recommend the Ministry to act in a time bound manner to restructure and revamp the functioning of the Board to enable it to resolve the problems of entire North east region in a more holistic manner.

Chapter - II

OBSERVATIONS / RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT Recommendation (Para No. 1)

Analysis of Demands for Grants

The Committee observe that an amount of Rs. 6,887 crore (net of recoveries) has been allocated in the Budget 2017-18 - in respect of the Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR,RD&GR). In addition, the Ministry has been allowed to borrow an amount of Rs. 9,020 crore from the National Bank for Agriculture and Rural Development (NABARD) under Long Term Irrigation Fund (LTIF) for expenditure under Pradhan Mantri Krishi Sinchai Yojana (PMKSY) - Accelerated Irrigation Benefit Programme (AIBP) and Polavoram project. They further note that as compared to the last financial year (2016-17), there is an increase of Rs. 289.91 crore in Revenue section and Rs. 395.88 crore in Capital section of the budget, showing a total increase of Rs. 685.79 crore in 2017-18. However the Committee find it intriguing to note that while the budget allocations have always been kept at higher level, they have been invariably reduced at RE stage during the last five years except for the year 2015-16. The Committee note that as claimed by the Ministry, the reduction in Budget allocation by Rs. 1,445.71 crore in 2016-17 at RE stage did not affect the implementation of various schemes and projects as the same were financed through borrowings from NABARD resulting in actually increasing the budget to Rs. 12,937 crore. However, the Committee find the tall claims of the Ministry in this regard hollow as despite there being no dearth of funds, the Ministry should not forget that the same has been arranged through borrowing, which ultimately results in future burden on the Ministry. Therefore, while expressing their apprehension on borrowings as it will result in creation of debt and also additional provisions have to be made for servicing the same in future. Therefore, the Committee recommend the Ministry to manage the finances prudently so that it does not add to future obligations / commitments of the Ministry. The Committee, however, would like to be apprised of the details of servicing the debt including the time period fixed and interest to be paid thereon along with principal.

Reply of the Government

Observations of Hon'ble Committee in relation to prudent management of finances have been noted. The arrangement is intended for focussed prioritised projects ripe for completion for accelerated benefit. The assured funding

through NABARD for 99 prioritised projects is to ensure their timely completion and avoid time and cost overrun. As the borrowings have been approved by the Ministry of Finance, adequate provisions for timely repayment of debt to NABARD will be provided in the Budget under the PMKSY. A strict monitoring mechanism is put in place to ensure just-in-time release to the State Governments so that there is no idling of borrowed funds. The tenor of the debt is 15 years with three years moratorium and interest rates will vary as per the cost of borrowing of NABARD. The State share borrowed at the request of the State Governments will be lent directly to the States by NABARD at 6% and the difference between the actual cost of borrowing is to be borne by the Central Government.

Details of Principal borrowed in FY-2016-17 and FY-2017-18 from NABARD and interest repayments made till 31.5.2017 on such loan including details of outgoes on account of servicing of bonds are given below:

(i) Loan borrowed from NABARD

| Financial Year 2016-17 | | | |
|------------------------|-------------------------------------|-----------------------|--|
| Sr. No. | Loan from NABARD for | Amount (Rs. in crore) | |
| 1 | 99 prioritized projects under PMKSY | 3336.88 | |
| 2 | Polavaram Project | 2414.16 | |
| | TOTAL | 5751.04 | |

| Financial Year 2017-18 (so far) | | | |
|---------------------------------|-------------------------------------|-----------------------|--|
| Sr. No. | Loan from NABARD for | Amount (Rs. in crore) | |
| 1 | 99 prioritized projects under PMKSY | NIL | |
| 2 | Polavaram Project | NIL | |
| | TOTAL | NIL | |

(i) Interest payment to NABARD

| | Financial Year 2016-17 | | | |
|---------|--------------------------------|-----------------------|--|--|
| Sr. No. | Interest payment to NABARD for | Amount (Rs. in crore) | | |
| 1 | Principal amount | 44.66 | | |
| 2 | Servicing of Bonds | NIL | | |
| | TOTAL | 44.66 | | |

| Financial Year 2017-18 | | | |
|------------------------|--------------------------------|-----------------------|--|
| Sr. No. | Interest payment to NABARD for | Amount (Rs. in crore) | |
| 1 | Principal amount | 80.53 | |
| 2 | Servicing of Bonds | 17.95 | |
| | TOTAL | 98.48 | |

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Recommendation (Para No. 2)

Utilisation of Budgetary Resources.

The Committee observe that the percentage of utilisation of RE allocations by the Ministry during the last five years has been constantly improving except the year 2016-17 when it came down marginally i.e. from 97.6% to 93.58%. However, there has been a constant reduction in allocations of funds at RE stage, a fact, always highlighted by the Committee in their earlier Reports on Demands for Grants. They note that last year, the curtailing of funds has been compensated by loans from NABARD as the requirement of Rs. 9,799.63 crore in RE 2016-17 (higher than BE allocation of Rs. 6,201.21 crore) demanded by the MoWR,RD and GR was not allocated by the Ministry of Finance. The Committee feel that the Ministry has not been able to project its Budgetary Estimates accurately - which results in anomaly in allocation of funds at RE and BE stages. Keeping in view the pressing need for higher allocation of funds to meet various challenges in the water sector, the Committee strongly recommend that the Ministry should rejig its internal

mechanism and procedures to project its budgetary requirements correctly so as to improve utilisation of budget allocations projected initially.

Reply of the Government

Ministry had made all efforts to optimise utilisation of funds allocated and against BE 2016-17 of Rs.5500 crore, an expenditure of Rs.2215.28 crore(40.28%) was incurred till 30.09.2017. However, post monsoon season the trend improved and expenditure of Rs.3712.73 crore (67.50%) was incurred till 30.11.2017. Against RE 2016-17 ceiling of Rs.4755.50 crore, a total expenditure of Rs.4691.48 crore was booked, which is 98.65% of the RE allocations.

While every care is taken to project realistic requirement of funds and after detailed consultations with all the wings of the Ministry, the reduction at RE stage sometimes is mandated because of overall resource position of the Government. The budget estimates for the year 2017-18 have been prepared taking into consideration proposed outputs and outcomes of the Schemes/Projects. Recommendation made by Hon'ble Committee in relation to improvement of utilisation against BE allocations have been noted. It is expected that trend of expenditure in the months of April and May, 2017 would improve with approval of regular budget 2017-18 before onset of financial year and removal of 'Vote on Account' restrictions from FY 2017-18 will lead to better financial performance in FY 2017-18.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Recommendation (Para No. 3)

New Budgeting Exercise

The Committee note that since 2017-18, budget has been classified under Revenue and Capital sections, which will give a clear picture of physical and financial progress achieved in respect of various programmes/ schemes implemented by the Ministry. They further note that all Establishment Expenditure has been separated from expenditure on programmes / schemes enabling better assessment of productive expenditure. The Committee hope that with advancing of budget preparation exercise and changes in budgetary classifications, the Ministry would be able to not only, minimise the wasteful expenditure but utilise the available funds in a more judicious and productive way. They further hope that with the above changes in budget making process, the Ministry would be in a better position to assess

the future needs and make more realistic projection of Budgetary Estimates thereby reducing the gap between Budget and Revised Estimates.

Reply of the Government

The observations of the Committee are noted.

A regular monitoring mechanism is in place in the Ministry and that has helped in better utilisation of allocated funds as has also been appreciated by the Committee.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Recommendation (Para No. 4)

PMKSY(HKKP) - Budget Allocation and Expenditure

The Committee find that Pradhan Mantri Krishi Sinchai Yojana (PMKSY) was introduced in 2015-16 to enable fast completion of ongoing major and medium irrigation projects including National Projects. Har Khet Ko Pani (HKKP) is one of the components of PMKSY which seeks to provide water to every field through such sub components and as (i) Creation of new water resources through minor irrigation (both surface and ground water); (ii) Repair, restoration and renovation of water bodies; (iii) Strengthening carrying capacity of traditional water resources; (iv) Construction of rain water harvesting structures (Jal Sanchay); (v) Command area development; (vi) Strengthening and creation of distribution network from source to the farm; (vii) Improvement in water management and distribution system for water bodies to take advantage of the available sources which is not tapped to its fullest capacity driving benefits from low hanging fruits; (viii) At least 10% of the command area to be covered under micro/precision irrigation; (ix) Diversion of water from source of different location where it is plenty to nearby water scarce areas; (x) Lift irrigation from water bodies /rivers from low elevation to supplement requirement beyond Integrated Water Resource Management Programme (IWMP) and Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) irrespective of irrigation command; (xi) Creation and rejuvenation of traditional water storage systems like Jal Mandir (Gujarat); Khatri, Khul (H.P.); Zabo (Nagaland) 40 Eri, Oranis (Tamil Nadu); Dongs (Assam) Katas, Bandhas(Orissa and M.P.) etc. at feasible location.

The Committee further note that under this Scheme, a budgetary allocation of Rs. 1,450 crore has been provided for the year 2017-18 as against Actual Expenditure of Rs. 420 crore in the previous year. They further note from the Ministry's submission that there is a requirement of Rs. 2000 crore for servicing of interest component of NABARD loans and Rs 1200 crore for completion of ongoing schemes of Surface and Minor Irrigation and Repair Renovation and Restoration of Water bodies, to be completed in the targeted year 2017-18 i.e. by the end of XII Plan. While expressing concern over the availability of sufficient funds for completion of projects by the end of 2017-18 (last year of XII Plan), the Committee apprehend that there is possibility of these projects being spilled over subsequent years. They, therefore, recommend the Ministry to prepare a schedule for completion of the projects within a fixed time frame so that the desired objectives of the scheme of HKKP are achieved within a fixed time period. They would like to be apprised of the details in this regard along with irrigation potential created under this scheme since 2015-16.

Reply of the Government

During 2015-16, umbrella scheme of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched with an aim to enhance physical access of water on farm and expand cultivable area under assured irrigation, improve on farm water use efficiency, introduce sustainable water conservation practices etc. With the launch of PMKSY, Acceleration Irrigation Benefit Programme (AIBP) was subsumed in it and now Major and medium irrigation/multipurpose irrigation (MMI) projects are being funded under PMKSY-AIBP. Central Assistance of Rs. 2,327.8 crore was released and potential of 4.64 Lakh Ha. was reported to be created through AIBP projects during 2015-16.

During 2016-17, 99 on-going AIBP projects have been identified in consultation with States which could be completed by December, 2019 including CAD works. A special funding mechanism has been created through borrowing from NABARD which could be utilized by the Central and State Governments to bridge the requirement of funds for completion of the 99 priority projects. 23 major/medium ongoing AIBP projects were identified to be completed by 2016-17 (Irrigation Potential of 14.53 Lakh Ha.) and another 31 projects by 2017-18 (Irrigation Potential of 12.95 Lakh Ha.) and the balance 45 projects were identified to be completed by December, 2019 (Potential Utilization of 48.54 Lakh Ha.).

During 2016-17, Rs. 10010 cr. has been made available through LTIF/budget for these prioritized projects and Polavaram. This includes Central share of Rs. 6,676 cr.(AIBP-Rs. 3308, CAD-Rs.854 and Polavaram-Rs. 2,514) and Rs. 3,334 as State share. 21 projects having irrigation potential of 5.22 lakh Ha. are likely to be completed by June, 2017

and another 31 projects having potential of 17.53 Lakh Ha. by June,2018. The balance 47 projects with irrigation potential of 53.28 Lakh are likely to be completed by December, 2019.

In relation to the identified 99 projects, both Acceleration Irrigation Benefit Programme (AIBP) and Command Area Development & Water Management (CADWM) works are being undertaken from funds under Long Term Irrigation Funds (LTIF) being borrowed from NABARD with a view to complete the projects in a time bound manner. Accordingly, no budgetary allocation was made under CADWM programme, which was earlier being implemented as a subcomponent of PMKSY-HKKP. No budgetary allocation has been proposed for CAD works during 2017-18, too.

CADWM works are being undertaken from funds under Long Term Irrigation Funds (LTIF) being borrowed from NABARD with a view to complete the projects in a time bound manner. Accordingly, no budgetary allocation was made under CADWM programme, which was earlier being implemented as a sub-component of PMKSY-HKKP. No budgetary allocation has been proposed for CAD works during 2017-18, too.

In case of Command Area Development (CAD) works, the land for construction of field channels is to be voluntarily provided by the farmers, and this activity invariably gets linked with the assurance of water supply reflected in terms of completed canal works. Hence a time lag of about 12 months with respect to creation of irrigation potential is expected in completion of CAD works. At the start of 99 prioritized projects, only about 37 projects were included under CADWM program and the DPRs for balance projects were required to be prepared and processed afresh; and some added delay on this account has come into effect in case of early phased projects. The updated target for creation of irrigation potential (through AIBP component) is 21 projects by June 2017, 31 projects by June 2018, and 45 projects by December 2019; and considering the time lag indicated above, the envisaged target for utilization of irrigation potential (through CADWM implementation) is 27 projects by December 2018, 28 projects by December 2019, and 44 projects by December 2020.

Presently, Har Khet Ko Pani (HKKP) component of PMKSY, has the following schemes:

SMI Scheme

SMI scheme is targeted to be completed in two year time excluding the year of inclusion. In XII Plan 5,651 SMI schemes have been included and works in 3,270 schemes have been reported to be completed. The balance schemes are targeted to be completed by 2018-19 i.e. beyond XIIth Plan, subject to the availability of fund.

In 2015-16, Rs. 601.93 crore has been released as Central Assistance and Rs. 148 crore has been released in 2016-17 for SMI schemes. As per the information submitted by the State Government, 1.065 lakh hectares irrigation potential has reported to be created in 2015-16. The potential created in 2016-17 is yet to be submitted by the State Governments.

RRR of Water Bodies Schemes

RRR scheme are targeted to be completed in two year time excluding the year of inclusion. In XII Plan 1,354 numbers of water bodies have been included and works in 464 water bodies have reported to be completed. The balance schemes are targeted to be completed by 2018-19 i.e. beyond XIIth Plan, based on the availability of fund.

In 2015-16, Rs. 161.18 crore has been released as Central Assistance. As per the information submitted by the State Governments, 0.257 lakh hectare irrigation potential has reported to be created in 2015-16. During 2016-17, no budget was available for this. However, States may have made expenditure on the same as the scheme was continuing. Details of such expenditure and potential created during 2016-17 have been sought and would be made available once the proposals are received during current year.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Recommendation (Para No. 5)

Maximum use of Water through 'Per drop more crop'

The Committee note that under the Command Area Development and Water Management (CAD&WM) programme, 'per drop more crop' is being emphasised through micro irrigation and Participatory Irrigation Management (PIM). They observe that Culturable Command Area (CCA) has been successfully doubled through micro irrigation in Karnataka. The Committee believe that there should be more emphasis on micro irrigation to save water use in agriculture which is the largest (approximately 80 percent) user of water. In this regard, they appreciate the commitment of the Ministry to bring 72 lakh ha. area under micro irrigation out of which 7 lakh ha. is proposed to be covered by December, 2019. They further find that the Ministry has proposed to raise the existing target of mandatory 10 percent of area under micro irrigation in the CAD&WM scheme to 30 percent. However the Committee are of the view that all these measures are still in proposal stage and yet to be implemented. Therefore concrete action need to be undertaken on an

urgent basis so as to ensure efficient use of water in agriculture along with increase in the coverage of irrigated area.

The Committee, therefore, recommend the Ministry to take appropriate measures in this matter at the earliest in

consultation with the Ministry of Agriculture in a time bound manner to achieve the laudable objectives of "per drop more

crop" under PMKSY. They would like to be apprised of the details of the action plan in this regard.

Reply of the Government

Ministry has initiated the enhancement of Micro Irrigation with the Command Area Development and Water

Management (CAD&WM) scheme. The approved guidelines for implementation of CAD works of 99 prioritised AIBP

projects, with a provision of coverage of 10% of CCA in each project, have been circulated among States. Farmers can

also avail the assistance under Per Drop More Crop beyond prescribed coverage under CAD&WM guidelines. Further,

the draft EFC Note on new proposed 'Incentivisation Scheme for Bridging Irrigation Gap (ISBIG)' is under examination in

Ministry of Finance. Ministry of Finance has advised to circulate the draft EFC Note to Ministry of Agriculture & Farmers'

Welfare, Ministry of Rural Development and NITI Aayog, and this is under process.

Department of Agriculture Cooperation & Farmers Welfare is laying importance on efficient use of water for

agriculture and emphasis for higher coverage of Micro Irrigation. During 2015-16, an area of 5.72 lakh ha. was brought

under Drip and Sprinkler irrigation against the target of 5 lakh ha. During 2016-17 higher targets were set for Micro

Irrigation and till the end of February, 2017 about 6.5 lakh ha. have been reported to have been covered under Micro

Irrigation. It is expected to cover about 8 lakh ha. during 2016-17. Increasing trend for higher coverage of Micro Irrigation

is being ensured and it is targeted to cover about 1.2 million ha. during 2017-18.

Besides, with a view to provide impetus to Micro Irrigation in the country, the Union Finance Minister, in his

budget Speech 2017-18 has announced creation of a dedicated Micro Irrigation Fund to be instituted with NABARD with

an initial corpus of Rs.5000 crore for encouraging public and private investments in modern irrigation methods such as

sprinkler and drip irrigation as also water use enhancing practices to realize the objective of 'Per Drop More Crop'.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Comment of the Committee

(Please see Para No. 5 of Chapter – I of the Report)

35

Recommendation (Para No. 6)

Central Ground Water Board

The Committee note that Central Ground Water Board (CGWB), a multidisciplinary scientific Organisation has been entrusted with the responsibility to develop and disseminate technologies, monitor and implement national policies for the scientific and sustainable development and management of ground water resources. Further, the Central Ground Water Authority (CGWA) has been constituted as per the orders of the Supreme Court of India under sub section (3) of Section of the Environment (Protection) Act, 1986 - for the purpose of regulation and control of ground water management and development. They observe that allocation for CGWB has been raised by Rs. 68.20 crore to Rs. 240 crore in BE 2017-18 as compared to BE 2016-17 to provide for enhancement of salary and related component as a result of implementation of 7th Pay Commission Report and shifting of salary component from Plan to Non Plan allocation. They further observe that as on 31 January, 2017 the Board has incurred an expenditure of Rs. 161.27 crore. Further, the Board has so far compiled data on ground water resources over 8.89 lakh sq. Km. area, prepared aquifer maps for 5.20 lakh sq. Km. area, carried on 58 inspections of ground water in various States and Union Territories and prepared 113 Ground Water Year Book. They also notice that the proposal for strengthening and restructuring of CGWB is currently under examination. However ground water situation in the country is at an alarming stage and despite all the measures and efforts made by the Board so far, it has not been able to effectively manage and regulate the use of ground water - which is fast depleting as a result of over drawl and contamination/ pollution.

