

**Concept Note**

**Working Group  
for  
Water and Heritage**

**ICOMOS INDIA**

*June 2018*

**(i) Mission Statement :**

Water flows from humble courtyard spaces of traditional households into neighborhood tanks and wells and further as lakes, rivers and seas blurring and bridging physical, social, cultural and political boundaries. With its basic nature to nurture life, the presence of water has been critical in shaping of societies and settlements- from prehistoric civilizations to modern cities. Being one of the most essential elements for human existence, water has played a significant role in the evolution of habitat, from the Indus valley civilization to contemporary urban relationships with water. Water plays an important role in balancing natural ecosystems, supporting various flora, fauna , biodiversity and also creates spaces for anthropocentric activities shaping spaces around daily needs/livelihoods, social structures, customs and rituals.

In the current scenario, with rapid urbanization and changing urban agglomerations, there has been a severe attrition of water resources. With a potential world-wide water crisis anticipated in the future there are many organisations that have been working towards ensuring safe access to water for all. While there have been many engineering and technological advancements to address the growing need to create sustainable and universally accessible water resources, there has also been a strong advocacy for the articulation of values and renewal in use of traditional methods of water access, rain-water harvesting, indigenous irrigation practices, and the revival of these systems through conservation and management - especially through community led/community centric initiatives.

Looking into the role of water and heritage in contemporary discourse, the mission of the National Scientific Committee on Water and Heritage is aimed as **“Documentation,**

***conservation, and protection of Water Heritage (Natural and Cultural) as a source of learning for the future.”***

### **India water profile<sup>1</sup>**

The water profile in India is a complex phenomenon – connected intrinsically with the cultural fabric of the country, resulting in the development of diverse traditional water systems. Various reports by Centre Water Commission explain the diversity of this water profile in India based on its rainfall patterns, surface water, and ground water resources which differs from region to region. There are also extensive studies done by organisations such as Centre for Sciences and Environment (CSE) and Centre for Environment Education (CEE) on traditional systems and practices associated with water.

Based on its rainfall patterns, there is a high deviation in terms of spatial and temporal variations in the country. India, on an average, receives about 125 cm of rainfall, with 80% of its annual rainfall received in months of June to September through the south west monsoon. Based on its availability of rainfall the country can be classified into (i) Areas of Heavy Rainfall - over 200cm (ii) Areas of moderately heavy rainfall - 100-200 cm. (iii) Areas of less rainfall - 50-100 cm. And (iv) Areas of scanty rainfall having < 50 cm of rainfall. This has translated into diverse sets of traditional water systems for example the *tankas* of Gujrat, or *kundis* of Rajasthan which focus on storing rainwater for household consumption.

Another aspect of water based classification consists of surface water availability. Surface water resources comprise of rivers and inland water resources like lakes, tanks, canals, ponds, reservoirs, etc. They are crucial for ecosystem services as well as for providing livelihood support to large sections of the population. The entire country is divided into twenty river basins/group of river basins comprising twelve major basins: 1.Indus, 2.Ganga-Brahmaputra-Meghna, 3.Godavari, 4. Krishna, 5.Cauvery, 6.Mahanadi, 7.Pennar, 8.Brahmani-Baitarani, 9.Sabarmati, 10.Mahi, 11.Narmada and 12.Tapi. Among the major rivers, the Ganga Brahmaputra-Meghna system is most significant with a catchment area of about 110 Mha. The other major rivers with catchment areas of over 10 Mha are the Indus (32.1 Mha), Godavari (31.3 Mha). Some of the traditional systems pivoted around the distribution of river basins includethe *Kuhls* found in Himalayan region, *Ahar-Pyne* systems found in Bihar in Indo gangetic plains; *Bandharas* and *phad* systems found in Maharashtra.

Along with the extensive network of rivers, the water profile of India is dotted with hundreds of lakes and wetlands across the country. Currently, India has around 26 RAMSAR sites of international importance and hundreds of wetlands of local/ regional importance that houses a

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<sup>1</sup> This is not an exhaustive recounting of the Indian water profile but aims at giving an overview. References are yet to be added

rich diversity of flora and fauna. The traditional manifestation of surface water systems can be seen in the form of *Johads* of Rajasthan, *Kunds* of Gujarat and tanks of southern India, to name a few.

