

# **A Brief on the Implications of Environment Support Group's Initiatives for the Wise Use and Conservation of Lakes in Karnataka with a specific focus on Biodiversity Conservation and Protection of Traditional Livelihoods**

## **a. What is the purpose of the contribution?**

Comprehensive efforts to promote wise use and conservation of Bangalore's and Karnataka's Irrigation Tanks/Lakes, and their interconnecting canal networks, by bringing together Judiciary, Government and the wide public in a strategic partnership to build ecological, water and economic security for current and future generations.

## **b. What are the main characteristics of the ecosystem where the work is undertaken?**

Irrigation tanks have been built across South India for hundreds of years to harvest rain water and surface runoff in shallow water bodies and are typically formed with a stone pitched bund across shallow valleys. Sluice gates allow water flow out of these tanks into canals, which are further interconnected to other tanks in a complex manner. Such a system helps arrest water flow and soil erosion. The water so harvested helps in raising a post monsoon crop in rainfed agricultural areas, thus bolstering water, food and nutritional security. When tanks are full they function as excellent wetland ecosystems and are critical habitats to migratory waterfowl. When they become dry due to use of water or with the summer, the high soil moisture in the tank bed creates grassy meadows and are excellent grazing pastures. Overall they provide a variety of wet, semi-wet and dry habitats, which supports very wide diversity of flora and fauna. The silt harvested periodically from the tanks beds is used as manure on neighbouring farms, thus limiting the need for import of fertiliser. Tanks also play an important role socially as they are commons and are important sites for religious and cultural practices.

## **c. What are the main challenges of biodiversity management addressed by the work?**

In recent decades, tanks have been heavily polluted and encroached in urban areas due to rapid and largely unplanned urbanisation and industrialisation. In rural areas, the lack of maintenance has resulted in their degradation. All this has had a very serious and detrimental effects on the environmental health of these tanks, and seriously compromised their ecological vitality. Besides it has severely compromised their water holding and control of soil erosion. Consequently, there has been a rapid decline in the quality and quantity of biodiversity typically found in such tank ecosystems.

A major reason for this situation is that the governance and maintenance of tanks were taken away from local communities, and vested in highly centralised systems of the State, both during colonial and post-colonial phases. This shift has eroded the knowledge systems endemic to local communities in maintaining their tanks. Further, the absorption of administrative and political control of these tanks by various state and para-statal agencies, has left communities with a feeling of being disenfranchised in the control and maintenance of their tanks as their commons. Lack of local ownership has compromised local monitoring capacities, and allowed a variety vested interests to monopolise control over these commons, to the detriment of the wider public interest. Restoring people centred local governance of these tank systems is critical to building capacities to maintain them in an ecologically and socially functional state, for perpetuity and this is proving to be a major challenge.

## **d. What are the activities undertaken?**

ESG has led a series of workshops and campaigns to help conserve tanks in the Bangalore region for more than a decade. Even though public response has been overwhelming to these initiatives, the lack of political will and administrative foresight has proved to be a major challenge in channelling these positive responses productively. There are, of course, many progressive initiatives taken to save some tanks in the Bangalore region, such as by the Forest Department and through initiatives of National Lake Conservation Programme and Indo-Norwegian Environment Programme. As a result, several tanks in the built Bangalore area were rehabilitated in an ecologically sensitive manner. However, these very lakes have been farmed out for intense

commercialisation to a variety of profit making corporations, who have tended to use their monopoly to wrest control away from local communities. Local city governments and planning authorities have stepped in to restore some tanks, but in an ecologically and socially unwise manner – turning them more into parks and areas for jogging. For the rest of the urban tanks which have not secured such support, heavy pollution and encroachment has rendered them into major sites of public health hazard and environmental contamination; highly polluted waters that collect in tanks seep into ground water aquifer wreaking havoc on the health of surrounding communities that depend on wells and tubewells for their water needs.

