

File No.WQ-11031/60/2016-WQ /222
Government of India
Ministry of Drinking Water and Sanitation
(Water Quality Section)

8th Floor, Pt. Deendayal
'Antyodaya Bhawan',
CGO Complex, Lodhi Road,
New Delhi – 110003.

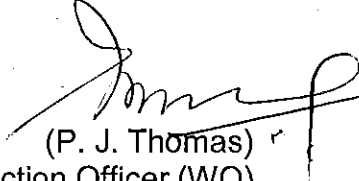
Dated, the 21st June, 2018

OFFICE MEMORANDUM

Subject: Minutes of the one day workshop on "Improvement of Water Quality Testing Laboratories" held under the Chairpersonship of Joint Secretary (W) on 10th May, 2018 at Ministry of Drinking Water and Sanitation, Government, New Delhi.

I am directed to forward herewith the Minutes of the one day workshop under the Chairpersonship of V. Radha, IAS, Joint Secretary (Water) held on 10th May, 2018 regarding the "Improvement of Water Quality Testing Laboratories" at Pt. Deendayal Antyodaya Bhawan, CGO Complex, New Delhi for kind information and necessary action/compliance by all the concerned.

Encl: as above


(P. J. Thomas)
Section Officer (WQ)
Tel No: 011-2436 4675

To:

1. Principal Secretary or Secretary-in-charge/Chief Engineer /Chief Chemist of Rural Drinking Water Supply all states.
2. Area Officers of above States/TO (WQM), ICDWQ, New Delhi
3. All officers from state Government who attended the meeting
(As per the list of participants of one day workshop)
4. Shri. Shiv Kumar, Scientist 'B', NIC Cell. (for uploading minutes on to website)

Minutes of the one day workshop on "Improvement of Water Quality Testing Laboratories" held under the Chairpersonship of Joint Secretary (W) on 10th May, 2018 at Ministry of Drinking Water and Sanitation, Government, New Delhi

The Ministry of Drinking Water and Sanitation (MDWS), Government of India organized a one day workshop on "Improvement of Water Quality Testing Laboratories" under the Chairpersonship of Joint Secretary (Water) on 10th May, 2018 at CGO Complex, Pt. Deendayal "Antyodaya" Bhawan, New Delhi. The workshop was attended by Director (WSSOs), Chief Chemist/Cheemists of State Governments dealing with rural water supply, Chief (WASH), UNICEF India, Representatives of NEERI, NABL and Officers/ Officials of central ministries. The list of participants is enclosed as **Annexure-A**.

The Deputy Advisor (WQ) extended his warm welcome to the Chair, WASH Chief, UNICEF India, Representatives from Central Ministries/Board, NABL, NEERI and all the participants present in the workshop. He explained the objective of the workshop with respect to the importance of safe drinking water for good human health, its monitoring and surveillance and revamping the "Uniform Drinking Water Quality Monitoring Protocol" as per the demand of newly emerging standards, policies and technologies which was earlier issued by the Ministry in February, 2013.

The WASH Chief, UNICEF India, New Delhi presented the overall water quality status in India and further improvements needed in the water quality sector. He added that India has reached the target on access to improved drinking water sources which is about to 97%, yet improving drinking water quality remains a huge challenge. As per his view, only 49% percent of the population has access to improved water quality in India. As per the Sustainable Development Goal, by 2030, India has to achieve universal and equitable access to safe and affordable drinking water for all. The WASH Chief, UNICEF India emphasized on decentralization of water quality monitoring system. Further, he also desired to extend all possible facilitation and support from UNICEF India to the Ministry of Drinking Water and Sanitation, Government of India in water quality sector.

The Chairperson and Joint Secretary (Water), Ministry of Drinking Water and Sanitation (MDWS), Government of India during her inaugural address, explained that the Ministry is committed to provide adequate and safe drinking water to all households in rural India through the active involvement of all the State Governments. This workshop has been called up for sharing the issues, challenges and best practices in water quality sector. The Ministry is providing all kind of handholding technical and financial support to all States for strengthening the water quality monitoring and surveillance (WQMS) system under National Rural Drinking Water Programme (NRDWP). She further conveyed that Ministry is going to launch a largest IEC campaign on water in coming months with the objective to aware the community on use of safe drinking water practices for good health.

