10

STANDING COMMITTEE ON WATER RESOURCES

(2015-16)

SIXTEENTH LOK SABHA

MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION.

"Repair, Renovation and Restoration of Water Bodies- Encroachment on Water Bodies and Steps Required to Remove the Encroachment and Restore the Water Bodies".

TENTH REPORT



LOK SABHA SECRETARIAT NEW DELHI

August, 2016 / Shravana, 1938 (Saka)

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Presented to Lok Sabha on 02.08.2016

Laid on the Table of Rajya Sabha on 02.08.2016



LOK SABHA SECRETARIAT

August, 2016/ Shravan

Shravana,1938 (Saka)

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STANDING COMMITTEE ON WATER RESOURCES (2015-16)

COMPOSITION

Shri Hukum Singh

Chairperson

LOK SABHA

- 2. Shri Radheshyam Biswas
- 3. Shri Devusinh Chauhan
- 4. Shri Sukhbir Singh Jaunapuria
- 5. Shri Tariq Hameed Karra
- 6. Shri Vinod Kumar B.
- 7. Shri Murali Mohan Maganti
- 8. Shri Sidhant Mohapatra
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- 10. Shri Rodmal Nagar
- 11. Shri Subhash Patel
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- 13. Shri Vijaysinh Shankarrao MohitePatil
- 14. Smt. Aparupa Poddar
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RAJYA SABHA

- 22. Mir Mohammad Fayaz
- 23. Shri Sanjiv Kumar
- 24. Shri Mahesh Poddar*
- 25. Shri Amar Shankar Sable
- 26. Shri Sanjay Seth[^]
- 29. Shri V. Hanumantha Rao
- 30. Shri A.V. Swamy
- 31. Shri Lal Sinh Vadodia

^{*} Nominated as a Member of the Committee w.e.f. 25.07.2016.

[^] Nominated as a Member of the Committee w.e.f. 25.07.2016.

SECRETARIAT

1.	Shri Shiv Kumar	-	Joint Secretary
2.	Smt. Rita Jailkhani	-	Director
3.	Shri Kushal Sarkar	-	Additional Director
4.	Ms. Shanta B. Datta	-	Senior Committee Assistant

INTRODUCTION

I, the Chairman, Standing Committee on Water Resources (2015-16) having been authorized by the Committee to submit the Report on their behalf, present the Tenth Report on "Repair, Renovation and Restoration of Water Bodies- Encroachment on Water Bodies and Steps Required to Remove the Encroachment and Restore the Water Bodies".

2. The Committee initially took up the subject "Repair, Renovation and Restoration of Water Bodies" in the year 2014-15 for a detailed examination and Report. The Committee took evidence of the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation and Ministry of Environment and Forests and Climate Change, and various State Governments on 26 August, 2015. The Committee again took up the same subject in the year 2015-16 with special emphasis on Encroachment on Water Bodies and Steps Required to Remove the Encroachment and Restore the Water Bodies. The Committee took evidence of the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation and Ministry of Environment, Forests and Climate Change and various State/ Union Territory Governments on 18 January, 2016.

3. The Report was considered and adopted by the Committee at their sitting held on 26 July, 2016.

4. The Committee wish to express their thanks to the officers of the Ministry of Water Resources, River Development and Ganga Rejuvenation, Ministry of Environment, Forests and Climate Change, Ministry of Rural Development, Ministry of Urban Development and various State/Union Territory Governments for providing the requisite written information and for depositions made before the Committee - in connection with examination of the subject.

5. The Committee would like to place on record their sense of deep appreciation for the assistance rendered to them by the officers of the Lok Sabha Secretariat attached to the Committee.

NEW DELHI 26 July, 2016

4 Shravana, 1938 (Saka)

HUKUM SINGH Chairperson,

Standing Committee on Water Resources

<u>REPORT</u>

CHAPTER I

INTRODUCTORY

Water is the most prime factor for sustenance of life. It exists in different forms such as rainfall, river water, ground water, ponds and lakes etc. Therefore management of water resources call for integrated management of all these components as a system. As per the information available with the Ministry of Water Resources, River Development and Ganga Rejuvenation about 2.7 per cent of the total water available on the earth is fresh water, of which about 75.2 per cent lies frozen in polar regions and another 22.6 per cent is present as ground water. The rest is available in lakes, rivers, atmosphere, moisture, soil and vegetation.

1.2 India has had abundant supply of water resources. However from being a water abundant country India is gradually progressing towards water scarcity due to increasing population pressure, urbanization and uncontrolled growth. At present it is sustaining 18 per cent of world population with 4 per cent of global water resources. Therefore management of water resources has assumed great importance. Today availability of water resources is a major issue and is a big challenge facing our country.

1.3 Water bodies are an integral part of fresh water resources. Traditionally, these water bodies have played an important role in supply of drinking water, water for domestic needs and agriculture purposes etc. besides rivers and ground water. They have been the major source of Minor Irrigation (MI) system for agriculture in India. Minor Irrigation is defined as one with a command area of less than 2,000 hectares. There are mainly five types of MI structures viz. dug wells, shallow tube wells, deep tube wells, surface lift systems, and surface flow systems. Except the surface flow systems, all others are groundwater structures. Through the ages, these surface flow system or water bodies, either natural or man-made such as lakes, tanks, ponds and similar structures have sustained the Indian agriculture. In urban areas also water bodies play an important role as a source of drinking water, absorption of flood water and a conduit for ground water recharge.

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1.4 A "Water Body" is a structure where water from ice-melt, streams, springs, rain or drainage of water from residential areas is accumulated or water is stored by diversion from a stream, *nala* or river. The traditional water bodies, known by their different names, such as *Bhandaras* (Maharashtra), *phad* irrigation (North-western Maharashtra), *Khadin* and *Baolis* (Rajasthan), *Vav* or *Vavdi* (Gujarat), *Ahar Pynes* (Bihar), *Dung* or *Jumpois* (Jalpaiguri district, West Bengal) and *Zing* (Ladakh, Jammu and Kashmir) have through the ages been providing sustenance to Indian agriculture and have their importance in the overall development and management of water resources in the country. Water bodies are even religiously quite significant. Lakes of India, such as Pushkar in Rajasthan, Gurudongmar in Sikkim, and others are renowned for their religious importance.

1.5 Water Bodies serve as storage reservoirs in the monsoon-dependent areas of the economy where there exist a shorter period of rainfall and a long dry spell with very high deviation of annual rainfall. The small storage tanks are called ponds or *bundhis* which are mostly community owned. The large storage tanks whose command varies from 20 to 2000 hectares are generally constructed by the Government Departments or local bodies.

1.6 The Government of India launched the scheme of Repair, Renovation and Restoration (RRR) of water bodies during X Plan to revive and restore vanishing water bodies resulting in major loss of irrigation potential. The scheme was launched as pilot scheme and based on its success, a full scale scheme was implemented during XI Plan. Keeping in view the benefits arising out of the implementation of the scheme, it was extended to XII Plan as well. During XII Plan, the planned outlay of the scheme is Rs 10,000 crore and is envisaged to provide Central Assistance for restoration of about 10,000 water bodies (9000 water bodies in rural areas and 1000 water bodies in urban areas) with an earmarked Central outlay of Rs. 6,235 crore and respective State share of Rs 3,765 crore for the scheme with likely restoration of 6.235 lakh hectare.

1.7 Further the Ministry of Environment, Forest and Climate Change is implementing a Centrally Sponsored Scheme of National Plan for Conservation of Aquatic Eco-systems (NPCA) since February, 2013 for conservation and management of identified lakes and wetlands in the

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country in a holistic and integrated manner. Under the scheme financial assistance is provided to the concerned State Governments for undertaking various activities for conservation of wetlands and lakes, which also include a small component of lake front development and beautification, especially in urban lakes.

1.8 The Standing Committee on Water Resource (2012-13) had examined the implementation of the Scheme of Repair, Renovation and Restoration (RRR) of water bodies in their 16th Report on "Repair, Renovation and Restoration (RRR) of water bodies". However encroachment on water bodies has become a serious problem, threatening the existence of a large number of water bodies and throwing consequent challenges of depleting ground water resources, occurrence of devastating floods in urban areas and water scarcity. In the present Report, the Committee have examined the Scheme of RRR with special reference to the problem of encroachment on water bodies and steps required to remove the encroachment and to restore the water bodies. The Committee's examination of the subject has been dealt with in the subsequent Chapters of this Report.

1.9 During the course of examination of the Subject, the Committee obtained brief/ background on the subject from the Ministry of Water Resources, River Development and Ganga Rejuvenation and also took evidence of the representatives of the Ministry. Apart from the Ministry, the representatives of various State Governments and Union Territories also appeared before the Committee to enlighten them on various aspects of the problem. For questions which needed further clarifications after evidence, supplementary reply were obtained from the Ministry.

1.10 In this Report, the Committee have dwelled on such issues as state of water bodies in the country, encroachment, its extent and impact, implementation of judicial guidelines/directions in the matter, the provision for prevention of encroachment under the RRR scheme, pollution of water bodies and measures for increasing public awareness, etc. The views of the Ministry and related aspects have been dealt with in succeeding paragraphs in Part – I of this Report. The Observations/Recommendations have been included in Part – II of this Report.

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CHAPTER II

State of Water Bodies in the country

2.1 The Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR,RD and GR) has undertaken "Generation of Database and Implementation of Web Enabled Water Resources Information System in the Country" short named as India-WRIS. In the India-WRIS portal, a total of 7,98,908 water bodies have been mapped which includes water bodies in both rural and urban areas. Each water body has been assigned a unique identification number based on latitude and longitude, State, basin etc. For water bodies connected with large dams, attribute information is available. Maximum number of water bodies lie in the State of Chattisgarh (1,04,716) followed by West Bengal (1,02,490). The list of the "State –Wise Statistics of Water bodies as per India-WRIS Project" has been furnished at **Annexure-I**. However National Remote Sensing Centre (NRSC) has submitted the number of water bodies as 6,35,661 shown at **Annexure-II**.

2.2 When asked to explain the glaring differences in total number of water bodies in case of States such as Bihar, Jharkhand and West Bengal, as shown in India-WRIS portal and as furnished by NRSC, the Ministry, in its supplementary reply explained as under:

"NRSC has considered Lakes/Ponds, Reservoirs, Tanks and Aquaculture excluding the temporary water bodies mapped in the imagery for Salt pan, abandoned quarries, temporary industrial ponds, lagoons, bays etc. Whereas in India-WRIS portal, all the temporary water bodies were included."

Minor Irrigation (MI) Census

2.3 MI Census collects information on number of Minor Irrigation Structures of Ground Water and Surface Water used for irrigation in rural areas. There are five type of MI structures namely Dugwell, Deep Tubewell, Shallow Tubewell, Surface flow and Surface lift schemes. Therefore, the information related to water bodies in villages used for minor irrigation is also collected. Government of India through (MoWR,RD and GR) has conducted Minor Irrigation census and the report of 4th census on water bodies has been put on the Website of MoWR,RD and GR. As per the 4th Minor Irrigation Census, the total number of water bodies in the country was 5,23,816 in 2006-07 as against 5,56,601 in 3rd Minor Irrigation Census. 5th Minor Irrigation census has been initiated and is ongoing. Census is being conducted with reference year 2013-14. In the 5th MI Census an attempt has been made to collect information on Water Bodies directly, by adding an item on Water bodies in the village schedule.

Attribute Information on Water Bodies

2.4 The Committee were informed that at present attribute information is available for water bodies connected with large dams. However, when asked to specify measures taken to collect such information on remaining water bodies, the Ministry in its supplementary reply stated as under:

"In 5th Minor Irrigation Census, information on number of all water bodies in village or rural areas are being considered. Water storage capacity of those water bodies which are feeding minor irrigation projects are also being collected in Minor Irrigation Census. 5th Minor Irrigation census is planned to be completed by 2016-17."

Reasons for increase/ decrease in total number of water bodies

2.5 When asked to furnish reasons for increase or decrease in total number of water bodies over the last ten years, the Ministry furnished the following State-wise information in its written submission:

"In **Madhya Pradesh**, number of water bodies in the last 10 years have increased due to construction of tanks under MGNREGS and other State Government sectors.

In **Andhra Pradesh**, the number of water bodies is not increasing. The reason is due to not taking up the formation of new water bodies. Due to continuous drought and deficit rain fall prevailing in last few years, the inflows to the water bodies decreased considerably, as such some of the water bodies located very adjacent to the habitations were being encroached which leads to decrease in water bodies.

In **Telengana** the water bodies in rural areas were increased due to construction of new Tanks, Anicuts and Check dams. However the water bodies in urban areas have decreased due to urbanization.

In **Nagaland** the reasons were not assessed.

Uttar Pradesh has submitted that there has been no change in the number of water bodies in last 10 years.

Total number of water bodies in the State of **Manipur** is in the decreasing trend due to Anthropogenic stress, Unplanned Urbanization / Industrialization, Heavy Siltation, and Deficiency in proper management of water bodies.

West Bengal has submitted that no such studies have been made from this department.

Arunachal Pradesh has submitted that the number of water bodies are increasing due to area expansion under pisciculture. Improvement in quality is not necessary as it is non pollutant.

Punjab has submitted that earlier there were 18 water bodies. 2 nos (Thana and Nara Dam) have been created during last 10 years. There has been no increase /decline of village ponds over the last 10 years.

Rajasthan has submitted that the reasons of increase in new water bodies are mainly construction of new check dams between 2007 and 2010. The details of improvement/deterioration in quality do not have any significant change in water.

Mizoram has submitted that there is slight increase in total number of water bodies during the last ten years due to construction of Hydel Projects and rainwater harvesting dams.

Tripura has submitted that there is increase of numbers in last 10 years due to new construction.

Odisha has submitted that the increase in number of water bodies is due to the construction of check dams to cater to the need of irrigation.

Himachal Pradesh has submitted that the increase in number of water bodies is because of construction and development of new water bodies of different types and size.

Lakshadweep has submitted that the point is not applicable.

Kerala has submitted that the total no. of water bodies have declined in the State due to

- (i) Increase in population and density of population per square kilometer
- (ii) Change in land use pattern
- (iii) Shift from paddy based agriculture to cash crop cultivation
- (iv) Depletion of ground water
- (v) Rapid Urbanisation
- (vi) Unplanned urbanisation and development activities
- (vii) Boom in construction activity

Karnataka has submitted that generally there is no decline in total number of schemes under the jurisdiction of Water Resources Department (Minor Irrigation)

and some new schemes are being constructed over the years under different programmes subject to availability of grant. Under Rural Development and Panchayat Raj Department, there are no new tanks constructed. Action is now being taken through Karnataka Tank Conservation and Development Authority established during 2014 to conduct detailed survey of all the water bodies in the State and to restore all the previously existed tanks.

Andaman and Nicobar islands has submitted that there has been no decline in the number of water bodies over the last 10 years due to encroachment. However, increase/decrease due to other reasons are furnished as under:

- (i) New water bodies have been developed to meet the additional requirement of water for drinking water and irrigation arising due to increase in population.
- (ii) Some of the water bodies mainly, wells in southern group of islands were lost due to submergence of coastal area during tsunami on 26.12.2004.

Tamilnadu has submitted that there is no major increase and deterioration in quality in water bodies."

Survey of water bodies by the Ministry

2.6 On being asked about any survey of water bodies carried out by the Ministry in the past,

the Ministry, in its supplementary reply stated following:

"Ministry has not conducted survey of water bodies. However, MI Stat Wing conducts All India Census of Minor Irrigation Structures under Rationalisation of Minor Irrigation Statistics (RMIS) which is a component of Development of Water Resources Information System (DWRIS) Plan Scheme. This Census is conducted every five years. So far four census in 1986-87, 1993-94, 2000-01, 2006-07 have been conducted and 5th MI Census with base 2013-14 is in progress."

2.7 On being further asked about any plan of the Ministry to conduct a survey of water bodies to have a comprehensive picture of the encroachment free water bodies, the Ministry, in its supplementary reply, stated as under:

"Secretary (WR, RD and GR) has issued an advisory to the States regarding encroachment on water bodies. Further, more information on water bodies may be available once the report of 5th MI census is completed."

2.8 In reply to a further query as to whether the Ministry has so far made any effort to collect category-wise information on water bodies on their own and maintain a central database on different type of water bodies, the Ministry, in its supplementary reply submitted as under:

"The works of RRR of Water Bodies comes under purview of concerned State Governments, Central Government provide funds to State for taking up works on some water bodies as per availability of funds to encourage them to take up such works. This Ministry maintains data base for such water bodies which are proposed and provided Central assistance. Further, Minor Irrigation census is also conducted for collection of details of tanks providing irrigation.

Recently CWC has also prepared list of water bodies with unique ID through remote sensing for water bodies above 0.01 ha."

2.9 In this regard, the Committee, while examining the Demands for Grants (2016-17) of the MoWR, RD and GR had observed in their 9th Report (16th Lok Sabha) that the "Government is putting the onus on the shoulder of State Governments on the plea that the works related to water resources developments are taken by the concerned State Governments and that the Central Government act as catalyst by providing Central Assistance to eligible schemes as per the guidelines". They also recommended that the Ministry, within three months of presentation of 9th Report, issue common, mandatory guidelines to all States/UTs enjoining them to identify, record and compile the number of encroached water bodies in their territories and complete the exercise within a year for purpose of compiling a national database at the Centre in this regard."

2.10 Further, the Committee in their 5th Report on "Review of ground water scenario, need for a comprehensive policy and measures to address problems in the country with particular reference to (i) dark blocks; and (ii) contamination of underground water by certain industries" (16th Lok Sabha) had recommended the following, urging the Ministry to complete the census of water bodies at the earliest:

"Noting the importance of water bodies for their potential to recharge ground water resources, the Committee recommend the Ministry to initiate urgent steps to complete inventorization of water bodies and also complete the exercise of undertaking census of water bodies, being planned by the Ministry, within a definite time-frame. The Committee are surprised to find that even the data on number of ponds is not available separately with the Ministry, and they desire that a comprehensive assessment in this regard also is an imperative need to be made at the earliest."

Classification of Water Bodies

2.11 In response to a query on different systems of classification of water bodies being followed in different States/UTs, the Ministry submitted the following information in its written submission:

"In Madhya Pradesh classification of water bodies are as under:

- Upto 40 Hectares submergence without irrigation facility are under local bodies.
- Tanks having irrigation less than 40 hectares are also under local bodies
- Tanks having irrigation more than 40 hectares upto 2000 hectares are classified as minor tanks and are owned by Water Resources Department.
- More than 2000 hectares upto 10,000 hectares are classified as medium tanks and are owned by Water Resources Department.
- More than 10,000 hectares are classified as Major reservoirs and are owned by Water Resources Department and Narmada Valley Development Department.

In **Andhra Pradesh**, the tanks are classified in two categories. i.e., Tanks having Ayacut greater than 100 Acres and Tanks having Ayacut less than 100 Acres. Tanks having Ayacut greater than 100 Acres are 5,441 Nos and Tanks having Ayacut less than 100 Acres are 35,376 nos.

In **Telengana** existing system of classification of water bodies are MI Tanks, Anicuts, check dams, percolation tanks, Private Kuntas and Forest Department Tanks. Details of total number of water bodies are as follows.

1.	MI Tanks above 100 Acres	5,217
2.	MI Tanks below 100 Acres	33,194
3.	Percolation Tanks	5,176
4.	Private Kuntas	1,715
5.	Forest Department Tanks	1,229

Sikkim has informed that there is no existing system of classification in the State.

In **Nagaland** there is no existing system of classification in the State.

Gujarat has submitted that the classification/ type of water bodies under various Departments of the State have been indicated against the each water body in the Govt. Gazette published. So far, it required time to distinguish the water bodies according to the type (nature of use) as specified in the Gazette and will be furnished later on.

Uttar Pradesh has submitted that 193 water bodies of Sone organization are manmade and 21 water bodies are in rural area and 03 water bodies are in urban areas of Betwa organization.

Water bodies in **Manipur** are classified as rural (17 nos), urban (3nos) and hill (3 nos). All the water bodies are identified with Unique Identification Number.

Arunachal Pradesh has submitted classification of water bodies as Lake, Pond and Tanks, reservoirs, bells etc.

Punjab has submitted that water bodies are classified as Dams, Headworks and ponds.

Rajasthan has submitted that water bodies (79,527 nos) in Rajasthan have been classified in the following manner:-

- Water Bodies which provide irrigation and are under Water Resources Department (913 nos)
- Water Bodies which provide irrigation and handed over Panchayti Raj Department (2,526 nos)
- Rural Tanks/check dams/Anicuts (76,088 nos)

Mizoram submitted that the State does not have existing system of classification/type of water bodies.

Tripura has submitted the following classification:

Table 1: Classification of water bodies in Tripura

Types of Water	Nos.	Area
Bodies		(ha).
Pond	1,48,010	16,016.81
Mini Barrage	41,780	9,321.89
River	-	1,917.26
Rivulets	-	783.08
Barrage	-	821.77
Lake	-	260.28
Reservoir	-	3,049.34
Cumulative Total	1,89,790	33,217.43

Uttarakhand has submitted that there are 2 nos of earthen natural water body (village pond type), 2 nos of Minor water bodies and 5 nos of Major water bodies under irrigation department of Uttarakhand.

Odisha has submitted that there are 2,944 reservoir project, 1,199 diversion weir project, 2 barrage projects, 7 creek project and 6,924 check dams.

Meghalaya has submitted that there is no existing system of classification/type of water bodies as survey and mapping are yet to be done.

Lakshadweep has submitted that the point is not applicable.

Kerala has submitted that the present classification of water bodies in the State is ponds, lakes, inland water bodies and reservoirs.

Karnataka has submitted that the water bodies under Minor Irrigation are classified into Tanks, Barrages, Check dams, Vented dams etc., and they are mostly constructed for irrigation purpose.

Andaman and Nicobar islands has submitted -

- (i) Surface source: all types of water bodies in which rain water is stored such as dams, streams, ponds, lakes, rivers etc.
- (ii) All surface sources such as streams, rivers, springs which yield water throughout years
- (iii) Seasonal: all surface source which receives water during rainy season only
- (iv) Underground sources: water bodies formed from underground water sources such as wells, springs etc.

Tamilnadu has submitted that water bodies are classified as drinking water reservoirs (4), other reservoirs (123), tanks having ayacut more than 25 hectare (14,098) and tanks having ayacut less than 25 hectares (25,104)."

