

23

STANDING COMMITTEE ON WATER RESOURCES

(2017-2018)

SIXTEENTH LOK SABHA

**MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA
REJUVENATION**

**SOCIO-ECONOMIC IMPACT OF COMMERCIAL EXPLOITATION OF WATER BY
INDUSTRIES**

TWENTY THIRD REPORT



LOK SABHA SECRETARIAT

NEW DELHI

August, 2018/Shravana, 1940 (Saka)

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INDUSTRIES

Presented to Lok Sabha on 09.08.2018

Laid on the Table of Rajya Sabha on 09.08.2018



LOK SABHA SECRETARIAT
NEW DELHI

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

Shri Hukum Singh - Chairperson

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RAJYA SABHA

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28. Shri Ananda Bhaskar Rapolu
29. Shri Sanjay Seth
30. Shri A.V. Swamy
31. Shri Pradeep Tamta

@ Nominated w.e.f. 19.10.2016.

* Nominated w.e.f. 23.11.2016.

Nominated w.e.f. 19.10.2016.

COMPOSITION OF THE STANDING COMMITTEE ON WATER RESOURCES
(2017-18)

Shri Rajiv Pratap Rudy - Chairperson*

MEMBERS

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3. Shri Devusinh Jesingbhai Chauhan
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26. Dr. Kirodi Lal Meena^
27. Mir Mohammad Fayaz
28. Shri Dharmapuri Srinivas
29. Shri Pradeep Tamta
30. Vacant
31. Vacant

* Appointed as Member and Chairperson w.e.f. 15.02.2018

^ Appointed as Member of the Committee w.e.f. 02.06.2018.

SECRETARIAT

- | | | | |
|----|----------------------|---|----------------------------|
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| 2. | Smt. Rita Jaikhani | - | <i>Director</i> |
| 3. | Shri Kushal Sarkar | - | <i>Additional Director</i> |
| 4. | Smt. Shanta B. Datta | - | <i>Committee Officer</i> |

INTRODUCTION

I, the Chairperson, Standing Committee on Water Resources (2017-18) having been authorised by the Committee to submit the Report on their behalf, present the Twenty Third Report on “Socio-economic impact of commercial exploitation of water by Industries.”

2. The Committee (2016 -17) had taken up the subject “Ground Water Scenario, need for a comprehensive policy and measures to address problems in the Country with particular reference to (i) Aquifers (ii) Dark Blocks; and (iii) Contamination of underground water by certain industries - especially Industries using Ground Water as Raw Material viz., Packaged Drinking Water, Mineral Water Industries, etc.” for examination. As the Report could not be finalized within that period of the Committee, therefore, this subject was again selected by the Committee (2017 -18) although under a different nomenclature, i.e. “Socio economic impact of commercial exploitation of water by industries” for a detailed examination and Report. The Committee took evidence of the representatives of the Ministry of Water Resources, River Development & Ganga Rejuvenation, Ministry of Environment, Forests & Climate Change, Ministry of Rural Development, Ministry of Housing and Urban Affairs, Ministry of Drinking Water and Sanitation, Ministry of Consumer Affairs, Food & Public Distribution – Department of Consumer Affairs and Bureau of Indian Standards (BIS), Ministry of Health & Family Welfare – Food Safety and Standards Authority of India (FSSAI) and Ministry of Agriculture & Farmers’ Welfare on 04 November 2016, 03 January 2017 and 21 May 2018.

3. The Report was considered and adopted by the Committee at their sitting held on 07 August, 2018.

4. The Committee wish to express their thanks to the representatives of the Ministry of Water Resources, River Development & Ganga Rejuvenation, Ministry of Environment, Forests & Climate Change, Ministry of Rural Development, Ministry of Housing and Urban Affairs, Ministry of Drinking Water & Sanitation, Ministry of Consumer Affairs, Food & Public Distribution, Ministry of Health & Family Welfare and Ministry of Agriculture & Farmers’ Welfare for providing the requisite written information as also for depositions made - in connection with the detailed examination of the subject.

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

NEW DELHI
07 August, 2018
16 Shravana, 1940 (Saka)

RAJIV PRATAP RUDY,
Chairperson,
Standing Committee on Water Resources

Report

Chapter I

Introductory

1.1 The most essential input for survival of life, 'Water' is becoming increasingly scarce due to challenges of rising population, rapid urbanization, industrial growth, increasing water pollution and consequent increasing scarcity of Clean and Safe Drinking Water. The search for Clean and Safe Drinking Water Sources has led to tapping of underground reserves of water and rivers and its commercial exploitation by selling it in the form of Packaged Drinking Water, as an authentic source of safe and pure Drinking Water. Lack of reliable sources of hygienic and potable water at public places has given a boost to the growth of Bottled Water Industries in a big way.

Water Consumption in India

1.2 As per the NITI Aayog, 'currently 600 million Indians face high to extreme water stress and about two lakh people die every year due to inadequate access to safe water. By 2030, the country's water demand is projected to be twice the available supply, implying severe water scarcity for hundreds of millions of people and an eventual 6% loss in the country's GDP.' Further, as per the information submitted by the Ministry, the per capita availability of water in India has decreased from 2209 m³ /year in 1991 to 1545 m³ /year in 2011 and it is estimated to decline further upto 1140m³/year in the year 2050.

Sector-wise water demand

1.3 Demand for water from various Sectors viz. Irrigation, Drinking Water, Industry, Energy and others is expected to rise from 710 Billion Cubic Metre (BCM) in the year 2010 to 843 BCM in the year 2025 and further to 1180 BCM in the year 2050. According to the India Infrastructure Report, 2011 Irrigation is the largest consumer of water, which accounted for 85 per cent of the water demand in 2010 followed by Domestic Use (6 per cent), Energy Development (3 per cent), and Industries (6 per cent). The demand for water in the Domestic Sector will grow 2.6 times, Energy 3.7 times, and Industry 2.2 times during 2010–50.

Industrial Demand for Water in India

1.4 As informed by the Ministry, the Industrial and Energy Sectors combined constitute the second largest consumer of water in the country. Industrial water demand has been increasing with the pace of industrial development. The growth in some of the Water Intensive Industries has been quite significant, putting further pressure on the available water. The Committee have been informed that as per National Commission for Integrated Water Resource Development (NCIWRD), projected water demand for various sectors is summarized in Table 1.

Table 1: Projected Water Demand per annum (in BCM i.e. billion m3)

Sector	Projected water demand		
	2010	2025	2050
Irrigation	557	611	807
Drinking Water	43	62	111
Industry	37	67	81
Energy	19	33	70
Others			111
Total	710	843	1180

1.5 Though the Industrial Water Demand (including Energy Demand) at present constitutes only about 8% of the total water demand, its share of water use is rising rapidly and by the year 2050, is expected to increase to about 13% of the total projected water use. Growing population and rising standard of living are pushing up demand for quality Industrial products at a phenomenal pace. Thus the Industrial requirement for water is increasing day by day. At present, Industrial plants in our country consume about 2 to 3.5 times more water per unit of production compared to similar plants operating in developed countries.

Source of Water Used In The Industries

1.6 The main sources of water for the Industrial sector are groundwater and surface water. Choice of source of water depends on the availability of sufficient and regular supply of water and the cost of water from the source. While the running cost of surface water is mainly the price paid to the water supply agency; the cost of groundwater is mainly the extraction cost involved in energy (electricity/ diesel) used for

pumping out the water. Because of its easy availability and private ownership, Ground Water has now emerged as an important source to meet the water requirements of Industries.

1.7 Industrial clusters in various parts of the country have been established often without due regard to the availability of assured water supply. In the last few decades, the number of such industrial clusters has grown manifold, which, in the absence of adequate surface water availability, has led to increased stress on the Local Ground Water Resources both in terms of quantity and quality. This has resulted in various adverse environmental and socio-economic impacts.

Issues related to the Commercial Exploitation of Water

1.8 The declining ground water levels compel local farmers and residents to drill deeper even for Drinking and Domestic water use, which enhances their capital investment as well as energy usage. Large scale commercial exploitation of water often results in localized environmental degradation in terms of

- Significant long term decline in ground water levels
- Deterioration in water quality
- Degradation of large tracts of land
- Rising conflicts amongst different stakeholders

1.9 Keeping in view the widespread ramifications of commercial exploitation of water in the Social and Economic arena as well as on the environment, the Committee in this Report have dealt with the issues involved in the commercial exploitation of water especially in the context of Packaged Drinking Water which has emerged as safe, clean and pure drinking water source, not only in India but in the whole world. The Committee have particularly examined the issues of effect of growth in Packaged Water Industries on the availability of Ground Water which accounts for 40 per cent of water supply and still contributes 85 per cent of Drinking Water Sources in rural areas, affordability of Packaged Water for consumption by the masses, existing alternatives to make safe and hygienic Drinking Water accessible to all, effectiveness of measures taken to address the issue of contamination of water and existing policy framework to regulate the commercial exploitation of water, etc.

1.10 The Standing Committee on Water Resource (2016 -17) had taken up the subject “Ground Water Scenario, need for a comprehensive policy and measures to address problems in the Country with particular reference to (i) Aquifers (ii) Dark Blocks; and (iii) Contamination of underground water by certain industries - especially Industries using Ground Water as Raw Material viz., packaged drinking water, mineral water industries, etc.” for examination. However the term of the Committee expired before the

finalization of the Report on the subject. Therefore, this subject was again selected by the Standing Committee on Water Resource again in 2017 -18 for examination and Report, although under a different nomenclature, i.e. “Socio economic impact of commercial exploitation of water by industries”. In the present Report, the Committee’s examination of the subject has been dealt with in the subsequent Chapters of this Report.

1.11 During the course of examination of the Subject, the Committee obtained brief/ background note on the subject from the Ministry of Water Resources, River Development and Ganga Rejuvenation, Ministry of Rural Development- Department of Rural Development, Ministry of Drinking Water and Sanitation, Food Safety and Standard Authority of India (FSSAI), Bureau of Indian Standards (BIS), Ministry of Environment, Forest and Climate Change- Central Pollution Control Board (CPCB), Ministry of Health and Family Welfare and the Ministry of Consumer Affairs, Food and Public Distribution.

1.12 Further during the course of the examination of the subject, the Committee took evidence of the following witnesses:

- (i) Secretary, Ministry of Water Resources, River Development & Ganga Rejuvenation and representatives of Ministry of Consumer Affairs, Food and Public Distribution, Ministry of Drinking Water and Sanitation, Ministry of Environment, Forest and Climate Change, Ministry of Housing and Urban Affairs and Ministry of Rural Development on 04 November, 2016.
- (ii) Secretary, Ministry of Water Resources, River Development & Ganga Rejuvenation and representatives of Ministry of Environment, Forest and Climate Change- CPCB, Ministry of Rural Development, Ministry of Housing and Urban Affairs, Ministry of Drinking Water and Sanitation, Ministry of Agriculture and Farmer’s Welfare, Ministry of Consumer Affairs, Food and Public Distribution, Food Safety and Standard Authority of India (FSSAI) and the Ministry of Health and Family Welfare on 03 January, 2017.
- (iii) Secretary, Ministry of Water Resources, River Development & Ganga Rejuvenation and representatives of Ministry of Environment, Forest and Climate Change- CPCB, Ministry of Housing and Urban Affairs and Ministry of Rural Development, Ministry of Drinking Water and Sanitation, Ministry of Agriculture and Farmer’s Welfare and the Department of Industrial Policy and Promotion on 21 May, 2018

1.13 For questions which needed further clarifications after evidence, post evidence replies were called for from the Ministry. 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.

Chapter II

Role of Ground Water in Drinking Water Supply in India

2.1 The Committee have been informed that 'Water' being a State subject, supply of potable water is primarily States' responsibility.

Rural Areas

2.2 The Ministry of Drinking Water and Sanitation (MoDW and S) supplements the efforts of the State Governments by providing technical and financial assistance to the States under Centrally Sponsored National Rural Drinking Water Programme (NRDWP) for providing safe drinking water to rural habitations in the Country.

2.3 Further, as reported by the States, there are 72.72 lakh Water Supply Scheme Sources in the rural areas of the country and 56.84 lakh hand pumps have been installed. About 85% of Rural Drinking Water Schemes in about 17.14 lakh habitations in the country are based on Ground Water as source.

2.4 According to NITI Aayog's Composite Water Management Index published in June, 2018 while almost 87 per cent of Rural Households have access to 'basic water', the provision of safe water remains a large challenge. Currently, only half of the rural population has access to safely managed water and about two lakh annual deaths are reported due to inadequate (or unsafe) drinking water.

2.5 MoDWS has restructured NRDWP, wherein, the Ministry has chalked out a strategic goal for 2017-2030 to achieve 'Har Ghar Jal' by 2030 i.e., providing Safe & Adequate Drinking Water to each Rural Household through coordinated efforts of the State Governments. The goal is to provide coverage of rural population with piped water supply and household connection by 2030. Further, as per the information available in regard to the Integrated Management Information System (IMIS) of the MoDWS, Physical and Financial Performance under National Rural Drinking Water Programme (NRDWP) is as follows:

Table 2: Physical and Financial Performance under NRDWP from April, 2010 to 26th June, 2018

A. Financial Performance :

Financial Year	Financial Achievement (Rs. in crore)	
	Allocation of funds under NRDWP	Fund Release to the States
2010-11	9000	8941.85
2011-12	8500	8474.02

2012-13	10500	10473.20
2013-14	9700	9640.30
2014-15	9250	9191.22
2015-16	4373	4264.64
2016-17	6000	5931.90
2017-18	7050	6989.66
2018-19 (till 26.06.2018)	7000	1911

B. Physical Performance :

- Status of Fully Covered habitation (i.e., getting more than 40 litre per capita per day safe drinking water) :
As on 01.04.2011 → 70.12%
As on 01.04.2018 → 78.14%
- Status of Piped Water Supply (PWS) covered population :
As on 01.04.2012 → 37.89%
As on 01.04.2018 → 56.04%
- Status of coverage of habitation (Partially Covered + Quality Affected) is as under:

Financial Year	Coverage of Habitations
2010-11	119383
2011-12	138367
2012-13	155706
2013-14	153428
2014-15	136117
2015-16	85888
2016-17	61042
2017-18	53411
2018-19 (till 26.06.2018)	Data not updated on IMIS

2.6 The Committee raised the issue of illegal drilling of tubewells in the rural areas during their sitting held on 04.11.2016. Replying to this, the representative of the Ministry, agreed that there is a need to be more vigilant about this issue.

Installation of Community Water Purification Plants as an effective source of Rural Drinking Water Supply

2.7 In reply to a question by the Committee on the issue, the Ministry of Drinking Water and Sanitation has stated in their written submission that out of 17.14 lakh habitation, 71,077 habitations have reported

water quality problems. Further all the States have been asked to commission surface water based piped water supply schemes in all water quality affected habitations as a long term sustainable solution. However, since commissioning of piped water supply projects may take 3-5 years and the rural people cannot be put to risk of consuming contaminated water during this period, all States have been advised to install community water purification plants, in reported arsenic and fluoride affected habitations by March, 2017. Based on the recommendation of NITI Aayog, an amount of Rs. 800 Crore was released by the Ministry of Finance for setting up of Community Water Purification Plants (CWPP) in the financial year 2015-16 as a onetime Central Assistance to the States affected with contamination in water with Arsenic and Fluoride. As per Integrated Management Information System (IMIS) of Ministry of Drinking Water & Sanitation updated by the States for the financial year 2016-17 in respect of physical and financial progress of the NITI Aayog funds, 430 CWPP in the habitations of the States affected with Arsenic contamination in water and 746 in the Fluoride affected habitations of the states by expending Rs. 39562.54 lakhs has been installed.

2.8 On being asked by the Committee as to what extent the provision of supply of drinking water through pipeline has been effective, the Committee were informed by the Ministry following, by way of a written submission, furnished on 25 July, 2017:

“The supply of drinking water through pipeline is not only safe but also ensures the prescribed limit of standards for the safe drinking water because water samples are tested frequently by the State Governments in their Water Quality Testing Laboratories. Wherever contamination in water is found, remedial action are easily taken for the supply of safe drinking water. It avoids wastage of water as the control of the water supply remains in control for the optimum use on the basis of the requirement of the habitations.”

2.9 While deliberating on the issue of availability of safe drinking water in the rural areas during the sitting of the Committee held on 03.01.2017, the Committee raised the issue of haphazard distribution of handpumps/tubewells in the rural areas. In this regard, they desired to know whether the existing policies are being followed scrupulously while allowing installation of hand pumps. The Committee also desired to know about the coordination between the MoDWS and the Central Ground Water Board (CGWB) regarding the existing condition of available ground water in the area and whether the quality of Ground Water is suitable for drinking purposes. In this regard, the representative of the MoDWS stated as follows:

“Sir, we sit with them every month. We talk to State Governments through Video Conferencing and monitor their ongoing programmes. We see how much fund is being utilised and also conduct field visits.”

