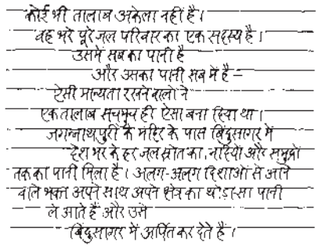
| LANDSCAPE ARCHITECT SUJATA HINGORANI GIVING HER PRESENTATION

| WATER TREATMENT EXPERT DR. RITA DHODAPKAR

| URBAN PLANNER MRIGANKA SAXENA ELABORATES A POINT IN HER PRESENTATION

| MANU BHATNAGAR, PRINCIPAL DIRECTOR, NATURAL HERITAGE DIVISION, INTACH WAS THE MODERATOR FOR THE PANEL DISCUSSION


कोई भी तालाब अकेला नहीं है।
वह भरे पूरे जल परिवार का एक सदस्य है।
उसमें सब का पानी है
और उसका पानी सब में है –
ऐसी मान्यता रखने वालों ने
एक तालाब समूचा ही ऐसा बना दिया था।
जगन्नाथपुरी के मंदिर के पास विद्यासागर में
देश भर के हर जल स्रोत का, नदियों और समुद्रों
तक का पानी मिला है। अलग-अलग दिशाओं से आने
वाले भक्त अपने साथ अपने क्षेत्र का थोड़ा-सा पानी
ले आते हैं और उसे
विद्यासागर में अर्पित कर देते हैं।

| "NO WATER BODY LIVES IN ISOLATION, IT IS A MEMBER OF THE ENTIRE WATER FAMILY..." WATER IN TRADITIONAL WISDOM. SOURCE: "AAJ BHI KHAREY HAIN TALAB", PUBLISHED BY GANDHI PEACE FOUNDATION

In addition, discharge of untreated sewer effluent into the storm water drainage system has elevated pollution levels, which eventually pollute our lakes and rivers. City flooding during monsoon is another recent crisis due to choking of drainage network with solid waste.

In this scenario, our cities urgently need sustainable water management practices on ground to mitigate its adverse impacts on our cities and regions as a whole, in this era of climate change. The probable solution lies in a **sustainable storm water and solid waste management system.** Decentralizing it in self-sufficient communities increases the pressure on existing city infrastructure. **Developing a deep understanding of water and its harvesting possibilities** makes our city future ready. Using the greens and natural surface for slowing down the surface runoff and infiltration reduces the possibilities of flash floods and siltation in drainage pipe networks.

Our role as Landscape Architects and allied communities should be **to make water one of the central themes in planning, integrating ecology into design, and thinking of the blue, green and orange networks together to create holistic, self-sufficient and resilient spaces.** Nurturing traditional wisdom, experimenting with new methods, innovating new approaches and eventually sharing our experiences and knowledge in communities at large, shall collectively lead to a comprehensive learning. **We all need to work towards this common goal, to become more "Waterwise".**

INVISIBLE WATER: ISSUES IN A CHANGING WORLD

—Dr. Rita Dhodapkar
Senior Technical Officer, CSIR-NEERI and Water treatment expert

Dr. Rita Dhodapkar said that water security has been defined as **"the reliable availability of an acceptable quantity and quality of water for health, livelihoods and production, coupled with an acceptable level of water-related risks".**[1] Large investments are made worldwide, in research and in infrastructure to achieve this.

The crisis is more severe in the rural areas with intermittent water supply and seasonal sources. Unsustainable ground water extraction increases water stress. This problem is coupled by the contamination of water resources due to unplanned infrastructure and poor sanitation.

The primary reasons behind the threat to water security are **excessive withdrawal of ground water, point-of-use contamination, leakages in supply, inadequate and insufficient wastewater treatment, excessive use of chemical fertilizers and agricultural runoff, climate change, and difficulty in the monitoring and treatment of contaminants.** All these bring an invisible threat to water quality in terms of microbial contamination, increase in salinity, and toxicity.

Inadequacies of sewage disposal and management also leads to contaminated water sources. Reuse policies for use of treated water remain ineffective. Urban agriculture supplements irrigation through waste water but there are food safety concerns. Contamination with organic chemicals is a major factor in ensuring water quality which is safe for human access and use.