2.12 When further queried as to whether the Ministry has looked into the matter of evolving uniform system of classification of water bodies, the Ministry in their supplementary reply stated as under:

SI.	Waterbody
1	Lake/Pond
2	Reservoir
3	Tank
4	Cooling
5	Abandoned
6	Ox-bow
7	Aguaculture
8	Salt Pan
9	Lagoon

Table 2 : Classification of water bodies

During the mapping of water bodies, NRSC has given following classification:

Measures taken to revive perishing water bodies

2.13 The Committee were informed that out of 5,23,816 water bodies in 2006-07 (as per 4th Minor Irrigation Census), 80,128 water bodies are not in use including 18,485 water bodies which are permanently not in use which resulted in a loss of 1.95 million hectares of irrigation potential. State wise details of water bodies permanently not in use are furnished at **Annexure-III**. During the course of oral evidence of the Ministry, held on 26 August, 2015, a representative of the Ministry informed that 15 per cent of the water bodies are non functional/ unused. When a query was raised as to why water bodies remained permanently unused, the Ministry stated following in its supplementary reply:

"Reasons given by States for water bodies not being in use are; encroachments, urbanization, polluted water, non availability of water due to less and erratic rainfall, siltation, etc."

2.14 Further asked about the measures taken/proposed to be taken to put those water bodies to proper use, the Ministry, in its written submission stated:

- i. "During the X Plan, a Pilot Scheme namely "Repair, Renovation and Restoration (RRR) of Water Bodies directly linked to agriculture was launched in January 2005 with an outlay of Rs. 300 crore with 75% Central Assistance by Government of India and 25% by State Government. 1098 Water Bodies were taken up under the Pilot Scheme, out of which 1085 water bodies were completed and 13 water bodies were dropped during prioritization by States. An irrigation potential of 0.78 lakh ha was restored.
- ii. Based on success of the pilot scheme, two schemes of RRR, one with domestic support with an outlay of Rs. 1,250 crore and other with external assistance with an outlay of Rs. 1,500 crore were launched during XI Plan. Under the scheme of domestic support, a total of 3,341 water bodies were taken up for restoration in 12 States. The scheme was extended during XII Plan also. A total Central grant amounting to Rs. 917.259 crore had been released to the States for completion of works of water bodies taken up during XI Plan and the works on 2,501 water bodies have been completed and an irrigation potential of 1.19 lakh ha has been restored up to 31.03.2015. Further during XII Plan, 1,354 additional water bodies have been included under this scheme out of which 38 nos have been completed and 7,606 ha potential has been restored up to 31.03.2015.

- iii. Under the scheme of external assistance, 10,887 water bodies were taken up for restoration in the States of Andhra Pradesh (3,000), Karnataka (1,224), Odisha (900) and Tamil Nadu (5,763). On completion of the above works a potential of 8.22 lakh ha will be restored.
- iv. The details of the water bodies taken up during XI Plan, XII Plan and under external assistance are given at **Annexures-IV**, **V** and **VI** respectively.
- v. (i) The scheme of National Wetland Conservation Programme (NWCP) was initiated by the Ministry of Environment, Forest and Climate Change (MoEF and CC) in 1987 with its aim to conserve identified wetlands in the country, to prevent their degradation and ensure their wise use for benefit of local communities and overall conservation of biodiversity. Under the programme, 115 wetlands have been identified, which require conservation and management initiatives. The activities covered under the programme include survey and demarcation, inventorization of biodiversity, catchment area treatment, protection measures, restoration measures, water management, biodiversity conservation, sustainable resource development, weed control, pollution control, etc. So far, an amount of Rs 146.49 crore has been provided for conservation and management of 80 identified wetlands in the country. Details of funds released is given at **Annexure-VII**.

(ii) For conservation/restoration of polluted and degraded lakes in urban and semi-urban areas of the country, the MoEF and CC is also providing assistance to the States under the scheme of National Lake Conservation Plan (NLCP). The activities covered under NLCP include prevention of pollution from point sources by intercepting, diverting and treating the pollution load entering the lake, in situ measures of lake cleaning such as de-silting, de-weeding, bio-remediation, constructed wetland approach, etc. depending upon the site conditions, catchments area treatment and lake beautification, which may include bunding, fencing, creation of facilities for public recreation and entertainment and public areas, public awareness and public participation and other activities depending upon location specific conditions, including the interface with human population, etc. Based on the proposals received from different States, the MoEF and CC has sanctioned projects for conservation of 63 lakes in 14 States at a total cost of Rs.1,096.09 crore and funds amounting to Rs 631.00 crore have been released so far. Work on 33 lakes has been completed. Details are given at

Annexure-VIII. The proposals under the scheme are considered for financial assistance based on prioritization of water bodies in the States/UTs, conformity with the guidelines and availability of Plan funds.

(iii) Further, as per the information available with this Ministry, Government of Telangana has taken up a programme "Mission Kakaktiya " in the year 2014-15 for restoration of 46,531 water bodies (MI Tanks, PR Tanks, Percolation Tanks, Private Tanks and Forest Tanks) for restoration/stabilization of total irrigation potential of 9.87 Lakh Ha. The RRR works of these water bodies are planned to be completed by the Government of Telengana by 2018-19."

2.15 The Committee were also informed by the Ministry about the traditional water bodies which have been renovated under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) Programme by the Ministry of Rural Development. The details are furnished as under:

Year	Works completed
2011-12	1,35,855
2012-13	1,72,704
2013-14	1,07,012
2014-15	99,654
2015-16 (till 06.01.2016)	54,088

Table 3 : Traditional water bodies renovated under MGNREGA

2.16 The Committee were further informed that the Ministry of Urban Development and the Ministry of Rural development have allocated huge amounts for rejuvenation of urban and rural water bodies. The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) which have been launched in June 2015 with the objective to provide urban services i.e., water supply, sewerage/septage, drainage, urban transport, green space and parks, rejuvenation of water bodies specifically for drinking water supply and recharge of ground water is one of the eligible components for Central assistance as per guidelines. Central assistance approved/released on the

basis of State Annual Action Plans (SAAPs) submitted by 20 States have been approved with total Central assistance of Rs. 9,091.70 core under the Mission and Rs. 1,818.34 crore has been released as 1st installment.

2.17 As per the information provided by Ministry of Rural Development, State/UT-wise details of expenditure on renovation of traditional water bodies under MGNREGA Scheme since 2012-13 till 18th February, 2016 are given in **Annexure – IX**.

CHAPTER III

Encroachment on Water Bodies

3.1 Illegal entry into the defined boundary of the water body for various human activities like construction, agriculture etc. has been defined as "encroachment of water bodies".

3.2 At present the responsibility for the protection of boundaries of water bodies lies with the State Governments, as they are the absolute owners of water bodies located in their State. 'Water' being a State subject, several steps for augmentation, conservation and efficient management to ensure sustainability of water resources are undertaken by the respective State Governments. The development activities along the water bodies are primarily governed by the local and State administration through the master plan which regulates the flood plains. In this regard, the River Regulation Zone enforced by the State Government of Maharashtra in the past have helped in regulating the construction activities.

3.3 In order to supplement the efforts of the State Governments, Government of India provides technical and financial assistance to State Governments to encourage sustainable development and efficient management of water resources and Irrigation infrastructure through various schemes and programmes namely, "Accelerated Irrigation Benefits Programme (AIBP) for major and

medium irrigation projects", "AIBP for minor irrigation projects" and "Repair, Renovation and Restoration of Water Bodies". Under the Scheme for Repair, Renovation and Restoration (RRR) of water bodies, Government of India have laid a condition that the water body which needs Central grant for its restoration/repair under the scheme RRR of water bodies, the State Government "needs to take necessary steps for declaring the water body boundary through a G.O. and to ensure removal of encroachments in the water body spread area/water body boundary before submitting the proposal for release of 2nd installment".

Extent of encroachment

3.4 On being enquired about the type of encroachments found on water bodies in different States/UTs along with period of encroachments, the Ministry in its written submission stated as under:

"In **Madhya Pradesh**, encroachment in water bodies is mostly in urban areas. Population pressure is the main reason.

In **Andhra Pradesh**, the type of encroachment found on water bodies are construction of permanent and temporary structures both for residential and cattle.

In **Telengana** generally the water bodies are encroached by dumping soil in Full Tank Level (FTL) area and also streams/ Nalas encroached by converging the stream width by dumping the waste soils due to formation of slum areas.

In **Nagaland** construction of residential buildings along the bank of water bodies since 1990 is the reason for encroachment.

Maharashtra informed that the data regarding encroachment was not compiled at State level, so currently, data asked is not available. The same is being called for from the field officers and will be compiled in due course.

Manipur has submitted that there are following types of encroachments -

- Human settlement/ encroachment.
- Development of modern amenities/ economic activities.
- Development of public recreational centres.
- Reclamation for agricultural activities.

Arunachal Pradesh has submitted that there is no encroachment reported so far.

Punjab has submitted that no encroachment has been reported in 20 water bodies. However in rural areas, there is a tendency to encroach ponds. Whenever, it comes to notice of Gram Panchayat/ district Rural Development Agency/ Department, the encroachment is immediately removed.

Rajasthan has submitted that the type of encroachments are due to construction, and use of land for agricultural purposes i.e., from allotment of Government land.

Mizoram submitted that there is no report on case of encroachment on water bodies.

Tripura has submitted that there are encroachments in public ponds by boundary adjoining land owners. Further, growth of slum habitation in river land in city area is a slow continuous process.

Odisha has submitted that encroachment of water spread area of water bodies have not been brought to notice till now.

Assam has submitted a note on water bodies. In Assam there are 6 districts under Autonomous Councils. In the other 21 districts, an area of approximately 55,811 hectare is covered by wetland barring rivers, rivulets, springs. Out of this area, approximately 7322 hectare is under encroachment.

In **Kerala** encroachment on water bodies was mainly for agricultural purpose in earlier days. Gradually, the scenario has changed and people have started constructing houses and other commercial establishment along the banks of water bodies. Apart from this, people have filled the water bodies particularly for commercial activities.

Karnataka has submitted that encroachment is found on the periphery of tanks. Farmers would have encroached some of the water bodies for agricultural purposes and construction of temporary buildings.

Andaman and Nicobar islands has submitted that none of the sources are encroached as per records.

Tamilnadu has submitted that encroachment is due to crops, huts and semi permanent structures."

3.5 Responding to a specific query on the status of encroachment on water bodies in the State of **Uttar Pradesh**, the Ministry in its supplementary reply, stated:

"Government of Uttar Pradesh has submitted that there is no encroachment on all 193 water bodies under Sone organization and 24 water bodies in Betwa organization and 40 water bodies in Yamuna Organization under the control of department of Irrigation and Water Resources. Overall it can be said that there is no encroachment on any water body under the subject and under the control of Department of Irrigation and Water Resources of Uttar Pradesh." 3.6 During the course of oral evidence held on 18 January, 2016, when the Committee raised the issue of massive encroachment on water bodies in the State of Uttar Pradesh, the representative of the State Government, deposed before the Committee:

"Sir, I will submit the information from revenue department because I basically belong to the Irrigation Department. It looks after the ponds and all that. Records are maintained by the Revenue Department."

3.7 Further asked to provide information on state of water bodies in Delhi, the Ministry, in its supplementary reply, stated:

"As per the information provided by the Government of NCTof Delhi there are 971 existing water bodies out of which 346 are dry, 321 are wet. Further, 2015 are fully encroached and 89 are converted into Parks.

The Government of Delhi has also informed that regular field inspections of water bodies sites are being carried out to monitor their existing status/changed status and submitted in to the Hon'ble Court.

Cases are filed against encroachers and old cases are effectively pursued. Plantation and Boundary walls are being made on the boundaries of water bodies to check encroachments."

3.8 Further asked by the Committee to elaborate on condition of dry water bodies of Delhi, the representative of the State Government of Delhi, during his evidence held on 18 January, 2016 submitted:

"Sir, there is no standing water over there because water table has gone down. So, they are dry. They are safe because we have made boundaries. If not boundaries, plantations have been done on boundaries.

There are a few water bodies which are under encroachment also, which took place 10 years before. No encroachment has taken place in the recent time. Under the guidance of the Hon'ble High Court, we have constituted a Committee. Court Commissioners and land development agencies use to go over there almost every month or so, they make a record of it and submit it to the court. So, we have a complete detail of all the water bodies. It is a highly populated area in Delhi. Some of these water bodies are really under threat. That is true. We cannot say that they are not under threat."

3.9 While explaining the reasons for encroachment on water bodies in the country, the Special Secretary, during his evidence elaborated further:

"All this information is available in the village record as to which land is earmarked for a pond. But it is a question of illegal encroachment on that area. That earmarking is there. All records whether in the city or in the rural area has clearly demarcated that this particular portion of a land is a common pond. But unfortunately the sanctity of that record is not maintained."

3.10 Regarding extent of encroachment on urban water bodies, the Ministry of Urban Development (MoUD) has submitted following in its written submission:

"There are total 4,129 water bodies in the following 7 States and 2 UTs out of which 3,686 water bodies are used for water supply and other domestic purposes and 198 water bodies are encroached.

States/UTs	No of water	No of water bodies in use	Water bodies encroached	Action taken for removal of
	bodies			encroachment.
Arunachal	18	18	Nil	NA
Pradesh				
Assam	395	395	10-12	Drafted a bill
Andaman and Nicobar Island	13	13	Nil	NA
Haryana	356	160	26	Instructions are issued to ULBs for required action.
Jharkhand	11 (for 3 cities)	11	Nil	NA
Lakshadweep	No water	body		
Tamil Nadu	2703	2647	44	Court cases pending further action are being taken to remove encroachments.
Uttarakhand	32	22	7	Given instruction to ULBs for further action.
Uttar Pradesh	601	431	99	Cases are pending in the courts efforts are being made to remove

 Table 4: Status of water bodies in 7 State and 2 UTs.

				encroachments through special drive.
Total	4129	3686	198	

3.11 The Committee were further informed that the Ministry of Urban Development (MoUD) has issued an Advisory that the water bodies should be notified in the Municipal Land Use records as the municipal assets. Asked about the States/UTs which have maintained such records, the Ministry in its supplementary reply stated as under:

"MoUD has intimated that such information from the States/UTs regarding notification of water bodies as municipal assets are not maintained by them."

Impact of encroachment on water bodies

3.12 In recent years several metro cities such as Mumbai and Chennai have witnessed unprecedented flood. Mumbai witnessed flash flood in July 2005. In Uttarakhand there was flash flood in June 2013. Severe flood in Jammu and Kashmir was witnessed in the year 2014 (from 03.09.2014 to 07.09.2014). Another instance of severe flood occurred in Northern Tamil Nadu during 30.11.2015 to 09.12.2015. The following reasons have been stated to be the major factors for occurrence of floods in the written reply furnished by the Ministry:

- "High intensity rainfall over short span of time. This phenomenon observed during Mumbai and Uttarakhand floods.
- Inadequate channel capacity.
- Improper drainage condition.
- Unplanned reservoir operation.
- In Northern Plains of India, very high velocity waters of Himalayan Rivers' enter Northern plains and due to flat natural slope water spreads over the plains and causes inundation in low lying areas for long periods.
- Along Bay of Bengal coastline of India, creation of depression in Bay of Bengal and cyclone landfall creates meteorological conditions resulting in high intensity widespread rainfall causing floods in the landfall coastal area/ zones.
- Drainage congestion due to sudden heavy rainfall in urban conglomerates.
- Apart from the above mentioned natural causes, human induced causes like unscientific development and land use pattern especially human activities in

flood plain zones and estuarine areas of river, encroachment of natural drainage channels and water bodies, socio-economic conditions, deforestation, increasing human and cattle population pressure also increase the vulnerability due to floods."

3.13 Further, the Ministry, in its written submission, informed the Committee about the following measures, proposed to be taken to deal with floods:

"Under the approved State Finance Corporation (SFC) memorandum on flood forecasting of Rs. 281 Cr. during XII plan, following non-structural activities are proposed towards undertaking flood forecasting by CWC.

- i. Setting up of 100 new flood forecasting stations in the country based on the requests received from the States in low lying areas and dam projects presently unrepresented by the existing network of 176 flood forecasting stations of CWC.
- ii. Modernization of flood forecast network with real time satellite based telemetry system on all flood forecasting stations of CWC and rainfall based mathematical modelling for efficient and effective flood forecasting services with sufficient forecast lead time.
- iii. Inundation modelling using available Digital Evaluation Models (DEMs) (about 3 mha flood prone area in Kosi, Mahanadi, Sabari and Brahmaputra basins whose high resolution DEM is available with National Remote Sensing Centre) for inundation forecasting on pilot basis.
- a. Encroachment of river bed is one of the reasons of flooding since it reduces the desired waterway of the river. MoWR, RD and GR has prepared a model flood Plain Zoning Bill way back in 1975 and circulated it to various States/ UTs for implementation. The Bill envisages enactment of legislation about flood plain zoning, demarcation of flood plain zones on ground based on the frequency of floods and administrative measures to check encroachment of floods plains. Only the States of Manipur, Uttarakhand and Rajasthan have enacted legislation in their assemblies and others are yet to adopt it."

3.14 When queried as to whether the encroachment on water bodies have played a major role in such floods, the Ministry furnished the information as forwarded by the following States in its written submission:

"Andhra Pradesh has submitted that the encroachment of water bodies are one of the reasons for flooding. The Government of Andhra Pradesh has taken necessary

steps to remove the encroachments and also increasing impounding capacity of water bodies under NEERU CHETTU programme by de-silting of all water bodies, feeder channels, supply and irrigation channels.

Telengana has informed that due to converging of streams/Nalas and decreasing water bodies' capacity area, the floods are common recurrence. However the action plan will be prepared in detail to prevent the encroachments.

Gujarat has submitted that due to large scale infrastructure development works and residential building in urban area, surface drainage has been affected. The non availability of storm water drain has resulted in inundation for a short time. As far as possible, the natural drains are well protected.

Maharashtra has submitted that the pattern of rainfall is variable- spatially and temporally. The intensity of rainfall in a particular area is not constant over the years. It varies depending on the vagaries of the nature. This causes floods in some areas and at the same time drought like situation in some other areas. The encroachments on water bodies do not seem to be the main reason for flooding, nevertheless it aggravates the situation. The Government of Maharashtra (Water Resources Department) has initiated a drive to mark the 1 in 25 years return period flood flow line (Blue Line) and 1 in 100 year return period flood flow line (Red line) along the river banks at predominantly flood prone zones. The Water Resources Department has given necessary instructions to other relevant departments of Government of Maharashtra viz. Urban Development Department and Rural Development Department to take due care for not allowing any structure / encroachment to be constructed within the marked flood lines.

Manipur has submitted that the main causes of devastating floods in the State of Manipur, particularly in the valley region are as follows:

- Inadequacies of channel conveyances.
- Inadequacies of flood protection works.
- Reduction in the water holding capacity of natural reservoirs in the basin due to progressive siltation.
- Blocking of rivers.
- Breaching of river banks.
- Spill over the banks.
- Raising of river bed caused by deposition of silt.
- Bank erosion.
- Poor drainage system.
- Human encroachment in the flood plain.

• Unplanned urbanization.

Ministry of Environment, Forest and Climate Change has informed that a policy on River Regulation Zone (RRZ) is being formulated by MoEF and CC, which is aimed at regulating development on the banks of rivers in the flood plain. There is no proposed policy prescription in the proposed RRZ Policy on water bodies with respect to specific queries in the communication received from Parliament Secretariat.

In **Kerala** major cities like Thiruvananthapuram, Kochi and the low lying areas adjacent to rivers and lakes is experiencing flood. This is mainly due to anthropogenic activities such as filling up of ponds and wetlands in cities for developmental activities. It is fact that natural drains which carry water and discharge to large water bodies and rivers are also encroached upon or reduced to no flow areas. These are the major reasons for flooding in Kerala cities. Government has already taken a positive step in Thiruvananthapuram city called Operation ANANTHA to mitigate the impact of flood by evicting the encroachers and by rejuvenating and restoring the ponds/drains within the city limits.

Karnataka has submitted that the reason for floods in metro cities is due to encroachment of tanks, lakes and also feeder canals/ storm water drains in the cities. The concerned local bodies of the affected cities are taking action to prevent encroachment.

Tamilnadu has submitted that the encroachment in the channels and rivers is one of the main reason for flooding. Prevention and eviction if any, are being done as per the Tamilnadu Protection of Tanks and Eviction Encroachment Act, 2007."

Action against encroachers

3.15 On being asked by the Committee to state in detail the steps so far taken/being taken to remove the encroachments in each of the States/UTs, the Ministry, in its written submission stated:

"In **Madhya Pradesh**, State's Work Department Manual has laid down the procedure for removal of such encroachments. Water bodies are maintained by the concerned department. For prevention and removal of encroachment, the revenue department is authorised for taking action. Responsibility of the owner department is limited to informing the Revenue department.

Assam has submitted that Revenue department has constituted Village Land Management Conservation Committee (VLMCC) in rural areas in order to involve community for preservation of Government land including wet land. A database on wetland is being made as part of online Management information system. Revenue department has enacted two Acts for this purpose namely - The Assam Hill Land and Ecological Sites (Protection and Management) Act, 2006 and the Guwahati Water bodies (Preservation and Conservation) Act, 2008."

3.16 As per the information submitted by the Ministry, the State Governments of Andhra Pradesh, Kerala, Karnataka, Tamilnadu and Gujarat have accepted the fact that encroachment on water bodies in urban areas have contributed in large scale floods. When asked about action plan of Central Government to prevent such encroachments, the Ministry, in its supplementary reply, stated:

"Ministry of Urban Development has intimated that as Urban Development, storm water drainage and land use master planning etc. are State subjects, the Central Government is not involved in the maintenance and upkeep of water bodies including tackling of encroachments. It is the responsibility of the Urban Local Boards and State Government Departments such as land revenue and water resources/irrigation to prevent encroachments of the water bodies."

3.17 When further asked about the action taken against encroachments/encroachers, the Ministry in their written submission furnished the following information in respect of various States:

"Manipur has submitted that as the people have now realized the fact that the water bodies (lakes, wetlands, rivers etc.) are accorded a special status for their protection and conservation in view of their importance as entities of incomparable values, any encroacher cannot challenge the prohibitory laws against encroachment. In case anybody challenges the social/ conventional law, they will get punishment as per law.

Arunachal Pradesh has submitted that there is no case of encroachment.

Rajasthan has submitted that the references are being made by Revenue Department in Revenue courts.

Uttarakhand has submitted that there are no such cases as submergence areas are free from encroachment.

Odisha has submitted that no such cases reported.

In **Madhya Prasesh**, Water Resources Department has informed the Revenue department from time to time.

In **Telengana**, whenever encroachments are taking place, the Civic bodies along with Police and revenue authorities are taking action by dismantling the structures in encroached area."

