

Unravelling the Mystery of a Mythical City through Interdisciplinary Research: A Case Study on the Submergence of Dwarka

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Abstract—Dwarka, one of the best-studied underwater sites in India, has long attracted significant scholarly attention, partly because it is revered as one of the Char Dhamas (sacred pilgrimage centres) in Hindu tradition. According to ancient Sanskrit literature, Lord Krishna founded the holy city of Dwarka, which later became submerged beneath the sea. Marine archaeological explorations off the present-day Dwarka coast have revealed numerous stone structures— semicircular, rectangular, and square in form—occurring from the intertidal zone to depths of about 6 m. These features are scattered across a wide area. In addition to these structures, a large variety of stone anchors have been discovered both along the structural remains and beyond the 6 m depth contour. These findings collectively indicate that Dwarka functioned as one of the busiest port centres on the west coast of India in the past.

Comparative studies of surrounding archaeological sites suggest that the structural remains at Dwarka may date from the Historical to the late Medieval period. This paper re-examines earlier hypotheses on the identification and dating of the submerged structures in light of new evidence from recent underwater explorations.

Dwarka, celebrated in Indian mythology as the legendary capital of Lord Krishna, presents a rare case where cultural narratives intersect with geophysical and archaeological realities. Ancient texts such as the Mahabharata and Vishnu Purana describe the city's splendour and its eventual submergence. This study adopts an interdisciplinary physical geography approach to examine the scientific basis of Dwarka's disappearance, integrating coastal geomorphology, tectonic reactivation, marine transgression–regression cycles,

and underwater archaeological findings. Using remote sensing datasets, sedimentological records, and marine archaeological evidence from regions near Bet Dwarka

and Okhamandal, the research evaluates Holocene sea-level fluctuations and tectonic instability along the Saurashtra–Kutch margin. The findings indicate episodes of coastal dynamism that may correspond with mytho-historical accounts of Dwarka's submergence.

This paper contributes to the emerging discourse on the myth–history–science interface and highlights the need for interdisciplinary approaches in reconstructing past coastal landscapes in the Indian subcontinent.

Index Terms—Dwarka submergence; coastal geomorphology; tectonic uplift; Holocene sea-level change; transgression–regression; marine archaeology; Saurashtra–Kutch coast; interdisciplinary geography; myth–history convergence.

I. INTRODUCTION

The city of Dwarka, prominently described in ancient Indian texts such as the *Mahabharata* and *Vishnu Purana*, is portrayed as a grand coastal capital founded by Lord Krishna and later submerged beneath the sea. Although long regarded as a mythological narrative, recent developments in marine archaeology, coastal geomorphology, and tectonic research have revived scholarly interest in examining whether the submergence of Dwarka represents an actual geophysical event preserved in oral and literary tradition.

India's western coastline, particularly the Saurashtra–Kutch region, has remained geologically active since the late Quaternary period. This coastal margin is influenced by major fault systems, tectonic reactivation, vertical crustal movements, and sea-level oscillations that have collectively shaped the evolving shoreline of the Arabian Sea basin. The region's susceptibility to Holocene transgression–

regression cycles, combined with discoveries of submerged structural remains near Bet Dwarka and Okhamandal, provides a compelling basis to explore the interactions between geodynamic processes and ancient cultural settlements.

Physical geographers have extensively documented how tectonic forces, sea-level changes, and sediment dynamics contribute to the transformation of coastal landscapes. The case of Dwarka provides a unique opportunity to apply this geographical lens within an interdisciplinary context, where mythology, archaeology, marine science, and earth system processes intersect. This study aims to investigate the submergence of Dwarka from a physical geography perspective by integrating satellite imagery, marine archaeological records, and palaeoenvironmental data to reconstruct the environmental evolution of the region.

This research addresses the gap in comprehensive geographical analyses of Dwarka's submergence by situating the event within the broader physical dynamics of the Saurashtra coast. It evaluates whether Dwarka's disappearance can be interpreted as an outcome of natural coastal evolution and geodynamic forces rather than as a purely mythological account. The study also highlights the broader vulnerability of coastal heritage sites to both ancient and contemporary environmental changes.

By examining the physical processes driving coastal transformation, this research contributes to the wider discourse on myth–history convergence and provides insights into how ancient societies responded to environmental instability. The findings carry significant implications for coastal heritage management, climate-related sea-level risks, and long-term human–environment interactions along the Indian littoral.

1.1. Aims and Objectives Aim

To investigate the historical, geological, and archaeological evidence related to the submergence of Krishna's ancient city of Dwarka, and to assess the role of tectonic activity, sea-level fluctuations, and marine regression–transgression events in shaping the coastal evolution of the region.

Objectives

1. To review ancient literary and mythological accounts (e.g., *Mahabharata*, *Vishnu Purana*) that describe the construction and submergence of Dwarka associated with Lord Krishna.
2. To analyze the geological setting of the Saurashtra–Kutch region with emphasis on tectonic activity, active fault systems, and crustal dynamics that may have influenced coastal subsidence or uplift.
3. To examine marine archaeological evidence from underwater explorations off Dwarka and Bet Dwarka, including structural remains, artifacts, and paleo-shoreline indicators.
4. To evaluate Holocene sea-level changes and associated regression–transgression cycles using sediment core analysis, radiocarbon dating, and coastal geomorphological observations.
5. To apply remote sensing and GIS techniques for mapping submerged structures, paleo-channels, ancient coastlines, and geomorphic features.
6. To synthesize data from archaeology, geology, oceanography, and geomorphology to assess whether the submerged remains correspond to the Dwarka described in historical literature.
7. To contribute to the scientific understanding of myth–history convergence, demonstrating how interdisciplinary research can support or challenge cultural narratives related to Dwarka.

II. STUDY AREA

The study is located along the coastal region of Dwarka and Bet Dwarka in the Devbhumi Dwarka district of Gujarat, India. The region extends from the Okhamandal Peninsula to the southern margins of the Gulf of Kachchh, forming one of the most geomorphologically and archaeologically significant coastal belts of western India. The area is characterised by its tectonic sensitivity, proximity to active fault systems, recurring coastal processes, and the presence of underwater archaeological remains linked to ancient Dwarka.

The spatial extent of the present research was delineated using GIS-based mapping, covering a 5 km coastal buffer zone around modern Dwarka, including offshore areas where submerged structures have been reported by the National Institute of

Oceanography (NIO).

2.1.(a) Geography

Dwarka is situated at the mouth of the Gulf of Kachchh, along the western shoreline of the Okhamandal Peninsula. The town lies on the right bank of the Gomti River, which originates near Bhavda village at a location traditionally known as *Mul-Gomti*, about 10 km to the east. Administratively, the area falls under the Devbhumi Dwarka district, positioned at the westernmost end of the Saurashtra (Kathiawar) Peninsula, directly facing the Arabian Sea.

Historically, the Gomti River served as a functional harbour until the 19th century, supporting maritime activities and trade networks. The coastal configuration comprises rocky platforms, tidal inlets, sandy beaches, cliffs, and submerged reef systems, making the region suitable for archaeological investigations of paleo-shoreline features and ancient habitation sites.

2.2(b) Climate

According to the Köppen–Geiger climate classification, Dwarka experiences a hot semi-arid climate (BSh), transitioning toward a hot arid climate (BWh) typical of western Gujarat. Based on the Holdridge Life Zone System, the region falls within the subtropical thorn woodland biome.

