

August 22, 2022

Press Release

### **JMI students conduct study to revive water bodies in Delhi**

Three teams of the Department of Civil Engineering, Jamia Millia Islamia (JMI), each headed by a Professor of the department as Institute Nodal Officer (INO) along with 15 students as interns in each team have successfully carried out study about rejuvenating and preserving traditional local water bodies to ensure water security and community development. Teams conducted their study at Water Channel, Satpula headed by Prof. Quamrul Hassan (INO), Gandhak ki Baoli – Prof. Shamshad Ahmad (INO) and Baoli at Wazirpur ka Gumbad – Prof. Azhar Husain (INO). Each intern will get a stipend of Rs 10,000/- and certificate by All India Council of Technical Education (AICTE)- Ministry of Housing and Urban Affairs (MoHUA).

Limited information was available about these water bodies. Due to modern practices of the water supply system, the relevance of these traditional water bodies in the societal context were somehow ignored. As a result, these historical heritages didn't get the due attention and are in pathetic condition.

Hon'ble Prime Minister, as part of the commemorative celebration of the 75<sup>th</sup> anniversary of our independence, envisioned protecting traditional water bodies for ensuring water security of cities by involving youth and the community. Bearing this vision in mind, the Gol has launched '**Mission Amrit Sarovar - Jal Dharohar Sanrakshan**'.

AICTE assigned the task to the Department of Civil Engineering, JMI under 'Mission Amrit Sarovar - Jal Dharohar Sanrakshan' started by MoHUA, Government of India (Gol). MoHUA has identified 300+ culturally and historically significant water bodies across the country as part of the program.

The three teams did a historical and spatio-temporal analyses; hydrological studies, conservation of catchment areas; Preparing maps of the water body and its surroundings; taking photographs that capture the essence of the water body; reimagining the areas as a vibrant public space; and prepared an action plan for rejuvenation of the water body as part of the study.

All the three teams took the task in the right earnest from the very beginning of the project (Project duration 1 July 2022 to 5<sup>th</sup> August 2022). They collected the data/information pertaining to the water bodies through the internet, literature, visiting ASI office, Urban local bodies (Horticulture Department of MCD, DDA etc), interacting with the local people. Students visited water bodies several times to collect data and do the field survey from various aspects. Each intern submitted his/her daily progress report online to AICTE while concerned INO submitted weekly progress report of the water body.

Spatio-temporal analysis indicates that encroachments around the water bodies are very common and significant. These water bodies are either devoid of water or sink of waste dumping.

These historical heritages still have very sound potential to be preserved and rejuvenated. Rejuvenation plans and action for rejuvenating these water bodies have also been proposed. In addition, students were very appreciative of their societal concern and responsibility. This mission has also stimulated the student's creativity in finding out the solutions of real life problems.

As part of the mission, deliverables of the outcome of studies were submitted and displayed through posters & photographs on GOI portal.

Public Relations Office  
Jamia Millia Islamia





GPS Map Camera



**New Delhi, Delhi, India**

**G6JF+MCP, Press Enclave Marg, Khidki Village, Malviya Nagar, New Delhi, Delhi 110017, India**

**Lat 28.532177°**

**Long 77.223327°**

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# REJUVENATION OF GANDHAK-KI-BAOLI

