7

STANDING COMMITTEE ON WATER RESOURCES

(2024-25)

EIGHTEENTH LOK SABHA

MINISTRY OF JAL SHAKTI – DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

DEMANDS FOR GRANTS (2024-25)

[Action Taken by the Government on the Observations / Recommendations contained in the Second Report (Eighteenth Lok Sabha) of the Standing Committee on Water Resources]

SEVENTH REPORT

LOK SABHA SECRETARIAT

NEW DELHI

August, 2025 /Sravana, 1947 (Saka)

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(Action Taken by the Government on the Observations / Recommendations contained in the Second Report on 'Demands for Grants (2024-25) of the Ministry of Jal Shakti - Department of Water Resources, River Development and Ganga Rejuvenation)

Presented to Lok Sabha on 11.08.2025

Laid on the Table of Rajya Sabha on 11.08.2025

LOK SABHA SECRETARIAT
NEW DELHI

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INTRODUCTION

I, the Chairperson, Standing Committee on Water Resources (2024-25) having been authorized by the Committee to submit the Report on their behalf, present the Seventh Report on the Action Taken by the Government on the Observations/Recommendations contained in their Second Report (Eighteenth Lok Sabha) on Demands for Grants (2024-25) of the Ministry of Jal Shakti -Department of Water Resources, River Development and Ganga Rejuvenation.

2. The Second Report of the Committee was presented to Lok Sabha and laid in Rajya Sabha on 10 February 2025. The Action Taken replies of the Government to all the recommendations contained in the Report were received in this Secretariat on 8 May, 2025.

3. The replies of the Government were examined and the Report was considered and adopted by the Committee at their sitting held on 08.08.2025.

4. An analysis of the Action Taken by the Government on the Observations/Recommendations contained in the Second Report (Eighteenth Lok Sabha) of the Committee is given in Annexure-II.

NEW DELHI
08 August, 2025
17 Sravana,1947(Saka)

RAJIV PRATAP RUDY,
Chairperson,
Standing Committee on Water Resources

CHAPTER I

REPORT

This Report of the Standing Committee on Water Resources (2024-25) deals with the action taken by the Government on the Observations/Recommendations contained in their Second Report (18th Lok Sabha) on the Demands for Grants (2024-25) of the Ministry of Jal Shakti – Department of Water Resources, River Development & Ganga Rejuvenation.

2. The Second Report was presented to Lok Sabha on 10.02.2025 and was laid on the Table of Rajya Sabha on 10.02.2025. The Report contained 16 Observations/Recommendations.

3. Action Taken Notes in respect of all the 16 Observations/Recommendations of the Committee have been received from the Government. These have been examined and categorized as follows: -

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

Recommendation Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12,13, 14, 15 & 16

(Total – 15)

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

Recommendation Nos. NIL

(Total – NIL)

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

Recommendation No. 3

(Total – 01)

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

Para Nos. NIL

(Total – NIL)

4. The Committee desire that replies to recommendations made in the Chapter-I of this Report may be furnished to the Committee expeditiously.

5. The Committee will now deal with action taken by the Government on some of their Observations/Recommendations that require reiteration or merit comments.

A. Interlinking of Rivers

Recommendation No. 3 (Para Nos.2.5 & 2.6)

6. The Committee observed that a total of 30 link projects have been identified under the Programme including 16 link projects under Peninsular Component and 14 link projects under Himalayan Component and out of which, Pre-Feasibility Reports (PFRs) of all the 30 links, Feasibility Reports (FRs) of 24 links and Detailed Projects Reports (DPRs) of 11 links, have been completed. Five links namely Ken-Betwa Link Project, Godavari-Cauvery link (comprising of three links) and Modified Parbati-Kalisindh-Chambal are being pursued for implementation on priority. The Committee also noticed that, only one link namely Ken-Betwa Link Project is under implementation which is planned to be completed within a period of 8 years i.e. by March, 2030. Further, budgetary allocation of Rs. 4,000 crore in year 2024-25 has been made for this programme concentrated on land acquisition, R&R activities for Daudhan Dam, Link Canal and reimbursement to / release of fund to States. Further, the Committee observed that, despite conducting numerous meetings with stakeholders to address concerns and foster cooperation, consensus among States, remains a persistent obstacle in the implementation of the Interlinking of Rivers program.

Regarding the study on interlinking of rivers in terms of ecological & environmental, socio-economical perspective, the Committee observed that a detailed study in respect of Ken Betwa Link Project had been carried out by Wildlife Institute of India, Dehradun. The Committee were of the opinion that interlinking of rivers would provide the country a viable solution to addressing water scarcity, drought mitigation, and flood control and such studies would also facilitate consensus-building among States. The Committee therefore urged the Department to conduct more such studies evaluating the benefits of the project, thereby enhancing awareness amongst the States concerned and expediting its implementation.

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

"National Water Development Agency (NWDA) has been entrusted with work of Interlinking of Rivers (ILR) under National Perspective Plan (NPP) formulated by

Government of India in year 1980. Under NPP, a total of 30 link projects have been identified (16 link projects under Peninsular Component and 14 link projects under Himalayan Component).

National Perspective Plan (NPP) has been formulated for providing storage and transfer of surplus waters to water deficit regions to minimize the miseries brought by droughts and also to mitigate the ravages of annually recurring floods. The link projects under NPP have been planned judicially for minimizing water going to sea underutilized. The flood water from flood prone/ water surplus river basins would be diverted to water deficit regions and would also recharge ground water table, tanks and canals in the command areas thus, would help Government to deal with issue of water crisis in various States.

Government of India has accorded top priority to ILR Programme. Out of 30 identified link projects under NPP, five links namely Ken-Betwa Link Project, Godavari-Cauvery link Project (comprising of three links) and Modified Parbati-Kalisindh-Chambal (PKC) are being pursued for implementation on priority.

Ken-Betwa Link Project is under implementation. The project is planned to be completed by March, 2030. Hon'ble Prime Minister has laid the foundation stone for the project on 25.12.2024.

In respect of Modified PKC Link Project, it is to submit that the persistent efforts of Govt. of India has led to signing of Memorandum of Understanding (MoU) by both the States of Madhya Pradesh & Rajasthan with Ministry of Jal Shakti (MoJS), Govt. of India (GoI) on 28.01.2024 in New Delhi in the presence of Hon'ble Chief Ministers of both the States, for preparation of its DPR and on broad planning of the link project. Memorandum of Agreement (MoA) has been signed on 05.12.2024 amongst States of MP, Rajasthan and Govt. of India. ***Hon'ble Prime Minister declared the signing of the agreement on 17.12.2024***

at Rajasthan. *DPRs of various components of MP & Rajasthan in Modified PKC link are under preparation, primarily by both the States.*

Regarding the Godavari-Cauvery Link Project, draft DPR for transfer of about 4189 MCM of water was circulated to all the party States/UT on 08.01.24. Draft MoA has been prepared for implementation of link project and has been circulated to concerned States/UT in April, 2024. Five consultation meetings with party States/UT have been held so far. The main focus is on building consensus amongst States/UT and signing of MoA for the implementation of this link project and concerted efforts are being made.

System Studies has been started for the Link Projects with the help of prestigious Institutes viz., National Institute of Hydrology (NIH), Indian Institute of Technology (IIT), National Institute of Technology (NITs) to take care of factors such as climate changes, global warming, deforestation etc.

Further Studies for evaluating the benefits of the projects, if any, may be considered only after the finalization of Detailed Project Reports (DPRs) of various link projects.

Water being the State subject, thus building up the consensus amongst the concerned States is crucial. States should move forward for implementation of any Interlinking River Projects.".

8. The Committee note from the replies of the Department that out of 30 identified link projects under NPP, five links namely Ken-Betwa Link Project, Godavari-Cauvery link Project (comprising of three links) and Modified Parbati-Kalisindh-Chambal (PKC) are being pursued for implementation on priority. Further, the Department also stated that System Studies has been started for the Link Projects with the help of prestigious Institutes viz., National Institute of Hydrology (NIH), Indian Institute of Technology (IIT), National Institute of

Technology (NITs) to take care of factors such as climate changes, global warming, deforestation etc. However, with regard to conducting studies for evaluating the benefits of the projects the Department stated that the same may be considered only after the finalization of Detailed Project Reports (DPRs) of various link projects. In this regard, the Committee are of the view that out of 30 identified link projects under NPP, Pre-Feasibility Reports (PFRs) of all the 30 links, Feasibility Reports (FRs) of 24 links and Detailed Project Reports (DPRs) of 11 links have been completed and on the basis of available Report(s) more studies encompassing advantages of the projects may be conducted as a pre-initiative measure towards building consensus among States concerned. Hence, the Committee, would therefore, reiterate their recommendation and again urge the Department to conduct more studies evaluating the benefits of the projects, thereby enhancing awareness amongst the States concerned and expediting implementation of link projects under the programme.

B. Flood Management and Border Areas Programme (FMBAP)

Recommendation No. 5 (Para No.2.8)

9. The Committee observed that in pursuant to the XII Plan, the "Flood Management and Border Areas Programme (FMBAP)" was initiated for the period 2017-18 to 2019-20 which was extended until 2020-21 and further to be continued upto 2026. The FMBAP comprises two key components including Flood Management Programme (FMP) Component and River Management and Border Areas (RMBA) Component. Under FMP component, the Government provides Grant-in-Aid to States/Union Territories for implementing structural measures aimed at flood management, anti-erosion, river management, and anti-sea erosion. Further, under RMBA component flood control and anti-erosion work on common border rivers with neighbouring countries, including hydrological observations and flood forecasting, and investigation &

pre-construction activities of joint water resources projects (with neighbouring countries) on common border rivers are being taken up with 100% central assistance. The Committee has noticed a drastic shortfall (-55.5%) in the budget of the Programme at RE stage during the FY 2023-24. In this regard, the Department apprised the Committee that the shortfall was due to non-receipt of funding proposal from the States. The Committee noted with concern, that notwithstanding the Nation's efforts to address the impending challenges of floods, under-utilization of the allocated budget for this comprehensive scheme would undermine the programme's objectives. In this regard, the Committee were of the considered view that, the Ministry should take a proactive hand hold approach with State Governments and ensure maximum utilization of available funds allocated under Flood Management & Border Areas Programme along with completion of projects, within a stipulated time frame, so that menace of flood in the country be dealt with more effectively and efficiently.

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

" Flood management including erosion control falls within the purview of the States. Flood management and anti-erosion schemes are formulated and implemented by concerned State Governments as per their priority. The Union Government supplements the efforts of the States by providing technical guidance and also promotional financial assistance for management of floods in critical areas.

To strengthen the structural measures of flood management, Union Government had implemented Flood Management Programme (FMP) during XI & XII Plans for providing central assistance to States for works related to flood control, anti-erosion, drainage development, anti-sea erosion, etc. which subsequently continued as a component of "Flood Management and Border Areas Programme" (FMBAP) for the period from 2017-18 to 2020-21 and was further extended up to 2026 with limited outlay.

30 flood management projects of XI and XII plan period is currently ongoing and for completion of these flood management projects, Secretary, Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti has taken a review meeting on 19th November, 2024 in which, it was requested to the State/UTs to complete the prolonged projects immediately and submit the funding proposals, if any. If the projects have already been completed, state government needs to submit the completion report and utilization certificates for closing of the project from FMBAP scheme."

11. The Committee note from the replies that 30 flood management projects of XI and XII plan period are currently ongoing and for completion of these flood management projects, Secretary, Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti has taken a review meeting on 19th November, 2024 in which, it was requested to the State/UTs to complete the prolonged projects immediately and submit the funding proposals, if any. If the projects have already been completed, State Government concern needs to submit the completion report and utilization certificates for closing of the project from FMBAP scheme. In view of the increasing severity of the floods particularly in the States/UTs sharing Trans-Border Rivers with neighbouring countries, the Committee, while recognising the initiatives made by the Department towards maximum utilization of available funds under the Programme, express concern over the slow progress of ongoing flood management projects and reiterate its stand for a more intense and dedicated approach by the Department to ensure effective measures to deal flood problems in the country.

