Preliminary Report on Governing Lake Gurram Cheruvu in Hyderabad

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1. Background

This is a research note prepared from my visits to the lake Gurram Cheruvu (Cheruvu is a Telugu word for Lake) and interactions with stakeholders who are directly and indirectly involved in governing the Gurram Cheruvu. It is part of a PhD research on 'Urban Lake Governance in India'. The research covers twelve other lakes located in Jaipur, Bhopal, Ahmedabad and Hyderabad. The research note includes discussions on the physical aspects of Gurram Cheruvu that are drawn from the primary field experience; governance of Gurram Cheruvu that are drawn from interactions with the stakeholders; and literature review of governing the commons and the works on social-ecological systems by Elinor Ostrom.

2. From the Field Visit

I visited Gurram Cheruvu four times to document primary field observations and then with Ms. Aisha Rubani on the 9th of June, 2011. Ms. Rubani is the local Co-apted member of Greater Hyderabad Municipal Corporation (GHMC) and bears the decision making of the Barkas area (ward) where Gurram cheruvu is located. Ms. Rubani is keen to develop the Gerrum Cheruvu during her tenure as representative of the ward. The Ward Development Plan (WDP of GHMC) for the Barkas area is prepared by the Administrative Staff College of India (ASCI), Hyderabad.

I did the homework of studying the Barkas area and the Cheruvu prior to my visit. I also had the opportunity to study the proposed WDP for the Barkas area. There is ongoing land issues linked to the encroachment of the lake bed of Gurram Cheruvu. It triggers time-to-time conflict among the local community. Apparently, last month there was social unrest in the Barkas area involving murders and riots. The tension was apparent while driving through the neighbourhood to reach Gurram cheruvu. Lake beds have always been vulnerable resources for multiple land use developments and therefore they are the reasons for conflicts in the interest of the uses and the users (figure 1). It is interesting to identify the actual historical area and the current available area of the lake bed. One finds that area of the lake has reduced over the years owing to encroachments of the lake shores. The area delineated in the revenue map is considered as the final plot area of the lake. This information on revenue map is available with the Revenue Department of the respective Collector Office.

Figure 1: Multiple land use developments around Gurram cheruvu: private, religious, solid waste dump.

Gurram Cheruvu is located at the Barkas area. Barkas, in historical times, is the Military Barracks for Yemenese during the Nizam's time. It is a typical historical place in Hyderabad and is known as 'Mini Arab of Hyderabad'. Today, Barkas area is a typical multi-cultural and multi-functional urban development area.

Gurram Cheruvu is a typical case of the status of Indian lakes, where on one hand it reflects the inherent beautiful natural landscape and on the other hand reflects the urbanely generated landscape of apathy (figure 2). Looking at the larger picture of the Gurrum cheruvu environs, the outflow of the Gurram Cheruvu can be traced in the form of channel (which probably may be a choked nala) up to the Musi river: passing somewhere through the Maqbool Nagar, DERL, Gulshan E iqbal Colony, Bhagavath Sivajinagar, Saibaba nagar, Sivaji colony, Vinayak nagar, Jai Khanna colony, Fatehshah Colony, Zohra Bee colony, Yesrab nagar, Yakutpura, Bommanvadi colony, Dabeerpura, Malakpet, Musi nagar, Dhobi galli to the Musi River (figure 2).

