

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 496/2016
(Earlier O.A. No. 253/2015)

News Item Published in "Hindustan Times" dated 19.06.2015

Titled

"Dirty flows your drinking water" authored by Ritam Halder"

Date of hearing: 27.08.2019

Date of uploading of Order: 11.09.2019

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

ORDER

1. Proceedings in this matter were initiated by way of O.A. No. 253/2015 in the light of above news item dated 19.06.2015 in the Hindustan Times highlighting the problem of water quality on account of contamination of ground water. Later, in the light of status reports filed by the CGWA and the DJB showing contamination of the ground water at certain locations, the Tribunal, vide order dated 10.12.2015, constituted a Committee headed by Special Secretary (Environment), Delhi to examine areas where ground water was contaminated, seal hand pumps and tubewells extracting such water to safeguard public health and environment. Status report was directed to be filed for further consideration.

2. The matter was taken up for consideration after assigning new O.A. No. i.e. 496/2016 to consider the above status report. Vide order dated 30.08.2018, after referring to the said status report filed by the Committee on 09.09.2016, 'Ground Water Year Book' compiling data of the ground water and affidavit filed on behalf of DJB on 07.08.2018, Tribunal noted the need for comprehensive ground water management, plan covering Rain Water Harvesting (RWH) systems, use of treated water for ground water recharge and regulation of extraction of ground water, apart from revival and rejuvenation of water bodies. Reference was made to notification dated 28.07.2001 requiring roof top RWH in every plot of more than 100 sq. m. Reference was also made to the action plan prepared by DJB for use of treated water for ground water recharge, rejuvenation of water bodies and also for horticulture purposes in parks and other institutions. Accepting a suggestion for an independent Monitoring Committee on the subject, the Tribunal constituted a Monitoring Committee headed by Justice S.P. Garg, former Judge of Delhi High to take stock of actions already taken and to prepare a time bound action plan to deal with the problem.

3. Accordingly, the Committee assumed its working and gave its first report dated 18.02.2019 which was considered by this Tribunal vide order dated 19.02.2019. The report dealt with the issue of revival and rejuvenation of water bodies. 50 water bodies were identified in the first phase for removing encroachments in different parts of Delhi out of list of 201

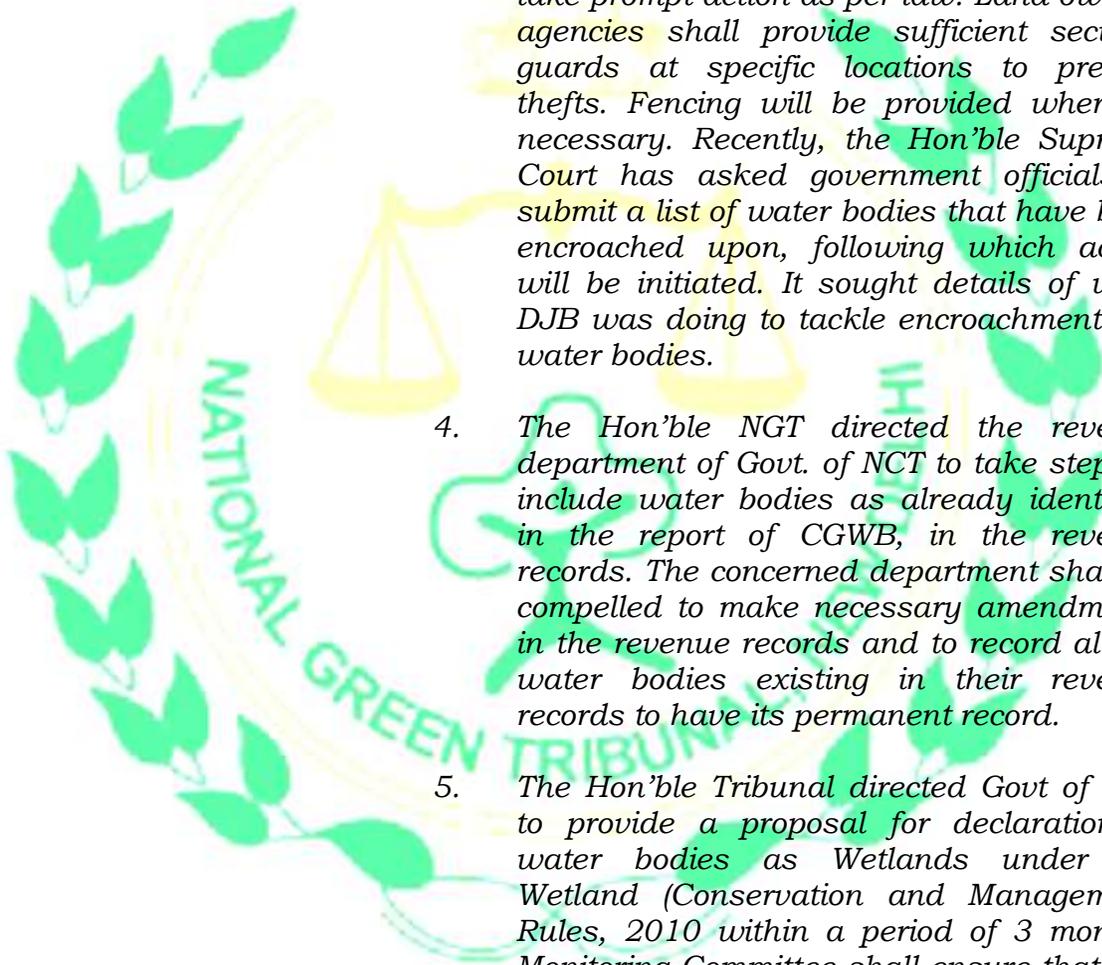
water bodies furnished by the DJB. On the subject of RWH systems, the Committee found 6761 systems in place. The Committee noted the observations in the order of the Hon'ble Supreme Court dated 11.07.2018 in *W.P. (C) No. 4677 of 1985, M.C. Mehta v. Union of India & Ors.* to the effect of alarming situation of depleting ground water and need for remedial action.