Recommendation Nos. 6 & 7 (Para Nos.2.9, 2.9.1 & 2.9.2)

12. The Committee expressed its concern that despite numerous efforts and initiatives by the Government to mitigate floods, several States continue to face severe flooding challenges. In this regard, the Ministry listed various challenges including unpredictable weather patterns, coupled with the increasing frequency and intensity of

extreme precipitation events with wide variations in rainfall both in time and space, landslides, snowmelt, cloud burst and glacial lake out bursts etc., Inadequate urban drainage systems and the rampant encroachment on natural waterways exacerbate the situation, as floodplains—originally designed to absorb excess water—are compromised by unregulated construction activities. A fragmented approach to planning and lack of inter-state collaboration further hinder the implementation of comprehensive flood management strategies. From the points narrated by the Ministry, the Committee were of the view that climate change is significantly increasing the frequency and intensity of floods, primarily due to an increase in extreme rainfall events, particularly during the monsoon season, leading to more frequent and severe flooding across regions, causing substantial damage to infrastructure, livelihoods, and human life.

The Committee, therefore, recommended that the Ministry review its present flood management system to factor in with extreme precipitation events, unpredictable weather and climate change which are seen to be global events and upgrade the present flood management systems with the best available/emerging global practices to mitigate the socio-economic losses caused.

The Committee also recommended that the Ministry in collaboration with State Governments take all appropriate measures to stop unregulated construction activities in the flood plains. The Committee may be apprised of the steps taken in this regard.

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

"To factor in with extreme precipitation events, unpredictable weather and climate change, Central Water Commission (CWC) has been directed to review/modification of the existing Guidelines for submission, appraisal and acceptance of Irrigation and Multipurpose Projects, 2017 in respect of flood protection schemes on common border/trans boundary rivers. Integrated flood approach aims at adopting judicious mix of structural and non-structural

measures to provide a reasonable degree of protection against flood damages at economic cost.

Further, Ministry of Jal Shakti has continuously impressed upon the States, the need to adopt flood plain zoning approach as a non-structural measure of flood management in the country. In order to enable States to undertake scientific assessment of flood plains and its zoning, draft technical guidelines on Flood Plain Zoning have been prepared by Ministry and circulated to the States/UTs in 2024 for their input. Input from some of the States/UTs have been received and finalization of guidelines is under process."

14. The Committee note from the replies that to stop the unregulated construction activities in the flood plains draft technical guidelines on Flood Plain Zoning have been prepared by the Ministry and circulated to the States / UTs in 2024 for their input and finalization of the same is under process. In this regard, the Committee are of the view that with the finalization of the guidelines, their rapid compliance and effective implementation by the concerned States / UTs is also necessary so that devised mechanism could fulfill its objective. While noting efforts of the Ministry, the Committee hope that after finalization of the technical guidelines and its effective implementation the system would be more strengthen and able to curb the unregulated construction activities in the flood plains. In this regard they would like to be appraised about the progress in the matter within three months form the presentation of this report.

C. Safety of Dams

Recommendation No. 10 (Para No.2.12)

15. The Committee observed that National Dam Safety Authority (NDSA) has been sanctioned 79 Posts in various grades including 65 Posts in Technical Cadre and 14 Posts in non-technical grades and against 65 posts in Technical Cadre, presently only 17 officers are working on deputation/ loan basis and against 14 posts of non-technical grades only 07 persons are in position. Further, against the total contractual sanctioned

post of 91, only 17 persons have been engaged. Further, State Dam Safety Organizations (SDSOs) constituted by the dam-owning States are also facing the same problem. The Committee recognised that NDSA have a huge mandate with high responsibility of ensuring the safety of dams across the country by establishing and enforcing uniform safety standards, overseeing inspections, maintenance, providing technical assistance to states and inadequate staff certainly affect the functioning of the Authority. The Committee strongly recommended that the Department must take prompt action to fill the existing vacancies without further delay to enable the Authority to execute its responsibilities efficiently and effectively with optimal results.

16. The Department in its action taken note has replied as follows:

"NDSA has sanctioned strength of 85 posts, which include the post of Chairman, 05 Members (JS level) and 79 below JS level posts (65 technical posts and 14 non-technical posts). As on date, NDSA is functioning with the actual strength of 32 officers on deputation/loan/additional charge basis. In addition, 33 persons have also been engaged as support staff on contract basis against 91 approved positions.

NDSA is making all-out efforts to fill up the vacant posts. As regards 65 technical posts, which are to be filled on deputation basis amongst the CWES officers as per the RR, these posts were advertised in August 2023 and 07 CWES officers have been appointed on deputation basis. Vacancy circular has been issued in February 2025 to fill up the 05 posts of Members and the last date of receipt of applications is 07.04.2025.

As regards outsourced personnel, it is submitted that these positions are mainly to support the officers posted against regular vacancies. Hence these positions can be filled up soon after officers are available against the regular posts."

17. The Committee note from the action taken reply that National Dam Safety Authority (NDSA) has sanctioned strength of 85 posts including the post of Chairman, 05 Members (JS level) and 79 below JS level posts (65 technical posts and 14 non-technical posts). They further note that the Authority is functioning with the actual strength of 32 officers on deputation/loan/additional charge basis and 33 persons have also been engaged as support staff on contract basis against 91 approved positions. Regarding the 65 technical posts, the same were advertised in August 2023 and 07 CWES officers have been appointed on deputation basis. Here, the Committee find that efforts are being made by the Ministry to augment the manpower of NDSA. The Committee are of the view that even after persistent efforts the present strength is far behind from the sanctioned necessary for proper functioning of NDSA and there is need of time bound endeavours toward this aspect. However, the Committee hope that the steps taken by the Ministry will provide desired results and the posts particularly in technical sections will be filled urgently for appropriate functioning of the NDSA thereby resulting in the proper and efficient management of safety of dams in the country. The Committee would like to be apprised of the progress in this regard within 3 months of presentation of this Report.

D. Flood Forecasting

Recommendation No. 14 (Para Nos,2.17 & 2.18)

18. The Committee observed that Central Water Commission (CWC) plays a crucial role in Flood Forecasting by overseeing a comprehensive flood forecasting network that operates across the country. The CWC set up of flood forecasting network comprises of short range level forecasts at 200 locations in the country and Inflow Forecasts for 140 dams/reservoirs/barrages in various river basins. Further, to monitor the flood situation during every monsoon, CWC operates 36 Divisional Flood Control Rooms (DFCRs) located in the various field Divisions of CWC and a Central Flood Control Room (CFCR) at CWC (HQ), New Delhi for providing flood related information to the local

administration and user agencies. Central Flood Control Room (CFCR) at New Delhi monitors flood situation throughout the country by monitoring the data entry/FF formulation and issue of flood forecasts from all DFCRs through Water Information Management System (WIMS).

The Committee noted that despite significant technological advancements and substantial investments in Early Warning Systems (EWS), socio-economic losses in the form of human lives and assets, continue to occur. In this regard, the Department appraised the Committee that Central Water Commission is enhancing its flood forecasting capabilities through various measures, including through expanding its network, upgrading of technology with mathematical modeling, enhancing computational resources, exhaustive data collection from various sources, adopting ensemble forecasting, etc. In this regard, the Committee were of the view that though various efforts have been made by the Department for better flood forecasting, the present system for the purpose have on occasions, been found inadequate. During oral evidence, the Ministry also accepted the fact that the present models used for processing of meteorological data for flood forecasting need improvement. Hence, in light of the increasing severity of flood situations due to climate change, the Committee recommended that the Ministry upgrade its present system accordingly with best available advanced technology, capable of addressing the current challenges in the area of flood forecasting due to climate change phenomena.

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

"The Central Water Commission (CWC) establishes new flood forecasting sites based on requests received from State Governments. In certain cases, the CWC identifies potential flood forecasting sites or locations and seeks feedback or approval from the concerned State Government regarding the site's feasibility.

Currently, CWC has 340 (200 Level and 140 Inflow) flood forecasting sites in India covering 22 states and 2 UT's which is planned to increase to around 375 by end of 2026 covering over 28 states and 6 UT's.

The Central Water Commission (CWC) is prioritizing the expansion of inflow forecasting sites due to the rising frequency of dam-induced floods and the relatively lower number of inflow forecasting sites compared to level forecasting sites. Although, the network of level forecasting sites managed by the CWC has reached near saturation, Ministry is taking all effort to identify and enhance level forecasting sites in consultation with State Govt. during next five year plan 2026-31.

State-wise Flood Forecasting Stations							
Sl. No.	***Name of State/UT***	***Existing No. of flood forecasting Stations***			***Proposed additional FF Stations***		
		Level	***Inflow***	***Total***	***Level***	***Inflow***	***Total***
1	*Andhra Pradesh*	*10*	*10*	*20*	*0*	*1*	*1*
2	*Arunachal Pradesh*	*3*	*1*	*4*	*0*	*0*	*0*
3	*Assam*	*30*	*0*	*30*	*0*	*1*	*1*
4	*Bihar*	*40*	*3*	*43*	*0*	*1*	*1*
5	*Chhattisgarh*	*1*	*2*	*3*	*0*	*1*	*1*
6	*Gujarat*	*6*	*8*	*14*	*0*	*0*	*0*
7	*Haryana*	*1*	*1*	*2*	*1*	*1*	*2*
8	*Himachal Pradesh*	*1*	*0*	*1*	*0*	*1*	*1*

9	Jammu & Kashmir	3	0	3	2	1	3
10	Jharkhand	2	15	17	0	0	0
11	Karnataka	1	14	15	0	3	3
12	Kerala	4	2	6	0	2	2
13	Madhya Pradesh	2	12	14	0	0	0
14	Maharashtra	8	14	22	0	1	1
15	Odisha	12	7	19	0	0	0
16	Rajasthan	4	11	15	0	2	2
17	Sikkim	3	5	8	1	0	1
18	Tamil Nadu	4	11	15	0	3	3
19	Telangana	5	10	15	0	1	1
20	Tripura	2	0	2	4	0	4
21	Uttar Pradesh	39	5	44	0	0	0
22	Uttarakhand	4	5	9	0	0	0
23	West Bengal	12	4	16	0	0	0
24	Daman & Diu	1	0	1	0	0	0
25	NCT of Delhi	2	0	2	0	0	0
26	Meghalaya	0	0	0	0	2	2
27	Nagaland	0	0	0	0	1	1
28	Manipur	0	0	0	0	2	2

29	*Mizoram*	*0*	*0*	*0*	*0*	*1*	*1*
30	*Punjab*	*0*	*0*	*0*	*1*	*1*	*2*
31	*Goa*	*0*	*0*	*0*	*0*	*1*	*1*
32	*Dadar Nagar Haveli*	*0*	*0*	*0*	*1*	*0*	*1*
33	*Ladakh*	*0*	*0*	*0*	*0*	*1*	*1*
34	*Puducherry*	*0*	*0*	*0*	*1*	*0*	*1*
	Total	***200***	***140***	***340***	***11***	***28***	***39***

Basin-wise Flood Forecasting Stations							
Sr. No	***Major Interstate River Systems***	***FF stations as on Date***			***Proposed additional FF Stations***		
		Level	***Inflow***	***Total***	***Level***	***Inflow***	***Total***
1	*Indus and its tributaries*	*3*	*0*	*3*	*4*	*5*	*9*
2	*Ganga & its tributaries*	*96*	*43*	*139*	*0*	*1*	*1*
3	*Brahmaputra & its tributaries*	*39*	*6*	*45*	*1*	*4*	*5*
4	*Barak System*	*6*	*0*	*6*	*4*	*3*	*7*
5	*Subarnarekha (i/c Burhabalang)*	*4*	*3*	*7*	*0*	*0*	*0*
6	*Brahmani & Baitarni*	*3*	*2*	*5*	*0*	*0*	*0*
7	*East Flowing (Mahanadi to*	*4*	*4*	*8*	*0*	*0*	*0*

	Pennar)						
8	*Narmada*	*4*	*6*	*10*	*0*	*0*	*0*
9	*Tapi*	*1*	*2*	*3*	*0*	*0*	*0*
10	*Mahi*	*1*	*4*	*5*	*0*	*0*	*0*
11	*Sabarmati*	*1*	*1*	*2*	*0*	*0*	*0*
12	*Mahanadi*	*3*	*3*	*6*	*0*	*1*	*1*
13	*Godavari*	*18*	*26*	*44*	*0*	*0*	*0*
14	*Krishna*	*5*	*19*	*24*	*0*	*2*	*2*
15	*West Flowing Rivers(Kutch & Saurashtra, Luni)*	*1*	*2*	*3*	*0*	*2*	*2*
16	*West Flowing Rivers (Tapi to Tadri))*	*2*	*1*	*3*	*1*	*4*	*5*
17	*Cauvery and its tributaries*	*4*	*9*	*13*	*0*	*2*	*2*
18	*Pennar*	*1*	*1*	*2*	*0*	*0*	*0*
19	*East Flowing Rivers (Pennar to Kanyakumari)*	*1*	*6*	*7*	*1*	*2*	*0*
20	*West Flowing River (Tadri to Kanyakumari)*	*3*	*2*	*5*	*0*	*1*	*0*
21	*Minor rivers draining to Myanmar*	***0***	***0***	*0*	*0*	*1*	*1*
	Total	*200*	*140*	*340*	*11*	*28*	*39*

As per World Meteorological Organization (WMO) manual on "Flood Forecasting and Warning", there are no fixed norms or criteria regarding the number of flood forecasting stations that should be established. Instead, the WMO emphasizes that the primary requirement for a flood forecasting network is the delivery of useful and timely information. The Central Water Commission (CWC) has adopted a comprehensive approach that aligns with these guidelines in several key ways.
Utility and Timeliness: The CWC's focus on providing timely forecasts ensures that stakeholders have the necessary information to act promptly.