Acknowledging this reality, ESG raised these concerns in a Public Interest Litigation before the High Court of Karnataka in January 2008. Two major prayers were to direct the State to formulate a scheme for the protection of tanks in the Bangalore region and restrain commercialisation of these commons. The Court immediately coerced the State to reign in its policy of privatising tanks, and subsequently constituted a Committee under Justice Mr. N. K. Patil of the High Court to develop the overall scheme. ESG assisted this committee in so developing the scheme, and this was comprehensively accepted in March 2011 as part of the Court's directive. The guidelines developed by the Justice Patil Committee have since become binding on all agencies rehabilitating tanks in the Bangalore area.

In order that resources were available for such efforts, the Court directed the State to make sufficient budgetary allocation for the implementation of the scheme. This direction was conformed with in 2012 when the Chief Minister in his budget speech allocated Rs. 50 crores during the current fiscal year for rehabilitation of Bangalore's tanks, with an instruction to Bangalore Development Authority and the Bruhat Bengaluru Mahanagara Palike to provide matching amounts; thus Rs. 150 crores in all is available for protecting Bangalore's tanks during this fiscal year, an unprecedented initiative for India. In all it has been admitted in the Court by various Government agencies, that the conurbation zone of Bangalore has 450 tanks left, most seriously polluted and encroached, and it has also been admitted that about 150 tanks have been destroyed in the past two or three decades.

When finally disposing the PIL on 11 April 2012, along with all other connected matters, the High Court deemed it fit to extend the applicability of the guidelines of Justice Patil Committee report to cover all 35,000 tanks and their interconnecting canals in the State of Karnataka. In addition, the Court directed the State to constitute Lake Protection Committees in every district involving the District Commissioner and representatives of necessary local agencies and the District Legal Services Committees, so as to monitor the implementation of this process on the basis of a bimonthly review, and report progress achieved to the Lake Development Authority, which in turn would report compliance to the High Court.

In the main, the guidelines require authorities to survey the legal limits of the tanks and remove all encroachments. Further, no pollution, either of effluents or any form of solid and hazardous waste, should be allowed into the tanks systems. Each and every tank will be live fenced with locally useful endemic trees and bushes to improve the biodiversity and nutritive value of these ecosystems. And encroachment of any sort would be dealt with based on the guidelines of the Supreme Court in the Jagpal Singh vs. State of Punjab ruling of January 2011.

**e. What is the geographical coverage of the work?**

What initially began as an effort to protect tanks of Bangalore, has now resulted in instituting a working, monitoring and rehabilitation mechanism protecting all tanks and their canal networks across the State of Karnataka.

**f. What is the size and composition of the community/communities involved in management?**

When operationalised, this initiative would probably be to most massive tank rehabilitation and biodiversity conservation effort ever undertaken in the State of Karnataka.

**g. Who are the main stakeholders?**

All local bodies who are directly connected with the management of tanks, District Legal Services Committees, District Commissioners and Lake Development Authority, under the oversight of the High Court of Karnataka.

Already in the Bangalore region, the Bruhat Bengaluru Mahanagara Palike, Bangalore Development Authority and the Revenue Department have commenced survey of tanks and canal networks. Illegal encroachment by influential middle and upper classes is being dealt with, while any encroachment by poor for housing is being treated humanely by initiating appropriate rehabilitation measures on a case by case basis.

Considering that this effort is directly under judicial oversight, any violation would amount to Contempt of Court. It is therefore expected that all bodies will seriously undertake the exercise as directed by the Court.

**h. What are the main biodiversity outcomes of the contribution?**

Major biodiversity outcomes would be that the ecological vitality of tanks systems would be substantially improved increasing the capacity of these systems to support improved diversity of aquatic flora and fauna. They would also improve in their capacities to function as habitats supporting of wide range of waterfowl, especially migratory birds. It is further anticipated that when the live fences come up in subsequent years, tanks and canal networks would work as an haven of greenery, especially in urban areas. The tree and bush lined canals would work as green wedges weaving through densely crowded neighborhoods offering communities respite from the harshness of city life, while also working as corridors for wildlife migration. In rural areas they would provide additional benefits of providing biomass, fodder for cattle, fuel wood and nutritional benefit.