3.18 During the course of oral evidence held on 18 January,2016, the Special Secretary informed the following to the Committee with regard to the action proposed to be taken by the Ministry to address the issue of encroachment on water bodies:

"Sir, we are going to make a proper advisory and circulate that to all the States along with the experience of the States that the Committee has visited. What you have seen in Jammu and Kashmir...the extent of losses due to encroachment of Dal lake, canals etc. We will make a whole picture of the steps taken and proposed to be taken and we will circulate the Advisory before the next meeting."

Monitoring mechanism for prevention and removal of encroachments

(A) Monitoring mechanism under Repair, Renovation and Restoration (RRR) Scheme

3.19 Regarding monitoring mechanism under RRR scheme, the Ministry, while furnishing Action Taken Replies on the Observations/ Recommendations contained in the 16th Report (15th Lok Sabha) on "the Repair, Renovation and Restoration of Water Bodies", *inter-alia* informed that "*the Scheme involves monitoring in three levels : - Water Users' Association (WUA) at the Gram Panchayat Level, Cascade Association (CA) and WUA Federation at the Block Level. The involvement of local /block administrative levels will ensure that encroachment on the water bodies are avoided*".

3.20 Under the Scheme of Repair, Renovation and Restoration (RRR) of water bodies, regular monitoring of the project is to be carried out at each stage. Monitoring includes maintaining of both physical and financial progress and the outcome. Monitoring is being done with the association of the Coordination cell of the State Government and the Standing committee of the Panchayat at the appropriate level. When the local Panchayat or WUAs are monitoring, the chances of encroachment on the water body are less.

3.21 For the water bodies where the WUAs are formed and are being maintained by them, it has helped to a large extent in preventing encroachments as they are vigilant and alert so that the benefits from the water body wouldn't get affected by illegal encroachers.

(B) Monitoring mechanism in different States

3.22 While responding to a query on monitoring mechanism as implemented for prevention and removal of encroachment in various States, the Ministry informed the following in their written submission:

"Maharastra submitted that sections 93 to 96 of Maharashtra Irrigation Act, 1976 empower the Canal officer to take personal action on the encroachments. The State Government has also set up a monitoring mechanism by appointing "Estate Manager" for taking care of land and water body in possession of Water Resources Department.

Manipur has submitted that for effective functioning in coordination between Centre, State and urban local bodies, City Level Monitoring Committee (CLMC) for all river and lake conservation projects is constituted comprising of district collector as chairman, administrative head of urban local body, representative of implementing agency, an environmental NGO and a prominent social worker. Besides, CLMC's are also expected to secure public cooperation and facilitate community mobilization for the conservation of water bodies in the region. These mechanisms prove effective in preventing encroachments provided the committee works with great sincerity at each district level under the chairmanship of district collector.

Arunachal Pradesh has submitted that no such mechanism has been constituted.

Punjab has submitted that proper monitoring by the department has proved effective in prevention and removal of encroachment, if any, in case of 20 water bodies. However for village ponds, monitoring is being done at the level of Gram panchayat/ district Rural Development Agency and director Level for removal of encroachment, if any.

Mizoram submitted that the State does not have existing monitoring mechanism for prevention and removal of encroachment on water bodies.

Rajasthan has submitted that Govt of Rajasthan has issued various orders to comply the directions of Hon'ble High Court decision in case of 11153/2011 on dated 29.05.2012. To monitor the compliances of these orders, a high level committee under the chairmanship of Chief Secretary, Govt of Rajasthan was constituted vide Government order no. F.6(50)/AR/Gr.3/2012 dated 25.07.2012. Further the district level monitoring committee under the chairmanship of district collectors in all the districts have also been constituted vide Government order no. F.6 (54)/AR/Gr.3/2012 dated 30.07.2012. The district level monitoring committee is convening regular meeting for compliances of the directions of the Hon'ble High court. Besides , a monitoring committee consisting 02 nos of independent persons have also been constituted by the Hon'ble High court in S.B. Civil Writ Petition No.
11153/2011 dated 23.08.2011. This committee is also visiting the projects sites and submitting its report to Hon'ble High court. The above mechanism of monitoring has proved effective to prevent the future encroachments, because every change in land use pattern in water bodies catchment (flow area) and in submergence of water body is monitored. The High court Monitoring Committee also takes cognizance through news on television or newspaper. No new construction is permitted in the catchment.

Tripura has submitted the following.

- Encroachments on Government water bodies are removed by the District Administration as per provisions of the Tripura Public Premises (Eviction of Un-authorized Encroachment) Act and as per Section-15 of the TLR and LR Act, 1960.
- Watch is being kept on unauthorized encroachment on Government water bodies through field functionaries of District Administration / Revenue Department.
- Diversion of classification of land is regulated under the provision of Section-20 of the TLR and LR Act, 1960.
- Strategy has been adopted to bring the public water bodies to productive uses by placing under control of Panchayats, Municipal Bodies, Cooperative Societies and through rehabilitation of urban slum dwellers of river lands.
- The strategy appears to be effective in removing encroachments.

Uttarakhand has submitted that water bodies are monitored through regular inspection by Department of Irrigations staff, District Administration and Forest Department.

Odisha has submitted that the Orissa Prevention of Land Encroachment Act, 1985 is now in force for prevention and removal of encroachments from Government land. The Revenue Inspector and Thasildar from revenue Department monitor the matter. The revenue officials keep constant vigil over the Government Land. Steps are taken by Revenue Officials for removal of encroachment, if any, by imposing fine and penalty as per law. The existing law is effective in preventing encroachments.

Meghalaya has submitted that necessary steps are being taken to declare the water body boundary through a Government Officer.

As per the **Kerala** Panchayat Raj Act, 1994/Municipal Act, 1994, the ownership of ponds and lakes are vested with the local bodies. The irrigation department takes steps to renovate and repair the water bodies based on the request of LSGIs. The data is not available with the irrigation department.

Karnataka has submitted that generally encroachments are found in tanks. Water Resources Department (Minor Irrigation) is surveying the tanks/water bodies in its

jurisdiction and encroachments, if identified, are being removed as per the prevailing rules. The boundaries are marked and fencing work / boundary trenche is being done to prevent encroachment.

State Government has enacted the Karnataka Tank Conservation and Development Act 2014 and has established Karnataka Tank Conservation and Development Authority under the Chairmanship of the Hon'ble Minister for Minor Irrigation. Committee has taken action for conservation of all Water Bodies in the State including eviction of encroachments.

Andaman and Nicobar Islands has submitted that water bodies are under custody of user agency with the responsibility for regular maintenance and safe upkeepment. Depending upon need, many important water bodies in urban / rural areas have been fenced with permanent / temporary fencing.

Remaining water bodies are being regularly monitored and main water bodies have been provided with watch and ward management. This is however with the exemption of sources in reserve forest area which are regularly watched and guarded by Forest department.

Tamil Nadu has submitted that there is an Act called Tamil Nadu Protection of tanks and Eviction encroachment Act 2007 enacted in Tamil Nadu and it is being followed. In case of encroachment, the rules stipulated in this Act are being followed."

3.23 On being asked about the role of Committees formed by the State Governments with regard to removal of encroachments, the Ministry in its supplementary reply stated:

"Though no specific information has been received from State Governments, such committees are in general to act in the matter along with concerned authorities as per rules and regulations laid down in this regard."

3.24 While responding to a query on effectiveness of local bodies in reducing encroachments,

the Ministry, in their written submission, stated as below:

"In **Madhya Pradesh** owner department monitors the cases of encroachment. The mechanism is not effective as the department is dependent on the Revenue department being an issue related with law and order. The policy of appeasement is the main cause of encroachment. Lack of determination to remove encroachment is the main cause.

Involvement of local bodies has never helped or succeeded in reducing encroachment. The apprehension of reduced vote-bank is the main cause of inaction. Water bodies in cantonment area or in the premises of private companies are comparatively better maintained. Local bodies having number of local representatives generally avoid taking strict action.

Andhra Pradesh has informed that the local bodies are actively involved in reducing the encroachments and safe guarding the water bodies. In Andhra Pradesh, as per the instruction of the Watch dog committee, the unauthorized constructions/encroachments are identified and notices were served. The concerned revenue authorities are also being addressed by the officials of Water Resources Department for taking necessary action for eviction of encroachment.

Telengana has informed that all water bodies in HMDA limits are protecting by fixing Full Tank Level (FTL) fencing, planting trees at FTL contour, fixing FTL stone pillars and FTL contour trench cutting. Whenever encroachments take place, the Civic bodies along with Police and revenue authorities are taking action by dismantling the structures in encroached area.

Sikkim has submitted that the methodology is yet to be established.

Gujarat has submitted that under the existing monitoring mechanism for prevention and removal of encroachments, the concerned authority closely monitor the water bodies in case of encroachment and take urgent steps to remove them in accordance to the statutory power, existing law and rehabilitation policy of Government. Responsibilities of officer / staff concerned should be fixed in respect of non removal of encroachment and fresh encroachment.

Local bodies shall furnish information at early stage regarding encroachment to the concerned authority and depending upon this information, the action taken for removal of such encroachment shall be quarterly reviewed in the Water Resources Committee, which will help removal of encroachment at the early stage.

Sikkim has informed that no such cases have been reported so far.

Manipur has submitted that activities aimed at involvement of local bodies/ public participation are built into individual projects and are carried out by implementing agencies in the state. As such, the role of local bodies has proved very helpful in reducing encroachments through public awareness and public participation.

Arunachal Pradesh has submitted that a local committee shall be formed in due course.

Rajasthan has submitted that the Administrative orders issued by the Revenue Department and Panchayati Raj Department for prevention of encroachment and allotment of land in flow area of any water bodies have significant effect of prevention of such encroachments as maximum no of water bodies are Rural Panchayat Tanks. Besides, the regular meeting of the District Monitoring Committee comprising the District level officers of Panchayati Raj Department, Revenue Department and Water Resources Department have also made an impact in this direction.

Tripura submitted that Involving local bodies is very much helpful in reducing encroachments. Such bodies can manage the interests and sentiments of the affected people and ensure their participation in the process of development centered on the water bodies where encroachment is to be removed.

Odisha has submitted that the local bodies are helping for detection/identification of encroachment of Govt lands. Basing on their allegations/complaints, stringent actions are taken by Revenue Officials for removal of encroachment through eviction. Besides, Pani Panchayats and Water Users Associations have been formed to maintain the water bodies and also to check encroachment if any.

Karnataka has submitted that at present Local bodies are not involved.

Andaman and Nicobar Islands has submitted that local bodies are taking interest due to various awareness campaigns and are monitoring and keeping surveillance which has reduced tendency of encroachment considerably. It has also caused increased sense of ownership among residents which has helped reduction in tendency of encroachment as well as better use of precious water.

Tamil Nadu has submitted that local bodies are maintaining 25104 no. of tanks having ayacut less than 25 hectares and prevent the encroachment in the tanks. The encroachment, if any are evicted as per the provision of Tamil Nadu Protection of Tanks and Eviction Encroachment Act 2007."

3.25 In reply to a query as to whether political compulsions constitute a major reason for allowing encroachments on water bodies, the Ministry in its supplementary reply, submitted:

"Encroachments happen due to number of local factors, thus issue is to be looked into by concerned State Government as per their rules and regulations."

(C) Judicial Directions/Guidelines on the issue of encroachment and their implementation in different States

3.26 On being asked by the Committee to furnish the details of directions/ guidelines issued by courts, the Ministry furnished the following written information:

"Andhra Pradesh has informed that Hon'ble Supreme Court in SLP No. 13695 of 2000 dated 25.07.2001 has mentioned that it is important that material resources of the Community like forests, tanks, ponds, hillock, mountain etc. are nature's bounty. They maintain delicate ecological balance. They need to be protected for proper and healthy environments which enable to enjoy quality life which is essence of the guaranteed right under Article 21 of the constitution.

The Hon'ble Superme Court has ordered Dt. 25.09.2013, in Special Leave to appeal (civil) No. 8519 of 2006 to restore the water bodies by evicting the unauthorized constructions/encroachments. The Hon'ble High court on 27-11-2012 against the WP No. 23829 of 1997 has directed to preserve the lakes, tanks and other water bodies.

Telengana has informed that the Hon'ble High court of Judicature at Hyderabad for the State of Telangana and the State of Andhra Pradesh passed order in public interest litigation No: 214/2014 and directed the Government to constitute the committees for steps to be taken to identify the water bodies and also to protect and preserve the same in all respects

Gujarat has submitted that the Hon'ble High court of Gujarat in its order dated 2/8/2002 in SCA 10621/2000 has given following directions / guidelines on subject of encroachment on water bodies, their maintenance problem and removal of the encroachment on water bodies.

- All the water bodies in the territory of the state vest in state and / or the Area Development Authorities or local bodies including Panchayats. In the official gazette, within three month from date of oral order i.e. (2/8/2002)
- All the water bodies that vest in the State or local bodies should not be alienated or transferred or put to any use other than as water bodies.
- Concerned authorities to take steps to get the standards of quality of water of the water bodies prescribed by the concerned authority under the law and device mechanism for periodic monitoring of the quality of water.
- The National Water Policy and State Water policy, a draft containing great vision, it is time to move beyond policy declaration to concrete action that may produce results by rejuvenating the water bodies.
- Provision for recharging them by appropriate storm water drains and other feasible measures against pollution of such water bodies.

The State Government shall expeditiously take steps to constitute Water Resources Council in the chairmanship of Chief Minister and State Government will also constitute the Water Resources Committee headed by Chief Secretary. The State Government, the urban development authorities and local bodies exercise their statutory powers to remove the existing encroachment and take measures to prevent encroachment. They prepare records in form of videography, photography and panchanamas of encroachment and urgent steps are taken to remove encroachment with law and rehabilitation policies of Government.

The question of determining the peripheral area surrounding a water body, on which construction may be prohibited, will be taken up by concerned authorities.

Maharashtra has submitted that as per the information available, there are no specific directions/guidelines issued by the Hon'ble Supreme Court/ High Court on subject of encroachment in relation to water bodies with State Water Resources Department. However, the State Government has issued guidelines in connection with this issue vide. Government Resolution of Revenue and Forest Department dated 10/10/2013.

Manipur has submitted that currently, there is no legal instrument specifically aimed at the protection and conservation of water bodies. However, several legislation enacted till date have relevance and provisions for conservation of water bodies and their biodiversity. Some of them are as follows –

- The water (prevention and control of pollution) act 1974 as amended upto 1988 to prohibit discharge of untreated waste water effluents.
- A State Water Policy has been enacted and approved by the State Cabinet on 23rd September, 2015. Protection and preservation of water bodies have been incorporated in the policy.
- The Government of Manipur has enacted the Manipur Flood Plain Zoning Act, 1978 to prevent encroachment in the flood plains particularly for major rivers and streams in Manipur.
- The Supreme Court in its many pronouncements have given effects to provision of various Acts to direct the States to take preventive and mitigating measures for protecting the water bodies from different anthropogenic pressures.

Rajasthan has submitted -

- No direction/guidelines issued by Hon'ble supreme court.
- A PIL was filed in Hon'ble high court (Jodhpur) with D.B. civil Writ petition No. 1536/2003 Abdul Rahamn V/s State of Rajasthan.

- In pursuant to the direction of Hon'ble High Court on 02.08.2014, State Government of Rajasthan constituted an Expert committee dated 18.07.2013
- Hon'ble Rajasthan High Court Jaipur Bench took Suo Moto cognizance on the news published in news paper of State of Rajasthan regarding Ramgarh dam in Jaipur district with a Writ Petition No. 11153/2011 Suo Moto Versus state of Rajasthan.
- The Hon'ble High court issued directions on dated 29.05.2015 regarding all water bodies of Rajasthan.

Mizoram submitted that the question does not arise since there is no report on case of encroachment on water bodies.

Tripura has submitted that in connection with a public litigation case in Hon'ble High Court of Tripura, the Court has given order for collection of status report of 45 water bodies located under Agartala Municipal Corporation. The State Pollution Control Board has submitted the report before the Court.

While the same is under examination, Hon'ble High Court has expressed that apart from the water bodies of the Agartala Municipal Corporation, the Court may later like to pass orders for the other water bodies of the State as well, if need be.

Kerala has submitted that the only known case in recent past with regard to directions issued by Hon'ble Supreme Court is the *suo moto* case pertaining to Vembanad Lake.

Karnataka has submitted that Hon'ble Supreme Court of India has given direction for eviction of illegal occupation and encroachment of water bodies in its order dated 28.01.2011 in SLP No. 3109/2011 and the Ministry of Environment and Forest *vide* Gazette Notification dated 04.12.2010 has notified the Wetlands (Conservation and Management Rules) 2010, wherein restrictions imposed on the activities within wetlands are given.

State Government has enacted the Karnataka Tank Conservation and Development Act, 2014 and has established Karnataka Tank Conservation and Development Authority under the Chairmanship of the Hon'ble Minister for Minor Irrigation.

Tamilnadu has submitted that observations of the Hon'ble Supreme Court are available in specific cases. Guidelines are followed as per Act only."

3.27 Further asked to furnish in detail, the reports submitted to Hon'ble Supreme Court and High Courts - with regard to the steps taken by the State/UT Governments for the compliance of such directions issued by them, the Ministry, in its written reply, stated as follows:

"Andhra Pradesh has informed that as per the supreme court directions, a committee namely Watch Dog committee was constituted by AP State Government vide G.O Rt. No: 386 dated 21.03.2007 and the committee has to work under the Chairmanship of Joint Collector of the District. The Watch Dog committee has to guide the line departments for taking necessary steps for eviction of unauthorized constructions/encroachments in water bodies for restoration of the same to their original status.

Telengana has informed that the learned Government pleader appearing for the State of Telangana assured the Court that the committees as required under section 3 of WALTA act 2002 will be constituted within a period of three weeks from the date of receipt of copy of order.

Gujarat has informed that all water bodies under various Departments of State are published by State Government.

The State Government has passed resolution SUT (AIPC) – 2004-3160-(64)-K3 Dtd. 17/5/2005 regarding water bodies that all water bodies published in the Government gazette shall not be alienated or transferred or put to any use, the quality of the water must be preserved and encroachment must be removed according to prevailing law and rehabilitation policies.

The Stare Government constitutes "Gujarat State Water Resources Council" and "Gujarat State Water Resources Committee" vide resolution No. SUT / 2002/ IB / 188-(5)-Pt. -IV –K3 Dated 31 Jan. 2003.

Manipur has submitted that in respect of the pollution control, Pollution Control Board of the State directly deals and takes up necessary steps in compliance with directions issued by the Hon'ble Supreme Court and High Courts from time to time.

Rajasthan has submitted -

- All the concerned departments issued the circulars/orders to comply the directions issued by the Hon'ble High court on 29.05.2015.
- The Hon'ble High court on 05.12.2015 issued directions to submit report of each district as to what steps have been taken for implementation of the judgement. It should be under affidavit of the collector, who is chairman of the committee. Affidavit aforesaid should contain all the documents showing action for compliance of the judgement of this court.
- In compliance of the order issued by Hon'ble High court 05.12.2015, the affidavits of 30 district collectors have been submitted to Hon'ble High court on 21.01.2013.

• Present Hon'ble High court Monitoring committee is reviewing the progress periodically.

Tripura informed that the Copy of the Report prepared by Tripura State Pollution Control Board on 45 water bodies of Agartala Municipal Corporation has been submitted to the Hon'ble Court.

Tamil Nadu has submitted that no compliance report has been submitted to the Hon'ble Supreme Court. However the system of protection and eviction followed and the current status of encroachments of individual cases were reported in the counter Affidavit of such cases in the Hon'ble High Court. No report based on any of the direction has been submitted in the subject."

3.28 On being asked as to why the State Government of Tamil Nadu has failed to submit compliance report and what role has been played by the Ministry to persuade such States to comply with the directions of the court, the Ministry, in its supplementary reply has stated as follows:

"The compliance of Hon'ble Supreme Court orders are to be done by Govt of Tamil Nadu. Further, as maintained above, works related to RRR of water bodies comes under purview of concerned State Govts and role of Central Government is only catalytic to encourage them to take up such works by providing assistance for some of the water bodies as per availability of funds."

3.29 In response to a specific query raised at the meeting of the Committee held on 18 January,

2016, regarding the impact of actions and guidelines issued by the courts, the Special Secretary,

MoWR, RD and GR submitted the following before the Committee:

"Sir, if you see our presentation, most of the States have started taking action on this issue based on the High Court and Supreme Court judgments. Your question is very relevant that we need to do a study about its impact on the field level. That will take some time. But most of the States have taken action on the advice of the Committee and the court."

3.30 Further explaining this issue, the Ministry, in its supplementary reply, informed the Committee about the action taken by some other States which is as follows:

"The concerned State Governments have informed following;

i. In Telengana all water bodies in HMDA limits under Hyderabad Metropolitan jurisdiction are protected by fixing Full Tank Level (FTL) fencing, planting trees at FTL contour, fixing FTL stone pillars and FTL contour trench cutting. Whenever

encroachments are taking place, the Civic bodies along with Police and revenue authorities are taking action by dismantling the structures in encroached area.

- ii. In Arunachal Pradesh and Madhya Pradesh there is no case of encroachment.
- iii. In Uttar Pradesh there is no encroachment on all 193 water bodies in under Sone organization and 24 water bodies in Betwa organization."

3.31 In reply to a query as to why the Directions/Guidelines issued by Supreme Court for prevention of encroachment on water bodies have not been made applicable all over the country, the Ministry stated following in its written reply to supplementary list of points:

"The directions of the Supreme Court were in particular cases relating to certain States like, Telengana, Gujarat and Andhra Pradesh. The maintenance of water bodies being State subject, the States take up works of maintenance of water bodies from their own resources and priorities."

(D) Awareness campaigns to prevent encroachment on water bodies

3.32 A query of the Committee was raised on the issue of awareness campaigns undertaken by the State Governments to protect the water bodies from encroachments. To this, the Ministry, in their supplementary reply, stated as under:

"The States have informed as follows:

Andaman and Nicobar

3 nos of Audio shoots are being broadcast from All India radio from 02.01.2015 to March, 2015 on safe and hygienic water and sanitation.

<u>Telengana</u>

Non Government Organizations (NGO) are actively involved in Hyderabad and Rangareddy Districts of Telangana State. Wherever the encroachment of water body is initiated the NGOs lodge complaints to the Government, Local police and concerning Engineering and Revenue officials. People awareness programmes like Grama 46 abha, Burrakatha, short plays are performed at water bodies during Mission kakatiya programmes. Electronic and Print media are also being involved in Mission Kakatiya Programme.

<u>Punjab</u>

Not required as no encroachment has been reported.

Uttar Pradesh

There is no encroachment on all 193 water bodies."