As per the Ministry's own admission, there is a serious need for strengthening the Board both in terms of manpower and equipment as also closer coordination with the State Governments. Further State Ground Water Departments also need to be strengthened with domain specialists. The Committee, therefore, recommend the Ministry to impress upon the State Governments to take desired steps for strengthening the State Ground Water Departments in whose collaboration, the Board can effectively manage and develop ground water resources. The Committee are also concerned by the fact that the CGWA is also not able to monitor and control the use of ground water by various industries as it is not equipped with adequate manpower to carry out these activities. The Committee are, therefore, of the view that there is an urgent need to overhaul the structure of CGWB so as to enable it to function in a more effective manner. Therefore, they recommend the Ministry to initiate immediate steps to restructure and modernise the Board to infuse

more expertise by recruitment of specialists in the field and use of advance equipment. Further, the Committee are of the view that in order to strengthen monitoring and regulation by CGWA, it is imperative to completely separate CGWA from the CGWB (including the Management of Authority and Board) with clear demarcation of their activities to enable it to function in an independent manner. Therefore, the Ministry should take utmost measures to address the issue of inadequate manpower so as to ensure better monitoring of use of ground water and its contamination by the CGWA. They would like to be apprised of the details of action taken in this regard at the earliest.

Reply of the Government

Ministry of Water Resources River Development and Ganga Rejuvenation had constituted a Committee to revise the Model Groundwater Bill. The Committee in the revised Model Groundwater (Sustainable Management Bill), 2017 has emphasised that for effective implementation of the provisions of the ground water legislations in the State, the State Ground Water Departments needs to be adequately strengthened. Therefore, the Committee had requested Ministry to emphasise the issue of Strengthening the Groundwater Departments while circulating the Model Groundwater (Sustainable Management) Bill, 2017 to the States. The Model Bill has been submitted to NITI Aayog for concurrence. After getting the concurrence of NITI Aaayog and approval of Minister (WR, RD&GR) it will be circulated to the States for adoption.

As regards restructuring of Central Ground Water Board (CGWB), Ministry of Water Resources, RD & GR had constituted a Committee on restructuring the Central Water Commission and Central Ground Water Board under the Chairmanship of Dr. Mihir Shah, former Member, Planning Commission. The Committee has recommended for restructuring of Central Ground Water Board and Central Water Commission in view of the present challenges in the Water Sector. The report of the Committee is under consideration of the Ministry.

As the Central Ground Water Authority has been constituted vide orders of the Hon'ble Supreme Court, legal opinion has been sought as to whether CGWA can be completely separated from CGWB. However, with a view to improve the functioning and performance of Central Ground Water Authority(CGWA), Ministry of WR, RD & GR has appointed separate Chairman for Central Ground Water Authority and Central Ground Water Board. A copy of the order

issued in this regard is enclosed as **Annexure-I**. Further, a Committee under Member Secretary, CGWA has been constituted to critically examine the guidelines and suggest suitable changes or modifications.

Ministry has directed that two Regional Directors of CGWB will assist Chairman CGWA in addition to their existing responsibilities. Deployments from CGWB on replacement basis by way of transferring officers who have completed 3 years tenure in CGWA is being considered.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Comment of the Committee

(Please see Para No. 8 of Chapter – I of the Report)

Recommendation (Para No. 7)

National Water Framework Law

The Committee observe that the draft National Water Framework Law prepared by Dr. Mihir Shah Committee was circulated among the States and Union Territories to elicit their views and suggestions, after which the legislation is proposed to be enacted by Parliament. They further observe that while many States such as Rajasthan and Madhya Pradesh have agreed with the proposed law with certain amendments, a few other States such as Tamil Nadu and Punjab have raised objections. They further notice that the Secretary MoWR, RD and GR has issued a letter on 20.01.2017 to all the Chief Secretaries requesting them to support the Bill for facilitating early enactment of the law. However, taking into account the fact that considerable time has elapsed in the consultation process, the Committee desire that the Ministry should engage with State Governments more vigorously to resolve the contentious issues and clear the apprehensions of the States in this regard to enable early enactment of the bill.

Reply of the Government

Ministry of Water Resources, River Development and Ganga Rejuvenation is regularly pursuing with the State Governments for seeking their cooperation for early enactment of the National Water Framework Bill. Among the States/Union Territories who have furnished comments on the draft National Water Framework Bill, 2016, Governments of Rajasthan and Madhya Pradesh have supported the Bill with some suggestions/comments. However, Governments of Tamil Nadu, Kerala, Punjab and Odisha have opposed the Bill.

Chief Secretaries of all States/Administrators of all Union Territories have been requested to support the Bill vide letter of Secretary (WR, RD & GR) dated 20.01.2017. Further, Hon'ble Minister (WR, RD & GR), vide letter dated 14.03.2017 to the Chief Minister of the all States/ UTs has also requested to support the National Water Framework Bill of the States/UTs to enable our country to ensure sustained water security and to protect our water resource for future generations. Hon'ble Minister (WR, RD & GR) has also requested the Chief Ministers for passing suitable resolutions in their State Assemblies in support of the Bill.

Further, this Ministry is proposing a meeting with the Irrigation/Water Resources Ministers of all States/UTs for soliciting their views on the Bill and also for making consensus in favour of the Bill.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Recommendation (Para No. 8)

Further, while noting the various laudable features of the proposed law such as protection, conservation, regulation and management of water as a vital and stressed natural resources, right to sufficient quantity of safe water for life, States to hold water resources as a common heritage and public trust, efforts for rejuvenating rivers for ensuring (a) Aviral Dhara; (b) Nirmal Dhara and (c) Swach Kinara, integrated river basin development and management and implementation of a Water Security Plan, etc. - the Committee are astonished to find that the draft bill does not speak of any measure for protection of river banks/ anti erosion measures which is a serious problem endangering the river banks and associated problem of floods and submergence. The Committee therefore, recommend the Government to incorporate the suggested changes so as to make the proposed law more comprehensive and effective to resolve the challenges faced at the ground level.

Reply of the Government

The draft National Water Framework Bill seeks to provide an overarching national legal framework with principles for protection, conservation, regulation and management of water as a vital and stressed natural resource. The draft Bill has inter-alia made provision that rejuvenation efforts on conservation and restoration of the river basin, integrating

participatory watershed management and recycle-reduce-and-reuse principles, recognizing that healthy river systems are essential for sustainable development which indirectly includes protection of river basins / anti erosion measures.

However, recommendation of the Hon'ble Standing Committee for making specific provisions for protection of river banks / anti erosion measures in the Bill has been noted and would be included in subsequent deliberations in this regard.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Recommendation (Para No. 9)

Farakka Barrage Project

The Committee observe that Farakka Barrage Project was commissioned in 1975 for the preservation and maintenance of the Kolkata port and for increasing the navigational depth of the Bhagirathi – Hooghly waterway. They further observe that budget allocations under this Head was kept at Rs. 143.40 crore in 2016-17 (BE), which has been raised to Rs. 155 crore in BE (2017-18). However, the expenditure envisaged for the year 2016-17 could not be made as the work of replacement of 35 gates under phase – II and repair of PSC road bridge, etc. could not be awarded. During the last 4 years, 42 gates of Farakka Barrage have been replaced, with maximum no. of gates replaced in the year 2014-15 and 2015-16. The Committee find that the work of replacement of gates is not being done in a time bound manner and after picking up the pace for two years, the work is again being taken up at a slow pace with rare possibility of the work getting finished by the XII Plan. The Committee are surprised and disappointed to note that no work could be started under Phase –II of work despite the whopping budgetary allocation made for this purpose during the year 2016-17. The general apathy of the Government towards upkeep and maintenance for Farakka Barrage is also reflected in the casual approach to the problem of staff crunch. Despite the project facing severe shortage of staff to carry out the actives and projects in a time bound manner, the proposal for increasing manpower is still under consideration and no concrete steps have been taken in this direction as yet. The Committee are distressed to note such state of affairs in Farakka Barrage Project despite their earlier recommendations contained in 3rd Report on Demands for Grants (2015-16) to undertake the replacement of gates in a time bound and target oriented manner and fix the responsibility for laxity in the matter in addition to taking immediate measures for recruitment of more technical manpower. The Committee,

therefore, strongly recommend to prepare action plan and initiate the work of replacing gates of the Farakka Barrage on a war footing to complete it by the end of the targeted year 2017-18.

Reply of the Government

Farakka Barrage Project was commissioned in 1975 for the preservation and maintenance of the Kolkata Port and for increasing the navigational depth of the Bhagirathi - Hooghly waterway. The Farakka Barrage Project (FBP) is having total 123 gates, including 11 Gates of Canal Head Regulator, which regulates the flow in Farakka Feeder canal from river Ganga. On different occasions, Nine (09) nos. of new Gates were installed to replace old gates, since the old Gates were either badly damaged or washed out due to wear and tear.

Considering the fact that the gates have served their economical life since 1975; based on the recommendation of Technical Advisory Committee of FBP (TAC-FBP), it was decided in the XII Plan to take up the work of replacement of <u>all</u> the old Gates of FBP with new Gates in a phased manner, considering the quantum of work and working conditions in field. Accordingly, the installation of <u>33 new Gates in Phase-I</u> has been successfully completed by FBP and a total of 42 new Gates have been installed so far by FBP Authority including 9 nos gates installed earlier.

The work of replacement of Gates at this scale has been taken up by FBP authority for the first time in XII Plan and the completion of installation work was delayed mainly due to adverse working conditions at site, which include - limited working space for movement of cranes and people involved in the work; and that installation works are to be executed above the flowing water of river Ganga requiring extra care for movement of man and machinery. Also, due to road-cum-rail bridge on one side of the FBP Gates, the access for the moving cranes is available only from one side i.e. the river side.

The work of installation of <u>35 new Gates in Phase-II</u> has been awarded and the same is under progress. After its completion, work of Phase-III will be taken up by FBP Authority, and; with the available resources/manpower of FBP and experience gained while installation of <u>33 Gates</u> in Phase-I, replacement of all the FBP Gates is now scheduled for completion by the year 2020-21.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Recommendation (Para No. 10)

The Committee also notice that there is lack of coordination in the functioning of Farrakka Barrage Authority and State Barrage Authority, which results in unplanned release of water breaching the embankments due to overflow of water. Consequently lots of village and agricultural land nearby get submerged under the river without any possibility to recover them again. The Committee, therefore, recommend that an in-depth study should be made about the reasons

for breaching of the embankments due to over flow of water and other factors leading to submergence of agricultural land nearby and immediate solutions to the problem of the flooding in the adjoining areas of Farakka Barrage could be arrived at the earliest. Further the Ministry should, in particular, look into the aspect of desiltation and breaching of embankments due to movement of ships in the barrage and take appropriate measures to arrest the same. The Committee would like to be apprised of the details of measures taken in this regard within three months of presentation of this Report.

Reply of the Government

Farakka Barrage Project was commissioned in 1975 for the preservation and maintenance of the Kolkata Port and for increasing the navigational depth of the Bhagirathi - Hooghly waterway. Accordingly, the Ganga water is released from FBP reservoir into Farakka Feeder Canal for the stated purpose. During flood season the releases into feeder canal are limited to 40,000 cusec, which is the maximum capacity of feeder canal and accordingly, any extra inflows of river Ganga are released towards its downstream side i.e, into river Ganga. Advice of Govt of West Bengal is also considered while making release into Feeder Canal from FBP reservoir.

Further, during the period of 1st January to 31st May every year, the releases into Feeder Canal are made as per provisions of Ganga Water Treaty - 1996 with Bangladesh, and during this period also the releases never exceed 40,000 cusec.

The FBP Feeder Canal is a 33.38 Km long earthen (unlined) canal and it is also a part of National Water Way No.-1 (NW-1), from Allahabad to Haldia. Accordingly, this canal is also used for movement of ships/vessels by the Ministry of Shipping, which is one of the reasons for damages caused to the banks of Feeder Canal.

On the request of Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD &GR), Ministry of Shipping is planning to restore the banks of feeder canal in its critical reaches. In this regard, Ministry of Shipping has assured MoWR, RD & GR that any such damages will be repaired by Ministry of Shipping from their own resources. A Detailed Project Report (DPR) is under preparation by Ministry of Shipping which includes such bank protection/restoration works on Feeder Canal of Farakka Barrage. This DPR is being prepared by Ministry of Shipping in consultation with FBP Authority and Government of West Bengal.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Recommendation (Para No. 11)

Dam Rehabilitation and Improvement Project (DRIP)

The Committee note that Dam Rehabilitation and Improvement Project (DRIP) is being implemented in 7 States of Madhya Pradesh, Odisha, Kerala, Tamil Nadu, Karnataka, Uttarakhand and Jharkhand to rehabilitate and improve identified dams and develop appropriate institutional mechanism for the safe operation and maintenance of all large dams in participating States. The Committee observe that in addition to dam safety, the matter of strengthening institutional set up for national level dam safety surveillance and guidance is also being taken up in the Central Water Commission (CWC). The total cost of the project has been estimated at Rs. 2100 crore, out of which 80 percent is being financed by World Bank while balance 20 percent will be financed by respective State Governments and the MoWR,RD & GR. The project has become effective from 18 April, 2012 and is scheduled to be completed in six years. However, the Committee find that even after a lapse of five years, the Actual Expenditure under the Project, so far, has been meager, a fact admitted by the Ministry, due to reasons such as complex preparatory requirements and limited capacity of implementing agencies. Further they find that finalization of rehabilitation proposal for each of dam to be taken under DRIP required various studies, investigation and dam safety expert inspections and suggestions, which took a considerable time. However all these procedures are stated to have been completed now and works have been awarded on 186 dams amounting to Rs. 1,388 crore. So far a total expenditure of Rs. 558 crore has been made till December, 2016. Further Rs. 160 crore has been provided in the Budget allocation for the current year for CWC for over all coordination and supervision and Damodar Valley Corporation for rehabilitation of its three dams namely Maithon, Konar and Panchet.

The Committee are distressed to note that the project has not taken off properly at the initial stage due to various issues, which has delayed its implementation. Although work has started now on a fast track, the Committee apprehend the completion of the project may get delayed as the implementation work has just begun. They therefore, recommend the Ministry to speed up the work so that the project is completed by 2018, as assured by the Secretary. They further desire to be apprised of the details of the dams along with action taken in respect of each of them under the DRIP so far. They would also like to know, in particular, the details of initiatives taken under the Project to strengthen institutions and the capacity building of officials / staff for safe operation and maintenance of large dams.

Reply of the Government

In view of the initial delays due to complex preparatory phase of the project, most of the rehabilitation works could be awarded for implementation only during last one year. Since, implementation of some of the awarded works will extend beyond the scheduled completion period of the project (i.e. June 2018), an in-principle approval for time extension of two years has been given by the Government and recommended for consideration of the World Bank. Final approval is expected shortly.

There is a considerable progress in the award of works in last one year. Rehabilitation works have been awarded to 191 dam project costing Rs. 1500 crore and the total committed amount is Rs. 1700 crore as on date. Expenditure incurred till date is Rs. 770 crore. A list of works awarded for each dam for its rehabilitation is annexed as **Annexure-II**.

Dam Safety Institutional Strengthening of the State Dam Safety Organisations of participating States and Central Dam Safety Organisations is one of the important components of this project. Under this component, training in dam safety related subjects, concepts and techniques were undertaken by Central Project Management Unit to utilize the expertise available within the country and with the Consultant engaged for assisting CWC in managing the project. So far, 74 trainings in which about 2,571 engineers and officials have been trained. Further 40 officers have been sent under two batches to Deltares, Netherlands and USBR (USA) for two international study tours for exposure of international dam safety practices. These programs were received well by the participants who were benefitted by the knowledge and experience of the faculty. To provide a forum for sharing of knowledge and experience of dam safety professionals covering non-DRIP States, three National Dam Safety Conferences have been organized on yearly basis, first at IIT Madras (2015), second at IISc, Bangalore (2016) and third at IIT Roorkee (2017). Fourth is planned in Kerala in January 2018.

In addition to the above, 6 nos. of exposure visit to Japan covering about 40 DRIP officials have been organized by the World Bank to give the exposure in the areas of dam safety, seismic preparedness, instrumentation, institutional arrangement, sedimentation etc. Under DRIP, 7 institutes namely IIT, Madras, NIT Rourkela, NIT Calicut, CWRDM Cochin, MANIT Bhopal, MNNIT Allahabad, College of Engineering Trivandrum, Anna University and IISc. Bangalore have been shortlisted for strengthening and enhancing their capabilities to provide consultancy in various dam safety related topics and provide training for the State Government officials. So far, MoUs have been signed with Indian Institute of Sciences, Bangaluru and IIT, Madras.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Recommendation (Para No. 12)

The Committee further observe that the legislation on Dam safety has been delayed by a considerable time,

despite their Report on the Bill, way back in 2011. They note that currently, the National Dam Safety Bill, 2016 is being

prepared and consultation with States is going on. They, therefore, recommend the Ministry to wind up the process at

the earliest and take speedy measures for its enactment.

Reply of the Government

The proposal for enactment of Dam Safety Bill is under consideration in the Ministry to provide robust legal and

institutional framework for Dam Safety for the Central and the State Governments.

The Ministry introduced the Dam Safety Bill, 2010 in Parliament on 30th August, 2010 under Article 252 of the

Constitution, which was subsequently referred to the Parliamentary Standing Committee on Water Resources for

examination. The Parliamentary Standing Committee submitted the recommendations vide its Seventh Report on Dam

Safety Bill, 2010 in the Parliament in August, 2011 and subject to its recommendations and observations, the Standing

Committee has recommended passing of the Bill by the Parliament. The observation and recommendations of the

Parliamentary Standing Committee on Water Resources were examined by this Ministry and accordingly a new Bill was

prepared incorporating the recommendations/suggestions of the Standing Committee.

However, the said Bill lapsed on the dissolution of 15th Lok Sabha. As a fresh resolution of two States was

required under Article 252 of the Constitution for introducing the Bill, in view of the bifurcation of the State of Andhra

Pradesh, the process for enactment of Dam Safety Bill under Article 252 could not be taken up by this Ministry.

Further, considering the limitation of the Dam Safety Bill (2010) in terms of its initial applicability to the two States

of Andhra Pradesh and West Bengal and the Union Territories only, the Ministry explored the possibilities available under

the Constitution of India for ensuring national level applicability of the Bill in consultation with Ministry of Law & Justice

(MoL&J). Accordingly, new draft Dam Safety Bill, 2016 has been prepared with nationwide applicability of the Bill.