4. On the subject of ground water recharge, it was mentioned that 14,231 borewells were illegally operating in Delhi which needed to be sealed. Over exploitation of ground water was required to be checked in view of the fact that 15% of Delhi ground water had reached below 40 meters. Action plan of the Committee was to be as follows:-

- “1. *The Monitoring Committee shall ensure that the water bodies are maintained properly and directions of the Hon'ble NGT are complied with whereby DDA was directed to survey and map all the primary, secondary and tertiary drains into water bodies in case some of them do not have an outfall into the water body. Wherever feasible, due consideration would be given to the watershed/catchment of each of the water bodies arrived at on the basis of contouring map. It shall also be ensured that no domestic sewage/industrial effluent is permitted to flow into the water bodies and domestic sewage which is flowing into the water bodies, such domestic sewage should either be diverted into the sewage network in the area or trapped by constructing individual septic tanks by the households in consultation with DJB.*
2. *The Monitoring Committee shall ensure that in terms of the order, DDA shall make sufficient budgetary provision for survey, identification and restoration of water bodies. With respect to greening of areas with local indigenous species through horticulture department of DDA, efforts will be made that the required plants such as Khejari, Bistendu, Ronjh and Dhak are*

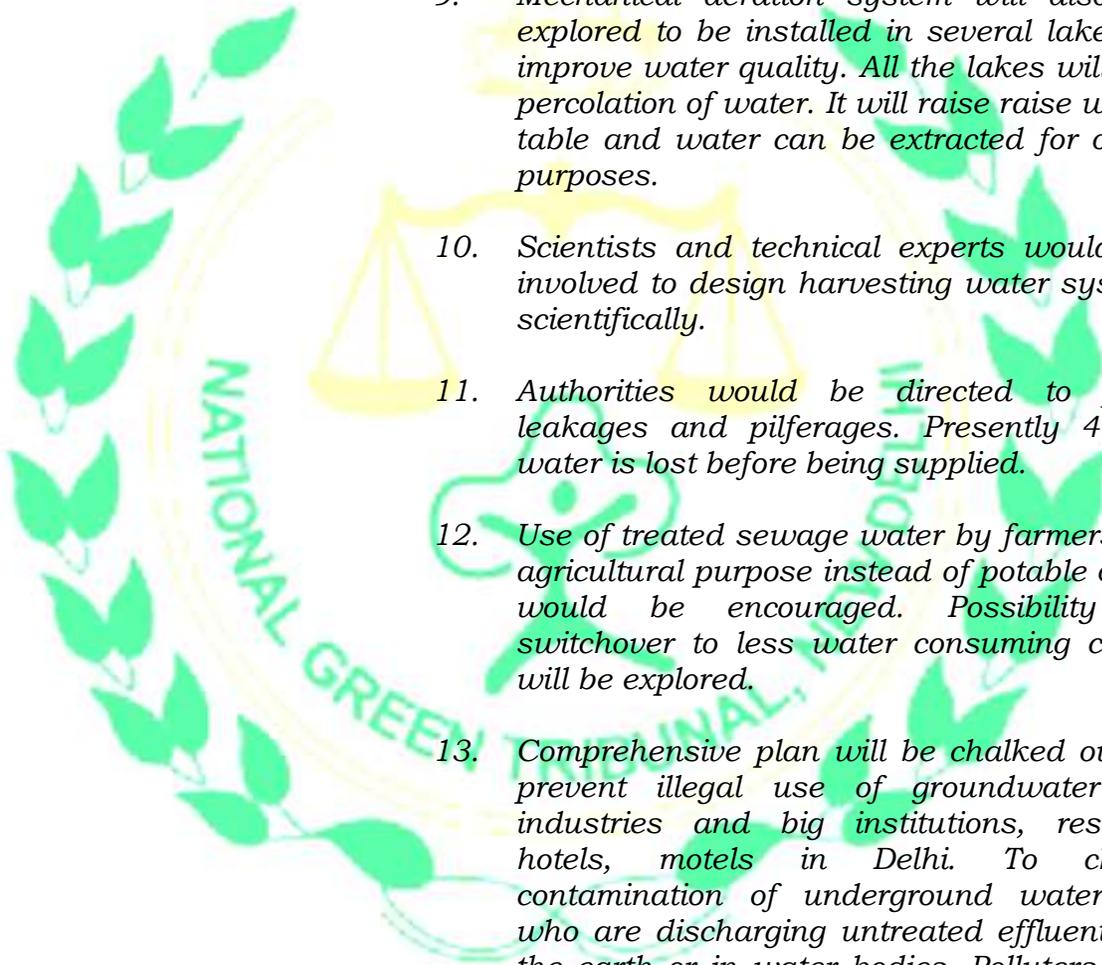
obtained and planted. The woodland and greenery around the water bodies shall be maintained.

3. With respect to removal of all illegal encroachments and unauthorized dumping of municipal waste, as per orders dated 01.01.2016, DDA/Delhi Government will be asked to take all such steps for removal of the illegal encroachments on the water bodies, their catchment, removal of unauthorized dumped municipal waste