Urban Areas

2.10 In reply to a query made by the Committee on the issue, according to the Ministry of Housing and Urban Affairs (MoHUA), there are total 4041 number of Statutory Towns as per 2011 Census. The Households covered by main source of drinking water as per the Census of India 2011 is as below:

Table 3: Households covered by main source of Drinking Water as per the Census of India 2011

Total no .of Households	78,865,937	
Tap water	55702011	70.6%
Tap water from treated source	48,904,343	62.0%

Table 4: Urban Households covered by Main Source of Drinking Water as Per Census-2011

Location of Source of Drinking Water	MAIN SOURCE OF DRINKING WATER										
	Total Number of Households	Tap-water From Treated Source	Tap-water From Un-Treated Source	Covered Well	Uncovered Well	Hand-Pump	Tubewell / Borewell	Spring	River/ Canal	Tank/ Pond/ Lake	Other Sources
TOTAL	78865937	48904343	6797668	1304381	3547237	9354182	7017237	130058	137984	303385	1369462
		62.01%	8.62%	1.65%	4.50%	11.86%	8.90%	0.16%	0.17%	0.38%	1.74%
Within the Premises	56165960	38938290	3704501	1003116	2424310	5165213	4930530	0	0	0	0
		69.33%	6.60%	1.79%	4.32%	9.20%	8.78%	0.00%	0.00%	0.00%	0.00%
Near the Premises	16354148	7971225	2454542	190796	683612	2750946	1345906	81,748	85,809	181480	608054
		48.74%	15.01%	1.17%	4.18%	16.82%	8.23%	0.50%	0.52%	1.11%	3.72%
Away	6345829	1994798	638625	110469	439,315	1438023	740801	48,310	52,175	121905	761408
		31.43%	10.06%	1.74%	6.92%	22.66%	11.67%	0.76%	0.82%	1.92%	12.00%

2.11 With regard to the coverage of water supply in urban areas, NITI Aayog in their Composite Water Management Index published in June, 2018 have observed that most States report a high percentage of urban population having access to Drinking Water, except for North Eastern and Eastern Regions, with Bihar, Jharkhand, Assam and Nagaland reporting less than half of the urban population having access. It is

imperative for the country to boost treatment of urban waste water, both to ensure that downstream areas are not contaminated and to enable the reuse of water. By reusing water, the country can significantly increase the utility gained out of all available water. Israel offers the perfect example as the global leader in reusing water – it reuses 94 per cent of all water, with the majority being used to meet 50 per cent of the country's agricultural water demand. NITI Aayog further states that although 93 per cent of India's urban population has access to 'basic water' there are still sharp intercity and intra city inequities. Further, supply gaps are causing city dwellers to depend on privately extracted ground water, bringing down local water tables. In fact, by 2020, 21 major cities, including Delhi, Bengaluru and Hyderabad are expected to reach Zero Ground Water levels affecting access for 100 million people.

2.12 The Committee have also been informed by the MoHUA that Urban Local Bodies have been delegated the function of water supply for domestic, industrial and commercial purposes under the 74 Constitutional Amendment Act.

2.13 The Committee desired to know the measures taken by the ULBs to ensure supply of tap water in all the cities (State-wise) within a fixed timeline. In reply, the MoHUA submitted that Atal Mission for Rejuvenation and Urban Transformation (AMRUT), a flagship programmes of MoHUA was launched on 25th June, 2015 in 500 cities throughout India, having population greater than one lakh, covering about 72% of total urban population as per 2011 Census. The major focus of the Mission is universal water supply coverage in the selected Mission cities followed by substantial coverage in sewerage & septage management in these cities. Under the Mission, the water supply component, *inter-alia*, provides for rehabilitation of old Water Supply Systems including Water Treatment Plants, rejuvenation of Water Bodies and recharging of Ground Water to mitigate the problem in Drinking Water.

2.14 The Mission aims to achieve 100% coverage of water supply by providing drinking water to all the households identified in the Mission cities. In order to achieve this, Rs. 39, 011 crore (50% of the total State Annual Action Plans) out of total plan size of Rs.77,640 crore has been allocated to water supply related projects.

2.15 The AMRUT Mission provides flexibility to States/UTs to appraise, approve and implement the projects. The Government of India only approves State Annual Action Plans (SAAPs) submitted by the States/UTs and releases the central assistance as per Mission Guidelines.

2.16 During the oral evidence held on 03.01.2017, the representative of the MoHUA stated the following with regard to the implementation of AMRUT Project:

“In AMRUT, infrastructure is lying there but the last mile connectivity is not happening because ULBs are not putting focus on that. Water supply is first priority till the year 2020. Taps will be given in each Household. Focus has been given on this in AMRUT. We need only the last mile connectivity in the urban areas and that is the big problem.”

CHAPTER III

Role of Ground Water as a Raw Material in Packaged Drinking Water Industries

3.1 As per the latest assessment (2013) of Dynamic Ground Water Resources by the Central Ground Water Board (CGWB), in association with the concerned States, the Annual Replenishable Ground Water Resources of the Country are 447 Billion cubic Meters (BCM). 253 BCM of these resources are being utilized, out of which 228 BCM is for Irrigation and 25 BCM is for Drinking, Domestic and Industrial use. Further, out of 6584 assessment units (Block / taluk/ firqa etc.), 1034 are Over-exploited, 253 are Critical and 681 are Semi-critical. 4520 units are safe and 96 assessment units are saline.

3.2 On a query, the Committee were informed that Central Ground Water Authority (CGWA) was constituted in 1997 under sub-section (3) of Section 3 of Environment (Protection) Act, 1986 for regulation and control of management and development of ground water extraction in the country. No Objection Certificates (NOCs) are granted for withdrawal of ground water for industrial/ infrastructure/ mining projects subject to implementation of recharge measures. As per the record of NOCs, accorded by the CGWA, the permitted Ground Water withdrawal for the Packaged Drinking Water Units is to the tune of (13.3 Million Cubic Metre/year).

3.3 A query was raised with regard to parameters/ standards / regulations, if any, framed to govern / control the extraction of ground water by the Drinking Water / Mineral Water Packaging Industries / Bottling Plants and the extent to which these have been effective, the Ministry, in its written submission, stated:

“CGWA does not accord permission to extract groundwater by the Drinking Water/ Mineral Water Packaging Industries / Bottling Plants in areas ‘Notified’ for the purpose of regulation. In Non-Notified areas, CGWA is regulating ground water withdrawal by industries/ infrastructure/ mining projects for which guidelines/ criteria have been framed and available on website www.cgwb.gov.in. ‘No Objection Certificate (NOC)’ is granted to Drinking Water / Mineral Water Packaging Industries / Bottling Plants subject to, inter-alia, implementation of ground water recharge measures as per following criteria:

Category of assessment unit based on ground water development	Recharge measures to be adopted for Industries/ infrastructure/ mining units (Others than water intensive industries)	Recharge measures to be adopted for water intensive industries viz. packaged drinking water, soft drink industries, distilleries, breweries, paper, etc.
Safe	Recharge measures has to be adopted in the project area	Recharge quantity needs to be 50% of ground water withdrawal
Semi-Critical	Recharge quantity needs to be 50% of ground water withdrawal	Recharge quantity needs to be 100% of ground water withdrawal
Critical	Recharge quantity needs to be	Recharge quantity needs to be 200%

	100% of ground water withdrawal	of ground water withdrawal
Over-Exploited	Recharge quantity needs to be 200% of ground water withdrawal	No permission for Industries under this category

In addition, the industries abstracting huge quantum of ground water are suggested to adopt villages for developing water security plan and area specific plantation to enhance the recharge measures. Project proponents are also directed for periodic maintenance of recharge structures for ensuring efficacy of ground water recharge. Project proponents are directed to implement the recharge measures within six months of the issuance of NOC and the photographs of completed recharge structures are to be furnished to the concerned Regions for verification.”

3.4 Further, the Committee have observed from the data furnished by FSSAI regarding license / registration to Packaged Drinking Water Industries/Plants under the Food Safety and Standards, Act, 2006 and the data on total number of over exploited units, furnished by the MoWR, RD & GR, pertaining to some of the States that a large number of such Industries/Plants have been permitted for installation in those States which have significant number of “over-exploited” areas as is evident from the following table:

Table 5: Details of packaged drinking water units licensed and registered, total installed capacity and number of over exploited ground water blocks in 7 States

States	Total No. of License Registration	Installed Capacity (MT/day)	Over Exploited	
			Units No.	%
Andhra Pradesh	605	2,02,047.2	41	6
Gujarat	687	1,021,181.51	24	11
Karnataka	714	73,593.02	63	23
Maharashtra	1016	7,54,148.25	10	3
Rajasthan	844	60,005.05	172	71
Tamil Nadu	3717	1,73,559.96	374	33
Uttar Pradesh	1703	29,416.14	111	14

The Committee has asked CGWA to examine all such cases and apprise the Committee.

3.5 On being asked by the Committee to furnish the reasons for the same, the Ministry, in their written submission, stated as follows:

“Bureau of Indian Standards (BIS) and Food Safety and Standard Authority of India (FSSAI) is operating as a certifying agency in respect of Packaged Drinking Water Industries/Plants. Necessary restriction of issuance of license for such industries is to be taken by BIS. Further, the Consent to Operate (COP) is accorded by State Pollution Control Board (SPCB) who must follow the norms of guidelines of CGWA for Water Intensive Industries.”

3.6 Replying to a further query as to whether installation of Packaged Drinking Water Industries/Plants has in any way resulted in depletion of water in aquifers in these States or their contamination, the Ministry, in their written submission, stated:

“As per the latest assessment of Dynamic Ground Water Resources of India (as on 31st March, 2013) carried out jointly by CGWB and State Ground Water Departments, the annual Ground Water draft/utilization is 253 BCM (Billion Cubic Meter), out of which 228 BCM is for irrigation use and 25 BCM is for domestic and industrial uses. Thus, about 90% of groundwater is used for irrigation purpose and rest for domestic and industrial uses. The ground water resource assessment does not estimate ground water used in industrial and domestic sector separately. The depletion of ground water is due to the cumulative ground water withdrawal for various uses by the different stakeholders of the area.”

3.7 Asked further by the Committee about the role of the MoWR, RD & GR with regard to the regulation of Ground Water use by Packaged Water Industries, the Ministry in its post evidence (held on 04.11.2016) reply, submitted on 2 January, 2017 submitted:

“In notified areas, permission to extract ground water is accorded only for drinking and domestic purposes. In over exploited areas, permission to extract ground water by water intensive industries is not given. In all other areas, NOC from CGWA is required for setting up of industries including packaged water industries. The NOC is accorded in line with guidelines of CGWA, which specify the quantum of ground water which can be withdrawn, quantity of ground water to be recharged and other suitable water conservation measures.”

3.8 When asked that why the private companies are allowed to access Ground Water Resources which is public property for commercial purpose and profit generation and whether the Government levies any tax on these companies, the Ministry, in its written submission, stated as under:

“People are exercising their rights to extract ground water in accordance with the ‘The India Easement Act, 1882’. ‘Water (Prevention and Control of Pollution) Cess Act, 1977’, provides for levying and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution constituted under the Water (Prevention and Control of Pollution) Act, 1974.”

Ground Water Abstraction in Notified Areas

3.9 The Committee have been informed that Central Ground Water Authority (CGWA) has notified 162 Areas where installation of new ground water abstraction structure is not permitted without prior specific approval of Authorized Officers. The details of No Objection Certificates (NOCs) accorded by CGWA in ‘Critical’ and ‘Semi-Critical’ areas are given as under:

Table 6: Details of Packaged Drinking Water Units in 'Semi-Critical' Areas

Sl. No.	State	No. of PDWs/ Mineral Water Plants	Quantum of GW withdrawal (m ³ /day)
1	Andhra Pradesh	2	55
2	Gujarat	1	8
3	Haryana	1	50
4	Karnataka	2	60
5	Maharashtra	1	150
6	Punjab	2	118
7	Tamil Nadu	3	895
8	Uttar Pradesh	5	941
9	Uttarakhand	1	275
Total		18	2552

Table 7: Details of Packaged Drinking Water Units in 'Critical' Areas

Sl. No.	State	No. of PDWs/ Mineral Water Plants	Quantum of GW withdrawal (m ³ /day)
1	Chhattisgarh	1	250
2	Uttar Pradesh	1	537
3	Uttarakhand	1	38
Total		3	825

3.10 When asked about any study on extraction of ground water by water intensive industries especially Bottling Plants / Packaged Drinking Water Industries in different areas by the MoWR, RD and GR and its impact in terms of considerable depletion of ground water, the Ministry, in its written submission, made on 25 July, 2017 simply reiterated that as per the latest assessment of Dynamic Ground Water Resources of India (as on 31st March, 2013) carried out jointly by Central Ground Water Board (CGWB) and State Ground Water Departments, the annual ground water draft/utilization is 253 BCM (Billion Cubic Meter), out of which 228 BCM is used for irrigation and 25 BCM is used for domestic and industrial purposes. The Ground Water Resource Assessment does not estimate ground water used in Industrial and Domestic

Sector separately. The depletion of Ground Water is the cumulative effect of Ground Water withdrawal for various uses by the different stakeholders of the area.

3.11 The Committee sought opinion of the Ministry as to whether there should be complete ban on installation of Water Bottling Plants / Packaged Mineral Water Plants using Ground Water as raw material for their plants, the Ministry, in its written submission, furnished on 25 July, 2017 stated as follows:

“Packaged drinking water supplements the efforts of the Government in providing safe drinking water to the public and fills in the gap between the demand and the efforts of Government to provide safe water. The focus should be on sustainable management of ground water.”

3.12 Asked about the efforts / measures taken to reduce indiscriminate use of Ground Water, the Ministry, in its written submission, furnished on 25 July, 2017 stated:

“The Aquifer Management Plans are formulated on the basis of characteristics of aquifer and in consonance with the availability of the ground water resources and its present utilization pattern in the area. The management plans include both demand and supply side interventions, so that the resource can be utilized in a sustainable manner. The demand management options include crop diversification and adoption of water efficient irrigation practices etc. The supply side interventions include water harvesting and artificial recharge. The plans are deliberated in State Ground Water Coordination Committee and are shared with the State Government for implementation.”

Contamination of Ground water by Packaged Water Industries

3.13 During the sitting of the Committee held on 21.05.18, the Ministry informed that impact of Industries on quality of Ground water has been studied by the CGWB in 88 industrial clusters identified by Central Pollution Control Board (CPCB). Isolated occurrences of chemical constituents in excess of permissible limits has been found in following industries:

Lead and Manganese – Found in Pharmaceutical, Petroleum and Dyeing units in Varanasi, Vapi and Ludhiana etc.

Chromium - Found in Leather industries, Tanneries and Electroplating units in Kanpur, Agra, Vellore and Vapi etc.

Cadmium - Found in Coal and Oil combustion in power plants, Phosphate fertilizer units, Petroleum products and Electroplating units in Ahmedabad, Korba, Junagarh, Cochin and Ratlam etc.

Nitrate - Found due to lack of proper sewerage system in most of the States.

The major inferences of this study are:

- (i) Varying degree of ground water contamination has been found in 90 per cent of the clusters.
- (ii) Chloride and Nitrate are the most common ions reported beyond permissible limits prescribed by BIS for drinking water
- (iii) Iron, Manganese, Lead and Copper are found beyond permissible limits in some industrial clusters.

3.14 FSSAI, in their written submission has further stated that the chance of contamination of ground water through mineral water processing plant is minimal. But the concentrates, as a result of reverse osmosis process discharged into ground, may cause increase in hardness of the ground water. In this regard, when asked whether CGWB has conducted any study on the quality of ground water in the areas where there is concentration of Packaged Water Industries / Plants, the Ministry, in their written reply, furnished on 25 July, 2017 informed that Central Ground Water Board has not carried out any Specific Study on Contamination of Ground Water due to Packaged Water Industries.

3.15 Asked about measures taken, if any, to improve water quality in areas where there is a concentration of Packaged Water Industries, the Ministry, in its written submission, furnished on 25 July, 2017, stated as under:

“No specific measures have been taken up by CGWB in areas where Packaged Water Industries / Plants are extracting ground water to improve water quality. However, in general, CGWB carries out exploratory drilling to delineate contaminant free aquifer zones and successful exploratory wells are handed over to the concerned agencies in the States for utilization by them. Further, CGWB carries out awareness generation programs in the Country on preventing ground water pollution and use of contaminated water.”

3.16 Deliberating on the issue of widespread consumption of Packaged Drinking Water, a query was made by the Committee about its credibility as an assured source of good quality water for health, devoid of any problem of contamination. However the MoWR, RD and GR replied that the problem of contamination are supposed to be removed by Packaged Drinking Water as Packaged Drinking Water cannot remove the geogenic and anthropogenic contaminants present in ground water. Those issues have to be dealt with by the respective State Governments, Urban Local Bodies as well as Panchayati Raj Institutions.

Chapter IV

Packaged Water Industry in India

Source of Water for Industries

4.1 As per the Ministry's submission, following are the sources of water being used by the industries:

- (i) Surface Water: (a) Natural Sources (Rivers, Streams, Lakes etc.)
(b) Man-made Sources (Reservoirs, Ponds etc.)
- (ii) Ground Water: (a) Open Wells
(b) Bore/Tube Wells

4.2 Surface Water is allocated by the State Level Committees while Ground Water is under direct control of user. Water use in Indian Industry Survey, conducted by FICCI in 2011 states that Surface water is the major source of water for the industries (41%) followed by Ground water (35%) and Municipal water (24%).

Packaged Water

4.3 Packaged Water is used for Drinking, Industrial and Research purposes. The major Water Intensive Industries are Tanneries; Paper and Pulp; Textile; Breweries and Soft Drinks; Dairy and Dairy Products; Steel Mills; Thermal Power Plants; Fertilizers; Sugar Industries; Distilleries; Packaged Drinking Water Industries etc. State/ UT-wise details of existing Water Intensive Industries are not available with this Ministry.

4.4 Bottled / Packaged Drinking Water supplements the efforts of the Government in providing Safe Drinking Water to the public and fills in the gap between the demand and the efforts of Government to provide Safe Water.

4.5 BIS has made following standards with regard to water quality of packaged water:

- (a) IS 13428:2005 –relates to packaged natural mineral water
- (b) IS 14543:2016 –relates to packaged drinking water (other than packaged Natural Mineral Water)

4.6 Packaged Natural Mineral Water is water obtained directly from underground source which is collected, treated and packaged near the source under conditions which guarantee the original microbiological purity and chemical composition of essential components.

4.7 Packaged Drinking Water is water, other than natural mineral water which can be derived from surface water, civic water supply, underground water, sea water or any other consistent source of water including water supplied in tankers which may be subjected to treatment and packed after disinfection.

Definition of Mineral water

4.8 Asked by the Committee to furnish the definition of Mineral Water and monitoring of its content, the Ministry, in their written submission on 25 July, 2017, stated:

“Standards for Mineral Water have been prescribed in sub-regulation 2.10.7 of Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011. As defined therein, Mineral Water includes all kinds of Mineral Water or Natural Mineral Water. The said regulation lays down requirements of standards with regard to amount of minerals etc. in mineral water.