### **Interaction with habitat**

India, and the larger Indian subcontinent, has been witness to a rich association between water and heritage- both cultural and natural- from water for sustenance, services and security, to reverence, and recreation, amongst many others. India's sheer expanse, geographic diversity, millennia of inhabitation, conquests and trade has meant that the interaction with this life giving resource has been diverse, dynamic, and unique to this part of the world. This interaction has been steeped in an intrinsic understanding, familiarity and knowledge of the hydrogeology, rainfall patterns and associated interactions with ecology which have in turn created complex and layered traditional knowledge systems which find manifestations in tangible and intangible heritage.<sup>2</sup>

The most primordial interaction with water has been for sustenance. Where access to water- especially potable water- has been scarce, like the deserts of Rajasthan, there is an ingrained sense of responsibility towards water harvesting in each household, which finds physical manifestations in residential architecture. Moreover, food patterns and lifestyles have developed responsive to changes in climate, rainfall and geology of a region. Evident variations in agricultural practices and their systems of irrigation, from the *ahar-pyne* in Bihar to the *kuhls* in Himachal, showcase how availability of water has a relation to the nature of life and sustenance of a community.

The interaction with water in a community goes beyond just an individual's need for sustenance and thus, built heritage associated with water is often seen to service the collective. There has been an ingenuity in the different physical manifestations in architecture and planning which have allowed for access to the variety of sources of water- whether it be access to natural water bodies through the creation of *ghats*, or access to ground water via wells and *baolis* to collection and storage of rain water in *kunds*, to name a few. Advancements meant that access to water was not only at the source, rather, it could be transported across areas of need through pipes, aqueducts , *qanats* and others. One of the first water supply/ service networks can be traced as far back as the Indus Valley civilization—evidence of which exists at archaeological sites in the northwest of India.

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<sup>2</sup> This enumeration is not an exhaustive documentation of existing typologies, it aims to provide a preliminary, broad overview of some key typologies, and ways in which interactions with water have developed in the sub-continental history of India.

Water as feature in designed landscapes, city planning and other social architecture flourished and created a distinct vocabulary of architecture/architectural features to interact with water. Representation of this is seen from channels and tanks in the axial layouts of the Mughal gardens and *hammams* within cities/ settlements, *serais* and royal complexes, to the use of fountains as urban markers ( like the *Phawara* chowk in Chandni chowk in Old Delhi) and water fountains of 19<sup>th</sup> century Bombay to service needs of both humans and animals.

While the need of water for the collective is evident, the prerogative of distinct groups to access and interact with the element is well recorded in history. The right to access and sometimes ‘allotment’ of the shared resource based on need (livelihood/ use/ other) also gives insight into traditional social nuances within historic communities/ societies in India, which reflects back on the interaction of people with built and natural water heritage, across caste, class, gender and others. For instance, a close relationship between women and water, especially with regards to practices of water collection and use, has often meant built architecture associated with water has traditionally had a distinct gender occupation of the space.

Furthermore, associations are also manifested in a diverse range of traditional livelihoods dependent on ecologies associated with water bodies. From the fisherman and their fisheries in Bengal and other regions, to the boat makers and dwellers of in Srinagar and the coir makers in the Kerala backwaters- these traditional livelihoods and tangible products are intrinsically linked to intangible practices, skills and arts (for instance *Bhatiyali*, the song of the river sung by the boatmen of Bengal) which are now integral to a people’s cultural identity.

As a source of life, water has been revered by communities. Physical manifestations of the sacred, can often, thus, be seen around natural sources of water, such as the *gurudwaras* of Punjab around natural *dhabs* (low lying areas) or hindu temples along river banks and their *ghats*. Religious rituals, such as *visarjan* and others, interacting with water throughout the life of a person- from birth to celebrations during a lifetime to death, are seen across religions and beliefs. Ecologies associated with water bodies have also been protected by these traditional and religious practices which revere the interlinked nature of the environment. This has been evident in the context of the forests of Mangarbani , near Delhi, which flourished till recently, entirely due to the inhabitants of the surrounding villages who safeguarded the groves as sacred.

With its rich natural reserves, agriculture, craft skills, and history of manufacturing and co-production, the Indian subcontinent was once one of the most coveted destinations for trade and invariably, also invasion. Interaction with the coastlines and river banks, manifested with a unique character of port architecture, tracing back to the trading ports of Lothal from the 3<sup>rd</sup> century BC, to those from the 19<sup>th</sup> century in Pondicherry, Kochi and other towns. Defense architecture thrived in the use of water to safeguard against possible invasion and attack, by way of creation of moats surrounding fortifications to protect cities and palaces or their location

adjacent to natural water bodies. Furthermore, the use of water in systems of production continue to be evident in examples in industrial heritage in the country, which bear witness to the capabilities to control and harness water for production of energy and electricity – through dams and power houses.

The diversity of traditional water systems is thus, vast and is co-dependent on water availability-spatially and temporally. However in spite of the rich diversity of water systems, it is disheartening to see that it hasn't received adequate recognition within the country and at a global level.

Various scholars and organizations are working towards strengthening the case for Indigenous and traditional knowledge of water to address challenges in contemporary discourse such as understanding the water-food-energy nexus and revive traditional water systems (UNICEF 2016), learning from traditional principles of water sharing to address issues of water conflicts , and also looking into relationships of cultural practices of water vis a vis the Sustainable Development Goals (SDG-6).