The climatic characteristics include:

- Average annual rainfall: ~490 mm, largely concentrated over 16 rainy days during the Southwest Monsoon (June–September).
- Average maximum temperature: 30°C, with a recorded high of 42.7°C.
- Average minimum temperature: 23.6°C, with an extreme low of 6.1°C.

- Average relative humidity: ~72%, reaching up to 80% during peak monsoon months.

These climatic and oceanographic conditions influence the hydrodynamics, coastal erosion patterns, and the preservation / burial of underwater archaeological structures in the Dwarka–Bet Dwarka region.

The topographical map (Figure 1.2) delineates the physical setting of the Dwarka–Bet Dwarka coastal zone. The map provides detailed elevation contours, shoreline configuration, and key reference points essential for spatial analysis. The submerged archaeological site—traditionally associated with the ancient city of Dwarka described in the *Mahabharata*—is located offshore from Bet Dwarka.

This toposheet serves as a crucial base map for:

- establishing accurate geographic coordinates,
- planning underwater survey grids, and supporting marine archaeological, geological, and environmental assessments in the study area.

Depiction of the Dwarka Palace

Figure 1.3 presents a visual depiction traditionally associated with the palace of Dwarka. According to epic literature and Purāṇic accounts, the city built by Lord Krishna was eventually submerged beneath the Arabian Sea following his departure, symbolizing the onset of the Kali Yuga. While the mythological narrative is deeply rooted in cultural and religious texts, decades of marine archaeological research have identified structural remnants, stone blocks, and settlement features offshore—indicating the sudden submergence of an ancient coastal settlement.

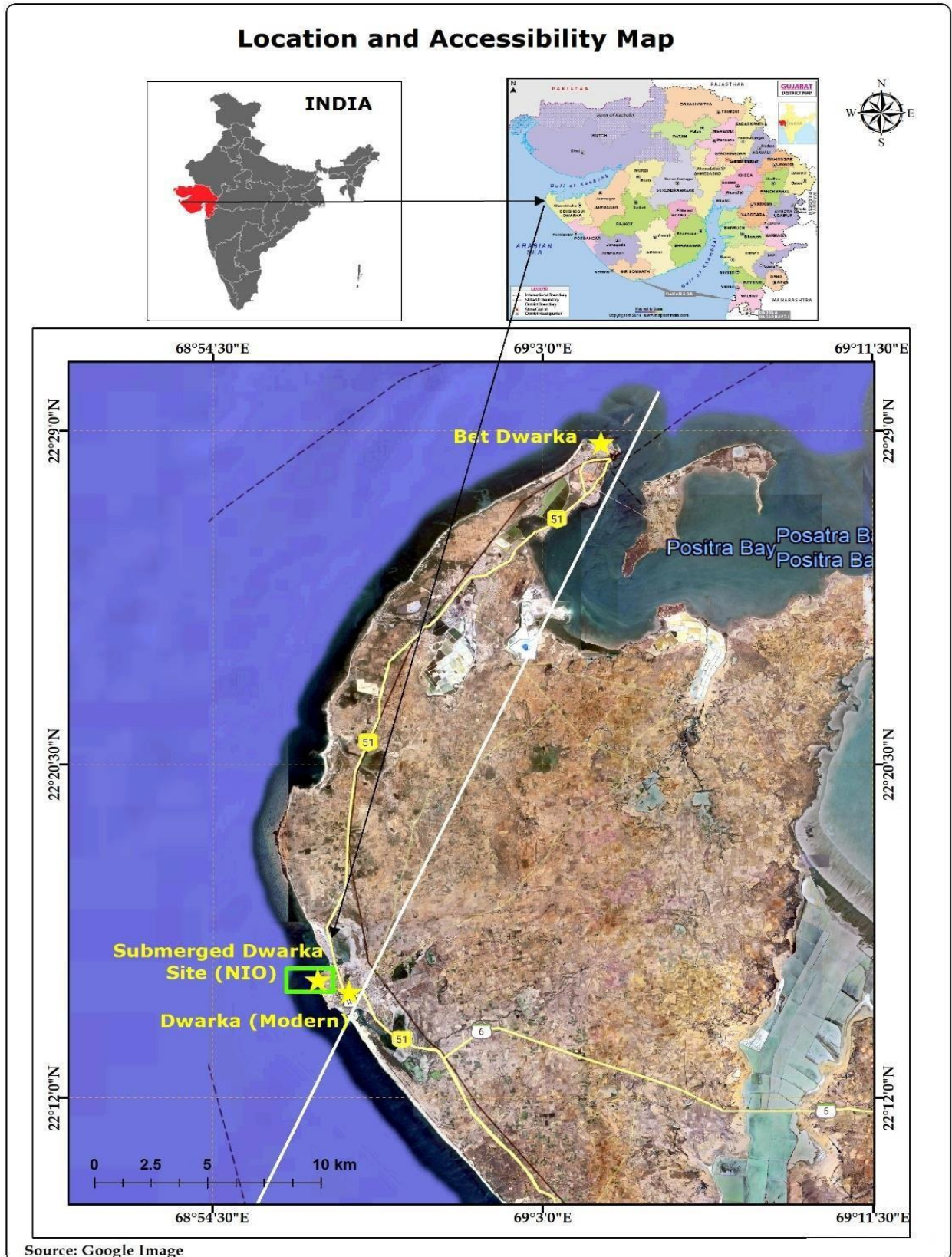


Fig No: 1.1. Location map of Submerged Dwarka Figure :1.2. Toposheet Showing the Submerged Dwarka Region

