PONDS: SAVIOURS OF THE FUTURE !

- Ramveer Tanwar & Nehha Sharma

Introduction

Ponds form the most neglected type among all waterbodies. From being revered in ancient times to facing degradation in this Anthropocene, these natural systems have come a long way, although in a negative sense. In spite of being the largest by percentage within India (59.5%), ponds are also the ones with the most encroachment (67.6%) that points towards their dilapidated state and loss. In the present scenario, most of the urban areas have already lost much of their ponds and those sited in rural areas are at the mercy of governing authorities and shoreline communities. There is an urgent need to restore, rejuvenate and conserve these bounties of nature to save them from getting extinct.

Why Ponds?

It is commonly perceived that ponds do not play any significant role, mainly due to their size. With increasing development and quick availability of piped water supply, their utility value has gradually decreased. Often, they are the victims of the tragedy of commons and are used as waste dumping sites, turning them into local eyesores. Perhaps, like our other heritage assets, ancient knowledge and wisdom are also slowly losing out to modern ways and means. Ponds were an integral part of the skills and expertise in water resources of the bygone era and are much more relevant and needed in the modern world than ever.

Ponds are nature's tiny buffer ecosystems that contribute to the functioning of the local biomes where they are sited. Home to a number of animals and plants, they contribute to species diversity by providing conducive habitat. Besides, they also influence local hydrology and aid groundwater recharge. Additionally, ponds are a great boon in the face of emerging anthropogenic climate change as they help in the regulation of micro-climate, abatement of heat waves and buffer floods & droughts. Furthermore, a number of resources are also sourced by humans from the waterscapes for their use and consumption like water for drinking and irrigation; Cattle wallowing; Fish and fruit for consumption; fibre and fuel; Soil etc. Also, ponds are an integral part of the socio-cultural fabric of our country with many cultural and spiritual rituals getting performed on their banks. All these functions make these waterscapes indispensable for the continued functioning of life and livelihoods.

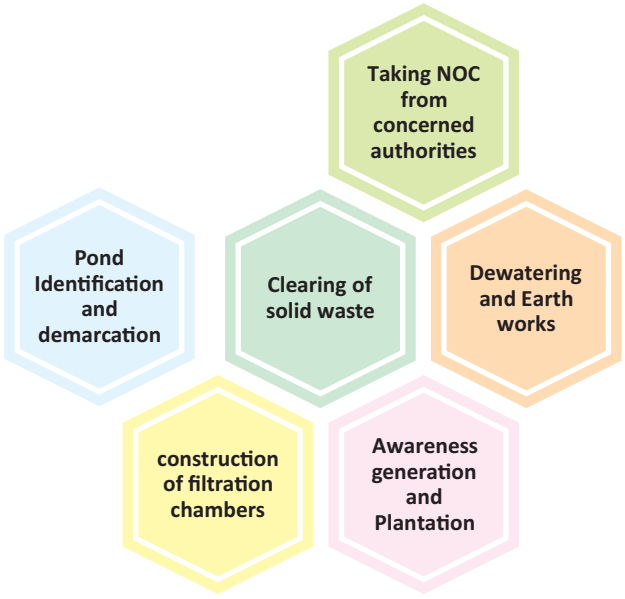
In spite of being pivotal for humans, animals and plants, these ecosystems are getting degraded and lost at a fast pace, all due to negligent development activities and increasing land-use pressure. Their small size also means that they largely lose out to larger waterbodies in gaining attention, efforts and resources required for restoration and conservation. Also, due to the same reason, it is much easier to encroach and fill them. Numerous ponds nationwide have met the same fate and have been wiped off the map or are used as waste dumping

grounds transforming them from being landscape spectacles to eye sores. In their degraded state, ponds lose their ability to function properly and gradually their once-healthy ecosystem succumbs to the pressure caused by misuse and misguided convenience, much to the agony of dependent plants, animals and marginalised human communities.

The Endeavour

Taking cognizance of the critical situation of pond degradation, which was affecting the water and food security of the masses, especially in the rural areas, Say Earth Ngo, embarked on a journey of restoring and rejuvenating degraded ponds. It was a tedious journey that often saw resistance from the shoreline communities. A string of persuasion and awareness-generation sessions called Jal Chaupals were utilized to gain confidence and make the process participatory and community-driven. In the present scenario, the organization is one of the most trusted ones for undertaking pond rejuvenation and is also joined by volunteers from the community for the execution of the related activities.

Speaking of the method of pond restoration, there is no "one-size fits all" kind of solution and the approach is customized for each site based on the kind and number of risks of adverse change threatening the ecosystem. However, general activities that are often common to pond restoration are provided below for an understanding of the larger audience.