Hence, from the diversity of water profile of the country and changing scenario of relationship between human and water, we can start recognizing various challenges that exist to inform the work surrounding water and cultural/ natural heritage and the possible role of the National Scientific Committee for Water and Cultural Heritage.

### **Challenges and role of NSC**

The first challenge is that the existing database of research on water and heritage in India is highly fragmented. One of the prime focus' of the NSC will be to collate existing research under one umbrella body (NSC) which shall help in achieving further objectives. The NSC can further help in building actionable projects for conservation , preservation or building advocacy for ensuring relevance of traditional/ historic water systems and knowledge. The NSC can play a pivotal role in negotiating between planning institutions, state bodies, local bodies and other stakeholders.

Water finds place in tangible manifestations – natural and man made- while also holding strong associations in intangible customs and practices. This intimate relationship of nature and culture which water brings together is held secure in traditional/ historic knowledge systems which have the potential to be integrated into solution finding for contemporary discourses of water. Hence, the NSC is proposed to work in building a nexus between various other NSCs and ISCs such as Cultural Discourse, Energy and Sustainability, Intangible Cultural Heritage, Underwater Cultural

Heritage, Risk Preparedness, the working group for SDGs , to name a few, which shall depend on the focus area of the research.

Since , water is a global concern, building advocacy for leveraging heritage into contemporary discourse, the NSC will look forward to partner with various National and International organizations such as IUCN, UN Water, Gender Water Alliance, Global Water Partnerships, Wateraid and Water.org.

The NSC on Water and Heritage will focus on safeguarding through documentation, advocacy and awareness, conservation, management and policy level engagement with various forms of water heritage, including:

- **Water and Tangible Heritage:** Including built and movable heritage and cultural landscapes and others
- **Water and Intangible Heritage:** Including traditional knowledge systems, rituals, practices, festival customs, crafts skills and others.
- **Water and Natural Heritage :** Including wetlands, rivers, lakes, oceans, and other geographies, ecologies and landscapes.
- **Understanding heritage in the contemporary discourse.**
  - Water heritage and Sustainable Development Goals (6)
  - Nexus based approach in heritage | Water -Energy- Food Nexus.
  - Water conflicts and peace reconciliation.
  - Water heritage in ecosystem-services based approach

Based on its research on these subjects, the NSC should be in a position to provide guidance to various state and non-state actors who work with/on water.

## **(ii) Long term Goals of NSC**

The National Scientific Committee on Water and Heritage of India aims to preserve local wisdom on water and build universal recognition to rich tangible and intangible heritage around water in India for the purpose of conservation, revival and creation of a source for knowledge for future development.

The long term goals and objectives of National Scientific Committee are

- Water and Heritage (Natural and Cultural) to be recognized during various development projects across the country.

- To develop and integrate aspects of Water and Heritage into policy development and planning process.
- To integrate Water and Heritage with global frameworks and initiatives such as Sustainable Development Goals, RAMSAR Conventions , World Water Forums etc

### **(iii) Activities to be conducted**

There are various sets of activities that can be conducted as part of NSC.

- To develop and maintain a repository of knowledge in field of water and cultural heritage.
- To maintain a database for heritage sites, customs, practices, rituals and other heritage associated with water.
- To develop and maintain a network of professionals who are working in the sector.
- To develop a cadre of professionals in the field of conservation, preservation , revival of water systems around the country through creating training and learning programs.
- To conduct research and raise funds to offer grants to conduct research from various Governmental and Nongovernmental agencies.
- To guide various Governmental, Non Governmental organizations on aspects associated with water and cultural heritage.
- To build advocacy and develop advocacy strategy for preservation, conservation and revival of water heritage.

### **(iv) Proposed Committee Status**

Since the discourse on water and heritage cuts across various themes and issues, there exists a potential to leverage much of the understanding of traditional knowledge to address critical contemporary aspects and issues of climate change, water scarcity, water management, the urban water cycle, gender and sanitation, developing risk resilience and many others relevant to India. Responsive to this diverse range of themes, it will be critical that the NSC include in its folds professionals from backgrounds beyond those in the conservation and heritage sector who would be essential in anchoring and achieving the stated aims of the NSC. Hence it is proposed to also engage with professionals who are not ICOMOS members in advisory capacities. These people could be professionals working in policy, planning, the development sector, humanities, scientific fields and others.

**(v) Budget required for NSC**

The budget required for NSC will be submitted once events/ activities for the year have been discussed and approved.

*\*\* This is a working document prepared by Amit Tandon and Priyanka Singh for circulation and deliberation within the ICOMOS India community towards establishment of the NSC. It aims to be a point of departure to build upon for a larger community of interested professionals to embrace and contribute.*