- *Cost-Effectiveness: By utilizing existing infrastructure and focusing on suitability for flood warning purposes, the CWC effectively manages resources.*
- *User-Centric Approach: The integration of stakeholder feedback into network evaluations reflects a commitment to meeting end-user needs.*

Hydrological Observation (HO) stations are the backbone of Flood Forecasting network for monitoring the flood situation on near real time basis and formulation of forecast. As per WMO guidelines minimum hydro-meteorological stations density should be as follows:

S. No.	***Physio-graphic Region***	***Minimum density (area in km^2 per station)***					
		Precipitation Station			***Streamflow Measurement Station***		
		Non-recording	***Recording***	***Evaporation Station***	***Stream flow Station***	***Sediment Discharge and Sedimentation***	***Water Temperature (Water Quality Station)***
1	*Coastal*	*900*	*9,000*	*50,000*	*2,750*	*18,300*	*55,000*

2	*Mountain-ous*	*250*	*2,500*	*50,000*	*1,000*	*6,700*	*20,000*
3	*Interior Plains*	*575*	*5,750*	*50,000*	*1,875*	*12,500*	*37,500*
4	*Hilly/ Undulating*	*575*	*5,750*	*50,000*	*1,875*	*12,500*	*47,500*
5	*Small islands*	*25*	*2,520*	*50,000*	*300*	*2,000*	*6,000*
6	*Polar/arid*	*10,000*	*100,000*	*100,000*	*20,000*	*200,000*	*200,000*

Based on the six physiographic regions of India and their approximate areas, minimum stream flow and sediment stations have been worked out as below:

Physiographic Region	***Area (in km²)***	***Minimum Stream Flow stations as per WMO guidelines***	***Minimum sedimentation stations as per WMO guidelines***
Coastal	*75,000*	*27*	*4*
Mountainous	*500,000*	*500*	*75*
Interior Plains	*700,000*	*373*	*56*
Hilly/Undulating	*1,600,000*	*853*	*128*
Small Islands	*8,000*	*27*	*4*
Polar/Arid	*300,000*	*15*	*1*

Total	*1795*	*268*
Existing network in CWC	***1522***	***407***

The number of CWC HO stations, in general, are as per minimum requirements, based on the WMO guidelines for stream flow stations & sedimentation stations. Moreover, in addition to CWC HO network compatibility with WMO standards, there are additional HO stations maintained by State Govt. making it more than WMO norms.

The CWC comprehensive strategy effectively aligns with the WMO's guidelines by focusing on the timely delivery of useful information, engaging stakeholders, regularly evaluating its network and embracing technological advancements. This approach not only enhances the CWC's flood forecasting capabilities but also significantly contributes to better flood management and community resilience in India.

As part of its ongoing commitment to effective flood management, Central Water Commission (CWC) receives requests from various stakeholders for the establishment of new flood forecasting (FF) stations. This process is integral to ensuring that the flood forecasting network remains responsive to evolving needs in flood-prone area. The CWC carefully examines these requests and takes appropriate action based on feasibility.

Currently CWC has 1543 HO sites. The HO sites are also continuously reviewed in response to the emerging scenarios. The utility of HO sites diminishes with the establishment of downstream or upstream dams, weirs, or barrages, eventually compelling CWC to close these sites. Consequently, the HO network varies from year to year, influenced by such factors.

Modernisation of network

Sensor based data collection and satellite-based communication system has been adopted under modernisation. At present CWC has 1121 telemetry sites, spanning 25 States and 5 UT's.

Under World Bank aided National Hydrology Project (NHP), State Govt. have been supported to install similar system to fill the gaps. Velocity radar-based discharge data collection at more time frequency as well as ADCP based accurate discharge observation has been more emphasis in addition to installation of SCADA system on selected Dams and Barrages to support accurate flood forecast model output.

Advances in Advisory Flood Forecast (AFF)

CWC currently provides 7-day advisory flood forecast on its web portal https://aff.india-water.gov.in/ using mathematical model on pan-India for 20 major river basins of the country, covering 200 water level and 140 reservoir inflow forecast stations. This marks a significant paradigm shift from the conventional Gauge-to-Gauge correlation to a more scientific modelling technique for flood forecasting. The system uses regularly calibrated basin models developed using MIKE11 modelling software, while its real time operation is done in automatic manner by scheduling scripts written in Python and then using JavaScript for publishing the model outputs in web portal. The entire system is updated every three hours for all stations simultaneously.

Inundation Flood Forecasting – New initiative

In view of the severity of the flood situation in flood-prone regions, as indicated by longer lead-time forecasts, there has been a constant demand from various stakeholders for flood inundation extent data across affected districts. To address

this need and further modernize its flood forecasting capabilities, CWC has undertaken the development of inundation forecasting using 2D modelling techniques.

The current status of inundation forecasting is as follows:

1. ***Godavari and Tapi Rivers Basin**: NRSC has developed Spatial Flood Early Warning Systems for the Godavari and Tapi Rivers using the MIKE suite of software under NHP, leveraging high-resolution DEM and computational resources available with NRSC. The proposed solution is planned for rollout during the 2025 monsoon season.*
2. ***Mahanadi Basin**: C-DAC, with the support of CWC, has developed an Inundation Forecast Model for the Mahanadi Basin using ANUGA, high-resolution DEM procured from NRSC, and high-performance computing (HPC) resources available with C-DAC. The proposed solution is also planned for rollout during the 2025 monsoon season.*
3. ***Ganga Basin**: CWC has initiated the development of an Inundation Forecast Model for the Ganga Basin using HEC (HMS & RAS) through consultancy under NHP. The DEM data for this project is being partially procured from NRSC and supplemented with data provided by the Survey of India (SoI). The objective is to develop an Early Flood Warning System, including inundation forecasting and a customized GIS tool for real-time dissemination of water level forecasts, inundation forecasts, and an inundation map library. This system will incorporate a 2D or 1D-2D coupled numerical model for the Ganga Basin. The system is under development and is likely to be rolled out from 2026.*

Implementation of AI/ML Techniques in Flood Forecasting – New Venture

Recently the acceleration of flood-related disasters due to climate change underscores the urgency for effective early warning systems. As a result, many nations are experimenting with global flood prevention utilising AI/ML techniques, particularly in areas that are highly inhabited and at risk of flooding and lack dense stream flow gauge networks. The accuracy, recall, and lead time of short-

term forecasts of extreme riverine phenomena could all be enhanced by AI/ML techniques. Below is a list of some benefits of AI/ML:

1. *Real-time Monitoring: AI/ML models can process vast amounts of data from various sources (stations-wise, satellites, telemetry) in real-time, providing up-to-date flood predictions.*
2. *High Accuracy: These models can analyze complex spatiotemporal patterns and non-linear behaviours of floods, leading to more accurate predictions compared to conventional methods.*
3. *Early Warning Systems: AI/ML techniques can generate timely flood warnings, allowing state authorities to take necessary precautions and evacuate if needed.*
4. *Efficient Resource Allocation: By predicting flood intensity and affected areas, AI/ML models help in efficient allocation of resources for disaster response and recovery.*
5. *Minimum expertise requirement: Once AI/ML models are implemented for forecast site, the system can be operated with minimum staff at field organization.*

   To utilise the immense advantages of AI/ML models, CWC has delved into the usage of AI/ML techniques in centralized flood forecasting to replace the existing decentralized conventional techniques used by CWC for short range forecasting. As a first phase the centralized automated short range flood forecasting module model will be developed for selected forecasting station and rolled out from 2025. Rest of the stations will be added in phased manner. Pan India coverage under the system is planned by 2026."

20. The Committee note that Central Water Commission has 340 (200 Level and 140 Inflow) flood forecasting sites in India covering 22 states and 2 UT's which is planned to increase to around 375 by end of 2026 covering over 28 states and 6 UT's. Further, the Ministry is taking all efforts to identify and enhance level forecasting sites in consultation with State Govt. during next five-year plan 2026-

31. The Committee also note that from the data provided by the Ministry that presently only 140 Inflow forecasting sites are available in compare to level forecasting sites. In this regard, as stated by the Ministry, due to the rising frequency of Dam-induced floods, expansion of the same are being considered on priority. Furthermore, as appraised by the Ministry, as per World Meteorological Organization (WMO) manual on 'Flood Forecasting and Warning', there are no fixed norms or criteria regarding the number of flood forecasting stations that should be established rather emphasised on requirement of flood forecasting network to deliver of useful information timely. Regarding the modernisation of network for flood forecasting the Ministry has listed out various efforts including updation of Sensor based data collection and Satellite-based communication system, providing of 7-day advisory flood forecast on web portal using of mathematical model on pan-India for 20 major river basins of the country, development of inundation forecasting using 2D modelling techniques and implementation of AI/ML Techniques in flood forecasting. While appreciating the Ministry's efforts, the Committee believe that, given the current magnitude of floods, it is essential to upgrade the flood forecasting system by incorporating latest technologies alongwith increasing inflow and level forecasting sites in a time-bound manner. The Committee hope that the Ministry's continuous efforts would lead to more efficient flood forecasting resulting better flood management in the country. The Committee would like to be apprised of the progress in this regard within 3 months of presentation of this Report.

CHAPTER II

OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Recommendation No. 1 (Para Nos. 2.1, 2.2 & 2.3)

Analysis of Demands for Grants

The Committee observed that for the fiscal year 2024-25, the total budgetary allocation for the Department of Water Resources, River Development and Ganga Rejuvenation is Rs. 21,323.10 crore, out of which Rs. 20,921.15 crore has been allocated under the 'Revenue Section' and Rs. 401.95 crore has been allocated under the 'Capital Section'. The budget is almost identical in comparison to BE allocations of Rs. 20,054.67 crore for FY 2023-24. The overall budgetary allocation for Financial Year 2024-25 has shown a hike of Rs. 1,268.43 crore which is 6.32% increase as compared to the BE of FY 2023-24.

The Committee further observed that under Central Sector Scheme Rs. 6,573.73 crore has been allocated for BE 2024-25 which is nearly Rs.300 crore over and above against the BE allocation for FY 2023-24 i.e. Rs. 6,258.11 crore. Regarding the Central Sponsored Scheme, a provision of Rs.13,431.48 has been made at BE level for FY 2024-25 which is nearly Rs.1,050 crore over and above against BE allocation for FY 2023-24 i.e. Rs. 12,387.23 crore. The major Schemes/Programmes in which the total budget allocation of the Department have been made include Pradhan Mantri Krishi Sinchayee Yojana- Har Khet Ko Pani (PMKSY-KKKP), Interlinking of Rivers, National Ganga Plan (Namami Gange Mission-II) and Atal Bhujal Yojana (Atal Jal). The Committee also observe that some of the important Schemes viz. Interlinking of Rivers, Atal Bhujal Yojana, Special Package for Maharashtra, National Hydrology Project and Research & Development and National Water Mission have been allocated more funds in the current fiscal year 2024-25.

Further, with regard to borrowings from the National Bank for Agriculture and Rural Development (NABARD) the Committee noted that the same have been discontinued since 2021-22. However, a provision of Rs. 3,749.80 has been made in the budget allocation in current fiscal year 2024-25 for repayment of previous borrowings and interest subvention. The Committee expressed their concern that still a significant portion of the total budget allocation, approximately 20%, is being utilized for the repayment of loans to NABARD, including both interest and principal amounts and which will, therefore, adversely impact the Schemes/Programmes of the Government in the long run. The Committee, therefore, recommended that a proposal regarding provision for early repayment of loan to NABARD may be made by the Department for consideration of Ministry of Finance so that committed liability may be settled within a shorter time frame. Consequently, early repayment of loan would enable the Department with greater financial flexibility to support its key schemes and programs in future perspective. The Committee would like to be categorically apprised of the steps taken in this regard within three months of presentation of this Report.