3.33 With regard to the measures taken by the Ministry to heighten awareness among masses on the importance of water bodies, their maintenance and conservation, the Ministry in its supplementary reply informed as follows:

"For creating awareness among the stakeholders and general masses regarding the need for repair, conservation and restoration of water bodies in the country, the issue was thoroughly discussed during Jal-Manthan organized by MoWR, RD and GR in November 2014 and February, 2016. Members of civil society/groups/NGOs from all over the country participated in the events.

The matter was discussed among stake holders during India Water Week, held in January, 2015 thereby giving lot of publicity at the national level about the Conservation and maintenance of Water Bodies.

To highlight the multiple and huge benefits arising out of the RRR of water bodies, CWC is organizing meetings and seminars in collaboration with State Governments for sustained public campaigns at state/district level for the State Government officials and stake holders for the proper implementation of the scheme."

3.34 While informing the steps taken by the Ministry to increase awareness among people, the Special Secretary, MoWR, RD and GR further elaborated as under during the course of evidence held on 26 August, 2015:

"...action has been taken up personally by the Hon. Minister. She has been taking personal interest in all these activities. For example, under the *Jal-Kranti* Campaign, she has taken up two villages in all districts of the country where all these issues, which have been raised like conservation of water, restoration of water bodies, etc. will be talked about. So, the budgetary figure may not be much but because of her personal involvement the awareness and participation of people have been huge...

under the Jal Kranti work that has recently started, we have already covered Jaipur, Jhansi, Shimla and the next phase is now starting. We are going to cover each of the Districts in each of the States. This message of water conservation, repair, renovation and restoration of water bodies, pollution control, recharge of groundwater structures will all be taken to the rural areas."

3.35 When queried by the Committee as to what could be the practical solutions for removal of encroachments, the Ministry, in its supplementary reply, stated:

"As per the information provided by the State Governments, mass awareness, better monitoring and strict law enforcement are the practical solutions."

3.36 During the course of oral evidence held on 26 August, 2015, while deliberating on the issue of action taken at the local administration level to remove encroachment, leveling/ filling of water bodies for the purpose of construction, the following submission was made by the Special Secretary, MoWR, RD and GR:

"Sir, I am familiar with Ahmedabad situation as a lot of work has been done in Gujarat. In Ahmedabad, now it has become part of the Town Planning. They have their own set up. Those water bodies are clearly identified and no permission is given ... I think that it should be a part of the Town Planning and absolutely no permission under any circumstance should be given for any construction on that... The States have to take it much more seriously than at present."

3.37 The Committee, in their 16th Report on "Repair, Renovation and Restoration of Water Bodies" (15th Lok Sabha) had recommended "the Government to take appropriate measures to heighten national awareness and to build a strong national programme for removal of encroachments on water bodies by local bodies, first by instituting a thorough study in the matter, and then enact deterrent or enhance penalty provisions effective enough to tackle such encroachments in consultation with the Ministry of Environment and Forests." The Ministry, in their Action Taken Reply informed the Committee that the Scheme involves monitoring in three levels : - Water Users' Association (WUA) at the Gram Panchayat Level, Cascade Association (CA) and WUA Federation at the Block Level. The involvement of local /block administrative levels will ensure that encroachment on the water bodies are avoided.

CHAPTER IV

Scheme of Repair, Renovation and Restoration (RRR) of water bodies

4.1 In order to revive, restore and rehabilitate the traditional water bodies, the Government of India launched a Scheme for Repair, Renovation and Restoration (RRR) of water bodies which has multiple objectives like comprehensive improvement and restoration of water bodies thereby increasing tank storage capacity, ground water recharge, increased availability of drinking water, improvement in agriculture/horticulture productivity, improvement of catchment areas of tank commands, environmental benefits through improved water use efficiency by promotion of conjunctive use of surface and ground water, community participation and self-supporting system for sustainable management for each water body, capacity Building of communities in better water management and development of tourism, cultural activities, etc. by providing Central Grant to State Governments under a Pilot Scheme directly linked to agriculture during the remaining period of Xth Five Year Plan in January 2005. It was visualized that this programme will go in a long way in enhancing water availability in different parts of the country. For preservation and protection of urban water bodies, the Ministry of Urban Development (MoUD) has also issued Advisory which has been sent to all the State Governments for protection of urban water bodies.

4.2 Based on success of the pilot scheme, two schemes of RRR, one with domestic support with an outlay of Rs. 1,250 crore and other with external assistance with an outlay of Rs. 1,500 crore were launched during XIth Plan.

4.3 Under the scheme with loan assistance from the World Bank, Government of India takes 25% of the World Bank loan and passes it to the State Government as Central Assistance and 75% of the loan is transferred to the State Government on back to back basis to meet the State share. Under this scheme, the States were allowed to take up the repair, renovation and restoration of water bodies having a minimum of 20 hectare original irrigation culturable command area and upto a maximum of 2000 hectare. The scheme was carried out with assistance from World Bank. The appraisal process was coordinated by the Department of Economic Affairs.

4.4 A total of 10,887 water bodies have been taken for restoration under external assistance. The latest status of the scheme, as received from Department of Economic Affairs, Ministry of Finance is enclosed in **Annexure - VI**.

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4.5 Under the scheme of domestic support, Central Assistance in the form of 90% of the cost of the project cleared by the Technical Advisory Committee (TAC) of the State Government in case of Special Category States, KBK (undivided) districts of Odisha and projects located in drought prone, tribal and naxal affected areas and 25% of cost of the Projects benefiting other areas of Non-Special Category States were given. A total of 3,341 water bodies were taken up for restoration in 12 States. A total Central grant amounting to Rs. 917.259 crore had been released to the States for completion of works on these water bodies up to 31st March, 2015. Out of 3341, the works on 2,222 water bodies have been completed and an irrigation potential of 1.133 lakh ha has been restored. Works on remaining 1,116 water bodies are undergoing. To give impetus to early completion of these water bodies, an amount of Rs 27.0 crore has been released towards schemes of Odisha during 2014-15. However, no requests for release of fund have been received from other States for completion of water bodies undertaken during XI Plan. The scheme was monitored by Central Ground Water Board (CGWB) and the Ministry. The details of water bodies with domestic support including grants released, completion, potential planned etc is enclosed at Annexure- IV.

RRR Scheme during XII PLAN

4.6 The scheme for Repair, Renovation and Restoration of Water Bodies continued during XII Plan and the scheme was approved by the Union Government on 20.9.2013. Accordingly, Guidelines for the implementation of the scheme were issued in October, 2013. The planned outlay of the scheme is Rs 10,000 crore. The scheme is envisaged to provide Central Assistance for restoration of about 10,000 water bodies with an earmarked Central outlay of Rs. 6,235 crore and respective State share of Rs 3,765 crore for the scheme with likely restoration of 6.235 lakh hectare. Out of 10,000 water bodies, 9,000 water bodies in rural areas and 1,000 water bodies in urban areas would be covered.

(a) Coverage of the Scheme

4.7 Rural and Urban Public water bodies having minimum water spread area of 5 hectare and from 2.0 hectare to 10 hectare respectively with B.C. ratio of more than 1.0 will be considered for funding during XII Plan. All water bodies included in the project will be given a Unique Code Number. However, it is envisaged to converge all RRR projects with Integrated Water Management Programme (IWMP) in such a way that the treatment of catchment of water bodies to be restored

happens pari-passu with the repair and renovation of water bodies. In this regard, only those proposals of water bodies where the Integrated Water Management Programme (IWMP) is implemented would be considered for inclusion under the scheme of RRR of water bodies. Further, State Government is to take necessary steps for declaring the water body boundary through a Government order and to ensure removal of encroachments in the water body spread area/water body boundary before submitting the proposal for release of 2nd installment of grant for completion of work on the water body under RRR. Priority will be given to water bodies in villages covered under Saansad Adarsh Gram Yojana (SAGY).

(b) Funding Pattern

4.8 The Central Assistance is provided in the form of grant which is 90% of the project cost only in special category states (NE states, Himachal Pradesh, J and K, Uttrakhand and undivided KBK districts of Odisha) as well as projects lying in drought prone area, tribal area, desert prone area and naxal affected areas. In case of non-special category States/areas, the grant will be 25% of the project cost.

4.9 In this regard, the Committee in their 16th Report on Repair, Renovation and Restoration of Water Bodies, (15 Lok Sabha) had recommended "the Government to take further necessary steps to incentivise the States by enhancing the domestic and external assistance to 50% to all the States to come up with proposals for implementation under the RRR Scheme of water bodies with domestic support and with external assistance." While furnishing their action taken reply, the Ministry stated following with regard to the implementation of this recommendation:

"As recommended by the Standing Committee, the funding pattern has been modified in the proposed scheme of RRR of water bodies for XII Plan. The proposed funding pattern is as below:

- For Special Category States (North-Eastern States including Sikkim, Himachal Pradesh, Jammu and Kashmir, Uttarakhand and undivided Koraput, Bolangir and Kalahandi (KBK) districts of Orissa) as well as projects benefiting desert/drought prone/tribal/naxal-affected areas, funding will be 90% by the Government of India as Central Assistance and 10% by States Governments.
- For Non-Special Category States, the funding pattern will be 50% by Government of India as Central Assistance and 50% by State Government. The balance cost of the project as state share 10% in case of Special Category States and 50% in case of Non-Special Category States is to be arranged by the State Governments from their own resources."

4.10 However when pointed out that funding pattern has not been changed in XII Plan, the Ministry in their Status report on implementation of Observations/Recommendations contained in 16th and 19th Report (15 Lok Sabha), stated as below:

"The Central Assistance will be in the form of grant which will be 90% of project cost in case of Special Category States (North-Eastern States including Sikkim, Himachal Pradesh, Jammu and Kashmir, Uttrakhand and undivided Koraput, Bolangir and Kalahandi (KBK districts of Orissa) as well as projects lying in desert development programme (DDP),drought prone area/tribal area/Naxal affected area and Central assistance of 25% of project cost in case of Non-Special Category States/areas. The balance cost of the project as State share (10% in case of Special Category States/areas and 75% in case of Non-Special Category States/ areas) is to be arranged by the State Governments themselves.

(c) Implementation of Scheme

4.11 When the Committee desired to know the shortcomings/lacunae noticed in implementation and achievement of desired objectives under the scheme of RRR during XI Plan and measures taken/proposed to be taken to improve them while continuing the scheme in XII Plan, the Ministry in its Status Report on implementation of Observations/Recommendations contained in 16th and 19th Report on Repair, Renovation and Restoration of Water Bodies, (15 Lok Sabha), informed the following:

i) As per the criteria of 5 ha in rural area, it is very difficult to get water body of so much spread in rural hilly area. This is the reason for submission of very few schemes from hilly and North-eastern states.

ii) For non-special general area category, central assistance is restricted to 25% of the cost. This is major hindrance which has also been highlighted during Jal-Manthan.

iii) Many State Governments expressed their inability to find water bodies (Rural) whose catchment areas have already been treated under Integrated Watershed Management Programme (IWMP) and in many states, the IWMP is not being implemented so far."

4.12 Asked to furnish details of impact assessment of the RRR Scheme, implemented during XI

Plan, the Ministry, in its reply to supplementary list of points, informed the following:

"The Post Scheme evaluation/Impact assessment of the Pilot Scheme(X Plan) was carried out by independent agencies like Water Technology Centre (WTC), Bhubaneswar and Centre for Water Resources Development and Management (CWRDM), Kerala; Water and Land Management and Training and Research Institute (WALAMTARI), Hyderabad; and National Remote Sensing Centre (NRSC), Hyderabad. Results indicate that there is an increase in storage capacity of the tanks, increased utilisation in Annual irrigation and the benefits have percolated to SC/ST families."

4.13 In the Background note furnished by the Ministry, the modus operandi for implementation of

the RRR scheme in XII Plan has been stated:

"The Detailed Project Reports (DPRs) of water bodies would be prepared and works would be implemented by Water Users' Association (WUA) / Local Panchayat / A Government agency identified by the District Level Implementing Agency (DLIA). The implementation plan of the project will be placed before the Gram Sabha and its cooperation will be solicited by timely completion of the project. The WUA would also earn revenues by charging for its services from its members and build up a corpus for maintaining and managing the water bodies over time. The Non-Government Organizations (NGOs) may also play a role in implementation, planning and execution of the scheme subject to State Government's decision. Further, for better synergy with other irrigation works, CWC Field Unit has been assigned to examine/scrutinize the proposals of water bodies submitted by State Governments."

4.14 The impact assessment of the Scheme of RRR during XII Plan, as per the Status Report on

implementation of Observations/Recommendations contained in 16th and 19th Report,

(15 Lok Sabha), submitted by the Ministry is stated as follows:

"As per the Guidelines of the scheme during XII Plan, Concurrent evaluation is to be done by the State Government themselves by involving independent agencies which may include IIMs and IITs. Thereafter, evaluation and impact assessment of the scheme will be done by independent agencies to be identified by the Ministry of Water Resources.

The Ministry has been emphasizing on submission of concurrent evaluation reports by the respective State Governments. The State Government shall produce periodic assessment reports during the monitoring visits of CWC. For the release of 2nd and onwards installment of Central Assistance, State Governments need to enclose the concurrent assessment reports along with the funding proposal."

(d) Monitoring mechanism

4.15 State Government will be responsible to plan various activities envisaged under the scheme, monitor their implementation along with quality of works as per the relevant BIS, provide guidelines to District Level Implementation and Monitoring Committee (DLI and MC) and ensure coordination among all concerned departments/agencies at the State level. Monitoring would be done with the association of the Co-ordination Cell of the State Government. and standing committee

of the Panchayat at the appropriate level which will include maintaining of both physical and financial progress as well as the outcome. The water bodies under RRR would also be monitored periodically on sample basis by Field Office of Central Water Commission (CWC).

4.16 The Ministry, in its Status Report on implementation of Observations/Recommendations contained in 16th and 19th Report on `Repair, Renovation and Restoration of Water Bodies', (15 Lok Sabha), by the MoWR, RD and GR informed the Committee the following with regard to independent agency identified for evaluation of the existing methods for water body management including the timeline for completing the assigned mandate as recommended by the Committee:

"The scheme for Repair, Renovation and Restoration of Water Bodies for XII Plan was approved by the Union Government on 20.9.2013 and guidelines were issued in October, 2013. Due to delay in approval of scheme, no fund could be released during 2012-13 and 2013-14. Fund could be released during 2014-15 only and works on those water bodies have just started. No request for 2nd installment except Odisha, towards water bodies included during XII Plan has been received from the concerned State Government. Therefore, no information regarding identification of independent agency for concurrent evaluation of the existing methods of water bodies management is available. Government of Odisha, while requesting for 2nd installment of grant, has intimated that the process of appointing independent agency for concurrent evaluation."

(e) Present Status of RRR Scheme

4.17 The Empowered Committee of MoWR, RD and GR, constituted for approval and inclusion of project under Scheme of RRR of water bodies, has approved 1342 water bodies of 9 States at an estimated cost of Rs. 1013.428 crore for inclusion under RRR till date. The details of these water bodies are at **Annexure-X**. A total grant amounting to Rs. 154.776 crore has been released to the states for taking up works on 947 water bodies in 6 states namely Odisha (760 water bodies), Meghalaya (9 water bodies), Manipur (4 water bodies), Madhya Pradesh (125 water bodies), Rajasthan (32 water bodies) and Uttar Pradesh (8 water bodies) under RRR during 2014-15 and 2015-16. Apart from that, an amount of Rs 105.406 crore has been released towards continuing schemes of XI Plan during XII Plan. Total grants released during XII Plan to State Governments are enclosed at **Annexure-X**.

(f) Measures to address problem of encroachment

4.18 Under the scheme of RRR, Government of India has laid the condition that the water body which requires Central Assistance (CA) for its restoration, the respective State Government needs to take necessary steps for declaring the water body boundary through a Government Order (G.O.)

and to ensure the removal of encroachment in the water body spread area/water body boundary before submitting the proposal for release of second installment.

4.19 When asked to furnish the total number of water bodies which are included under RRR scheme and have been covered with boundaries so far, the Ministry, in its written submission stated as follows:

"As per the information available from Government of **Odisha**, the State Government has declared that all the 760 water bodies which have been included under the scheme RRR of water bodies (XII Plan) have been made free from encroachment before execution. To this effect, Principal Secretary, Department of Water Resources has clearly certified vide letter No. 12813 dt. 10.06.2015 and letter No. 21953 dt. 05.10.2015 to MoWR, RD and GR. Since almost all 760 nos water bodies are situated in the remote area, there is no possibility for encroachment. However, steps are taken for fixing signboards/ boundary demarcation pillars on the boundary of water spread area of each project to prevent encroachments in future.

In **Madhya Pradesh**, no case of encroachment was reported in case of water bodies taken under RRR.

In **Andhra Pradesh**, there are no encroachments in the water bodies covered under RRR. There are total 342 nos of water bodies in RRR and steps were taken for marking the boundaries of the water bodies.

In **Telengana**, no water bodies in RRR X, XI and XXI programme are encroached.

In **Sikkim** there is no water body encroached upon.

In **Uttar Pradesh** there are 54 water bodies in Sonebhadra district and 16 in Chandoli district considered in RRR. There is no encroachment in these water bodies.

Maharashtra has informed that Government of Maharashtra has received first instalment of funds under RRR scheme in the year 2011 under XIth plan, as per guidelines issued in the year 2009. The condition about taking necessary steps for declaring the water body boundary through a G.O. and to ensure the removal of encroachments in the water body spread area / water body boundary- before submitting the proposal for the release of second instalment has been included in the guidelines of RRR in the XII plan in the year 2013. The Government of Maharashtra has not received any funds under RRR scheme after these guidelines were issued. As such, the action of covering water bodies included in RRR with boundaries has not been carried out in the State of Maharashtra, and so it will not be possible to comment on the issue of whether this condition has proved to be an effective deterrent in prevention of encroachment.

Manipur has submitted that 4(four) water bodies namely – Lamphelpat, Waithoupat, Irong Nallah (Upper Portion) and Irong Nallah (Lower Portion) have started implementation under RRR schemes with the well defined boundaries as embankments around the respective water bodies taking into consideration the highest water level attained during the past 25 – 30 years.

Punjab has submitted that they have not received any grant under RRR.

Rajasthan has submitted that in XI Plan, 16 projects were taken up under RRR programme which have been completed. Further, 32 projects were sanctioned in XII Plan, the works of these projects are in progress. Most of these 48 water bodies lie in Tribal area and in remote places, therefore not facing any change of land use problem, thus encroachment free. Therefore, there is no need of declaring the water body as per guidelines of RRR. Besides, the decision of Hob'ble High court has already taken care of encroachment problem and Revenue Department, Govrenment of Rajasthan, vide circular No. F. 10(3) Raj-6/2001-Part-5 dated 26.06.2012 has issued direction that allotment of any land which was in name of Nallah, Pond, River, Dam in 1955, is prohibited for all purposes (Agriculture and Non-agriculture).

Tripura has submitted that no projects have been taken up under the RRR of water bodies scheme. 1(one) D.P.R. is under preparation for RRR of Rudrasagar, a natural lake in the State. Necessary care would be taken according to the guideline of G.O.I. in this respect

Uttarakhand has submitted that in eight cases boundaries are already demarked where as the restoration project for one body has been sanctioned vide Governemnt Order No. 3859-II-2014 (04) Date 24-01-2014 of finance Department of Uttarakhand. Boundary shall be marked after completion of restoration works. Total 4 nos of water bodies have been covered with boundaries.

Kerala has submitted that at present there is no project under RRR. **Karnataka** has submitted that under RRR programme executed during XI five year Plan 371 Minor Irrigation Department and 53 ZP tanks have been improved. **Tamilnadu** has submitted that 154 RRR water bodies have been covered with boundaries."

4.20 The Committee were informed during the deliberations, held on 18 January, 2016 on the issue of encroachment that the emphasis on producing an encroachment free certificate / G.O. for the water bodies, when States required Central Assistance/ Technical Assistance from the Central Government for the renovation of the water bodies, seemed to be an effective deterrent in the prevention of encroachment. The Ministry furnished information from following States to corroborate this fact:

"Manipur has submitted that in addition to well defined boundaries as embankments around the water bodies, barbed wire fencing as compound fencing along the boundaries are also proposed for an effective deterrent in prevention of encroachments.

Rajasthan has submitted that those water bodies which are facing pressure of change of land use due to population increase situated near villages/roads, this condition proves to be effective for prevention of encroachment. It is in those states where court Orders/Directions have not been issued. An effective guideline at Central level may be useful for all States. The guideline may lay down definition of water body, catchment, submergence and D/S flow areas where change of land use pattern is not permitted.

Uttarakhand had replied in affirmative.

Karnataka has replied affirmatively.

Odisha has submitted that such condition will be an effective deterrent in prevention of encroachment.

Andhra Pradesh has informed that the condition of marking the boundaries is really effective in prevention of encroachment of water bodies.

Telengana has submitted in affirmative and added that whenever encroachments takes place the structures coming under encroached area will be dismantled and penal action will be taken against them."

4.21 When queried as to how water bodies which are not included under RRR are being saved from encroachment and pre-emptive action, if any, taken to maintain and preserve these water bodies, the Ministry, in their supplementary reply, stated as under:

"Monitoring of water bodies comes under purview of State Governments. However, Secretary (WR, RD and GR) has issued an advisory **(Annexure-X)** to the States regarding encroachment on water bodies."

4.22 With a view to ensuring prevention of encroachment on water bodies, the Committee, while examining the Demands for Grants (2016-17) (16 Lok Sabha), of the MoWR, RD and GR had recommended in their 9th report that *the Ministry vigorously pursue all the concerned States / UTs through consultation, meetings, etc. to ensure that advisory issued by the Secretary, MoWR, RD and GR on 26 February, 2016 is duly complied with and the guilty (if any) are punished in case of the encroachments on the water bodies".*

(g) Release of Central Assistance under RRR to encroachment free water bodies

4.23 During the discussion held on 18 January, 2016, the Committee were informed by the representative of State Government of Odisha following, on the issue of release of Central Assistance under the Scheme of RRR:

"I am Engineering Chief-cum-Special Secretary of the Department of Water Resources. What the Hon'ble Member has said is absolutely correct. The total sanctioned cost for these 760 water bodies was Rs. 361.52 crore, out of which the Central's share was Rs. 282.73 crore and the State's share was Rs. 78.79 crore. As per the MoU signed with the Government of India the whole work was to be completed by 31st March, 2017. The first phase share of the Central Government of Rs. 52.90 crore has been given. We have already submitted the UC in total, that is for Rs. 52.90 crore of Central's share and Rs. 11.13 crore of State's share. The total comes to Rs. 64.03 crore. We have already submitted this. The Principal Secretary has given the undertaking and given the submission that there is no encroachment of water bodies as per RRR of 760 numbers are concerned. We have submitted the proposal worth Rs. 163.75 crore for the second phase, but till now nothing has come and because of that the completion of the project by 31st March, 2017 is a big question."

