



Memorandum of understanding

Between

Central Ground Water Board

Department of Water Resources, RD & GR
Ministry of Jal Shakti
Government of India
and

Faridabad Metropolitan Development Authority

Government of Haryana

For

**Study on augmentation of water supply to
Faridabad city through sustainable groundwater
development in Yamuna flood plains.**

July, 2024

Memorandum of Understanding
Between
Central Ground Water Board
And
Faridabad Metropolitan Development Authority

Memorandum of understanding hereinafter referred to as MOU signed on 25 day of July year 2024 between Central Ground Water Board, Bhujal Bhawan, NH- IV, Faridabad-121001 (hereinafter referred as CGWB) which expression shall include, unless repugnant to the context or contrary to the meaning thereof, its successors or permitted assignees on the first part AND Faridabad Metropolitan Development Authority, Faridabad, Haryana (herein after referred as FMDA) which expression shall include, unless repugnant to the context or contrary to the meaning thereof, its successors or permitted assignees on the other part.

1. Preamble

CGWB is the National apex organization, vested with the responsibilities to carry out scientific studies, exploration aided by drilling, monitoring of ground water regime and quality, assessment, augmentation, management, and regulation of country's ground water resources. It is also implementing the National Project on Aquifer Management (NAQUIM) in the country.

FMDA, was constituted in exercise of the power conferred by Sub-section (1) of Section 3 of Faridabad Metropolitan Development Authority Act, 2018. FMDA is vested with a vision to develop continued, sustained and balanced growth of the Faridabad Metropolitan Area through quality of life and reasonable standard of living provided to residents through generation of employment opportunities, to provide for integrated and coordinated planning, infrastructure development and provision of urban amenities, mobility management, sustainable management of the urban environment and social, economic and industrial development, to redefine the urban governance and delivery structure in coordination with local authorities in the context of the emergence of Faridabad as a rapidly expanding urban agglomeration, to establish a statutory Authority for the said purpose and for matters connected therewith or incidental thereto.

2. Background of the study

Faridabad is a fast-developing city falling in the National Capital Region (NCR). The water supply in Faridabad city is fully dependent on groundwater sources and a major part of the present water supply is met from Ranney Wells constructed along the flood plains of Yamuna

River in Faridabad district. FMDA has prepared a Master Plan for the development of Faridabad to a smart city by 2031. As per the request received from FMDA to assess groundwater potential in Yamuna flood plains to meet the gap in water demand as of 2031, it has been decided to have an MoU between CGWB and FMDA to take up a detailed study under its ongoing National Aquifer Mapping and Management Programme 2.0 (NAQUIM 2.0) during Annual Action Plan 2024-2025.

CGWB and FMDA at times be referred to individually as “party” and collectively as the “parties” whereas CGWB and FMDA have agreed upon to cooperate for the above-mentioned study. The activities to be undertaken in this cooperation, role of CGWB and FMDA, time frame and other conditions of the collaboration are given below:

3. Objectives

- To find out ground water potential in Yamuna flood plain in Faridabad district to check the feasibility for additional ground water withdrawal. If additional ground water potential is available, site selection of Ranney wells/Cluster of tubewells needs to be carried out.
- Study on assessment of ground water quality in Yamuna flood plains.
- Preparation of comprehensive ground water management plan for Yamuna flood plains falling in the study area for sustainable ground water development considering the dewatering and refilling the shallow aquifers in Active Yamuna Flood plains during rainy season with surplus non-committed monsoon flows in Yamuna River.
- Site selection for piezometers for the installation of automated water level recorders for real time water level monitoring and long-term trend analysis
- Suitable Artificial recharge techniques may be recommended along with sites for feasible AR structures in the study area to increase groundwater potential in the study area.

4. Role of CGWB

- a. CGWB will establish stations (Tube Wells/Dug Wells) for monthly groundwater level monitoring and quality sampling twice in the study area.
- b. CGWB will map site-specific hydrogeologic factors like slope, geomorphology, lithology, land use land cover (LULC), drainage, etc., influencing the groundwater regime in the study area.
- c. CGWB will carry out systematic recording of water level information, collection, and analysis of water samples for quality analysis and interpretation of data. CGWB will carry out major ion and heavy metal analysis of water samples in their laboratories.

- d. The association of CGWB with other reputed international organizations/institutes may be made available for this study for the replication of international best practices for sustainable groundwater management. (in consultation with FMDA)
- e. CGWB will collect samples for stable isotope analysis and interpret the results.
- f. CGWB will estimate the groundwater potential in the study area based on the available data and data generated as part of the study and prepare a comprehensive management plan including both supply side and demand side measures to meet the prospective water demand as on 2031 to meet the requirements as enumerated in section 3 (i.e., Objectives) of the MOU.
- g. CGWB will carry out geophysical studies in the study area for deciphering aquifer disposition by means of Vertical Electric Sounding/imaging.
- h. The Nodal officers nominated from CGWB will carry out the study in good faith and high spirits of coordination with the Nodal officer nominated from FMDA.
- i. Any other specific field study required may be formulated during detailed preparation of the project under the MOU (in consultation with FMDA)

5. Role of FMDA

- a. FMDA will arrange to provide all hierarchical/archival databases available with various state government departments of the Haryana Government. Data generated especially under Atal Bhujal Yojana shall be made available to CGWB.
- b. The Nodal officers nominated from FMDA will provide wholehearted support to the study by timely supply of data available with state government and will act in good faith and high spirits of coordination with the Nodal officer nominated from CGWB.
- c. As CGWB does not have any facility to carry out isotope analysis, the expenditure incur on this will be met from FMDA side for outside analysis. The expenditure expected to occur on the printing of maps and reports on completion of the study area to be met by FMDA for their use.
- d. The Nodal officer will liaison with populace for all local field support in assisting CGWB's field activities like establishment of monitoring, quality sampling stations and geophysical studies.