All these activities form an essential part of our work and play a major role in restoring health of the pond systems, making them conducive for supporting aquatic life. Depending on the ground situation, other activities are added to the list and a set of customized solutions are provided by the team of domain experts after doing reconnaissance and social surveys. We also conduct community sessions to get insights into the opinions and recommendations of the community members and include them within the restoration procedures that are followed on the site.

Besides, the solutions are mainly nature-based, involving no concretization and are in sync with the natural functioning of the ecosystem. We also do not use any chemical inputs that may alter the composition and health of ponds. Also, Phyto-remediation techniques are mostly utilized for addressing pollution and maintenance of water quality parameters. Efforts are also made to sensitize the shoreline communities about the benefits accrued from a healthy pond system and involve them in checking the introduction of any substance that can adversely impact the health of waterbody.

Result and Conclusion

To date, Say Earth NGO has been successful in the restoration and rejuvenation of more than 60 waterbodies across India. In order to make these efforts sustainable and check any future degradation of the restored ponds, they have been linked to livelihood generation activities like aquaculture, eco-tourism, wetland horticulture etc. Special attention is paid to ensuring that all such activities are sustainable and do not harm the pond ecosystem and its catchment area

Pond Restoration pictures (before and after Restoration)

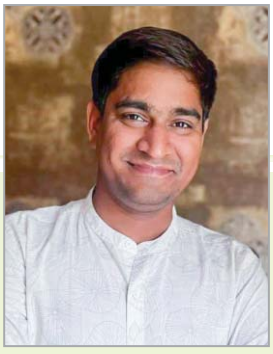
adversely. Provisions are also provided for the maintenance of hydrology and water characteristics of the water body. Also, habitats are prepared and maintained for biodiversity, especially avifauna. Plantations are done in the catchment area for increasing aesthetics, check soil erosion and provide nesting sites for birds. Restored ponds are maintained for a pre-determined duration before being handed over to the gram panchayats or concerned authorities.

The restored ponds contribute to the augmentation of the groundwater table, regulate the hydrology and micro-climate of the area, provide habitat for aquatic floral and faunal species and support shoreline communities by providing resources, livelihoods and increasing aesthetics. They are also transforming into hubs of environmental awareness and education for students visiting them for hands-on learning and experience. In a nutshell, restored pond ecosystems add to water, climate, food and livelihood security, pivotal for future generations of the country.

With Climate change making weather patterns unpredictable, it is critical that humanity goes back to the basics and amend the wrongs that have been done to natural systems in the name of development. It is time that we realise the interconnectedness of life on Earth with its environment. Localized and decentralized solutions are our only bet! An increase in Earth's surface temperatures won't just be confined to the atmospheric systems and would impact all aspects of physical, chemical and biological systems present on the planet.

Say Earth NGO urges policymakers, organizations, corporates and members of the community to take urgent localised steps for the restoration of ponds and other natural systems, lest our own making transforms this only known life-supporting planet into a dead and barren land.

Restored Nyphal pond, Ghaziabad



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Ramveer Tanwar is a celebrated Environmentalist and TEDx speaker, popularly known as "The Pond Man of India". Founder of Say Earth NGO, he has contributed to the restoration and rejuvenation of more than 80 ponds and lakes across India. His efforts have garnered praise from Prime Minister Shri Narendra Modi in his famous radio program "Mann ki Baat". Besides, he has also been felicitated twice by the Chief Minister of Uttar Pradesh, Shri Yogi Adityanath. Recently, he has been declared a brand ambassador of the Swachh Bharat Mission, Ghaziabad. Recipient of many National and International awards, Mr. Tanwar has contributed to different books such as "Guidebook for Pond Renovation" published by the National Institute of Hydrology; "Harit Khabar" by World Comics India to name a few. He can be reached on pondmanofindia@gmail.com.

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Nehha Sharma is a researcher with a decade-long experience in conducting social and environmental research studies. With wide field experience in disaster management, wetlands conservation, natural resource management, and social development, she understands the intricate relationship between humans and the environment they live in and strives to bring issues of concern to the masses. An ardent environmentalist, she has authored many articles, blogs, research material, guidebooks, etc. Some of her notable contributions include preparing Integrated Management Plans for Conserving and sustainably managing Gangetic Floodplain wetlands of Uttar Pradesh; Vanya: comic book; Nature Based Solutions for Reducing Disaster Risks: A guidebook for District Disaster Management Planning etc. She can reached on nehhasharma82@gmail.com.