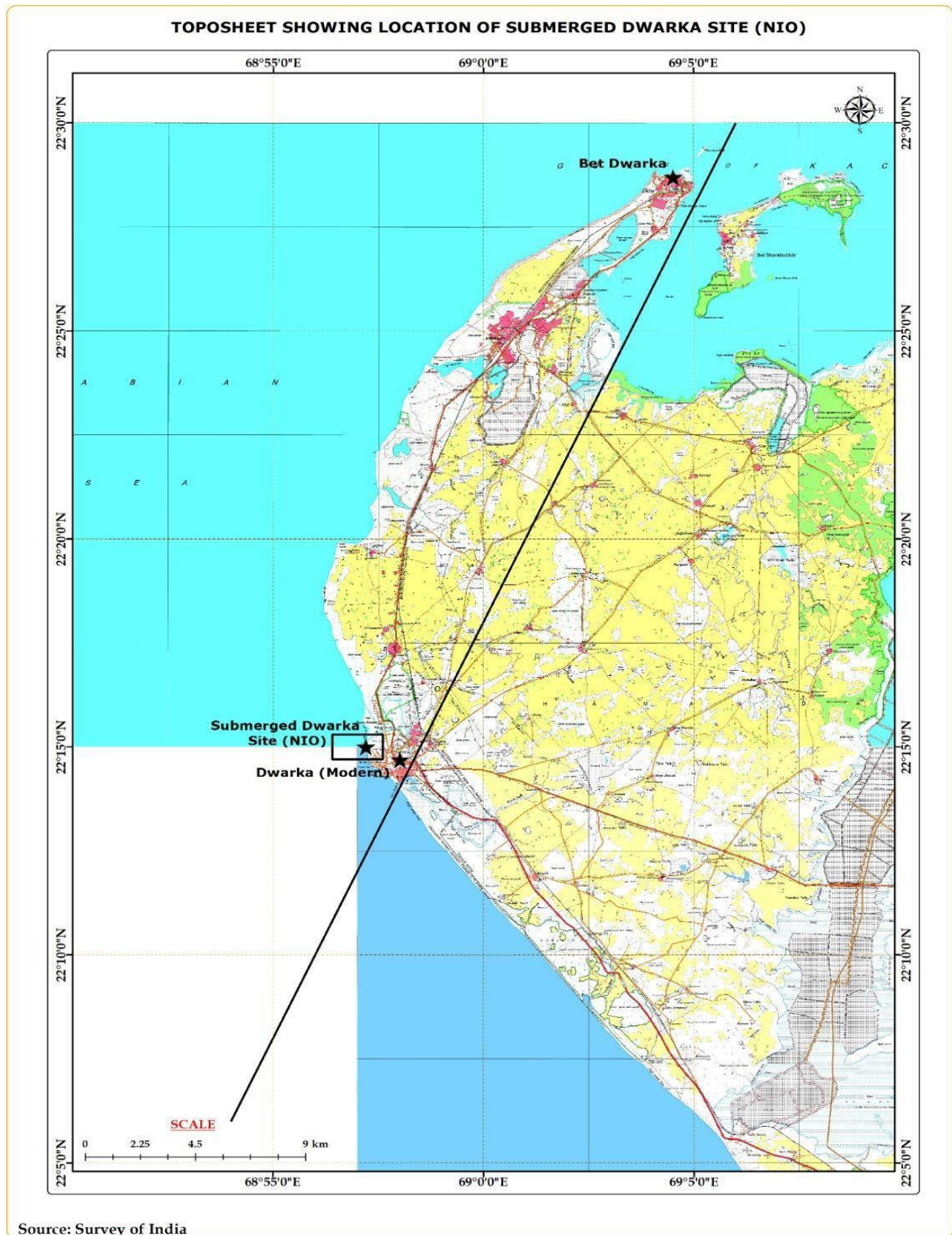


Fig No: 1.2. Toposheet map showing Submerged Dwarka.

These findings provide an important scientific dimension to the cultural memory of Dwarka, highlighting the convergence of mythology, archaeology, and coastal geomorphology.

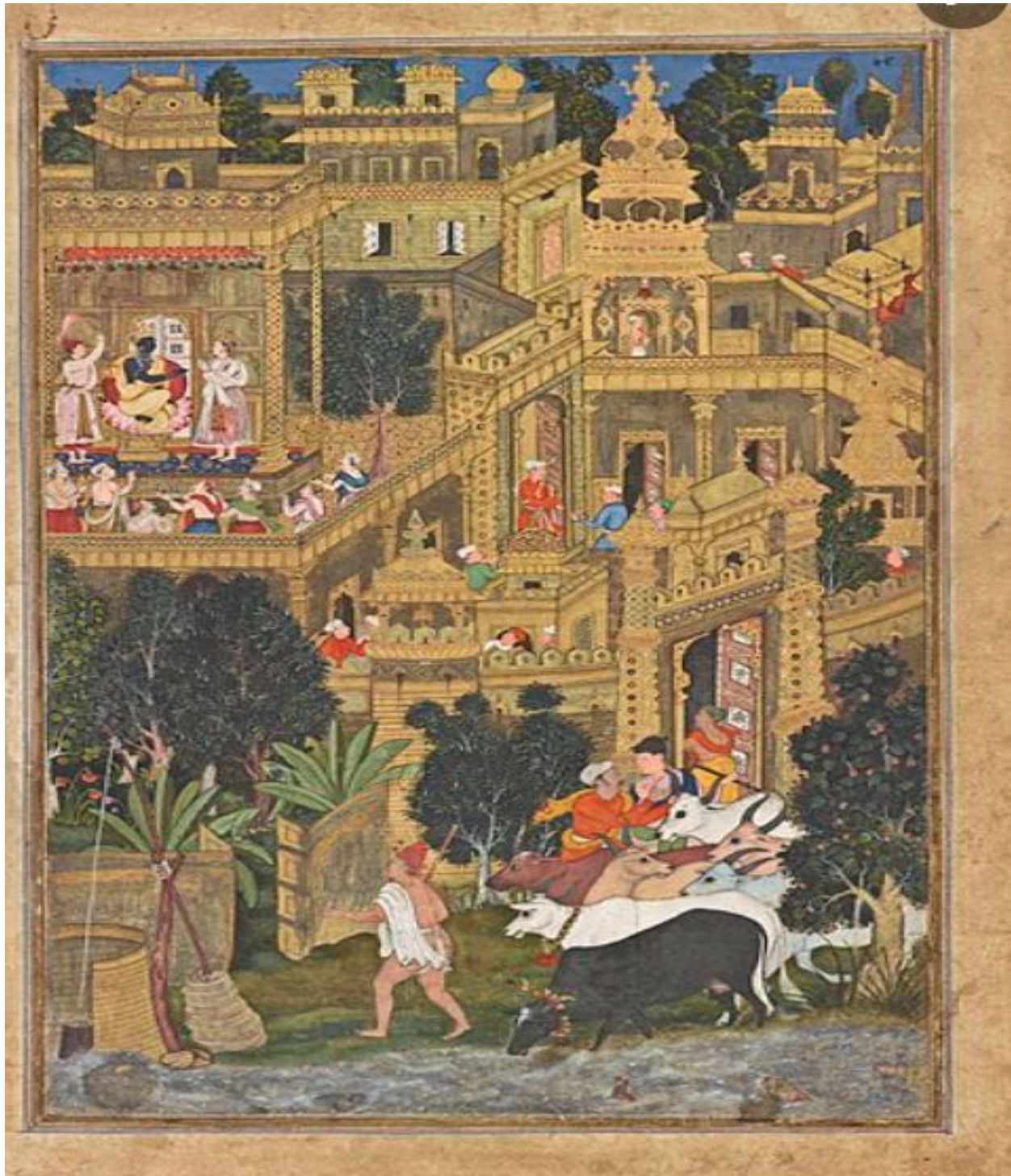


Fig No: 1.3. Picture shows the Dwarka Palace

III. METHODOLOGY

This research adopts an interdisciplinary methodological framework integrating physical geography, marine archaeology, geomorphology,

tectonic analysis, and textual interpretation. A combination of qualitative and quantitative approaches was employed, with emphasis on spatial analysis, terrain reconstruction, and the examination of how ancient narratives correspond with

geophysical processes.

The overall workflow includes:

3.1. Literature Review and Historical Analysis

Examination of mythological texts such as the *Mahabharata* and *Vishnu Purana*, supported by historical documents and previous marine archaeological reports, to establish cultural and chronological baselines for Dwarka.

3.2. Remote Sensing and GIS Analysis

Procurement and processing of satellite imagery (Landsat, Sentinel-2), geometric and radiometric correction, coastline change detection, LULC classification, and generation of satellite-derived bathymetric datasets to identify submerged geomorphic features.

3.3. Marine Archaeological Survey

Compilation and interpretation of side-scan sonar data, sub-bottom profiling, underwater visual documentation, and sediment and artefact analyses conducted by the Marine Archaeology Centre, NIO, to delineate offshore structures.