During the review of the progress of all the states on water quality monitoring and surveillance under NRDWP, the Chairperson took a serious note for the States which are lagging behind in NABL Accreditation, in establishment of state, district and sub-divisional level water quality testing laboratories, poor expenditure under WQMS, non-updation of water quality testing data on NRDWP IMIS, lack of requisite equipments, chemicals, glassware's and manpower in the labs. She urged the State representatives to expedite the above cited issues immediately. The Chairperson also explained that Ministry is going for refurbishment of its "Uniform Drinking Water Quality Monitoring Protocol" and emphasized on active participation during the group work and also requested the participants from States to share the best practices in water quality sector during the workshop.

After the inaugural session, technical session-1 was started wherein the participants were divided in to three groups with the following scope of work as under:

- Group-1: Infrastructure, manpower and fund requirement /availability
- Group-2: Equipments, chemicals, glassware's, Field Test Kits and mobile laboratories
- Group-3: Revamping of "Uniform Drinking Water Quality Monitoring Protocol", NABL Accreditation and Innovations.

In technical session-2, after the group work, all three groups made a presentation of their findings and observations held during group discussions on above cited topics. The findings and observations of all the three groups are enclosed as

Annexure-B.

After detailed deliberations, the Chairperson appreciated the efforts of all participants during the group discussions. Based on the observations of the participants, the concluding remarks and recommendations are as under:

- The States were requested to make full use of 5% WQMS funds under NRDWP for strengthening the water quality monitoring and surveillance system in concerned States.
- The Chairperson assured to address the issues related capacity building, mobility support to Chief Chemists/mobility charges to sample collectors, review of remunerations/perks to contractual/outsourced staff, manpower requirement, fixing/revising education qualifications of chemists to be engaged at various levels, procurement of instruments, chemicals and glassware's, impressed amount with State laboratory etc. It was directed to constitute different Committees on above cited issues having representatives from the best performing States. The meeting of the Committees may be organized in May/June, 2018.
- A Committee shall also be constituted for the refurbishment of "Uniform Drinking Water Quality Monitoring Protocol" having representative from best performing States and all issues related to the improvement of water quality testing laboratories including NABL Accreditation, BIS Standards shall be made part of the revised protocol.
- The Chairperson emphasized the States to have at least two exposure visits every year among the states for cross learning on best practices in water quality sector.
- The Chairperson assured to review the proposal regarding the identification of Key Resource Centers for capacity building and trainings on water quality after training needs assessment to be organized by the Ministry.
- It was decided that model bid documents for procurement of instruments and Annual Maintenance Contract shall be prepared with the support of UNICEF. The procurement through GeM portal may be examined.
- The Chairperson conveyed that Ministry is shortly going to start a Ranking System for water quality monitoring laboratories of the States based on the parameters e.g. infrastructure facilities, requisite, qualified & experienced manpower, equipments, sampling frequency, NABL accreditation and other best practices in the sector. The best performing States shall be complemented and hence, all States should grab this opportunity.

- The Chairperson agreed to the suggestion regarding inclusion of representative from National Institute of Virology (NIV), Pune as a member of the expert committee for revamping the 1st edition of "Uniform Drinking Water Quality Monitoring Protocol" as it was informed that virological testing requires extensive procedures and NIV, Pune may explain the same in a better manner.

The workshop ended with the vote of thanks to the Chair.

One Day Workshop on Improvement of Water Quality Testing Laboratories
10th May, 2018, 10:30 a.m. to 03:30 p.m.