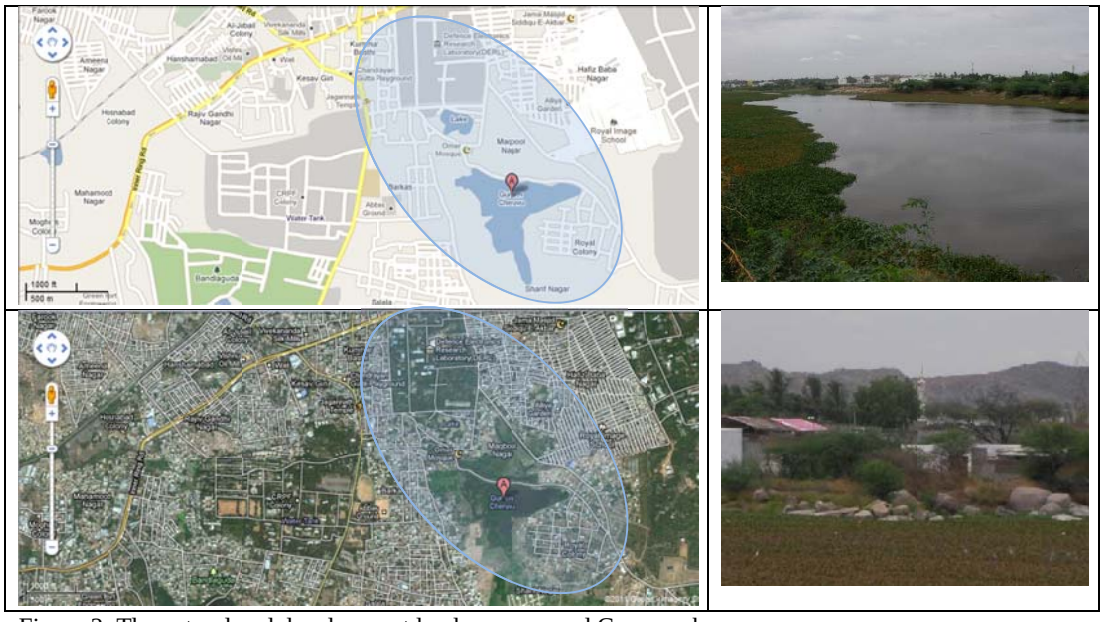

Figure 2: The natural and development landscape around Gurram cheruvu.

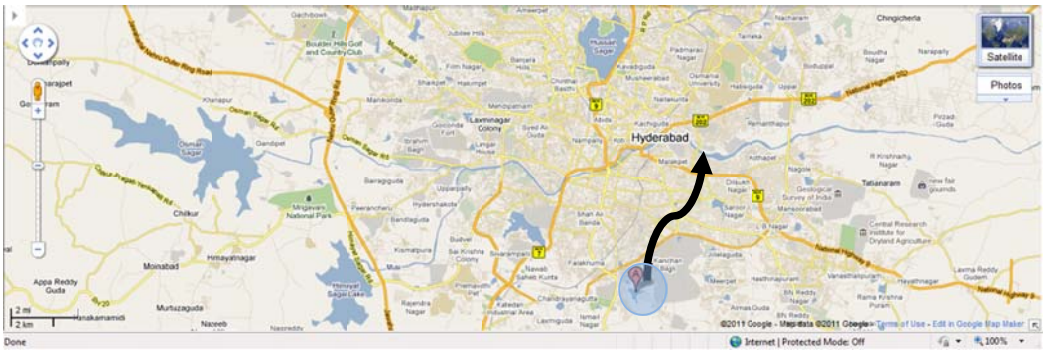

Figure 3: Outlet Tracing of Gurram Cheruvu.

The interlinking of lakes is evident in Gurram cheruvu environs. In principle, Gurram Cheruvu is fed by Pedda chruvu and Saikam cheruvu. The inlet channels from the Pedda chruvu and Saikam cheruvu are dysfunctional. The status of the two Cheruvu is no indifferent to Gurram Cheruvu (figure 4).

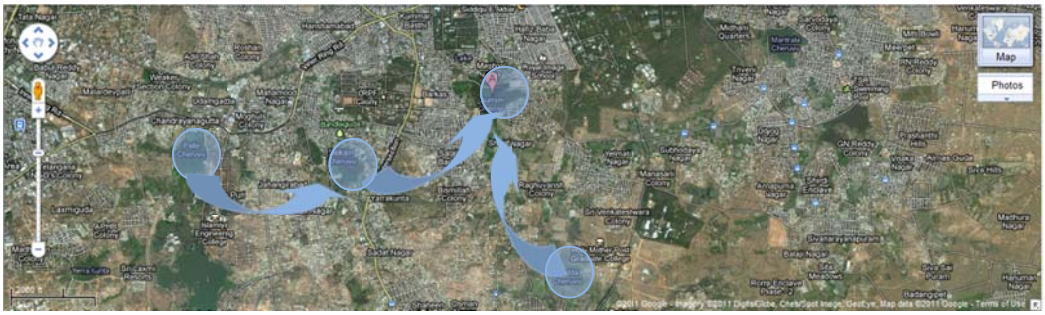

Figure 4: Inlet Channels of Gurram Cheruvu.

