

STEPWELLS OF INDIA (JAL MANDIR)

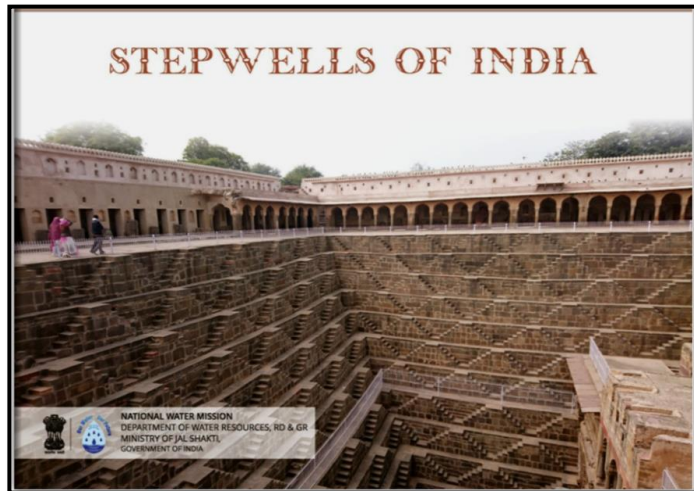
Preserving the traditional water-harvesting systems of India

Jal Mandir Scheme for revival of Step Wells in Gujarat

(Ministry of Jal Shakti)

June 22, 2022

Water has been conserved in India since ancient times. India's "Khandani Khazana" or stepwells were used by our illustrious ancestors to store "liquid assets" or water. The water is reached by descending a set of steps to the water level. They may be multi storied with a bullock turning a water wheel to raise the well water to the first or second floor. They are most common in Western India and are also found in the other arid regions of the Indian subcontinent, extending to Pakistan. The construction of stepwells is mainly utilitarian, though they may include embellishments of architectural significance, and be temple tanks.



Stepwells are examples of the many types of storage and irrigation tanks that were developed in India, mainly to cope with seasonal fluctuations in water availability. These were built to make it easier for people to reach, maintain and manage groundwater levels.

A number of distinct names, sometimes local, exist for stepwells. In Hindi-speaking regions, they include names based on *baudi* (including bawdi in Rajasthani: *bawri*, *baoli*, *bavadi*, and *bavdi*). In Gujarati and Marwari language, they are usually called *vav or vaav*. Other names include *kalyani* or *pushkarani* (Kannada), *baoli* and *barav* (Marathi).¹

Mythological Significance²

Water plays a special role in Hindu mythology. It is a boundary between heaven and earth known as Tirtha. Indian cosmology identifies water as a purifying and renewing element and it is a crucial part of prayer and consecration. Its sacredness finds acknowledgment across the

¹ <http://jalshakti-dowr.gov.in/sites/default/files/eBook/eBook-Stepwell/mobile/index.html>

² <http://jalshakti-dowr.gov.in/sites/default/files/eBook/eBook-Stepwell/mobile/index.html>

subcontinent. It is seen in extraordinary and monumental architecture that displays engineering achievements of India's designers and builders. The stepwells – considered to be manmade Tirtha – not only became sources of drinking water, but cool sanctuaries for bathing prayer, and meditation too.

To Hindus, three elemental ideas- water gives life, a daily bath cleans us of sin and a bath replicates a moment when one is closest to heaven- more than justified the labour of making pools in a near-desert despite the hindrance of geography and climate.

The stepwell can be considered to originate from need to ensure water during the period of drought, and in the deep relationship of faith in the water Gods as conspicuous even in the Vedas of around 1000 BC. Stepwells were not only used for water conservation and access, but also served as sites for religious ceremonies and rituals. Some were used as monuments, and were highly decorated with elaborate carved images.