3.4. Geological and Geomorphological Studies

Review of tectonic activity, coastal fault systems, Holocene sea-level fluctuations, and regional geomorphic features to understand the natural processes influencing submergence events.

3.5. Integration and Data Interpretation

Overlay and correlation of archaeological, geological, marine, and remote sensing layers within a GIS environment. This step includes chronological reconstruction of shoreline evolution and the synthesis of scientific evidence with mytho-historical

descriptions.

3.6. Documentation and Reporting

Preparation of thematic maps, 3D sites models, and interpretative figures, followed by manuscript development for publication in the *Transactions of the Institute of Indian Geographers (TIIG)*.

IV. DATA PRODUCTS

A diverse set of spatial, geological, and literary datasets was utilized to conduct the interdisciplinary analysis:

4.1. Satellite Imagery

- Landsat 5 TM and Landsat 8 OLI
- Sentinel-2 MSI (10–20 m resolution)

Used for LULC mapping, coastline change detection, and extraction of spectral signatures of submerged features.

4.2. Digital Elevation Models

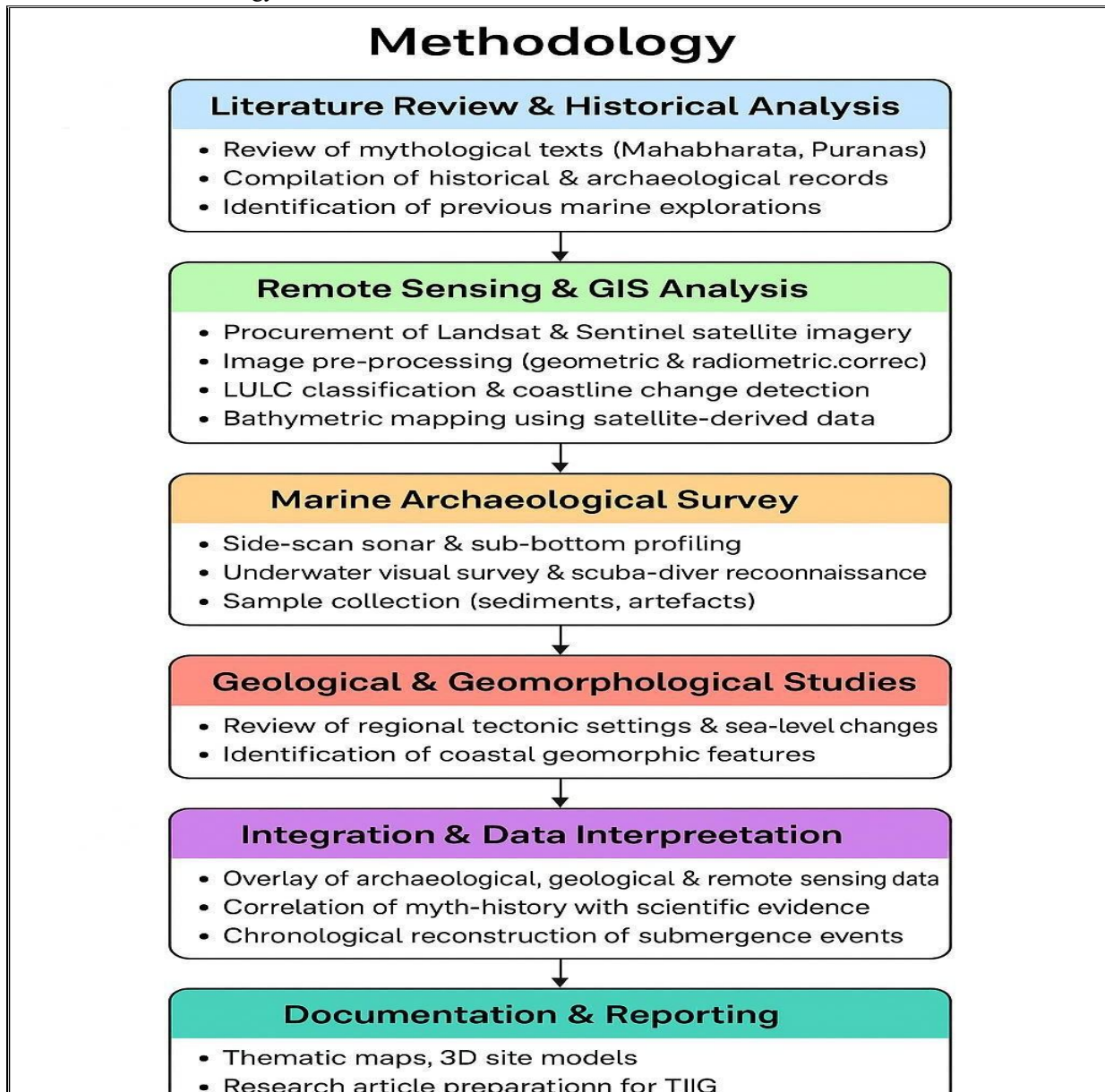
- SRTM (30 m)
- ASTER GDEM

Applied for geomorphological assessment, terrain modelling, and elevation-based shoreline reconstruction.

4.3. Marine and Oceanographic Data

- Side-scan sonar mosaics
 - Sub-bottom profiles
 - Bathymetric maps and seabed imagery
 - Marine survey reports from the National Institute of Oceanography (NIO)
- These datasets support identification of underwater structures, paleo-channels, and sediment characteristics.

Table No: 1.1. Methodology flow chart



4.4. Geological and Seismic Data

- Fault line and tectonic boundary maps (GSI)
- Earthquake event records (IMD)
- Regional neotectonic studies

Used to evaluate crustal movements and tectonic reactivation affecting coastal morphology.

4.5. Literary and Historical Sources

- Spatial descriptions from the *Mahabharata*, *Vishnu Purana*, and classical commentaries
- Historical documents and earlier archaeological reports Used for correlating mytho-historical narratives with geographical indicators.

4. 6. Data Processing and Integration

All datasets were standardized and georeferenced to the UTM-WGS 84 coordinate system to ensure uniform spatial compatibility. Multi-source data were integrated into a GIS-based temporal-spatial synthesis model, enabling the reconstruction of paleo-shorelines and evaluation of Dwarka's submergence. Analytical outputs were interpreted through the frameworks of physical geography, marine geomorphology, and tectonic evolution to determine the scientific plausibility of the ancient city's disappearance.