List of Attendees

Officials from Ministries and other organizations

1. Smt. V. Radha, Joint Secretary, MDWS - in the chair.
2. Dr. Dinesh Chand, Additional Adviser, MDWS, New Delhi
3. Mr. Nicola's Osbert, Chief WASH, UNICEF, New Delhi
4. Dr. K.L. Ramesh, Adviser, Ministry health &FW., New Delhi
5. Shri Rajasekhar DA(WQ), MDWS, New Delhi
6. Shri Muralidharan, Deputy Adviser, MDWS, New Delhi
7. Shri G R Zargar, Sr. Consultant MDWS, New Delhi
8. Shri S.C. Sharma, Sr. Consultant, MDWS, New Delhi
9. Shri Sumit Priyadarsi, Asst. Adviser, MDWS, New Delhi
10. Shri Santosh R, Asst. Adviser, MDWS, New Delhi
11. Dr. S K Goyal Sr. Principal Scientist & Head, CSIR-NEERI Delhi Zonal Center
12. Dr. Noor A. Khan, Scientist, Neeri Delhi Centre.
13. Dr. Smita Aggarwal, Scientist, Neeri Delhi Center.
14. Shri Manish Wasuja, WASH Specialist, UNICEF, Delhi.
15. Dr. Sudhir Kumar Srivastava, Scientist 'D',CGWB, Faridabad
16. Shri Vikas Jaiswal, Dy. Director, NABL, Gurugram
17. Dr. Anil Kumar, Technical Officer (WQM), ICDWQ (MDWS), New Delhi.

Officials from States

1. Ms. Vasanthi Lawrence, CWA, TWAD Board, Tamil Nadu
2. Shri S. Debenkhnta Singh, Chief Chemist, PHED, Manipur
3. Dr. Enny Dowerah Kotoky, Chief Water Analyst, Assam
4. Shri Goutam Paul, Director, WSSO. Assam
5. Shri R.M. Tripathi, Director, WSSO, Lucknow
6. Shri Surendra Ram, ED,SWSM,UP, Lucknow
7. Shri Manoj Kumar, ARO, UP Jal Nigam, Lucknow.
8. Shri D.S. Mishra, PHED, Bihar.
9. Dr. Ajay Upadhyay, Lab in-charge, State Lab, Bihar.
10. Shri K. Vivekanand Jce, Director WSSO/TWAD Board. Chennai
11. Er. H.P. Singh, CE. WSSO,IPH Shimla.(HP)
12. Shri T. Bhattachaya, Addl.CE, PHE, Meghalaya.
13. Shri S.K. Blah, I/C CE, PHED (WSSO) Meghalaya
14. Shri Animesh Bhattacharya, Director WSSO,PHED, West Bengal
15. Ms. Sobhana Kumari K, Chief Chemist,SRI, Kerala Water A
16. Shri Amit Kumar Singh, Chemist PHED State Lab Karnal, Haryana.
17. Shri Ashwani Sangwan EE. PHED Haryana(H.O.)
18. Shri Rajib Majumder, Executive Engineer Quality Manager DWQ (DWS), Tripura.
19. Shri C. B. manger, Sirdepr, Sikkim.
20. Ms. Poojan Lohagan, Chemists SIRDSPR, Sikkim
21. Shri H.B. Tamang, Chemist SIRDPR, Sikkim.
22. Shri Dr. O. Chonchibeni. Hydro geologist WSSO, PHED Nagaland.

23. Shri A. Rolland Kikon, Chemist PHED, State Nagaland.
24. Shri Viji John, Consultant UNICE-SWWO Ns Building. Kolkata.
25. Shri D. Ghosh, Superintending Engineer, PHED, WB.
26. Ms. Veenakshi Sharma, Director (WQ) DWSS, Punjab.
27. Shri Ishan Kaushal, SDE(WQ) DWSS, Punjab.
28. Dr. Suman Mandrwal, Chief Chemist Uttarakhand
29. Er. Neelima Garg, General Manager Uttarakhand JalSamstan .
30. Er. V.S. Kochhar, AE, Water Quality unit DWSS (PH). Punjab.
31. Shri S. K. Harichandan, SE RWSS(WQ), Cuttack, Odisha
32. Shri Dwaipayana Ghosh, PHED, West Bengal
33. Mr. Sailesh B Kanade, State WQ Consultant, Maharashtra
34. Shri M.V.S.R. Krishna Murthy, Chief Chemist, Andhra Pradesh,
35. Shri Rakesh Mathur, Chief Chemist, PHED, Rajasthan
36. Shri Elizabeth Chonglut, Chemist, SRI, PHED, Mizoram
37. Shri P.C. Bialueawia, Chief Chemist, SRI, PHED, Mizoram
38. Shri Arun Srivastava, Director, WSSO, Rajasthan
39. Dr. Chidananda Murthy, Sr. Geologist, RD&PR, Government of Karnataka.
40. Mr. D.R. Ware, Sr. Chemist, WSSD (GSDA), Maharashtra.
41. Shri C. K. Mallappen, Director, WSSO, RDW&D, Commissioner Govt. of Karnataka.
42. Dr. H. Lokeshwari, Chief Chemist, Bangalore.
43. Ms. Sugandha Ganguly, State Coordinator (WQ), Jharkhand.
44. Dr. Rekha Kadam, Chief Chemist, SRI, PHED, Bhopal.
45. Shri M. Rama Mohan, Director, SWSM, Telangana.
46. Shri G. Ravindranath, Engineer-in-chief, Telangana.
47. Dr. Binod Pokhrel, Chemist, PHE&WSD, Arunachal Pradesh.
48. Er. Abhishek Bajpai, Director, WSSO, Chhattisgarh.
49. Shri. M.C. Acharya, Scientific Officer, Gandhinagar
50. Ms. Bhavik Rathod, Jt. Director (Sci.) GJTI, Gandhinagar.
51. Shri C.S. Sankule, Director, WSSO, PHED, Madhya Pradesh.
52. Shri Umesh Sahu, Chemist, PHED, Raipur, Chhattisgarh.
53. Shri PUBiaKonawai, Chief Chemist, SRI, PHED, Mizoram.