**i. What are the main livelihood benefits for stakeholder communities from the contribution?**

This programme of action provides for active and direct engagement of local communities in protecting their tanks systems and rehabilitating them in a manner that benefits them directly. The massive tree and bush planting efforts envisaged could easily become the single largest job creator in the State. Protection and maintenance of tanks and their canal systems require frequent desilting and is thus another livelihood providing opportunity. When tanks are rehabilitated, they become sites for locally useful fish breeding, again a major livelihoods creator. When water levels recede, the high soil moistures will provide excellent grazing pastures, thus supporting shepherding communities who nowadays struggle to find pastures. Making tank systems functional improves water security, especially for farming, and could aid in reversing the current trend of migration of agrarian families out of villages. Once farming systems find the necessary water resources, the implications in terms of securing livelihoods is truly immense.

For decades we have neglected the active possibility of the tank systems becoming the mainstay of our water, food and ecological securities, and thereby of economic security as well. A real opportunity now exists to make these water and soil harvesting systems work for the benefit of current and future generations.

**j. How are decisions taken in a participatory manner in the institution?**

Since the Karnataka High Court ruled on this matter only recently, many of the operational dimensions of the Lake Protection Committees would have to be worked out in the coming months. However, it is important to recognise that the Court has rejected highly centralised administrative methods of monitoring and rehabilitation of tanks, and instead vested the power in district level Committees. It is expected therefore that the exercise would be deeply participative with a high degree of involvement from Panchayat and Nagarpalika institutions of local self government, and also Forest Rights Committees.

**k. How does the work relate to statutory provisions of forest policy, Panchayat (Extension to Scheduled Areas) Act and Forest Rights Act?**

This direction totally reaffirms all the progressive provisions of the Forest policy, and the statutory requirements of the Forest Rights Act. PESA is not operational in Karnataka.

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### Useful Links:

- Environment Support Group gets United Nations Water for Life 2012 Best Practices Award for its comprehensive efforts to conserve Bangalore and Karnataka's Lakes by bringing together Judiciary, Government and wide public in a strategic partnership to build ecological, water and economic security. Details at this link: <http://esgindia.org/campaigns/lakes/press/environment-support-group-gets-united-na.html>
- Environment Support Group is recipient of the 2011 Gold Award in the category of "Best Green Water Stewardship" instituted by the International Green Awards, London for its ongoing initiative "Collaborative Initiative for the Wise Use, Conservation and Protection of Lakes" in Bangalore, India. Details at: <http://esgindia.org/campaigns/lakes/press/esg-gold-winner-best-green-water-steward.html>
- Pictorial brochure on Environment Support Group's Lakes effort: <http://esgindia.org/sites/default/files/education/community-outreach/press/esg-lakes-initiative-booklet-final.pdf>
- NDTV's May 2012 feature on ESG's lake conservation efforts: <http://esgindia.org/sites/default/files/campaigns/lakes/press/protecting-bangalores-threatened-lakes.mp4>
- Guidelines developed by the Justice Patil Committee for conservation and wise use of Lakes in Bangalore: <http://esgindia.org/sites/default/files/campaigns/press/a1-hc-lakes-report-wp-817-2008-hc-feb-20.pdf>
- Public Interest Litigation filed by Environment Support Group to secure lakes and related documentation: [http://static.esgindia.org/campaigns/lakes/press/Press\\_Release\\_Lakes\\_ESG\\_PIL\\_030311.html](http://static.esgindia.org/campaigns/lakes/press/Press_Release_Lakes_ESG_PIL_030311.html)