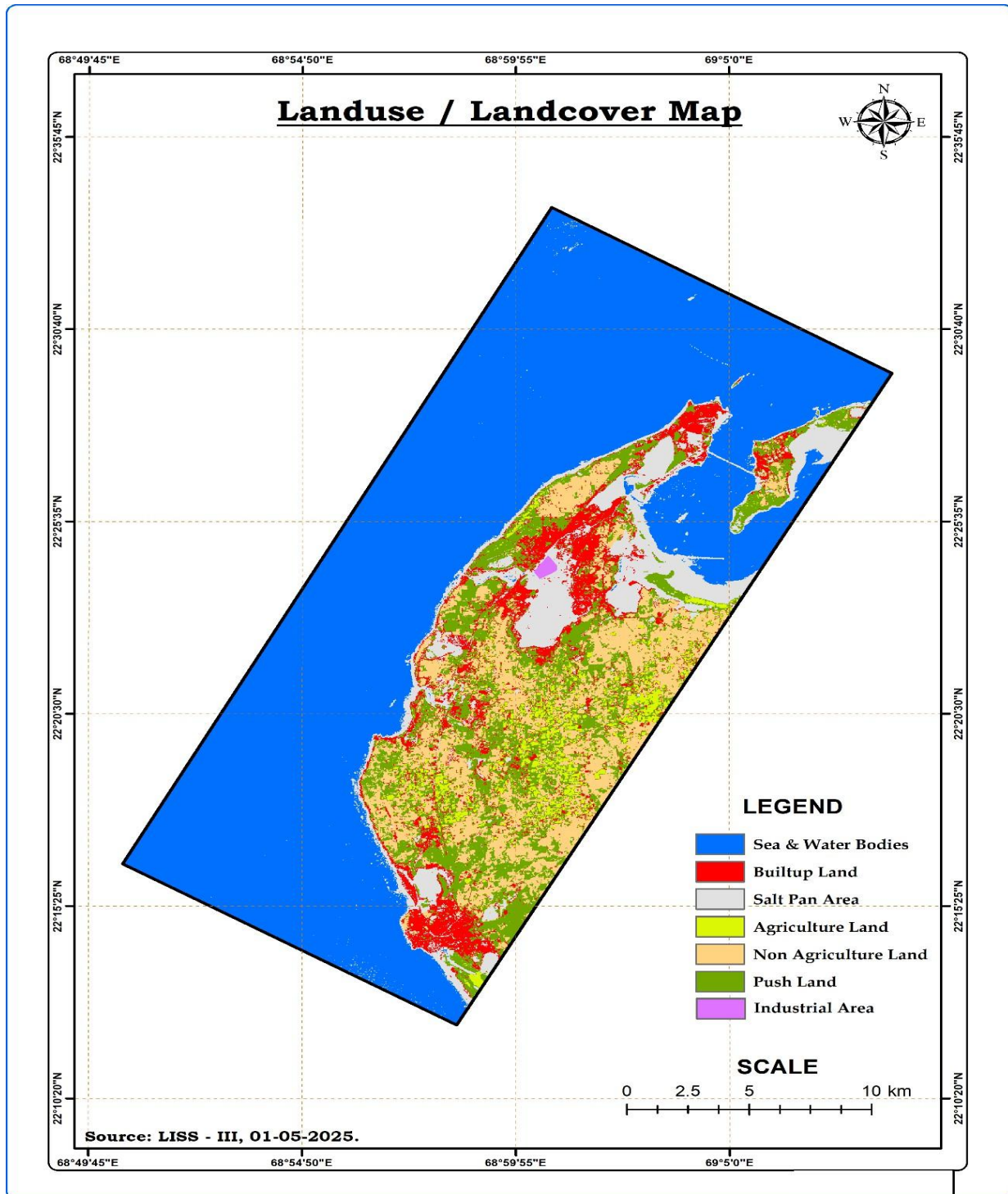


Fig No: 1.3. Buffer Map showing around 5 km Radius of LULC

5. Land Use / Land Cover (LULC) Map of the Dwarka Region (5 km Buffer)

The Land Use / Land Cover (LULC) map illustrates the spatial distribution of major land categories within a 5 km radius of the Dwarka coastal zone. The

classification was performed using LISS-III satellite imagery (dated 01-05- 2025) through supervised classification techniques. Major classes identified include built-up land, agricultural fields, salt pan areas, non-agricultural land, industrial zones, and

coastal water bodies.

The distribution pattern highlights the concentration of built-up areas around modern Dwarka, reflecting ongoing urban expansion and associated anthropogenic pressures on the coastal environment. Notably, salt pans and agricultural lands dominate the inland portions of the buffer region, whereas the western and northern boundaries are shaped by the Arabian Sea. This LULC classification provides a crucial baseline for assessing land transformations, evaluating human influence on the fragile coastal ecosystem, and understanding potential impacts on archaeological and submerged heritage sites.

This figure illustrates the 5 km buffer zone delineated around the Dwarka coastal region to assess shoreline

dynamics between 2015 and 2025. The map integrates multi-temporal satellite datasets to highlight areas of erosion, accretion, and geomorphic shifts influencing the coastal environment and the submerged archaeological zones.

Dwarka region, with National Highway 51 acting as the major access corridor. The combination of road connectivity and ferry routes significantly enhances tourism and pilgrimage movement, which in turn drives land use changes, urban expansion, and coastal development pressures. Such infrastructural growth can indirectly influence shoreline dynamics, potentially accelerating coastal erosion and affecting the preservation of submerged archaeological structures located offshore.