Reply of the Government

The early repayment of loan issue has been discussed with NABARD. and they were asked to provide financial implications (total remittance to be paid to them) in case of early repayment. The proposal for early repayment shall be taken up with Ministry of Finance, once financial implications are received from NABARD.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No. 2 (Para Nos. 2.4)

Water Resources Scenario

The Committee observed that as per the “Reassessment of water availability in basins using space inputs” Report, the utilizable water availability to the country is limited to 1,139 BCM per annum and out of which, the water potential utilized is about

691 BCM. Further, the total requirement of the country for different uses for high demand scenario for the years 2025 and 2050 has been assessed as 843 BCM and 1,183 BCM, respectively. The Committee express its concern about the gap between total water availability and its demand. Notwithstanding these facts, the Ministry appraised the Committee about the recently carried out 'Assessment of Water Resources of India' for the year 1985-2023 by the Central Water Commission (CWC) assessing the Average Annual Water Resources Availability of India as 2115.95 BCM while the annual precipitation is 3728.78 BCM and various Studies/ Measures undertaken, which have been effective in bridging the gaps between water demand and supply. Further, for the purpose, constitution of a National Task Force on Integrated Water Resources Development & Management is also under consideration. The Committee further, observed that the Department has taken various initiatives to augment the water availability viz., Atal Bhujal Yojana; Pradhan Mantri Krishi Sichai Yojna (PMKSY), Accelerated Irrigation Benefit Programme (AIBP), Repair, Renovation & Restoration (RRR) of Water Bodies; Inter-linking of rivers 'Sahi Fasal' campaign; Jal Shakti Abhiyan: Catch the Rain (JSA: CTR); implementation of new projects/National projects like Pollavaram Project etc. In this regard, the Committee were of the view that, water is a fundamental prerequisite for the sustenance of life and sustainable development. Increasing population, rapid industrialization and accelerating urbanization, compounded by the impacts of climate change, have collectively rendered water availability as one of the most pressing issues of survival and sustainable development. The demand for water is projected to increase significantly, rendering it a critical factor in the Nation's economic progress. While taking cognisance of all the efforts made to increase water availability, the Committee urged the Department to take all appropriate measures to expedite the process for constitution of the National Task Force on Integrated Water Resources Development & Management as well as to ensure timely implementation of all the schemes and programmes initiated for the purpose so that an effective system be prepared to meet the water demand in future effectively.

Reply of the Government

Department of Water Resources, River Development &Ganga Rejuvenation (DoWR, RD &GR) note the concern of the Committee. DoWR, RD &GR adopts multi - pronged strategy for conservation of water in a holistic manner, while catering to the increasing requirement of water in various sectors. Sincere efforts are made for timely completion of projects/schemes.

As regards constitution of a National Task Force for Integrated Water Resources Development and Management (NTFIWRDM), it is submitted that Department of Water Resources, RD & GR, Ministry of Jal Shakti, has constituted a National Task Force for Integrated Water Resources Development and Management (NTFIWRDM), vide O.M. dated 25.11.2024 under the chairmanship of Shri Ramesh Chand, Hon'ble Member, Niti Aayog, comprising of distinguished members viz. Secretary/Additional Secretary of various Ministries, Heads of various Govt. Departments and Senior officials from various organizations. Chief Engineer (BPMO), Central Water Commission is the Member-Secretary of the NTFIWRDM.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No. 4 (Para Nos. 2.7)

Ground Water Management and Regulation Scheme

The Committee observed that the Ground Water Management and Regulation (GWM&R) Scheme is a Central Sector Scheme under the Department of Water Resources, River Development, and Ganga Rejuvenation and has the approval for continuation up to 2026. The scheme comprises of two primary components viz. Component-I encompasses monitoring, assessment, management, and regulation of groundwater resources and Component-II focuses on Strengthening Infrastructure for Technological Upgradation (Machinery & Equipment). Additionally, the Public

Investment Board (PIB) has approved a "National Aquifer Mapping and Management (NAQUIM)" project for implementation under this scheme. The Committee also observed that the Scheme has witnessed meager utilization of their budgetary allocations in fiscal year 2023-24 as the same was Rs. 350 crore at BE stage, then reduced to Rs. 280 crore at RE stage and at the end the actual expenditure was only 202.31 crore which is almost 40% less of its BE allocation. As per the Department's submission, it was due to delays in tendering of work and final award to work could take place only in the last month of the fiscal year. The Committee have expressed concern that the Department is not utilizing its allocated budget effectively for the Scheme, a trend that has continued for consecutive years. This concern was also raised by the Committee in its earlier Report on DFG 2023-24. The Committee were of the view that the Ground Water Management and Regulation (GWM&R) is significantly important Scheme tasked to carry out scientific surveys, exploration, monitoring of development, management and regulation of our vast groundwater resources for irrigation, drinking, domestic and industrial needs. The Committee felt that the underutilization of funds allocated for the scheme is an issue of significant concern, as it would impact the Scheme's ability to achieve its objectives. The Committee, therefore recommended that required approvals may be obtained within a fixed timeline, factors contributing to delay be identified and addressed promptly so that the allocated budget is utilized efficiently and available resources are optimized with maximum capacity.

Reply of the Government

As submitted earlier, the under-utilization of allocated funds is mainly due to delays in finalizing the tenders and taking approvals for the construction of piezometers and wells under the NAQUIM project.

However, the project has been subsequently fast-tracked to overcome the initial delays and tenders for construction 6,835 piezometers, out of a target of 7,000, have already been awarded and work has been commenced. As of 15th April 2025, 2956 piezometers have been constructed. Similarly, contracts for 1,026 exploratory/observations wells, out of a target of 1,135 have been awarded and 598 wells have been constructed.

Moreover, the Ministry has holistically reviewed all the areas of project implementation and has taken several measures to speed up the ground execution. These steps include:

1. Establishing a National Project Management Unit (NPMU) at the CGWB headquarters, along with Regional Project Management Units (RPMUs) at the respective regional offices to oversee the implementation.
2. Collaborating with State Governments, who have designated nodal officers to assist in expediting site selection for the construction of piezometers, exploratory and observation wells.
3. Hiring Young Professionals to assist in the compilation of information.
4. Conducting periodic monitoring through meetings and field visits at the Regional Offices, CGWB headquarters, and Ministry levels.

Given the progress made, with nearly all tenders awarded and work progressing as planned, it is anticipated that most of the tenders will be completed in 2025-26 and the project is expected to be completed by March, 2026.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No. 5 (Para Nos. 2.7)

Flood Management and Border Areas Programme (FMBAP)

The Committee observed that in pursuant to the XII Plan, the "Flood Management and Border Areas Programme (FMBAP)" was initiated for the period 2017-18 to 2019-20 which was extended until 2020-21 and further to be continued upto 2026. The FMBAP comprises two key components including Flood Management Programme (FMP) Component and River Management and Border Areas (RMBA) Component. Under FMP component, the Government provides Grant-in-Aid to States/Union Territories for implementing structural measures aimed at flood management, anti-

erosion, river management, and anti-sea erosion. Further, under RMBA component flood control and anti-erosion work on common border rivers with neighbouring countries, including hydrological observations and flood forecasting, and investigation & pre-construction activities of joint water resources projects (with neighbouring countries) on common border rivers are being taken up with 100% central assistance. The Committee has noticed a drastic shortfall (-55.5%) in the budget of the Programme at RE stage during the FY 2023-24. In this regard, the Department apprised the Committee that the shortfall was due to non-receipt of funding proposal from the States. The Committee noted with concern, that notwithstanding the Nation's efforts to address the impending challenges of floods, under-utilization of the allocated budget for this comprehensive scheme would undermine the programme's objectives. In this regard, the Committee were of the considered view that, the Ministry should take a proactive hand hold approach with State Governments and ensure maximum utilization of available funds allocated under Flood Management & Border Areas Programme along with completion of projects, within a stipulated time frame, so that menace of flood in the country be dealt with more effectively and efficiently.

Reply of the Government

Flood management including erosion control falls within the purview of the States. Flood management and anti-erosion schemes are formulated and implemented by concerned State Governments as per their priority. The Union Government supplements the efforts of the States by providing technical guidance and also promotional financial assistance for management of floods in critical areas.

To strengthen the structural measures of flood management, Union Government had implemented Flood Management Programme (FMP) during XI & XII Plans for providing central assistance to States for works related to flood control, anti-erosion, drainage development, anti-sea erosion, etc. which subsequently continued as a component of "Flood Management and Border Areas Programme" (FMBAP) for the

period from 2017-18 to 2020-21 and was further extended up to 2026 with limited outlay.

30 flood management projects of XI and XII plan period is currently ongoing and for completion of these flood management projects, Secretary, Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti has taken a review meeting on 19th November, 2024 in which, it was requested to the State/UTs to complete the prolonged projects immediately and submit the funding proposals, if any. If the projects have already been completed, state government needs to submit the completion report and utilization certificates for closing of the project from FMBAP scheme.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

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

Recommendation No. 6 & 7 (Para Nos. 2.9, 2.9.1 & 2.9.2)

The Committee expressed its concern that despite numerous efforts and initiatives by the Government to mitigate floods, several States continue to face severe flooding challenges. In this regard, the Ministry listed various challenges including unpredictable weather patterns, coupled with the increasing frequency and intensity of extreme precipitation events with wide variations in rainfall both in time and space, landslides, snowmelt, cloud burst and glacial lake out bursts etc., Inadequate urban drainage systems and the rampant encroachment on natural waterways exacerbate the situation, as floodplains—originally designed to absorb excess water—are compromised by unregulated construction activities. A fragmented approach to planning and lack of inter-state collaboration further hinder the implementation of comprehensive flood management strategies. From the points narrated by the Ministry, the Committee were of the view that climate change is significantly increasing the frequency and intensity of

floods, primarily due to an increase in extreme rainfall events, particularly during the monsoon season, leading to more frequent and severe flooding across regions, causing substantial damage to infrastructure, livelihoods, and human life.

The Committee, therefore, recommended that the Ministry review its present flood management system to factor in with extreme precipitation events, unpredictable weather and climate change which are seen to be global events and upgrade the present flood management systems with the best available/emerging global practices to mitigate the socio-economic losses caused.

The Committee also recommended that the Ministry in collaboration with State Governments take all appropriate measures to stop unregulated construction activities in the flood plains. The Committee may be apprised of the steps taken in this regard.

Reply of the Government

To factor in with extreme precipitation events, unpredictable weather and climate change, Central Water Commission (CWC) has been directed to review/modification of the existing Guidelines for submission, appraisal and acceptance of Irrigation and Multipurpose Projects, 2017 in respect of flood protection schemes on common border/trans boundary rivers. Integrated flood approach aims at adopting judicious mix of structural and non-structural measures to provide a reasonable degree of protection against flood damages at economic cost.

Further, Ministry of Jal Shakti has continuously impressed upon the States, the need to adopt flood plain zoning approach as a non-structural measure of flood management in the country. In order to enable States to undertake scientific assessment of flood plains and its zoning, draft technical guidelines on Flood Plain Zoning have been prepared by Ministry and circulated to the States/UTs in 2024 for

their input. Input from some of the States/UTs have been received and finalization of guidelines is under process.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

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

Recommendation No. 8 (Para Nos. 2.10)

The Committee observed that the recurrent floods in Bihar and parts of Uttar Pradesh are primarily attributed to the rivers originating from Nepal, which has been a longstanding concern. A sustainable solution to mitigate this issue lies in the development of multi-purpose projects, incorporating flood control mechanisms in the upper reaches of Nepal, thereby achieving effective flood moderation. In this regard, the Committee noted that Government of India has been regularly interacting with the Government of Nepal for construction of Dams viz. Sapta Kosi High Dam Multi-purpose Project (SKHDMP), Sun Kosi Storage-cum-Diversion Scheme (SSDS) and the Pancheshwar Multipurpose Project (PMP) on these rivers with objectives of flood control, irrigation and power generation. However, the Committee observed that slow progress in this direction is a matter of concern. The Committee previously expressed concern in its DFG Report 2020-21 regarding the delayed completion of these projects and urged the Ministry to play a more proactive role in facilitating their timely completion. Given the gravity and necessity of the situation, the Committee reiterated its desire for the Ministry to expedite its efforts, to ensure the timely completion of these projects and thereby mitigate the long-standing issue of flooding in the States of Bihar and Uttar Pradesh. The Committee may be apprised of the steps taken in this regard.