Observations of the Group-1
(U.P., Meghalaya, H.P., Manipur, Bihar, Tamil Nadu, Assam)

- The space for labs shall be provided at appropriate location by the State Government for state level and district level labs and hiring of private space may be allowed only in Sub-Divisional/ Block Level Labs.
- NABL Accreditation requirements should be included in UDWQMP and other facilities like fume chamber, power backup, proper ventilation, safety issues and disposal of lab waste materials.
- First level of NABL Accreditation should be for State / District level.
- Labs should have required mandatory equipment.
- Labs are to be upgraded like Gujarat Environmental Management Institute.
- Liquid and Solid Waste Management arrangements in Labs.
- The premier institution like CSIR labs/ NEERI /NWA/IIIS-NITS/NABL IITs/ NITs/WALMI/WALMTARI, Hyderabad, GB Pant Institute of Himalayan Environment & Development, Alhaura etc. may be roped in for development and mentoring of State/ District labs. This may be facilitated by MDWS.
- Instruction may be issued to States to follow UDWQMP.
- Educational qualifications may be incorporated in UDWQMP as per NABL.
- Creation of regular posts in State / District Level labs by State Government.
- All labs may have qualified regular manpower besides following ISO/IEC -17025:2017.
 - State Level Labs : 05 (including Chief Chemist/ Chief Water Analyst)
 - District Level : 02
 - Sub-Divisional / Block Level : 01
- Salary and perks of contractual staff should be as per the State Government Orders / norms for corresponding equivalent posts in State Government departments.
- States may be allowed to make expenditure for Construction of District level labs.
- The present allocation of fund is adequate (Up to 5% of NRDWP).
- Out sourced service charges for field sample collector & mobility charges may be enhanced suitably.
- Out sourced service charges for various staff in labs may be revised from time to time as per State Policy / norms.
- WQMS / support fund may be utilized for capacity building of various manpower working in the labs.
- Delegation of Minimum financial power to Chief Chemist / Chief Water Analyst.
- Each state may provide separate office vehicle to Chief Chemist for monitoring & evaluation of District / Sub-Divisional Labs for discharging official duty.

Signature of the assigned group leader

Signature of rapporteur

Signature of the Chair

Observations of the Group-2

(Odisha, Punjab, Tripura, Sikkim, Nagaland, Uttrakhand, Haryana, Kerala, West Bengal)