including construction and demolition waste/malba in a time bound period. Police authorities shall be associated. Any illegal activity like encroachment etc. would be reported to police authorities and they will take prompt action as per law. Land owning agencies shall provide sufficient security guards at specific locations to prevent thefts. Fencing will be provided wherever necessary. Recently, the Hon'ble Supreme Court has asked government officials to submit a list of water bodies that have been encroached upon, following which action will be initiated. It sought details of what DJB was doing to tackle encroachments on water bodies.
4. The Hon'ble NGT directed the revenue department of Govt. of NCT to take steps to include water bodies as already identified in the report of CGWB, in the revenue records. The concerned department shall be compelled to make necessary amendments in the revenue records and to record all the water bodies existing in their revenue records to have its permanent record.
5. The Hon'ble Tribunal directed Govt of NCT to provide a proposal for declaration of water bodies as Wetlands under the Wetland (Conservation and Management) Rules, 2010 within a period of 3 months. Monitoring Committee shall ensure that this direction is duly complied with by the concerned authorities.
6. Flood and Irrigation Department has also jurisdiction over several water bodies. It is informed that it's working to rejuvenate 29 water bodies. This Department will also be associated and involved in the present endeavor.
7. Emphasis will be to set up decentralized sewage treatment plants at different locations near the water bodies. These mini



STPs are less capital intensive and more efficient. Smaller lakes can be fed with water treated at these STPs. The biochemical oxygen demand (BOD) of water released from these plants be brought to 10 with natural wetlands, which use plants, gravel and microbes to treat impurities to improve water quality.