But the situation is not devoid of hope. **NEERI has been active in the rejuvenation of many dying water sources and driving many water literacy programs at the community level for the benefit of society at large.**

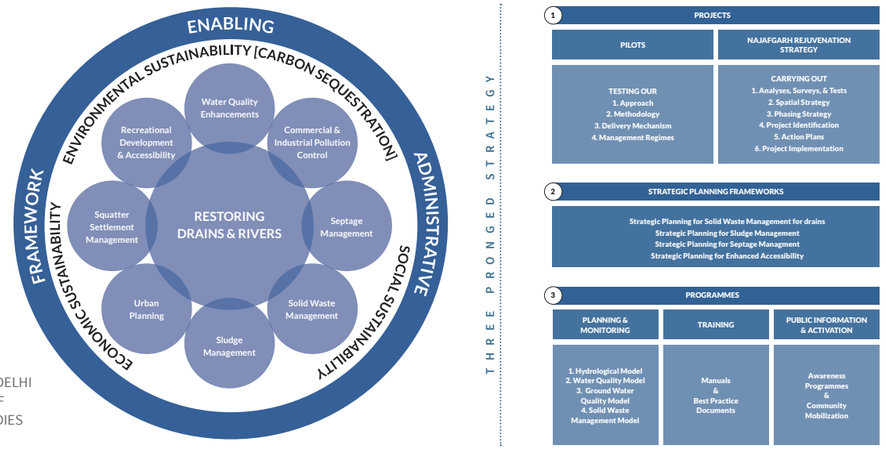
[1]. David Grey & Claudia W. Sadoff [2007-09-01]. "Sink or Swim? Water security for growth and development". Water Policy. Iwaponline.com. 9 [6]: 545–571. Retrieved 2014-08-16

URGENT NEED FOR ENABLING FRAMEWORKS

—Mriganka Saxena
Urban Planner and Partner, Habitat Tectonics Architecture & Urbanism [HTAU]

In her presentation, Mriganka Saxena pointed out that India is at the cusp of urbanization of an unprecedented magnitude. **One of the most impending and life-threatening challenges of this scale of urbanization will be related to water.** Today, 600 million Indians face extreme to harsh water stress. **According to the NITI Ayog, 21 Indian cities will run out of water by 2020.** Ironically, many of the cities on this list also face issues of severe flooding and sustained degradation of their natural water resources.

The problem stems from the fact that the three — **natural water resources, flooding and the piped systems of water and sewage** — have conventionally been looked at as distinct urban systems. The solution lies in **working across domains and scales.** City by city, we need to put in place the administrative and legislative enabling framework for restoring and managing water based eco-systems with the larger goal of restoring the hydrology of a city, alleviating flooding sustainably and augmenting water supply. In tandem, we **need to prepare the strategy for roll out working with multi-disciplinary experts who can address different aspects related to the sustainability of water systems** – Urban Designers, Landscape Architects, Urban Planners, Environmental Engineers, Hydraulic experts etc.



| FIGURE: ENABLING FRAMEWORK FOR THE DELHI JAL BOARD PROJECT OF RESTORING WATER BODIES AND DRAINS OF DELHI

Based on my experience of leading the Water Body and Drain Restoration Project for the Delhi Jal Board, Government of Delhi, I recommend starting with four guiding principles – 1] **One size does not fit all** – we need multiple solutions, multiple technologies for multiple geographies, 2] All strategies must be **based on sound urban planning powered by sound data analytics,** 3] We need **robust delivery mechanisms,** mechanisms that work within the existing administrative frameworks but are not limited by them, and, 4] Management regimes should enable the **creation of a lasting legacy.**

A well-thought through strategy and enabling framework founded on sound principles has the power to sow the seed for massive transformation. Let the work begin!

GLOBAL ISSUE

WATER AND HERITAGE

WORLD WATER WEEK, STOCKHOLM
25–30 AUGUST, 2019

https://vimeo.com/354877067?ref=em-share
https://www.siwi.org/publications/world-water-week-2019-programme/
Press release https://lnkd.in/d5AkH_q

| LANDSCAPE ARCHITECT NUPUR PROTHI KHANNA WITH OTHER PANELISTS AT WORLD WATER WEEK 2019, STOCKHOLM

'...We need to be informed', words from the 16-year old Greta Thunberg, a young climate campaigner from Sweden, help all individuals to create awareness to combat climate change. Climate conversations taking place around us on Agenda 2010, SDGs, Paris Agreement, COP25 etc. are contributors to the issue.

The statement impacts the intellectual minds and Landscape Architects are no exception. **With the knowledge of natural resources we can scale up action towards resilience to climate change events.**

In 2016, an epochal decision was made in an ISOLA executive board meeting for ensuing annual conferences on climate change which inspired many of us to subsequently reach out to inform ourselves on climate issues beyond our conferences and inspiring inputs of eminent national and international speakers/ contributors.

Presenting a session on **Water and Heritage,** traditional knowledge for the future, our contribution to the **World Water Week [WWW] 2019** in Stockholm was one outcome of the climate related engagement over the last few years. The International Council on Monuments and Sites [ICOMOS], advisors to UNESCO on cultural heritage and the Arab Regional Centre on World Heritage [ARC-WH] co-scripted this session.