4.24 Further when asked as to why the Central Government has not disbursed any fund under RRR scheme to the State of Odisha even after furnishing of undertaking by the Principal Secretary of the State regarding no encroachment of 760 water bodies included under RRR scheme, the Ministry, in its supplementary reply stated:

"A Central assistance of Rs. 54.746 crore has been released in 2015-16 for 760 water bodies under RRR scheme. Undertaking submitted by the Principal secretary of Government of Odisha has been considered as acceptable."

4.25 On this issue, the Special Secretary, MoWR, RD and GR, during his oral evidence held on 18 January, 2016 submitted:

"Sir, due to interest taken by this Committee good progress has been made... The Government has given additional funds for completing current schemes, the 23 schemes which can be completed in the next two years, we can release total required funds for those schemes. So, we can now release the funds in the next two years. So, the focus was on that. Now that we have got additional funds, we will be able to release those funds to them also."

4.26 Water bodies play a crucial role in recharging ground water. As the country is increasingly relying on ground water as a major source of water resources, preserving water bodies is primary need of the hour not only as a source of surface water storage but also as a source of increasing

recharging capacity of ground water. Therefore ground water recharge is one of the main objectives of the RRR scheme.

4.27 When a query was raised on assessment of impact of RRR scheme on increasing recharging capacity of ground water, the Ministry in its supplementary reply, stated as under:

"This would depend upon local conditions and comes under the purview of concerned State Governments. However, in general, water bodies help in recharging the ground water."

CHAPTER V

Pollution of Water Bodies

5.1 India has a long history of human intervention in the management of water for agriculture, because of the country's distinctive climate – intense monsoons followed by protracted droughts. The water harvesting structures called "tanks" (earthen bunded small storage reservoirs formed in the natural depressions of the land), indigenously designed by our ancient native rulers and chieftains were created over the past several centuries with the substantial storage capacity. As the tanks are formed as chains akin to cascades, our tank system is proved to be superior because of the synergized hydrologic efficiency of the linkage between the tanks. As one of the still surviving, man-made and large common property resources of the society, they constitute a basic life supporting system in the most parts of India. Such marvelous and widespread life supporting traditional tank systems are getting deteriorated in the recent past due to poor maintenance and lack of interest among the users.

Deteriorating condition of water bodies - Reasons

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5.2 Relative importance of some of these Water Bodies has waned due to a number of reasons:

- Shifting away from community based tank system to individual beneficiary oriented ground water dependent system
- Prolonged and continuous neglect of maintenance
- Heavy silting of the tank bed,
- Choked up feeder channels,
- Leaking and weak bund, leaky sluices and dilapidated surplus weirs and ill maintained distribution channels
- Encroachments in the tank bund, foreshore, water-spread and supply channels
- Deforestation and denudation in the catchments areas leading to extinction of water bodies as a whole for housing and urbanization
- Indiscriminate use of tank beds as dumping yards

All these have also contributed to deterioration of the water bodies as a whole.

Existing mechanism to monitor water quality in water bodies

5.3 Central Pollution Control Board (CPCB) at the Centre and State Level Pollution Control Boards (SPCBs) in the States were constituted under Water (Prevention and Control of Pollution) Act, 1974 for monitoring of aquatic resources in the country. CPCB along with SPCBs monitor water quality of water bodies on a regular basis and are also responsible for implementation of Water (Prevention and Control of Pollution) Act, 1974 and other Environmental Acts. CPCB along with SPCBs monitor water quality of lakes, tanks and ponds etc. and the data of the same is available on CPCB web portal which is accessible to all. The State Governments may use this data while formulating and implementing their schemes for conservation of the water bodies. The details of lakes, tanks and ponds which have been identified as polluted are provided in **Annexure –XI**.

5.4 While furnishing the information on water bodies in different States, the Ministry in its written submission, summed up their condition as follows:

"Madhya Pradesh has stated that quality of water in rural areas is not deteriorating. In urban areas the quality is deteriorating because of sewage disposal etc. The deterioration is proportional to the quantum of water available.

Andhra Pradesh has stated that due to release of sewage and other contaminated water into the water bodies the quality of water has deteriorated.

Punjab has stated that the waste water accumulates in the existing village pond and most of the ponds in villages are overflowing leading to inefficient drainage of street drains / channels. Flooding of streets is common site in village presenting unsightly and unhealthy condition. Thus disposal of waste water is major public health problem in rural areas of the State. Stagnant waste water smells bad and also acts as breeding place for mosquitoes resulting in spread of diseases.

Tripura has informed that there is deterioration of quality of water in rivers due to urban drainage and in some public ponds due to continuous public use in densely inhabited areas.

Kerala has submitted that Water quality deteriorated due to

- (i) Rapid Urbanisation
- (ii) Thick population near water bodies leads to pollution as their waste is thrown into the water bodies
- (iii) Salinity ingression
- (iv) Disposal of solid/liquid waste (including industrial waste) into water bodies
- (v) Discharge of sewage and waste water drains into water bodies
- (vi) The pit latrines in Kerala also contribute to the decline in water quality specially for the presence of ecoli.

Andaman and Nicobar islands has submitted that water quality is being monitored and there is no marked decline in water quality. Few wells were contaminated by saline sea water due to flooding during tsunami in 2004. Few of these wells have been improved by regular bailing out of water."

5.5 Responding to a query on the issue of pollution of water bodies, during the discussion held

on 26 August, 2015, the Special Secretary, MoWR, RD and GR stated the following:

"Sir, I agree that we need to do much better and improve on that. Especially the areas where there are industrial clusters, the quality of water is not good. A lot of inorganic waste is released into the water bodies. Much work is yet to be done on this."

5.6 Throwing light on this issue further, the representative from the MoEF and CC stated following during the course of above evidence:

"Sir, CPCB has conducted a study on the generation of total sewage in the country in 2015 and that is 62,000 million Itrs per day. As against this, the available capacity for treatment is only 23,000 million Itrs per day which is almost one third. The basic responsibility for installation of sewage treatment plant and laying of sewage system lies with urban local bodies, but they do not have funds. There is fund constraint. Our Ministry, Ministry of Urban Development and MoWR, RD and GR are giving funds but that is not adequate. On average, for collecting and treating one million Itrs sewage per day an amount of 5 to 10 crore are needed. If we add this figure to present gap, it is coming to a figure of 2 to 2.5 lakh crore. That is one major reason."

5.7 The Committee, while examining the Demands for Grants (2015-16) had discussed the issue of waste treatment which was observed to be major cause of water pollution in river Ganga. They therefore recommended that "*a comprehensive time-bound and target-oriented plan of action need to be framed in co-ordination with other related Ministries, viz. Drinking Water and Sanitation and Environment, Forests and Climate Change*". The Ministry, in their Action Taken Notes stated following in this regard:

"The major activity envisaged to clean Ganga under the Namami Gange programme is development of suitable treatment infrastructure to prevent untreated waste water entering into the river. Other activities proposed include low cost sanitation/community toilet complexes, electric/improved wood crematoria, river surface and ghat cleaning programme. Once implemented, these activities are expected to reduce the flow of untreated wastewater into the river Ganga to a large extent."

Siltation in water bodies

5.8 The Committee have been informed that 7,153 water bodies are dried up as per information collected during 4th MI census and one of the reason for drying up could be siltation. When a query was raised on cases of shrinkage of water bodies due to siltation resulting in their complete disappearance, the Ministry in their written submission informed that such details are maintained by concerned States. Further specifically queried on pollution of water bodies due to

religious practices, their gradual shrinkage and subsequent conversion/ change of land use for other uses, the Ministry in its supplementary reply stated as follows:

"Religious practices may contribute to pollution/shrinkage of water bodies to some extent as reported by States."

5.9 Further asked as to whether the Ministry has envisaged any plan to discourage such activities, the Ministry, in its reply to supplementary list of points, submitted that the Subject matter comes under purview of State Governments.

PART – II

Observations / recommendations

Census of Water Bodies

The Committee note that the total number of water bodies in India, as per India – Water Resources Information System (WRIS) portal is 7,98,908 including temporary water bodies such as in salt-pan, abandoned guarries, temporary industrial ponds, lagoons, bays, etc. They further note that India – WRIS has reported largest number of Water bodies in Chattisgarh i.e. 1,04,716 followed by West Bengal. Excluding temporary water bodies, there are 6.35.661 water bodies. The Committee note that the Ministry maintains database of only those water bodies which are being provided Central assistance under the scheme of Repair, Renovation and Restoration (RRR) of water bodies, thus confining its monitoring role to only such water bodies. The Committee have been further informed that besides mapping of water bodies through the satellite, at present, the information on water bodies is collected in Minor Irrigation (MI) census, which covers both surface and ground water structures. Till now, four MI census have been conducted in the years 1986-87, 1993-94, 2000-01 and 2006-07. The Committee are concerned to note that the total number of water bodies has declined from 5,56,601 in 3rd MI census to 5,23,816 as reported in 4th (MI) census. They observe that 5th MI census has been initiated with reference year 2013-14 and in this census, information on all water bodies of rural areas is being collected directly by adding an item in village schedule.

2. In this context, the Committee further note that as per the information received from various States and Union Territories (UTs) there is an increase in total number of water

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bodies in States as Madhya Pradesh, Telangana, Arunachal Pradesh, Rajasthan, Mizoram, Tripura and Odisha during the last 10 years, which is mainly due to the construction of new tanks, check dams, etc. Whereas, the States such as Andhra Pradesh, Manipur and Kerala have registered a decrease in total number of water bodies as a result of human activities such as encroachment, unplanned urbanisation, industrialisation, heavy siltation, deficiency in proper management of water bodies, change in land use patterns, etc. Also, some States and Union Territories (UTs) such as Uttar Pradesh, Karnataka, Andaman and Nicobar Islands, Tamil Nadu and Punjab have reported no change in number of water bodies during the same period, whereas no such study has been made in the States of West Bengal, Nagaland and UT of Lakshadweep.

The Committee note with concern that the Ministry has not conducted any separate survey / study exclusively on water bodies revealing their condition, increase/ decrease in their number, their status of encroachment, etc. However, the Committee also take note of the fact that the Secretary, MoWR,RD and GR has issued an advisory to States to collect information about the status of encroachment of water bodies.

3. The Committee are distressed to note that although having a pivotal role in management of water resources, the Central Ministry has made no efforts to keep itself abreast of the ground situation with regard to state of water bodies in the country. This is evident from the fact that in the past, so far the Ministry has made no efforts to compile information on water bodies covering such aspects as their total number, increase / decrease, their status in terms of shrinkage, dried / vanished, change in land use in catchment areas of water bodies and encroachment, etc. Such information is not readily

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available in the database created by the satellite mapping. Further the data collected through MI census covers only those water bodies which are in rural areas / villages and therefore does not offer a comprehensive picture. For such vital information, the Ministry is dependent upon State Governments who do not conduct periodical surveys / study encompassing such aspects as evident from the scattered information received from various States and Union Territories (UTs). The Committee are of the view that there is an imperative need to create a Central database on water bodies. The Committee, therefore, recommend that in order to enable an objective assessment of water bodies and their condition, it should be made mandatory to build a database incorporating information from States. The Committee do not accept the plea that the Ministry is unable to maintain a comprehensive database on water bodies as the subject of 'water' comes under the purview of State Governments. Having noted that the State Governments have been requested to provide information on status of encroachment of water bodies through an advisory issued by the Secretary, MoWR, RD and GR, the Committee are of the opinion that collection of such information should be done on a regular basis to enable the Ministry to have its own repertoire of data, facilitating an objective policy making and the appropriate intervention required at different intervals. Therefore, as recommended in their 9th Report, the Committee reiterate the Ministry to initiate steps to complete the exercise of undertaking census of water bodies, within a definite time-frame. The Committee also desire to be apprised of the information collected from the States on status of encroachment of water bodies within three months of presentation of this Report.

Need for uniform classification of water bodies

4. From the information supplied by various States about the present system of classification of water bodies, the Committee find that there is no uniformity in their classification / categorisation. While States such as Madhya Pradesh and Andhra Pradesh have classified water bodies on the basis of total area covered, others, such as Arunachal Pradesh, Punjab, Tripura and Kerala, etc. have classified them according to the type of water bodies viz. lakes, ponds, etc. Further Uttar Pradesh and Manipur has classified them on the basis of their location in rural, urban and hill areas while some of the North eastern States such as Sikkim, Nagaland, Mizoram and Meghalaya have no system of classifying water bodies. The Committee find that although the National Remote Sensing Centre has classified the water bodies, it is not clear as to whether the Ministry has adopted the same. The Committee, are therefore, of the considered opinion that the Ministry should devise its own classification system, uniformly applicable to all the water bodies in the country, thereby ensuring better administration and monitoring of upkeep of water bodies in all the They, therefore, recommend the Ministry to look into this aspect also while States. preparing a comprehensive database and apprise them accordingly.

Measures for restoring perishing water bodies

5. The Committee also note with concern that as per 4th MI census, out of 5,23,816 water bodies, 80,128 water bodies were not in use and 18,485 water bodies were never used, as a result of which 1.95 million hectare of irrigation potential was lost. They observe that to revive and restore these water bodies, a scheme of Repair, Renovation and Restoration (RRR) of water bodies was launched in Xth Plan as a pilot scheme which was later launched

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as a full-fledged scheme in XI Plan and has been extended in XII Plan as well. They further note that Ministry of Environment, Forests and Climate Change (MoEF and CC) has been running a scheme of National Wetland Conservation Programme (NWCP) since 1987 for conservation of identified wetlands. For conservation / restoration of polluted and degraded lakes in the urban and semi urban areas, the MoEF and CC has been providing assistance to States under the National Lake Conservation Programme (NLCP). They also note that State Government of Telangana has launched 'Mission Kakatiya' in the year 2014-15 for restoration of 46.531 water bodies which will restore irrigation potential of 9.87 lakh hectares. Besides, the Ministry of Rural Development (MoRD) has renovated a large number of water bodies under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Also, the Ministry of Urban Development (MoUD) has launched a scheme called "Atal Mission for Rejuvenation and Urban Transformation (AMRUT)" in June, 2015 under which rejuvenation of water bodies is being taken up as one of the objectives for augmenting drinking water supply and recharge of ground water and so far Central Assistance of Rs. 1.818.34 crore has been released to the States under this scheme.

While commending all the measures initiated by various Ministries viz. MoWR, RD and GR, MoEF and CC, MoRD and MoUD aimed at reviving and conserving water bodies and lakes in both the rural and urban areas, the Committee find that the number of schemes run by different Ministries happen to be too many. <u>They are, therefore, of the opinion that in</u> <u>the absence of any cohesive and effective policy measures to prevent encroachments, such</u> <u>schemes individually will have a minimal effect for the desired purpose. Therefore, a well</u>

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coordinated approach is the need of the hour while formulating policies to prevent encroachment and rejuvenate water bodies. Instead of multiple schemes, there should be one scheme with inter-ministerial and inter-departmental coordination to make it a success. The Committee would, therefore, recommend the Ministry to study the feasibility of merging such schemes and evolve a single comprehensive scheme and apprise them of the findings thereabout. They would also like to be apprised of the outcome of ongoing schemes in terms of total number of water bodies revived and their benefits in terms of total area of lost irrigation potential realised, ground water recharging capacity achieved thereby and prevention of encroachment, etc. during the last five years, year-wise.

Extent of Encroachment on Water Bodies

6. The Committee observe that at present the subject of encroachment on water bodies and removal thereof comes under the jurisdiction of State Government. The State and local administration regulate the development activities along the water bodies through their master plans for flood plains. They further note that in order to discourage encroachment of water bodies covered under RRR scheme, the Ministry has put the condition that Central assistance, under the scheme of RRR will be released, only after the State Government declares their boundary, thereby removing possibility of encroachment. However the Committee are unhappy to note the grim situation with regard to maintenance and upkeep of water bodies which incidentally, also happen to be the major sources of water supply for various uses. They find that the States of Madhya Pradesh, Andhra Pradesh, Telangana, Nagaland, Manipur, Punjab, Rajasthan, Tripura, Assam, Kerala, Karnataka and Tamil Nadu have candidly accepted that water bodies in these States have been encroached mainly for construction activities, agricultural purposes, slum habitations and commercial activities. The Committee are further deeply concerned to note the pathetic state of water bodies in National Capital Territory of Delhi, where as many as 2015 water bodies have been fully encroached upon and 89 water bodies have been converted into parks. Further out of 971 existing water bodies, 346 have dried up. The Committee are of the considered view that lack of enforcement of existing laws and poor maintenance of land records in both the rural and urban areas have resulted in rampant encroachment and thereby violating the sanctity of the land records, a fact admitted by the Special Secretary of the Ministry.

Further the Committee observe with concern that while the State Government of Uttar Pradesh has informed that there has been no encroachment on its water bodies falling under the department of irrigation, during the last 10 years, the records in the Ministry of Urban Development shows that as many as 99 urban water bodies have been encroached in this State, followed by 44 in Tamil Nadu, 26 in Harvana, 10-12 in Assam and 7 in Uttarakhand. Also the information on the status of encroachment of water bodies under the purview of Revenue Department of the State Government of Uttar Pradesh has not yet been furnished to the Committee. Noting that the MoUD has issued an advisory for including water bodies as "municipal assets" in land records, the Committee express their displeasure over the fact that no State has maintained such record declaring water bodies as municipal assets. They, therefore, desire that the MoWR, RD and GR in conjunction with MoUD vigorously pursue the State Governments to include water bodies in land records so that they are immediately able to take action against the encroachers and thereby get such water bodies free from the encroachment. Besides, monitoring by local bodies should be strengthened to check encroachment on water bodies and consequent change in land use. Local bodies should maintain strict vigil on any change in land use in violation of land records in both the rural and urban areas. They also desire to be apprised of the status of encroachment on all water bodies in Uttar Pradesh along with action taken against such encroachers.

Impact of encroachment on Water Bodies

7. The Committee observe that encroachment on water bodies has been a major cause of recent floods witnessed in many parts of the country viz. flash floods of Mumbai in 2005, severe flood in Uttarakhand in 2013, intense flood situation in Jammu and Kashmir in 2014 and severe flood in Chennai in 2015. They further note that besides natural factors, human induced causes like unscientific development and land use pattern especially human activities in flood plain zones and estuarine areas of river, encroachment of natural drainage channels and water bodies, socio-economic conditions, deforestation, increasing human and cattle population pressure are other contributing factors in creation of natural calamities such as flood. The Committee find that lack of seriousness and complacency on the part of the Government cannot be more conspicuous than the fact that even after circulation of flood plain zoning bill in 1975 to States with a view to prevent encroachment of river bed, State Governments have failed to enact laws on flood plain zoning - which could have played a key role in tackling the problem of encroachment. So far, only the States of Manipur, Uttarakhand, Rajasthan and Maharashtra, have passed law on flood plain zones and river regulation zones The Committee, therefore, desire that State Governments should be sensitised to hasten the legislation in order to put a check on

human activities on the catchment areas and natural drainage channel of water bodies, flood plain zones and estuarine areas of river.

Action against encroachers

8. The Committee observe that few States have come forward informing their existing mechanism to prevent encroachments. While States such as Assam and Manipur have enacted laws enabling action against encroachers / encroachment on water bodies, other States viz. Madhya Pradesh, Rajasthan and Telangana have furnished information on administrative machinery vested with powers to take action in case of encroachments. However, the Committee express displeasure over the fact that the Central Government has shrugged off any responsibility in the matter by stating that urban development, storm water drainage and land use master planning, etc. are State subjects. Also Central Government / Ministry has no role to play in matters of maintenance and upkeep of water bodies including tackling of encroachments which come under the purview of Urban Local Boards, Land revenue and Water Resources / Irrigation Departments under the State Governments. The Committee, however, deprecate such approach on the part of the Ministry which amounts to passing on the responsibility and being a mere spectator of the problem which pose serious challenges to the policy making and management of water resources. They are of the view that even though the matter is under direct administrative control of State and local Government, the Central Government can play a guiding and supportive role. Taking cognisance of the directions of courts with regard to measures to be taken for prevention of encroachment on water bodies, the Ministry should formulate a model directive / guideline impressing upon States to execute the same. They would like to
<u>be apprised of such measure, if any, being taken / to be taken by the Government. Also, the</u> <u>Committee would like to be apprised of the information collected by the Ministry on various</u> aspects of encroachments, following advisory issued to the States.

Monitoring mechanism for prevention and removal of encroachments from water bodies

9. The Committee note that under the RRR scheme, monitoring mechanism has been instituted in the local bodies at three levels viz. Water User Association (WUA) at the Gram Panchavat Level, Cascade Association (CA) and WUA Federation at the Block level. The monitoring of water bodies by local bodies has been effective and successful in preventing encroachments in many States and UTs such as Andhra Pradesh, Telangana, Gujarat, Manipur, Rajasthan, Tripura, Odisha, Andaman and Nicobar islands and Tamil Nadu. The Committee further note that Manipur and Andaman and Nicobar islands have included NGOs, prominent social workers and user agency in monitoring mechanism while Odisha has a provision for fine and penalty for encroachers. However, the Committee note with concern the fact that local bodies have not succeeded in preventing encroachments in Madhya Pradesh due to policy of appeasement and lack of determination to remove encroachment, as admitted by the State of Madhya Pradesh in their written submission. The Committee apprehend that this factor may have indirectly influenced action against encroachers elsewhere as well. While the role of local bodies in monitoring at local level cannot be denied, the Committee are of the view that involvement of user communities and fixing of responsibility can make it more effective and better serve the purpose. Community participation / involvement of user communities can ensure better vigilance and negate the possibility of connivance with encroachers. The Committee also feel that there is a need to

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maintain proper coordination between police and the elected representatives like village Sarpanch or Pradhan and Nagar Palika Chairman. They, therefore, recommend to refurbish the existing monitoring mechanism by including user communities, fixing responsibility of concerned officials and penal provisions against encroachers along with proper coordination in activities of various agencies of the Government. The Committee feel that although, water may be a State subject, encroachment of water bodies has a definite impact on the environment and reduces the capacity of accumulation of water which is very precious to the country as a whole. Therefore, the Committee strongly recommend the Ministry to issue appropriate guidelines in this regard.