8. *Instead of cementing roads end to end, the authorities will be asked to explore possibility of inter-locking tiles or grass pavers that are permeable and allow groundwater recharge. All storm water drains need to be put under a single authority.*
9. *Mechanical aeration system will also be explored to be installed in several lakes to improve water quality. All the lakes will aid percolation of water. It will raise water table and water can be extracted for other purposes.*
10. *Scientists and technical experts would be involved to design harvesting water system scientifically.*
11. *Authorities would be directed to plug leakages and pilferages. Presently 40 % water is lost before being supplied.*
12. *Use of treated sewage water by farmers for agricultural purpose instead of potable ones would be encouraged. Possibility of switchover to less water consuming crops will be explored.*
13. *Comprehensive plan will be chalked out to prevent illegal use of groundwater by industries and big institutions, resorts, hotels, motels in Delhi. To check contamination of underground water by who are discharging untreated effluents in the earth or in water bodies, Polluters Pay Principle shall be followed for such defaulters.*
14. *School children shall be involved to spread awareness to save water by various means. To sensitize the citizens, continuous process of dissemination of information on RWH systems and Waste Water Recycling Plants through print and electronic media, visual, workshop, exhibitions, seminars, booklets, pamphlets etc. will be done.*



15. *The Monitoring Committee shall emphasize that the Rajokri Lake be a template for the revival of 159 other water bodies in the city.”*

5. The Tribunal directed taking further steps in the light of above action plan of the Committee which may also contribute to rejuvenation of River Yamuna which matter was being monitored in terms of order of this Tribunal order dated 26.07.2018 in O.A No. 6/2012, *Manoj Mishra v. Union of India & Ors.*

6. Second report dated 31.07.2019 has been put up for consideration today. The report mentions that as against requirement of Delhi for domestic purposes being 1200 MGD, available potable water was about 936 MGD. 81.03% households have piped water supply. Ground water extraction for domestic use was 147 MGD. Ground water usage for irrigation and industrial purposes was 69 MGD. Ground water resources are over exploited. Out of 34 units, 22 are over exploited (dark blocks), 2 are critical, 7 are semi critical and 3 are in safe category. Over use of ground water for drinking, irrigation and domestic purposes was resulting in rapid depletion of ground water. Water table dropped to more than 300 feet in many areas. This required efforts for RWH through storage of rain water or its percolation which will help recharge of ground water. Use of water for agriculture was being done in unproductive manner. Reuse of water was essential and treated water should be used in gardens and toilets etc. Kitchen water can be made potable by spending 10% money

compared to converting other waste water into drinking water. 90% fresh water was being used for non-drinking purposes which could be substituted by reused water. The Government had a plan for piped water connection by 2024. In urban areas, need for water conservation is more. The water bodies are required to be restored by reusing borewells, recharge structure, water shed development, intensive afforestation and campaign. Delhi Government plans to build underground reservoir on Yamuna flood plain to store rain water. 280 MCM rain water is lost which needs to be conserved. District – wise Nodal Officers have been assigned for 10 out of 11 Districts of Delhi for ensuring rain water harvesting and ground water conservation. Ministry of Housing has issued guidelines for water conservation under Jal Shakti Abhiyan. ULBs are to ensure that all Government buildings have RWH structures and if they are not functional, they have to be made functional. In future, all the buildings be granted permission only after having RWH structures. Treated water can be used for AC cooling towers, buses/trains washing, thermal power plants, other non-potable industrial uses and flushing in domestic uses. 300 installations of DJB have RWH. All Government buildings have to make a provision for RWH. DJB has to implement RWH systems in Government buildings not maintained by PWD. PWD is to implement the RWH system where buildings are maintained by PWD. Decision of the Delhi Cabinet dated 02.07.2019 makes such a provision. List of 559 such buildings has already been prepared. Reference has also

been made to the order of NGT in O.A. No. 217 of 2016 for RWH systems in schools and colleges in Delhi. In 3477 schools and colleges it has been implemented. In 594 it is under construction and in 532 action has been initiated.