Sub-regulation 2.10.7 (2) describes the Mineral Water and its types and is extracted below:

2.10.7(2) -Description and Types of Mineral water:

(i) Natural mineral water is water clearly distinguished from ordinary drinking water because -

(a) it is characterized by its content of certain mineral salts and their relative proportions and the presence of trace elements or of other constituents;

(b) it is obtained directly from natural or drilled sources from underground water bearing strata and not from Public water supply for which all possible precautions should be taken within the protected perimeters to avoid any pollution of, or external influence on, the chemical and physical qualities of natural mineral water.

(c) of the constancy of its composition and the stability of its discharge and its temperature, due account being taken of the cycles of minor natural fluctuations;

(d) it is collected under conditions which guarantee the original microbiological purity and chemical composition of essential components;

(e) it is packaged close to the point of emergence of the source with particular hygienic precautions;

(f) it is not subjected to any treatment other than those permitted by this standard;

(ii) Naturally Carbonated Natural Mineral Water - A naturally carbonated natural mineral water is a natural mineral water which, after possible treatment ... and re-incorporation of gas from the same source and after packaging taking into consideration usual technical tolerance, has the same content of carbon dioxide spontaneously and visibly given off under normal conditions of temperature and pressure.

(iii) Non-Carbonated Natural Mineral Water - A non-carbonated natural mineral water is a natural mineral water which, by nature and after possible treatment ... and after packaging taking into consideration usual technical tolerance, does not contain free carbon dioxide in excess of the amount necessary to keep the hydrogen carbonate salts present in the water dissolved.

(iv) Decarbonated Natural Mineral Water - A decarbonated natural mineral is a natural mineral water which, after possible treatment ... and after packaging, has less carbon dioxide content than that at emergence and does not visibly and spontaneously give off carbon dioxide under normal conditions of temperature and pressure.

(v) Natural Mineral Water Fortified with Carbon Dioxide from the Source - A natural mineral water fortified with carbon dioxide from the source is a natural mineral water which, after possible treatment ... and after packaging, has more carbon dioxide content than that at emergence.

(vi) Carbonated Natural Mineral Water - A carbonated natural mineral water is a natural mineral water which, after possible treatment ... and after packaging, has been made effervescent by the addition of carbon dioxide from another origin.

Treatment and handling:- Treatment permitted includes separation from unstable constituents, such as compounds containing iron, manganese, sulphur or arsenic, by decantation and/or filtration, if necessary, accelerated by previous aeration.

The treatments provided may only be carried out on condition that the mineral content of the water is not modified in its essential constituents, which give the water its properties.

Regular surveillance, monitoring, inspection and random sampling of food products are being done by the Officials of Food Safety Departments of the respective States/UTs to check compliance of the standards laid down under Food Safety and Standards Act, 2006, and the rules and regulations made there under. In cases, where the food samples are found to be non-conforming, recourse is taken to penal provisions under Chapter IX of the FSS Act, 2006.”

Standards prescribed for Mineral Water and Packaged Drinking Water

4.9 The Food Safety and Standards Act, 2006 was enacted in order to consolidate all the laws relating to food and to establish the Food Safety and Standards Authority of India (FSSAI) for laying down science-based standards for articles of food including packaged water and for regulating their manufacture, storage, distribution, sale and import, for ensuring availability of safe and wholesome food for human consumption in the Country.

4.10 All Food Business Operators engaged in the production/sale/distribution of Mineral Water/ Packaged Drinking Water have to follow the Standards of Mineral Water and Packaged Drinking Water as prescribed under Regulation 2.10.7 and 2.10.8 of Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011. Licenses and Registrations under Food Safety and Standards Act, 2006 are issued to units engaged in the production of Packaged Drinking Water and Mineral Water as per the provisions and conditions prescribed in Food Safety and Standards Act, 2006, Rules and Regulations made thereunder and on the basis of installed capacity.

4.11 Packaged Drinking Water and Mineral Water are under the mandatory standards as per the Food Safety and Standards (FSS) Act, 2006. As per regulation 2.3.14 (17) & 2.3.14 (18) of Food Safety and Standards (Prohibition and Restriction on sales) Regulations, 2011 “No person shall manufacture, sell or exhibit for sale Packaged Drinking Water and Mineral Water except under the Bureau of Indian Standards (BIS) Certification Mark”. As such FSSAI does not maintain the record of source water used by such units.

4.12 With the setting up of FSSAI under the Food Safety and Standards Act, 2006 and Food Safety And Standards (Prohibition and Restrictions on Sales) Regulations, 2011 made thereunder, the BIS Standard Certification and its mark has been made mandatory for Packaged Natural Mineral Water and Packaged Drinking Water (Other than Natural Mineral Water).

4.13 In reply to a query by the Committee about the various pros and cons of packaged drinking water and any norm/s fixed with regard to the Packaging of Drinking Water / Mineral Water, the Ministry in its written submission, furnished on 25 July, 2017, stated:

“FSSAI is primarily concerned with issue of license/registration to the applicant units and enforcement of the prescribed standards. Licenses and Registrations under Food Safety and Standards Act, 2006 are issued to units engaged in the production of Packaged Drinking Water and Mineral Water as per the Food Safety and Standards Act, 2006, Rules and Regulations made there under...

For processing of Mineral Water, only filtration and decantation processes are used and no chemical treatment is permitted. However, for processing of Packaged Drinking Water various treatments, namely, decantation, filtration, combination of filtration, aerations, filtration with membrane filter depth filter, cartridge filter, activated carbon filtration, demineralization, re-mineralization, reverse osmosis are permitted. Different combinations of treatment in different sequences are adopted by the industry as per their requirement. Chemical agents are also used in processing and cleaning of plant & machinery”.

Major sources of water used by the Packaged Drinking Water Industries

4.14 The Committee have been informed that as per the Indian Standard for Packaged Drinking Water, IS 14543:2016, water shall be derived from Surface Water or Civic Water Supply or Underground Water or sea Water or any other consistent source of water.

4.15 A pertinent query was raised about the quantum of water used by the Packaged Drinking Water Industries from such sources as (i) Ground water (ii) Surface water (rivers, lakes, ponds, etc.) (iii) Water from glaciers and (iv) other sources viz. wells etc. However, the Ministry furnished information only relating to the Ground water, being used as such, in its reply stated below:

“As per the record of No Objection Certificates (NOCs) accorded by Central Ground Water Authority (CGWA), the permitted ground water withdrawal for the Packaged Drinking Water units is to the tune of 13.33 Million Cubic Metre/ Year. State- wise withdrawal details are given at following Table.

Table 8: Details of NOCs issued to Packaged Drinking Water Units (As on March, 2018)

Sl. No.	State	No. of NOC accorded	Quantum of ground water withdrawal allowed (cubic m/yr)
1	Andhra Pradesh	24	527660
2	Arunachal Pradesh	5	48065
3	Assam	103	948129
4	Bihar	12	385250
5	Chhattisgarh	13	183168.25
6	Delhi	1	9600
7	Gujarat	9	307186
8	Haryana	17	1233556
9	Himachal Pradesh	2	210000
10	Jammu & Kashmir	1	9000
11	Jharkhand	2	20100

12	Karnataka	8	80115
13	Madhya Pradesh	2	13500
14	Maharashtra	33	791587
15	Manipur	3	51680
16	Mizoram	1	7370
17	Meghalaya	3	34290
18	Nagaland	3	22127
19	Odisha	8	1231952.5
20	Punjab	18	1181777
21	Rajasthan	13	397110
22	Tamil Nadu	25	615217
23	Telangana	2	4200
24	Tripura	8	45925
25	Uttar Pradesh	53	4554229
26	Uttarakhand	6	384321
	Total	375	13297114.75

4.16 During the evidence held on 03.01.2017, the Committee were informed by the FSSAI that they did not check the sourced water while giving license for Packaged Drinking Water. In this regard, asked to explain the criteria used by FSSAI while giving license for installing Packaged Drinking Water Plants, the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs) stated following in their written reply, furnished on 25 July, 2017:

“The licenses to the Food Business Operators are being issued as per the provisions laid down under Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 wherein, procedure, requirement of documents and conditions of license have been prescribed to obtain a license under FSS Act, 2006.

FSSAI has issued an order on 15.03.2017, wherein, the NOC from Central Ground Water Authority (CGWA) has been mandated for all Packaged Drinking Water Units for grant of license.”

Distribution of Packaged Drinking Water Industries

4.17 Regarding the total number of registered Packaged Water Industries in India, the Ministry, in its written submission, furnished on 12 July, 2018 submitted:

“CGWA since its inception has accorded NOC to 375 packaged drinking water units using ground water. As per the information shared by the Bureau of Indian Standards (BIS), there are 5873 units, as on 12.06.2018, holding BIS license for producing packaged

drinking water as per IS 14543:2016. Also, there are 24 units, as on 12.06.2018, holding BIS license for producing packaged Natural Mineral water as per IS 13428: 2005. Further, FSSAI has informed that a total of 5417 Central and State licenses have been issued for packaged water industries under the FSS Act, 2006.”

4.18 The State-wise details of Packaged Drinking Water units, licensed and registered under the provisions of Food Safety and Standards Act, 2006 as furnished by the MoWR, RD & GR, in its written reply furnished on 25 July, 2017, are given as follows:

Table 9: State-wise details of Packaged Drinking Water Units licensed and Registered under the provisions of Food Safety and Standards Act, 2006

State-wise Count Of Active Licenses And Registrations For Packaged Drinking Water			
State Name	State License	Central License	Registration
Andaman & Nicobar Islands	5	0	2
Andhra Pradesh	220	10	2
Arunachal Pradesh	2	0	0
Assam	78	43	27
Bihar	55	8	22
Chhattisgarh	19	4	1
Chandigarh	1	0	1
Daman & Diu	3	2	0
Delhi	102	33	36
Dadra & Nagar Haveli	3	0	0
Gujarat	248	46	437
Goa	19	2	24
Haryana	52	28	4
Himachal Pradesh	16	12	9
Jharkhand	12	4	5
Jammu & Kashmir	27	5	2
Karnataka	322	45	54
Kerala	168	45	194
Lakshadweep	0	0	1
Manipur	15	2	3
Meghalaya	5	4	0
Maharashtra	481	300	328
Mizoram	4	0	0
Madhya Pradesh	90	13	153
Nagaland	0	0	0

Odisha	27	6	0
Punjab	28	16	1
Puducherry	17	0	47
Rajasthan	258	24	357
Sikkim	0	0	0
Tamil Nadu	1103	40	630
Tripura	5	2	0
Uttar Pradesh	597	55	716
Uttarakhand	37	12	20
West Bengal	17	59	2
Telangana	78	10	2
Total	4114	830	3080

4.19 During the Study Visits of the Committee to various places, the Committee raised the issue of commercial exploitation of water by the multinational companies for their commercial gains. Every State agreed that these commercial companies are not contributing either for the growth of water development or towards the cause of the general public. The trade of the Packaged Drinking Water Industry runs into billions of rupees without paying any tax or contribution in any welfare schemes. For instance, the Committee were informed that as per Haryana State Pollution Control Board, there are 115 water packaging units in Haryana, out of which 39 are in Faridabad. These units are mostly scattered. In Punjab, 15 Packaging Water Industries are operating with permission of State Pollution Control Board. They are extracting approximately 90 million liters per day of water for the purpose. The State Government of Himachal Pradesh also informed the Committee that approximately 11 units are provisionally registered with Department of Industries after due approval of State Level Single Window Clearance & Monitoring Authority (SLSWC&MA). Further the growth of Packaging Water Industries has shown slightly increasing trend in the State. On an average, 2-3 proposals of Drinking Water Industries are coming for approval annually. Approval of Industries Department is given only after approval of State Level Ground Water Authority. Industries Department at its own does not approve these proposals. Himachal Pradesh Ground Water Authority has registered 3 firms in the notified area and issued the permits for packaged drinking water under the Act.

4.20 The Committee, therefore, quite categorically desired to know the reasons for allowing unabated growth of Packaged Water Industries in India. The Ministry, in its written replies furnished on 12 July, 2018 submitted that growth of any industry depends on demand, supply and other related factors and the same has been the case with the Packaged Water Industries. The Committee further asked that whether the

growth of Packaged Water Industries reflected the inability of the Government to provide safe Drinking Water to the people free of cost or at a very nominal rate, the Ministry, in its written submission, stated:

“Water being a State subject, supply of potable water is primarily States’ responsibility and a decision in this connection may be taken at the level of State Government.”

4.21 When asked about any case of plants being operated without license/ISI mark and action taken, if any, against such violators by BIS/FSSAI, the Ministry of Consumer Affairs, Food and Public Distribution furnished following written reply on 25 July, 2017:

“Some such cases have come to the notice of FSSAI. FSSAI has directed Commissioners of Food Safety of the States/UTs to take appropriate action under the FSS Act against these units and also carry out enforcement activities on unauthorized manufacture and sale of packaged drinking water without FSSAI licence/BIS Mark.

As per the information available through Food Licensing and Registration System (FLRS), the total number of samples of Packaged Drinking Water and Mineral Water analysed, found non-conforming (including cases of unlicensed units/BIS Mark), cases launched and convictions/penalties during the year 2015-16 is as under:

No. of Samples Analysed	Found Non-Conforming	Cases Launched	Convictions	Penalties/Amount Raised
767	345	176	39	64/Rs. 30,49,100

Separate data exclusively about action taken against Food Business Operators (FBOs) for operating without BIS Mark/FSSAI License is not available.”

4.22 When asked about the total amount of revenue generated on account of licenses and whether BIS makes any assessment of availability of sourced water before giving license, the Ministry of Consumer Affairs, Food and Public Distribution stated following information in their written submission dated 25 July, 2017:

“The details of revenue generated are:

IS 13428:2005 — Packaged Natural Mineral Water		
Sl. No.	Financial Year	Revenue (Rs. In crore)
1	01-04-2014 to 31-03-2015	0.31
2	01-04-2015 to 31-03-2016	0.26
3	01-04-2016 to 31-03-2017	0.30

IS 14543 : 2004 — Packaged Drinking Water (other than Packaged Natural Mineral Water)		
1	01-04-2014 to 31-03-2015	42.17
2	01-04-2015 to 31-03-2016	47.60
3	01-04-2016 to 31-03-2017	58.49

BIS assesses only the quality of the raw water, proposed to be used by the manufacturer.”

4.23 During the course of oral evidence held on 03.01.2017, the Committee desired to know that what actions are taken by the FSSAI to ensure compliance of its Regulations for monitoring of hygienic conditions by a Food Business operator. Replying to this, a representative of the FSSAI replied that the compliance is ensured by the State Governments through State Licensing Commissioners. When pointed out that how can State Governments ensure compliance when the license is given by the Central Authority, he informed that Central license is given only in some particular cases. Licenses are mainly given by State Licensing Commissioners.

4.24 When asked about levying of tax, if any, on the Packaged Water Industries/Plants in lieu of using water and the amount of revenue so generated, the Ministry, in its post-evidence (held on 04.11.2016) replies, submitted on 2 January, 2017 submitted:

“CGWA or MoWR, RD & GR is not collecting any tax on Packaged Water Industries/Plants. Collection of any tax is vested with the respective State Governments.”

4.25 In response to a further query by the Committee on any charges imposed on these industries for using ground water or surface water, the Ministry, in its written replies, furnished on 12 July, 2018 stated:

“Central Ground Water Authority at present is not charging any sum for extraction of ground water. However, the revised guidelines for ground water abstraction in the country, which are under consideration, propose to levy ‘Water Conservation Fee’, based on the quantum of ground water abstraction.”

Profitability of Packaged Water Industries

4.26 During the course of oral evidence held on 03.01.2017, the Committee raised the issue of huge amounts of profits being made by the multinational companies, especially 5 major players/brands in the sector (whose turnover went up from approximately Rs.60 billion in 2013 to approximately Rs.160 billion in 2017) by using the raw material, ‘Water’ which is a community resource. In view of the paucity of this scarce resource, the, then, Chairperson raised the query that under what law these industries are being allowed to do so and whether these Industries are making any reciprocal contribution for compensating the use of water i.e. facilitating supply of potable water to the poorest sections of the society who cannot afford

the expensive packaged/bottled water by supplying R.O. water or installing water ATMs or any other steps taken by them to ameliorate the conditions of the poor people of the society. Replying to this, the then Secretary, MoWR, RD and GR admitted that these industries were not making any such contribution except the obligation to recharge the ground water to keep it sustainable. He further elaborated on this issue as under:

“Apart from the recharge, that was the only condition and they have to pay normal tax which the Government levies. The Ministry has asked that the bigger players should be called and should be given specified targets for recharge, Ganga cleaning and other aspects.”

4.27 In this connection, the Committee further desired to know that whether CGWB has taken any initiative/ conducted any study on total revenue earned by these industries as water being the basic need for survival, its commercialization and profitability of business using water as the principal raw material, should be properly assessed and evaluated. Responding to this, the Ministry, in its written submission, furnished on 25 July, 2017 submitted:

“Revenue earning by packaged drinking water industries does not fall under the purview of MoWR. However, a DO letter has been written by Secretary (WR, RD&GR) to States with the recommendation to adopt an appropriate pricing policy in respect of packaged drinking water/beverage and bottling industries.”

4.28 When further asked about the approximate amount of earning by the Industries from Commercial Use of water, the Ministry, in its written submission furnished on 12 July, 2018 submitted:

“No such data is available with MoWR, RD & GR.”

4.29 Asked by the Committee about the rationale for existing pricing mechanism of Packaged Drinking Water, the MoWR, RD and GR, in its written submission, furnished on 12 July, 2018 submitted:

“The rationale for the pricing mechanism for any product is the gap between demand and supply of that product.”

4.30 The Committee raised another query as to why should the Government not intervene effectively in checking the pricing of the Packaged Water (a free community resource), the Ministry, in its written submission, furnished on 12 July, 2018 stated as under:

“Water being a State subject, pricing of water is primarily States’ responsibility. The government, through its various schemes, is endeavoring to provide safe drinking water to the entire population. Further, the cost of commonly available packaged drinking water varies widely depending upon the quality and quantity of source water, input costs and the area where it is marketed.”