Reply of the Government

Flood in State of Bihar are primarily caused by increased discharge in the rivers of North Bihar such as Gandak, Burhi Gandak, Bagmati, Kamla, Koshi and Mahananda due to heavy rainfall in the upper catchment areas. Management of floods due to these rivers has been a matter of concern. The related issues are discussed in the existing India-Nepal bilateral three-tier mechanisms, consisting of (i) Joint Ministerial Committee on Water Resources (JMCWR), (ii) Joint Committee on Water Resources (JCWR) and (iii) Joint Standing Technical Committee (JSTC).

Government of India is regularly in talks with Government of Nepal for construction of dams on Sapta-kosi and Sun-Kosi rivers in Nepal for mutual benefit of both the countries, including flood control.

In December, 1991, an understanding was reached between Government of India (GoI) and Government of Nepal (GoN) to jointly prepare the detailed project report (DPR) of Sapta Kosi high dam multipurpose project. Subsequently, on the request of Nepalese side, preparation of DPR of Sun-Kosi storage-cum-diversion scheme in Nepal and navigational studies on river Kosi were also agreed upon by the two countries.

In this regard, a Joint Project Office (JPO-SKSKI) has been functioning at Biratnagar, Nepal since 2004 to prepare the Detailed Project Report (DPR) for the Sapta-kosi Dam Multipurpose Project and Sun-Kosi Kamla Diversion Multipurpose Project located in Nepal. The Sapta-Kosi Dam is a storage project conceptualized to provide flood cushion to prevent floods in North Bihar. The JPO-SKSKI has completed field works related to topographical survey, construction material survey, seismological studies etc. and drilling work at dam site and spillway sites are under progress. The implementation of the project would be taken up after finalisation of DPR and its acceptance.

In February 1996, His Majesty's Government of Nepal and Government of India had signed a treaty (known as "Mahakali Treaty") for integrated development of the

Mahakali River. Under Article 3 of the Treaty, both sides agreed to build the Pancheshwar Project. The Pancheshwar Development Authority (PDA) was also set up with approval of both the Governments in September, 2014 for development, execution and operation of the Pancheshwar Project.

M/s WAPCOS, PSU of DoWR submitted draft DPR to Pancheshwar Development Authority (PDA) in November, 2016. On direction of the Governing Body of PDA, a joint Team of Officials/ Experts (ToE) was constituted to discuss and resolve issues raised by Nepal on the interpretation of Mahakali Treaty, sharing of the Mahakali waters and assessment of project benefits in order to finalize the DPR. Five meetings of ToE were held so far. During the course of the meetings, most of the technical issues have been discussed and resolved to the satisfaction of both sides. However, certain fundamental issues relating to the interpretation of certain clauses of the Mahakali with reference to existing and future consumptive water uses of India, maximization of total net benefit from the project and cost apportionment of the project remained unresolved in the ToE meetings and still remains to be resolved bilaterally by both Government of India and Nepal. One of the issues of disagreement is the continuing stand of Nepal to treat the existing use of Mahakali waters by India at Lower Sarada Barrage (LSB) (in use since 1975) as future use of India in the DPR. The other issue is the supply of 10 m3/s of water for irrigation to the Dodhara-Chandani area in Nepal (where no irrigation system exists today) which Nepal side contends is their existing right under Treaty and should be considered as their existing use in the DPR.

In the 8th Governing Body meeting of Pancheshwar Development Authority held on 6th – 7thJuly, 2023 at Pokhra, both co-chair agreed on early finalisation of DPR as per direction of Prime Minister of Nepal and India during the visit of Prime Minister of Nepal to India from 31st May to 3rd June, 2023 by resolving the remaining technical issues.

In the 4thToE meeting held on 21st -22nd July, 2023 at New Delhi, both sides agreed on the water utilization through the project, benefits from irrigation and flood

control, hydropower production, principles of cost apportionment for each country etc as per Mahakali Treaty between two countries. The cost of R&R, Land Acquisition for submergence area and EMP may be borne by respective Governments for their areas based on their prevailing rules and regulations.

In the 5th ToE meeting held on 6th -7th October, 2023 at Kathmandu, both sides agreed that further discussion is needed before finalization of the DPR and detailed observations/suggestions on the updated DPR will be shared by both sides. Subsequently, observations have been shared by both the sides. The tenure of the ToE has been extended up to August, 2025 by both co-chair of Governing Body.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No.9 (Para Nos. 2.11)

Safety of Dams

The Committee noted that the responsibility for the safety, upkeep, and maintenance of dams in India lies primarily with the dam owners, which may include State Governments, public sector undertakings, or other dam-owning entities. Further, regarding the Dam Safety Act of 2021 the Department apprised the Committee that the Act formalizes the institutional framework responsible for ensuring dam safety at both the National and State levels. The key bodies involved include National Committee on Dam Safety (NCDS), National Dam Safety Authority (NDSA), State Committees on Dam Safety (SCDS) and State Dam Safety Organizations (SDSO). The Committee further observed that as per the National Register of Large (Specified) Dams, 2023, there are 6,138 completed and operational specified dams and 143 are under construction stage. The Department further apprised the Committee that a comprehensive tool has been developed to assess dam hazard and vulnerability, considering technical, safety, environmental, and social factors. Apart from this, a Dam Break Rapid Risk Assessment

exercise is underway which aims to quickly evaluate the potential impact of dam failures on downstream populations, providing a critical tool for managing the risks associated with dam infrastructure in India. However, the Committee noted with serious concern that out of more than 6000 dams existing in the country, only 459 dams have been equipped with Emergency Action Plans by the States. While appreciating all the efforts of the Government regarding the safety of Dams in the country, the Committee were of the view that serious efforts need to be taken to cover the maximum number of large dams with Emergency Action Plan. The Committee, therefore, urged to take up this serious issue with the State Governments concerned at the highest levels, to ensure that all necessary measures in this regard are in place to strengthen the present system. The Committee may be apprised of the steps taken in this regard.

Reply of the Government

The responsibility for the safety, upkeep, and maintenance of dams in India lies primarily with the dam owners; State Governments, Public Sector Undertakings or other Dam-Owning Entities. The key bodies involved include National Committee on Dam Safety (NCDS), National Dam Safety Authority (NDSA), State Committees on Dam Safety (SCDS) and State Dam Safety Organizations (SDSO). All these National and State level bodies have been constituted by the respective authorities. All the 19 regulations given under Section 54(2) of the Dam Safety Act 2021 have notified in the Gazette of India.

As per National Register of Large (Specified) Dams, 2023, there are 6,138 completed and operational specified dams and 143 are under construction stage. As regards developing comprehensive tool to assess dam hazard and vulnerability, a Memorandum of Agreement (MoA) has been signed between National Dam Safety Authority and Centre for Development of Advanced Computing (C-DAC), Pune on 12.02.2025. The Population at Risk (PAR) value provided by the C-DAC will be utilised

in Rapid Risk screening exercise for obtaining Potential Impact of dam failures on downstream populations, providing a critical tool for managing the risks associated with dam infrastructure in India. Rapid Risk Screening of specified dams is being carried out across the country using a web tool named RRSSD. Necessary training is provided by the NDSA to all the State/Dam owners. Rapid Risk Screening exercise of around 700 dams has been initiated in the web tool so far. This Rapid Risk Screening exercise is qualitative in nature and will provide the risk score of all the specified dams. Based on the risk score dams will be prioritized for carrying out dam safety related works.

As regards Emergency Action Plans (EAP) prepared by the States, it is to submit that as per the DSA-2021, EAP shall be prepared by the dam owner within 05 years of enactment of the Act. In order to expedite the EAP preparation, NDSA has finalised a Term of Reference (TOR) for Emergency Action Plan & Vulnerability and Hazard Classification. This TOR is being shared with States/Dam owners for reference. Moreover, NDSA has been constantly engaged in sensitizing dam owners for preparation of EAP through its various correspondences and meetings.

- As per section 35 of Dam safety Act 2021, every owner of a specified dam shall establish early warning system such as hydro-meteorological network, inflow forecasting system, emergency flood warning system etc. Necessary directions are already given to SDSOs for installation of early warning system for all specified dams.
- Provision for comprehensive dam safety evaluation (CDSE) for each specified dam exists in the Clause 38(1) of Dam Safety Act 2021 (Chapter IX), viz: “the owner of a specified dam shall make or cause to be made comprehensive dam safety evaluation of each specified dam through an independent panel of experts constituted as per regulations for the purpose of determining the conditions of the specified dam and its reservoir. Provided that the first comprehensive dam safety evaluation for each existing specified dam shall be conducted within five years from the date of commencement of this Act, and thereafter the comprehensive dam safety evaluation of each such dam shall be carried out at regular intervals

as may be specified by the regulations." In this regard, NDSA vide their letters dated 06.01.2025 & 27.1.2024, have directed the SDSOs of all States/ UTS to take up comprehensive Dam Safety evaluation for their specified dams under their jurisdiction.

- As per section 31 of the Dam Safety Act 2021, every owner of a specified dam has been mandated to undertake annually, through their dam safety unit, a pre-monsoon and post monsoon inspection in respect of each specified dam and to forward the inspection report to the concerned SDSO, which shall analyze the report and provide comments on safety, deficiency and remedial measures, if any, to the owner of the specified dam. As an outcome of pre-monsoon and post monsoon inspections, dams are categorized into three categories on the basis of urgency of required repairs/ maintenance. Category-III requires minor remedial measures which are rectifiable during the year. Category-II indicates major deficiencies requiring prompt remedial measures and Category-I indicate the deficiencies that may lead to their failure. Based on these inspections, if any dam falls under category-I or category-II; it is mandatory to take necessary corrective actions at the earliest to prevent any dam failure or dam incident. NDSA vide letter dated 04/04/2024 requested all SDSOs/Dam owners to provide the status of action taken on rehabilitation of Cat-I and Cat-II dams in their jurisdiction. NDSA vide letter dated 04/10/2024, requested all SDSOs/Dam owners for completion of post monsoon inspection 2024 of specified dams as per the schedule and timely submission of inspection reports on DHARMA portal. NDSA vide letter dated 05/03/2025, requested all SDSOs/Dam owners for completion of pre monsoon inspection-2025 of specified dams as per the schedule and timely submission of inspection reports on DHARMA portal. Regular pre and post monsoon inspection of the dams are being carried out to ensure safety of dams.

- Institutional set up envisaged in Dam Safety Act 2021`implemented with National Committee on Dam Safety (NCDS) and National Dam Safety Authority (NDSA) at

National level and State Committee on Dam Safety (SCDS) and State Dam Safety Organization (SDSO) at State level in all 31 dam owning States.

- Three Centres of Excellence (CoE) on Dam Safety have been established: one at IIT Roorkee, focusing on Seismic Hazard Mapping and Reservoir Sedimentation; the other one at IISc Bangalore, specializing in Comprehensive Risk Assessment of Dams, Advanced Construction and Rehabilitation, and Material Testing for Dams and the another other one at National Centre for Earthquake Safety of Dams is being set up at MNIT Jaipur.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No.10 (Para Nos. 2.12)

The Committee observed that National Dam Safety Authority (NDSA) has been sanctioned 79 Posts in various grades including 65 Posts in Technical Cadre and 14 Posts in non-technical grades and against 65 posts in Technical Cadre, presently only 17 officers are working on deputation/ loan basis and against 14 posts of non-technical grades only 07 persons are in position. Further, against the total contractual sanctioned post of 91, only 17 persons have been engaged. Further, State Dam Safety Organizations (SDSOs) constituted by the dam-owning States are also facing the same problem. The Committee recognised that NDSA have a huge mandate with high responsibility of ensuring the safety of dams across the country by establishing and enforcing uniform safety standards, overseeing inspections, maintenance, providing technical assistance to states and inadequate staff certainly affect the functioning of the Authority. The Committee strongly recommended that the Department must take prompt action to fill the existing vacancies without further delay to enable the Authority to execute its responsibilities efficiently and effectively with optimal results.

Reply of the Government

NDSA has sanctioned strength of 85 posts, which include the post of Chairman, 05 Members (JS level) and 79 below JS level posts (65 technical posts and 14 non-technical posts). As on date, NDSA is functioning with the actual strength of 32 officers on deputation/loan/additional charge basis. In addition, 33 persons have also been engaged as support staff on contract basis against 91 approved positions.

NDSA is making all-out efforts to fill up the vacant posts. As regards 65 technical posts, which are to be filled on deputation basis amongst the CWES officers as per the RR, these posts were advertised in August 2023 and 07 CWES officers have been appointed on deputation basis. Vacancy circular has been issued in February 2025 to fill up the 05 posts of Members and the last date of receipt of applications is 07.04.2025.