As per instructions of NITI Aayog in this regard, the Bill has been circulated to all the States and Union Territories

on 09.08.2016 for fresh consultation. In the meantime, 37th Meeting of National Committee on Dam Safety (NCDS) was

held on 17 & 18th February, 2017. In accordance with the comments received from various States and outcome of the

37th Meeting of NCDS, some changes in the Bill are envisaged. The Bill has been approved by MoL&J. The Ministry is

shortly bringing a Note for consideration of the Union Cabinet for approval to introduce the "Dam Safety Bill, 2017" in the

Parliament.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

45

Recommendation (Para No. 14)

River Basin Management

The Committee note that the scheme of River Basin Management (RBM) consists of two broad components namely Investigation of Water Resources Development Scheme (IWRDS) and Brahmaputra Board. IWRDS is being implemented by (a) National Water Development Authority (NWDA) and (b) Central Water Commission (CWC). The NWDA has completed 137 water balance studies of basins/sub-basins and catchments up to 71 diversion points. toposheet studies of 74 reservoirs and of 37 link alignments, storage capacity studies of reservoirs, 32 pre-feasibility studies, 16 feasibility studies and 4 Detailed Project Report (DPR) towards the implementation of inter-linking of rivers in the country. In addition, 36 Pre-Feasibility Report and 2 Detailed Project Report have also been completed for Intra-State Link proposals of State Government. Responding to a specific query regarding problems encountered in implementation of activities / works under this scheme the Ministry has informed that the most important challenge in the Inter Linking of Rivers (ILR) Programme is achieving consensus of concerned State Governments on various link projects. The Government is, however, pursuing the Interlinking of River programme in a consultative manner and have called Special Committee on ILR chaired by Hon'ble Minister (WR,RD&GR). Views and observations on the Interlinking of Rivers Programme have been received from various State Governments, experts and other stakeholders in the meetings of the Special Committee for Interlinking of Rivers (ILR). This special Committee would consider all such observations appropriately while planning and formulating the ILR projects. While acknowledging the larger vision of inter linking of rivers the Committee recommend the Ministry to come out with the Report of Special Committee on ILR at the earliest. The Committee desire to be apprised about the action taken on the recommendations of the aforesaid Special Committee on ILR.

Reply of the Government

Under the National Perspective Plan (NPP) for water resources development through inter basin transfer of water prepared by this Ministry, NWDA has identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for preparation of Feasibility Reports (FRs). After survey and investigations, FRs of 14 links under Peninsular Component and 2 links in the Himalayan component have been prepared.

Based on the concurrence of concerned States, four priority links for preparation of Detailed Project Reports (DPRs) have been identified viz; Ken-Betwa link project Phase-I & II, Damanganga-Pinjal link, Par-Tapi-Narmada link

and Mahanadi-Godavari link. The DPRs of Ken-Betwa Phase I & II, Daman-Ganga-Pinjal, Par-Tapi-Narmada have been prepared and shared with the respective States. The DPR of Ken-Betwa link project Phase-I has been accepted by the Advisory Committee of MoWR, RD & GR and its statutory clearances have been offered. The Techno-economic clearance of the DPR of Ken-Betwa Link Phase-I has been accorded in July, 2016 subject to environment, wildlife and forest clearances from the Ministry of Environment, Forest and Climate Change (MoEF & CC). Further, as the Ken-Betwa link project was declared as National Project in 2009 and the project will benefit the drought prone areas of Bundelkhand region in Uttar Pradesh and Madhya Pradesh, a cabinet proposal to consider funding pattern of 90% by the Central Government and 10% by the State Governments against prevailing sharing pattern of 60:40 between Centre and States is being pursued by the Ministry.

As directed by the Hon'ble Supreme Court vide its judgment dated 27.02.2012 in the Writ Petition (Civil) No. 512 of 2002 on 'Networking of Rivers' along with Writ Petition No. 668 of 2002, a Committee called "Special Committee on Interlinking of Rivers" has been constituted under the Chairmanship of Hon'ble Minister of Water Resources for the implementation of Interlinking of Rivers programme vide Gazette Notification dated 23rd September, 2014.

Twelve meetings of the Special Committee for Interlinking of Rivers (ILR) have been held so far and the last meeting was held on March 08, 2017 at New Delhi. Irrigation/Water Resources Ministers of various States along with their Secretaries attended the meetings. Views and observations on the Interlinking of Rivers Programme have been received from various State Governments, experts and other stakeholders in the meetings of the Special Committee for Interlinking of Rivers (ILR). The Special Committee is considering all the suggestions/observations appropriately while planning and formulating the ILR projects.

The Committee, after considering the views of all the stakeholders, is proceeding ahead to expedite the objectives of the interlinking of rivers as per terms of reference. Vigorous efforts have been taken up for generating consensus with development of alternative plans and also setting out road maps for implementation of mature projects.

In the first meeting of the Special Committee for Interlinking of Rivers (ILR) held on 17.10.2014, it was decided to constitute four specific sub-committees:

- v. Sub-committee for comprehensive evaluation of various studies/reports (Sub-Committee I). Seven meetings of Sub-committee-I have been held so far. The last meeting was held on 26.07.2016;
- vi. Sub-Committee for system studies for identification of most appropriate alternate plan (Sub-Committee II). Ten meetings of Sub-committee-II have been held so far. The last meeting was held on 03.03.2017;
- vii. Sub-Committee for Restructuring of National Water Development Agency (Sub-committee III) has completed the assigned task and submitted its report to the Ministry of Water Resources, RD&GR on 21.09.2015; and
- viii. Sub-committee for consensus building through negotiations and arriving at agreement between concerned States (Sub-committee IV). Two meetings of Sub-committee IV have been held so far and the last meeting was held on 30.10.2015.

The Special Committee for Interlinking of Rivers (ILR) has not submitted any report so far. However, the status on progress report and constitution of "Special Committee on Interlinking of Rivers" in compliance of Hon'ble Supreme Court judgment dated 27.02.2012 in the matter Writ Petition (Civil) No. 512 of 2002: 'Networking of Rivers' along with Writ Petition No. 668 of 2002 were reviewed by the Cabinet in the meetings held on 18.11.2015 and 15.11.2016.

Constitution of Task Force for Interlinking of Rivers (2015)

The Union Cabinet while approving the constitution of Special Committee for ILR in its meeting held on 24th July, 2014 directed that a committee comprising of experts be constituted to look into the issues relating to inter linking of rivers. In compliance to the direction of Union Cabinet, MoWR, RD & GR vide O.M. dated 13th April, 2015 has constituted a Task Force for Interlinking of Rivers (TF-ILR) under the Chairmanship of Shri B.N.Navalawala, Chief Advisor, MoWR, RD&GR. Task Force will assist the Special Committee for ILR and MoWR, RD & GR regarding the implementation of ILR Programme.

Seven meetings of the Task Force have been held so far and last meeting was held on 11.05.2017.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Comment of the Committee

(Please see Para No. 14 of Chapter – I of the Report)

Recommendation (Para No. 17)

National River Conservation Programme (NRCP)

The Committee observe that under the Central Sector scheme of the National River Conservation Programme (NRCP), 85 projects, including ongoing Externally Aided Projects (EAP), World Bank projects and Japan International Cooperation Agency (JICA) projects, have been sanctioned with a total estimated cost of Rs. 8,240.68 crore. However, so far only 35 projects have been completed and the remaining 50 projects are scheduled to be completed by the year 2020. They also note that the project cost under this programme is being shared between the Centre and the State Governments on 70:30 basis for World Bank funded projects and on 85:15 basis for JICA assisted projects. They further note with utmost concern that the actual utilisation of funds under this programme has not been satisfactory. From the allocation and expenditure incurred in the last year, the Committee find that there was a substantial reduction in allocation at RE stage as demand for funds were not forthcoming due to slow progress of the projects. They observe that principal reasons affecting the implementation of projects under this programme are delay in tendering process, retendering, non availability of land, legal issues, natural calamities, delay in permission from local authorities for road

cutting, crossing, local festivals, higher fund requirement, pending cabinet approval from the State Government etc. While expressing their regret over the poor implementation of this programme which aims at rejuvenation of rivers, the life line for people in this country, the Committee believe that there is an urgent need to change the mindset to give this programme a top priority. Today, water has become a stressed natural resource due to changes in global climate and massive pollution making it further scarce. In such circumstance, it is high time that cleaning and rejuvenation of rivers are undertaken at a rapid pace to provide for water security to the masses, as also enunciated in the proposed National Water Framework Law. The Committee, therefore, recommend the Ministry to give a big thrust to this programme by coordinating with State Governments to remove the procedural bottlenecks and administrative hurdles so that projects are completed by the targeted period of 2020.

Reply of the Government

Recommendation of Hon'ble Standing Committee has been noted for compliance.

Towards, ensuring better coordination with the State Government and removing procedural bottlenecks, action has already been initiated. Few of the important initiatives taken up are:

Cabinet has approved "The River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016" which lays down a new institutional structure for policy and implementation in fast track manner and empowers National Mission for Clean Ganga to discharge its functions in an independent and accountable manner through an order under the Environment Protection Act, 1986 (29 of 1986).

Formation of State Ganga Committees in each of the Ganga bank states has been initiated. In three of the 5 main stem Ganga States, State Ganga Committees have been notified.

Creation of the District Ganga Committees in each of the Ganga Banks Districts has been initiated.

For better supervision and faster implementation of projects, Project Management Consultants have been appointed. At state level, PMCs are hired mostly for supervision of works, and for reporting on actual progress of projects along with detailed information and photographs. Tata Consulting Engineers (TCE) has been appointed for supporting NMCG besides regular submission of monthly progress reports to capture actual implementation of works on the ground.

Regular monthly meeting with concerned State Departments are being taken up to push the project implementation in a faster mode and bottlenecks like delay in tendering, retendering, land availability, legal issues are being sorted out.

In recent months, due to streamlining efforts, projects which were getting delayed by over two years due to tendering processes have now been awarded, details given in table 1.1 below:

Table 1.1: Projects Awarded to Contractor Since February 2017

| S.No | State | Name of Project | Project Component | Amount (Rs in Crore) |
|------|-------|--------------------------|---|----------------------|
| 1 | Bihar | Beur STP project | 43 MLD (23 MLD new+20 MLD renovation) STP | 77.85 |
| 2 | Bihar | Beur Sewerage Network | 180 km long network | 398.40 |

Table 1.1: Projects Awarded to Contractor Since February 2017 (cont'd)

| S.No | State | Name of Project | Project Component | Amount (Rs in Crore) |
|------|-------|--------------------------------------|--|----------------------|
| 3 | Bihar | Saidpur STP and Adjoining Network | 60 MLD STP and 55km of adjoining network | 188.19 |
| 4 | Bihar | Saidpur Network | 172 Km long network | 431.22 |
| 5 | Bihar | Karmalichak STP | 37 MLD STP capacity | 73.61 |
| | | Total | | 1169.27 |

Similarly, due to delayed tendering process by the State Governments, very high bids were received. Revised estimates for such projects are also being prepared and approved. In March 2017, revised AA&ES issued for 2 projects as per details given in table 1.2.

Table 1.2: Revised AA&ES issued in March 2017

| S.No | State | Name of Project | Facility to be provided | Amount (Rs in Crore) |
|------|-------------|----------------------------------|-------------------------------|----------------------|
| 1 | Uttarakhand | Muni-Ki-Reti* | I&D works and STP of 12.5 MLD | 80.45 |
| 2 | Bihar | Karmalichak Sewerage Projects | 96.54 km of sewer network | 277.42 |
| | | Total | | 357.87 |

^{*}The project mode has been changed.

In March 2017, two meetings of Executive Committee of NMCG were held in which projects worth Rs.2326.18 Crore were approved. These projects will facilitate in creating 188 MLD STP capacity along with upgradation/rehabilitation of 626 MLD STP capacity in the states of Uttarakhand, Bihar, Jharkhand and Delhi.

Recommendation (Para No. 19)

With regard to implementation of projects for mitigation of pollution in the river, the Committee note the recent orders of the National Green Tribunal to stop cleaning work in segment-B, Phase-I (Haridwar to Unnao stretch) of river Ganga as the data provided by the State Governments and other agencies on the actual number of industries / drains and the quantum of effluent load was not consistently satisfactory - which could have affected designing of the project. Taking cognizance of this order, the Committee believe that a proper mechanism need to be instituted to quantify the amount of pollution in the selected part of the river before finalising the projects on its bank to ensure that the money does not go waste and projects are operated successfully. The Committee desire to be apprised of the details of action taken in this regard.

Reply of the Government

Recommendation of Hon'ble Standing Committee has been noted for compliance.

Towards ensuring proper management of pollution abatement in the selected stretch of river Ganga (Segment-B, Phase-I (Haridwar to Unnao) following actions are taken up:

- Condition Assessment and Feasibility Studies(CA&FS) have been conducted by M/s EIL, which assesses the existing
 treatment capacities in respective towns, various drains and untreated sewage being discharged into the river. Apart from
 that, detailed project reports prepared by State agencies have also measured sewage flow in drains using scientific
 methods. Both the CA&FS and DPRs estimate the sewage generation based on population figure.
- Based upon the finding of the CA&FS, the gap in treatment capacity are assessed.
- DPRs prepared for the selected town in this stretch are being examined based upon the finding of CA&FS study and accordingly only the necessary projects are taken up.
- This mechanism is being adopted for taking up projects in other stretches of river Ganga as well.
- The quantum of pollution load reaching river Ganga is resulting from different cities/towns as well as industries located either on main stem of river Ganga and its tributaries or from drains outfalling into river Ganga which carries the pollutants. A mechanism has been evolved to assess the quantum of pollutants reaching river Ganga by monitoring the outflow/effluents/parameters from these establishments and treatment plants established therein. Following mechanism has been established:

To estimate the quantum of effluent load from industries, Online Effluent Monitoring Stations (EMS) have been installed in 577 out of 760 Gross Polluting Industries (GPIs), 135 GPIs have been closed and 15 exempted (GPIs required to install EMS are 610). Real time reports are available at dashboard from 384 such installations. Online monitoring of data

facility has been made available at PMO, MoWR, RD & GR, CPCB, State and SPCBs.

To estimate the quantum of municipal wastewater load, manual water quality monitoring is being done at 110 stations.

Real-time water quality monitoring at 71 stations are planned, out of which 44 stations have already been operationalized

in Phase – I.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Recommendation (Para No. 20)

Installation of STPs

The Committee further observe that establishment of STPs has been targeted to be completed by September,

2018 as per the milestones set under the Namami Gange programme. But as of now, sewage treatment capacity of only

1,017 mld. has been created and further treatment capacity of 1187 mld is under construction / at approval stage, leaving

a gap of 2,618 mld. The Committee have serious apprehension that corresponding capacity can be created in the

remaining one and half years. They, therefore, recommend that as resolved by National Ganga River Basin Authority

(NGRBA), the work of setting up STP projects should be completed fast to meet the target of cleaning Ganga by 2020.

In order to achieve this, the Committee recommend that installation of STPs should be closely monitored with monthly

submission of progress report based on actual ground level implementation progress town wise for all the 118 towns

situated on the bank of river Ganga. In addition to taking up establishment of STPs on a war footing manner, the

Committee would also like to emphasise the need to focus on minimizing waste generation and disposal of waste in

alternative eco-friendly manner. The Committee believe that awareness programmes should be initiated to publicize the

use of electric crematoria to increase its acceptance among masses.

Reply of the Government

Recommendation of Hon'ble Standing Committee has been noted for compliance.

52

In this regard, in order to make faster and effective implementation of projects, Project Management Consultants (PMCs) are being appointed for effective supervision of works on ground at the state and centre level. At State level PMCs are hired mostly for works specific or town specific for necessary reporting of projects along with information and photographs of actual progress of works.

In addition, for effective monitoring of projects, Tata Consulting Engineers (TCE) has been selected to support NMCG along with regular submission of monthly progress reports to capture actual implementation of work on ground.

The aspect of awareness about Electric Crematoria has been covered along with other communication activities. However, specific communication activities will be carried out to popularize and increased use of Electric Crematoria.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Comment of the Committee

(Please see Para No. 26 of Chapter – I of the Report)

Recommendation (Para No. 21)

Monitoring Mechanism

The Committee further observe that selection, monitoring of STP projects to be operated on hybrid annuity based PPP model, and release of payments to them, have been proposed to be done on the basis of certification / recommendation of independent agencies like IITs and local Governments. Further, Real Time Water Quality Monitoring (RTWQM) system has been proposed to be created at every outlet of the project. They find that out of 113 RTWQM stations targeted to be installed by 2020, so far only 5 RTWQM stations have been installed and further 31 such stations are expected to be installed by March, 2017. All this, again is demonstrative of the sluggish manner in which the mammoth task of cleaning Ganga has been progressing. They further observe that concerns of misappropriation of funds, monitoring of all projects and regular submission of reports will be addressed by appointing Project Management Consultant - for which Tata Consultancy Engineers has been selected. The Committee would like to be apprised of the details of the monitoring mechanism created for overseeing the success of different projects in cleaning the river. They also desire that the monitoring reports should be uploaded in public domain as an important feedback / information about the success of ongoing operation for cleaning Ganga. The Committee would therefore, recommend to make it

compulsory for monitoring agency to submit its monitoring report every three months, which should be uploaded on

Ministry website for an objective assessment of the programme by all the stakeholders including general public.

Reply of the Government

For effective monitoring of projects, a Management Information system (MIS) is being created to capture

information pertaining to ongoing, in-pipeline and completed projects, where the main dashboard

page is demarcated into:

Physical and financial progress of various projects of NMCG like Sewage Management (STP project, Sewage Network)

Project), Development of Ghat and crematoria, Bio Diversity Projects etc., along with stages of projects i.e. completed,

ongoing or inpipeline projects;

Physical progress will be monitored by mapping the project milestones with projects and month wise progress will be

updated.

Completed Projects will be measured with the effluent parameters to check whether the STP s are functioning effectively.

conforming to the Norms.

Also the priority projects along the main stem of Ganga and hotspots can be easily tracked and their present conditions

can also be captured;

Apart from these the MIS will also ensure monthly progress status updates with e-mail alerts to concerned stakeholders

and escalation matrix will be provided.

Automated Report Generation facility will be provided;

Actual site photograph uploading facility will be provided to verify the monthly percentage of physical progress mentioned

in system.

Application will provide information about the held up and delayed projects.

All information will be captured in graphical representation as well as on database mode.

The monthly progress report would be available on the website of NMCG.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Comment of the Committee

(Please see Para No. 29 of Chapter – I of the Report)

54

Recommendation (Para No. 22)

Ghat Works for beautification of river fronts

The Committee are concerned to notice that as against an outlay of Rs. 100 crore in BE 2016-17, an amount of

only Rs. 67 crore was spent under this Head during the year 2016-17. They note that projects for river front development

has been taken up in 7 towns of Kedarnath, Haridwar, Delhi, Allahabad, Kanpur, Varanasi and Patna. However, projects

in case of Kedarnath and Varanasi are yet to be taken under this Head. The Committee observe that non-availability of

No Objection Certificates from State Governments is the main reason for the slow progress of the projects for

beautification of Ghats. The Committee are of the considered view that special initiatives are needed to be taken in

consultation with the concerned State Governments to speed up the projects in the selected States specially for the

aforesaid purpose.

Reply of the Government

Recommendation of Hon'ble Standing Committee has been noted for compliance.