4.31 Another query was raised by the Committee with regard to the share of profits earned by the Drinking Water Industries supplying Packed /Bottled Water across the country, being spent for the social upliftment of the people. Replying to this, the Ministry, in its written submission furnished on 12 July, 2018 submitted:

“As per the information received from the Ministry of Corporate Affairs, they administer and regulate the Companies Act. Industry-wise details of the companies involved in the business of bottled water are not captured in the MCA21 Registry of the Ministry.

Schedule VII indicates the activities which can be undertaken under CSR and item no. (iv) ensure the environmental sustainability which reads as under:

"Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agro forestry, conservation of natural resources and maintaining quality of soil, air and water including contribution to the 'Clean Ganga Fund' set-up by the Central Government for rejuvenation of river Ganga,"

The M/o Corporate Affairs has a website of the National Corporate Social Responsibility Data Portal (www.csr.gov.in) which provides the disclosures made by eligible CSR companies w.r.t. the details about the programmes / projects undertaken by them in respective States during any financial year w.e.f. 2014-15.

The companies engaged in bottled water industry are also covered under Section 135 of the Companies Act, 2013 if they fall under the threshold unit as prescribed under Section 135 (1) of the Act. Companies should undertake CSR activities over and above the regulations under any other Statutes, which are applicable to them.”

4.32 Another query was raised by the Committee about the likely ramifications of banning sale of Packaged Drinking Water in the Country. Replying to this, the MoWR, RD and GR, in their written submission furnished on 25 July, 2017 stated as follows:

“Matter relates to the Department of Consumer Affairs. However, banning of Packaged Drinking Water will cause severe difficulty to common travelling public, tourists and persons spending a lot of time in commuting. All such persons are dependent upon Packaged Drinking Water for quenching their thirst sometimes, it is even a life threatening situation. However, licensing of Packaged Drinking Water manufacturing units may be highly controlled and they must be made to use mostly surface water sources, raw water storage structures etc. and ground water only as a last resort, duly controlled by the State.”

Monitoring of Quality of Packaged Water

4.33 As per the submissions made by the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs) there were 5,445 licenses for Packaged Drinking Water and 22 licenses for Packaged Natural Mineral Water during the period 01.04.2013 to 30.09.2016. Further, out of 20,224 samples of Packaged Drinking Water and 145 sample of Packaged Natural Mineral Water, 3,384 and 10 samples failed respectively in the testing done by BIS. When asked about the details of areas/regions/States where water samples tested were failed, the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs) informed that failures were observed in samples of Packaged Drinking Water and Packaged Natural Mineral Water collected from various States. State/Area-wise details of the failure of samples are given in the Table below.

Table 10: Details of the failure of samples of Packaged Drinking Water and Packaged Natural Mineral Water for the period 01.04.2013 to 30.09.2016

S. No.	State/Region/ Area	IS 14543 : 2004 – Packaged Drinking Water (other than Packaged Natural Mineral Water)					IS 13428 : 2005 – Packaged Natural Mineral Water				Cancellation
		No. of Samples Drawn	No. of Samples Failed	Action Taken on Failure of Samples			No. of Samples Drawn	No. of Samples Failed	Action Taken on Failure of Samples		
				Stop Marking	Non-Renewal	Cancellation			Stop Marking	Non-Renewal	
1	Bihar	318	95	32	0	3	Nil*	N.A.	N.A.	N.A.	N.A.
2	Chhattisgarh	324	83	11	0	1	Nil*	N.A.	N.A.	N.A.	N.A.
3	Delhi	337	70	23	0	9	Nil*	N.A.	N.A.	N.A.	N.A.
4	Gujarat	2034	297	45	0	3	24	2	0	0	0
5	Haryana	520	94	20	3	1	Nil*	N.A.	N.A.	N.A.	N.A.
6	Himachal Pradesh	79	8	1	0	0	87	2	1	0	0
7	Jammu and Kashmir	95	15	37	0	0	Nil*	N.A.	N.A.	N.A.	N.A.
8	Jharkhand	174	146	4	0	0	Nil*	N.A.	N.A.	N.A.	N.A.
9	Karnataka	971	286	56	0	2	Nil*	N.A.	N.A.	N.A.	N.A.
10	Kerala	972	189	29	0	2	Nil*	N.A.	N.A.	N.A.	N.A.
11	Madhya Pradesh	666	89	22	1	4	Nil*	N.A.	N.A.	N.A.	N.A.
12	Maharashtra, Goa & DNH	2197	351	87	0	3	5	2	0	0	0
13	Punjab & UT of Chandigarh	308	68	18	2	1	Nil*	N.A.	N.A.	N.A.	N.A.
14	Odisha	684	152	32	1	1	Nil*	N.A.	N.A.	N.A.	N.A.

15	Rajasthan	284	25	2	0	0	Nil*	N.A.	N.A.	N.A.	N.A.
16	Tamil Nadu	5797	882	10 2	1	1	Nil*	N.A.	N.A.	N.A.	N.A.
17	Telangana & Andhra Pradesh	2538	245	14 3	0	3	Nil*	N.A.	N.A.	N.A.	N.A.
18	Uttar Pradesh	668	69	41	0	11	2	2	1	0	1
19	Uttarakhand	173	30	0	1	0	27	2	0	0	0
20	West Bengal	540	114	33	0	4	Nil*	N.A.	N.A.	N.A.	N.A.
21	North Eastern Region	545	76	14	0	0	Nil*	N.A.	N.A.	N.A.	N.A.
	Total	20224	3384	75 2	9	49	145	10	2	0	1

* No license for Packaged Natural Mineral Water as per IS 13428: 2005 is granted in these States.

4.34 Asked about the reasons for failure of water quality in these samples, the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs) submitted:

"The failure in chemical and / or micro-biological parameters led to water quality not being upto the mark in these samples."

4.35 When a query was raised about the monitoring mechanism to check quality of Packaged Drinking Water on a continuous basis, violations noticed and action taken, if any, the Ministry of Consumer Affairs, Food and Public Distribution stated:

"The implementation and enforcement of Food Safety and Standards Act, 2006 primarily rests with the State/ UT Governments.

Regular surveillance, monitoring, inspection and random sampling of food products are also being done by the Officials of Food Safety Departments of the respective States/ UTs to check compliance of the standards laid down under Food Safety and Standards Act, 2006, and the rules and regulations made there under. In cases, where the food samples are found to be non-conforming, recourse is taken to penal provisions under Chapter IX of the FSS Act, 2006.

As per the information available through Food Licensing and Registration System (FLRS), the total number of samples of Packaged Drinking Water and Mineral Water analyzed, found non-conforming (including cases of unlicensed units/BIS Mark), cases launched and convictions/penalties during the year 2015-16 is as under :

No. of Samples	Found Non-Conforming	Cases Launched	Convictions	Penalties /Amount
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Analyzed				Raised
767	345	176	39	64/Rs. 30,49,10 0

In addition, in terms of point No. 12 of licensing conditions mentioned under Annexure-3 of Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011, *“all Food Business Operators shall ensure testing of relevant chemical and/or microbiological contaminants in food products in accordance with these regulations as frequently as required on the basis of historical data and risk assessment to ensure production and delivery of safe food through own or NABL accredited /FSSAI notified labs at least once in six months”*.

A Safe Water portal has been started by FSSAI under which consumer can view the test reports of water samples based on license number given by FSSAI. Apart from the test results uploaded by the FBO, regulatory tests conducted by State enforcement agencies are also now available. Further, the test results of water samples conducted by BIS will also be part of the portal.

Department of Consumer Affairs: The quality of Packaged Drinking Water is monitored regularly through periodic surprise visits to the licensees' premises, testing of factory samples and market samples and verification of corrective actions, taken by the manufacturer.”

4.36 The Committee further desired to know about actions taken against violators, the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs) further apprised the following in their written submission:

“The manufacturers are required to initiate corrective actions as and when failure of sample is reported. These corrective actions are verified by Bureau of Indian Standards and upon satisfactory compliance, licence remains operative. However, failure to ensure completion of corrective actions leads to stop marking, non-renewal and / or cancellation of licence.”

4.37 During the course of oral evidence held on 04.11.2016, the Committee raised the issue of quality of water being provided through bottles, responding to which the Director General, BIS, apprised the Committee with the following:

“With regard to your concern whether this water which is being packed is of good quality or not, I would like to submit that it is mandatory to take a licence from BIS which is made according to the erstwhile Prevention of Food Adulteration Act which is now converted into FSSAI now. So we have the requirements and we give the licence. No packaged drinking water can be sold without an ISI mark. Now there are unscrupulous people who are selling this without an ISI mark. In fact, due to the constraints in the Act, we cannot

act against it. But FSSAI have Food Inspectors and State Government set up to act on such unscrupulous kind of people.

Now, as far as misuse of ISI mark is concerned, if somebody does not have a BIS licence and misuses our mark, we prosecute them in the court of law. So, these are the provisions.”

4.38 In response to another query by the Committee as to how effective have been the regulations of BIS in ensuring availability of good quality water and whether BIS needs any change/improvement in its functioning to ensure more scrupulous monitoring, the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs), in its written submission submitted:

“Through the provisions of the Bureau of Indian Standards (Certification) Regulations, 1988, the Bureau has been ensuring quality of ISI marked products, including Packaged Drinking Water and Packaged Natural Mineral Water, on a continuous basis. As per relevant notifications of 2000 of the Ministry of Health and Family Welfare, the appropriate authority for implementation of various provisions of the notifications relating to ensuring quality etc, is the concerned State Government/UTs.”

4.39 When asked about inspections carried out by BIS during the last three years and at what intervals (year wise), the Ministry of Consumer Affairs, Food and Public Distribution, in its written submission, submitted as under:

“The details of inspections are as provided here under :

IS 13428:2005 — Packaged Natural Mineral water		
Sl. No.	Financial Year	No. of Inspections Carried Out
1	01-04-2014 to 31-03-2015	20
2	01-04-2015 to 31-03-2016	33
3	01-04-2016 to 31-03-2017	30
IS 14543 : 2004 — Packaged Drinking Water (other than Packaged Natural Mineral Water)		
1	01-04-2014 to 31-03-2015	4764
2	01-04-2015 to 31-03-2016	5538
3	01-04-2016 to 31-03-2017	4333

Interval between two inspections depends upon the performance of licensee, drawl of factory samples, request for inclusion of new varieties in the license, shifting of the premises, for verification of corrective actions taken by licensee and for investigation of complaints received.”

4.40 When a query was raised by the Committee with regard to adequacy of staff to carry out effective monitoring and supervision by the BIS, the following reply was furnished by the Ministry of Consumer Affairs, Food and Public Distribution in its written submission made on 25 July, 2018, stated:

“Within the sanctioned strength, it is the endeavor of BIS to carry out surveillance of packaged water units and to maximize drawl of market samples.”

CHAPTER V

Regulation of Commercial Exploitation Of Water

Policy Framework

5.1 A pertinent query was raised by the Committee about existing policy framed by the Government in regard to Commercial Use of water. To this, the Ministry, in its written reply, furnished on 25 July, 2017, submitted:

“As has been said earlier, CGWA has issued certain guidelines regarding the extraction of ground water in safe, semi-critical and critical areas by packaged drinking water, beverages, breweries, distilleries etc. The quality aspect of the packaged drinking water is dealt by FSSAI.”

5.2 Further questioned that whether the National Water Policy, 2012 enunciates Government’s Policy on Commercialization of water and if not, why this issue has been left out along with the measures taken/ being taken to formulate explicit policy to address this specific issue of Commercial Use of water, the Ministry, in its written reply furnished on 12 July, 2018 submitted:

“National Water Policy, 2012 formulated by this Ministry, inter-alia, recommends that safe water for drinking and sanitation should be considered as pre-emptive needs, followed by high priority allocation for other basic domestic needs (including needs of animals), achieving food security, supporting sustenance agriculture and minimum eco-system needs. Available water, after meeting the above needs, should be allocated in a manner to promote its conservation and efficient use.

As per the National Water Policy, 2012, specific action plans have been suggested for Industrial use of water. The salient issues pertaining to demand management, water use efficiency and water pricing are outlined below:

- a. A system to evolve benchmarks for water uses for different purposes, i.e., water footprints, and water auditing should be developed to promote and incentivize efficient use of water.
- b. The project appraisal and environment impact assessment for water uses, particularly for industrial projects, should, inter-alia, include the analysis of the water footprints for the use.
- c. Recycle and reuse of water, including return flows, should be the general norm.
- d. In order to meet equity, efficiency and economic principles, the water charges should preferably / as a rule be determined on volumetric basis. Such charges should be reviewed periodically.
- e. Recycle and reuse of water, after treatment to specified standards, should also be incentivized through a properly planned tariff system.”

5.3 When asked that whether the Government concur with the view that the National Water Policy should also include the aspect of commercial utilization of water, the Ministry, in its written reply, furnished on 25 July, 2017 stated as follows:

“Commercial use of water has already been dealt in the National Water Policy, 2012 at Para 7. The relevant paras are reproduced below:

7.1 Pricing of water should ensure its efficient use and reward conservation. Equitable access to water for all and its fair pricing, for drinking and other uses such as sanitation, agricultural and industrial, should be arrived at through independent statutory Water Regulatory Authority, set up by each State, after wide ranging consultation with all stakeholders.

7.2 In order to meet equity, efficiency and economic principles, the water charges should preferably / as a rule be determined on volumetric basis. Such charges should be reviewed periodically.

7.3 Recycle and reuse of water, after treatment to specified standards, should also be incentivized through a properly planned tariff system.

7.4 The principle of differential pricing may be retained for the pre-emptive uses of water for drinking and sanitation; and high priority allocation for ensuring food security and supporting livelihood for the poor. Available water, after meeting the above needs, should increasingly be subjected to allocation and pricing on economic principles so that water is not wasted in unnecessary uses and could be utilized more gainfully.”

5.4 Upon being further questioned by the Committee on the policy measures adopted/ proposed to be taken to remove adverse impact of such commercialization of water on social, economic and environmental aspects, the Ministry in its written submission, furnished on 12 July, 2018, submitted:

“To remove adverse impact of commercialization of water, CGWA lays down mandatory conditions regarding installation of meters on the ground water abstraction structure, implementation of artificial recharge measures and recycling/reuse of water in the NOCs issued to industries ground water abstraction. Industries are also required to monitor ground water levels and quality and submit the same to CGWA.”

5.5 The Background note furnished by the Ministry states that the Government has taken various measures and initiatives to control commercial exploitation of water which include framing of Guidelines for Water Audit and Water Conservation, regulatory measures, creating awareness etc. the Central Water Commission in association with Central Ground Water Board has framed draft Guidelines for Water Audit and Water Conservation.

5.6 In this regard, when asked that whether the Guidelines for Water Audit and Water Conservation have been finalized, the Ministry, in its written reply, furnished on 12 July, 2018 submitted:

“Information is being collected and will be laid in due course.”

5.7 During the discussion held on this issue on 21.05.2018, the Secretary, MoWR, RD and GR enlightened the Committee regarding proposed actions/measures to regulate Commercial Exploitation of water, as reproduced below:

“Sir, Bureau of Energy Efficiency has prepared a scheme for Energy sector, which is called Perform, Achieve and Trade (PAT) Scheme. Under this Scheme, the industries have been directed about per unit cost of production to be incurred and how this is to be gradually brought down. Those industries reducing per unit cost will be given Energy Certificate while others failing to do so will have to purchase the Energy Certificate. In this there is an incentive and otherwise for the industry. In Water sector also we are planning such incentive to improve efficiency in use of water and reduce its wastage.”

Use of Modern Technology for Minimizing Industrial Use Of Water

5.8 As per the Background note furnished by the Ministry of Water Resources, River Development and Ganga Rejuvenation, at present, industrial plants in our country consumes about 2 to 3.5 times more water per unit of production compared to similar plants operating in developed countries. Further the Water Footprint of Indian industry is too high which is bringing industry into conflict with other Sectors of the Economy and Society. There is huge scope for reducing the Industrial water footprint and this can be done through technologies and investments which have a very short payback period. In this regard, a query was raised by the Committee on the action taken by the Government to encourage the use of latest technologies to minimize the use of water in various Water Intensive Industries and whether levying of appropriate charges for use of water can be an effective deterrent forcing these industries to adopt modern technologies to economise on consumption of water. Replying to this, the MoWR, RD and GR, in its written submission, furnished on 12 July, 2018 submitted as follows:

“In order to encourage use of latest technologies to minimize the use of water, National Water Policy, 2012, inter-alia, recommends as under:

- i. Continuing research and advancement in technology shall be promoted to address issues in the water sector in a scientific manner. Innovations in water resources sector should be encouraged, recognized and awarded.
- ii. It is necessary to give adequate grants to the States to update technology, design practices, planning and management practices, preparation of annual water balances and

accounts for the site and basin, preparation of hydrologic balances for water systems, benchmarking and performance evaluation.

- iii. It needs to be recognized that the field practices in the water sector in advanced countries have been revolutionized by advances in information technology and analytical capabilities.
- iv. A re-training and quality improvement programme for water planners and managers at all levels in India, both in private and public sectors, needs to be undertaken.

Recommendation of National Water Policy, 2012 on water pricing are as under:

- i. Pricing of water should ensure its efficient use and reward conservation. Equitable access to water for all and its fair pricing, for drinking and other uses such as sanitation, agricultural and industrial, should be arrived at through independent statutory Water Regulatory Authority, set up by each State, after wide ranging consultation with all stakeholders.

- ii. In order to meet equity, efficiency and economic principles, the water charges should preferably/ as a rule be determined on volumetric basis. Such charges should be reviewed periodically.

- iii. Recycle and reuse of water, after treatment to specified standards, should also be incentivized through a properly planned tariff system.