As regards outsourced personnel, it is submitted that these positions are mainly to support the officers posted against regular vacancies. Hence these positions can be filled up soon after officers are available against the regular posts.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Comment of the Committee

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

Recommendation No.11 (Para Nos. 2.13)

Atal Bhujal Yojana (ATAL JAL)

The Committee noted that the Atal Bhujal Yojana (ATAL JAL) is being implemented since April, 2020 in 8,774 water stressed Gram Panchayats of 222 administrative blocks/ Talukas in 81 districts of seven States, viz. Haryana, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh for five years with an aim to improve the management of groundwater resources in the water stressed

areas in these 7 States through community participation by way of promoting community led ground water management and behavioural changes with primary focus on demand side Management. These selected States account for about 37% of the total number of water stressed (over-exploited, critical and semi-critical) blocks in India. Further, the Department appraised the Committee that 'in-principle' approval has been accorded for expansion of Atal Bhujal Yojana with an outlay of Rs. 8,200 crore to be implemented in 05 additional States, viz., Andhra Pradesh, Bihar, Punjab, Tamil Nadu and Telangana, with the condition that the scheme may be restructured as a Centrally sponsored scheme (CSS). The Committee were of the opinion that this conversion to a Centrally Sponsored Scheme will entail shared financial liability between the Central Government and the States consequently reduce the financial burden on Central Government. It will also provide the scope for Central Government to include more water stressed States/UTs. While, the Committee appreciated the efforts of the Government to include 5 more States under the Atal Bhujal Yojana, in view of the fact that being a Centrally Sponsored Scheme (CSS), financial liability will now also be shared by the State Governments, as urged by the Committee in its earlier Report on DFG-2021-22, the Committee reiterated that the Department should consider expanding the Yojana to include all the States/UTs to cover maximum water scarce regions/districts of the country including those having large number of over-exploited blocks, so that water scarcity can be addressed on broader scale and benefits of the Scheme can be disbursed throughout the Country.

Reply of the Government

Atal Bhujal Yojana (Atal Jal) is a pilot project for participatory groundwater management with a fixed duration and outlay. Given the positive impact of the scheme, DoWR, RD&GR has planned its second phase, whose modalities are being worked out. Consultation with states and Department of Expenditure are being carried out.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No.12 (Para Nos. 2.14)

The Committee observed that Third Party Evaluation on the appraisal / continuation of various Schemes run by the Department, have been conducted. In this context, regarding the Atal Bhujal Yojana, the Department appraised the Committee that a mid-term assessment was carried out by the Council on Energy, Environment and Water (CEEW) to study the overall impact of the Scheme in Rajasthan and as claimed by the Department, the scheme is progressing effectively. In this regard, the Committee were of the view that presently the Scheme is under implementation in seven States including Rajasthan and assessment of only one State would not depict the overall effectiveness of the Scheme. Further, to comprehensively evaluate the socio-economic impact of the schemes on the targeted sectors/areas, its implementation, outcome, achievement of goals set, usefulness in future perspective sustainability and to ensure that public resources are used efficiently and effectively, a third-party evaluation of the Scheme is essential. The Committee, therefore, recommended that a Third-Party Evaluation may be carried out of Atal Bhujal Yojana, by an independent body/ agency having sufficient expertise in the sector on priority. The Committee would like to be apprised of the action taken in this regard by the Department within three months of presentation of this Report.

Reply of the Government

Atal Bhujal Yojana has engaged Quality Council of India (QCI) on 14.11.2024 for undertaking Impact Assessment Study in top 30% of the Gram Panchayats covered under the Scheme and the work is under progress.

Additionally, preparation of third-party evaluation framework for all Central Sector Schemes of the Department of Water Resources, River Development and Ganga Rejuvenation is under process.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No.13 (Para Nos. 2.15 & 2.16)

Command Area Development & Water Management (CAD&WM)

The Committee observed that the Command Area Development & Water Management, is a Centrally Sponsored Scheme with the objective to bridge the gap between irrigation potential created and utilized. The activities covered under CADWM component of a Project are broadly categorized as 'Structural' and 'Non-Structural'. Structural Intervention includes survey, planning, design and execution of On-Farm Development (OFD) works, construction of field, intermediate & link drains, correction of system deficiencies and Reclamation of water logged areas. Non-Structural intervention includes activities directed at strengthening of Participatory Irrigation Management (PIM). The Committee further noted that the Program has been brought under the Pradhan Mantri Krishi Sinchayee Yojna (PMKSY) from 2015-16 onwards. With the new scheme of Prioritized AIBP Projects approved by Cabinet in July 2016, CADWM works have been restricted to 99 prioritized AIBP projects.

The Committee observed that the Scheme has witnessed underutilization of funds in consecutive financial years i.e. actual expenditure of Rs. 99.07 crore vis-à-vis BE of Rs. 1044 crore in FY 2022-23 and actual expenditure of Rs. 174.39 crore vis-à-vis BE of Rs. 400 crore in FY 2023-24. In this regard, the Department has apprised the Committee of various challenges, including a limited working season and reluctance among farmers to relinquish their land, particularly in upper reaches where water supply is sufficient. Furthermore, the concurrent implementation of PMKSY-AIBP and CAD&WM restricted CADWM initiatives to ongoing AIBP projects resulting precluded numerous potential CADWM projects from being undertaken. The Committee observed that to confront these challenges, the Department has devised a modified Command Area Development Scheme for implementation during the financial years 2024-2025 and 2025-2026. The Committee hoped that with the modified Command Area Development Scheme the Department would be able to ensure better and prudent utilization of budget allocation and implementation of the Scheme in more efficient

manner. However, the Committee believed that when formulating a new scheme, it is essential to consider and assess its potential impact on existing schemes, to ensure seamless integration and minimal disruption. The Committee may be apprised in this regard.

Reply of the Government

The Modernization of Command Area Development and Water Management (M-CADWM) scheme seeks to transform the existing CADWM component (Har Khet Ko Pani) of PMKSY to make it more integrated, efficient, sustainable and inclusive. In formulating the M-CADWM Scheme, the Department of WR, RD and GR has carried out detailed consultations with Central Ministries, State Governments, Private Sector and other Stakeholders. The Department has also adopted the principles of integrated water resources management in designing the new scheme.

Based on the consultations with the Stakeholders and successful practices adopted at national and international level, a number of reforms including pressurized piped water supply to the farm, adoption of integrated water resources management, integration with micro irrigation, irrigation as a service, transfer of irrigation management to Water User Society (WUS) , volumetric measurement of water used, water audit and use of technologies for water management have been incorporated into revamped M-CADWM scheme.

Further, the M-CADWM scheme envisages Master Plan, Convergence and Saturation approach. In this approach a master plan will be prepared for each block for water management, viz. development of water sources including water conservation, harvesting and recharge, distribution network, efficient farm level application, demand management, participatory governance, extension services on new technologies & information. This will act as water security plan for the block. The Plan will utilize convergence of all water related central and state schemes in the block suited to the local context and requirement.

It will include convergence of schemes such as SMI/ RRR component of PMKSY, watershed development component of PMKSY, creation or restoration of water bodies under MGNREGA, Micro Irrigation under RKVY and Micro Irrigation Fund, PM-KUSUM scheme for farmers, Ground water schemes such as Atal Bhujal Yojna etc. The scheme will follow a saturation approach and in case funding is not available from the relevant scheme for the cluster, provision of funds will be considered under M-CADWM scheme within the overall allocation.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No.14 (Para Nos. 2.17 & 2.18)

Flood Forecasting

The Committee observed that Central Water Commission (CWC) plays a crucial role in Flood Forecasting by overseeing a comprehensive flood forecasting network that operates across the country. The CWC set up of flood forecasting network comprises of short range level forecasts at 200 locations in the country and Inflow Forecasts for 140 dams/reservoirs/barrages in various river basins. Further, to monitor the flood situation during every monsoon, CWC operates 36 Divisional Flood Control Rooms (DFCRs) located in the various field Divisions of CWC and a Central Flood Control Room (CFCR) at CWC (HQ), New Delhi for providing flood related information to the local administration and user agencies. Central Flood Control Room (CFCR) at New Delhi monitors flood situation throughout the country by monitoring the data entry/FF formulation and issue of flood forecasts from all DFCRs through Water Information Management System (WIMS).

The Committee noted that despite significant technological advancements and substantial investments in Early Warning Systems (EWS), socio-economic losses in the form of human lives and assets, continue to occur. In this regard, the Department appraised the Committee that Central Water Commission is enhancing its flood forecasting capabilities through various measures, including through expanding its network, upgrading of technology with mathematical modeling, enhancing

computational resources, exhaustive data collection from various sources, adopting ensemble forecasting, etc. In this regard, the Committee were of the view that though various efforts have been made by the Department for better flood forecasting, the present system for the purpose have on occasions, been found inadequate. During oral evidence, the Ministry also accepted the fact that the present models used for processing of meteorological data for flood forecasting need improvement. Hence, in light of the increasing severity of flood situations due to climate change, the Committee recommended that the Ministry upgrade its present system accordingly with best available advanced technology, capable of addressing the current challenges in the area of flood forecasting due to climate change phenomena.

Reply of the Government

The Central Water Commission (CWC) establishes new flood forecasting sites based on requests received from State Governments. In certain cases, the CWC identifies potential flood forecasting sites or locations and seeks feedback or approval from the concerned State Government regarding the site's feasibility.

Currently, CWC has 340 (200 Level and 140 Inflow) flood forecasting sites in India covering 22 states and 2 UT's which is planned to increase to around 375 by end of 2026 covering over 28 states and 6 UT's.

The Central Water Commission (CWC) is prioritizing the expansion of inflow forecasting sites due to the rising frequency of dam-induced floods and the relatively lower number of inflow forecasting sites compared to level forecasting sites. Although, the network of level forecasting sites managed by the CWC has reached near saturation, Ministry is taking all effort to identify and enhance level forecasting sites in consultation with State Govt. during next five year plan 2026-31.

State-wise Flood Forecasting Stations

Sl. No.	Name of State/UT	Existing No. of flood forecasting Stations			Proposed additional FF Stations		
		Level	Inflow	Total	Level	Inflow	Total
1	Andhra Pradesh	10	10	20	0	1	1
2	Arunachal Pradesh	3	1	4	0	0	0
3	Assam	30	0	30	0	1	1
4	Bihar	40	3	43	0	1	1
5	Chhattisgarh	1	2	3	0	1	1
6	Gujarat	6	8	14	0	0	0
7	Haryana	1	1	2	1	1	2
8	Himachal Pradesh	1	0	1	0	1	1
9	Jammu & Kashmir	3	0	3	2	1	3
10	Jharkhand	2	15	17	0	0	0
11	Karnataka	1	14	15	0	3	3
12	Kerala	4	2	6	0	2	2
13	Madhya Pradesh	2	12	14	0	0	0
14	Maharashtra	8	14	22	0	1	1
15	Odisha	12	7	19	0	0	0
16	Rajasthan	4	11	15	0	2	2
17	Sikkim	3	5	8	1	0	1
18	Tamil Nadu	4	11	15	0	3	3
19	Telangana	5	10	15	0	1	1
20	Tripura	2	0	2	4	0	4
21	Uttar Pradesh	39	5	44	0	0	0
22	Uttarakhand	4	5	9	0	0	0
23	West Bengal	12	4	16	0	0	0
24	Daman & Diu	1	0	1	0	0	0
25	NCT of Delhi	2	0	2	0	0	0
26	Meghalaya	0	0	0	0	2	2
27	Nagaland	0	0	0	0	1	1
28	Manipur	0	0	0	0	2	2
29	Mizoram	0	0	0	0	1	1
30	Punjab	0	0	0	1	1	2
31	Goa	0	0	0	0	1	1
32	Dadar Nagar Haveli	0	0	0	1	0	1
33	Ladakh	0	0	0	0	1	1
34	Puducherry	0	0	0	1	0	1

	Total	**200**	**140**	**340**	**11**	**28**	**39**

Basin-wise Flood Forecasting Stations							
Sr. No	**Major Interstate River Systems**	**FF stations as on Date**			**Proposed additional FF Stations**		
		Level	**Inflow**	**Total**	**Level**	**Inflow**	**Total**
1	Indus and its tributaries	3	0	3	4	5	9
2	Ganga & its tributaries	96	43	139	0	1	1
3	Brahmaputra & its tributaries	39	6	45	1	4	5
4	Barak System	6	0	6	4	3	7
5	Subarnarekha (i/c Burhabalang)	4	3	7	0	0	0
6	Brahmani & Baitarni	3	2	5	0	0	0
7	East Flowing (Mahanadi to Pennar)	4	4	8	0	0	0
8	Narmada	4	6	10	0	0	0
9	Tapi	1	2	3	0	0	0
10	Mahi	1	4	5	0	0	0
11	Sabarmati	1	1	2	0	0	0
12	Mahanadi	3	3	6	0	1	1
13	Godavari	18	26	44	0	0	0
14	Krishna	5	19	24	0	2	2
15	West Flowing Rivers(Kutch & Saurashtra, Luni)	1	2	3	0	2	2
16	West Flowing Rivers (Tapi to Tadri))	2	1	3	1	4	5
17	Cauvery and its tributaries	4	9	13	0	2	2
18	Pennar	1	1	2	0	0	0
19	East Flowing Rivers (Pennar to Kanyakumari)	1	6	7	1	2	0
20	West Flowing River (Tadri to Kanyakumari)	3	2	5	0	1	0
21	Minor rivers draining to Myanmar	**0**	**0**	0	0	1	1
	Total	200	140	340	11	28	39

As per World Meteorological Organization (WMO) manual on “Flood Forecasting and Warning”, there are no fixed norms or criteria regarding the number of flood forecasting stations that should be established. Instead, the WMO emphasizes that the primary requirement for a flood forecasting network is the delivery of useful and timely information. The Central Water Commission (CWC) has adopted a comprehensive approach that aligns with these guidelines in several key ways.