Examples of Stepwells in India³

1. Stepwells of Rajasthan

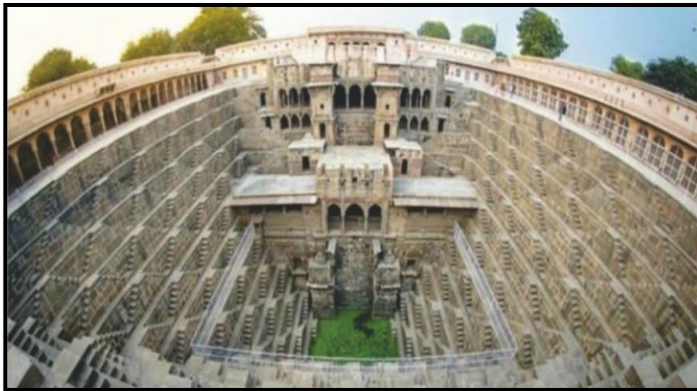


Figure 1: Chand Baori



Figure 2: Panna Meena ka Kund

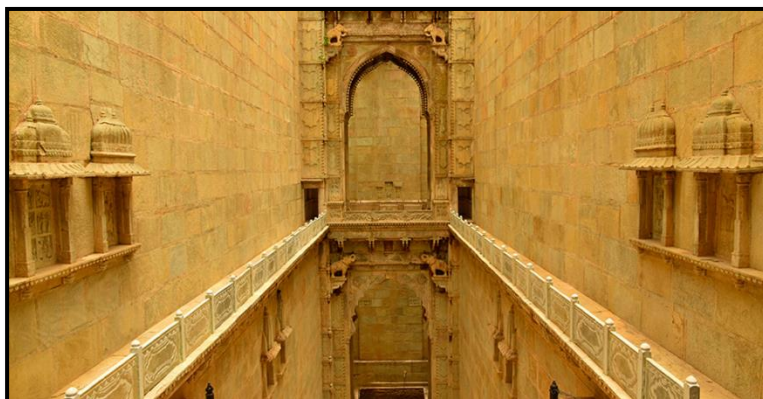


Figure 3: Raniji Ki Baori

³ <http://jalshakti-dowr.gov.in/sites/default/files/eBook/eBook-Stepwell/mobile/index.html>

2. Stepwells of Gujarat



Figure 4: Rani Ki Vav (A UNESCO World Heritage Site)