- iv. The principle of differential pricing may be retained for the pre-emptive uses of water for drinking and sanitation; and high priority allocation for ensuring food security and supporting livelihood for the poor. Available water, after meeting the above needs, should increasingly be subjected to allocation and pricing on economic principles so that water is not wasted in unnecessary uses and could be utilized more gainfully.

- v. Water Users Associations (WUAs) should be given statutory powers to collect and retain a portion of water charges, manage the volumetric quantum of water allotted to them and maintain the distribution system in their jurisdiction. WUAs should be given the freedom to fix rates subject to floor rates determined by WRAs.

- vi. The over-drawal of groundwater should be minimized by regulating the use of electricity for its extraction. Separate electric feeders for pumping ground water for agricultural use should be considered.

Central Ground Water Authority at present is not charging any sum for extraction of ground water. However, the revised guidelines for ground water abstraction in the Country, which are under consideration, propose to levy 'Water Conservation Fee', based on the quantum of ground water abstraction."

5.9 Upon being further asked by the Committee as to what other measures have been taken to encourage conservation of water in the Industrial Sector by adoption of water saving methods, recycling and reuse of water, etc. the MoWR, RD and GR, in its written reply, furnished on 12 July, 2018 submitted:

“National Water Policy, 2012 inter-alia recommends that subsidies and incentives should be implemented to encourage recovery of industrial pollutants and recycling/reuse, which are otherwise capital intensive.”

Role of Urban Local Bodies

5.10 Asked about measures taken by the Urban Local Bodies in regulating the use of Ground Water as raw material by various Industries including Water Intensive Industries such as distilleries, breweries and mineral water plants, etc. the Ministry of Urban Development, in their written submission, stated:

“Urban Local Bodies have no role as the State Ground Water Boards/Departments and State Pollution Control Board regulate use of Ground Water by industries such as distilleries, breweries and mineral water plants.”

5.11 On being asked by the Committee in what ways the Local Administrative Machinery can be made more effective in reducing over use of Ground Water and its contamination, the Ministry of Housing and Urban Affairs, in its written submission, replied as follows:

“ULBs are responsible to supply for potable water to Town/City. The local administration machinery can be made more effective in reducing over-use of ground water and its contamination in following ways:

- 1. New Ground Water Resources** – ULBs must feasibly plan for alternative water supplies when the groundwater resources are exhausted and do investment in dams, long distance transfers and desalination plants, etc. to reduce enormous burden on the region’s natural resources.
- 2. Water Reuse** - The use of grey water to increase the availability of potable water supplies can be taken one stage further by separating black water from grey water and treating it centrally before combining it with grey water for secondary treatment. This water can then be mixed with storm water and held in a storage pond for further treatment before being recycled back to households as reclaimed water for non-potable uses. This approach requires each household to be piped to receive both potable and non-potable services; thus considerable costs may be incurred. However, the potential benefits are considerable. Potable resources can now be reserved for their most valuable purpose – human consumption. This type of approach is not limited to households. Many types of industry, golf courses, and even cooling systems can also use recycled or grey water with very few or no difficulties. However, water reuse is often constrained by cultural and religious beliefs in India.
- 3. Decreasing Water Demand** - Reducing the use of water can be achieved through a combination of water conservation measures, controls on accessibility, price structuring, constraints on abstraction, and legal tools. However, irrespective of the approach, education is a key starting point. Education in good water management practices and the critical need for such practices must be use in urban areas.

4. **Water Conservation** - Water conservation measures can be implemented at all stages in the distribution network. At the consumer level, low-flow plumbing fixtures (showerheads, toilets, and faucets) can be highly effective. Rates of groundwater abstraction could be reduced significantly if leakage from water mains is eliminated. This can be achieved by laying new mains, relining the old or simply reducing water pressure. Water companies achieve economic levels of leakage and metering before new abstraction licences are issued for strategic development.
5. **Water Pricing and Controls on Accessibility** - Perhaps the most effective means of controlling demand on urban aquifers is the disincentive that results from increased water prices. This can be achieved at the well-head by imposing realistic charges for raw water based on one or more of the following:
- Recovering full costs incurred by the regulatory body for administering resource development and evaluating, monitoring and managing the groundwater resource.
 - Including the potential cost of providing alternative raw water supplies to users in the event the source goes out of commission.
 - Acknowledging the full cost of environmental impacts that will likely accrue due to the water undertaking.

Pricing water based on the quality and quantity of water pumped at the well-head provides an incentive for more effective demand management including the reduction of water-mains leakage. It may do little, however, to encourage water conservation at the consumer level unless the charges can be passed on to these users equitably according to the actual amounts used. This requires individual metering. Domestic metering is a proven means of reducing wastage.

6. **Resource Protection** - Protection plans can subsequently be developed in collaboration with identified stakeholders by using existing data, employing transparent tools that are simple, robust and can be used for many situations with little modification.

Resource Management - Groundwater protection methodologies provide tools for preventing urban contaminants from seriously contaminating underlying aquifers. Management practice can then evolve by incorporating scientific developments into an overall strategy to achieve best available practice. The resource management tools in the developed world have reached a highly advanced level which can be brought in use.”

Coordination among Ministries

5.12 A query was raised by the Committee as regards the co-ordination among the Ministry of Water Resources, River Development and Ganga Rejuvenation, Ministry of Drinking Water and Sanitation and Ministry of Health and Family Welfare regarding exploitation/over use of Ground Water by Mineral Water

Packaging Industries/Bottling Plants. Replying to this, the Ministry, in its written submission, furnished on 25 July, 2017, stated the following:

“In order to ensure sustainable withdrawal and effective utilization of ground water and its management, a Committee with Secretary (WR,RD&GR), Secretary, Rural Development, Secretary, Drinking Water & Sanitation, Secretary, Panchayati Raj, Secretary, Agriculture & Farmers Welfare and Secretary, Environment, Forest & Climate Change has been constituted on 10.3.2017.”

Installation of Water ATMs

5.13 Water being a State subject, supply of potable water is primarily States’ responsibility. However, as per information received, New Delhi Municipal Corporation (NDMC) has established 37 Water ATMs/Water Vending Machines in and around parks and other locations where there is reasonable footfall of visitors, so that potable water is available at a nominal cost to consumers. This also reduces use of bottled water.

5.14 When asked as to whether the installation of Water ATMs / Water Kiosks across the country on a mass scale can effectively solve the problem of providing Safe and Assured supply of Drinking Water for the masses at a cheaper rate, the Ministry, in its written reply, furnished on 12 July, 2018 submitted:

“Installation of Water ATMs/Water Kiosks can tackle the issue of accessibility of safe and good quality of water at cheaper rates to some extent but, the decision in this connection may be taken at the level of State government as it comes under their purview.

However, NDMC has intimated that the Kiosks installed by them provide cheaper & chilled potable water to the consumer in a hygienic way i.e. recyclable paper glass through Coin/RFID vending. The water quality parameters are also shown live on screen of ATM.”

5.15 Upon being further asked by the Committee as to whether the Government has any plan/proposal to encourage widespread installation of water ATMs / Water Kiosks to enable people to get Safe Drinking Water at an affordable rate, the Ministry, in its written reply, furnished on .07.2018 stated:

“Water being a State subject, supply of potable water is primarily States’ responsibility. However, NDMC has already installed 37 ATMs on EPC mode and a proposal for installation of another 40 such ATMs on PPP mode is in pipeline, which is expected to be started by September, 2018. Other State Governments may take similar initiatives after necessary detailed analysis and seeing the efficacy of the system.”

Other Initiatives

5.16 During the course of oral evidence held on 21.05.18, the Committee have been informed that following additional initiatives have been taken by the Government to prevent depletion of Ground Water:

- (a) Guidelines for Water Audit and Water Conservation are under consideration
- (b) Sector specific benchmarking for Water Conservation and Effluent Management has been fixed by NMCG
- (c) Use of treated municipal sewage in thermal power plants has been made mandatory
- (d) Best practices of Water Conservation and Effluent treatment have been implemented
- (e) Awards for promoting best practices of Water Conservation has been instituted
- (f) Roof top rainwater harvesting has been made mandatory by enacting laws or by formulating Rules and Regulations in 30 States.

5.17 Further apprising the measures proposed for the Sustainable Management of Ground Water, the representative of the Ministry made the following suggestions during the power point presentation on 21.05.2018:

- Comprehensive Water Audits to be mandatory for industries
- Designing and implementing cost-effective and water efficient technologies/processes
- Benchmarks for specific water use in different industries
- Serious efforts towards treatment of industrial effluents before their discharge to water bodies
- Recycling and Reuse of water to be made mandatory
- Incentives for Industries implementing good practices
- Awareness campaign on Water Conservation
- Rational pricing of water for industrial use

PART II

OBSERVATIONS / RECOMMENDATIONS

1. EMERGENCE OF PACKAGED DRINKING WATER AS A CRUCIAL SOURCE FOR BRIDGING THE GAP BETWEEN RISING DEMAND FOR PURE AND SAFE DRINKING WATER AND DWINDLING SUPPLY

From the submissions made before the Committee, the Committee note that with rising population and increasing Industrialisation and Urbanisation, the demand for safe and pure Drinking Water has gone up significantly. They note that by 2030, the country's water demand is projected to be twice the available supply and by 2050, the per capita availability of water is estimated to go down to 1140m³/year from 1545m³/year in 2011. They further note that Industry and Energy Sectors, combined, constitute the second largest consumer of water in the country. Further growth in Water Intensive industries has been quite significant putting more pressure on the availability of water. Against this backdrop, the Committee are distressed to note the Ministry's submissions that Industrial Clusters in various parts of the country have been established often without due regard to the availability of assured water supply; which has further compounded the problem of scarcity of water and has led to increased stress on the Local Ground Water Resources in terms of quality and quantity. Such unabated growth in Water Intensive Industries along with increasing population have resulted in adverse environmental and socio-economic effects such as significant long term decline in Ground Water Levels, deterioration in water quality, degradation of large tracts of land and rising conflicts amongst different stakeholders. While expressing their concern over rapidly shrinking water resources unable to cater to the demand of rising population, the Committee feel that there is an urgent need to device a

proper policy framework to address the socio-economic consequences arising out of reckless and uncontrolled use of water for purely Private Commercial Gains.

2. GROUND WATER AS A MAJOR SOURCE OF RURAL DRINKING WATER SUPPLY

The Committee note with utter surprise that still 85 per cent of Drinking Water Schemes in the rural areas covering 17.14 lakh Rural Habitations are based on Ground Water Resources, which although, has ensured assured supply of water, but in the long run, may have adverse impact on the Underground Water Table and lead to water quality issues; as 71,077 Rural Habitations have reported water quality problems. There are 72.72 lakh Water Supply Schemes in the rural areas of the country and 56.84 lakh Hand Pumps have so far been installed. The Committee are particularly concerned to note that though at present, 87 per cent of the Rural Households have access to 'basic water,' as stated by NITI Aayog in its Report on Composite Water Management Index, only 50 per cent of them get Safe Water. Further, due to inadequate or Unsafe Drinking Water, approximately two lakh deaths are occurring annually in the rural areas. The Committee note from the submissions made by the Ministry of Drinking Water and Sanitation (MoDWS) that a strategic goal has been established to achieve *Har Ghar Jal* by 2030. Also, as on 1 April, 2018, 78.14 per cent Rural Habitations are able to get more than 40 litre per capita per day Safe Drinking Water and 56.04 per cent have access to Piped Water Supply. Keeping in view the alarming rate at which Ground Water is being depleted, the Committee desire that the Surface Water should be increasingly relied upon to cater to Drinking Water needs of the Rural Areas. The access to Piped Water supply to each Rural Household; as proposed in the strategic goal to be achieved till 2030 should be focussed on mainly Surface Water Sources except for the areas

where it is not feasible. Further, expressing their concern over large scale drilling for Tubewells / Handpumps, the Committee recommend that a coordinated approach should be taken by the State Governments, Ministry of Drinking Water & Sanitation (MoDWS) and the Central Ground Water Board (CGWB) while giving permission to install Handpumps to check its unbridled growth and strict action should be taken against illegal drilling for Handpumps. The Committee would also like to be apprised of the details of Community Water Purification Plants being set up in Rural Areas to supply Purified Water in the rural areas in the interim period till the completion of network for Piped Water Supply. Further, keeping in view the serious water quality issues, particularly in the Habitations affected with Arsenic and Fluoride contamination, the Committee feel that the Packaged Drinking Water Industries may be roped in to complement the Government's efforts to supply Safe and Clean Drinking Water. Therefore, these Industries should be given incentive by the Government to set up Units/Plants in such areas and provide treated potable water to the masses at an affordable cost.

3. GROUND WATER, A CRUCIAL SOURCE FOR URBAN DRINKING WATER SUPPLY

The Committee note that as per the Census of India, 2011, although a major portion of Urban Households i.e. 70.6 per cent have access to tap water, Covered Wells, Uncovered Wells, Handpumps / Tubewells / Borewells still account for water supply to 1.65 per cent 4.50 per cent 11.86 per cent and 8.90 per cent of Urban Households respectively; highlighting the dependence of Ground Water in Urban Water Supply as well. They are concerned to note the fact that although 93 per cent of urban population have access to

'basic water' as stated by NITI Aayog, large scale intercity and intra city inequities exists in the country which has led to heavy dependence on Privately Extracted Ground Water and thereby, driving down water table in most of the Cities. Ground water table in 21 Major Cities including Delhi, Bengaluru and Hyderabad is expected to reach Zero Level by 2021 - affecting access for 100 million people. The Committee further note that globally Israel has emerged as the largest user of treated and recycled water with 94 per cent of reused water being used. The Committee also note that the Government has taken several initiatives to provide Universal Water Coverage in 500 Cities (having population greater than one lakh) under Atal Mission for Rejuvenation and Urban Transformation (AMRUT), which was launched in 2015, such as Rehabilitation of Old Water Supply Systems including Water Treatment Plants, Rejuvenation of Water Bodies and Recharging of Ground Water, etc. However, the Committee, while agreeing with the views of NITI Aayog that recycling / reuse of waste water is the need of the hour, recommend the Ministry to take appropriate measures to reduce dependence on fresh water. In this context, the Committee further recommend that appropriate measures should also be taken to lay separate Pipe Line for Recycled Water and Fresh Water. Further according to the Committee, reduction in intercity and intra city gaps in Urban Water Supply should be made one of the priority components - while providing for universal water coverage in 500 cities under AMRUT. The Committee would like to be apprised of the details of measures taken in this regard.

4. GROUND WATER AS A RAW MATERIAL FOR PACKAGED DRINKING WATER INDUSTRIES

The Committee observe that out of 447 Billion Cubic Metre (BCM) of total Replenishable Ground Water available annually, 228 BCM is currently being used in Irrigation while 25 BCM is being used for Domestic, Drinking and Industrial purposes. They further note that the Central Ground Water Authority (CGWA) constituted in 1997 under sub-section (3) of Section 3 of Environment (Protection) Act, 1986 has been entrusted with the responsibility for the Management and Development of Ground Water. It gives No Objection Certificates (NOCs) for abstraction of Ground Water. As per the NOCs issued by the CGWA, Packaged Drinking Water Units / Plants are extracting 13.3 Million Cubic Metres of Ground Water per year. They also observe that Packaged Drinking Water / Mineral Water Packaging Industries / Bottling Plants are granted permission to extract Ground Water - subject to the recharge obligations stipulated by the CGWA, which is 50 per cent of Ground Water recharge in 'Safe' areas, 100 per cent of Ground Water recharge in 'Semi-Critical' areas and 200 per cent of ground water recharge in 'critical' areas. Further no Industry is allowed to be set up in 'Over-Exploited' areas. Also, additional measures such as adoption of villages for developing water security plans, plantations suitable for a particular area to enhance the Recharging Capacity and maintenance of Recharge Structures, etc. are suggested to compensate for the depletion of Ground Water. The Industries are directed to implement recharge measures within six months of the issuance of NOC. Besides, the CGWA has Notified 162 Areas where installation of New Ground Water Abstraction structures is not permitted without the prior specific approval of Authorised officers. However, the

Committee are perplexed to note that despite the aforesaid stipulations, a large number of licenses have been given in States, where significant number of 'over-exploited' units are lying, such as Andhra Pradesh (having 41 units and 55 m³ of Ground Water being withdrawn per day), Gujarat (having 24 units with 8 m³/day withdrawal), Karnataka (having 63 units with 60 m³/day withdrawal), Tamil Nadu (having 374 units with 895 m³/day withdrawal) and Uttar Pradesh (having 111 units with 941 m³/day withdrawal). They further find that multiple Government Agencies / Departments are involved in the issuance of licence to Packaged Water Industries such as State Pollution Control Boards (SPCBs); which give consent to operate, subject to fulfilment of CGWA Guidelines for Water Intensive Industries. Further, in case of Packaged Drinking Water Industries / Plants, the Certifying Agencies are Bureau of Indian Standards (BIS) and the Food Safety and Standards Authority of India (FSSAI). However, the Committee are surprised to note that 18 Packaged Drinking Water Units have been allowed to be set up in 'Semi-Critical' areas of Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Tamil Nadu, Uttar Pradesh and Uttarakhand, with 2552 m³ of Ground Water being extracted per day. Further 1 unit each in 'Critical' areas of Chhattisgarh, Uttar Pradesh and Uttarakhand have been permitted withdrawing as much as 825 m³ water per day. The Committee are further surprised to note that despite the huge withdrawals of Ground Water by Packaged Drinking Water Industries, the Ministry has made no effort to find out the total quantum of Ground Water being abstracted by the Packaged Drinking Water Industries as a whole and its impact on the available Ground Water Resources in the areas, as also the effectiveness of measures taken to Recharge the Ground Water as a compensatory measure. The Committee would, therefore, recommend

the Ministry to carry out assessment of total quantum of Ground Water being used by the Packaged Drinking Water Industries and its consequent effect on Ground Water Level in the areas where these Industries have come up on a large scale. The Committee further desire to be apprised of the details of steps taken by the Government in this regard within three months of presentation of this Report to the House.