Judicial directions / guidelines on the issue of encroachment and their implementation in different States

10. As per the information received from various States, the Committee note that the Courts have given directions for the prevention of encroachment to several States viz. Andhra Pradesh, Telangana, Gujarat, Maharashtra, Manipur, Rajasthan, Tripura, Kerala, Karnataka and Tamil Nadu. The Committee note that in case of Andhra Pradesh, the Supreme Court has observed that "material resources of the Community like forests, tanks, ponds, hillock, mountain, etc. are nature's bounty. They maintain delicate ecological balance. They need to be protected for healthy environments to enable enjoyment of quality life, which is the essence of the guaranteed right under Article 21 of the Constitution." Expressing their full agreement to the views of the Supreme Court, the Committee emphasise adoption of effective policy measures and urgent action to protect and preserve water bodies.

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With regard to compliance of the directions, they find that except Tamil Nadu, all other States have taken action and are at different stages of compliance. Further the Special Secretary, MoWR, RD and GR has accepted the need for having a study on the impact of these directions. <u>The Committee, therefore, desire that as agreed by the Special Secretary on the need to have a study on the impact of such direction in reducing encroachments, saving and protecting water bodies, the Ministry should initiate such study without further delay to enable assessment of the impact of judicial intervention and effectiveness of <u>measures suggested on protecting water bodies and apprise them of the findings thereof at the earliest.</u></u>

Awareness campaigns to prevent encroachment on water bodies

11. The Committee observe that several initiatives have been taken by the State Governments to increase awareness among people about the need for conserving water bodies. As submitted by some of the States and UTs, the Committee notice that awareness campaigns and public sensitisation are being carried out by involving NGOs, audio broadcasts, etc. The MoWR,RD and GR has organised 'Jal Manthan' and 'India Water Week' to spread awareness about conservation and maintenance of water bodies. Recently, a campaign called 'Jal Kranti' has been launched where two villages in all districts of the country have been selected to increase awareness on the issue. <u>While taking note of the measures taken so far to increase awareness among people, the Committee are of the view that the intensity of the awareness campaigns needs to be increased with much bigger exposure in media, both electronic, print and others. Beside the need for saving water, a precious natural resource should also be somehow made a part of school curriculum and</u>

<u>university education. The Committee are also of the view that the Ministry should involve</u> <u>local representatives such as Members of Parliament and State legislatures to spread the</u> <u>message and educate people in their constituency, on the need for protection and</u> <u>conservation of water bodies. The Committee would further like to be apprised of the funds</u> <u>allocated and spent on the awareness campaigns during the last three years.</u>

Inclusion of water bodies as a part of Town Planning

12. The Committee have been informed that in Ahmedabad, protection of water bodies has been achieved through their inclusion in town planning. <u>The Committee feel that this</u> <u>provision can be very effective and can be emulated by other States as well with strict penal</u> <u>provisions against violators. Accordingly, the Committee recommend that 'maintenance of</u> <u>water bodies' should be included as integral part of the town planning process. The</u> <u>Committee, therefore, desire that the Ministry should take up this matter with the Ministry of</u> <u>Urban Development and the State Governments.</u>

Repair, Renovation and Restoration (RRR) of Water Bodies scheme – Implementation issues 13. The Committee observe that the scheme of RRR, which was launched as a pilot scheme in X Plan and introduced as a full scale scheme in XI Plan, has been continued during XII Plan. This scheme aims to increase availability of water by restoring and rejuvenating decaying water bodies. They notice that during XII Plan, 10,000 water bodies (9000 in rural and 1000 in urban areas) have been planned to be revived and restored with Central assistance of Rs. 6,235 crore and respective State share of Rs. 3,765 crore creating an additional irrigation potential of 6.235 lakh hectares. Further water bodies in villages which are covered under Sansad Adarsh Gram Yojana (SAGY) are being given priority for coverage under the scheme. They also notice that so far 1,342 water bodies of 9 States at an estimated cost of Rs. 1013.428 crore has been approved for inclusion under RRR. Further under this scheme, Special category States (North Eastern States including Sikkim, Himachal Pradesh, Jammu and Kashmir, Uttarakhand and undivided Koraput, Bolangir and Kalahandi (KBK) districts of Odisha} are being provided Central Assistance of 90% of the total cost of work with balance 10% being borne by State Governments and for Non-special category States, the Central assistance of 50% is provided, with States sharing balance 50%. In this regard, the Committee, in their 16th Report on "Repair, Renovation and Restoration (RRR) of water bodies" presented on 27.11.2012, during 15th Lok Sabha, had recommended to increase the Central share from 50% to 75% in case of Non Special category States also, to incentivise them to submit proposals for including more water bodies under the scheme, which was accepted by the Government, as submitted in the action taken notes. However, the Committee express their astonishment over the fact that the same has not yet been implemented in XII Plan despite this issue being a prominent factor for inability of States to undertake works under the scheme. They are also constrained to note that despite being aware of the major shortcomings in the implementation of RRR scheme in XI Plan, such as water bodies having water spread area of less than 5 hectares being ineligible rendering the scheme rarely implemented in hilly areas and North Eastern States and inability of the States to find water bodies in the rural areas whose catchment areas have already been treated under Integrated Watershed Management Programme (IWMP), no efforts/measures have been made to address these issues while launching the scheme in XII Plan. The Committee apprehend that with these issues/ difficulties, still persistent, the completion of work on 10,000 water bodies within XII

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Plan period may prove to be an uphill task. <u>The Committee would, therefore, like to know</u> <u>the status of the works / projects undertaken so far and measures taken to complete the</u> <u>work within the stipulated time period i.e. by end of XII Plan. They would also like to be</u> <u>apprised of the measures taken, if any or proposed to be taken by the Government to</u> <u>resolve these issues/problems/difficulties regarding the implementation of the RRR</u> scheme.

Impact assessment of RRR scheme implemented during XI and XII Plan

14. The Committee notice that the Ministry has not furnished any information regarding impact assessment of the RRR scheme implemented during XI Plan, with replies submitted by the Ministry - giving details of the outcome of Pilot scheme of RRR, launched during X Plan period. They further observe that for the implementation of the scheme during XII Plan, it has been envisaged that the State Governments will evaluate the scheme by involving independent agencies including IIMs and IITs. The Central Government will thereafter evaluate and assess the impact through independent agencies to be identified by the Ministry. However they note with concern that so far, no State Government except Odisha has started the process of appointing an independent agency for concurrent evaluation of the scheme in XII Plan. The Committee are distressed to note that proper evaluation of the outcome of RRR scheme implemented during XI Plan is not yet guantified in terms of important parameters like increase in storage capacity, recharge capacity, additional irrigation potential created and increase in drinking water supply, etc. While expressing their anguish over the indifferent attitude shown by respective Governments in the matter, the Committee recommend that independent agencies to be identified both by

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the Centre and State Governments for the purpose, should be selected and assigned the task without any further delay to enable an objective analysis of the performance of the scheme and evaluate proper utilisation of the funds spent so far. The Committee, therefore, recommend the Government to apprise them about the measures taken for impact assessment of the scheme implemented during XII Plan, including independent agencies identified, if any, their role, function and stipulated time period for submission of Evaluation Report, etc. The Committee would, however, like to be apprised of the outcome of the evaluation of the scheme (encompassing all the aspects, stated before) implemented during XI Plan within three months of the presentation of this Report.

Effectiveness of measures taken under RRR scheme to address problem of encroachment 15. The Committee note that a condition, that the State Government has to declare boundary of the water body through Government order, has been imposed on release of second installment of funds under RRR for completion of work on the water body. They notice that pursuant to this condition, the State Government of Odisha has declared boundary of 760 water bodies, the State Government of Andhra Pradesh has begun the process of demarcating boundary of 342 water bodies, Manipur has defined boundaries in respect of 4 water bodies, Uttarakhand has declared boundaries for 8 water bodies and Tamil Nadu has defined boundary for 154 water bodies, covered under RRR. The Committee further note that this condition has proved to be an effective deterrent in prevention of encroachment as stated by State Governments of Manipur, Rajasthan, Uttarakhand, Karnataka, Odisha, Andhra Pradesh and Telangana. <u>While appreciating the</u> <u>measure taken by the Central Ministry to keep water bodies covered under RRR</u>, RR, encroachment free, which has also proved effective, the Committee desire that the Ministry should not limit its role to such water bodies only. Although primary responsibility to protect water bodies lies with the State Governments, the Committee, desire that the Ministry should play a more active role and impress upon State Governments by stressing the need for involving the user communities, provision for strict action against encroachers and fixing the responsibility of concerned officials, etc. in the form of a guideline for better monitoring of all the water bodies of States and Union Territories.

Creation of new water bodies under the Scheme of RRR

16. The Committee observe that of late, the State Governments have taken some initiatives in creating new water bodies under programmes such as Mahatma Gandhi National Rural Employment Guaranttee Act (MGNREGA). There has also been an increase in total number of water bodies in States of Madhya Pradesh, Telangana, Arunachal Pradesh, Rajasthan, Mizoram, Tripura and Odisha during the last 10 years mainly due to construction of new tanks, check dams, etc. The Committee feel that creation of new water bodies is a welcome move and can be integrated into the ambit of existing scheme of RRR, which would also make good of the loss of the water bodies as a result of encroachment, especially in the urban areas. <u>They, therefore, recommend the Ministry to review the scheme by incorporating this aspect and accordingly change the nomenclature of the Scheme from "Repair, Renovation and Restoration of water bodies" to "Repair, Renovation, Restoration and Creation of water bodies". They desire that the Ministry should take urgent steps in this direction with thrust on creating new water bodies in the urban areas where</u>

problem of encroachment has assumed enormous proportion. In this regard they further recommend issuing appropriate guidelines/revise the existing guidelines under intimation to the Committee.

Release of funds under RRR Scheme

17. The Committee notice that the Central Government has not released its share of funds for the second installment to the State Government of Odisha, due to which work on water bodies has suffered in the State which in turn, has rendered completion of work by scheduled date of 31 March, 2017 difficult. They were informed by the Special Secretary during evidence that reason for non release of funds is non - allocation of sufficient funds for the purpose. The Committee express displeasure over the fact that the Ministry has failed to anticipate the demands for funds from different States under the RRR scheme, resulting in delay in disbursement of funds. They therefore, strongly recommend that necessary steps be taken to not only ensure sufficient allocation of funds/grant but also their timely disbursal so that the projects under the scheme of RRR do not suffer. The Committee feel that there may be many other States, which are languishing for funds. They, therefore, recommend the Ministry to provide information on total number of encroachment free water bodies, State-wise, which have submitted their request for release of funds in the second phase indicating the amount and the action taken by the Ministry from time to time to release the funds for the period ending 30 June, 2016.

Pollution of water bodies

18. The Committee are distressed to note that water quality in water bodies, which were traditionally playing a major role as an alternative source for catering to domestic and agricultural needs, has been deteriorating. The condition of water bodies has degraded due to their negligence and poor maintenance. From the information submitted by Central Pollution Control Board (CPCB), the Committee observe that as many as 132 lakes, tanks and ponds have been identified with very poor water guality scattered over the States of Andhra Pradesh, Gujarat, Odisha, Madhya Pradesh, Himachal Pradesh, Uttar Pradesh, Chattisgarh, Tamil Nadu, West Bengal, Assam, Rajasthan, Goa, Kerala, Bihar, Tripura and Jammu and Kashmir. Further, the main reason for water pollution in water bodies is stated to be sewage and waste water disposal into water bodies, as a result of increased human habitations around the water bodies. The Committee find that the condition of villages in Punjab is particularly pathetic as most of the ponds there are overflowing with accumulation of waste water, leading to flooding of street drains / channels, which ultimately creates health hazards. Similar problems have been encountered in States of Madhya Pradesh, Andhra Pradesh, Tripura and Kerala in the urban areas. They find that this fact has been admitted by the Special Secretary, MoWR, RD and GR, who emphasised that much work is vet to be done to improve water quality. The Committee are concerned to note that at present, the treatment capacity of Sewage Treatment Plants (STPs) is only 23,000 million ltrs. per day as against 62,000 million ltrs. sewage being generated per day in the country. Thus, there is a requirement of additional Rs. 2 to 2.5 lakh crore to fill this gap as informed by the representative of the Ministry of Environment, Forests and Climate Change. Therefore, urgent steps are needed to be taken in this direction. However the Committee are of the view that besides creating additional treatment capacity there is a need to minimise waste generation by adopting eco-friendly methods of waste disposal, development of sewage infrastructure in rural areas, adoption of alternative waste disposal techniques and appropriate tariffs on uses of water for different purposes. <u>The Committee,</u> <u>therefore, desire to be apprised of the measures taken in this regard along with year-wise</u> <u>details of projects undertaken, funds allocated and spent, targets fixed and achieved in</u> <u>respect of sewage treatment during the last three years, year-wise.</u>

Siltation problem in water bodies

19. The Committee note with serious concern that a large number of water bodies (7,153 as per 4th MI Census) have dried up. However, the causes for such drying have not been assessed by the Ministry, as the subject of 'water' comes under the domain of State Governments. <u>Since this is a very important aspect of information on the condition of water bodies in the country, the Committee believe that such information need to be collected and form part of the database on water bodies. The Committee further recommend the Ministry to furnish a detailed report on this issue covering such aspects as total no. of dried/vanished water bodies, causes, remedial action taken, etc. by each of the State Governments and Union Territories- within three months of presentation of this Report.</u>

NEW DELHI <u>26 July, 2016</u> 4 Shravana,1938(Saka) HUKUM SINGH Chairperson, Standing Committee on Water Resources

State-Wise Statistics of Water bodies as per India-WRIS Project

Part -III

1 2 3 4 5 6 7	Andhra Pradesh* Arunanchal Pradesh Assam Bihar	35472 1212 14204
2 3 4 5 6 7	Arunanchal Pradesh Assam Bihar	1212
3 4 5 6 7	Assam Bihar	1/1001
4 5 6 7	Bihar	14204
5 6 7		59600
6 7	Chhattisgarh	104716
7	Chandigarh	1
	Daman & Diu	21
8	Delhi	52
9	Dadara& Nagar Havelli	3
10	Goa	418
11	Gujarat	15261
12	Himachal Pradesh	206
13	Haryana	5523
14	Jharkhand	38739
15	Jammu & Kashmir	843
16	Karnataka	53694
17	Kerala	11876
18	Lakshadweep	······································
19	Meghalaya	25
20	Manipur	1591
21	Madhya Pradesh	65811
22	Maharashtra	39682
23	Mizoram	494
24	Nagaland	463
25	Odisha	90865
26	Punjab	5770
27	Puducherry	11
28	Rajasthan	43841
29	Sikkim	255
30	Tamil Nadu	73082
31	Telangana*	16070
32	Tripura	131
33	Uttarakhand	802
34	Uttar Pradesh	15680
35	West Bengal	102490
36	Andaman & Nicobar Island	4
	Total	798908

based on tentative boundary.

State/UT-wise information on water bodies (Source: India_WRIS)

C No	Ctate Name	Lakes/F	Ponds, Re	servoirs	, Tanks an	id Aqua	culture
5. NO.	State Name	< 1	1 - 10	10 - 50	50 . 100	> 100	Total
1	Andhra Pradesh	8354	21106	4664	676	446	35246
2	Arunachal Pradesh	335	688	175	7	1	1206
3	Assam	10710	2261	267	31	27	13296
4	Bihar	16194	3299	179	29	25	19726
5	Chhattisgarh	74995	27271	1116	94	78	103554
6	Goa	126	85	35	17	28	291
7	Gujarat	508	11719	2263	270	338	15098
8	Himachal Pradesh	146	45	4	3	4	202
9	Haryana	3203	2287	32	1	0	5523
10	Jharkhand	13763	2628	95	13	31	16530
11	Jammu and Kashmir	329	376	103	10	21	839
12	Karnataka	30309	15900	4361	678	431	51679
13 ·	Kerala	9808	894	158	27	79	10966
14	Meghalaya	0	17	4	1	3	25
15	Manipur	1295	213	29	3	7	1547
16	Madhya Pradesh	41472	20996	1915	234	200	64817
17	Maharashtra	17672	17076	3115	471	455	38789
18	Mizoram	358	127	2	0	0	487
19	Nagaland	349	51	1	0	1	402
20	Odisha	75112-	14863	502	62	84	90623
21	Punjab	3906	1829	20	7	. 6	5768
22	Rajasthan	16111	24161	2972	354	233	43831
23	Sikkim	61	134	50	7	3	255
24	Tamil Nadu	35267	20598	11886	1910	827	70488
25	Telangana	1336	10564	3551	323	169	15943
26	Tripura	15	97	16	0	2	130
27	Uttarakhand	656	121	13	2	10	802
28	Uttar Pradesh	4301	10059	1061	132	127	15680
29	West Bengal	10097	1577	111	19	24	11828
30	Andaman and Nicobar Islands	0	0	2	1	0	3
31	Chandigarh	0	0	0	0	1	1.
32	Dadra and Nagar Haveli	0	2	0	0	1	3
33	Daman and Diu	1	18	2	0	0	21
34	Lakshadweep	0	0	0	0	0	0
35	Delhi - National Capital Territory	25	26	1	Ō	0	52
36	Puducherry	0	2	5	1	2	10
Total		376814	211090	38710	5383	3664	635661

Source: Waterbodies have been mapped using LISSIV-Cartosat I merged satellite data (2.5m Resolution) during the period 2008-2012 under India-WRIS project. This database is hosted on India-WRIS portal (http://www.india-wris.nrsc.gov.in/wris.html).

Annexure -

4^{1H} Minor Irrigation Census (2006-07) State wise list of Water Bodies (Surface Flow Schemes - Reservoirs, Tanks, Other Storages) (Surface Lift Schemes - Lift on Tanks/Ponds)

S. No	State Name	Water bodies (with Not-in use MI schemes)	Water bodies (with In-Use MI schemes)	Total Water bodies	
1	ANDHRA PRADESH	22877	49123	72000	
2	ARUNACHAL PRADESH	16	68	84	
3	ASSAM	129	885	1014	
4	BIHAR	966	4243	5209	
5	CHHATTISGARH	6955	40864	47819	
6	GOA	29	711	740	
7	GUJARAT	1927	6341	8268	
8	HARYANA	0	261	261	
9	HIMACHAL PRADESH	33	812	845	
10	JAMMU & KASHMIR	168	4720	4888	
11	JHARKHAND	5316	38128	43444	
12	KARNATAKA	14918	14563	29481	
13	KERALA	167	8218	8385	
14	MADHYA PRADESH	1493	54654	56147	
15	MAHARASHTRA	517	88214	88731	
16	MANIPUR	0	9	9	
17	MEGHALAYA	59	98	157	
18	MIZORAM	12	479	491	
19	NAGALAND	60	106	166	
20	ODISHA	5567	34339	39906	
21	PUNJAB	0	205	205	
22	RAJASTHAN	1573	2399	3972	
23	SIKKIM	0	0	0	
24	TAMIL NADU	11039	26135	37174	
25	TRIPURA	19	515	534	
26	UTTAR PRADESH	488	6391	6879	
27	UTTARAKHAND	2479	6145	8624	
28	WEST BENGAL	3292	53672	56964	
29	ANDAMAN & NICOBARS	29	1347	1376	
30	CHANDIGARH	0	0	0	
31	DADRA & NAGAR HAVELI	0	31	31	
32	DAMAN & DIU	-			
33	DELHI	0	10	10	

NUMBER OF WATER BODIES

	34	LAKSHADWEEP	-	-	-
	35	PUDUCHERRY	. 0	2	2
1		Total :	80128	443688	523816

Note 1:- Water bodies cover all natural or artificial units with some or no masonry work used for storing water for **minor irrigation**. These are usually of various types known by different names like tank, reservoir, pond.

Note 2:- In MI Census information is collected for villages/ rural areas only.

Note 3:- The above data pertains to only those Water Bodies where some minor irrigation scheme(s) (either in-use or not-in-use) is/are installed or those water bodies which function as surface flow schemes.

Note 4:- 4th Minor Irrigation Census not conducted in Lakshadweep and Daman & Diu

Annexure-**ki**

Details of water bodies taken up for revival, fund released and number of water bodies completed under the scheme of RRR during XI Plan

											(Rs. Ir	n crore)	
Name of State	No. of Water Bodies	Total Project cost	CCA (ha)	Committed Central Share	Fund released during 2009-10	Fund released during 2010-11	Fund released during 2011-12	Fund released during 2012-13	Fund released during 2013-14	Fund released during 2014-15	Total funds released	Funds utilized	No. of water bodies completed
Orissa	1321	254.33	64979	228.89	72.12	75	70.33			27.00	244.45	241.611	1128
Karnataka	427	232.77	8182.19	209.49	74.04	47.47	77.51				199.02	221.133	424
Andhra Pradesh	1029	339.69	36673.71	305.72		189	:				189	72.800	577
Bihar	15	64.45	15718	55.3		25		27.54			52.54	58.378	14
U.P.(Budelkhand)	28	46.15	29697	41.53		29.08		10.3790			39.459	43.843	28
M.P.(Bundelkhand)	78	41.89	25254	10.47		7.33	2.62				9.95	11.056	72
Meghalaya Umiam Lake(cost related to irrigation only)	1	2.83	405	2.54		1.78	0.64				2.42	2.689	1
Maharashtra	258	135.08	89951	119.34			80.53				80.53	56.589	105
Gujarat	34	17.47	6574	15.72			10.61				10.61	11.789	23
Chattisgarh	131	122.91	24936	110.61			34.68		37.97		72.65	77.38	111
Rajsthan	16	11.35	1351.97	7.45			7.07				7.07	12.1526	15
Haryana	3	40.24	5749	10.06			7.04	2.52			9.56	10.622	3
Total	3341	1309.16	309470.87	1117.12	146.16	374.66	291.03	40.439	37.97	27.00	917.259	820.043	2501

Annexure 📈

E	Jetails of On	going w	vater bod	lies of XII	l Plan und	der the	e schem	e of Re	epair, Rer	ovation &	Restora	ation (RR	R) of W	ater
							Bodies	<u>}</u>						
		No. of	Total project	Potential to	Committed			Fund Relea	sed	Committed	Number of	No. of water	Potential restored (ha)	Fund
S.No.	Name of State	water o bodies	cost (Rs in crore)	be restored (th ha)	Central Share (Rs in crore)	Till 2013- 14	2014-15	2015-16	Total funds released (Rs. in crore)	centre share to be released (Rs in Cr)	water bodies completed	bodies in progress		Utilised (Rs in Cr)
1	Odisha	760	361.520	46.110	282.73	0	52.900	54.746	107.646	175.084	38	722	7606.0	52.900
2	Meghalaya	9	11.430	1.096	10.29	0	2.520	0.000	2.520	7.770	· 0	9		
3	Madhya Pradesh*	134	183.240	33.305	93.01	0	37.700	0.000	37.700	55.310	0	125		
4	Uttar Pradesh	8.	37.080	1.096	29.54	0	0.000	15.361	15.361	14.179	0	8		
5	Manipur	4	65.442	1.047	58.9	0	10.370	0.000	10.370	48.530	0	4		
6	Uttrakhand	5	12.490	0.386	11.24	0	0.000	0.000	0.000	11:240	0	0		
7	Rajasthan	32	89.688	7.731	80.72	0	0.000	35.925	35.925	44.795	0	32		
8.	Tamilnadu	56	27.304	1.513	16.3823	0	0.000	4.096	4.096	12.287	0	56		
9	Tamilnadu	49	27.380	0.945	16.428	0	0.000	5.128	5.128	11.300	0	49		
10	Telengana	182	125.454	6.220	74.7934	0	0.000	44.876	44.876	29.917	0	182		
11	Uttar Pradesh	54	33.906	6.556	20.3436	0	0.000	0.000			0	54		
12	Uttar Pradesh	12	12.421	1.093	3.1052	0	0.000	1.045			0	12		
13	Tamilnadu	49	23.426	1.348	14.05578	0				· .	0	49		
	Total	1354	1010.781	108.445	711.53828	0	103.49	161.1762	263.622	410.4122	38	1302	7606.0	52.900
1	* 7			A sebornes of (Castafil	D has south and		of Control As			The

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* Though Empowered Committee included 134 schemes of M.P. for funding under RRR Scheme, Govt of M.P. has sent proposal for release of Central Assistance wrt only 125 schemes. The cost hereby shown is for 125 schemes only. Cost of 134 schemes is Rs 198.3079 crore.