7. The Committee carried out inspection of the following water bodies and noted the status and steps taken for their revival:-

1. Water Body at Sector 5, Dwarka
2. Water Body at Sector – 23, Dwarka
3. Water Body at Sector – 20, Dwarka
4. Lake in Ashoka Park, New Friends Colony
5. Satpula Lake, District Park, Saket
6. Neela Hauz Lake at Aruna Asaf Ali Marg
7. Hauz Khas Lake, Deer Park
8. Water body at Amberhai, Sector 19, Dwarka
9. Roshanara Lake
10. Naini Lake
11. Tikri Khurd
12. Gogha Drain
13. Other water bodies under Irrigation and Flood Department
14. Three water bodies at Village Siraspur
15. Water body at Village Ibrahimpur
16. Water body at Khushak Lake, Village Kadipur
17. Water body at Village Hiranki
18. 62 water bodies at 51 locations
19. Water body at Jaunpur
20. Water body at Aya Nagar
21. Water body at Ghitorni
22. Water body at City Park, Mehrauli
23. Water body at Neb Sarai
24. Water body at Chhatarpur – Maidangarhi
25. Water body at Rajpur Khurd
26. Water body at Rajpur Extension
27. Bhalaswa Lake

28. Water body at Village Dhool Siras

29. Other water bodies in Dwarka

8. The Committee considered the status of RWH systems in schools and colleges and found illegal borewells in many schools and found water meters reflecting low consumption of water.

9. The Committee then considered the status of illegal borewells and found it necessary to seal the same. Action of sealing was too slow. Number of illegal borewells as on 30.06.2019 was assessed to be 17,062. Parks and gardens were also having tubewells which were required to be stopped to promote use of treated water for gardening. The DJB has improved its network for distribution of treated water. 400 borewells are operating in Patparganj Industrial area which matter needs to be resolved by the Chief Secretary. Environmental compensation suggested by CPCB ranging from Rs. 10,000/- to Rs. 1,00,000/- as an interim measure was required to be recovered for illegal extraction of ground water.

10. The Committee has suggested restriction on use of RO systems to prevent wastage of water, preventing extraction of ground water for horticulture purposes, settling the dispute of extraction of water by industrialists in Patparganj Industrial area, revival of water bodies, encourage public participation for conservation of water bodies, adoption of water bodies by individuals and institutions for conservation. The Tribunal is

separately dealing with the subject and has issued directions vide order dated 20.05.2019¹.

11. The Committee associated following individuals who contributed to the cause of revival of water bodies:-

- Mr. Diwan Singh (for water bodies in Dwarka),
- Ms. Juhi Chaudhary (for Naini Lake),
- Mr. Anuj Sardana (for Prasad Nagar Lake),
- Mr. Sachin Goel (for Roshanara lake),
- Mr. Verhaen Khanna (for Ashoka Park),
- Ms. Suparna (for Tuglakabad Lake),
- Mr. Mahesh Saxena (for various water bodies),
- Mr. Jagdeep Singh, MLA, Tihar Jail has requested the Monitoring Committee to revive Tihar Jheel at Hari Nagar.
- Mr. Rambir Tanwar, who claims to have revived 10 ponds back to life has approached the Committee to assist in revival of the water bodies.
- Prof. C. R. Babu and Dr. Fiyas Khudsar and others have also been associated for seeking inputs.

12. Many areas are not connected to piped water which leads to unaccounted use of groundwater. With regard to subsidy under free water scheme, the Committee found as follows:-

“8. In its minutes of meeting dated 01.03.2019, at the time of inspection of Bal Bhawan Public School, Mayur Vihar on 27.02.19, two DJB water connections were found. The total consumption of water in December 2018 was reflected 90 units for 49 days; the school having strength of 3100 plus staff. The bill consumption apparently was too low and Department of Revenue was asked to take appropriate steps. DJB should ensure that there should be adequate metering for the water consumed. All the establishments/homes be brought in the formal metering system.

¹ Friends through its General Secretary v. Ministry of Water Resources, O.A. No. 134/2015

Theft of water in any form should be dealt with as per law promptly.

9. The Monitoring Committee has been informed that subsidy being provided under 20,000 liter free water scheme is misused by several Group Housing Societies. After availing the required quantity of 20,000 liters free of cost, these societies start extracting groundwater by using tube-wells/bore-wells to avoid payment of water tariffs. DJB should take effective steps to prevent this practice.”