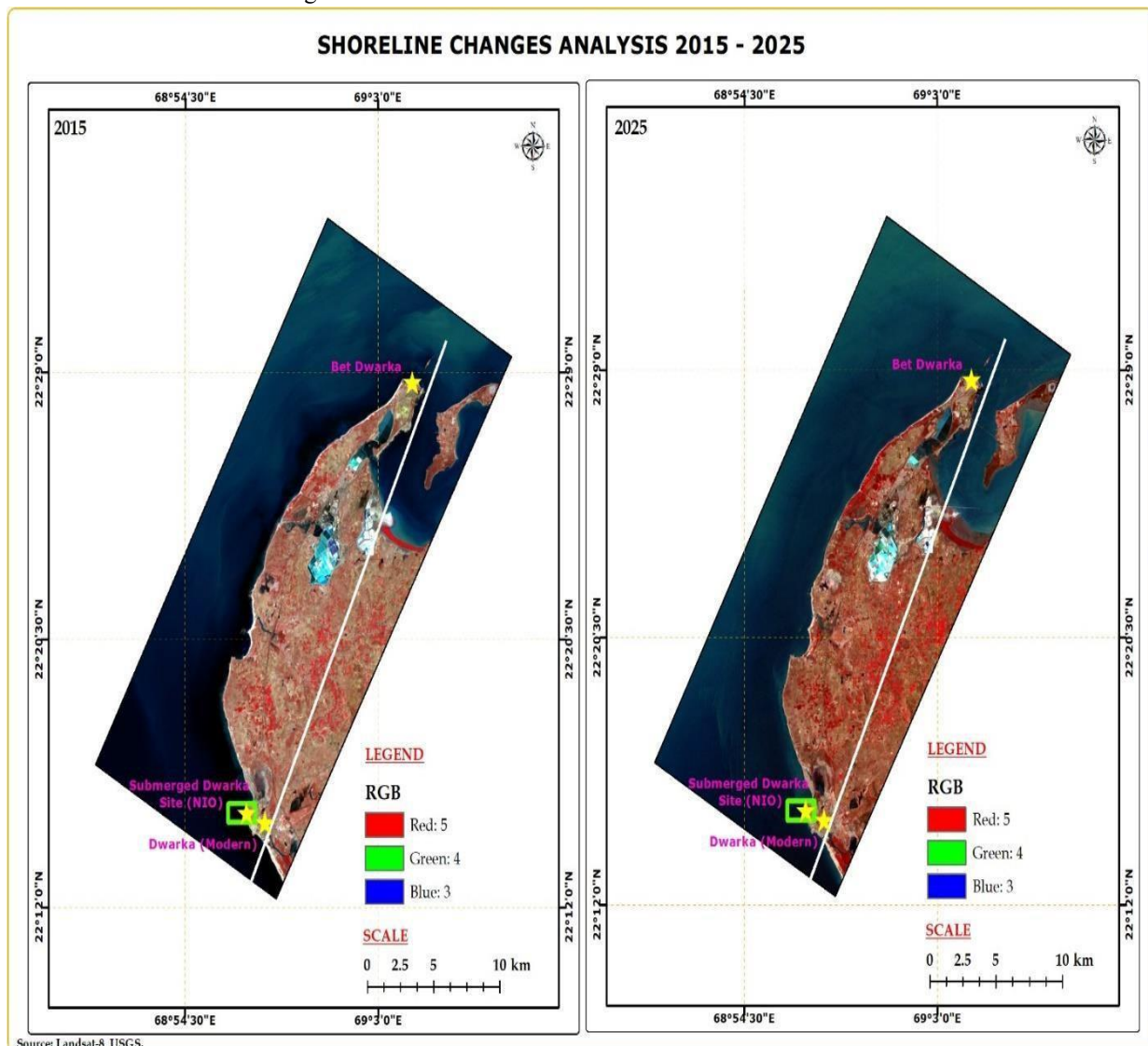


Fig No: 1.4. Buffer Map showing around 5 km Radius Shore Line Change Detection Analysis for 2015-2025

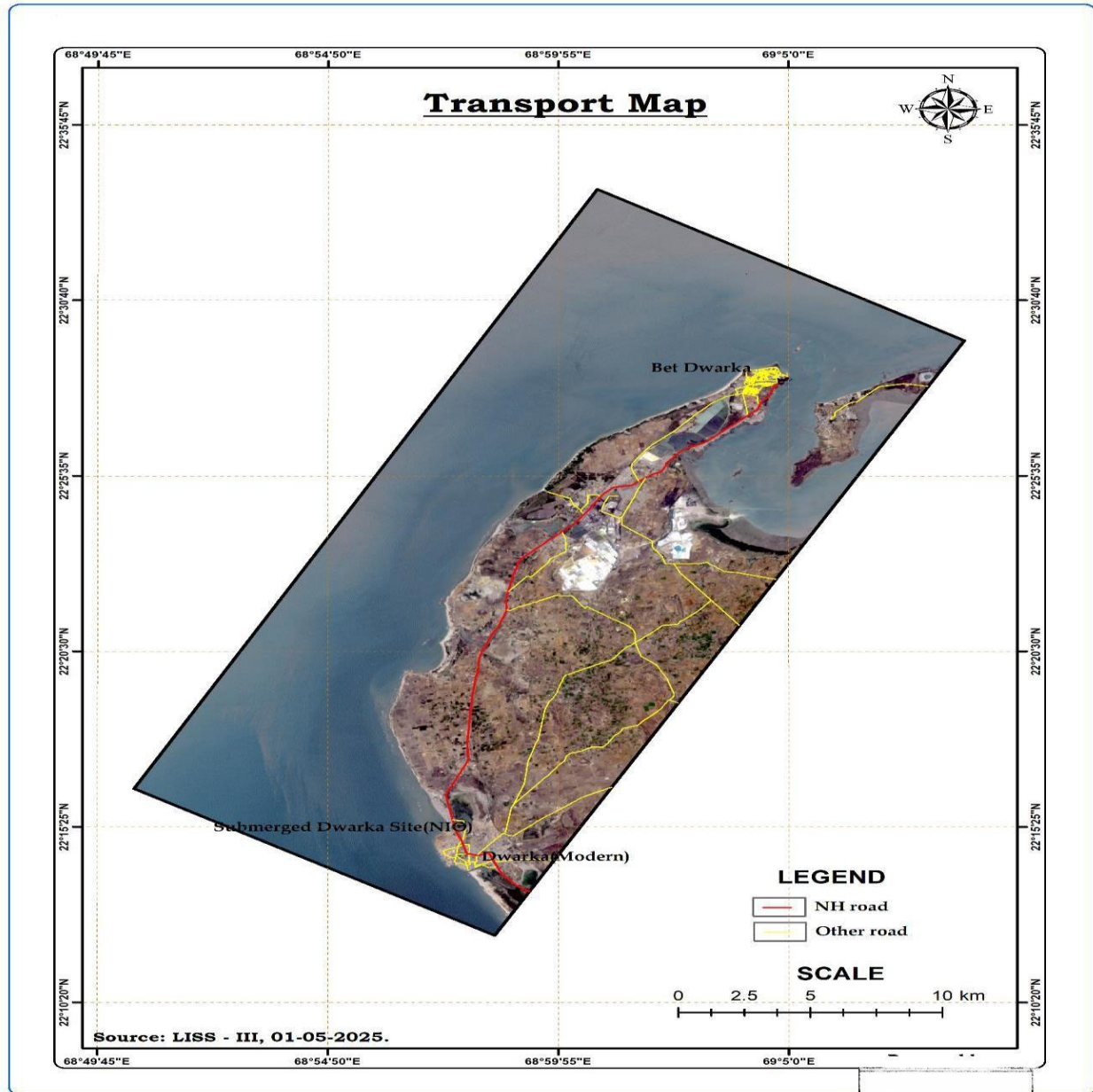


Fig No; 1.6. Map shows Transport Map.

This figure shows the transportation network of the Dwarka–Bet Dwarka region, mapped using LISS-III imagery (01-05-2025). National Highway routes and secondary road networks are clearly delineated to demonstrate connectivity between modern Dwarka, Bet Dwarka, and surrounding coastal settlements, providing essential context for archaeological accessibility and regional mobility. Figure 1.6 illustrates the transportation network of the Dwarka–Bet

V. REVIEW OF LITERATURE

5.1 Mythological and Historical Narratives of Dwarka
Ancient Indian literature, including the *Mahabharata* and *Vishnu Purana*, describes Dwarka as a fortified coastal kingdom established by Lord Krishna and eventually swallowed by the sea. Scholars such as Bhattacharyya (1983), Rao (1991, 2001), and Kosambi (1965) have examined these texts as historical constructs that may preserve memories of real environmental events. Sengupta (2004) and Subbarayappa (2001) argue that mythological

accounts often encode geographical and ecological processes using symbolic language, offering clues to ancient coastal dynamics.

5.2. Marine Archaeology and Submerged Urban Remains

Underwater explorations by the National Institute of Oceanography (NIO) and its Marine Archaeology Centre have confirmed the existence of submerged man-made structures off the coasts of Dwarka and Bet Dwarka (Rao, 1988; Gaur et al., 2006). Acoustic surveys, including side-scan sonar, have revealed remnants of fort walls, jetty stones, and mooring blocks, with artefacts dated to approximately 1500–1800 BCE (Gaur & Sundaresh, 2003). These findings support the hypothesis that an ancient urban centre once existed here and was later affected by marine transgression.

5.3. Coastal Geomorphology and Sea-Level Change

The Saurashtra–Kutch coastline has undergone significant Holocene sea-level fluctuations and geomorphological instability (Chauhan, 1990; Rao & Thakker, 2006). Evidence from sediment cores and paleo-beach ridges indicates alternating episodes of regression and transgression, regulated by eustatic shifts, monsoonal variability, and isostatic adjustments (Ramasamy & Balasubramanian, 1995; Mathur & Pandey, 2002). These processes offer scientific support to the possibility of coastal submergence near ancient Dwarka.