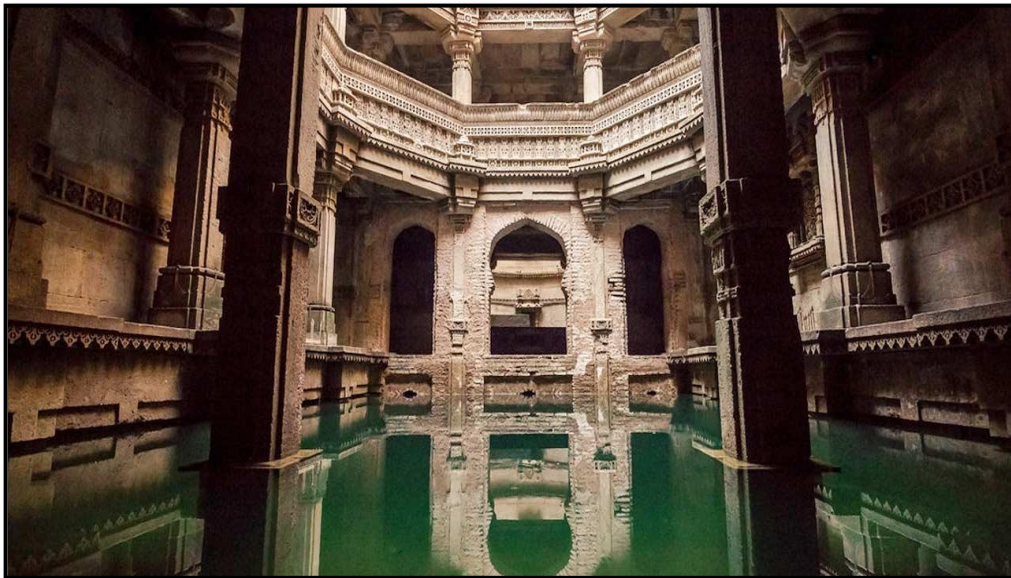


Figure 5: Adalaj Stepwell

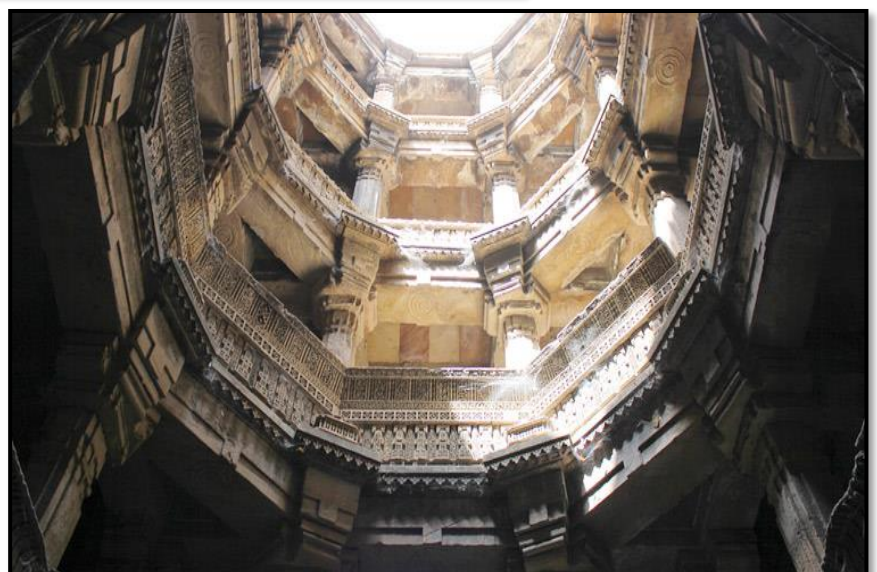


Figure 6: Dada Harir Stepwell

3. Stepwells of Maharashtra



Figure 7: Sindkhed Raja Baodi



Figure 8: Panhala Fort Baodi



Figure 9: Baramotichi Vihir

4. Stepwells of Karnataka

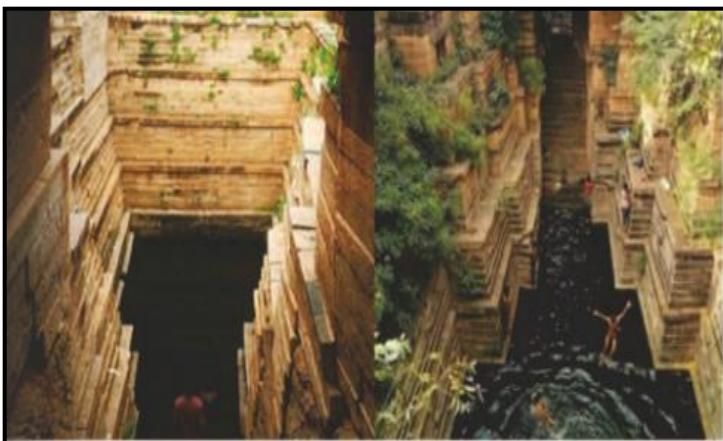


Figure 10: Trikuteshwara Temple at Gadag



Figure 11: Stepwell at Aihole (A UNESCO World Heritage Site)



Figure 12: Stepwell at Badami

5. Stepwells of Andhra Pradesh



Figure 13: Badi Baoli at Ibrahim Bagh



Figure 14: Stepwell at Kashi Viswanatha Temple

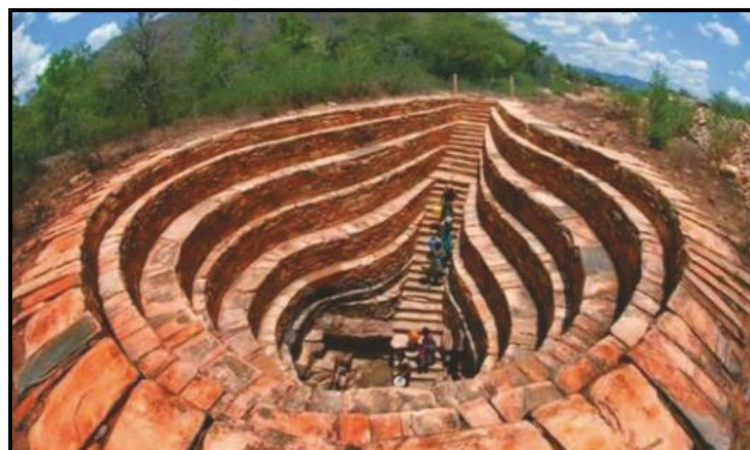


Figure 15: Stepwell at Mylacherla Village

Apart from these, there are many stepwells in India today. But many of them have dried up because of unregulated pumping, or when the water is present in some cases it is covered with algae or plant growth. Some have been mined for stone for use in other structures. Others are crumbling from lack of maintenance. In late 2014, it was reported that officials in Delhi authorized the de-silting and restoration of five medieval to have stepwells, following the successful work that was carried out on two others. Thus, there is a hope that these historical monuments will receive the care and attention they deserve. Moreover, some Indian engineers are also reported to have drawn inspiration from these ancient structures to design new tanks for water collection.