6. Joint responsibilities

- a. Formulation of the study including demarcation of study area and fixing of timelines.
- b. Joint field inspections in the study area for identifying areas suitable for artificial recharge and other supply side interventions.
- c. Assistance in field activities with local populace for liaison as and when required, depending on the actual field situations.

- d. Bi-monthly meetings will be organized either at FMDA office or CGWB, CHQ to discuss the progress of the project.

Each of the parties recognizes that the successful implementation of this MOU to the mutual satisfaction and benefit of both parties will require a significant degree of cooperation and good faith on behalf of both parties. Each of the parties resolve to act in good faith and in accordance with the spirit of the MOU to implement provisions in accordance with the mutual desire and in the interest of the parties.

7. Final Outcome

It is expected that the outcome of the study would help in improved understanding of the ground water regime and resource scenario in the study area for informed decision making. The study would also provide insights into not only the ground water flow patterns, quality aspects and possible management interventions to be adopted for the sustainable groundwater development in the area. A comprehensive management plan will be prepared as part of the study, and it will help FMDA in managing the optimum development of ground water resources in the area with long-term sustainability.

8. Validity

The MOU shall be effective from the date on which it is executed by the parties and may continue for a period up to 31st March 2025 and may be extended by mutual consent. The MOU may be terminated at any time by mutual agreement on one months' notice at any time by either party.

9. Transfer of Data

- a. The data generated by CGWB during the study in this MOU shall be owned by CGWB. CGWB may publish scientific articles about the study for academic purposes. The data provided FMDA can also be utilized for the interpretation and publication articles.
- b. Data provided by FMDA will not be shared by CGWB with third party without prior approval of FMDA and vice versa. Parties also agree not to utilize the shared data for any kind of commercial purpose without prior explicit permission of the other party.
- c. Data provided by CGWB will be used by FMDA only for the purpose for which it has been acquired. The data provided by FMDA will also be used by CGWB for their internal use and publication of scientific papers if any.

10. Confidentiality

Both the parties acknowledge the confidentiality of the information which may be transferred between parties or obtained or developed during this exchange from time to time as being essential to this MOU and agree not to disclose the same to any other party or any outside parties. However, each party shall be free to disclose this information as is required by official authorities in accordance with applicable law or regulation.

11. Financial Commitments

While the parties agree to cooperate and otherwise act in good faith with the view to the successful implementation, there is no financial binding on either. The MOU is intended to mutual understanding of the parties hereto as at the date thereof.

12. Dispute Resolution

Except as otherwise provided elsewhere in the MOU in the event of any dispute or difference in relating to arising from or connected with the MOU, such dispute or difference shall be mutually discussed between the parties and will be finalized to the satisfaction of both the parties. Further, if need arises, dispute may be referred to the Secretary, MoJS and his/her decision will be final and binding to both the parties. The MOU is subject to the law of the land. Any clause not specifically mentioned herein is subject to the rules and regulations in accordance with law.

13. Intellectual property rights

The intellectual property right of data which is generated out of the study shall be jointly owned by CGWB and FMDA.

14. Force Majeure

Neither party shall be held responsible for non-fulfillment of their respective obligation under the agreement due to exigency of one or more of the unforeseen events such as but not limited to Acts of God, war, flood, earthquakes, strikes, lockouts, epidemics, riots, civil commotion etc. provided on the occurrence and cessation of such events, the affected thereby shall give notice in writing to the other parties within one month or such occurrence or cessation. If the force majeure conditions continue beyond 6 months, the parties shall then mutually decide about the future course of action.

15. Liability

Both CGWB and FMDA shall ensure that the data will be used for the purpose it is being shared and the data will not be transmitted to other than bona fide users.


16. Entire contract and amendments

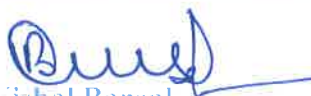
This MOU will be signed along with attached signed addends and/or subsequent agreements which will constitute the entire agreement between CGWB and FMDA. No prior written or oral representations shall be binding and all amendments and /or subsequent agreements shall be in writing and signed by a party of equal position as those of the executing parties hereto. This MOU shall supersede all previous oral and written communications representations and undertaking between the parties on this issue.

IN WITNESS WHEREOF the parties hereto have duly executed this MOU on 25 day of July Year 2024.


For Central Ground Water Board


For Faridabad Metropolitan Development Authority


25/07/2024
Sh. Satish Kumar
Member (HQ)
CGWB



Sh. Vishal Bansal
Chief Engineer, Infra-II
FMDA


In presence of witness


Name RANJAN KUMAR RAY
Designation Scientist-D


Name VIJESH V.K
Designation SCIENTIST-D

In presence of witness


Name ND Vashishta
Designation Advisor, Infra-II,
FMDA, Faridabad
Nagesh Dutt Vashishta
Advisor, FMDA


Name LALIT KUMAR ARORA
Designation Advisor-Project
FMDA