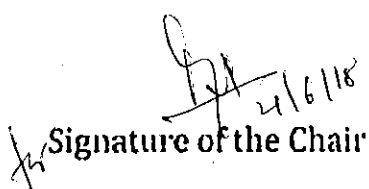
S. No.	Issues	Recommendations
1	Specification of instruments	Standardized specifications can be made as a part of the revised UDWQMP
		Inclusion of 3-4 instrument manufacturers of good repute
		Empanelment of institutions for third party certification of instruments
2	Devolution of Funds	Minimum devolution of funds for WQ instead of leaving the decision entirely with the State
		Revolving funds for labs at State level for urgent requirement
3	CAMC of high value equipment	States to have a mandatory CAMC; to be part of the UDWQMP
4	Best Practice: West Bengal	Centralized fault redressal mechanism for prompt repair of instruments
5	Difficulty procurement of chemicals & glassware	Chemicals and Glassware to be part of GeM
6	Testing through FTKs	States are of the view that FTKs should not be mandatory
		Target to be made flexible
7	Procurement of Mobile Vans	States may decide in consultation with West Bengal and Punjab
8	Best Practices: West Bengal	WB has portable Onsite Mobile Analysis System (OMAS) equipped with facility to test 13 WQ parameters -- can be customized based on the needs
		Has a customized android based mobile application linked with WQ Dashboard for uploading the data in real time
9	Best Practices: Punjab	Has 3 conventional mobile vans
10	Inadequate capacity building	Identification and empanelment of KRCs
		Annual National drinking water quality report



Signature of the assigned group leader



Signature of rapporteur


24/6/18

Signature of the Chair

Observations of the Group-3
(Karnataka, M.P., Jharkhand, Arunachal Pradesh, Chhattisgarh, Gujarat, Telangana, Mizoram, Rajasthan, Andhra Pradesh, Maharashtra)

It was informed that there are common problems of Manpower recruitment is a major concern in the state and that the inability to raise the remuneration to the staff leads to attrition of experienced manpower. Further, the problem of lack of ownership and responsibility in contractual staff were reported which was thought to be taken up by building up cadre of WQ testing staff.

Karnataka:

State is following UDWQMP and has full compliance as such. One Pollution control Lab which is NABL accredited has been taken up in collaboration with PHED as state NABL lab. However, the labs at Belgaum / Yadgir would be taken up for NABL accreditation soon.

State also stated that the UDWQMP helps in providing assessment of field data regarding their authenticity and errors.

NABL:

The representative informed that there are new formats as per ISO 17025 for NABL accreditation based on which the application would be taken up by the states post August 2018.

Chhattisgarh:

State has mentioned that they have prepared state level drinking water protocol and they comply to the UDWQMP. State mentioned that Durg and Rajnandgaon are already NABL accredited. District labs of Raipur, Balod, Jagdalpur and Bilaspur are being taken up for NABL soon.

Madhya Pradesh: WQM&S are treated on low priority and apart from the common problem. State lab of Bhopal and lab of Ratlam are NABL accredited for 29 parameters where Sodium and Potassium are also being tested.

Jharkhand: So far State lab of Ranchi is NABL accredited and 6 more district labs of Sahebganj, Hazaribagh, Medininagar, Dumka Jamshedpur and Dhanbad are being taken up for NABL accreditation.

Arunachal Pradesh:

State lab of Itanagar is being taken up for NABL accreditation. State has 16 district level labs, 30 sub division labs and 2 mobile laboratories.

Gujarat:

State expressed their concerns regarding audit paras vis a vis the interpretation of UDWQMP on which DA (WQ) informed them to provide a written request of the same. On a specific query made by the Gujarat, it was clarified by other states that based on the sample testing a source has to be declared potable or non potable.

Telangana:

They are following UDWQMP and they requested to include the norms in UDWMP for surface water based water samples and testing.

Rajasthan:

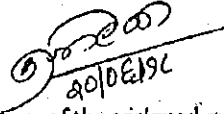
State has no problem in following UDWQMP and that besides Jaipur 6 district labs are being taken up for the NABL accreditation.

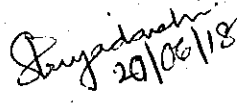
Mizoram: It was informed that subsequent to increase of WQM&S support funds to the tune of 5%, they would be able to implement UDWQMP which they were unable to implement as of now.

Andhra Pradesh: No Problem in implementing UDWQMP.

Clarification provided by the NABL representative regarding testing fees of one group has been slashed from 22000 to 11000 and that there are revised simplified TA / boarding-lodging rules hosted in the NABL website.

Unicef: Space, Equipment and Manpower related information for the NABL accreditation is to be part of UDWQMP. DA (WQ) and NABL representative informed that the same is available and may be accessed.


Signature of the assigned group leader


Signature of rapporteur


Signature of the Chair