Source of Water for Stepwells⁴

These stepwells are generally dependent on the recharge from nearby surface water sources viz. village ponds, streams, canals and in some cases nearby rivers. The location of these ancient wells is unique in the sense that even during dry period of the year most of these wells have water in them, highlighting the ancient wisdom of craftsmen in those days. Most of these wells are part of phreatic aquifers of various formations such as alluvial, basaltic, phyllite etc.

Jal Mandir Scheme⁵

In view of their structural uniqueness as well as their role in water conservation, Government of Gujarat decided under mission mode, from 2007-08 to 2011-12, to revive, clean up and rejuvenate these stepwells, which are named as “**Jal-Mandir**” — **Water Temple – as these are part of our national heritage**. Nearly 1200 Jal- Mandirs were identified all over the State. Considering the importance of these heritage structures, Government of Gujarat renovated several stepwells under Jal Mandir Yojana. The thrust of the scheme is to see that these heritage structures are protected, made useful to the community as well as maintained properly.

Prime Minister Narendra Modi [also referred to the Jal Mandir campaign](#) during his interaction with Gram Panchayats and Pani Samitis on Jal Jeevan Mission in October 2021. In the [87th episode of Mann Ki Baat](#) on 27 March 2022, the Prime Minister again stressed on the significant role played by the 'Jal Mandir Scheme' in the protection of step wells. He highlighted how step wells were revived all over Gujarat under the initiative, contributing to raised water level in these areas. **Prime Minister Modi also called on citizens to run similar campaigns at the local level.**

Protection and Revival of Traditional Water Bodies

The **Archaeological Survey of India (ASI) takes up the works as per National Conservation Policy 2014** for renovation and restoration of all the monuments under ASI including **natural and man-made step wells**, ports, pond, tanks or lakes. The Government of

⁴ http://jalshakti-dowr.gov.in/sites/default/files/WaterConservationPractices_0.pdf

⁵ http://jalshakti-dowr.gov.in/sites/default/files/WaterConservationPractices_0.pdf

India is also **contemplating a specific National policy towards protecting natural and man-made step wells, ports, ponds, tanks or lakes.**⁶

The Ministry of Jal Shakti has taken up a nationwide campaign “[Jal Shakti Abhiyan - Catch the Rain](#)” (JSA:CTR) with the theme “*Catch the rain, where it falls, when it falls*” for creating appropriate rainwater harvesting structures in urban and rural areas of all the districts in the country, with people's active participation, during the pre-monsoon and monsoon periods. The campaign, primarily focusing on saving and conserving rainwater, was launched by the Prime Minister on 22 March, 2021, the [World Water Day](#). **Revival of traditional rainwater harvesting structures like stepwells has been envisaged as a critical part of this initiative.** Other measures include creation of new and maintenance of old rainwater harvesting structures; enumeration, geo-tagging and making inventory of all water bodies; preparation of scientific water conservation plans; setting up of Jal Shakti Kendras, intensive afforestation etc.

Benefits of Jal Mandirs⁷

The concept of Jal-Mandirs may be very useful in those areas where Groundwater table is high and no assured supply schemes are available viz. Tube well/Municipal supplies. Replication of this concept in such areas appears advantageous. In the absence of electricity in those times, the step-wells were a reliable source of ground water for the population, travellers, and princely armies on-the-move. The concept is innovative especially from the point of view of sustainability of village water supply system by inculcating the sense of responsibility among people and motivating them towards maintaining the system by attaching social and religious facets to it which is vital for water conservation.

Conclusion⁸

Considering water conservation and sustainability of village water supply systems in many parts of the country, the Jal Mandir concept can be replicated in rest of the country especially in water scarce rural areas. In the absence of perennial recharge system, **rainwater harvesting from village area can be useful for recharge of village water supply arrangements** such as Dug-wells, Tube-wells, etc. The wastewater can be suitably used after treatment for recreation and gardening purpose in Jal Mandir area.

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⁶<https://pib.gov.in/PressReleasePage.aspx?PRID=1796184>

⁷ http://jalshakti-dowr.gov.in/sites/default/files/WaterConservationPractices_0.pdf

⁸ http://jalshakti-dowr.gov.in/sites/default/files/WaterConservationPractices_0.pdf

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Video Links:

[Stepwells: An Elixir of Water Restoration Heritage](#)

AG/HP/RC/KG