5. The Committee further note that Packaged Drinking Water Units / Plants supplement the Government's efforts to make Safe Drinking Water available to public. However, the Committee are of the view that the gap between demand and supply of wholesome water for consumption should be bridged largely by Government as a top most Prioritised Social Responsibility and not allow the Industries to exploit this Sector for purely Commercial Gains. Therefore, they recommend the Government to assume a prime role in provision of clean and Safe Drinking Water. While acknowledging the need for Sustainable Management of Ground Water; which is our 'fixed deposit', vital for catering to increased demand in future, the Committee are of the opinion that the dual goal of making available Safe Drinking Water without allowing rampant use of Ground Water Resources as a raw material, can be achieved by encouraging the setting up of Packaged Water Industries on Public Private Partnership (PPP) basis, thereby ensuring Government's role in utilisation of water in a rational manner on the one hand and provision of safe water in a cost effective manner on the other. The Committee feel that the use of Ground Water, which is in fact a scarce community resource, as a Raw Material, should be regulated in a rational manner and not allowed to be used as a source of profits for industries. Taking note of the Ministry's

submission that licensing of Packaged Drinking Water Manufacturing Units may be highly controlled and they must be made to use mostly Surface Water Resources, Raw Water Storage Structures, etc. and Ground Water only as the last resort, duly controlled by the States, the Committee strongly recommend that the use of Ground Water should be restricted and allowed to be used only in exceptional circumstances. The Committee, therefore, recommend the Ministry of Water Resources, River Development & Ganga Rejuvenation to bring necessary changes in water policy and the Guidelines accordingly at the earliest without any further delay as this is the most pressing need of the hour.

6. Further taking note of the fact that Ground Water has emerged as a major source to meet the water requirement of Industries, largely due to its wide availability and Private Ownership, the Committee are of the view that it is high time that 'the India Easement Act, 1882' which provides for right to extract Ground Water, be amended at the earliest in view of the present and future scenario to meet the expected increase in the demand of water. The Committee further recommend strongly that the 'Water (Prevention and Control of Pollution) Cess Act, 1977' providing for levying and collection of a Cess on water consumed by persons carrying on certain Industries should be appropriately amended to discourage wastage of water. They would like to be apprised of the details of the measures taken in this regard at the earliest.

7. CONTAMINATION OF GROUND WATER BY THE PACKAGED WATER INDUSTRIES

The Committee observe that Central Ground Water Board (CGWB) has conducted a study of 88 Industrial Clusters to ascertain the impact of Industries on the underground

water quality. They observe that many chemical constituents have been found to be in excess of permissible limits in case of such Industries as Pharmaceutical, Petroleum, Leather, Tanneries, Electroplating units, Coal and Oil Combustion in Power Plants, Fertilisers, etc. The most common ions found beyond permissible units are Chloride and Nitrates. The Committee note from the submissions made by the Food Safety and Standards Authority of India (FSSAI) that in case of Mineral Water Processing Plants, contamination may occur as a result of reverse-osmosis; which releases concentrates into Ground Water and increases its hardness. However, they are perturbed to note that no study to this effect so far has been conducted by the CGWB. It has only carried out exploratory drilling to delineate contaminant free aquifer zones and successful exploratory wells and thereafter handed over these to the concerned Agencies in the States for utilisation.

Taking note of the fact that Packaged Drinking Water Industry has thrived in the country as a result of increased demand and their consequent use of Ground Water as raw material is increasing rapidly, the Committee recommend the Government to undertake a study on the impact of proliferation of Packaged Drinking Water Industries on Ground Water Quality.

8. LICENSING CONDITIONS FOR SETTING UP PACKAGED DRINKING WATER INDUSTRIES

The Committee note that major Water Intensive Industries are Tanneries, Paper and Pulp, Textile, Breweries and Soft drinks, Dairy and Dairy products, Steel Mills, Thermal Power Plants, Fertilisers, Sugar industries, Distilleries and Packaged Drinking water

industries, etc. They further note that these Industries use Surface Water, Ground Water and Municipal Water. However, Ground Water contributes 35 per cent of total water requirement of these Industries. The Committee also note that a total of 375 NOCs have been issued to the Packaged Drinking Water industries. They further note that specific Standards have been prescribed by Bureau of Indian Standards (BIS) for Packaged Natural Mineral Water and Packaged Drinking Water. Further Sub-Regulations 2.10.7 of the FSSAI defines Mineral Water and its types. All Food Business Operators engaged in the production / sale / Distribution of Mineral Water / Packaged Drinking Water have to follow the Standards of Mineral Water and Packaged Drinking Water as prescribed under Regulation 2.10.7 and 2.10.8 of Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011. Also, FSSAI grants Licenses and Registrations to units engaged in the production of Packaged Drinking Water and Mineral Water, as per the provisions and conditions prescribed in the FSS Act, 2006, Rules and Regulations made thereunder and the proposed installed capacity of the Industrial Units who apply for the License. The Committee, however, note that while FSAAI grants licence to all Packaged Drinking Water and Mineral Water Units / Plants on the basis of the provisions laid down under the Food Safety and Standards (Licensing and Registration of Food Business Regulations, 2011), wherein procedure, requirement of documents and Conditions of License are prescribed and also on the basis of the NOC from the CGWA (since 15.03.2017), it does not check the source of water, which will be used by the Project proponent. The Committee feel that in order to check the rampant use of Ground Water by the Water Intensive Industries, especially Packaged Drinking Water industries, in whose case, FSSAI

is the Licensing Authority, it is imperative that source of water may also be added as additional criterion for issuing Licenses. This condition will ensure that new Packaged Drinking Water / Mineral Water units / plants are established on the basis of mainly Surface Water Source. The Ground Water, as a raw material for use by the industries may be allowed only in such areas where there is plenty of supply of Ground Water and is being constantly recharged naturally such as areas receiving heavy rainfall. The Committee recommend the Ministry of Water Resources, River Development & Ganga Rejuvenation to accordingly take up this matter with the FSSAI - which is under the Ministry of Health & Family Welfare for amending the conditions for giving License at the earliest.

9. IMPOSITION OF TAX / CHARGES LEVIED ON THE PACKAGED DRINKING WATER INDUSTRIES

The Committee note that as in July, 2018, CGWA has issued NOCs to 375 Packaged Drinking Water Units using Ground Water. Further, 5873 Packaged Drinking Water Units hold BIS license for producing Packaged Drinking Water as per IS14543:2016, as on 12.06.2018. Also, FSSAI has given a total of 5417 Central and State licenses for the setting up of Packaged Drinking Water industries. However, they find that no charges have been imposed / tax levied for using Ground Water, a precious raw material which is nature's bounty and free for consumption for all. They observe that collection of tax is vested with the respective State Governments. The Committee feel that while water, the elixir of life, should be available for free, its Commercial Use should be appropriately charged to discourage its wastage. In their view, imposition of tax at higher rates can be an effective deterrent against indiscriminate use of Ground Water by the Industries. It would, on the one

hand, save precious Water Resource, on the other hand, the Government can use the revenue so generated for taking alternative measures to increase accessibility of Safe Drinking Water to the poorer sections of the society.

10. PRICING OF PACKAGED DRINKING WATER

The Committee note that a large number of Packaged Drinking Water Units have been set up in the country whose profits have run into billions of Rupees. However, they are surprised to note that no study / assessment has been carried out by the Government with regard to the total earnings of these Industries, on the plea that this matter does not fall under the purview of the Ministry of Water Resources, River Development & Ganga Rejuvenation. The Ministry has only requested the States to adopt an appropriate Pricing Policy in respect of the Packaged Drinking Water / Beverage and Bottling industries. Moreover, the Ministry has not been able to furnish the information on the total amount of revenue received by the State Government from these industries.

Since water is free commodity, which should be accessible to all, the Committee find the reply of the Ministry with regard to pricing of the Packaged Drinking Water very terse, that it is based on the demand and supply side forces. Although the Ministry has accepted the fact that it is the bounden duty of the Government to provide Safe and Pure Drinking Water to the people at large, the Ministry has distanced itself from any role in this regard, citing water as a State subject and therefore its pricing falls under the purview of the State Government. The Committee, while disapproving of this attitude, recommend the Ministry to coordinate with the Ministry of Micro, Small and Medium Enterprises and the Ministry of

Finance, Department of Revenue for a proper study / assessment of the income / profit earned by the Packaged Drinking Water Industries to enable formulation of appropriate Pricing Policy - in respect of commercial use of water by Water Intensive Industries, including the Packaged/Bottled Water Industries.

Further, in view of the Committee, at present, utilisation of water as a Free Raw Material for the Commercial Purposes has grown due to lack of inter-ministerial coordination on this issue. Therefore, the Committee believe that there is an urgent need to formulate a National Policy about the Commercial Use of Water, laying down the proper framework and regulatory measures for better control of the Water Intensive Industries. They, therefore, strongly recommend the Government to chalk out a policy in consultation with all the concerned Ministries/Departments. They would also like to be apprised of the details of measures taken to ensure a congruent policy approach to address the issue of Commercial Use of water and its impact within three months of presentation of this Report to the House.

11. MONITORING OF THE QUALITY OF PACKAGED DRINKING WATER

The Committee note that during the three year period from 1 April, 2013 to 30 September, 2016, out of 20,224 samples of Packaged Drinking Water drawn for testing, water quality was not found upto the mark in case of 3,384 samples. With regard to the cases of violation noticed in samples of Packaged Natural Mineral Water, out of 145 samples drawn, 10 samples failed. The main reason for water quality not being upto the mark was failure in Chemical and Micro-biological parameters. However, the Committee are

surprised to note that action was taken only in 752 cases - where marking was stopped, 9 cases in which licenses were not renewed and 49 cases where licenses were cancelled. With regard to violations reported in quality of Packaged Natural Mineral Water, marking was stopped only in 10 cases and in 1 case only license was cancelled. The Committee further note that implementation and enforcement of Food Safety and Standard Act 2006 is being done primarily by the officials of Food Safety Departments of respective State/Union Territory Governments; who check compliance with the Standards laid down under the Act. Further all Food Business operators (FBOs) are required to ensure frequent testing of Food Products as per the Point no. 12 of Licensing Conditions mentioned under Annexure-3 of Food Safety and Standards (Licensing and Regulation of Food Businesses) Regulations, 2011. Besides, FSSAI has started a Safe Water Portal wherein Test Reports of water samples based on license number given by the FSSAI, test results uploaded by FBOs, regulatory tests conducted by the State enforcement agencies and test results of water samples conducted by BIS are uploaded. Apart from this, the Department of Consumer Affairs also conducts periodic surprise visits to the licensees' premises, take testing of factory samples and market samples and verification of corrective actions taken by the manufacturers to ensure good quality of water. The Committee also note that BIS has been maintaining quality of ISI marked products under the Bureau of Indian Standards (BIS) (Certification) Regulations, 1988 and as per the relevant notification of the Ministry of Health and Family Welfare.

Having noted the multiple Agencies / Departments of both Central and State Governments, involved in the monitoring of the quality of water supplied through

Bottles/Packaged, the Committee are perturbed to find that still a number of cases of Below Standard Quality Water being packaged and sold in the market, have been reported. Expressing their strong displeasure over action taken against violators only in few cases, the Committee recommend that more stringent actions need to be taken to ensure good quality of Packaged Water - for which quite a hefty amount is shelled out by the public. Keeping in view the sporadic incidences of poor quality water being packed and sold as Pure Drinking Water results in to health hazards for the common public, the Committee, recommend the Ministry to set up a robust Monitoring Mechanism to catch hold of the spurious water being supplied in the market in the form of Packaged Water. For this, both the Food Safety Departments of State/Union Territories Government and BIS have to be more vigilant. They would further like to be apprised of the details of total number of violations noticed, action taken along with the amount raised by way of penalty imposed in respect of Packaged Water Industries during the last ten years and also as on 31st July, 2018.

12. NATIONAL POLICY ON COMMERCIAL USE OF WATER

The Committee observe that no specific policy has been framed in respect of the Commercial utilisation of water which is growing tremendously due to the lack of adequate supply of good quality water commensurate with demands of rising population. With regard to the use of Ground Water in Industries; which is comparatively easily available, there is only CGWA laid Guidelines - which have to be followed for extraction by all the Water Intensive Industries viz. Packaged Drinking Water, Beverages, Breweries, Distilleries, etc. The quality issues in Packaged Drinking Water are governed by the FSSAI Rules and

Regulations. The Committee further observe that the National Water Policy, 2012 states "(a) *A system to evolve benchmarks for water uses for different purposes, i.e., water footprints, and water auditing should be developed to promote and incentivize efficient use of water (b) The Project appraisal and environment impact assessment for water uses, particularly for Industrial Projects, should, inter-alia, include the analysis of the water footprints for the use. (c) Recycle and reuse of water, including return flows, should be the general norm. (d) In order to meet equity, efficiency and economic principles, the water charges should preferably / as a rule be determined on volumetric basis. Such charges should be reviewed periodically. (e) Recycle and reuse of water, after treatment to specified standards, should also be incentivized through a properly planned tariff system.*"

Although, as per the submission of the Ministry, para 7 of the National Water Policy, 2012 suggests specific action plans for Industrial use of water such as demand management, water use efficiency and water pricing, the Committee find that it does not state specific measures for regulation of commercial use of water. As stated earlier, the Committee are of the view that a proper National Policy needs to be formulated with regard to Regulation of Commercial use of Water encompassing inter-alia, such aspects as specific Commercial Use of water, particular source of water to be used, quantum of water, appropriate pricing, taxation of commercial gains made by using water, the specific social and environmental obligations of Industries, etc. Also, as a corporate social responsibility the industries should be actively involved in participation of such activities as adoption of Water Bodies for maintenance, installation of Community RO/Water Purification Plants in the villages, recycling / reusing of Bottles used for Packaging, etc. They, therefore,

recommend the Ministry to frame a Policy accordingly within three months of presentation of this Report.

13. MEASURES TAKEN TO MITIGATE THE ADVERSE EFFECTS OF COMMERCIALISATION OF WATER

The Committee note that the CGWA has laid down Mandatory Conditions such as installation of meters on the Ground Water Abstraction Structures, Implementation of Artificial Recharge Measures and Recycling / Reuse of water in the NOCs issued to Industries using the Ground Water; with a view to prevent environmental degradation. Further, the Ministry has proposed Water Audit and Water Conservation Guidelines to promote efficient use of water. Also, as submitted by the Secretary, Ministry of Water Resources, River Development & Ganga Rejuvenation, incentives on the lines of Certificates issued by the Bureau of Energy Efficiency are proposed to be implemented in the Water Sector to encourage economic and efficient use of water. The Committee further observe that the National Water Policy, 2012 enunciates several measures for addressing issues in the Water Sector in a scientific manner such as adoption of latest technology, Fair Pricing of Water to ensure its efficient use and reward conservation along with equitable access to water for all. They are however greatly perturbed to note that so far, CGWA has not levied any charges/collect tax for using Ground Water by the Industries. However, revision of Guidelines for Ground Water Abstraction with a view to impose 'Water Conservation Fee' is presently under consideration of the Ministry. The Committee believe that while the proposed Guidelines can have a lasting impact on reducing wastage of water; however, any further delay in their formulation and implementation will only further worsen

the already grim water scenario. They, therefore, recommend the Ministry to formulate and implement the Guidelines for Water Audit and Water Conservation, impose a hefty charge to discourage the use of Ground Water and introduce incentives to achieve efficient use of water by industries at the earliest. They would like to be apprised of the details of measures taken in this regard at the earliest.

14. ROLE OF LOCAL ADMINISTRATION IN BRINGING DOWN THE EXCESSIVE USE OF GROUND WATER IN URBAN AREAS

The Committee observe that regulation of Ground Water use does not come under the jurisdiction of Local Administrations, as it is controlled by the State Ground Water Boards / Departments. However, they note from the submissions of the Ministry of Housing and Urban Affairs (MoHUA) that the Urban Local Bodies (ULBs) have a crucial role to play in reducing overall consumption of Ground Water by adopting such policy measures as exploration of alternative water sources by investing in dams, long distance transfer of water and installation of desalination plants, treatment and recycling of black water (wastewater from toilets) and grey water (wastewater from sinks, bathtubs, washing, etc.) from households, industrial establishments, golf course, parks, etc. for use in non-potable purposes. Further the ULBs should also take measures for increasing education and awareness of masses, conserving water both at household and town level by installing robust network of pipeline, stopping leakages from mains and appropriate Pricing of Water to achieve economic use and management of demand. Expressing their agreement with the aforesaid measures, the Committee believe that over-exploitation of Ground Water in Urban Areas including Cities where Private Ground Water Extraction is being resorted to, in quest

for providing alternative Water Supply at a premium and as a result of this many major cities having been pushed to the extent of emptying out all the reserves of Ground Water, the Urban Local Bodies (ULBs) can greatly help in preventing uncontrolled use of Ground Water and reducing unnecessary wastage of available Water Resources. The Committee are of the considered opinion that the Ministry should impress upon the State Governments to strengthen ULBs with the requisite manpower and resources to enable taking suitable measures for effecting judicious allocation and use of water at the lowest level. They, therefore, recommend the Ministry to take appropriate measures in consultation with the MoHUA and State Governments to ensure efficient utilisation of water at the earliest.

15. WATER ATMs AS AN ALTERNATIVE TO EXPENSIVE PACKAGED DRINKING WATER

The Committee observe that Water ATMs / Water Vending Machines are an effective Instrument in providing Safe and Clean Drinking Water to the masses. The installation of these ATMs / Kiosks can be an effective means by which the objective of making safe and good quality water available to the public at cheaper rates can be achieved. However, the Committee are also aware that as the subject of water comes under the jurisdiction of State Governments, they have to take a lead role in installation of such ATMs. The Committee are happy to note that the New Delhi Municipal Corporation (NDMC) has established 37 water ATMs / Vending Machines in and around parks and other locations where there is a reasonable footfall of visitors and another such 40 ATMs are being proposed to be installed on Public Private Partnership (PPP) model by September, 2018. In view of the Committee since availability of Packaged Drinking Water is mainly a prerequisite for the moving public

/ people in transition, the installation of such machines / kiosks at various public places such as railway stations, airports, hospitals, religious places, etc. can to a great extent solve the problem of making available supply of Safe and Clean Potable Water at nominal rates for public consumption. Further, with the installation of such ATMs, the problem of 'plastic pollution' also can be reduced to a great extent by providing water in recyclable paper glasses / refilling of glass bottles as per the convenience. The Committee would, therefore, recommend the Ministry to rope in the State Governments and initiate measures to facilitate the setting up of these kiosks all over the country to enable provision of safe drinking water for masses at reasonable rates.