13. The Committee also found dumping of garbage in water bodies and encroachments which are required to be checked by the land owning agencies. Eutrophication was also noticed in lakes and ponds. Misuse of water bodies for cultural or religious festivals was causing a threat to such water bodies, apart from immersion of idols resulting in contamination. Free supply of water was resulting in injudicious use of water.

14. We place on record our appreciation for the efforts of the Committee in undertaking visits to various water bodies, coordinating with the concerned Authorities for installation of RWH systems, taking initiative for sealing illegal tubewells and efforts for use of treated water in place of fresh water. We also place on record our appreciation for the contribution of the individuals whose names have been mentioned by the Committee.

15. The Tribunal is dealing with the interlinked issues of water utilization of treated water² setting up of ETPs, STPs and

² Mahesh Chandra v. International Recreation & Amusement Ltd. & Ors. O. A. No. 526/2019

CETPs³, extraction of ground water⁴ and restoration and conservation of water bodies⁵, apart from other issues relating to better management of water. The issue of RWH has not been specifically taken up for universal remedial action. We find that integral issue of RWH which is being expressly dealt with in the present matter also needs to be taken up for the entire country.

16. The free water policy of providing free water below 20 Kilo Litre per month also results in excessive use of water and resultantly waste water. DJB needs to ensure that treated waste water is mandatorily utilized as its release without any use is a colossal waste of public exchequer.

17. The Committee may continue its working as per its action plan. The Committee may also take the help of officers who have worked in Gardens and Lakes Society set up as SPV for rejuvenation of lakes.

18. We find it necessary to issue following directions pending further report from the Committee:-

- (i) The DJB may prepare an action plan in consultation with the local bodies or any other expert to ensure that RWH systems are installed in all Government buildings, group housing societies, new buildings where occupancy certificate is yet to be issued with such exceptions as may be carved out such as where

³ Paryavaran Suraksha Samiti & Anr. v. UOI, O.A. No. 593/2017

⁴ Shailesh Singh v. Hotel Holiday Regency, Moradabad & Ors., O.A. No. 176/2015

⁵ Lt. Col. Sarvadaman Singh Oberoi v. UOI, O.A. No. 325/2015

there will be contamination of ground water on account of its location close to storm water drain carrying untreated sewage / trade effluents or where water level is high.

(ii) The existing Government buildings and group housing societies buildings where roof top RWH is required to be installed and has not been installed, may be required to furnish a declaration of compliance at a specified web portal upto 31.12.2019 that such systems have been installed with compensation being required to be paid for failure.

(iii) Technical specification for the RWH systems and recharge purposes and indicative list of available service providers may be placed on the website of the DJB and the Local bodies within one month from today. Online interactive helpline/information may also be made available to facilitate the users. It may be made clear that the users are at liberty to engage services of their choice from any source.

(iv) If specified categories of owners/ occupiers of buildings fail to install RWH and recharge systems by 31.12.2019, the amount of compensation, which may be specified within one month by the DJB, may be recovered and credited to a separate account. Such amount may be spent for the purpose of restitution of

environment in accordance with action plan which may be got approved from this Tribunal.

(v) A study may be got conducted by the DJB with regard to the area not covered by the above directions where RWH may be necessary such as public places, road sides, colonies and common places specifying the agencies to be responsible for the purpose, precautions to be taken about sites where RWH system may result in contamination of ground water in the process of recharge of ground water, like place where storm water is flowing with untreated sewage and industrial effluents.

(vi) Having regard to significance of RWH for conservation of water, joint Committee of CPCB and Ministry of Jal Shakti may secure status of implementation and action plans from all States and UTs and furnish combined status report in O.A. No. 325/2015 on or before 30.11.2019. The Chief Secretaries of all States/UTs may oversee compliance in their respective areas.

(vii) A flat recovery rate towards collection and treatment of sewage may be adopted as a viable option for sustainable sewage management.

19. The Committee may give its further report preferably by 30.11.2019.

20. Copies of this order be sent to Chief Secretaries of all the States/UTs, CPCB and the Secretary of Ministry Jal Shakti.

List for further consideration on 09.12.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

September 11, 2019
Original Application No. 496/2016
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