Towards expediting the progress of work following actions have been taken up:

A pollution abatement and ghat development works has been taken up at Kedarnath with an investment of Rs 3.65

Crore. The facilities to be developed would include (i) Pollution abatement works; (ii) Ghat development works; (iii)

Change room -2 nos; (iv) Chatris-4 nos. No specific NOC is needed for this project;

For Varanasi DPR prepared and is under the Third Party Appraisal.

For Haridwar, Kanpur and Patna NOCs have been received and work started. In Patna, 68% construction work has

completed, in Kanpur 40% work completed;

For Delhi and Allahabad, regular meeting are been conducted with the State Government/SPMG to ensure early issue of

NOC.

Further periodical meetings are conducted with the CPSUs and SPMGs of all the states to remove all the bottlenecks and

timely completion of the works.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

55

Recommendation (Para No.23)

Brahmaputra Board

The Committee have been informed that in order to make the functions of the Brahmaputra Board more effective, the Ministry of Water Resources, River Development and Ganga Rejuvenation is considering restructuring of the Brahmaputra Board since 2004 for putting up an altogether new set up under a new Act of Parliament. However, due to certain constraints, envisaged in the setting up a new organisation in place of the existing Brahmaputra Board, it was felt by the Ministry that an attempt be made to make the Brahmaputra Board more effective and efficient within the ambit of the existing Act. The Committee were also told that all the works such as execution of drainage development scheme, Preparation of Master Plans, Preparation of DPR of drainage development schemes, Multipurpose Projects and Protection of areas from floods of Brahmaputra river will be continued during 2017-18. Special emphasis will also be laid on the protection of Majuli Island from floods and erosion and it will be undertaken with financial assistance from the Ministry of Development of North Eastern Region.

Going through the figures for the year 2011-12 to 2016-17 made available to them on Budgetary allocation and expenditure for Brahmaputra Board, the Committee find that there has been nearly 100% utilization of funds by the Brahmaputra Board, all these years. However, despite this achievement, the Committee expressed their dissatisfaction over this and also draw attention of the Ministry to the fact that virtually the ineffective performance of the Board in resolving various problems in the North East States Board is being run from Delhi as Senior Officers of the Board are stationed in Delhi. On this, a representative of the Ministry admitted that at present the Board is Guwahati centric and 95% of the works taken up by the Brahmaputra Board relate to Assam. The Secretary, MoWR,RD and GR also candidly stated that the Senior Officers of the Board should be stationed in North Eastern States instead of being stationed in Delhi. While the Committee felt that the Brahmaputra Board is supposed to look after the entire North Eastern Region, it has failed in its objectives for catering to the requirement of other States of the Region except Assam.

The Committee feel unhappy with the lopsided Assam centric activities of the Brahmaputra Board and concentration of its top officers in Delhi. The Committee, therefore, recommend that the officers and Staff of the Board should be stationed in an appropriate manner in all the North Eastern States depending on the requirements, by revisiting

the priorities in taking up projects and chalking out strategy and programmes in order to give impetus to activities regarding water management in all the States of NE Region as per the Board's mandate.

Reply of the Government

In order to make the Brahmaputra Board administratively and operationally more efficient within the ambit of existing Act by revamping its technical and non-technical cadre, an elaborated exercise was conducted by this Ministry and discussions were made in a meeting held on 06.02.2017. In the meeting it was felt that Brahmaputra Board may open Regional Offices in each State of North East, including a separate office at Majuli Island. Based on the discussion, a minutes of the meeting was issued vide letter dated 13.02.2017 wherein probable cadre restructuring of the Brahmaputra Board was mentioned and Br. Board was requested to take a final decision in the matter. Accordingly, the matter was taken up as the agenda of the Board Meeting of Brahmaputra Board held on 11.04.2017. It has been decided to open Regional offices in all 8 North East States and North Bengal to be heeded by either a Deputy Chief Engineer or Superintending Engineer. The technical & non-technical cadre has been made pyramidical and robust. The new structure proposes the footprints of Brahmaputra Board in all 9 States to take up planning, execution, Flood Protection & Anti-erosion works.

The additional charge for the post of Vice-Chairman, Brahmaputra Board has been assigned to Shri P.M. Scott, Chief Engineer, B&BBO, Central Water Commission, Shillong.

Shri Iltaf Hussain has been promoted as Secretary and Shri C.M. Das has been promoted as Chief Engineer (Level-II) in Brahmaputra Board. Both these officers are stationed at Headquarter of Brahmaputra Board at Guwahati.

Central Water Commission was requested to post four officers of Central Water Engineering Services cadre against the vacant posts in Br. Board on loan basis. In response, CWC vide their Office Order dated 1st March, 2017 have posted Shri Asit Chaturvedi and Ms. Jyotika Pegu in the Brahmaputra Board on loan basis.

The advertisement for filling up the posts of General Manager and Chief Engineer (Level-I) in Brahmaputra Board has been published in Employment News dated 25-31 March, 2017.

The State Governments of Arunachal Pradesh, Assam, Mizoram, Meghalaya, Nagaland, Sikkim and West Bengal has been requested to recommend name of suitable officers for appointment as Financial Adviser in Brahmaputra Board on loan basis vide letters dated 16.11.2016, 13.12.2016 and 11.01.2017.

The Recruitment Rules in respect of posts of Chairman, Vice-Chairman and Financial Adviser in Brahmaputra Board have been approved by Department of Personnel & Training and forwarded to the Legislative Department, M/o Law & Justice for the vetting. The process of regular appointment will be initiated as and when the Recruitment Rules are notified.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Comment of the Committee

(Please see Para No. 32 of Chapter – I of the Report)

Chapter – III

Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies

NIL

Chapter - IV

Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee

Recommendation (Para No. 13)

National Water Mission

The Committee note that the National Water Mission (NWM) was approved during the year 2011. The main objective of the National Water Mission is conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources development and management. Implementation of various activities by NWM include carrying out Baseline studies, Formulation of State Specific Action Plans (SSAPs), HRD &Capacity Building activities, Establishment of demonstration projects and setting up of National Bureau of Water Use Efficiency (NBWUE). The Committee note that as compared to the BE allocation of Rs. 25 crore for the year 2016-17 the RE allocation was Rs. 5 crore where as the actual utilisation was only Rs. 3.50 crore. About the reasons for under utilisation of resources, the Ministry has informed that the implementation of NWM thorough outsourcing and redeployment is a time consuming process and lack of adequate staff is a hindrance in achieving the goals envisaged. The Committee also note that for the year 2017-18 Rs. 15 crore has been allocated and various activities are proposed to be taken up during this financial year which inter-alia include (i) Preparation of State Specific Action Plans for Water sector-9 States/UTs, (ii) Human Resource Development and Capacity Building-25 programmes, (iii) Baseline Studies-21 water resources projects, (iv) Implementation of Pilot/ Demonstration projects and Improving Water Use Efficiency Projects-5, (v) Organising Regional Conventions of Water User Associations, (vi) Undertaking NWM-Industry association collaborative activities to improve Water User Efficiency. Further, with regard to establishment of National Bureau of Water Use Efficiency (NBWUE), during examination of DFG (2013-14), the Committee were informed that it will be operational in the year 2013-14, however, it is a matter of concern that even after more than 3 years the NBWUE is yet to be set up and made functional. While recollecting the apprehension made in the 3rd Report on DFG (2015-16), wherein it was observed that with the slow pace of work, the actual implementation will not take place even after decades, the Committee deplore the lackadaisical attitude of the Ministry. The Committee, therefore, strongly recommend the Ministry to form the NBWUE within this financial year as it would go a long way in meeting the objectives

of National Water Mission (NWM). The Committee also recommend the Ministry to have a permanent solution for having adequate staff in the National Water Mission (NWM) directorate so that there is no further delay in achieving the goals of National Water Mission (NWM) due to informal arrangements, outsourcing and redeployment of staff.

Reply of the Government

Observations of the Hon'ble Committee have been noted. The proposal is being reconsidered as part of Integrated Water Management Efforts. A holistic review of the scheme including in relation to National Bureau of Water Use Efficiency (NBWUE) is being undertaken as appraisal and approval process for the remaining period of 14th Finance Commission period.

Regarding recurring manpower problem at NWM, the Ministry is formulating a revised manpower / consultants policy for attracting the best talent adequately for the Mission with attractive packages. Once it is finalised, NWM will go for new selection process.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Comment of the Committee

(Please see Para No. 11 of Chapter – I of the Report)

Recommendation Para No. 15

The Committee note that the Ministry of Water Resources, River Development and Ganga Rejuvenation had constituted a Drafting Committee under the Chairmanship of Justice T.S. Doabia (Retd.) to study the activities that are required for optimum development of river basin and changes required in the existing River Board Act, 1956 for achievement of the same. The Committee submitted its Report in November, 2012 and has prepared a Draft River Basin Management (RBM) Bill. The Draft RBM Bill proposes to establish a River Basin Authority for regulation and development of waters of an Inter-State River Basin or any specified part thereof and further makes it clear that different Authorities shall be established for different Inter-State River Basin. The Bill also makes provision for the creation of a separate River Basin Authority for a sub-basin within an Inter-State River Basin. The Committee have been informed that the draft River Basin Management Bill is under examination by the MoWR,RD and GR - in consultation with different stakeholders. While deploring the delay made in formation of River Basin Authority, the Committee strongly recommend to establish the same at the earliest.

Reply of the Government

A Committee of 'Group of Officers' – has been constituted by the Ministry of WR,RD & GR to examine in detail the report of Doabia Committee and to suggest possible changes required in the draft River Basin Management Bill to make it implementable. This Committee has held one meeting so far.

(O.M. No. G-11015/8/2016- Budget, Dated : 16.06.2017)

Comment of the Committee

(Please see Para No. 17 of Chapter – I of the Report)

Recommendation (Para No. 16)

Ground Water Management and Regulation

The Committee observe that the scheme of Ground Water Management and Regulation has been implemented during XII Plan with four components of National Aquifer Management (NAQUIM), technological upgradation, particularly Ground Water Management and ongoing activities. They find that an allocation of Rs. 500 crore has been made in the year 2017-18 for this Scheme despite actual expenditure of only Rs. 95.63 crore in the previous year. Although main reasons for underutilization of funds are stated to be the constraints in outsourcing the work of Data Generation for aquifer mapping last year, the Committee are concerned to note that the Ministry has not been able to utilise the budgetary allocation under this Scheme, as is evident from the trend of allocation and expenditure of the last five years. They observe that an internal mechanism has been proposed to be set up to monitor physical and financial progress of various activities/ works during the current year, besides preparation of standard documents. They also observe that proposed work components for the year 2017-18 includes Data Generation for aguifer mapping, which could not be completed in previous year. While collection of data is an important input for identifying the dimensions of the problem, the Committee are perturbed to find that no tangible benefit has been noticed on the ground to improve the water availability in over exploited blocks / dark zones of the country. The Committee notice that the data generated will be used for identification of areas for inclusion under the National Ground Water Improvement Scheme, which is proposed to be implemented with a corpus of Rs. 6000 crore. Under this scheme measures are proposed to be taken to recharge the ground water in areas where there is a possibility to do the same and alternative sources of drinking water will be

provided to those areas where the ground water quality has been severely affected due to underground pollution and contamination. The Committee are of the view that despite lot of grandiose schemes being implemented/ proposed to be implemented and crores of rupees being spent, the ground water situation has not improved. Rather the problem has gone from bad to worse. Therefore, in view of the Committee, supply of alternative source of drinking water should be given top priority and immediate measures should be taken towards this in coordination with the Ministry of Drinking Water and Sanitation. The Ministry can also involve the Members of Parliament and State Legislatures in coordinating activities of various Departments to help the people in the affected areas such as in West Bengal, Bihar, Western Uttar Pradash, Karnataka and Andhra Pradesh, etc. The Committee, therefore, recommend the Government to take target oriented measures in this regard and apprise them of the details of such action plan within three months of presentation of this report.

Reply of the Government

In order to ensure sustainable withdrawal and effective utilization of ground water, including for drinking water supply, and its management a committee has been constituted with Secretary (WR, RD&GR) as convenor and Secretaries of Ministries of Rural Development, Drinking Water and Sanitation, Panchayati Raj, Agriculture & Farmers Welfare and Environment, Forest and Climate Change.

Further, Central Ground Water Board is actively involved in the State Government endeavours for supply of drinking water. State wise details are as follows;

West Bengal

Central Ground Water Board is constantly maintaining liaison with the different departments of Central and State Govt., Universities, Municipalities and NGOs' etc. in West Bengal for providing technical guidance, interchanging ideas regarding ground water related problems and comments on proposed sources of PHED for water supply in rural areas. Central Ground Water Board was/is specially associated with the following Committees specially related to supply of drinking water -

- State Level Scientific Source Finding Committee for Adequacy of Source and State Level Project/Scheme Sanctioning Committee. Different drinking water supply schemes are approved by this committee.
- Core Committee of Arsenic Task Force, Govt. of West Bengal.
- Committee of Arsenic Task Force, Kolkata Municipal Corporation, Kolkata.

- Core Committee of Fluoride Task Force, Govt. of West Bengal.
- Drinking Water Scarcity in drought affected areas of West Bengal.

Bihar

Central Ground Water Board is actively involved in the various drinking water supply activities of the States like 'Har Ghar Nal Ka Jal' PHED etc. Besides, Central Ground Water Board has constructed 28 high discharge arsenic free deep tubewells in arsenic affected areas of Bihar and handed over to PHED, Govt. of Bihar. CGWB also envisaged constructing 40 deep tubewells in arsenic affected Brahmpur block, Buxar district, Bihar for drinking purposes which will be handed over to PHED, Govt. of Bihar.

Karnataka

Regional Director, CGWB is the Chairman of the State Technical Agency (STA) which is responsible for clearing the technical aspects of the Schemes for Drinking Water Supply from surface water sources for piped water supply schemes in areas where there is short supply in ground water, and quality issues.

Further, Regional Director, CGWB, SWR, Bengaluru is also a Member of the SLSSC (State Level Scheme Sanctioning Committee). SLSSC is clearing the schemes received from STA after technical clearance. Principal Secretary, Rural Development & Panchayat Raj Department (RD&PR), Govt. of Karnataka is heading the SLSC. A representative from Ministry of Drinking Water and Sanitation, Govt. of India is also a Member of SLSSC, apart from members from other State and Central Departments.

Andhra Pradesh

Regional Director, Central Ground water Board is a Member of the State Level Scheme Sanctioning Committee (SLSSC), which approves all the drinking water Schemes of the State. Principal Secretary to the Government, Panchayatraj & Rural Water Supply is the Chairman of the Committee and Dy. Adviser (Water Quality), Ministry of Drinking Water & Sanitation, Government of India along with other Expert Members from line Departments are Members of the Committee.

As per the priority of the Government for sanction of Schemes in cluster of Over-Exploited and quality affected areas, Multi-Village Supply (MVS) schemes from transporting water from major reservoirs/surface sources are being considered.

In all the meetings, the Board is laying stress on sustainability of drinking water Schemes through construction of appropriate rain water harvesting structures. Further, as a Member of the Committee, the Board is involved in deliberations and suggestions in finalization of the drinking water schemes being implemented in the State from time to time.

Western Uttar Pradesh

Central Ground Water Board, Northern Region, is one of the members of State Level Scheme Scanning Committee (SLSSC) for National Rural Drinking Water Supply Programme (NRDWSP) constituted under the Chairmanship of the Principal Secretary, Rural Development, Government of UP. The meetings of the Committee for approval of various drinking water supply schemes in the State are convened regularly by the Executive Director, State Drinking Water and Sanitation Mission and attended by officers of CGWB. Representative of CGWB provide required technical inputs in respect of schemes discussed during the meetings.

Copy of the Ground Water Year Books issued by CGWB, Northern Region annually is provided to UP Jal Nigam, the Department responsible for supply of drinking water in Uttar Pradesh State. In addition, copies of the compiled data of Ground Water monitoring being carried out by CGWB 4 times a year are also provided to UP Jal Nigam. The Department utilizes the data in preparing its water supply schemes.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Comment of the Committee

(Please see Para No. 20 of Chapter – I of the Report)

Recommendation (Para No. 18)

Namami Gange –National Ganga Plan

The Committee observe that 'Namami Gange' was set up during the Union Budget 2014-15 to undertake Ganga rejuvenation and conservation by amalgamating all the existing measures by 2020. The basic thrust of this programme is abatement of pollution in the river through measures such as interception, diversion and treatment of waste water, rehabilitation and amalgamation of existing Sewage Treatment Plants (STPs), Common Effluent Treatment Plants (CETPs) for major industrial clusters, interventions on rural sanitation, solid waste / pious refuse management, sewerage network, etc. They note that under this programme, a total expenditure of Rs. 2440.50 crore has been made in the last three years. Further total expenditure by National Mission for Clean Ganga is Rs. 4,321.05 crore, out of Rs. 20,000 crore approved by the Cabinet. While appreciating the ambitious programme of Namami Gange, which aims at cleaning and rejuvenating Ganga by December, 2020, the Committee are concerned to note that the implementation of this programme has not been able to keep pace due to changes in policy with regard to preparation of Detailed Project

Reports (DPRs) by States and model for implementation of projects. Now the DPRs have been revised with the main focus on Infrastructure and Development and Sewage Treatment Plants (STPs) - which will be implemented through hybrid annuity based public private partnership (PPP) model. The Committee find that at present 5 CPSUs have initiated Condition Assessment and Feasibility Study (CA&FS) for all 118 towns. However, the details of CPSUs entrusted with this work has not been furnished. The Committee therefore, desire to be apprised of the details of 5 Central Public Sector Undertakings (CPSUs), which have been selected to prepare CA and FSs including the status of such studies and further preparation of DPRs. They would also like to know the number of STPs selected on hybrid annuity based PPP model and the status of work on these projects.

Reply of the Government

Five CPSUs, namely Water & Power Consultancy Services (WAPCOS), Engineers India Limited (EIL), National Building Construction Corporation (NBCC), National Project Construction Corporation (NPCC) and Engineering Project India Limited (EPIL) have been engaged for preparation of condition assessment and feasibility studies. Initially 113 towns were allotted to them, which has been reduced to 108. Among them CA&Fs reports for 106 towns have been received. CPSU wise distribution of the CA&FS reports are detailed below:

| NAT | NATIONAL MISSION FOR CLEAN GANGA (CPSU WISE) | | | | | | | | | | |
|------|--|--------------|---------------|--------|---------|------|-----|--------|-------------|----------|---------|
| Abst | ract of 118 Tov | vns identifi | ed Alor | ng the | River (| Gang | а | | | | |
| S. | State | Original | Class of Town | | | | | | Total Towns | CA&FS | Pending |
| No. | | Work | | l 11 | Liii | 11.7 | 111 | 1 1 11 | After | Received | ed |
| | | Order | ļ | II | III | IV | V | VI | Revision | | |
| 1 | WAPCOS | 13 | 0 | 0 | 3 | 3 | 3 | 4 | 13 | 13 | 0 |
| 2 | EIL | 38 | 16 | 12 | 8 | 2 | 0 | 0 | 38 | 38 | 0 |
| 3 | NBCC | 19 | 15 | 0 | 4 | 0 | 0 | 0 | 19 | 19 | 0 |
| 4 | NPCC | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 5 | EPIL | 42 | 28 | 7 | 2 | 0 | 0 | 0 | 37 | 35 | 2 |
| Tota | İ | 113 | 59 | 20 | 17 | 5 | 3 | 4 | 108 | 106 | 2 |

Till date following STP projects have been taken up in Hybrid Annuity based PPP model:

Two STPs in Haridwar with a total capacity of 82 MLD (68 MLD for Jagjeetpur and 14 MLD at Sarai); AA&ES issued, tenders invited. Last date of tender submission is 2nd June 2017.