Water Bodies undertaken with External Assistance during XI Plan

SI. No.	State	Project Cost	No. of Water Bodies	CCA (in lakh ha)
1	Andhra Pradesh	1044.30	3000	2.5
2	Tamil Nadu	2547.00	5763	4.0
3	Karnataka	306.98	1224	0.52
4	Orissa	546.00	900	1.2
	Total	4444.28	10887	8.22

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Details of funds released for wetland conservation projects under NWCP/NPCA

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(Amt. In ₹ crores)

S. No.	State/Union Territory	Wetland	Amount released (till date)
1	Andhra Dradaah	Kolloru	2.50
2	Andria Fradesi	Deeper Beel	2.50
2.	Riber	Kabar	0.47
з.	Dillai	Parille	- 0.47
1		Danila Kushoshwar Asthon	-
		Kusneshwar Asthan	7.07
4.	Gujarat	The Bird Separtient	- 7.37
ţ		Khilediye Did Caretyer	
		Rhijadiya Biru Sanciuary	-
1		waonwana	-
		Nanikakrad	
5.	Haryana	Sultanpur	3.23
		Bhindawas	
6.	Himachal Pradesh	Renuka	5.50
		Pong Dam	
		Chandratal	_
r		Rewalsar	[
		Khajjiar	
7.	Jammu & Kashmir	Wullar	8.26
1		Tso Morari	
		Tisgul Tso & Chisul Marshes	[
		Hokersar	
l í		Mansar-Surinsar	
		Pangong Tsar ·	
8.	Karnataka	Magadhi	2.18
		Gudavi Bird Sanctuary	
		Bonal	_
		Hidkal & Ghataprabha	
		Ranganthittu	
9.	Kerala	Ashtamudi	2.80
	•	Sasthamkotta	
		Kottuli	
		Vembnad Kol (Kuttanad)	
10.	Madhya Pradesh	Barna	2.04
		Yashwant Sagar	
		Ghatigaon	
		Ratapani	
		Sakhyasagar	
		Sirpur	
11.	Manipur	Loktak	11.05
12.	Mizoram	Tamdil	7.70
		Palak	
13.	Odisha	Chilika	13.57
		Kanjia wetland	
		Daha wetland	
	. •	Anusupa	
14.	Punjab	Harike	11.13
		Ropar	
		Kanili	
		Nangal	
15.	Rajasthan	Sambhar	7.19
16.	Sikkim	Khechuperi Holy Lake	3.25
		Phendang Wetland Complex	
		Gurudokmar Wetland	r l
	· ·	Tsomgo wetland	
17	Tamil Nadu	Point Calimere	10.30

1	Kaliveli	
, <i>ч</i>	Pallaikarni	
18. Tripura	Rudrasagar	1.25
19. Uitar Pradesh	Nawabganj .	15.33
	Sandi	
	Lakh Bahoshi	
	Samaspur	
	Semarai Lake	
	Nagaria lake	
	Keetham Lake	
	Shekha wetland	· ·
	Saman Bird Sanctuary	
J	Sarsai Nawar	
	Patna Bird Sanctuary	
	Chandotal	
	Taal Bhaghel	
20. Uttarakhand	Ban Ganga Jhilmil Tal	0.45
	Asan	
21. West Bengal	East Kolkata Wetland	16.90
	Sunderbans	
	Ahiron Beel	
	Rasik Beel	
	Santragachi	
	Patlakhawa- Rasomati	
22. Puducherry (UT) Ousteri lake	0.65
R&D + Other	6 -	9.75
Total	•	146.49

Annexure-VII

Details of Lake Conservation Projects approved under NLCP/NPCA

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			A	(Amt. in ₹.crore		
s. No.	State	Lake	Approved cost	released (till date)		
1.	Telangana	Banjara lake, Hyderabad	4.30	2.70		
2.	Jammu & Kashmir	Dal lake, Srinagar	298.76	263.85		
3.	Karnataka	3 lakes in Bengaluru	69.18	39.16		
		Bellandur lake, Bengaluru				
		Kotekere lake, Belgaum				
		Bhishma lake, Gadag]			
		Lal Bagh, Bengaluru				
		Channapatna lake, Hasan				
		Sharanbhasveshwara lake, Gulbarga				
		Akkamahadevi lake, Haveri				
		Kundawada lake, Davangere	-			
		Kote I avarekere lake, Chikmagalur	4			
		Tripuranthkeshwar lake, Bidar	4			
		Gowramma and Hombalamma lakes, Magadi				
		Amanikere Lake Tumkur	4			
<u></u>	Kerala	Veli Akkulum lake Thiruvananthouram	24.56	4.30		
<u>4.</u> 5	Madhya Pradesh	Rani Talah Rewa	87.41	16.34		
5.	Madifya i radosh	Sagar lake, Sagar		10.04		
		Shivpuri lake, Shivpuri				
		Sindhsagar Lake, Ashok Nagar				
6.	Maharashtra	Powai lake, Mumbai	28.57	18.675		
		9 lakes in Thane	4			
		Mahalaxmi lake, Vadagaon				
		Rankala lake, Kolhapur				
		Varhala Devi lake, Bhiwandi	4			
		Siddheshwar Lake, Solapur				
7	Nagaland	Twin lakes in Mokokchung	25.83	9.92		
8.	Odisha	Bindu sagar lake, Bhubaneshwar	3.50	2.21		
9.	Rajasthan	Mansagar lake, Jaipur	225.30	118.12		
		Anasagar lake, Ajmer				
		Pushkar sarovar, Ajmer				
		Fatehsagar lake, Udaipur				
		Pichola lake system, Udaipur	, .			
		Nakki Lake, Mount Abu				
10.	Tamil Nadu	Ooty lake	12.17	3.732		
	Tripuro		2.02	0.50		
11.	I Inpura	A lokas in Naisital	2.02	0.00		
12.	Uttaraknand	A lakes in Namilal	04.82	42.105		
· 			004.40			
13.	Uttar Pradesh	Iviansi Ganga lake, Govardhan	201.16	88.42		
		Ramgarn Tal, Gorakhpur	-			
	147.45	Laxmi Tal, Jhansi				
14.	west Bengal	Rabindra Sarovar	48.51	20.97		
		IVIIIIK lake, Darjeeling		·		
		Adi Ganga in South 24 Parganas	_			
		Sanio Bundh lake, Purulia				
		Grand Lotal	1096.09	631.00		

Annexure-IX

Expenditure on works (MGNREGA) (Rupees in lakh)

-		2012-	13	201	3-14	201	4-15	2015-16 till	18/02/2016
		Renovation of		Renovation of	l	Renovation of	[Renovation of	
		traditional water		traditional		traditional		traditional	
No.	States	bodies	Total Works	water bodies	Total Works	water bodies	Total Works	water bodies	Total Works
1	ANDAMAN AND NICOBAR	9.90	1102.14	21.21	1622.37	13.35	828.10	12.23	148.86
2	ANDHRA PRADESH	72063.02	457921.11	61185.60	470504.74	48631.39	236626.52	62408.86	285729.60
3	ARUNACHAL PRADESH	48.29	5101.89	90.81	9185.74	85.03	3039.07	4.59	2386.10
4	ASSAM	1578.78	62074.55	1250.19	66744.16	1068.23	47199.95	1056.86	59335.39
5	BIHAR	5453.31	178539.07	3088.90	196114.74	1384.49	97904.36	2522.63	126850.15
б	CHHATTISGARH	28304.75	212253.75	25263.77	191703.17	24219.08	165238.03	11793.97	91301.95
7	DADRA & NAGAR HAVELI	NR	0.03	NR	NR	NR	NR	NR	NR
8	DAMAN & DIU	NR	NR	NR	NR	NR	NR	NR	NR
9	GOA	9.24	141.65	47.53	290.97	85.24	444.33	58.87	219.90
10	GUJARAT	2867.01	57577.59	2659.95	45143.75	3049.65	43892.25	4997.44	28671.99
11	HARYANA	2407.52	37417.09	1924.85	37659.48	881.65	21170.98	420.46	12568.75
12	HIMACHAL PRADESH	987.51	48160.61	867.13	55519.11	473.92	39253.64	317.72	36466.22
13	JAMMU AND KASHMIR	1287.34	86914.02	762.63	76627.66	382.17	36594.28	431.95	50337.18
14	JHARKHAND	3478.84	111077.42	2648.49	86959.71	3782.97	97372.97	3391,71	101539.56
15	KARNATAKA	9187.89	139058.60	13296.08	200497.76	9415.25	161188.68	7463.03	133815.10
16	KERALA	11173.35	136609.75	10960.88	124192.71	15995.39	155028.66	13486.64	143429.86
17	LAKSHADWEEP	22.47	122.93	• 2.50	46.93	1.11	35.36	1.36	8.35
18	MADHYA PRADESH	7385.54	294383.30	2186.22	243904.59	1731.76	272991.41	850.81	226756.31
19	MAHARASHTRA	5680.35	207543.97	3509.94	118793.15	4071.07	151338.62	5363.02	140570.28
20	MANIPUR	495.66	56311.52	148.13	23748.60	264.27	25105.26	89.52	12973.99
21	MEGHALAYA	391.24	26223.11	678.63	30805.83	546.84	30165.95	246.38	24619.90
22	MIZORAM	32.78	27899.76	30.01	25121.30	34.68	11373.17	128.43	14696.13
23	NAGALAND	23.21	43752.05	28.60	28538.04	7.29	15089.12	13.67	16341.20
24	ODISHA	14022.34	111274.83	13012.60	122998.96	7487.52	101677.35	10249.05	164962.45
25	PUDUCHERRY	1131.95	1132.52	1036.73	1041.48	489.59	529.66	662.63	737.55
26	PUNJAB	4109.02	14976.14	6569.27	24773.91	6040.59	20310.96	6305.10	26067.77
.27	RAJASTHAN	26978.91	315035.84	19396.46	247044.43	22517.95	311616.45	23800.26	265567.66
28	SIKKIM	19.64	7650.61	17.52	10374.62	12.24	7413.31	0.00	5854.85
29	TAMIL NADU	212299.07	402375.84	217771.24	381415.99	184358.70	380571.49	229362.95	441796.57
30	TELANGANA					5261.15	167963.89	3058.07	158335.26
31	TRIPURA	2099.05	95194.32	2557.83	104624,20	3044.50	77477.17	1473.68	104351.98
32	UTTAR PRADESH	8973.44	248090.69	8847.02	329161.59	8080.93	298040.78	14229.52	263262.54
33	UTTARAKHAND	939.97	31252.87	733.43	39131.11	457.16	31696.24	615.23	48034.73
34	WEST BENGAL	62620.64	384894 56	41317 32	364853.42	61757 15	390807 59	46043.99	467356.01
	Total	486081.98	3802064.13	441911 47	3659144 27	415632 31	3399985 60	450860.63	3455094 14
VP=N	Not Reported							,50000.05]	5.155054.1-6

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NR=Not Reported

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Annexure-Wi

STATUS OF WATER BODIES INCLDED UNDER RRR DURING XII PLAN (As on 25.10.2015)

						(Rs in Crore)
S.No.	State	Total Nos.	Estimated	Potential to	Committed	Centre
		of water	Cost	be restored	centre share	share
		bodies	(Rs. in	('000 ha)		released
		included	crores)			
1	Odisha	760	361.52	46.11	282.73	52.90
2	Meghalaya	9	11.43	1.096	10.29	2.52
3	Madhya Pradesh*	134	183.24	35.916	93.01	37.70
4	Uttar Pradesh	8	37.08	1.096	29.54	15.361
5	Manipur	4	65.442	1.0465	58.90	10.37
6	Uttarakhand	5	12.49	0.386	11.24	0.00
7	Rajasthan	32	89.688	7.731	80.72	35.925
8	Tamil Nadu	105	54.683	2.458	49.21	0.00
9	Tamilnadu	49	23.426	1.348	21.08	0.00
10	Uttar Pradesh	54	33.906	6.556	30.52	0.00
11	Telengana	102	125.454	6.255	5 112.02	0.00
Α	Total	1342	998.360	107.387	779.258	154.776

* Though Empowered Committee included 134 schemes of M.P. for funding under RRR Scheme, Govt of M.P. has sent proposal for release of Central Assistance wrt only 125 schemes. The cost hereby shown is for 125 schemes only. Cost of 134 schemes is Rs 198.3079 crore.

ANNEXURE

項目的。当日 SAASHEN IENHAR, IAS 田岡寺 SECRETARY 11 - 23710305 Fax: 20731563 E-mail: secy-nown@moun



D.O. No. 4-6/2013-WB (Pt.)

26th February, 2016

Subject: Protection of Water Bodies and River Drainage Channels

Dear and the second

As you are aware, the State of Jammu & Kashmir experienced devastating floods during September 2014. A team from CWC visited the State to examine the causes and assess the damage. According to them, while the basic cause was very heavy rainfall during September 3-7, 2014 resulting in flood peak of about 2500 cumec (88000 cusec) at Sangam and 3200 cumec (113000 cusec) at Srinagar, as against the safe carrying capacity of river Jhelum between Sangam and Srinagar of about 900 cumec (31700 cusec). The peak flows unfortunately sustained for a good 6 hours causing inundation of large low lying areas and heavy damage in the Jhelum basin especially in Srinagar due to over topping and subsequent breaching of flood embankments.

2. The low lying areas along the course of River Jhelum were functioning as natural flood detention basins during floods and were absorbing flood water spilling over the banks of river Jhelum. Subsequently, the same flood water used to get released slowly. Ironically, during the last three to four decades, maximum urbanization has taken place in these low lying areas which used to act naturally as a cushion. The situation in Jhelum Basin has got further aggravated due to siltation resulting in limited carrying capacity of Jhelum and water bodies. All this added to the devastation caused by floods.

3. The disaster was further accentuated due to rapid encroachment on natural drainage routes thus reducing the out-flows from mild sloped valley with peculiar bowl shape topography. The river Jhelum was just unable to carry the flood peak of about 3 times more than the safe carrying capacity. Apart from hydrological and hydrodynamic considerations as described above, absence of flood plain zoning, mushrooming of construction in the midst of embanked low lying areas all along

त्धानित आंश्वेरवान

river Jhelum, in utter disregard to the natural drainage system of the Srinagar city, significantly reduced natural waterways to drain-off accumulated waters. In many areas development of suburbs on the natural water bodies or drainage channels itself acted as a proverbial final straw on camel's back when the tragedy finally struck.

4. Year 2015 saw another equally disastrous tragedy striking the low lying areas of Chennai metropolis when the entire coastal areas of Northern Tamil Nadu received heavy to very heavy rainfall initially during the period 15-21 November 2015 followed by second spell during 30th November to 2nd December. This led to severe inundation in the coastal areas of Chennai, Thiruvallur, Kancheepuram and Cuddalore Districts. Chennai was the worst affected.

5. Here too an interesting consequence emerged when the estuarine river system of Chennai sub-basin is examined. Several small lakes and wetlands of the rivers in and around Chennai city make a complex drainage system. Three main rivers viz., Cooum, Adayar and Kosasthalayar flow through Chennai city and its suburbs and join the Bay of Bengal. These predominantly seasonal rivers are small in length, predominantly run dry, through urban and peri-urban areas. The discharging capacity of these small rivers is of the order of few hundred cumecs. At many places, sewage generated from the city is also being let out. Further, encroachments along these rivers have reduced the carrying capacity of these rivers significantly.

In and around Chennai, the four major reservoirs/lakes viz., Poondi, 6. Cholavaram, Red Hills(Puzhal) and Chembarambakkam, are used for drinking water supply to Chennai city. These reservoirs are the life-line for the city. Chennai Metropolitan Water Supply and Sewerage Board operate these reservoirs. Due to heavy rainfall, the lakes and reservoirs in Chennai and adjoining districts got filled The concerned authorities have released water from these reservoirs up. discharging into Kosasthalayar, Adyar and other riverine systems. The rivers over flew its banks on either side at many places and has therefore inundated the low lying adjoining areas. The other lakes surrounding Chennai city viz., Puzhal (Red hills) and Cholavaram also got filled up and water was released from these Further, several lakes in the city have been encroached upon by reservoirs. River carrying capacity has been significantly reduced due to buildinas. encroachments. Lack of timely de-silting of the storm water drains and lakes has further compounded the problems. Lack of flood zone planning and large scale settlements in low lying areas, with only certain degree of protection against floods of significantly higher magnitudes caused wide spread damage in the city.

7. In context of above, it becomes important that water bodies, natural drainage channels and river flood plains are left free from encroachments so that draining capacity of these natural water systems and drainage channels remain functional to their capacity. Interestingly, the natural water bodies act as buffers to absorb excess run-off generated out of heavy downpour, which is released with significant time lags in such a manner that peak outflows into the drainage system remain manageable. Water bodies play a vital role in socio-economic development of the

country on one hand and provide sustainable water security by and large to the local population. Over the years, general neglect to the maintenance of these water bodies has resulted in complete disappearance of many water bodies or reduction in size.

8. Municipal Corporations, local bodies and Gram Panchayats etc. to ensure that all water bodies in their areas should be identified, videographed and kept free from encroachment, removing encroachment of existing water bodies including complete ban on disposal of sewerage and waste disposal. Rejuvenate those water bodies which have been encroached in mission mode. Suitable mechanisms backed by appropriate laws need to be put in place to protect future deterioration of water bodies. In this context, good examples set by different States like Tamil Nadu, Maharashtra & Gujarat in this regard may be followed. The details in this regard can be seen at *Annexure-I*.

9. State Governments, Urban Municipal Corporations and local bodies have to ensure that planning of urban settlements should conform to basic laws governing flood plains of river systems such that loss of life and property is avoided in eventualities similar to such disasters. For this purpose States must endeavor to adopt flood plain zoning and make it part and parcel of their planning norms. Else, repetitive havoes caused due to over topping of river banks during floods or flood like situations will continue to haunt everyone alike.

Yours sincerely,

Encl : As above

Shri Vijay Kumar Administrator Government of Lakshadweep Kavaratti

Annexure 🔊

Lakes, Ponds and Tanks having very high values of Biochemical Oxygen Demand (BOD) and not meeting the water quality criteria are arranged in descending order and summarized in Table -I.