- **Utility and Timeliness**: The CWC's focus on providing timely forecasts ensures that stakeholders have the necessary information to act promptly.
- **Cost-Effectiveness**: By utilizing existing infrastructure and focusing on suitability for flood warning purposes, the CWC effectively manages resources.
- **User-Centric Approach**: The integration of stakeholder feedback into network evaluations reflects a commitment to meeting end-user needs.

Hydrological Observation (HO) stations are the backbone of Flood Forecasting network for monitoring the flood situation on near real time basis and formulation of forecast. As per WMO guidelines minimum hydro-meteorological stations density should be as follows:

S. No.	Physio-graphic Region	Minimum density (area in km^2 per station)					
		Precipitation Station			Streamflow Measurement Station		
		Non-recording	Recording	Evaporation Station	Stream flow Station	Sediment Discharge and Sedimentation	Water Temperature (Water Quality Station)
1	Coastal	900	9,000	50,000	2,750	18,300	55,000
2	Mountain-ous	250	2,500	50,000	1,000	6,700	20,000
3	Interior Plains	575	5,750	50,000	1,875	12,500	37,500
4	Hilly/ Undulating	575	5,750	50,000	1,875	12,500	47,500

5	Small islands	25	2,520	50,000	300	2,000	6,000
6	Polar/arid	10,000	100,000	100,000	20,000	200,000	200,000

Based on the six physiographic regions of India and their approximate areas, minimum stream flow and sediment stations have been worked out as below:

Physiographic Region	**Area (in km²)**	**Minimum Stream Flow stations as per WMO guidelines**	**Minimum sedimentation stations as per WMO guidelines**
Coastal	75,000	27	4
Mountainous	500,000	500	75
Interior Plains	700,000	373	56
Hilly/Undulating	1,600,000	853	128
Small Islands	8,000	27	4
Polar/Arid	300,000	15	1
Total		1795	268
Existing network in CWC		**1522**	**407**

The number of CWC HO stations, in general, are as per minimum requirements, based on the WMO guidelines for stream flow stations & sedimentation stations.

Moreover, in addition to CWC HO network compatibility with WMO standards, there are additional HO stations maintained by State Govt. making it more than WMO norms.

The CWC comprehensive strategy effectively aligns with the WMO's guidelines by focusing on the timely delivery of useful information, engaging stakeholders, regularly evaluating its network and embracing technological advancements. This approach not only enhances the CWC's flood forecasting capabilities but also significantly contributes to better flood management and community resilience in India.

As part of its ongoing commitment to effective flood management, Central Water Commission (CWC) receives requests from various stakeholders for the establishment of new flood forecasting (FF) stations. This process is integral to ensuring that the flood forecasting network remains responsive to evolving needs in flood-prone area. The CWC carefully examines these requests and takes appropriate action based on feasibility.

Currently CWC has 1543 HO sites. The HO sites are also continuously reviewed in response to the emerging scenarios. The utility of HO sites diminishes with the establishment of downstream or upstream dams, weirs, or barrages, eventually compelling CWC to close these sites. Consequently, the HO network varies from year to year, influenced by such factors.

Modernisation of network

Sensor based data collection and satellite-based communication system has been adopted under modernisation. At present CWC has 1121 telemetry sites, spanning 25 States and 5 UT's.

Under World Bank aided National Hydrology Project (NHP), State Govt. have been supported to install similar system to fill the gaps. Velocity radar-based discharge data collection at more time frequency as well as ADCP based accurate discharge observation has been more emphasis in addition to installation of SCADA system on selected Dams and Barrages to support accurate flood forecast model output.

Advances in Advisory Flood Forecast (AFF)

CWC currently provides 7-day advisory flood forecast on its web portal https://aff.india-water.gov.in/ using mathematical model on pan-India for 20 major river basins of the country, covering 200 water level and 140 reservoir inflow forecast stations. This marks a significant paradigm shift from the conventional Gauge-to-Gauge

correlation to a more scientific modelling technique for flood forecasting. The system uses regularly calibrated basin models developed using MIKE11 modelling software, while its real time operation is done in automatic manner by scheduling scripts written in Python and then using JavaScript for publishing the model outputs in web portal. The entire system is updated every three hours for all stations simultaneously.

Inundation Flood Forecasting – New initiative

In view of the severity of the flood situation in flood-prone regions, as indicated by longer lead-time forecasts, there has been a constant demand from various stakeholders for flood inundation extent data across affected districts. To address this need and further modernize its flood forecasting capabilities, CWC has undertaken the development of inundation forecasting using 2D modelling techniques.

The current status of inundation forecasting is as follows:

4. **Godavari and Tapi Rivers Basin**: NRSC has developed Spatial Flood Early Warning Systems for the Godavari and Tapi Rivers using the MIKE suite of software under NHP, leveraging high-resolution DEM and computational resources available with NRSC. The proposed solution is planned for rollout during the 2025 monsoon season.
5. **Mahanadi Basin**: C-DAC, with the support of CWC, has developed an Inundation Forecast Model for the Mahanadi Basin using ANUGA, high-resolution DEM procured from NRSC, and high-performance computing (HPC) resources available with C-DAC. The proposed solution is also planned for rollout during the 2025 monsoon season.
6. **Ganga Basin**: CWC has initiated the development of an Inundation Forecast Model for the Ganga Basin using HEC (HMS & RAS) through consultancy under NHP. The DEM data for this project is being partially procured from NRSC and supplemented with data provided by the Survey of India (SoI). The objective is to develop an Early Flood Warning System, including inundation forecasting and a customized GIS tool for real-time dissemination of water level forecasts, inundation forecasts, and an inundation map library. This system will incorporate

a 2D or 1D-2D coupled numerical model for the Ganga Basin. The system is under development and is likely to be rolled out from 2026.

Implementation of AI/ML Techniques in Flood Forecasting – New Venture

Recently the acceleration of flood-related disasters due to climate change underscores the urgency for effective early warning systems. As a result, many nations are experimenting with global flood prevention utilising AI/ML techniques, particularly in areas that are highly inhabited and at risk of flooding and lack dense stream flow gauge networks. The accuracy, recall, and lead time of short-term forecasts of extreme riverine phenomena could all be enhanced by AI/ML techniques. Below is a list of some benefits of AI/ML:

6. Real-time Monitoring: AI/ML models can process vast amounts of data from various sources (stations-wise, satellites, telemetry) in real-time, providing up-to-date flood predictions.
7. High Accuracy: These models can analyze complex spatiotemporal patterns and non-linear behaviours of floods, leading to more accurate predictions compared to conventional methods.
8. Early Warning Systems: AI/ML techniques can generate timely flood warnings, allowing state authorities to take necessary precautions and evacuate if needed.
9. Efficient Resource Allocation: By predicting flood intensity and affected areas, AI/ML models help in efficient allocation of resources for disaster response and recovery.
10. Minimum expertise requirement: Once AI/ML models are implemented for forecast site, the system can be operated with minimum staff at field organization.

To utilise the immense advantages of AI/ML models, CWC has delved into the usage of AI/ML techniques in centralized flood forecasting to replace the existing decentralized conventional techniques used by CWC for short range forecasting. As a first phase the centralized automated short range flood forecasting module model will be

developed for selected forecasting station and rolled out from 2025. Rest of the stations will be added in phased manner. Pan India coverage under the system is planned by 2026.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Comment of the Committee

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

Recommendation No.15 (Para Nos. 2.19)

Namami Gange Mission-II

The Committee noted that the Government launched the Namami Gange Programme (NGP) in 2014-15 for the rejuvenation of river Ganga and its tributaries for five years, up to March 2021 and has been further extended to March, 2026. Under the Programme, a diverse and holistic set of interventions for cleaning and rejuvenation of river Ganga have been taken up, that included waste water treatment, solid waste management, river front management (ghats and crematoria), ensuring e-flow, rural sanitation, afforestation, biodiversity conservation, public participation, etc. The Committee observed that in FY 2023-24, Rs. 4000 crore was allocated for Namami Gange Mission-II at BE stage and the same was reduced to just Rs.2400 crore (reduction of 40%) at RE stage. In this regard, the Department explained that at the time of projection of BE, many new projects were under different stages of tendering and it was anticipated that funds would be required during the year to meet mobilization advance as well as construction period payments. However, all contracts could not be awarded due to various reasons, requiring reduction at RE stage. The Committee are of the view that the Namami Gange Programme is an ambitious and comprehensive initiative which aims to address the pollution and degradation of the river Ganga and its tributaries by implementing a multifaceted approach that ensures its conservation and rejuvenation and to achieve this goal, substantial physical and financial resources are

being deployed by the Government. However, delay in projects under the Mission invariably increase the estimated cost and affect the budget adversely. The Committee, therefore, urged the Department to identify the reasons behind these delays and strongly recommend that the Ministry in handhold collaboration with all stakeholder take all possible measures to eliminate such delays, so that the allocated budget is utilized effectively and the Programme of rejuvenation and conservation of the Ganga and its tributaries can be completed within the stipulated timeframe.

Reply of the Government

Under the Namami Gange Programme, as of 28th February 2025, a total of 494 projects have been sanctioned at an estimated cost of ₹40,478.15 crore, out of which 308 projects have been completed and made operational (approximately 62% of sanctioned projects). The majority of the projects pertain to the creation of sewage infrastructure as the untreated domestic/industrial wastewater is the main reason for pollution in the river. A total of 208 sewerage infrastructure projects have been sanctioned for the creation and rehabilitation of 6,420 Million Litres per Day (MLD) of Sewage Treatment Plant (STP) capacity and the laying of 5,160.87 km of sewerage networks. Of these, 127 projects, approximately 61%, have already been completed and made operational, resulting in the creation and rehabilitation of 3,445.75 MLD of sewage treatment capacity and the laying of 4,550 km of sewerage networks.

Delays were encountered due to many factors such as road-cutting permissions, railway/NH crossing permissions, forest clearances, the COVID-19 pandemic and abnormal floods.

Multiple level monitoring mechanisms have been put in place to expedite the implementation and execution of projects. The following monitoring mechanisms are being undertaken:-

- **Regular Monitoring & Reviews:** Monthly reviews of the project progress, interactions, discussions, site visits, and coordination meetings with state agencies are conducted by NMCG;
- **Multi-Level Monitoring:** A multi-tier monitoring system is in place at both the Central and State levels to ensure effective project implementation. At the Central level, NMCG holds monthly and quarterly review meetings with concerned State Governments, implementing agencies like Jal Nigam and Jal Sansthan, and other stakeholders to oversee progress;

- **High-Level Reviews:** Regular review meetings are conducted by the Hon'ble Jal Shakti Minister and the Secretary, DoWR, RD & GR, involving officials from NMCG, Railways, NHAI, State Governments, as and when required. The issues related to delay are also informed to the respective Chief Secretaries to address bottlenecks and expedite project execution;

- **Central Monitoring Committee (CMC):** The CMC meetings are conducted under the Ministry of Jal Shakti, chaired by the Secretary, DoWR, RD & GR, with the Chief Secretary of the concerned State Governments, to oversee and ensure the effective implementation of pollution abatement and river rejuvenation measures across the country.