One STP at Ramana Varanasi, with a capacity of 50 MLD; AA&ES issued, tenders invited, last date of tender submission is 29th May 2017.

One STP at Mathura, with capacity of 92 MLD is being forwarded for Third Party Appraisal.

Few more projects will also be taken up under hybrid annuity based PPP model based upon response received for the above mentioned projects.

(O.M. No. G-11015/8/2016- Budget, Dated: 16.06.2017)

Comment of the Committee

(Please see Para No. 23 of Chapter – I of the Report)

| Chapter – V | CI | าล | pt | er | _ | ٧ |
|-------------|----|----|----|----|---|---|
|-------------|----|----|----|----|---|---|

| Recommendation/Observation in respe | ect of which final rep | oly of the (| Government is still awaite |
|-------------------------------------|------------------------|--------------|----------------------------|
|-------------------------------------|------------------------|--------------|----------------------------|

NIL

NEW DELHI; 04 August, 2017 13 Shravana, 1939 (Saka) HUKUM SINGH, Chairperson, Standing Committee on Water Resources

No.T-24011/4/2016-GWE Government of India Ministry of Water Resources, RD & GR CGWB Desk

Shram Shakti Bhawan, Rafi Marg, New Deihi, Dated: 8th May, 2017

OFFICE ORDER

With a view to improve the functioning and performance of Central Ground Water Authority, the charge of Chairman is hereby assigned to Shri Akhii Kumar, Joint Secretary (A&GW) in addition to his normal duties with immediate effect.

- Shri K.B.Biswas, who is also holding the additional charge of Chairman, CGWA will handover additional charge to Shri Akhil Kumar, JS(A & GW) accordingly. Mr. K. B. Biswas will continue to hold the additional charge of the post of Chairman, CGWB in terms of Office Order No. 7/16/2006-CGWB dated 31.1.2017
- Henceforth, all cases/files/proposals of CGWA will be submitted by Member Secretary, CGWA to Shri Akhil Kumar, JS(A & GW).
- This issues with the approval of Hon'ble Minister (WR,RD & GR).

(Khatchin Lange!) Director (GWE & E-II) Phone: 23714734

- 1. JS(A & GWE), M/o.WR,RD & GR, New Delhi.
- 2. Shri K.B.Biswas, Chairman, CGWB, Faridabad.-
- a. Member Secretary, CGWA ----
- Director(Admn.), CGWB, Faridabad —-
- 5. PAO, CGWB, Faridabad.
- 6. All Regional Offices of CGWB.
- 7. Administrator, CGWA ____-
- All attached and subordinate offices and Autonomous bodies of M/o. Water Resources
- 9. All Officers/Sections in the M/o. Water Resources
- 10. Guard File

Copy for information to:

- 1. P.S. to Minister (WR,RD & GR)/ PS to MOS(WR,RD & GR)
- 2. PPS to Secretary, WR,RD & GR/ PS to JS(PP)(WR,RD & GR)

| | Package No. | |
|-------------------------------|----------------|--|
| Name of Dam | | Name of Work |
| | MPWRD (I | Madhya Pradesh Water Resource Department) |
| ARI DAM | 1 | Remedial Measure Work |
| ARI DAM | 2 | Construction of Bituminous approach road |
| ARNIYA BAHADURPUR | 1 | Remedial measure work |
| BARNA | 1 | Remedial measure drilling and grouting work |
| BARNA | 2 | Construction Of Trunion Bridge |
| BARNA | 3 | Remedial measure civil works |
| BARNA | 4 | Dewatering and Slush removal from stilling basin bucket |
| BARNA | 5 | Repair and renovation of EDA |
| BARNA | 6 | Construction of Bituminous approach road |
| BARNA | 7 | Remedial measure E/M work of Kolar & Barna |
| BARNA | 8 | Shotereting the upstream face of Barna Main Dam |
| BUNDALA | 1 | Remedial measure civil works |
| CHANDPATHA | 2 | Construction of Additional spillway with Design drawing fabricatin & erection etc. |
| CHANDRAKESHAR | 1 | Remedial measure civil work |
| Dholawad Tank (Ratlam) | 1 | Remedial measure civil & basic facilities work |
| Dholawad Tank (Ratlam) | 2 | Electrical & Mechanical Work |
| Dholawad Tank (Ratlam) | 3 | Dewatering Works |
| DUDHI (KUNWAR CHAIN | 1 | Remedial Measure Work |
| SAGAR) DUDHI (KUNWAR CHAIN | | |
| SAGAR) | 2 | Constrction of bituminious approach road |
| DUDHI (KUNWAR CHAIN SAGAR) | 3 | Electrical & Mechanical Work |
| JIRBHAR | 1 | Remedial Measure Work |
| JIRBHAR | 2 | Renovation of existing bituminous approach road |
| Kanhargaon Tank(Chhindwara) | 1 | Remedial Measure civil work |

| KANKERKHEDA | 1 | Remedial Measure civil work |
|------------------------------|---|--|
| KANKERKHEDA | 2 | Construction of bituminious approach road |
| KHARADI | 1 | Remedial measure work |
| KOLAR | 1 | Remedial Measure Civil Work |
| KOLAR | 2 | Basic facilities work Road |
| KOLAR | 3 | Dewatering and slush removal from stilling basin bucket |
| MAKRODA | 1 | Restoration of rock toe, seepage drain, nalla clearance, strengthening of main and subsidiary bund and deflector wall, repair of chute fall, additional bridge on spill channel etc. |
| MARHI | 1 | Remedial measure and Basic Facilities work |
| MOORUM NALLA | 1 | Remedial measure work |
| NAHLESARA | 1 | Remedial measure work |
| RUTHAI (GOPI KRISHNA | 1 | Remedial measure work |
| SAGAR) RUTHAI (GOPI KRISHNA | 3 | Electrical & Mechanical Work |
| SAGAR) SAMPNA | 1 | Remedial Measure (Civil) Work |
| SANJAY SAGAR | 1 | Remedial Measure of Slice -1 |
| SANJAY SAGAR | 2 | Road Work Slice-2 Remedial work (Civil) |
| SARATHI | 1 | Remedial measure and basic Facilities work |
| TAWA | 1 | Remedial Measure work of Drilling Grouting |
| TAWA | 2 | Renewal of old tar approach road |
| TAWA | 4 | Dewatering Works |
| TAWA | 5 | Electrical & Mechanical Work |
| | | |

| | Package | |
|--------------------------------------|---------|--|
| Name of Dam | | Name of Work |
| | No. | |
| TAWA | 6 | Repair and renovation of EDA |
| THANWER (RAJIVSAGAR) | 1 | Radial gate Electrical and Mechenical work Slice No.1 |
| THANWER (RAJIVSAGAR) | 2 | Remedial measure drilling and grouting work |
| THANWER (RAJIVSAGAR) | 4 | Remedial measure work,Pitching |
| UMRAR | 1 | Remedial measure work and Basic facilities work |
| UPPER WAIN GANGA (SANJAY SAROVER) | 1 | Remedial Measure Work |
| UPPER WAIN GANGA (SANJAY SAROVER) | 2 | Construction of bituminous approach road |
| UPPER WAIN GANGA (SANJAY SAROVER) | 3 | Dewatering Works |
| UPPER WAIN GANGA | 4 | Electrical & Mechanical Work |
| (SANJAY SAROVER) | | |
| | OWF | RD (Orissa Water Resource Department) |
| ASHOK NALLA | 1 | Renovation to Ashokanalla M I P Dam resectioning toe drain and Surface drainage arrangement in Banapur Block of Khurdha district under DRIP 2015 16 |
| BALASKUMPA | 1 | Improvement to Balaskumpa MIP in Khajuripada block of Kandhamal District in Odisha under DRIP |
| BALIMELA | 1 | Improvement to approach road renovation of longitudinal and cross drains of main earth dam dyke I II and III of Balimela Dam Project under DRIP in the year 2015 16 |
| BALIMELA | | Renovation of Helipad Garden on the Right Flank of M E D of Balimela Dam Project under DRIP for the year 2015 16 (Improvement to Eco-tourism). |
| BALIMELA | | Renovation of deep channel erosion near the road on the left of the spillway river sluice block, construction of a toe wall with a single monolithic RCC Structure consisting of a cut-off, apron & toe wall to avoid scour & further destruction of the road under DRIP for the year 2016-17. |
| BALIMELA | 4 | Repair to AP tunnel, OHPC tunnel, sluice gates and emergency gates of Balimela dam project. |
| BALIMELA | 5 | White ant Treatment of Earth Dam and three nos. of Dyke of Balimela Dam Project under Dam Rehabilitation and Improvement Project (DRIP) for the year 2016-17. |
| BALIMELA | 6 | Cleaning of foundation Gallary and Reaming of Drainage holes of Spillway of Balimela Dam Project under Dam Rehabilitation and Improvement Project (DRIP) for the year 2016-17 |

| BANKSAL | 1 | Improvement to Banksal Minor Irrigation Project in Jamankira Block of Sambalpur District under DRIP |
|---------|---|---|
| BHASKEL | 1 | Improvement to Bhaskel Irrigation project, Ummerkote under DRIP |
| BHASKEL | 2 | Construction of watch tower cumwatchman shed at Dam site ofBhaskel Irrigation Project underDRIP. |
| BHASKEL | 3 | Barbed wire fencing to Downstream of Bhaskel Dam at Umerkote under DRIP |
| DAHA | 1 | Improvement to Daha Irrigation Project under DRIP |
| DAHA | 2 | Fixing of Piezometer |
| DAHA | 3 | Improvement in presentation and Calibration system of Daha Dam |
| DAHA | 4 | Supply of wire rope & installation for Radial Gates No. I and No. II of Daha Irrigation Project. |

| Name of Dam | Package | Name of Work |
|-------------|---------|---|
| Name of Dam | No. | Name of Work |
| | | |
| DAHA | 5 | Repair and maintenance of left distributary head regulator, fixing of doors and windows for watchman shed near left distry Head Regulator. |
| DAHA | 6 | Supply of wire rope & installation for Radial Gates No. III and No. IV of Daha Irrigation Project. |
| DAHA | 7 | Renovation of turnbuckles with painting of radial gates of Daha Irrigation Project. |
| DAMSAL | 1 | Renovation to Damsal Res M I P in Kankadahada block of Dhenkanal district under DRIP 2015 16 |
| DERJANG | 1 | Improvement to Derjang Irrigation Project under the DRIP |
| DERJANG | 2 | Improvement to Derjang Irrigation Project under the DRIP Package No 02 |
| DHANEI | 1 | Improvement to Dhanei Irrigation Project under DRIP |
| DHANEI | 2 | Providing, fixing, teting and commissioning of electroray digital water level recorder, gauge mark, boards, V-notches and metrological instruments for Dhanei dam |
| DHANEI | 3 | Instrumentation |
| HIRAKUD | 1 | Restoration of disturbed stone packing in the Up stream slope from Rd 1 20Km To 1 50Km of left Earth Dam under DRIP |
| HIRAKUD | 2 | Restoration of disturbed stone packing from left pavillion to Lunch Ghat of Hirakud Dam under DRIP |
| HIRAKUD | 3 | Restoration of Down stream apron with cavity filling of left spillway of Hirakud Dam under DRIP |
| HIRAKUD | 4 | Restoration of disturbed stone packing in the Upstream slope from Rd 240Km To 3 65Km of right Earth Dam under DRIP |
| HIRAKUD | 5 | Exploratory triple tube NX size core drilling by Hydraulic core drilling rig and permeability test for proposed spillway for 6nos of borehole Excluding the making approach road for transport of Drilling rig and accessories to borehole location 75mtr of 4nos of borehole and 30mtr of 2nos of borehole |
| HIRAKUD | 6 | Under water scanning by ROV |
| HIRAKUD | 11 | Restoration of Upstream around right abutment hill by GI crates stone dumping of Hirakud Dam |
| HIRAKUD | 14 | Laboratory studies for determination of strength and elastic properties from distress blocks of Hirakud Dam. |
| HIRAKUD | 15 | 3D Stress Analysis by FEM Of Hirakud Dam |
| HIRAKUD | 16 | Studies for Identification of suitable material for repairing of distressed blocks of Hirakud Dam. |
| JHUMUKA | 1 | Renovation to Jhumuka MIP Surplus channel and approach road in Bhubaneswar block of Khurda under DRIP 2015 16 |
| JHUMUKA | 2 | Renovation of Jhumuka MIP Earth Dam and Balance road work in Bhubaneswar Block of Khurda District under DRIP 2015 16 |
| KALO | 1 | Improvement of Earth Dam of Kalo Irrigation Project under DRIP |
| KALO | 2 | Supply of peizometer (Casagrande porous tube and sloted type) under DRIP of Kalo Irrigation Project. |

| KALO | 3 | Supply of materials for power supply to 15KVA load of electrification |
|------|---|---|
| KALO | 4 | Redrilling and cleaning of drainage holes and drilling with low pressure cement grouting to foundation gallery wall of Kalo Irrigation Project. |
| KALO | 5 | Supply of materials for Electrification of Kalo Irrigation Project |
| KALO | 6 | Reservoir sedementation assessment of Kalo Reservoirs, Odisha |
| KALO | 7 | Supply of providing, fixing, testing and commissioning of electro ray digital water level recorder, gauge marks, boards, V-notches and metrological instruments etc for Kalo Dam. |

| Name of Dam | Package No. | Name of Work |
|-------------|----------------|---|
| KALO | 8 | Procurement and installation of 15KVA generator at dam site of Kalo irrigarion project |
| KALO | 9 | Supply of Computer and its accessories under DRIP of KALO Irrigation Project. |
| KALO | 10 | Supply of Fax and accessories & Wi-Fi Dongle for Division Office under DRIP of KALO Irrigation Project. |
| KALO | 11 | Supply of Lasor Printr for Division Office under DRIP of KALO Irrigation Project. |
| KALO | 12 | Electrification to Kalo Dam site under DRIP of Kalo Irrigation Project. |
| KALO | 13 | Supply of Office Stationaries for Division office under DRIP of Kalo Irrigation Project. |
| KALO | 14 | Supply of Computer and its accessoties under DRIP of Kalo Irrigation Project. |
| KALO | 15 | Procurement of Xerox Machine accessories for Division Office under DRIP of Kalo Irrigation Project. |
| KALO | 16 | Advertisement Bill for the work under DRIP of KALO Irrigation Project. |
| KALO | 17 | Advertisement Bill for the work under DRIP of KALO Irrigation Project. |
| NESA | 1 | Improvement of Nesa Dam of Nesa Irrigation Project under DRIP |
| NESA | 2 | Supply of Piezometre (Casagrande porous tube and sloted type) of Nesa Irrigation Project. |
| NESA | 3 | Reservoir Sedimetation assessment of Nesa Reservoirs, Odisha State. |
| NESA | 4 | Supply of providing, fixing, testing & commissioning of electroray digital water level recorder, gauge marks, boards & metrological instruments etc for Nesa Irrigation Project. |
| NESA | 5 | Providing, fixing, testing and commissioning of solar genset of 450watt capacity for power generation and walkway bridge from HR to recorder cabin at Nesa irrigation project. |
| NESA | 6 | Advertisement bill for the work under DRIP of Nesa Irrigation Project. |
| NESA | 7 | Supply of Computer accessories for Division Office under DRIP of Nesa Irrigation Project. |
| PILLASALKI | 1 | Dam Rehabilitation and Improvement Project for Pilasalki Dam Phulbani |
| PILLASALKI | 2 | Improvement of presentation & calibration system electroray digital water level recorder, calibration marks, boards, V-notches and metrological instrument for Pillasalki Dam. |
| PILLASALKI | 3 | Walkway bridge across spillway of Pillasalki Irrigation Project under Boudh Irrigation Division, Boudh. |
| PITAMAHAL | 1 | Rehabilitation to Pitamahal Dam |
| PITAMAHAL | 2 | Supplying, installing & commissioning of 2nos. 20mtr. High mast lighting system with 9 nos. 2x400W MH lighting system at dam base of Pitamahal dam |
| PITAMAHAL | 3 | Improvement in presentation and Caliberation system for Pitamahal Irrigation Project under Sundergarh Irrigation Division, Sundargarh under DRIP. |
| RENGALI | 1 | Improvement to Rengali Dam under DRIP Dam Rehabilitation and Improvement Project for the year 2015 16 Improvement of Service Road Slope protection to the left abutment Fixing deep anchor Concreting to scoured plunge pool area of bucket and Skin concreting |
| RENGALI | | Improvement to Rengali Dam under DRIP Dam Rehabilitation and Improvement |

| 2 | Project for the year 2015 16 Epoxy Painting to Radial Gates and Grouting to |
|---|---|
| | 2nd Stage Concrete of Piers |