16. MORAL AND ETHICAL ASPECTS OF COMMERCIAL UTILIZATION OF WATER BY THE PACKAGED DRINKING WATER INDUSTRIES

Having observed the submissions of the Ministry of Water Resources, River Development & Ganga Rejuvenation and all other concerned Ministries / Departments / Agencies, the Committee find that commercial exploitation of water for Drinking Purposes is centered around two main issues i.e. the need to bridge the gap between demand and supply of Safe and Pure Drinking Water and its provision for common travelling public, tourists and persons spending a lot of time in commuting. However, the Committee are of the opinion that the supply of Pure Drinking Water for the masses is a moral and most primary duty of the Government, which so far stands conveniently ignored, as is evident from the Current Policy Plank of the Government presented before the Committee. The Committee, therefore, cannot simply turn a blind eye to this inherent ethical aspect and basic philosophy of a welfare State to provide potable water to its citizens. They, therefore,

strongly feel that Commercialization of Water for Drinking Purposes cannot be only an issue about bridging the demand and supply gap but it also should involve moral and ethical issues. A vast country like India where divide between rich and poor is so acute and accentuated that Safe and Clean Drinking Water cannot be made an aspirational item; which is beyond the reach of most of the common people in the country. The Government's policy cannot favour a situation where only those who can afford to pay high prices for quality water should be benefited while a vast majority of the masses have to depend on tap water so sparsely available and not too hygienic also and is sometimes the main cause for water borne diseases. So every Ministry/Department/Agency/State concerned should rise in unision to fill the gap between rich and poor so far as accessibility to Safe Drinking Water is concerned and take suitable measures to address the unethical practice of charging high rates for Clean Potable Water. The Committee, therefore, are of the considered view that supply of pure and hygienic water to the public cannot be left largely to the Private Industries whose sole interest is to earn profit. Further, taking note of the fact that the Governments, both at the Centre and State levels, are not earning a substantial amount on the tax levied on these Industries; which otherwise could be utilized to undertake welfare activities for the people, the Committee strongly recommend that the Government should play a more proactive role in making Safe, Pure and Hygienic water available to the common public at nominal rates.

NEW DELHI;
07 August, 2018
16 Shravana, 1940 (Saka)

RAJIV PRATAP RUDY,
Chairperson,
Standing Committee on Water Resources

**MINUTES OF THE SECOND SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES
(2016-2017) HELD ON FRIDAY, 04 NOVEMBER, 2016**

The Committee sat from 1130 hours to 1300 hours in Committee Room 'D', Parliament House Annexe, New Delhi.

PRESENT

Shri Abhijit Mukherjee – Acting Chairperson

MEMBERS

LOK SABHA

2. Shri Sudheer Gupta
3. Shri Mohanbhai Kalyanji Kundariya
4. Shri Subhash Patel
5. Shri Vijaysinh Mohite Patil
6. Smt. Aparupa Poddar
7. Shri Vishnu Dayal Ram
8. Shri Ram Prasad Sarmah
9. Smt. Sathyabama V.
10. Shri Lallu Singh

RAJYA SABHA

11. Shri Harshvardhan Singh Dungarpur
12. Mir Mohammad Fayaz
13. Dr. Bhushan Lal Jangde
14. Shri Ananda Bhaskar Rapolu
15. Shri Sanjay Seth
16. Shri A.V. Swamy
17. Shri Pradeep Tamta

SECRETARIAT

1. Shri Shiv Kumar - Joint Secretary
2. Smt. Rita Jaikhani - Director
3. Shri Kushal Sarkar - Additional Director

WITNESSES

Ministry of Water Resource, River Development & Ganga Rejuvenation

1. Sh. Shashi Shekhar, Secretary(WR, RD & GR)
2. Dr. Amarjit Singh, OSD(WR, RD & GR)
3. Shri Sanjay Kundu JS (Parl.) (WR, RD & GR)
4. Shri Akhil Kumar JS (Admn.) (WR, RD & GR)
5. Shri Jagmohan Gupta JS &FA (WR, RD & GR)

Central Water Commission

Shri G.S. Jha Chairman

Central Ground Water Board

1. Shri K.B. Biswas Chariman
2. Shri K.C. Naik Member
3. Dr. Dipankar Saha Member
4. Shri G.C. Pati Member

Ministry of Consumer Affairs, Food & Public Distribution

1. Smt. Alka Panda DG, BIS, Consumer Affairs
2. Ms. Simerjit Kaur Director, (FCI)

Ministry of Drinking Water and Sanitation

1. Shri Samir Kumar Adv. Eco. (DWS)
2. Shri Rajesh Kumar Director (DWS)

Ministry Environment, Forests & Climate Change

1. Dr. Manoranjan Hota Advisor (MoEF&CC)
2. Shri Brijesh Sikka Advisor (MoEF&CC)

Ministry of Urban Development

Shri J.B. Ravinder Jt. Advisor

Ministry of Rural Development

Smt. Aparajita Sarang Joint Secretary

At the outset, the Committee, in the absence of Hon'ble Chairperson, chose Shri Abhijit Mukherjee as acting Chairperson under Rule 258(3) of the Rules of Procedure. Thereafter, the Chairperson welcomed the Members to the sitting of the Committee - convened to take evidence of the representatives of the Ministry of Water Resources, River Development & Ganga Rejuvenation in connection with examination of the subject "Ground Water Scenario, need for a comprehensive policy and measures to address problems in the country with particular reference to (i) Aquifers (ii) Dark Blocks; and (iii) Contamination of underground water by certain industries - especially Industries using Ground water as Raw Material viz. packaged drinking water, mineral water industries, etc." Then he welcomed the representatives of the Ministry. Thereafter, the representatives of the Ministry made power-point presentation highlighting various aspects of the subject which *inter alia* included following:

- (i) **Ground water scenario in the country** – There are approx. 433 BCM ground water resources, which caters to approximately 60% of irrigation needs, 85% of rural drinking water need and 50% of urban drinking water need.
- (ii) **Ground water quality** – Isolated occurrences of Geogenic (Natural) and Anthropogenic (man-made) contamination in the ground water quality has been reported from different parts of the country. Major contaminants are Arsenic, Fluoride, Nitrate, Salinity, Iron, Heavy metals and trace elements, etc.
- (iii) **Ground Water Management challenges** – Major challenges in ground water resource management are – excessive and skewed ground water withdrawal, deteriorating ground water quality, inefficient use of water for agriculture, sustainability of ground water sources especially in hard rocks, inadequate regulatory mechanism, poorly staffed ground water institutions at Central / State level and non-existent Water User Associations for community management of ground water, etc.
- (iv) **Pollution by industries** – Central Pollution Control Board (CPCB) in consultation with various leading institutions in India has identified 88 industrial clusters and has developed

Comprehensive Environment Pollution Index (CEPI). Contamination of various degrees and types has been reported from nearly 90% of the clusters affecting phreatic aquifers.

(v) **Ground Water Management Strategy** –

(a) Major initiatives for improving supply side management of ground water resources are ground water development in areas with sub-optimal utilisation, development of new and hitherto untapped resources of ground water, extensive recharge to augment ground water sources, urgent action plan to protect natural ground water recharge zones and conjunctive use of surface and ground water, etc.

(b) Demand side ground water management measures include extensive education in water budgeting based management to ensure sustainable extraction of ground water, change in cropping pattern suitable to the water availability in an area, creation of market support to encourage cultivation of low water intensive crops, promotion of micro irrigation system such as Drip / sprinkler irrigation, laying of pipelines to reduce water losses, regulation of ground water withdrawals, regulation of subsidized electricity and financing for new tube wells, etc.

(vi) **Mandatory interventions in overexploited / critical areas** – Measures required to improve ground water condition in critical areas include extensive ground water recharge measures, more focus on demand management, micro water budgeting with community involvement, mandatory roof top rain water harvesting in urban areas, metering of ground water withdrawal, adoption of water efficient irrigation practices, crop diversification with adequate market support, conjunctive management of surface and ground water and possible measures for assured supply of electricity for water pumps etc. These measures will be incorporated in revised guidelines of Central Ground Water Authority.

(vii) **Government initiatives** - Major initiatives taken by the Government for the purpose are National Aquifer Mapping and Management Programme, National Hydrology Project, National Ground Water Management Improvement Programme, Special study to establish

the extent of arsenic contamination, convergence of activities and resources from Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Jal Kranti Abhiyan (Jal Gram) and Pradhan Mantri Krishi Sinchai Yojana (PMKSY) to bring total water security, preparation of manuals / guides for implementation of rainwater harvesting / artificial recharge schemes, e-governance initiatives, etc.

2. The Committee began the deliberations with the issue of progress of Aquifer Mapping, a programme launched in 2012. A query was made by the Committee on the initiatives taken for recharging of aquifers by the Central and State Governments and the need for preparing a Master Plan for recharge of ground water in a scientific manner. Also, the Committee desired to know the obligations of industries using ground water for industrial and commercial purposes in recharging of aquifers so as to replenish them.

3. Responding to this, the representative of the Ministry informed that steps have been initiated to find out the thickness of dry zone and volume of water, which can be injected through artificial recharge. Further, the Indian Institute of Tropical Meteorology (IITM) has been consulted to study their climate change model to enable its use in finding out the volume of water available during high rainfall period and utilise it maximum for recharging. He also informed the Committee that the ground water contamination varies in different areas e.g. in Gangetic plain, ground water is contaminated with arsenic within 60 or 70 meters underground beyond which water is fresh but in hard rock areas of South India, the fluoride content is more. With regard to recharge obligation of industries using ground water, he further informed the Committee that the Central Ground Water Authority has put recharge obligations on industries before giving them permission and compliance is monitored by the Authority. Members further desired to know whether there is simultaneous contamination by fluorides, arsenic, iron and nitrate etc. To this, the representative of the Ministry informed that except at some places, fluoride and arsenic contamination is mutually exclusive to a great extent.

4. To a particular query by the Committee about the assessment of dark zones, the Committee were informed that the Central Ground Water Authority (CGWA) carries out assessment of ground water

resources of 6600 blocks covering entire country. As per the latest survey, almost 69% of the blocks are safe, 11% are semi critical and 3% are critical. 1071 Dark Blocks mostly lie in Delhi (67 blocks), Haryana (61 blocks), Punjab (110 blocks), Rajasthan (172 blocks), Tamil Nadu (374 blocks) and Uttar Pradesh (111 blocks). With regard to the recharging of Dark Blocks, the OSD, Ministry of Water Resources, River Development and Ganga Rejuvenation informed that in consultation with the Department of Rural Development, it has been decided to use Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) funds. Again on being asked by the Committee about illegal drilling of tubewells, he agreed that the Ministry need to be more vigilant to prevent the illegal extraction of ground water.

5. Then, the Chairperson raised the issue of ground water extraction by packaged or mineral water industries in the country; number of such industries in Dark Blocks; amount of tax thus collected by the Government and any standard/parameter fixed for packaged drinking and mineral water etc. To this the OSD to the Ministry of Water Resources, River Development and Ganga Rejuvenation replied that in 1071 Dark Blocks, permission for the setting up of industries is given subject to the condition that they would recharge the ground water. On the issue of standards / parameters set for packaged water, Director General(DG), Bureau of Indian Standard (BIS) informed that there are two standards, one for packaged drinking water and the other for natural mineral water, where the source of water itself is a natural source. BIS has issued approx. 6000 licences under packaged drinking water and a very few licences under natural mineral water. Further, no packaged drinking water can be sold without an ISI mark and Food inspectors of Food Safety and Standards Authority of India (FSSAI) and State Governments monitor unscrupulous activities. In case of misuse of ISI mark, action is taken in the court of law. On being asked about action taken against violators, the DG, BIS informed that licences are issued on the basis of continuous testing. The Committee were further informed that BIS has changed standards but those have not been published as yet because FSSAI, which is the regulator, has not changed its standard so far.

6. Further in reply to a query on the number of packaged water industries given licence in Assam, the representatives of the BIS informed that approx. 400 licences have been issued in North-east including

Assam. The quality of packaged water is monitored through the samples drawn from market. However, due to limited staff such surveillance is done only once or twice a year.

7. The Chairperson desired to know about the quantum of work done in 100 days under MGNREGA and whether the States/Districts/Blocks utilising 100% funds have created work in proportion to that. Responding to this the representative of the Ministry of Rural Development informed the Committee that work on approximately 8,82,000 farm ponds were taken up and as of now 3 lakh farm pumps has been completed. Further, work on another 6 lakh farm pumps has been taken up. Also, so far, 61% of the expenditure has been made on irrigation activities under MGNREGA. The Committee also discussed the issue of programmes / activities envisaged to be undertaken / allowed by the Government in dark zone/areas in place of programmes / activities, which are banned in such areas. Further, the Committee deliberated on the *Jal Gram* model being implemented by the Ministry.

8. Lastly, a suggestion was made before the Chairperson that the Committee should reiterate their recommendation to bring 'Water' in the Concurrent List so that both Central and State Governments are able to take concrete action in the matter. The Chairperson, then, directed the representatives of various Ministries to submit written replies to the queries - which were raised by the Members during the discussion and remained unanswered.

9. The Hon'ble Chairperson appreciated the Ministry for frankly presenting the information.

The witnesses then withdrew.

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
(2016-2017) HELD ON FRIDAY, 03 JANUARY, 2017**

The Committee sat from 1130 hours to 1315 hours in Committee Room 'B', Parliament House Annexe, New Delhi.

PRESENT

Shri Hukum Singh – Chairperson

MEMBERS

LOK SABHA

2. Shri Prakash B. Hukkeri
3. Shri B. Vinod Kumar
4. Shri Mohanbhai Kundariya
5. Shri Maganti Murali Mohan
6. Shri Abhijit Mukherjee
7. Shri Subhash Patel
8. Smt. Aparupa Poddar
9. Shri Vishnu Dayal Ram
10. Smt. Sathyabama V.
11. Shri Lallu Singh

RAJYA SABHA

12. Shri Harshvardhan Singh Dungarpur
13. Dr. Bhushan Lal Jangde
14. Shri Ananda Bhaskar Rapolu
15. Shri Sanjay Seth
16. Shri Pradeep Tamta

SECRETARIAT

- | | | | |
|----|--------------------|---|---------------------|
| 1. | Shri Shiv Kumar | - | Joint Secretary |
| 2. | Smt. Rita Jaikhani | - | Director |
| 3. | Shri Kushal Sarkar | - | Additional Director |

WITNESSES

Ministry of Water Resource, River Development and Ganga Rejuvenation

6. Dr. Amarjit Singh, Secretary (WR, RD & GR)
7. Shri Sanjay Kundu JS (Parl.) (WR, RD & GR)
8. Shri Akhil Kumar JS (Admn.) (WR, RD & GR)
9. Shri Jagmohan Gupta JS &FA (WR, RD & GR)
10. Shri Ashok Kumar Director (WR, RD & GR)

Central Water Commission

Shri G.S. Jha Chairman

Central Ground Water Board

5. Shri K.B. Biswas Chariman
6. Dr. E. Sampath Kumar Member
7. Dr. Dipankar Saha Member
8. Shri G.C. Pati Member

Ministry of Drinking Water and Sanitation

1. Shri Samir Kumar Economic Adviser
2. Dr. Dinesh Chand Additional Adviser
3. Shri D. Rajasekhar Deputy Adviser (PHE)

Ministry of Environment, Forests and Climate Change (Central Pollution Control Board)

1. Shri J. S. Kamyotra Director
2. Dr. Dinesh Runiwal Joint Director
3. Shri R. M. Bhardwaj Additional Director

Ministry of Urban Development

Shri J.B. Ravinder Joint Advisor

Ministry of Rural Development

1. Smt. Aparajita Sarangi Joint Secretary
2. Dr. Suparna S. Pachouri Director

Ministry of Agriculture and Farmers Welfare

Shri Pankaj Tyagi, Director (NRM/RFS)

Ministry of Consumer Affairs, Food and Public Distribution

Smt. Alka Panda DG, BIS, Consumer Affairs

Food Safety and Standards Authority of India (FSSAI)

Shri Kumar Anil Advisor

Ministry of Health and Family Welfare

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 and Ganga Rejuvenation - in connection with examination of the subject "Ground Water Scenario, need for a comprehensive policy and measures to address problems in the country with particular reference to (i) Aquifers (ii) Dark Blocks; and (iii) Contamination of underground water by certain industries - especially Industries using Ground water as Raw Material viz. packaged drinking water, mineral water industries, etc." Then he welcomed the representatives of the Ministry. Thereafter, the representatives of the Ministry made a power-point presentation highlighting various aspects of the subject which *inter alia* covered the issues like Ground Water Management Challenges, Ground Water Over-exploitation, Ground Water Contamination, Pollution by Industries, Ground Water Management Strategies and initiatives, Ground Water Regulation and Augmentation, in particular, the Packaged Drinking Water.

2. The Chairperson began the discussion by focusing it on the issue of commercial use of water, a community resource. He asked about the approach of the Government on this issue and regulations to prevent increasing commercialisation of water. He also desired to know the contributions made by major companies - which are making huge profits by commercial use of water, the percentage of the population which has been benefitted by using the packaged drinking water, the percentage of the population which has been deprived of the packaged drinking water, schemes of the Government, if any, for giving access to pure water to poorer sections of the society, etc. The Secretary of the Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD&GR) apprised the Committee that since the last sitting of the Committee, 60 inspections of compliance of regulations by industries using water have been carried out and notices have been issued to the non-compliant units. Further the Ministry is working on a policy to segregate Central Ground Water Board and Central Ground Water Authority. On being asked by the Committee about any National Policy about selling of the Packaged Drinking Water, the Secretary informed that there is no such policy. However industrial use of water is not encouraged in notified blocks. The areas where such industries are permitted, these have to recharge equal or double the amount of water which

they draw. Besides recharge obligations, these industries have to pay normal tax levied by the Government.