From the perspective of cultural landscape, we tried to address the issue of coherent existence of nature in re-imagining urban spaces. Thus the central message of the discussion was **promoting a 'landscape approach' for understanding, respecting and engaging with natural context in city planning; water being the pivotal connect among all the issues.** The presentations by Landscape Architects from White Arkitektur on their Sigtuna project was one of the benchmarks in first session of WWW.

The WWW sensitized us on the 'urgent and critical' need regarding our response to the **planning and design schemes imbibing the existing natural system and cultural history.** Natural landscapes as urban sinks caters to the idea of sponge cities for extreme climate events. Our role of inspiring and being inspired by local communities extend our education and engage in scaling positive impacts. These efforts can be addressed as ISOLA or in a voluntary capacity giving strength to others' campaigns.

For us to take the right path forward, through our teaching and inspiring, through our practice using/ reusing waste, reclaiming disappearing landscapes, cleaning and greening brownfields with every possible step in that direction.

—Nupur Prothi Khanna

DELHI MATTERS

COLLABORATION WITH IUDI DELHI NCR CHAPTER

ISOLA DELHI CHAPTER MANAGEMENT COMMITTEE
Jasleen Waraich, *Honorary Chairperson*
Chhitiz Gupta, *Honorary Secretary*
Vina Verghese, *Honorary Treasurer*
Anita Tikoo, *Member*
Madhup Mazumder, *Member*
Sunny Aggarwal, *Member*
Fabeha Fatima, *Member*
Amit Bhattacharya, *Member*

It's only the beginning of interesting events and collaborations. ISOLA Delhi NCR Chapter and Institute of Urban Designers India [IUDI]-DNCR Chapter met for the third time on 3rd October 2019, at IIC, New Delhi.

Discussions were held on the Centre's ambitious plan to revamp the Central Vista and Parliament Building and **how our professional bodies can possibly ensure that we do not lose our heritage buildings to rampant development.** Also discussed were **potential collaborations** between ISOLA and IUDI Delhi Chapters in the near future, collaborations which will bring together the natural synergies between the two organisations that share a common goal – that of **a better and more livable Delhi-NCR region.** Stay tuned for updates!

Join ISOLA Delhi Chapter in its initiatives and activities. Members are requested to reach out to us with the verticals they wish to be engaged in by sending a request to our email: **isoladelhichapter@gmail.com**

Communication & Outreach [Newsletter, Facebook, Instagram]
Education & Membership
Events & Technicals
Walks
Advocacy

TEXT & PHOTOGRAPHS: ISOLA DELHI CHAPTER EXCEPT FOR THE WRITEUPS CONTRIBUTED BY EVENT SPEAKERS

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DESIGN+LAYOUT: GRAFINITI

| PANEL DISCUSSION IN 'WATER 101 – TOWARDS A BLUE GREEN CITY'

ISOLA DELHI CHAPTER | NEWSLETTER

EVENT

WATER 101

TOWARDS A BLUE GREEN CITY

ISOLA DELHI NCR CHAPTER'S EXTENDED LEARNINGS ONE-O-ONE SERIES

INDIA HABITAT CENTRE, NEW DELHI
JULY 13TH, 2019

URBAN WATER MANAGEMENT

—Sujata Hingorani
Principal Landscape Architect and Planner, Partner, Oasis Designs Inc.

"Climate Change is the defining issue of our times"

Even as we saw India's most torrential monsoon in a quarter century, officially ending on the 16th of October, all the signature signs of global warming were still evidenced all over the country—intense rainfall being concentrated over short spells and pockets and long periods of drought. With Climate Change becoming a defining issue of our times, ISOLA Delhi NCR organized Water 101 - Towards a Blue Green City in which water experts presented the magnitude of the water crisis and the relationships of blue, green, and orange in our cities. Continuing the initiative, we bring out this monsoon edition of Landscape Matters with articles from some of these foremost planners, landscape architects and water experts as they talk about the need to manage water, our precious resource, in a sustainable way.

Sujata started her presentation with two paradoxical statements related to water that have surfaced in recent news. First, that **most cities are not flood ready,** and, second, that **cities like Delhi, Bangalore and Chennai, will have depleted their ground water by 2020.** The current water woes in India are deeply connected to these two events.

The mismanagement of water resource has led to this dichotomy that, despite a good monsoon, many parts of India are struck with drought-like situations while many others especially the urban areas are battling floods.

Statistics show that indiscriminate consumption of water in current agricultural practices results in extreme water stress. Similarly, our cities experience accelerated depletion of ground water due to negligence towards replenishing the vital resource and overstressing it with unprecedented infrastructure building. At the same time, the concretization of the city and disruption of existing watersheds from their catchments results in urban flooding.