| Name of Dam | Package No. | Name of Work |
|-------------|----------------|--|
| RENGALI | 3 | Improvement to Rengali Dam under DRIP Dam Rehabilitation and Improvement Project for the year 2015 16 Installation of 7Mtr Height Street Lights on the right approach to Rengali Dam and replacement of 2 x 8nos of fittings and accessories for two nos of Highmast Light at Dam Top of Rengali Dam |
| RENGALI | 4 | Improvement to Rengali Dam under DRIP (Dam Rehabilitation and Improvement Project) for the year 2016-17. (Cleaning of Drainage Holes of Foundation Gallery by Re-Drilling for removal of calcination of Rengali Dam) |
| RENGALI | 5 | Improvement to Rengali Dam under DRIP (Dam Rehabilitation and Improvement Project) for the year 2016-17. (Second Stage Grouting with plaster to Pier No-4,5,13 and Grouting to Block no-44 of Rengali Dam) |
| RENGALI | 6 | Improvement to Rengali Dam under DRIP (Dam Rehabilitation and Improvement Project) for the year 2016-17. (Extention of Concreting to Scoured Plunge Pool area of Bucket (Lower Bucket) of Rengali Dam) |
| RENGALI | 7 | Improvement to Rengali Dam under DRIP (Dam Rehabilitation and Improvement Project) for the year 2016-17. (Reaming of Vertical Porous Drains of Foundation Gallery of Rengali Dam) |
| RENGALI | 8 | Supply of FRB 8 - Seater Boat for Rengali Dam |
| SALANDI | 1 | Improvement to Salandi Dam under DRIP Approach road to Dam parapet wall of masonry dam repair of spillway construction of guard wall compound wall visitors pindi security room improvement to afflux bundha and slope of earth Dam |
| SALANDI | 2 | Improvement of Salandi Dam under DRIP Renovation of Electrical utilities including provision for control panel cable and earthing device etc including three nos High Mast light for Salandi Dam Hadagarh |
| SALANDI | 3 | Improvement to Salandi Dam under DRIP Renovation Fabrication Erection Testing and Commissioning of under Sluice Gate No 3 and replacement of Steel wire rope with 20 Ton capacity turnbuckle including Electrical Repair of 8nos of Radial Gates |
| SALANDI | 4 | Providing man power service for security arrangement of Salandi dam at Hadgarh on contract basis |
| SALANDI | 5 | Automation of 8 nos radial gates by remote sensoring of Salandi dam Hadgarh |
| SALANDI | 6 | Providing man power service for security arrangement of Salandi dam at Hadgarh on contract basis |
| SALANDI | 7 | Supply & fitting of reflective signaeage board of different offices of salandi canal division under DRIP. |
| SALANDI | 8 | Supply & fitting of reflective signaeage board of different offices of salandi canal division under DRIP. |
| SALIA | 1 | Improvement to Salia Irrigation Project under DRIP |
| SALIA | 2 | Improvement to Salia Irrigation Project under Dam Rehabilitation Improvement Project (DRIP) (Power supply to Salia Irr. Project 25KVA (Including Transformer) |
| SALIA | 3 | Improvement to Salia Irrigation Project under Dam Rehabilitation Improvement Project (DRIP) (Removal of all woodly vegetation both the main dam & Dyke) |
| SALIA | 4 | Improvement to Salia Irrigation Project under Dam Rehabilitation Improvement Project (DRIP) (Illumination of Salia Dam Project of 400m length) |

| SALIA | 5 | Improvement to Salia Irrigation Project under Dam Rehabilitation Improvement Project (DRIP) (Power supply of Salia Irrigation Project LT line with AB Cable 3 x 35 + 1 x 25 MMSQ of 1.25Km. |
|------------------|---|---|
| SANMACHHAKANDANA | 1 | Improvement to Sanamachhakandana Dam under DRIP |

| Name of Dam | Package No. | Name of Work |
|-----------------------|----------------|--|
| SANMACHHAKANDANA | 2 | Construction of 1st and 2nd Fall Ogee of Surplus Channel at RD 30M Right and 70M Left of Sanamachhakandana Dam under DRIP at Bansapal Block of Keonjhar District |
| SAPUA | 1 | Improvement to Sapua Badjore Irrigation project under DRIP |
| SAPUA | 2 | Improvement to Sapua Badjore Irrigation project under DRIP Package 02 |
| SARAFGARH | 1 | Rehabilitation to Saraphgarh Dam |
| SARAFGARH | 2 | Agreement drawn for Mechanical work vide PO No 306 311 etc dtd 20 02 2015 |
| SARAFGARH | 3 | Agreement drawn for Mechanical work & P.O. issued |
| SARAFGARH | 4 | Supplying, installing & commissioning of 2nos. 20mtr. High mast lighting system with 9 nos. 2x400W MH lighting system at dam base of Sarafgarh irrigation project. |
| SARAFGARH | 5 | Improvement in presentation and Caliberation system for Sarafgarh Irrigation Project under Sundergarh Irrigation Division, Sundargarh under DRIP. |
| SARAFGARH | 6 | Supplying, fitting & fixing of Ino. 40 KVA Three phase silent type AMF D.G. set with accessories for Saraphgarh Irrigation Project. |
| SATIGUDA (MALKANGIRI) | 1 | Leakage control through body wall of Spillway by drilling grouting including cleaning of porous holes of foundation under DRIP of Satiguda Medium Irrigation Project Malkangiri 2015 16 |
| SATIGUDA (MALKANGIRI) | 2 | Improvement to Service Road to Dam Site Construction of new culverts raising of parapet wall and Barbed wire fencing of SIP Satiguda Irrigation Project Malkangiri under DRIP for the year 2015 16 |
| SATIGUDA (MALKANGIRI) | 3 | Repair and renovation of stilling basin toe drain improvement to spill channel resectioning of dyke and construction of protection wall near city water tank of Satiguda Irrigation Project Malkangiri under DRIP for the year 2015 16 |
| SATIGUDA (UKP) | 1 | Dam Rehabilitation improvement project DRIP of Satiguda Dam Upper Kolab Project Barinipur District Koraput |
| SATIGUDA (UKP) | 2 | Leakage control through spillway body walls HR structures by Drilling Grouting and Reaming of VPD and Foundation holes of drainage Gallery of Satiguda Dam Upper Kolab Project. |
| SATIGUDA (UKP) | 3 | Supply and installation of 30KVA silent diesel generator set and lighting arrangement at dam top road Head regulator gates and gallery inside of Satiguda dam under DRIP |
| SUNDAR | 1 | Improvement to Sundar Irrigation Project under the dam Rehabilitation and Improvement Project DRIP for the year 2015 16 |
| SUNDAR | 2 | Barbed wire fencing to Down Stream of Sundar Dam at Jadamunda |
| TALSARA | 1 | Rehabilitation to Talsara Dam |
| TALSARA | 2 | Agreement drawn for Mechanical work vide PO No 316, 356, 351 etc dtd 20 02 2015 |
| TALSARA | 3 | Agreement drawn for Mechanical work through PO. 5241, 5251 etc and agreements |
| TALSARA | 4 | Supplying, installing & commissioning of 1no. 20mtr. High mast lighting system with 9 nos. 2x400W MH lighting system at dam base of Talasara irrigation project. |
| TALSARA | 5 | Improvement in presentation and Caliberation system for Talsara Irrigation Project under Sundergarh Irrigation Division, Sundargarh under DRIP. |

| TALSARA | 6 | Epoxy grouting in the walls of H/R and breast wall of Talsara Dam. |
|-------------|---|--|
| UPPER KOLAB | 1 | Improvement to Road communication network improvement of drainage system and construction of compound wall fencing along the boundary of UK Dam Kolabnagar under DRIP. |

| Name of Dam | Package No. | Name of Work |
|-------------------|----------------|---|
| UPPER KOLAB | 2 | Down Stream Protection works on left and right side of spill channel of UK Dam with Construction of Guard Walls and Stone packing works under DRIP. |
| UPPER KOLAB | 3 | Renovation and special repair to lighting system for UK Dam under DRIP. |
| UPPER KOLAB | 4 | Construction of watch tower at vulenerable locations renovation of old damaged parapets providing hand rails on steps inside drainage gallery and other ancilliary works of UK Dam under DRIP. |
| UPPER KOLAB | 5 | Beautification of Garden at U K dam under DRIP |
| UPPER KOLAB | 6 | Installation of Solar Power station at UK dam under DRIP |
| UPPER KOLAB | 7 | Supply and installation of CCTV camera and other accessories for surveillance under DRIP |
| UPPER KOLAB | 8 | Supply and installation of computer with networking furnitures and other accessories for control room of UK dam under DRIP |
| UPPER KOLAB | 9 | Sand blasting and painting of 11 nos spillway radial gates Up stream sides only of UK dam under DRIP |
| UPPER KOLAB | 10 | Change of rubber seals of 11 nos spillway radial gates of UK dam under DRIP |
| UPPER KOLAB | 11 | Improvement to pumping system of inspection gallery of UK Dam under DRIP |
| UPPER KOLAB | 12 | Repair and renovation to radial crest gate gantry crane and hoisting arrangement of UK Dam under DRIP |
| UPPER KOLAB | 13 | Treatment to upstream and downstream faces with PICC mortar or equivalent non shrink mortar & grouting works to eradicate the distress condition of dam body wall of Upper Kolab dam under DRIP |
| UPPER KOLAB | 14 | Procurement of emergency articles for dam operation and maintenance |
| | TNWR | D (Tamil Nadu Water Resource Department) |
| ADAVINAINARKOVIL | 1 | Civil Works |
| ADAVINAINARKOVIL | 2 | Hydro-Mechanical Work |
| ADAVINAINARKOVIL | 3 | Electrical |
| ALIYAR | 1 | Civil Works |
| ALIYAR | 2 | Hydro-Mechanical Work |
| ALIYAR | 3 | Electrical |
| AMARAVATHI | 1 | Civil Works |
| <i>AMARAVATHI</i> | 2 | Hydro-Mechanical Work |
| <i>AMARAVATHI</i> | 3 | Electrical |
| ANAI MADUVU | 1 | Civil Works |
| ANAI MADUVU | 2 | Hydro-Mechanical Work |
| ANAI MADUVU | 3 | Electrical - I |
| ANAIKUTTAM | 1 | Civil Works |
| ANAIKUTTAM | 2 | Hydro-Mechanical Work |
| ANAIKUTTAM | 3 | Electrical |
| BHAVANISAGAR | 1 | Civil Works |
| BHAVANISAGAR | 2 | Hydro-Mechanical Work (Renewal and Repairs Shutter works) |
| BHAVANISAGAR | 3 | Electrical |
| CHEMBARAMPAKKAM | 1 | Civil Works |
| CHEMBARAMPAKKAM | 2 | Hydro-Mechanical Work |
| CHEMBARAMPAKKAM | 3 | Electrical |
| CHINNAR | 1 | Civil Works |

| CHINNAR | 2 | Hydro-Mechanical Work (Repairs and renewal to Head slucie service gate grooves for horisting arrangements) |
|---------|---|--|
| CHINNAR | 3 | Hydro-Mechanical Work (Repairs to spillway shutter and head sluice) |

| Name of Dam CHINNAR CHITTAR I CHITTAR II CHOLAVARAM GATANA | No. 4 1 1 1 1 | Civil Works Civil Works Civil Works |
|---|---------------|---|
| CHITTAR I CHITTAR II CHOLAVARAM | 1 1 1 | Civil Works |
| CHITTAR II CHOLAVARAM | 1 | |
| CHOLAVARAM | 1 | CIVII VVORKS |
| | | 0: 11/4 |
| GATANA | 1 | Civil Works |
| | | Civil Works |
| GATANA | 2 | Hydro-Mechanical Work (Repairs & Replacement of shutters with reubber seal and hoisting) |
| GOLWARPATTI | 1 | Civil Works |
| GOLWARPATTI | 2 | Hydro-Mechanical Work (Repairs & Replacement of shutters with reubber seal and hoisting arrangements) |
| GOLWARPATTI | 3 | Electrical |
| GOMUKHINADI | 1 | Civil & Hydro Mechanical Works |
| GUNDERIPALLAM | 1 | Civil Works |
| GUNDERIPALLAM | 2 | Hydro-Mechanical Work |
| GUNDERIPALLAM | 3 | Electrical |
| KARIAKOIL | 1 | Civil Works |
| KARIAKOIL | 3 | Electrical |
| KARUPPANADHI | 1 | Civil Works |
| KARUPPANADHI | 2 | Hydro-Mechanical Work (Repairs & Replacement of shutters with reubber seal and hoisting arrangements) |
| KARUPPANADHI | 3 | Electrical |
| KELAVARAPALLI | 1 | Civil Works |
| RELAVANAFALLI | <u> </u> | |
| KELAVARAPALLI | 2 | Hydro-Mechanical Work (Repairs/ Renewal of Spillway Shutters, chequared plate of Spillway check bridge, Left main canal, Right main canal Irrigation Gate, |
| | | River sluice, emergency Shutter and Gontry crane) |
| KELAVARAPALLI | 3 | Electrical |
| KESARIGULIHALLA | 1 | Civil Works |
| KESARIGULIHALLA | 2 | Hydro-Mechanical Work (Renewal and repair of radial shutters LMC sluice shutters, Abutment shutters and value, new emergency shutters and value, new emergency shutter works) |
| KESARIGULIHALLA | 3 | Electrical |
| KODAGANAR | 1 | Civil Works |
| KODAGANAR | 2 | Hydro-Mechanical Work (Renewal and Repairs to old vertical shutters, radial shutters and canal head sluice shutters) |
| KODAGANAR | 3 | Electrical |
| KODUMUDIYAR | 1 | Civil Works |
| KODUMUDIYAR | 2 | Hydro-Mechanical Work |
| KODUMUDIYAR | 3 | Providing additional Electrical arrangements to Kodumudiyar Dam |
| KRISHNAGIRI | 1 | Civil Works |
| RNSINAGIN | <u> </u> | |
| KRISHNAGIRI | 2 | Hydro-Mechanical Work (Repairs/ Renewal of Spilway Shutters, Left Main Canal, Right main Canal. Irrigation gates and River Sluice Shutter, Emergency |
| (KDIO) NA CIDI | | Shutte, Gantry Grane arangements) |
| KRISHNAGIRI | 3 | Electrical |
| KULLURSANDAI | 1 | Civil Works |
| KULLURSANDAI | 2 | Electrical (Providing street light arrangements and service connection) |
| KUTHIRAIYAR | 1 | Civil Works |
| KUTHIRAIYAR | 2 | Hydro-Mechanical Work (Repairs to Spillway shutters, River Sluice Shutter, River Sluice Emergency Shutter and Gantry Grane) |
| KUTHIRAIYAR | 3 | Electrical |

| LOWER ANICUT | 1 | Civil Works |
|--------------|---|--|
| LOWER ANICUT | 2 | Hydro-Mechanical Work (Providing Electrical Motors Fitting and necessary hoisting arrangement and Repairs and Renowal of Shutters) |
| LOWER ANICUT | 3 | Electrical |

| Name of Dam | Package No. | Name of Work |
|--------------------|----------------|--|
| LOWER NIRAR | 1 | Civil Works |
| LOWER NIRAR | 2 | Hydro-Mechanical Work |
| LOWER NIRAR | 3 | Electrical |
| MANIMUKTHANADHI | 1 | Civil Works |
| MANIMUKTHANADHI | 2 | Hydro-Mechanical Work (Providing Additional Spillway Radial Shutters for 10.0 m x 4.47 m for the vent size of 10.0 m x 6.15 m for 3 vents) |
| MANIMUKTHANADHI | 3 | Electrical |
| MANIMUTHAR | 1 | Civil Works |
| MANIMUTHAR | 3 | Haydro-Mechanical Work (Repairs & Replacement of shutters with reubber seal and hoisting arrangements) |
| MANIMUTHAR | 4 | Electrical-I |
| MANIMUTHAR | 5 | Electrical-II |
| MANIMUTHAR | 6 | Electrical-III |
| MANJALAR | 1 | Civil Works |
| MANJALAR | 2 | Electrical |
| MANJALAR | 3 | Haydro-Mechanical Work (Rehabilitation and Improvement to Shutters) |
| MARUDHANADHI | 1 | Civil Works |
| MARUDHANADHI | 2 | Electrical |
| MARUDHANADHI | 3 | Haydro-Mechanical Work |
| METTUR | 1 | Civil Works |
| METTUR | 2 | Haydro-Mechanical Work |
| METTUR | 3 | electrical |
| MORDHANA | 1 | Civil Works & Electrical Works |
| NAGAVATHI | 1 | Civil Works |
| NAMBIAR | 1 | Civil Works |
| NAMBIAR | 2 | Supply of goods and hiring machineries to shutter repair work |
| NAMBIAR | 3 | Electrical |
| NOYYAL ATHUPALAYAM | 1 | Civil Works |
| NOYYAL ATHUPALAYAM | 2 | Hydro-Mechanical Work |
| PALAR PORUNDALAR | 1 | Civil Works |
| PALAR PORUNDALAR | 2 | Hydro-Mechanical Work (Renewal of shutters and Hoisting arrangement) |
| PALAR PORUNDALAR | 3 | Electrical-I |
| PALAR PORUNDALAR | 4 | Electrical-II |
| PAMBAR | 1 | Civil Works |
| PAMBAR | 2 | Haydro-Mechanical Work (Renewal of shutters and Hoisting arrangements) |
| PAMBAR | 3 | Electrical |
| PARAMBIKULAM | 1 | Civil Works |
| PARAMBIKULAM | 2 | Hydro-Mechanical Work |
| PARAMBIKULAM | 3 | Electrical |
| PERUNCHANI | 1 | Civil Works |
| PERUNCHANI | 2 | Hydro-Mechanical Work (Rehabilitation and Improvements to Shutters) |
| PERUVARIPALLAM | 1 | Civil Works |
| PERUVARIPALLAM | 2 | Haydro-Mechanical Work |
| PERUVARIPALLAM | 3 | electrical |
| PILAVUKKAL PROJECT | 1 | Civil Works |
| KOVILAR | 1 | CIVII VVCINS |

| PILAVUKKAL PROJECT KOVILAR | 2 | Hydro-Mechanical Work (Replacement of River sluice and canal sluice shutters and renewal and repair to regulator shutter and emergency shutter and protection grill work) |
|-------------------------------|---|---|
|-------------------------------|---|---|

| Name of Dam | Package No. | Name of Work |
|-------------------------------|----------------|--|
| PILAVUKKAL PROJECT KOVILAR | 3 | Electrical |
| PILAVUKKAL PROJECT PERIYAR | 1 | Civil Works |
| PILAVUKKAL PROJECT PERIYAR | 2 | Electrical |
| POIGAIYAR | 1 | Civil Works |
| PONNANIYAR | 1 | Civil Works |
| POONDI | 1 | Civil Works |
| POONDI | 2 | Hydro-Mechanical Work |
| POONDI | 3 | Electrical |
| POONDI | 4 | Electrical |
| RAMANADHI | 1 | Civil Works |
| RAMANADHI | 2 | Hydro-Mechanical Work (Repairs & Replacement of shutters with reubber seal and hoisting arrangements) |
| RAMANADHI | 3 | Electrical |
| RED HILLS | 1 | Civil Works |
| SATHANUR | 1 | Civil Works |
| SATHANUR | 2 | Hydro-Mechanical Work |
| SHANMUGANADHI | 1 | Civil Works |
| SHOLAYAR | 1 | Civil Works |
| SHOOLAGIRICHINNAR | 1 | Civil Works |
| SHOOLAGIRICHINNAR | 2 | Hydro-Mechanical Work |
| SHOOLAGIRICHINNAR | 3 | Electrical |
| SIDDHAMALLI | 1 | Civil Works |
| SIDDHAMALLI | 2 | Hydro-Mechanical Work |
| SIDDHAMALLI | 3 | instrumentation |
| SIDDHAMALLI | 4 | Conducting Model Study |
| SOTHUPPARAI | 3 | Electrical |
| THIRUMURTHI DAM | 1 | Civil Works |
| THIRUMURTHI DAM | 2 | Hydro-Mechanical Work (Repairs & Replacement of shutters with reubber seal and hoisting) |
| THIRUMURTHI DAM | 3 | Electrical |
| THOPPAIYAR | 1 | Civil Works |
| THOPPAIYAR | 2 | Hydro-Mechanical Work (Repairs to shutters) |
| THOPPAIYAR | 3 | Electrical |
| THUMBALAHALLI DAM | 1 | Haydro-Mechanical Work (Repairs to shutters) |
| THUNAKADAVU | 1 | Civil Works |
| UPPER (TIRPUR) | 1 | Civil Works |
| UPPER (TRICHY) | 1 | Civil Works |
| UPPER (TRICHY) | 2 | Hydro-Mechanical Work |
| UPPER NIRAR WEIR. | 1 | Civil Works |
| UPPER NIRAR WEIR. | 2 | Hydro-Mechanical Work |
| VADAKKUPAICHAIYAR | 1 | Civil Works |
| VADAKKUPAICHAIYAR | 2 | Hydro-Mechanical Work |
| VADAKKUPAICHAIYAR | 3 | Electrical |
| VAIGAI | 1 | Civil Works |
| VANIAR | 1 | Civil Works |
| VANIAR | 2 | Haydro-Mechanical Work (Renewal and Repairs to Radial Shutter, sluice service shutter and emergency shutter) |