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Highest Observed B.O.D in Lakes, Tanks & Ponds					
BOD	Stn Name				
320	Sai Chevuru, Andhra Pradesh				
220	Khaziar Lake, Himachal Pradesh				
210	Premajipet Tank, Andhra Pradesh				
170	Asani Kunta, Andhra Pradesh				
160	Saroonagar Lake, Andhra Pradesh				
76	Safilguda Lake, Andhra Pradesh				
70	Banjara Lake, Andhra Pradesh				
70	Nalla Chevuru, Andhra Pradesh				
68	Durgam Chevuru, Andhra Pradesh				
68	Noor Md. Kunta, Andhra Pradesh				
63	Mallapur Tank, Andhra Pradesh				
60	Hussain Sagar Lake, Andhra Pradesh				
58	Chandola Lake, Gujarat				
51	Fox Sagar, Andhra Pradesh				
50	Elangabeel System Pond, Assam				
50	Langarhouse Lake, Andhra Pradesh				
48	Pedda Chevuru, Andhra Pradesh				
47	Nalsarovar Lake (Sanand), Gujarat				
46	Miralam Lake, Andhra Pradesh				
44	Hanumantal, Madhya Pradesh				
43	Ulsoor Lake, Karnataka				
39	Chinna Waddepally Tank, Andhra Pradesh				
39	. Kapra Cheruvu, Andhra Pradesh				
37	Pragathinagar Cheruvu, Andhra Pradesh				
36	Swetaganga Pond, Orissa				
35	Kankoria Lake, Gujarat				
34	Udhagamadalem Lake, Tamilnadu				
33	Dhudhia Talav, Gujarat				
33	Narsinhmehta Talav, Gujarat				
32	Amber Cheruvu, Andhra Pradesh				
. 32	Laxmi Pond, Uttar Pradesh				
32	Surinsar Lake, Jammu & Kashmir				
30	Hasmathpet Lake, Andhra Pradesh				
30	Laxminarayana Chevuru, Andhra Pradesh				
28	Kajipally Tank, Andhra Pradesh				
28	Kistareddypet Tank, Andhra Pradesh				
28	Moti Talab, Madhya Pradesh				
28	Rangadhamuni Cheruvu, Andhra Pradesh				
25.0	Maahil Pond, Uttar Pradesh				
24	Markanda Pokhari, Orissa				

21.3 Bindursger, Odiska 21 Lakhon Talaw, Gujarat 20 Moticker, Lake, Gujarat 20 Olped, Gujarat 20 Depat Besl, Assam 19 Depat Besl, Assam 16 City Lake, Onladid, Gujarat 16 Dudpukur, Lake, Mesl Bengal 16 Dudpukur, Lake, Mesl Bengal 16 Gardigutern, Andrar Pradesh 16 Martine Andrar Pradesh 16 Narendra Pokhari, Orissa 15 Biboni Lake, West Bengal 16 Narendra Pokhari, Orissa 15 Biboni Lake, West Bengal 14 Hebala Viky Lake, Kamataka 15 Stranska 16 Veraram Lake, Tanilinadu 17 Waddepally Tank, Andra Pradesh 18 Olgbali Pukhari, Assam 19 Bibahawai Lake, Meghalaya 12.8 Digbali Pukhari, Assam 12.8 Digbali Pukhari, Assam 12.4 Bibaharakai Chevura, Andra Pradesh 12 Bibaharkai Chevura, Andra Pradesh 12 Bibaharkai Chevura, Andra Pradesh 13 Marapa	22	Nehru Nagar Talab, Chhattisgarh	
21 Lakhata Talay, Gujarat 20 Moticher Lake, Gujarat 20 Olpad, Gujarat 19.5 Parvai Sagar, Orisas 19 Despar Beet, Assam 18 Shameerpet Lake, Andhra Pradesh 16 Olyukae Of Nadiad, Gujarat 16 Dudiput Lake, West Bengal 16 Oandigudem, Andra Pradesh 16 Oandigudem, Andra Pradesh 16 Narenda Pokkari, Orisia 15 Riverlaar Lake, Medina Pradesh 14 Narenda Pokkari, Orisia 15 Riverlaar Kae, Himaschia Pradesh 14.1 Hobabia Valley, Hake, Kamataka 14.1 Hobabia Valley, Lake, Kamataka 14.1 Hickas Taling, Reservor, Chantiagarh 13 Waddepolly Tank, Andra Pradesh 13.5 Vsecanam Lake, Tamilandu 12.6 Umian Lake, Meghelaya 12.7 Bisham Paskar Pukhtur, Asam 12.8 Diglapi Pukhtur, Asam 12.4 Bisham Paskar Pukhtur, Asam 12.5 Umian Lake, Meghelaya 12 Ramappe Jake, Andrina Pradesh 13.5 Madaryum, Andra Pradesh 14.6 Indradyuma Take, Meghelaya 12.4 Bisham Paskar Pukhtur, Asaam 12.5 Marataka Meghela	21.3	Bindusagar, Odisha	
26 Moticher Lake, Gujarat 20 Olpad, Gujarat 19.5 Parvait Sagar, Orisas 19 Deepar Beel, Assam 16 City Lake Of Nadiad, Gujarat 16 Canadyadem, Andrar Pradesh 16 Gandigudem, Andrar Pradesh 15 Natendra Pokhari, Orisas 15 Rivelaar Lake, Himachal Pradesh 14 Hebbai Valley Lake, Kamataka 14 Rahital Tablo, Madhya Pradesh 13.5 Veeratam Lake, Timilando 13 Waddepaliy Tank, Andira Pradesh 14.3 Rahital Tablo, Madhya Pradesh 15.3 Useratam Lake, Timilando 13.4 Rahital Tablo, Madhya Pradesh 14.4 Hotabai Jaiper, Rajasthan 12.8 Jalmaka Kandira Pradesh 13.5 Veeratam Lake, Timilando 13.5 Umara Lake, Meghalaya 12.4 Rabindrisarovari National Lake, Meghalaya 12.5 <	21	Lakhota Talay, Gujarat	
20 Olpad, Gujarat 19.5 Parveti Sagar, Orisa 19 Deepar Beel, Asam 18 Shameerpet Lake, Andhra Pradesh 16 City Lake Of Nadiad, Gujarat 16 Dudpuker Lake, Kastman 16 Dudpuker Lake, Kest Bengal 16 Gandigudem, Andra Pradesh 16 Ondpuker Lake, West Bengal 17 Belboni Lake, West Bengal 18 Riversar Lake, Himachal Pradesh 14 Hobala Zake, Madiya Pradesh 14 Hobala Tailing Reservoir, Chhattisgarh 14 Raninal Talab, Madiya Pradesh 13 Waddenpily Tark, Andrine Pradesh 14 Raninal Talab, Madiya Pradesh 15 Verianam Lake, Magiya Pradesh 16 Johan Lake, Megipalaya 17 Waddenpily Tark, Andrine Pradesh 18 Digbali Pukhuri, Assam 12.8 Digbali Pukhuri, Assam 12.4 Rabindurasirowa National Lake, Megipalaya 12 Badrakali Chovruy, Andria Pradesh 11.6 Indradyuma Tark, Odigha Pradesh 11.6 Indradyuma Tark, Odighan 11.6 Indradyuma Tark, Odighan 11.7 Lower Lake A Hoppal, Madiya Pradesh 11.8 Manara Lake, Jammu & Kashmir <tr< td=""><td>20</td><td>Moticher Lake, Gujarat</td><td></td></tr<>	20	Moticher Lake, Gujarat	
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	5.6	Tighi Talah Bibar	
	5.0	Daloni Beel Ascam	
	5.4	Governor Tank Assam	
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	3.8	Salah Beel, Assam	
- j	3.7	Loona Talao, Banswara- Dungarpur Koao, Banswara, Kajasinan	
-	3,64	Runder Lake, Goa	
}	3.0	Baskanul Pond, Assam	
-	3.6	Laxmi Narayan Bari Palace Compound, Tripura	
	3.6	Kudrasagar, Iripura	
	3.6	vemoanad Lake, Keraia	
	3.5	Kajmaw Pukhuri, Assam	
	3.3	Gala Beel, Assam	
\vdash	3.2	Anshupa Lake, Odisha	
	3.2	Sivasagar Lank, Assam	

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MINUTES OF THE SEVENTEENTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2014-2015) HELD ON WEDNESDAY, 26 AUGUST, 2015 ON EVIDENCE BY THE REPRESENTATIVES OF THE MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION - IN CONNECTION WITH EXAMINATION OF THE 'REPAIR, RENOVATION AND RESTORATION OF WATER BODIES'.

The Committee sat from 1100 hours to 1230 hours in Committee Room - C, Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

-

Shri Hukum Singh

Chairperson

LOK SABHA

- 2. Shri Vinod Kumar B.
- 3. Shri Murali Mohan Maganti
- 4. Dr. Sidhant Mohapatra
- 5. Shri Rodmal Nagar
- 6. Shri Subhash Patel
- 7. Shri Vishnu Dayal Ram
- 8. Shri S. P. Y. Reddy
- 9. Shri Ram Prasad Sarmah
- 10. Smt. Sathyabama V.
- 11. Shri Lallu Singh

RAJYA SABHA

- 12. Shri Balwinder Singh Bhunder
- 13. Smt. Naznin Faruque
- 14. Prof. Mrinal Miri
- 15. Shri Amar Shankar Sable
- 16. Shri A. V. Swamy
- 17. Shri Lal Sinh Vadodia

SECRETARIAT

1. Smt. Rita Jailkhani

Director

- 1. Dr. Amarjit Singh, AS
- 2. Shri Servesh Kumar, ADG (Stat.)
- 3. Dr. Amita Prasad, JS(A&GW)
- 4. Shri Jagmohan Gupta, JS&FA
- 5. Shri C. Lal, Commissioner
- 6. Shri Pradeep Kumar, Commissioner (Parl.)
- 7. Shri T.S. Mehra, Commissioner
- 8. Shri R.K. Gupta, Commissioner
- 9. Shri K. Vohra, Commissioner
- 10. Shri M. Satyanarayana, Advisor

Central Water Commission

- 1. Shri A.B. Pandya, Chairman
- 2. Shri Narendra Kumar, Member
- 3. Shri P.M. Scott, Chief Engineer
- 4. Shri Yogesh Paithankar, Director
- 5. Shri R.P.S. Verma, Director

Central Ground Water Board

- 1. Shri K.B. Biswas, Chairman
- 2. Dr. E. Sampath Kumar, Member

Ministry of Environment, Forests and Climate Change

1. Shri Brijesh Sikka, Advisor(NRCD)

Ministry of Finance

- 1. Shri Selva Kumar, JS
- 2. Shri Rishikesh Singh, Director

Ministry of Urban Development

- 1. Shri Praveen Prakash, JS
- 2. Shri J.B. Ravinder, Dy. Advisor

At the outset, the Chairperson welcomed the Members to the sitting of the Committee convened for evidence by the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation - in connection with examination of the subject 'Repair, Renovation and Restoration of Water Bodies'. Thereafter, the Chairperson welcomed the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation. the representatives of the Ministry then made a power point presentation

2. Then the Hon'ble Chairperson, asked on existing water bodies – their shape, utility etc. and the number of water bodies which are able to recharge ground water. The Additional Secretary replied that 15% water bodies were non function. Then the Committee asked about the measures taken to prevent encroachments, to which the Additional Secretary stated that second instalment of funds are released only on receiving certificate that water body is free of encroachments. On the issue of creating mass awareness and sensitizing people for protection of water bodies, he stated that Jal Kranti campaign has started in which Hon'ble Minister has taken two villages in all districts of the country for raising awareness.

3. On being pointed out by the Committee about the deteriorating water quality in water bodies, the representatives of the Ministry of Environment, Forests and Climate Change informed that as per the study conducted the existing in 2015 capacity of Sewage Treatment Plant is only 23000 million litre per day against the total generation of 62000 million litre. Sewage generated every day. Additional treatment capacity will require lot of funds for which depending on Central Government funds will not help. Therefore, policy on proper water pricing needs to be made and implemented to enable judicious use of water and made users/people bear the cost. Asked about use of PPP model for installation of sewage treatment plant, the Committee were informed that PPP model was used in Mathura – Vrindavan but recovery has been very poor.

4. On the issue of monitoring of water bodies, the Additional Secretary informed that in Ahmedabad water bodies have been included in town planning. State Governments therefore, need to make it a part of town planning and implement it to prevent their encroachments. Further on the issue of success of dugwells in recharging ground water the Additional Secretary informed that 200 critical blocks have improved so far. Further remaining critical / over-exploited blocks are being given priority under Pradhan Mantri Krishi Sinchai Yojana (PMKSY). The Hon'ble Chairperson raised the issue of rampant use of tubewells and submersibles in villages through which water is being extracted indiscriminately and suggested that local representatives i.e. MPs and MLAs should be involved in the awareness programmes to enable better reach to the masses.

The witnesses then withdrew.

5. A copy of the verbatim proceedings of the sitting was kept for record.

The Committee then adjourned.

MINUTES OF THE FOURTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2015-16) HELD ON MONDAY, 18 JANUARY 2016

The Committee sat from 1100 hours to 1315 hours in Main Committee Room, Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri Hukum Singh – Chairperson

MEMBERS

LOK SABHA

- 1 Shri Devusinh Jesingbhai Chauhan
- 2 Dr. Sidhant Mohapatra
- 3 Shri Abhijit Mukherjee
- 4 Shri Rodmal Nagar
- 5 Shri Subhash Patel
- 6 Smt. Aparupa Poddar
- 7 Shri Vishnu Dayal Ram
- 8 Shri Lallu Singh
- 9 Shri Liladharbhai K. Vaghela

RAJYA SABHA

- 11. Shri Balwinder Singh Bhunder
- 12. Smt. Naznin Faruque
- 13. Shri Amar Shankar Sable
- 14. Prof. Mrinal Miri
- 15. Shri A.V. Swamy
- 16. Shri Lal Sinh Vadodia

SECRETARIAT

- 1. Shri Shiv Kumar
- 2. Smt. Rita Jailkhani
 - - -
- 3. Shri Kushal Sarkar

- Joint Secretary
- Director
- Additional Director

WITNESSES

Ministry of Water Resources, River Development and Ganga Rejuvenation/Central Water Commission

- 1. Dr. Amarjit Singh, Special Secretary
- 2. Shri G. S. Jha, Chairman, CWC
- 3. Shri Nikhilesh Jha, Additional Secretary
- 4. Shri Narendra Kumar, Member, CWC
- 5. Dr. B. Rajender, JS(PP)
- 6. Dr. Amita Prasad, JS (Admn. & GW)
- 7. Dr. M. Satyanarayan, Advisor (NWM)
- 8. Dr. Rajat Bhargava, JS(CAD)
- 9. Shri R. K. Gupta, JS
- 10. Shri Jagmohan Gupta, JS&FA
- 11. Shri Pradeep Kumar, Commissioner (Parl.)
- 12. Shri C. Lal, Sr. JC.
- 13. Shri T. S. Mehra, Commissioner
- 14. Shri Kiran Pramanik, Sr. JC.
- 15. Shri Sarvesh Kumar, ADG Stat.
- 16. Shri P. M. Scot, Chief Engineer, CWC
- 17. Shri Yogesh Paithankar, Director, CWC
- 18. Shri Prabhat Tyagi, Director
- 19. Shri Ashok Kumar V., Deputy Director, CWC

Ministry of Urban Development

- 20. Shri Praveen Prakash, JS
- 21. Shri Sailendra Vikram Singh, Director (PHE)

Ministry of Rural Development

- 22. Shri Prabhat Kumar Sarangi, JS
- 23. Shri B. R. Virdi, Eco. Advisor

Ministry of Agriculture

24. Shri R. A. S. Patel, Asstt. Commissioner

Ministry of Environment, Forests & Climate Change

25. Shri Brijesh Sikka, Advisor

National Remote Sensing Centre (NRSC)

26. Shri Abdul Hakeem, Head, Water Informatics and Policy Monitoring Division

Representatives of States & UTs

- 27. Shri S. K. Mod. Sabjan, Chief Engineer, Andhra Pradesh
- 28. Shri A. K. Barman, JS, Government of Assam
- 29. Shri M. K. Yadav, Director, Government of Assam
- 30. Shri Sunil Kumar, Chief Engineer, Government of Bihar
- 31. Shri Rajendra Kumar, Ex. Engineer, Government of Bihar
- 32. Shri S. V. Bhagwat, Chief Engineer, Government of Chhattisgarh
- 33. Shri U. K. Sarvaiya, Chief Engineer & Add. Secretary, Government of Gujarat
- 34. Shri Ashoksinh Parmar, Deputy Secretary, Government of Gujarat
- 35. Shri Rajeev Bansal, Chief Engineer, Government of Haryana
- 36. Shri Anil Kumar Gupta, Engineer in Chief, Government of Haryana
- 37. Shri Sushil Kapta, Spl. Secretary, Government of Himachal Pradesh
- 38. Shri Prem Chand Dhiman, Addl. Chief Secretary, Government of Himachal Pradesh
- 39. Shri Devraj, Chief Engineer, Government of Karnataka
- 40. Shri Lianchungnunga, Secretary, Government of Mizoram
- 41. Er. K. S. Takshi, Chief Engineer, Government of Punjab
- Shri Sukhjit Singh Bain, Director, Government of Punjab
- Shri Anil Kumar Sondhi, Addl. Chief Ex. Officer, Government of Punjab
- 44. Shri Suren Karkidholi, Addl. Chief Engineer, Government of Sikkim
- 45. Shri Niladri Naha, Director, Government of West Bengal
- 46. Shri Malsur, Commissioner, Government of Telangana
- 47. Shri Mir Javed Jaffar, Chief Engineer, Government of Jammu & Kashmir
- 48. Dr. Sanjay Belsare, Supt. Engineer, Government of Maharashtra
- 49. Dr. S. D. Singh, CEO, Government of NCT Delhi
- 50. Shri Ashwani Kumar, Secretary Environment, Government of NCT of Delhi
- 51. Thiru K. V. Rajan, Spl. Secretary, Government of Tamil Nadu
- 52. Thiru D. Khaleel Ahmad, Chief Engineer, Government of Tamil Nadu
- 53. Thiru P. Krishnamoorthy, AEE, Government of Tamil Nadu
- 54. Shri Ksinh Parmar, Dy. Secretary, Government of Gujarat
- 55. Shri Kamlesh Khare, Chief Engineer, Government of Madhya Pradesh

- 56. Shri D. C. Singh, Chief Engineer, Government of Uttarakhand
- 57. Shri Sunil George, SE, Government of Kerala
- 58. Shri W. Nongsiej, JS, Government of Meghalaya
- 59. Shri P. Pakma, Addl. Chief Engineer, Government of Meghalaya
- 60. Shri A. D. Blah, SE, Government of Meghalaya
- 61. Shri Vinod Shah, General Chief, Government of Rajasthan
- 62. Shri R. K. Sarwal, Principal Residential Commr., Government of Tripura
- 63. Shri Tapan Lodh, Chief Engineer, Government of Tripura
- 64. Shri Mathura Prasad, Chief Engineer, Government of Andman & Nicobar
- 65. Shri Yogesh Shukla, Special Secretary, Government of UP
- 66. Shri S. C. Sharma, S. E., Government of UP
- 67. Er. S.K. Pattanayak, EIC, Special Secretary, Deptt. of Water Resources, Odisha
- 68. Shri Njilo Kemd, CE, Government of Nagaland
- 69. Shri Lalrotluanga, SEMID, Government of Mizoram

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee convened to take oral evidence of the representatives of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR,RD&GR), Central Water Commission, the Ministry of Urban Development, the Ministry of Rural Development, the Ministry of Agriculture, the Ministry of Environment, Forests & Climate Change, National Remote Sensing Centre (NRSC) - in connection with the examination of the subject "Repair, Renovation and Restoration of Water Bodies"- Encroachment on water bodies and steps required to remove the encroachment and to restore the water bodies. Thereafter, the Chairperson welcomed the representatives of the various Ministries and State & UT Governments who were also represented during the meeting.

3. Thereafter the Hon'ble Chairperson desired to know about the State Governments whose representatives were not present in the meeting. Responding to this, the Special Secretary MoWR,RD&GR informed that the States who have made important contribution in revival of water bodies, the representatives of those States were present. The Hon'ble Chairperson, then, sought a clarification from the representative of Uttar Pradesh- which had stated in its written submission that no water body is encroached in the State. On this issue, the representative of the UP Government replied that this was because the information furnished to the Committee in this regard pertains to only those water bodies which are under the Irrigation Department of the State. The information on water bodies - which are under the supervision of the Revenue Department of the State could not be collected ,therefore the extent of
encroachment on water bodies in the State was not fully reflected. Further the Chairperson enquired about reasons for difference in total number of water bodies as shown in Annexure-I & II of the written reply furnished by the Ministry. Thereafter, the representatives of the Ministry made a power point presentation on various issues relating to the subject.

4. On the issue of encroachment of water bodies in UP, the Special Secretary MoWR,RD&GR informed that the Ministry will conduct a survey of water bodies in the State in this regard. Asked about the guidelines of the Supreme Court on encroachment of water bodies in UP and its compliance by the State, the representative of the State Government, assured to furnish the information to the Committee later on. The Committee further asked the representative of the Ministry as to the reasons owing to which the guidelines of Supreme Court were not being implemented uniformally in all the States. Thereafter the Hon'ble Chairperson also raised the issue of unregulated extraction of water from tube wells with unmetered supply of electricity.

5. Further the Committee raised the issue of upkeep of those water bodies which were given Central funds under Repair, Renovation and Restoration (RRR) Scheme after being declared "encroachment free" by the State. The Committee were, however, apprised by a Member of Parliament from the State of Odisha that the Central Government has failed to disburse funds under RRR scheme for 760 water bodies identified for RRR in the State on which work was to be completed by 31 March, 2017. The issue of the Central funds given for upkeep of ponds in the State of Gujarat was also discussed. Issues were also raised about the encroachment of Mayurkashi river in Sainthia municipality town, encroachment of river in Burdwan district and encroachment of land of Farakka Barrage in the State of West Bengal, on these specific aspects the representative of the State of West Bengal Government assured the Committee to furnish a reply later on.

6. Further the Committee desired to know in detail about the extent of encroachment of water bodies in the country particularly after the issuance of Supreme Court guidelines in regard thereto. During evidence the issue of soil erosion in the State of Assam and consequent loss of cultivable land to river Brahmaputra was also raised.

7. On the issue of action taken by different States Governments to prevent encroachment, the Special Secretary informed the Committee that the Ministry will issue proper advisory to all the States to prepare a status report on the extent of encroachment, steps taken/proposed to be taken by them to prevent encroachment of water bodies and shall submit the same to the Committee. Regarding encroachment of water bodies in Delhi, the representative of the State Government informed that there are 971 water bodies in Delhi, out which 346 are dry water bodies. Further there is no fresh encroachment and removal of encroachment is being supervised by a Committee as per the conditions and guidelines laid down by the

National Green Tribunal. The Hon'ble Chairperson stressed the need for improving water quality and prevent pollution of water bodies. The issue of prevention of pollution of water in water bodies was also discussed further by the Committee. Lastly, he impressed upon the representative of the State Government that the State Government of UP has to perform better with regard to the maintenance of water bodies and prevention of encroachments thereon in the State.

8. The Committee also discussed the issue of mining of sand deposited on the agricultural land after floods, to which the representative of State Government of Odisha informed that the Government of Odisha has adopted a resolution in which it is stated that if there is removal of earth for agricultural purpose, then it will not be considered as mining activity. The Hon'ble Chairperson appreciated the step taken by the Government of Odisha in this regard. Finally he directed the Ministry to furnish detailed replies to the queries- which were raised by the Members during the discussion and which remained unanswered.

The witnesses then withdrew.

9. A copy of the verbatim proceedings of the sitting was kept for record.

10. Thereafter, the Committee took up for consideration the draft Report on Action Taken by the Government on the observations/recommendations contained in the Fourth Report on "Issues concerning Flood Management, Compensation and Status of Ownership of Submerged and Eroded Land in the Country including Compensation to Farmers for loss of their crops destroyed by Floods and Right to Disposal of the Sand left in the Fields of Farmers", and adopted the same without any modification.

11. The Committee then authorized the Chairperson to present the Report to both the Houses of Parliament.

The Committee then adjourned

MINUTES OF THE NINTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2015-16) HELD ON THURSDAY, 26 JULY 2016

The Committee sat from 1500 hours to 1515 hours in Committee Room 'D', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri Hukum Singh – Chairperson

MEMBERS

LOK SABHA

- 2. Shri Radheshyam Biswas
- 3. Shri Devusinh Jesingbhai Chauhan
- 4. Shri Sukhbir Singh Jaunapuria
- 5. Shri Abhijit Mukherjee
- 6. Shri Rodmal Nagar
- 7. Shri Subhash Patel
- 8. Shri Vijaysinh Mohite Patil
- 9. Shri Vishnu Dayal Ram
- 10. Smt. V. Sathyabama
- 11. Shri L. K. Vaghela

RAJYA SABHA

- 12. Shri Amar Shankar Sable
- 13. Shri A.V. Swamy
- 14. Shri Lal Sinh Vadodia

SECRETARIAT

- 1. Shri Shiv Kumar
- 2. Smt. Rita Jailkhani
- 3. Shri Kushal Sarkar

- Joint Secretary
- Director
- Additional Director

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee. Thereafter, the Committee took up for consideration Draft Report on the subject "Repair, Renovation and Restoration of Water Bodies – Encroachment on water bodies and steps required to remove the encroachment and restore the water bodies". After some deliberations, the Committee adopted the aforesaid draft Report without any modification.

3. The Committee then authorized the Chairperson to present the above Report to both the Houses of Parliament in the current Monsoon Session.

The Committee then adjourned