3. The Chairperson expressed concern over the fact that there are five major players viz. Bisleri, Pepsico, Coca cola, Dhariwal and Parle - who have made a total turnover of about Rs.160 billion, but their contribution in providing access to pure and safe water to the poor has been nothing. Taking note of the fact that the National Water Policy, 2012 states nothing on commercial use of water, the Committee emphasised on the urgent need to make such a policy in the matter. The Committee expressed concern over involvement of about three- four Ministries in this matter without any proper coordination. A query was made by the Committee on any existing scheme of Central Government for providing purified, clean water to the people, to which the Secretary informed that no such scheme is there for the present. However the same would be worked out after the revamping of Central Ground Water Board, on which the work is being done by the Ministry currently. The Committee, then, further raised the issue of contaminated drinking water affecting 66,948 rural habitations. They pointed out that the measures taken for providing pure drinking water are also not proving effective as 80 per cent of pipelines laid for supply of water are defective. They deplored the fact that Multinational Companies have made a huge profit by selling water – a community resource and national property to its people, without making any contribution towards providing clean drinking water to that section of the society who cannot afford to buy packaged drinking water. The Committee were of the considered view that these industries should rather be made a supporting mechanism to the Government in its effort to provide clean and pure drinking water to poor sections of the society.

4. The Committee, then, discussed and appreciated the measures taken by the Telangana Government to provide clean and safe drinking water by using river water for supply instead of ground water which is contaminated with fluoride. A specific query was raised with regard to any initiative taken by Central Government for promotion of 'Mission Bhagiratha', a model which can be implemented in other States as well. To this, the representative of the Ministry of Drinking Water and Sanitation (MoDW&S) replied that they are sending the proposals received under the programme to the Department of Economic

Affairs for external assistance. The Committee suggested that the MoDS&W should check the quality of infrastructure such as the pipelines and equipments being used under the programme to make it a success.

5. The Committee further suggested that since 'Water' is a State subject, the State Governments can also frame a policy whereby the multinational companies, selling packaged water are made to pay the cost by investing a substantial amount of their earnings in providing drinking water facility in the remote areas with contaminated water supply besides evolving a National Policy on use of water for commercial purposes. The Secretary, MoWR, RD & GR assured that a Policy on this issue will be chalked out detailing what to do with all the MNCs - which are drawing water and are making profits only on water, in next three months and Committee will be apprised about the same.

6. In response to a query raised by the Committee about the measures taken by the MoDW&S to provide clean and safe drinking water in the country, the representative of the Ministry apprised that mandate-wise, they are only catering to habitations for drinking water purposes. Further they have made the target to provide 90 per cent piped water supply to rural areas by 2022. However taking note of the fact that there is no proper adherence to guidelines for setting up tubewells in the rural areas, the Committee advised better monitoring at the district level. The Committee thereafter enquired about the extent of pure drinking water supply in urban areas, to which the representative of the Ministry of Urban Development replied that currently 70 per cent of urban population is getting tap water supply. Water supply to remaining 27 per cent of the population is being catered through tubewells and wells, etc. Therefore, 97 per cent of the population is getting water supply within 100 metres of their habitation. On a query raised with regard to status of the sanitary and water supply scheme in the selected cities of the country, the representative of the Ministry of Urban Development informed that this scheme has been completed in upto 84 per cent of the cities. However, the projects which were approved under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) after the year 2013 are still going on. The target date for completion of these schemes was extended upto March, 2016. But after that the share of the Central Government fund has been reduced from 80 to 60 per cent under the scheme - ATAL MISSION FOR REJUVENATION AND URBAN TRANSFORMATION (AMRUT).

7. Another query was raised by the Committee with regard to micro irrigation and its effectiveness in increasing efficiency of water use. The Committee also drew the attention of the Ministry of Agriculture about the source of water for drip-irrigation, which at times get interrupted due to failure of power supply. The Committee suggested that this problem can be solved if overhead tanks are constructed and water is stored which will ensure continuous source of water for irrigation of field through drip irrigation.

8. The Committee were informed by the representative of Food Safety and Standards Authority of India (FSSAI) that packaged drinking water has been defined as 'food' under the FSSAI Act. FSSAI only sets standard for packaged water. Further there is no provision for checking the source of water being used for packaging, while giving licence to such plants and licence is given by the State Governments. The Committee, however, pointed out that the FSSAI should monitor that its standards are being followed scrupulously.

9. The Chairperson, then, directed the representatives of various Ministries to submit written replies to the queries - which were raised by the Members during the discussion and remained unanswered. He appreciated all the Ministres for frankly presenting the information. He also desired that as assured by the Secretary, MoWR, RD and GR, the Ministry will prepare a National Policy on this issue in consultation with other related Ministries and Departments and apprise the Committee within three months.

The witnesses then withdrew.

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

The Committee then adjourned

MINUTES OF THE SIXTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2017-2018) HELD ON MONDAY, 21 MAY, 2018

The Committee sat from 1100 hours to 1250 hours in Committee Room No. - 3, Parliament House Annexe Extension Building, New Delhi.

PRESENT

Shri Rajiv Pratap Rudy - **Chairperson**

MEMBERS

LOK SABHA

2. Shri Radheshyam Biswas
3. Shri Devusinh Jesingbhai Chauhan
4. Shri Sudheer Gupta
5. Shri Prakash Babanna Hukkeri
6. Shri Mohanbhai Kalyanji Kundariya
7. Shri Sidhant Mohapatra
8. Dr. Abhijit Mukherjee
9. Shri Sanjay(Kaka) Ramchandra Patil
10. Smt. Aparupa Poddar
11. Shri Vishnu Dayal Ram
12. Smt. V. Sathyabama
13. Shri Lallu Singh

RAJYA SABHA

14. Shri Balwinder Singh Bhunder

Special Invitee

- Shri Prem Das Rai, MP, Lok Sabha

SECRETARIAT

1. Shri Kusal Sarkar - Additional Director
2. Shri R.C. Sharma - Deputy Secretary

MINISTRY OF WATER RESOURCE, RIVER DEVELOPMENT & GANGA REJUVENATION

11. Sh. U.P. Singh, Secretary, WR, RD & GR
12. Sh. Jagmohan Gupta, JS & FA(WR, RD & GR)
13. Sh. Nitishwar Kumar, JS(Admn.)
14. Sh. Akhil Kumar, Joint Secretary(GW)
15. Sh. Sanjay Kundu, Joint Secretary(RD & PP)
16. Sh. Ashish Kumar Director, Mo WR, RD & GR.

CENTRAL GROUND WATER BOARD

17. Sh. K.C. Nayak, Chairman, CGWB
18. Dr. E. Sampath Kumar, Member, CGWB
19. Sh. G.C. Pati, Member, CGWB
20. Sh. Alok Dube, Member, CGWB
21. Dr. P. Nandakumaran, Member, CGWB
22. Dr. Uma Kapoor, Regional Director, CGWB
23. Sh. Rana Chatterjee, Sc.-D, CGWB
24. Sh. D. Chakraborty, Sc-D, CGWB
25. Sh. Pratul Saxena, Sr. Hydrologist, CGWB

CENTRAL WATER COMMISSION

26. Sh. S. Masood Husain, Chairman, CWC

National Mission for Clean Ganga (NMCG)

17. Sh. Rajeev Ranjan Mishra, DG, NMCG
18. Sh. D.P. Mathuria, Exectutive Director, NMCG

Central Pollution Control Board

19. Sh. R.M. Bhardwaj, SC-E, CPCB

MINISTRY OF URBAN DEVELOPMENT

20. Shri J.B. Ravinder, Jt. Adviser, M/o UD
21. Sh. G.S. Dhillon, Director (AMRUT), M/o UD

MINISTRY OF RURAL DEVELOPMENT

22. Smt. Aparajita Sarangi, JS, M/o Rural Development.

MINISTRY OF DRINKING WATER AND SANITATION

23. Ms. V. Radha, JS, M/o DWS

MINISTRY OF AGRICULTURE AND FARMERS WELFARE

24. Sh. B. Kishore, JS, M/o Agriculture and Farmers welfare

DEPARTMENT OF INDUSTRIAL POLICY & PROMOTION

25. Dr. Vandana Kumar, JS, Department of Industrial Policy & Promotion.

At the outset, the Chairperson welcomed the Members to the sitting of the Standing Committee on Water Resources (2017-2018) convened to have a briefing by the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD and GR) and various other Ministries of Government of India, in connection with examination of the subject "*Social, Economic and Environmental impact of commercial exploitation of water*". Further, he recalled the earlier two meetings of the Committee held on the topic "*Review of Ground Water Scenario, need for a comprehensive policy and measures to address problems in the country with particular reference to (i) Aquifers (ii) Dark Blocks; and (iii) Contamination of underground water by certain industries - especially Industries using Ground water as Raw Material viz. Packaged Drinking Water, Mineral Water Industries, etc*" held on 04.11.2016 and 03.01.2017 respectively which also dealt with the issue of commercial exploitation of water by the Industries. Although, the Standing Committee (2017-18) have selected the subject under different nomenclature viz. "*Socio-economic impact of commercial exploitation of water by Industries*", the aspect of "*Exploitation of Water by Packaged Water Industries*" remains the core issue for examination. The Committee desired to have a complete overview of the subject highlighting the major issues, concerns and problems with reference to increasing exploitation of water for commercial purposes which has resulted in unequal access to safe and pure drinking water to the common masses. The Chairperson further informed that the Committee have invited Shri Anil Kulkarni, Scientist from Indian Institute of Science, Bengaluru to enlighten the Committee and make a presentation on the topic "*Himalayan Glaciers and Climate Change*". Shri Prem Das Rai, MP (Lok Sabha) was also invited to this meeting of the Committee as a Special Invitee.

2. Thereafter, the Hon'ble Chairperson welcomed the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD and GR), Central Ground Water Board, Central Water Commission, Ministry of Urban Development, Ministry of Rural Development, Ministry of Drinking Water and Sanitation, Ministry of Agriculture and Farmers Welfare and Department of Industrial Policy and Promotion. After that, the representative of the Central Ground Water Board (CGWB) also made an elaborate Power-Point presentation on various issues concerning the subject.

3. Subsequent to the Power Point Presentation, the Secretary, MoWR, RD and GR apprised the Committee about the Scheme viz. Perform, Achieve and Trade (PAT) for the Energy Sector prepared by the Bureau of Energy Efficiency. There is an incentive for the industries which consumes less energy. On the same line, a proposal is being deliberated for Water Sector as well. Further, the representative of the Ministry of Agriculture and Farmers Welfare informed the Committee that Sprinkler and Drip Irrigation is being taken up on a very large scale under the Prime Minister *Krishi Sinchayee Yojana*. It has produced wonderful results in terms of saving of water, labour cost and also increasing the crop yield as revealed by a study conducted by IIM,

Ahmedabad, Centre for Innovation, Incubation and Entrepreneurship. The Cabinet has also approved a Micro Irrigation fund which is also being used for the innovative micro irrigation schemes like Drip and Sprinkler System. Replying to the query about Command Area Development Authority (CADA), the Secretary, MoWR, RD and GR submitted before the Committee that one component which is being implemented by the Ministry of Water Resources under the Prime Minister *Krishi Sinchayee Yojana* is the completion of Major and Medium Irrigation Projects and Command Area Development of these Projects.

4. Further, the representative of the Ministry of Rural Development overseeing MGNREGA Scheme informed the Committee that a lot of work is being done in the fields of Water conservation and Water Management. Only in the last year, Rs. 32,200 crore out of Rs. 64,000 crore was spent only on Water Conservation and Management. Adequate funds have also been made available to the States in this regard. However, the Committee expressed concern that the scheme is not being implemented properly which is resulting in duplication of work and also setting of non achievable targets. The Committee suggested physical verification of the Scheme as well as proper utilization of the funds. Further, the Chairperson asked for a State-Wise Detailed Note about the rivers and also called for information on the rivers namely Mahi and Dabra.

5. Subsequently, the Chairperson asked a number of questions and raised many issues like process of water recharge, role of the State Government in recharge process and its modalities, the number of power stations using water of sewerage treatments plants. He also enquired whether any guidelines have been issued for suggesting legislation to the State Governments which do not have Environment Protection Act. He further insisted the need to have a clear System to obtain No Objection Certificate by the industries. The Chairperson drew the attention to the pricing policy for extracting the Ground Water. He also asked the representative of the Ministry of Water Resources, River Development and Ganga Rejuvenation for arranging a presentation for the information of the Committee on MGNREGA and Management of Water Resources.

6. The Committee expressed concern regarding the overexploitation of Ground Water because of tube wells and also liked to be apprised whether any study has been conducted to assess losses due to such overexploitation. It also suggested rational pricing of water for Industrial Use should be the basis to issue NOC to Industries. The Committee also suggested proper monitoring to ascertain the usage of water by industries and its corresponding ratio to water recharge. Coming to the Packaged Water Industry, the Committee desired to know the status of Pricing Policy in this regard. It further highlighted the presence of excessive quantity of fluoride and arsenic in water resulting in adverse effect on the health of people. The Committee enquired about the action being taken by the Government of India to combat this problem. The Committee also laid emphasis on the Corporate Social Responsibility (CSR) of the Industries and recommended its enhancing role in this regard.

7. Concluding the discussion with the representatives from the Ministry, the Chairperson thanked the representatives for making a comprehensive presentation on the subject and expressing their views in a free and frank manner. He further called for a Brief Note on 'Bottled Water'. He further asked the Secretary, MoWR, RD and GR to furnish written replies to the queries raised by Members during the sitting which could not be replied by the representatives orally. He also spoke about the constituting of a sub-committee to examine the subject and a final Report may be made before the Parliament within two months.

8. Thereafter, the Chairman welcomed the Non-Official witness, Dr. Anil Kulkarni and requested him to offer his expert opinion and views on the subject "*Himalayan Glaciers and Climate Change*" before the Committee. He also informed him that the views presented by him would be confidential. The Committee then heard in detail the views of the Non-Official witness.

9. The following main points emerged during the discussion:

- (i) Temperature and Precipitation Change: Himalayan Period: (1990-2015)
- (ii) Deteriorating situation of Pindari Glacier
- (iii) Loss in Glacier Area
- (v) Glacier Mass Loss: Himachal Pradesh (1985-2013)
- (vi) Cumulative Mass Loss: Himachal Pradesh (1985-2050)
- (vii) Climate Change and Water Availability: Satluj River
- (viii) Satluj Basin: Future Changes
- (ix) Spatial Distribution of Area Loss Satluj Basin by 2090
- (x) Glacier Melt in Satluj from Mass Loss and Snow Fall
- (xi) Contribution of Glacier Mass Loss
- (xii) Glacier Retreat and Flash Flood
- (xiii) Glacier Erosion: Lake.
- (xiv) Debris Cover and Lake Formation
- (xv) Volume Estimation South Lohank Glacier Sikkim
- (xvi) Influence of Retreating Glaciers on Society

10. After the conclusion of the presentation by the non-official witness, the Chairperson thanked him for his insightful presentation and introduced Shri Prem Das Rai, Hon'ble MP, Lok Sabha who was invited as a Special Invitee to the Meeting because of his wide knowledge and keen interest in the field of Climate Change. On request of the Chairperson, Shri Rai shared his experience and views on

climate change with the Committee. He expressed concern over the deteriorating condition of glaciers and laid emphasis on the need for cooperation from all stakeholders.

The verbatim proceedings of the sitting of the Committee were kept for record.

The Committee then adjourned.

ANNEXURE-IV

**MINUTES OF THE EIGHTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES
(2017-18) HELD ON TUESDAY, 07 AUGUST 2018**

The Committee sat from 1500 hours to 1530 hours in Committee Room No. 139, First Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri Rajiv Pratap Rudy – Chairperson

MEMBERS

LOK SABHA

2. Shri Radheshyam Biswas
3. Shri Devusinh Jesingbhai Chauhan
4. Shri Sudheer Gupta
5. Shri Mohanbhai Kundariya
6. Shri Maganti Murali Mohan
7. Shri Sidhant Mohapatra
8. Shri Abhijit Mukherjee
9. Shri Subhash Patel
10. Shri Sanjaykaka Ramchandra Patil
11. Shri Vijaysinh Mohite Patil
12. Smt. Aparupa Poddar
13. Shri Vishnu Dayal Ram
14. Smt. V. Sathyabama
15. Shri Lallu Singh

RAJYA SABHA

16. Sardar Balwinder Singh Bhunder
17. Shri Harshvardhan Singh Dungarpur
18. Shri Syed Nasir Hussain
19. Shri Ahmad Ashfaque Karim
20. Dr. Kirodi Lal Meena
21. Shri Mir Mohammad Fayaz
22. Shri Dharmapuri Srinivas
23. Shri Pradeep Tamta

SECRETARIAT

- | | | | |
|----|--------------------|---|---------------------|
| 1. | Shri Shiv Kumar | - | Joint Secretary |
| 2. | Shri Kushal Sarkar | - | Additional Director |
| 3. | Shri R. C. Sharma | - | Deputy Secretary |

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee. Thereafter, the Committee took up for consideration and adoption (i) Draft Report on Action Taken by the Government on the Observations / Recommendations contained in the Twentieth Report (16th Lok Sabha) on Demands for Grants (2018-19) of the Ministry of Water Resources, River Development & Ganga Rejuvenation. (ii) Draft Report on the subject 'Socio-economic impact of commercial exploitation of water by Industries'. After some deliberations, the Committee adopted the aforesaid two draft Reports with minor modifications, subject to factual verification of facts in the narration.

3. The Committee also authorized the Chairperson to present these two Reports to both the Houses of Parliament in the current Monsoon Session.

The Committee then adjourned