| VARATTUPALLAM | 1 | Civil Works |
|---------------|---|-------------|
| VEERANAM | 1 | Civil Works |
| VEERANAM | 2 | Electrical |

| Name of Dam | Package No. | Name of Work |
|---------------------------------|----------------|--|
| VEMBAKOTTAI | 1 | Civil Works |
| VEMBAKOTTAI | 2 | Electrical |
| VIDUR | 1 | Civil Works |
| VIDUR | 2 | Hydro-Mechanical Work (Grit Blasting -Painting to shutters & Groove frames) |
| VIDUR | 3 | Electrical |
| WILLINGTON RESERVOIR | 1 | Civil Works |
| WILLINGTON RESERVOIR | 2 | Hydro-Mechanical Work |
| | GEDCO (Ta | mil Nadu Generation and Distribution Corporation) |
| AVALANCHE | 1 | Civil Works |
| BUNGHIHALLABUND | 1 | Civil Works |
| BUNGHIHALLABUND | 3 | Geo-tech Investigations |
| EMERALD | 1 | Civil Works |
| ERAVANGALAR | 1 | Civil Works |
| GLENMORGAN | 1 | Civil Works |
| HIGHWAVYS | 1 | Civil Works |
| KADAMBARAI | 1 | Civil Works |
| KODAYAR I | 1 | Civil Works |
| KUNDAHPALAM | 1 | Rehabilitation & Improvement Works (Package I) in Kundah Generation Circle of Nilgiris District. |
| KUNDAHPALAM | 5 | Civil Works |
| KUNDAHPALAM | 6 | Consultancy service forTopographycal survey |
| KUTTIYAR | 1 | Civil Works |
| MANALAR | 1 | Civil Works |
| MUKURTHI | 1 | Civil Works |
| PAPANASAM DIV WEIR | 3 | Rehabilitation & Improvement Works Excavation/Desilting of reservoir & allied works (Package III) of Papanasam, Tirunel District |
| PERIYAR FOREBAY | 1 | Civil Works |
| PORTHIMUND | 1 | Civil Works |
| SERVALAR | 1 | Civil Works |
| SERVALAR | 2 | Civil Works |
| UPPER ALIYAR | 1 | Civil Works |
| VANDAL WEIR | 1 | Civil Works |
| | KWF | RD (Kerala Water Resources Department) |
| CHIMONI | 1 | Rehabilitation and improvement of basic facilities of Chimoni Irrigation Project |
| CHIMONI | 2 | Rehabilitation and Improvement Of Basic facilities of Chimony Irrigation Project- Chimony dam(Mechanical Works) |
| CHULLIAR (GAYATHRI STAGE II) | 1 | Rehabilitation and improvement of basic facilities of Chulliar Irrigation Project |
| KALLADA (PARAPPAR) | 1 | Rehabilitation and Basic Facilities of Kallada Irrigation Project |
| KALLADA (PARAPPAR) | 2 | Rehabilitation and Improvement of Basic Facilities of Parappar dam in Kallada Irrigation Project (Mechanical Works) |
| KANJIRA PUZHA | 1 | Rehabilitation and improvement of basic facilities of Kanhirapuzha Irrigation Project - Civil Work |
| KUTTIYADI (IRRIGN. PROJ.) | 1 | Rehabilitation and Improvement of basic facilities of |

| | | Kuttiyadi Irrigation Project (Civil works) |
|---------------------------|---|--|
| KUTTIYADI (IRRIGN. PROJ.) | 3 | Renovation of electrical Installation |

| Name of Dam | Package No. | Name of Work | |
|---------------------------------------|----------------|--|--|
| MALAMPUZHA | 1 | Rehabilitation and Improvement of basic facilities of Malampuzha irrigation project | |
| MALANKARA / MUVATTUPUZHA | 1 | Rehabilitation and Improvement of basic facilities of Muvattupuzha valley Irrigation Project | |
| MALANKARA / MUVATTUPUZHA | 2 | Rehabilitation and Improvements to the Electrical installation of Malankara Dam | |
| MEENKARA (GAYATHRI STAGE I) | 1 | Rehabilitation and improvement of basic facilities of Meenkara Irrigation Project | |
| MEENKARA (GAYATHRI STAGE I) | 3 | Rehabilitation and Improvement Of Basic facilities of Meenkara Irrigation Project(Mechanical Works) | |
| NEYYAR | 1 | Rehabilitation and basic facilities of Neyyar Irrigation Project – Civil works | |
| NEYYAR | 2 | Rehabilitation and Improvement Of Basic facilities of Neyyar Irrigation Project-Neyyar Dam (Mechanical Works) | |
| PAZHASSI IRRIGATION PROJECT | 1 | Rehabilitation and Improvement of basic facilities of Pazhassi Irrigation Project | |
| PAZHASSI IRRIGATION PROJECT | 2 | Rehabilitation and Improvement of basic facilities of vPazhassi Irrigation Project-Pazhassi Barrage(Mechanical Works) | |
| PEECHI | 1 | Rehabilitation and Improvement of Basic facilities of Peechi Irrigation Project (Civil Works) | |
| PEECHI | 3 | Rehabilitation and Improvement Of Basic facilities of Peechi Irrigation Project(Mechanical Works) | |
| PERIYAR VALLEY BARRAGE | 1 | Rehabilitation and Improvement of Basic Facilities of Bhoothathankettu Barrage in Periyar Valley Irrigation Project | |
| PERIYAR VALLEY BARRAGE | 2 | Rehabilitation and Improvement of Basic Facilities (Hydro-Mechanical works) of Bhoothathankettu Barrage in Periyar Valley Irrigation Project in Kerala | |
| PERIYAR VALLEY BARRAGE | 3 | Construction of new bridge for diversion of traffic for safety of old barrage (at Bhoothathankettu) | |
| PERIYAR VALLEY BARRAGE | 4 | Renovation of electrical installation of Bhoothathankettu barrage | |
| POTHUNDY | 1 | Rehabilitation and basic facilities of Pothundy Irrigation Project | |
| POTHUNDY | 2 | Rehabilitation and Improvement Of Basic facilities of Pothundy Irrigation Project- Pothundy dam(Mechanical Works) | |
| VAZHANY | 1 | Rehabilitation and improvement of Basic facilities of Vazhani Irrigation Project (Civil Work) | |
| VAZHANY | 3 | Rehabilitation and Improvement Of Basic facilities of Vazhani Irrigation Project(Mechanical Works) | |
| WALAYAR | 1 | Rehabilitation and improvement of basic facilities of Walayar Irrigation Project | |
| KSEB (Kerala State Electricity Board) | | | |
| IDAMALAYAR | 1 | Rehabilitation including remedial measures and basic facilities of Idamalayar HEP(Part I works) | |
| IDAMALAYAR | 2 | Idamalayar Hydro Electric Project-Rehabilitation works-Enhancement of basic facilities- | |

| | | Renovation of an existing building at Idamalayar |
|------------|---|--|
| IDAMALAYAR | 3 | Reaming of foundation drain holes(vertical holes) of Idamalayar dam |
| IDAMALAYAR | 4 | Conducting Test blasting (to assist the blast guidance consultancy by M/s NIRM) |
| IDAMALAYAR | 5 | Upstream honeycomb/eroded concrete surface treatment surrounding block joint 15/16 of Idamalayar Dam for leakage control |
| IDAMALAYAR | 6 | Improvement of road works from IB Junction to Dam top |

| | Package | |
|---------------|---------|--|
| Name of Dam | No. | Name of Work |
| IDAMALAYAR | 7 | Blasting guidance report by M/s NIRM, Bengaluru for the debris removal at the d/s of Idamalayar dam |
| IDAMALAYAR | 8 | Construction of a retaining wall and platform for evaporimeter and Rain gauge station near the renovated Research and Dam safety office building at Idamalayar |
| IDUKKI | 1 | Rehabilitation including remedial measures and basic facilities of dams associated with Idukki Hydro Electric Project(Part I) |
| IDUKKI | 2 | Rehabilitation including remedial measures and basic facilities -improvements of approach roads to Idukki and Cheruthoni dams- (Part II –works) |
| IDUKKI | 3 | Rehabilitation including remedial measures and basic facilities -painting the downstream face of the Idukki dam - (Part III –works) |
| IDUKKI | 4 | Rehabilitation including remedial measures and basic facilities of Idukki Hydro Electric Project – Electrification of Idukki dam (Part IV -works) |
| IDUKKI | 5 | Idukki Hydro-Electric Project -Repair of Cracks with Micro fine Cement grout in Idukki Dam |
| IDUKKI | 11 | High Mast lighting-Cabling at Idukki, Cheruthoni and Kulamavu Dams |
| KAKKAD | 1 | Implementation of remedial measures for the rehabilitation of dams and improvement of basic facilities under Kakkad Hydro Electric Project (1st Part of Works) |
| KAKKAD | 2 | Reaming of Internal Drainage System of Moozhiyar Dam under Kakkad Hydro Electric Project |
| KAKKAD | 3 | Protective roofing to the hoist of radial gates of Moozhiyar Dam |
| KAKKAD | 4 | Construction of Generator room at Moozhiyar Dam premises |
| KUTTIYADI | 1 | Rehabilitation including remedial measures and basic facilities of Kakkayam dam associated with Kuttiady Hydro Electric Project (Part- I) |
| KUTTIYADI | 2 | Implementation of remedial measures for the rehabilitation of dams and improvement of basic facilities under Kuttiyadi Augmentation Scheme (1st Part of Works) |
| KUTTIYADI | 3 | Improvement of basic facilities under Kuttiyadi Augmentation Scheme (Part-II)-Metalling & Chipping carpet of Replacement Road No.II and Protective works. |
| KUTTIYADI | 5 | Renovation of Office Building at Kakkayam |
| KUTTIYADI | 6 | Rehabilitation including remedial measures and basic facilities of Kakkayam dam (Part-III)-Pressure washing & pointing on the downstream face of the dam |
| LOWER PERIYAR | 1 | Rehabilitation including remedial measures and basic facilities of Lower Periyar dam associated with Lower Periyar Hydro Electric Project(Part-1) |
| LOWER PERIYAR | 2 | Rehabilitation including remedial measures &basic facilities of Lower Periyar Dam associated withLower Periyar HEP (Part –II) Repair of Lower Vent Sluice Gate (1 No) and Crest Radial Gates (3 Nos) |
| NERIAMANGALAM | 1 | Rehabilitation including remedial measures and basic facilities of dam associated with Neriamangalam Hydro Electric Project (Part I) |
| PALLIVASAL | 1 | Rehabilitation including remedial measures and improvement of basic facilities of dams associated with Pallivasal Hydro-Electric Project (Part 1) |
| PANNIYAR | 1 | Rehabilitation including remedial measures and basic facilities of dams |

| | | associated with Panniar Hydro Electric Project (Part I) |
|---------------|---|--|
| PORINGALKUTHU | 1 | Rehabilitation including remedial measures and improvement of basic facilities of dam associated with Poringalkuthu Hydro-Electric Project (1st Part of works) |

| Name of Dam | Package No. | Name of Work |
|--|----------------|---|
| PORINGALKUTHU | 2 | Rehabilitation including renovationn of crest gate (No.4) of Poringalkuthu Hydro- Electric Project(Part1) |
| PORINGALKUTHU | 3 | Repair work of secondary concrete & I beam of crest gate No.7 of oringalkuthu dam |
| PORINGALKUTHU | 4 | Rehabilitation including renovation of crest gates (No.1, 2,3,5,6&7)of Poringalkuthu Hydro Electric Project (Part II) |
| SABARIGIRI | 1 | Rehabilitation including remedial measures and basic facilities of dams associated with Sabarigiri Hydro Electric Project(Part I) |
| SABARIGIRI | 2 | EAP Consultancy |
| SABARIGIRI | 5 | Reaming of foundrtion drain holes of Anathode dam under Sabarigiri Hydro Electric Proiect |
| SABARIGIRI | 9 | Visual inspection and Digital Videography of Emergency Gate Section & Elevator Shaft at kakki dam utilizing a Submersible Remotely Operated Vehicle (ROV) for facilitating the investigation to the impediments in the execution of the repairing & Reconditioning of the left side Hollow Jet Valve of Kakki Dam |
| SENGALUM | 1 | Rehabilitation including remedial measures & basic facilities of Sengulam Dam associated with Sengulam HEP (Part –1) |
| SENGALUM | 2 | Replacement of Sluice valve & repair/replacement of Emergency gate of Sengulam dam and providing electrically operated new hoisting mechanism for the Power tunnel Intake gate. |
| SHOLAYAR | 1 | Rehabilitation including remedial measures and basic facilities of dams associated with Sholayar Hydro Electric Project(Part I Works) |
| SHOLAYAR | 2 | Reaming of Internal Drainage System of Sholayar Main Dam & Flanking dam under Sholayar HydroElectric Project |
| SHOLAYAR | 3 | Replacement of damaged guides by providing new stainless steel guides for the emergency gate at Sholayar main dam |
| SHOLAYAR | 6 | Providing underground power cabling system including fixing of Generator switch, Distribution boardetc at Sholayar dam premises |
| KAWRD (The Karnataka Water Resources Department) | | |
| ALMATTI DAM | 1 | Grouting the Body, Upstream treatment, reaming and re drilling of the porous holes /Foundation holes of the Almatti Dam. (Rehabilitation and Improvement Works to Almatti Dam under World Bank aided DRIP program. Package-I). |
| ALMATTI DAM | 2 | Providing treatment to the spillway piers of the Almatti Dam.(Rehabilitation and Improvement Works to Almatti Dam Under World Bank aided DRIP program. Package- II) |
| ALMATTI DAM | 3 | Rectification to existing Rip Rap of upstream earthen embankment of Almatti Dam(Rehabilitation and Improvement Works to Almatti Dam Under World Bank aided DRIP program. Package- III). |
| ALMATTI DAM | 4 | Treatment to the eroded/damaged portion of the Stilling Basin of Almatti Dam. (Rehabilitation and Improvement Works to Almatti Dam Under World Bank aided DRIP program. Package- IV) |
| AMARJA DAM | 1 | Improvements to Dam stilling basin, construction of toe drain etc. |
| BENNITHORA | 1 | Treatment to piers, fixing of rubber seals, electrification wiring, repairs to body wall, repairs to CC near spillway, improvements road, providing m60 and grouting of Bennithora dam |
| | | Treatment of upstream face the dam From level 2166 ft to 2102 ft, Spillway, |

| BHADRA DAM | | Spillway Peirs, abutments, Drywells, Reaming of porous holes, foundation drainage holes, Grouting to Foundation, Body of the dam, Extraction of cores for conducting Permeability test & Repairs to nappe portion of spillway |
|------------|--|---|
|------------|--|---|

| Name of Dam | Package No. | Name of Work |
|----------------------|----------------|--|
| BHADRA DAM | 2 | Dewatering of Stilling basin & Repairs to Damaged portion of Stilling basin bed, RCC toe wall, Dividing wall, and R/S River training wall through treatment of M60 silica fume concrete. |
| BHADRA DAM | 3 | Removal of loose debries from tail channel reconstruction and strengthening of side protection wall beyond stilling basin upto road bridge of bhadra dam |
| BHADRA DAM | 4 | Repairs and Overhauling of Spillway Crest gates, Scouring Sluice gates of Bhadra Dam. |
| BHADRA DAM | 5 | Renovation of Electrical System provided for gantry crane (Ridinger make) of Capacity 75/7.5 tonne & 45/7.5 tonne installed at Bhadra dam including repair to mechanical parts rail tracks and hoisting arrangements of gantry crane. |
| CHANDRAMPALLI DAM | 1 | Improvement to rock toe and provision of drainage chute @ d/s etc. |
| CHICKKAHOLE | 1 | Asphalting to top bund, constructions of drain along d/s, barbed fencing around d/s periphery, construction of security building & Installation of Piezometer, Geological investigation and Stability analysis, providing CC tv, for dam |
| DEVARABILLIKERE TANK | 1 | Providing drains and turfind on d/s of dam and removal of coffer dam on u/s side and training of mother valley in the d/s |
| H.B.HALLI PICKUP | 1 | Rehabilitation and improvement works to Hagaribommana halli pick up dam under world bank aided drip programme (PACKAGE) |
| HARANGI DAM | 1 | Treatment to u/s and d/s face of masonry portion, treatment of spillway piers and ogee etc. |
| HEMAVATHY DAM | 1 | Providing Berm Loading, cross drains, Longitudinal drains, Rock toe and Subsurface drains and Turfing on D/S & Removal of Coffer Dam On Upstream Side Of Dam, and Training of Mother Valley in the Down Stream Of Dam in between Ch 340 to Ch 510Mtrs of bund of D.B Kere Pickup Project. |
| HIDKAL DAM | 1 | Providing curtain grouting from ch 5100 to 5300 m on reservoir in seepage zone on Upstream side of Dyke No 1, & Reaming of Porous concrete vertical drainage Holes and foundation Holes of Hidkal Dam from Ch. 8000' to 10000' (Rehabilitation and Improvement Works to Hidkal Dam Under World Bank aided DRIP program) (Package-1)(KNNL/2015-16/ DA/ WORK_INDENT-17103) |
| HIDKAL DAM | 2 | Special masonry repairs to upstream side by Poly Ironite Ceramic Cementations (PICC) mortar and to arrest leakages & strengthening of dam from Ch: 8500' to 10000', Dewatering & Special repairs to the Stilling Basin of Hidkal Dam by providing M-60 concrete, (Rehabilitation and Improvement Works to Hidkal Dam Under World Bank aided DRIP program) (Package-2) (KNNL/2015-16/DA/WORK_INDENT17104) |
| HIDKAL DAM | 3 | Construction of new office block and dam monitoring station at Hidkal site, & Improvements to approach roads of Hidkal Dam, & Providing Barbed wire fencing to Dyke No.1 and downstream of Hidkal dam. (Rehabilitation and Improvement Works to Hidkal Dam Under World Bank aided DRIP program) (Package-3) (KNNL/2015-16/ DA/ WORK_INDENT- 17105) |
| HIDKAL DAM | 4 | Providing New Emergency gate for Irrigation sluice and improvements of existing gates, hoist mechanism, and Providing shelter over hoists of sluice service gates and radial gates (Rehabilitation and Improvement Works to Hidkal |