5.4. Tectonic Activity and Crustal Movements in Western India

Western India, especially the Saurashtra–Kutch region, lies within an active tectonic domain characterized by faults, uplift–subsidence cycles, and seismicity (Bilham et al., 2001; Maurya et al., 1995). Major events such as the 1819 Kutch earthquake reveal the area’s vertical instability. Research by Chandra (1992), Rajendran et al. (2008), and Mishra et al. (2014) suggests that differential crustal movements could have contributed to the submergence of early coastal settlements, including Dwarka.

5.5. Interdisciplinary and Geo-Mythological Approaches

Recent scholarship highlights the need to integrate earth sciences with cultural narratives to interpret ancient landscapes. Scholars like Sankalia (1977), Dhavalikar (1995), Sasisekaran (2007), and Sheth (2015) promote geo- mythology as a framework to

connect tectonics, shoreline transformation, and mythic memory. Modern techniques such as GIS, satellite imagery, DEM analysis, and digital bathymetry enhance our ability to correlate archaeological and geomorphic evidence (Juyal et al., 2009; Pandey et al., 2020).

5.6. Sedimentology and Tectono-Stratigraphic Insights

Banerji et al. (2015) examined Palaeogene–Quaternary sediments and identified beach-rock layers within the Dwarka Formation, indicating repeated high-stand conditions influenced by tectonic adjustments. These findings strengthen the sedimentological basis for interpreting contour variations and shoreline changes across your study area.

5.7. Archaeological Proxies for Holocene Shoreline Shifts

Vora, Gaur, and Sundaresh (2011) studied intertidal archaeological remains at Bet Dwarka, including submerged temple structures and mooring stones. Their work documents recent shoreline retreat and supports marine archaeological observations that align with your own shoreline detection and mapping.

5.8. Indus-Era Shoreline Dynamics

Gaur and Vora (1999) reported that sea levels in Gujarat during the mid- Holocene (~6000 BP) were nearly 6 metres higher than present, stabilizing toward the late Holocene. This explains why certain ancient port sites are now located inland. These findings correlate well with your paleoshoreline reconstructions and contour-based elevation analysis.

5.9. Marine Archaeology and Heritage Management

Pandya and Sanghani (2024) emphasize the global significance of Dwarka’s submerged cultural heritage and discuss its conservation within UNESCO and international underwater heritage frameworks. Their research supports the policy recommendations proposed in your study, especially regarding the protection and sustainable management of Dwarka’s underwater archaeological landscape.

VI. RELIGIOUS TOURISM AND EMERGING UNDERWATER TOURISM INITIATIVES

Religious tourism in India has grown exponentially in recent years, reflecting the country’s deep cultural and spiritual heritage. In 2022 alone, an estimated

1,439 million domestic tourists participated in religious travel, indicating unprecedented nationwide mobility linked to pilgrimage and sacred geography. This surge is supported by government initiatives, infrastructural expansion, and renewed cultural awareness.

One of the most innovative developments in this sector is the Gujarat

6.1. Government's pioneering submarine tourism



The upcoming submarine tourism venture represents a significant milestone, offering visitors a direct view of the underwater structures traditionally associated with Krishna's legendary city. Historically, religious destinations such as Kashi, Rameswaram, Ayodhya, Mathura, and Ujjain have evolved with substantial state support, increasing accessibility and tourism revenue. The introduction of underwater tourism extends this pattern by merging religious significance with marine archaeological exploration.

India's tourism statistics reflect this upward trajectory. During January–June 2024, the country recorded 43.80 lakh foreign tourist arrivals, a remarkable 106% increase compared to the corresponding period in 2022 (21.24 lakh). In his 103rd *Mann Ki Baat* address, Prime Minister Narendra Modi emphasized the cultural and economic benefits of rising pilgrim visits, noting that tourism contributes significantly to local livelihoods by creating employment opportunities for temple

project,

designed to enable visitors to explore the submerged archaeological remains of ancient Dwarka. A memorandum of understanding with Mazagon Dock Shipbuilders has been finalized, marking India's first-ever underwater tourism facility. The service is projected to become operational by Diwali 2024, transforming Dwarka into a global heritage–tourism landmark.

towns and coastal heritage regions.

Projections by the Ministry of Tourism indicate that the religious tourism economy will continue expanding, potentially generating ₹59 billion in revenue by 2028 and creating 140 million temporary and permanent jobs by 2030. The proposed Dwarka submarine tourism facility is expected to play a vital role in this growth, positioning the city as a unique intersection of mythology, heritage, marine science, and tourism.

VII. HISTORICAL DEVELOPMENT OF DWARKA'S ARCHAEOLOGICAL EXPLORATIONS

Scientific interest in Dwarka's submerged remains began in the 1930s with preliminary studies led by Hiranand Shastri. Systematic excavations commenced in 1963 under JM Nanavati and HD Sankalia, laying the groundwork for later underwater archaeological

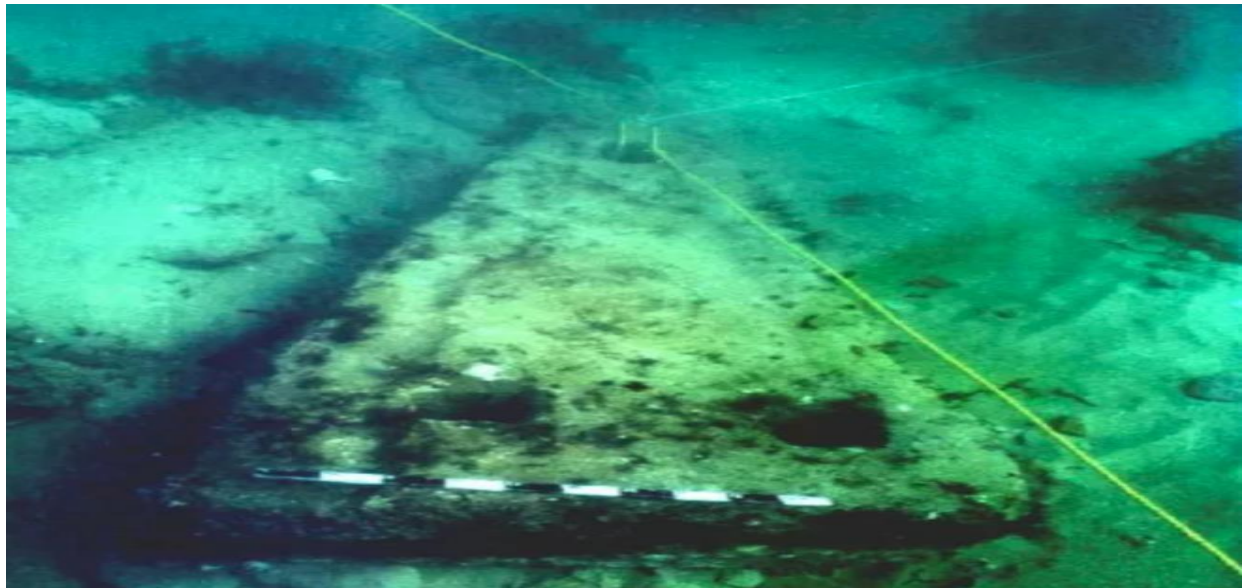
missions.