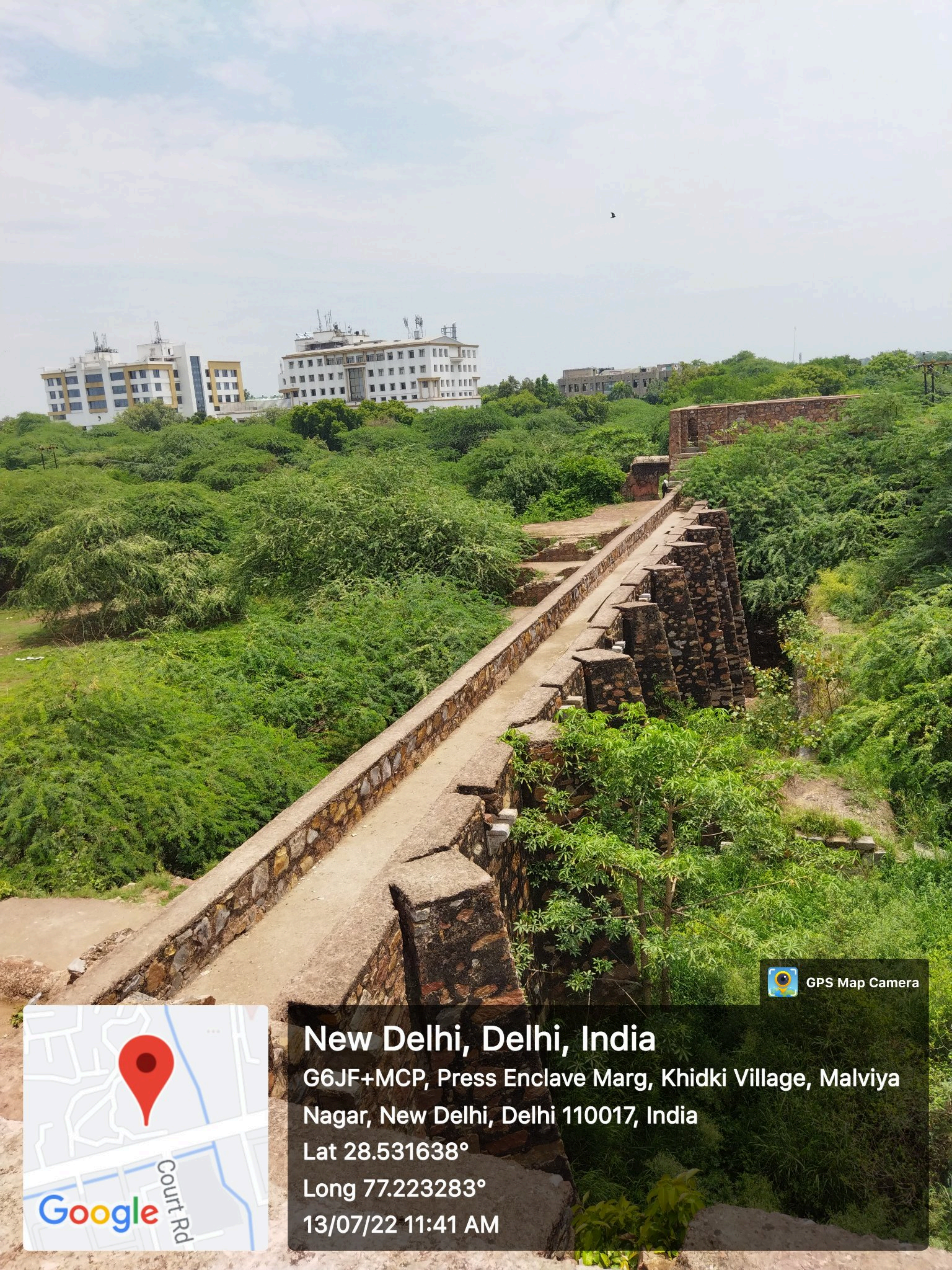
- DE-SILTING.
- ANALYSIS OF THE STRUCTURE WITH DETAILED MAPPING.
- RECONSTRUCTION OF THE DAMAGED PORTION USING ORIGINAL STONES TO FILL THE VOIDS IN THE ENTIRE STRUCTURE TO PREVENT FURTHER DAMAGE.
- FINISHING WORK.




## ACTION TAKEN

- Accurate condition assessment can be created using 3 D laser scanning data that shows actual structural deformations.
- A structural analysis of the structures surrounding the baoli can also be carried out.
- Temporary shoring can be installed to prevent further collapse and safeguard pilgrims.
- The collapsed portion should be rebuilt and portions of the Baoli dismantled prior to rebuilding using traditional building materials and building techniques.
- Lime mortar to fill the underlying voids identified in the GPRS study.
- After De-Silting, water quality should considerably improved with a drastic reduction in E-Coli levels.
- Proper metal fencing of the Baoli can be done.
- Remove concrete from over the passage of the baoli and strengthen the vaulted masonry.





 GPS Map Camera



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