| | Dam Under World Bank aided DRIP program) (Package-4) (KNNL/2015- |
|--|--|
| | |
| | 16/DA/WORK_INDENT17106 |

| Name of Dam | Package No. | Name of Work |
|----------------------------|----------------|---|
| HIDKAL DAM | 5 | Providing and fixing water proofing lighting with water proofing cable arrangement to the drainage Gallery of Hidkal Dam and illumination to the main dam. & Providing illumination arrangement to the LBED RBED and Dyke No.1 of Hidkal Dam. (Rehabilitation and Improvement Works to Hidkal Dam Under World Bank aided DRIP program) (Package-5)(KNNL/2015-16/ DA/ WORK_INDENT-17107) |
| HIDKAL DAM | 6 | Providing, Supplying, Installation, Testing, Training of closed circuit Television (CCTV) system for Crest Gates, Dam Entry/Exit, other important and crucial points, In view of security of Hidkal Dam. (Rehabilitation and Improvement Works to Hidkal Dam Under World Bank aided DRIP program) (Package-6) (KNNL/2015-16/ DA/ WORK_INDENT-17108) |
| KABINI DAM | 1 | Improvements to drainage gallery, re-pointing to masonry surface, restoration of baffles in stilling basin etc |
| KARANJA DAM | 1 | REHABILITATION AND IMPROVEMENT WORKS TO KARANJA DAM OF KARANJA PROJECT UNDER WORLD BANK AIDED DRIP PROGRAMME. (PACKAGE-I CIVIL WORK INCLUDING PROCUREMENT OF PACKAGE-II HYDROMECHANICAL WORKS) |
| KRISHNA RAJA SAGARA DAM | 1 | U/s treatment with PICC |
| LOWER MULLAMARI DAM | 1 | Construction of Cantilever training wall & stilling basin, grouting treatment to spillway etc. |
| MALAPRABHA DAM | 1 | Rehabilitation works of Malaprabha dam by cleaning of porous holes, cleaning of foundation drain holes and providing deep curtain grouting to upstream foundation rock of Malaprabha dam under World Bank aided DRIP program. |
| MALAPRABHA DAM | 2 | Rehabilitation works by providing upstream surface treatment to masonry section, piers and spillway section upstream and downstream of Malaprabha Dam under World Bank aided DRIP program. |
| MALAPRABHA DAM | 3 | Rehabilitation works by improvements of gates and other electromechanicial components and Improvements to stop-log and gantry crane system of Malaprabha Dam under World Bank aided DRIP program. |
| MALAPRABHA DAM | 4 | Rehabilitation works of Malaprabha Dam by providing electrification, fencing ,providing and fixing CC camera arrangement to Malaprabha Dam.(Rehabilitation and Improvements Project(DRIP) works of Malaprabha Dam under World Bank aided DRIP program. |
| MALAPRABHA DAM | 5 | Rehabilitation works of Malaprabha dam under Infrastructural Development and Institutional Strengthening by providing New office block and Dam monitoring Station at Malaprabha dam Site (Rehabilitation and Improvement Project DRIP work of Malaprabha dam under World Bank aided DRIP program)". |
| MALLAGHATTA TANK | 1 | D/s & U/s slope improvement, extension of waster weir guide wall, energy dissipation arrangement etc |
| NARAYANAPUR DAM | 1 | Providing apron concrete below flip bucket and providing roadway drainage, cross drains, correction to Stone revetment wrap around portion of earthen dam of Narayanapur Dam. (Indent No.9654) |
| NARAYANAPUR DAM | 2 | Treatment of second stage honeycombed concrete and honeycombed pier regions, leaked construction joints of spillway piers of Narayanpur dam and |

| | bucket portion for vent no's 1 to 25 of main spillway and A1 to A5 of additional spillway of Narayanpur Dam. (Indent No.9655) |
|-----------------|---|
| NARAYANAPUR DAM | Treatment of the Upstream Face of Masonry Portion above MDDL including Reaming, Cleaning and Flushing of Clogged Porous Drain Holes in Masonry Section of Narayanapur Dam. (Indent No.9656) |

| Name of Dam | Package No. | Name of Work |
|---------------------|----------------|---|
| NARAYANAPUR DAM | 4 | Providing Strengthening Measures including Zinc Metalizing to the Corroded Gate Components of Radial Spillway Gates and Providing 84 Ton Capacity Gantry Crane with One Set Of Stop log elements to Narayanapur Dam. (Indent No.9657) |
| UPPER MULLAMARI DAM | 1 | D/s slope improvement, Graded filter media, casing embankment, stone pitching etc |
| VOTEHOLE DAM | 1 | Providing longitudinal and cross drains for the downstream slopes of earthen dam, Providing semi dense bituminous concrete on road way of dam, Arresting leakage on left bank, Providing trash racks for Irrigation sluices, Providing barbed wire fencing to Votehole dam under Votehole reservoir project |
| VOTEHOLE DAM | 2 | Providing and installation of piezo meter and automatic water level recorder to Votehole Dam under World Bank aided DRIP program. |
| | UJ | VNL (Uttarakhand Jal Vidyut Nigam Ltd) |
| ASAN BARRAGE | 1 | Complete Automation including Engineering, Design, Supply, Erection, Testing & Commissioning of Barrage Control and Monitoring Systems for water distribution and barrage management at Asan Barrage, Dhalipur (Dehradun) along with AMC for 5 Year |
| ASAN BARRAGE | 2 | Work of Painting (Epoxy) of Barrage Gates, Head Regulator Gates and Silt Ejector Gates at Asan Barrage, Dhalipur, Dehradun |
| ASAN BARRAGE | 4 | Repair and Overhauling of Hydro Mechanical System of Barrage gates (14 Nos.) and Head Regulator gates (5 Nos.) at Asan Barrage, Dhalipur, Dehradun |
| ASAN BARRAGE | 5 | Repair of Service Road around Asan Barrage |
| ASAN BARRAGE | 6 | Protection works at Upstream and Downstream of Asan Barrage at Dhalipur, Dehradun |
| ASAN BARRAGE | 7 | De-Silting of Asan Reservoir, tail race channel and D/S of Asan Barrage, Construction of temporary diversion bunds at different locations in U/S of Asan Barrage at Dhalipur, Dehradun |
| ASAN BARRAGE | 8 | Special Repair of Damaged Power Channel Stage IV (from Asan Barrage to Intake of Kulhal Power House) And Kulhal Power House Complex during proposed Closure |
| ASAN BARRAGE | 9 | Civil works and repair of Eroded Surface of Piers and Floor of Asan Barrage during proposed closure |
| ASAN BARRAGE | 10 | Special repair of Silt Ejector Channel Slope and Floor at Yamuna Hydel Scheme stage IV Asan Barrage |
| ASAN BARRAGE | 11 | Special Repair of Kulhal Power House Intake, By-pass Channel and Down Stream Channel during proposed Closure |
| ASAN BARRAGE | 12 | Providing and laying Concrete Canvas (Geosynthetic Composite Mat) for repairing of Power Channel of Stage-III from Dakpathar to Dhalipur HEP and Stage- IV Asan Barrage to Kulhal HEP at Dhalipur, Dehradun during closure. |
| DAKPATHAR BARRAGE | 1 | Supply & Installation of LED luminaries and high mast at Dakpathar Barrage in District- Dehradun, Uttarakhand. |
| DAKPATHAR BARRAGE | 2 | Supply, Installation, Testing and Commissioning of 100 kVA, 01 No. silent DG Set & AMC (1+3) years at Dakpathar Barrage in District Dehradun, Uttarakhand. |

| Name of Dam | Package No. | Name of Work | | | |
|---------------------|----------------|--|--|--|--|
| DAKPATHAR BARRAGE 4 | | Engineering, Design, Supply, Erection, Testing and Commissioning of the complete automation of barrage control and monitoring systems for water distribution and barrage management of Dakpathar Barrage in District Dehradun, Uttarakhand. | | | |
| DAKPATHAR BARRAGE | 5 | Epoxy painting of Head regulator, Barrage and Silt Ejector Gates at Dakpath. Barrage in District- Dehradun. | | | |
| DAKPATHAR BARRAGE | 6 | Overhauling of Hydro-Mechanical system of Barrage gates at Dakpathar barrage | | | |
| DAKPATHAR BARRAGE | 7 | Major Overhauling of Barrage gate no. 24 & 25 of Dakpathar barrage in District- Dehradun through single quotation basis being proprietary in nature. | | | |
| DAKPATHAR BARRAGE | 8 | Repair of Damaged Panels of Power Channel from Silt Ejector at Dakpathar upto intake of Dhakrani Power House during closure. | | | |
| DAKPATHAR BARRAGE | 9 | Repair of Damaged Panels of Power Channel from Dhakrani Power House upto 0.60 km Downstream of Dhakrani Power House during closure | | | |
| DAKPATHAR BARRAGE | 10 | Repair of Damaged Panels of Power Channel from 0.60 km Downstream of Dhakrani Power House upto 2.20 km Downstream of Dhakrani Power House during closure. | | | |
| DAKPATHAR BARRAGE | 11 | Repair of Damaged Panels of Power Channel from 2.20 km Downstream of Dhakrani Power House upto Skew Bridge at Dhalipur during closure. | | | |
| DAKPATHAR BARRAGE | 12 | Repair of Damaged Panels of Power Channel from Skew Bridge Dhalipur to Intake of Dhalipur Power House during closure. | | | |
| DAKPATHAR BARRAGE | 13 | Consultancy and supervision for Closure Works such as Repair of Damaged Panels of Power Channel from Dakpathar to Dhalipur, Silt Ejector from Dakpathar to Kulhal, Repair- maintenance of Dakpathar Barrage, Asan Barrage and other associated Works proposed to be carried out from offices of Executive Engineer, Project Civil Maintenance Dhalipur & Dakpathar | | | |
| DAKPATHAR BARRAGE | 14 | Special Repair & maintenance of Silt Ejector Channel of Dakpathar Barrage | | | |
| DAKPATHAR BARRAGE | 15 | Special repair of glacis, cracks on piers/abutments., eroded concrete, construction of temporary diversion bunds and other miscellaneous works of Dakpathar Barrage, Dehradun | | | |
| DAKPATHAR BARRAGE | 16 | Protection works of left side down stream bank of Dakpathar Barrage at Dakpathar (Dehradun)" | | | |
| ICHARI DAM | 1 | Special Repair & maintenance of Rim Road and other Protection works in upstream of Ichari Dam. | | | |
| ICHARI DAM | 2 | Special repair of 7 nos. spillway and roller buckets & Repair of downstream left bank training wall of Ichari Dam. | | | |
| ICHARI DAM | 3 | Inspection and repair of sedimentation chamber of Ichari Dam (Dehradun). | | | |
| ICHARI DAM | 4 | Reaming/ Re drilling of foundation drainage holes of Ichari Dam. | | | |
| ICHARI DAM | 9 | Consultancy work for designing of M 60 fibre reinforced silica fume concrete m and Supervising its placement During the Execution of Work | | | |

| ICHARI DAM | 11 | Capacity Survey of reservoir of Ichari Dam | | |
|------------|---|---|--|--|
| ICHARI DAM | 14 Supply Installation Testing & Commissioning of 02 nos. of High Mast. | | | |
| ICHARI DAM | 15 | Supply of one 6M FRP OBM (Petrol Engine) Boat with Canopy | | |

| Name of Dam Packa | | Name of Work | | | |
|---------------------|----|---|--|--|--|
| ICHARI DAM | 16 | Automation work & Annual maintenance contract (3 years) of existing dam monitoring and control system of Ichari Dam in District Dehradun. | | | |
| ICHARI DAM | 17 | Special repair of Hydro Mechanical System. | | | |
| MANERI DAM | 1 | Special maintenance & repair of Spillway Glacis no. 03 & 04 including Roller bucket of Maneri Dam. | | | |
| MANERI DAM | 2 | Construction of down stream Wing Walls of both banks of Maneri Dam. | | | |
| MANERI DAM | 11 | Engagement of NCCBM, Balabhgarh for providing design mix of M60 & M90 grade concrete with steel fibers and supervision of its quality during execution of work. | | | |
| VIRBHADRA RISHIKESH | 1 | Repair and restoration of Civil Structures of Pashulok Barrage at Rishikesh. | | | |
| VIRBHADRA RISHIKESH | 2 | Repair of Damaged Lining (Panel) of Power Channel of Chilla HEP from Chainage 0.00 km to 1.40 km. | | | |
| VIRBHADRA RISHIKESH | 3 | Repair of Damaged Lining (Panel) of Power Channel of Chilla HEP from Chainage 1.40 km to 4.00 km. | | | |
| VIRBHADRA RISHIKESH | 4 | Repair of Damaged Lining (Panel) of Power Channel of Chilla HEP from Chainage 4.00 km to Intake of Power House. | | | |
| VIRBHADRA RISHIKESH | 5 | Weather Coat Painting & White Washing Over Civil Structures within Barrage Premises. | | | |
| VIRBHADRA RISHIKESH | 6 | Providing and laying Concrete Canvas (Geo-synthetic Composite Mat) for repairing of Power Channel of Chilla HEP at Rishikesh Uttarakhand. | | | |
| VIRBHADRA RISHIKESH | 7 | River training works of Mundal Nalla at Chilla. | | | |
| VIRBHADRA RISHIKESH | 9 | Repair and Restoration of glacis and downstream structures of Pashulok Barrage at Rishikesh. | | | |
| VIRBHADRA RISHIKESH | 10 | Repair and refurbishment of Power Channel of Chilla HEP near Bin River at Rishikesh. | | | |
| VIRBHADRA RISHIKESH | 11 | Consultancy & Supervision for civil closure works of Pashulok Barrage & Power Channel of Chilla HEP. | | | |
| VIRBHADRA RISHIKESH | 18 | Repair & Maintenance of U/S gate No 01, Head Regulator gates, Silt Ejector Gates and Stop Log gates groove of Virbhadra Barrage, Pashulok, Rishikesh (Closure Work) | | | |
| VIRBHADRA RISHIKESH | 19 | Repair, Strengthening and painting of Trash Rack at Head regulator of Virbhadra Barrage Pashulok, Rishikesh(Closure Work) | | | |

| Name of Dam | Package No. | Name of Work | | | | | |
|----------------------------------|----------------|---|--|--|--|--|--|
| DVC (Damodar Valley Corporation) | | | | | | | |
| KONAR DAM | 1 | Civil Package (1A) | | | | | |
| KONAR DAM | 2 | Civil Package (1C) | | | | | |
| KONAR DAM | 3 | Civil Package (1D) | | | | | |
| KONAR DAM | 4 | Hydromechanical Package (2A) | | | | | |
| KONAR DAM 6 | | Rehabilitation & Improvement of Crest gate, control room, walkway & pipe railing of Konar 2C (Hydro-mechanical works) | | | | | |
| KONAR DAM | 7 | Underwater Survey (2F) | | | | | |
| KONAR DAM | 11 | Geo-physical analysis of Konar Dam | | | | | |
| KONAR DAM | 12 | FEM analysis of Konar Dam using Abaqus software | | | | | |
| KONAR DAM | 13 | Geo-physical analysis of Konar Dam - Further Analysis | | | | | |
| MAITHON | 1 | Civil Package (1) | | | | | |
| MAITHON | 2 | Hydromechanical Package (2A) | | | | | |
| MAITHON | 3 | Hydromechanical Package (2D) | | | | | |
| MAITHON | 5 | Hydromechanical Package (2B) | | | | | |
| MAITHON | 6 | Hydromechanical Package (2C) | | | | | |
| PANCHET | 1 | Civil Package (Package-I) | | | | | |
| PANCHET | 2 | Hydromechanical Package (2A) | | | | | |
| PANCHET | 4 | Hydromechanical Package (2C) | | | | | |
| PANCHET | 5 | Underwater Survey (2F) | | | | | |

MINUTES OF THE TENTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2016-17) HELD ON 8 AUGUST, 2017

The Committee sat from 1500 hours to 1515 hours in Committee Room No. 1, First Floor, Parliament House Annexe, Extension Building, New Delhi.

PRESENT

Shri Hukum Singh – Chairperson

MEMBERS

LOK SABHA

- 2. Shri Radheshyam Biswas
- 3. Shri B. Vinod Kumar
- 4. Shri Maganti Murali Mohan
- 5. Shri Sidhant Mohapatra
- 6. Shri Abhijit Mukherjee
- 7. Shri Sanjaykaka Ramchandra Patil
- 8. Smt. Aparupa Poddar
- 9. Shri Vishnu Dayal Ram
- 10. Shri Ram Prasad Sarmah
- 11. Shri Lallu Singh

RAJYA SABHA

- 12. Sardar Balwinder Singh Bhunder
- 13. Shri Harshvardhan Singh Dungarpur
- 14. Shri Ananda Bhaskar Rapolu
- 15. Shri Sanjay Seth
- 16. Shri Pradeep Tamta

SECRETARIAT

| 1 | I. Shri Shiv Kumar | loir | nt S | Secretary |
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2. Smt. Rita Jailkhani - Director

3. Shri Kushal Sarkar - Additional Director

- 2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee. Thereafter, the Committee took up for consideration (a) Seventeenth Report on Action Taken by the Government on the Observations / Recommendations contained in the Sixteenth Report on Demands for Grants (2017-18) of Ministry of Water Resources, River Development and Ganga Rejuvenation; (ii) Eighteenth Report on Action Taken by the Government on the Observations / Recommendations contained in the Thirteenth Report on 'Indigenous and Modern forms of Water Conservation Techniques and Practices'; and (iii) Nineteenth Report on 'The Inter-State River Water Disputes (Amendment) Bill, 2017'. After some deliberations, the Committee adopted the aforesaid three draft Reports without any modification.
 - 3. The Committee also authorized the Chairperson to present the above three Reports to both the Houses of Parliament in the current Session.

The Committee then adjourned

[Vide Para 4 of the Introduction]

ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE RECOMMENDATIONS /
OBSERVATIONS CONTAINED IN THE SIXTEENTH REPORT (SIXTEENTH LOK SABHA) OF
THE COMMITTEE

(i) Total number of Recommendations/Observations

23

(ii) Recommendation/Observations which have been accepted by the Government Para Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 17, 19, 20, 21, 22 and 23

Total - 19

Percentage 82.61%

(iii) Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies

Para Nos. NIL Total - NIL

Percentage 0%

(iv) Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee

Para Nos. 13, 15, 16 and 18

Total – 04

Percentage 17.39 %

(v) Recommendation/Observation in respect of which final reply of the Government is still awaited

Para Nos. NIL

Total NIL

Percentage 0%