Between 1983 and 1990, the Marine Archaeology Unit of the National Institute of Oceanography (NIO) conducted extensive underwater surveys, uncovering:

- Fortified foundations
- Rectangular stone blocks
- Pillars and structural alignments
- Irrigation channels
- More than 120 stone anchors of composite and grapnel types
- Artefacts indicative of maritime activity and harbour use

These findings align with descriptions in ancient texts and corroborate the existence of an early port town.

According to the pioneering work of S.R. Rao, the submerged urban complex near present-day Dwarka corresponds to a city-state with satellite settlements, tentatively dated to around 1500 BCE. UNESCO later acknowledged the archaeological significance of these underwater discoveries, highlighting their importance for understanding Indo-Oceanic trade networks, coastal geomorphology, and ancient urban planning.





PM Modi 's underwater Pooja doing dip in Gujarat Dwaraka

7.1. Cultural Significance, Underwater Tourism, and Global Context Researchers continue to investigate the origins, development, and eventual submergence of Dwarka, a site that holds both historical and profound spiritual significance. For millions of Hindus worldwide, Dwarka is not merely an archaeological location—it is revered as the sacred city established by Lord Krishna, forming an integral part of India's mytho-historical consciousness.

Understanding its past therefore contributes simultaneously to historical scholarship, religious heritage, and cultural identity.

7.2. Spiritual and Cultural Importance

Traditional narratives recount that after Lord Krishna's departure from the mortal world, the city of Dwarka gradually sank beneath the Arabian Sea. The episode of the hunter **Jara** mistakenly shooting Krishna—believing him to be a deer—marks the symbolic transition from the Dvapara Yuga to the Kali Yuga. These stories remain central to Hindu memory and amplify the reverence associated with Dwarka as both a pilgrimage centre and a sacred maritime landscape.

7.3. Marine Archaeological Findings

Underwater explorations have revealed a variety of well-dressed stone blocks, structural alignments, and fragmentary remains located at 3–6 m depth, with additional features visible in the intertidal zone during low tide. Scattered architectural stones, foundations, channels, and artefacts suggest the presence of a substantial coastal settlement. Over **120** stone anchors—composite, grapnel, and multi-holed variants—further indicate Dwarka's significance as an ancient maritime hub facilitating trade and navigation.

These archaeological discoveries strengthen the argument that Dwarka's submergence is not purely mythical but rooted in real geophysical and environmental events.

7.4. Dwarka Tourism and Underwater Recreation

Contemporary Dwarka is not only a pilgrimage destination but also a rapidly growing adventure tourism site. Scuba diving activities—starting from approximately ₹2,400—are conducted at designated diving locations with professional dive masters ensuring visitor safety. While bathing is permitted on Dwarka Beach, visitors are advised to remain cautious due to fluctuating sea conditions.

7.5. Global Context of Submarine Tourism

Several countries worldwide have introduced submarine tourism, allowing travellers to view underwater ecosystems and submerged heritage. India is now preparing to join this emerging sector through the introduction of submarine tours in Dwarka, providing a new dimension to spiritual tourism and ocean heritage interpretation.

7.6. India's First Submarine Tour to the Underwater City of Dwarka

In December 2023, the Gujarat Government announced the launch of India's first submarine-based underwater tourism facility, to be fully operational by Diwali 2024. This initiative is expected to position Dwarka as an international centre for underwater archaeology and spiritual tourism.

Key Features of the Submarine Tourism Experience

1. Ancient Ruins Exploration

Visitors descend below sea level to view submerged walls, foundations, and architectural remains that correspond with marine archaeological evidence. These features may include harbour installations, fortification bases, and the possible remains of temples and residential complexes.

2. Marine Biodiversity

The waters around Dwarka are rich in marine life. Tourists can observe vibrant fish communities, coral patches, and seabed landscapes, creating a compelling mix of natural and cultural heritage.

3. Interactive Learning Modules

On-board digital displays provide 3D reconstructions, virtual models, and interpretive visuals that explain the archaeological significance, cultural history, and geomorphological transformations of Dwarka.

4. Cultural Enrichment

Performances and devotional recitals related to Krishna and Dwarka's maritime history are conducted on the submarine deck, offering a multi-sensory pilgrimage experience.

5. Inclusivity and Accessibility

Ticket booking will be available online, with arrangements for senior citizens and differently-abled visitors to ensure universal access.

6. Safety Protocols

Comprehensive safety briefings, emergency systems, and modern navigation equipment ensure secure underwater travel for all passengers. A Pilgrimage beyond the Surface This initiative transforms the traditional Char Dham pilgrimage by offering a sub-

surface spiritual journey. Dwarka becomes not just a place to visit, but a site where devotees can visually connect with the legendary city beneath the sea—bridging mythology, archaeology, and modern technology.

VIII. CONCLUSION

The evolution and submergence of Dwarka can be understood through the combined influence of tectonic activity, sea-level oscillations, coastal geomorphology, and ancient cultural memory. Integrating underwater tourism with ongoing scientific research has the potential to transform Dwarka into a global centre for underwater heritage studies. Recommendations include:

- Declaring Dwarka as a Marine Archaeological Heritage Site
- Conducting high-resolution geophysical surveys
- Implementing radiometric dating (OSL, AMS-C14)
- Utilizing underwater LiDAR and sub-bottom profiling
- Promoting conservation and educational awareness programs

Dwarka stands today as a powerful intersection of mythology, marine science, heritage conservation, and spiritual tourism—offering a unique opportunity to understand India's maritime past while shaping its cultural future.

Embark on an Unforgettable Journey

As Diwali 2024 approaches, travellers and pilgrims are invited to participate in an extraordinary experience that blends history, archaeology, and spirituality. The pioneering Dwarka Submarine Tourism Project, developed by the Government of Gujarat, offers an unprecedented opportunity to witness India's legendary submerged city from beneath the ocean surface. Facilitated by Travel Crafters, this initiative promises a spiritual odyssey where visitors explore the sacred depths of Dwarka—believed to be the ancient kingdom of Lord Krishna. Enriched with the blessings of Sri Krishna and Rukmini, this underwater expedition seeks to create lasting memories while honouring India's maritime heritage. Bookings for this historic launch open as the festive season approaches, marking a transformative moment in

India's tourism landscape.

Tour Dwarka: A Journey Beneath the Ocean

The Government of India has now opened a path to visit Mool Dwarka, the ancient city traditionally associated with Lord Krishna, which lies submerged beneath the Arabian Sea. Submarines designed for this purpose will accompany travellers with two certified scuba divers and one trained guide on each voyage.

- Submarine Capacity: 30 passengers
- Submarine Weight: Approximately 30 tonnes
- Viewing Experience: Wide glass panels allow visitors to observe marine biodiversity, colourful aquatic species, and submerged archaeological structures linked to ancient Dwarka.

In addition to the submarine project, the Dwarka Corridor Project—a major infrastructure and pilgrimage enhancement initiative—is expected to be completed and inaugurated by Janmashtami or Diwali 2024, as per recent news reports.

This combined development represents a historic opportunity for pilgrims, scholars, and tourists to explore the underwater world with unprecedented clarity and safety.

A notable symbolic event reinforcing this spiritual connection was Prime Minister Narendra Modi performing an underwater puja in Dwarka, emphasizing the sanctity and national significance of the submerged heritage.

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