- **Cabinet Secretariat Review**: Key sewage infrastructure projects are reviewed at the Cabinet Secretariat level through the PMG portal.

- **Technology-Based Monitoring:**

i. Sewage infrastructure projects under the Namami Gange Programme are monitored through the OCMS (Online Continuous Monitoring System) and the NIP portal (National Infrastructure Pipeline).

ii. NMCG has operationalized an online dashboard, **"PRAYAG,"** for real-time monitoring of river water quality, STP performance, and other key parameters for the Ganga and Yamuna Rivers.

- **State & District-Level Monitoring:**

ii. **State Ganga Committees (SGC):** Headed by Chief Secretaries, these committees coordinate Ganga rejuvenation efforts among various State agencies.

iii. **District Ganga Committees (DGC):** A district-level mechanism has been established, headed by District Magistrates (DMs), to ensure speedy project execution for the Ganga and its tributaries.

The pollution abatement of River Ganga and its tributaries is a continual effort and the National Mission for Clean Ganga is taking all possible efforts to achieve the mission objective within the stipulated time frame.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Recommendation No.16 (Para Nos. 2.20)

The Committee further observed that the Detailed Project Report (DPR) on "Forestry Interventions for Ganga" prepared by Forest Research Institute (FRI), Dehradun envisages for site-specific plantation along the banks of river Ganga in a total area of 1,34,104 hectares in five States of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal with an estimated cost of Rs. 2,293.73 crores. However, only 30,071 hectare plantation has, so far, been carried out for which an expenditure of Rs. 368 crore has been incurred by the State Forest Departments of the said five States. In this regard, the Department informed the Committee that the National Mission for Clean Ganga (NMCG) has allocated Rs. 398.50 crores for partial implementation of the plantation & maintenance activities till FY 2023-24 which focuses on selected landscapes from the DPR for afforestation along the main stem of Ganga river resulting no/less interventions on Agriculture and Urban landscape undertaken. Further, for the

complete implementation of the DPR it was decided that afforestation along river Ganga & its tributaries would be undertaken through the available Compensatory Afforestation Fund Management and Planning Authority (CAMPA) funds, operating under the aegis of the Ministry of Environment, Forest & Climate Change (MoEF&CC) which endorsed the proposed initiative. In this connection, the Committee has observed that the country is grappling with the challenges of climate change which is manifesting in frequent floods, droughts, and unprecedented hot weather across various regions. Changing rainfall patterns, over-exploitation of groundwater, soil erosion, and increasing pollution have further aggravated these issues and afforestation may seem to be a remedy to mitigate these adversities and there is a need to undertake serious measures towards this aspect. The Committee, therefore, strongly recommended that the Department, in coordination with M/o EF&CC and State Governments, take necessary steps to complete afforestation work and ensure the implementation of the DPR within a stipulated time frame, thereby facilitating the successful execution of the Namami Gange Programme in totality.

Reply of the Government

Under the Namami Gange program, NMCG through the State Forest Departments has been implementing 'Forestry Interventions in Ganga' as per the DPR prepared by the Forest Research Institute (FRI), Dehradun. The DPR envisages site-specific afforestation models along the banks of river Ganga in a total area of 1,34,104 ha. in the 5 States of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal at an estimated cost of Rs. 2,293 crore.

NMCG allocated funds to the tune of Rs. 414.0 crores to the State Forest Departments of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal for partial implementation of the plantation & maintenance activities till FY 2024-25, in the selected landscapes from the FRI DPR for the implementation of the afforestation activities along the main stem of Ganga resulting no/less interventions on Agriculture

and Urban landscape undertaken. So far 33,024 ha. plantation has been carried out under the Namami Gange programme in the 5 Ganga bank States.

Further, for the complete implementation of the DPR and its replications in the tributaries of Ganga and scaling up the planned efforts in additional Sites/States, it was decided that afforestation along river Ganga & its tributaries need to be carried out through the available CAMPA funds and MoEF& CC would lead this effort.

As agreed by MoEF& CC, directions were given to the range States to implement all the components of the DPR prepared by FRI and replication of the scheme across other tributaries. Till date 59851 ha. plantations have been carried out in the Ganga bank states as per the FRI DPR under the CAMPA funding of MoEF&CC.

So far a total of 92876 ha. plantations have been carried out in the Ganga basin states as per FRI DPR.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

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 BYTHE COMMITTEE

Recommendation No.3 (Para Nos. 2.5 & 2.6)

Interlinking of Rivers

The Committee observed that a total of 30 link projects have been identified under the Programme including 16 link projects under Peninsular Component and 14 link projects under Himalayan Component and out of which, Pre-Feasibility Reports (PFRs) of all the 30 links, Feasibility Reports (FRs) of 24 links and Detailed Projects Reports (DPRs) of 11 links, have been completed. Five links namely Ken-Betwa Link Project, Godavari-Cauvery link (comprising of three links) and Modified Parbati-Kalisindh-Chambal are being pursued for implementation on priority. The Committee also noticed that, only one link namely Ken-Betwa Link Project is under implementation which is planned to be completed within a period of 8 years i.e. by March, 2030. Further, budgetary allocation of Rs. 4,000 crore in year 2024-25 has been made for this programme concentrated on land acquisition, R&R activities for Daudhan Dam, Link Canal and reimbursement to / release of fund to States. Further, the Committee observed that, despite conducting numerous meetings with stakeholders to address concerns and foster cooperation, consensus among States, remains a persistent obstacle in the implementation of the Interlinking of Rivers program.

Regarding the study on interlinking of rivers in terms of ecological & environmental, socio-economical perspective, the Committee observed that a detailed study in respect of Ken Betwa Link Project had been carried out by Wildlife Institute of India, Dehradun. The Committee were of the opinion that interlinking of rivers would provide the country a viable solution to addressing water scarcity, drought mitigation, and flood control and such studies would also facilitate consensus-building among States. The Committee, therefore, urged the Department to conduct more such studies

evaluating the benefits of the project, thereby enhancing awareness amongst the States concerned and expediting its implementation.

Reply of the Government

National Water Development Agency (NWDA) has been entrusted with work of Interlinking of Rivers (ILR) under National Perspective Plan (NPP) formulated by Government of India in year 1980. Under NPP, a total of 30 link projects have been identified (16 link projects under Peninsular Component and 14 link projects under Himalayan Component).

National Perspective Plan (NPP) has been formulated for providing storage and transfer of surplus waters to water deficit regions to minimize the miseries brought by droughts and also to mitigate the ravages of annually recurring floods. The link projects under NPP have been planned judicially for minimizing water going to sea underutilized. The flood water from flood prone/ water surplus river basins would be diverted to water deficit regions and would also recharge ground water table, tanks and canals in the command areas thus, would help Government to deal with issue of water crisis in various States.

Government of India has accorded top priority to ILR Programme. Out of 30 identified link projects under NPP, five links namely Ken-Betwa Link Project, Godavari-Cauvery link Project (comprising of three links) and Modified Parbati-Kalisindh-Chambal (PKC) are being pursued for implementation on priority.

Ken-Betwa Link Project is under implementation. The project is planned to be completed by March, 2030. Hon'ble Prime Minister has laid the foundation stone for the project on 25.12.2024.

In respect of Modified PKC Link Project, it is to submit that the persistent efforts of Govt. of India has led to signing of Memorandum of Understanding (MoU) by both the States of Madhya Pradesh & Rajasthan with Ministry of Jal Shakti (MoJS), Govt. of

India (GoI) on 28.01.2024 in New Delhi in the presence of Hon'ble Chief Ministers of both the States, for preparation of its DPR and on broad planning of the link project. Memorandum of Agreement (MoA) has been signed on 05.12.2024 amongst States of MP, Rajasthan and Govt. of India. ***Hon'ble Prime Minister declared the signing of the agreement on 17.12.2024 at Rajasthan.*** DPRs of various components of MP & Rajasthan in Modified PKC link are under preparation, primarily by both the States.

Regarding the Godavari-Cauvery Link Project, draft DPR for transfer of about 4189 MCM of water was circulated to all the party States/UT on 08.01.24. Draft MoA has been prepared for implementation of link project and has been circulated to concerned States/UT in April, 2024**.** Five consultation meetings with party States/UT have been held so far. The main focus is on building consensus amongst States/UT and signing of MoA for the implementation of this link project and concerted efforts are being made.

System Studies has been started for the Link Projects with the help of prestigious Institutes viz., National Institute of Hydrology (NIH), Indian Institute of Technology (IIT), National Institute of Technology (NITs) to take care of factors such as climate changes, global warming, deforestation etc.

Further Studies for evaluating the benefits of the projects, if any, may be considered only after the finalisation of Detailed Project Reports (DPRs) of various link projects.

Water being the State subject, thus building up the consensus amongst the concerned States is crucial. States should move forward for implementation of any Interlinking River Projects.

[O.M. No. G-30013/1/2025-Budget Dated 06.05.2025]

Comment of the Committee

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

CHAPTER V

OBSERVATION/RECOMMENDATION IN REPSECT OF WHICH FINAL REPLY OF THE GOVERNMENT IS STILL AWAITED

NIL

NEW DELHI
08 August , 2025
17 Sravana, 1947(Saka)

Shri Rajiv Pratap Rudy
Chairperson,
Standing Committee on Water Resources

ANNEXURE – I

Confidential

MINUTES OF THE SIXTEENTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2024-25) HELD ON 08 AUGUST, 2025.

The Committee sat on Friday, the 08 August, 2025 from 1000 hours to 1100 hours in Committee Room '2', Parliament House Annexe Extension, New Delhi.

PRESENT

Shri Rajiv Pratap Rudy - Chairperson

MEMBERS

LOK SABHA

2. Shri Narayandas Ahirwar
3. Shri Isha Khan Choudhury
4. Shri Sher Singh Ghubaya
5. Shri Bapi Haldar
6. Md. Rakibul Hussain
7. Shri Rodmal Nagar
8. Shri Dhaval Laxmanbhai Patel
9. Shri Vishaldada Prakashbapu Patil
10. Shri Mohite Patil Dhairyasheel Rajsinh
11. Shri Pratap Chandra Sarangi
12. Shri Dushyant Singh
13. Thiru. Tamilselvan Thanga

RAJYA SABHA

14. Shri Khiru Mahto
15. Smt. Mausam Noor
16. Shri Balyogi Umeshnath
17. Shri Dhairyashil Mohan Patil

SECRETARIAT

1.	Shri Chander Mohan	-	Additional Secretary
2.	Shri Ajay Kumar Sood	-	Director
3.	Shri Umesh Bist	-	Under Secretary

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee. Thereafter, the Committee took up for consideration following four Draft Reports:

(i) Sixth Report on 'Action Taken by the Government on the Observations / Recommendations contained in the First Report (18th Lok Sabha) on Demands for Grants (2024-25) of the Ministry of Jal Shakti - Department of Drinking Water and Sanitation'.

(ii) Seventh Report on 'Action Taken by the Government on the Observations / Recommendations contained in the Second Report (18th Lok Sabha) on Demands for Grants (2024-25) of the Ministry of Jal Shakti - Department of Water Resources, River Development and Ganga Rejuvenation'.

(iii) Eighth Report on 'Action Taken by the Government on the Observations / Recommendations contained in the Third Report (18th Lok Sabha) on Demands for Grants (2025-26) of the Ministry of Jal Shakti - Department of Drinking Water and Sanitation'.

(iv) Ninth Report on 'Action Taken by the Government on the Observations / Recommendations contained in the Fourth Report (18th Lok Sabha) on Demands for Grants (2025-26) of the Ministry of Jal Shakti - Department of Water Resources, River Development and Ganga Rejuvenation'.

3. After some deliberation, the Committee adopted the aforesaid four draft Reports, without any modification. The Committee then authorized the Chairperson to present the Reports on their behalf to both the Houses of Parliament in the current Session.

The Committee then adjourned

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ANNEXURE – II

[Vide Para 4 of the Introduction]

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

(i)	Total number of Recommendations/Observations	16
(ii)	Recommendation/Observations which have been accepted by the Government Recommendation Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12,13, 14, 15 and 16	Total – 15 Percentage– 93.75 %
(iii)	Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies Recommendation Nos. NIL	Total – 00 Percentage – Nil
(iv)	Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee Recommendation Nos. Recommendation No. 3	Total – 1 Percentage – 6.25%
(v)	Recommendation/Observation in respect of which final reply of the Government is still awaited Para Nos. NIL	Total – 00 Percentage – Nil