The dike area next to the Gurram cheruvu namely, the Maqbool nagar is probably the extended lake bed area. The bund road where we drove through has probably divided the lake bed into two in order to provide access to developments such as Royal Nagar and Sharif Nagar and further. Usually, roads have been the starting point of shrinking of the lakes. Across India, in the urban planning, it is observed that the roads around the water bodies are made on the on the reclaimed land of the water bodies; indirectly giving an indication that the land adjacent is meant for development. It is not said so, but does that mean that the water body is less precious? It is the ownership factor that plays a role. Land around the water bodies is usually patta lands (privately owned). Therefore, to make public facility such as road, the easier way is to use the public land which is usually reclaimed from the lake bed or the river bed (figure 5).

Figure 5: The divided lake: the dike of Maqbool nagar, the road, the old outlet sluice

From the road level, the lake bed is somewhere around 5-6 metres. This gives an indirect indication of the Full Tank Level (FTL) of the cheruvu. The FTL is generally considered as official reference to earmark revenue area of a lake. The FTL area is the legal entity to protect and conserve the lake's property and functions. The FTL is decided under the purview of the Irrigation Department. The land water interface area is the most crucial part of any lake, which includes the inlet, the outlet and the vast edge of the lake. Interestingly, the interface is also seen as the starting point of the lake rejuvenation (figure 6).

Figure 6: The land water interface embraces many kinds of activities.

Traditionally the source of drinking water, today Gurram Cheruvu is the source of waste water recipient from the nearby developments. At the first instance what is seen is a massive, cohesive and mobile meadow of Eichhornia crassipes (water hyacinth) covering most of the lake bed**.** The first reaction usually is how to get rid of the water hyacinth? However when thought deeply, one realizes that the surrounding area is livable only because the water hyacinth exists in the lake. Water hyacinths are considered as the most suitable natural remedy to absorb the Nitrogen (N) and Phosphorus (P) nutrient from the waste water discharged into the lake (figure 7). The waste water from the entire surrounding development is discharged untreated into the lake. Eradicating the water hyacinth by hundred percent is not practical since, waste water disposal remains the biggest challenge for the city managers. The lakes are seen as potential recipients of the waste water locally. If the waste water discharged into the lake is treated to a secondary treatment level then the content of N and P will be less and water hyacinth production can be reduced. However, this does not seem to be the case at the Gurram cheruvu. Removing water hyacinths manually at certain intervals is necessary, but not sufficient.


Figure 7: Large surface of Gurram cheruvu is covered with Water hyacinth.

3. Rejuvenate Gurram Cheruvu? Is Governance the approach?

The lakes in the cities are highly contested public spaces in the current urban developments. Their roles in the current urban developments are crucial. Whether to use the lake for waste water disposal or to have a fresh water lake; and whether to use the lake as a beautiful public space or a garbage dump-yard are technical questions which can be only resolved when the governance of the lakes are well sorted out. Why governance? Governance can bring in insights on some of the inherent issues that underlie the long term maintenance of the lakes and the reasons for the degradation of the lakes, especially in the past five to six decades.

Like most lakes, for rejuvenation of Gurram cheruvu, following questions should be first looked at:

- Whose baby is Gurram Cheruvu? - The Collector Office, Minor Irrigation, HMDA, GHMC, GHWSSB, Tourism or The Lake Protection Committee?
- Who will decide what and when to do anything for Gurram Cheruvu?
- Who maintains the onus of maintenance of Gurram Cheruvu?
- Who bears the right benefit out of the Gurram Cheruvu development?
- Are the beneficiaries willing to contribute?

One of the core aspects of lake governance is the roles, rights and responsibilities of the civil society. Are people concerned unless the lake affects them directly or indirectly? If so, are people willing to contribute (or pay) for the lake or are people willing to agree with (or accept) the current lake conditions. Unless the society itself is conscious about its assets, no governance mechanism can work in the long run.

Maintaining a water quality and quantity balance is fundamental to the health of the lake. There are technical solutions to do so. The urgent activity required is to ensure fresh water availability to the lake. Substantive requirement of the water may be fulfilled with suitably treating the waste water generated in the area. In addition, the flow of untreated waste water needs to be stopped immediately.

Usually, beautifying the lake edge (interface design such as the Necklace road at Hussain Sagar Lake) is the first step towards lake upgradation. Shore developments are usually in the form of greening and cleaning the lake environs. Shore developments are directly beneficial for the people of the surrounding neighbourhoods to experience the lake and the good neighbourhood level recreation facilities. Administratively, it helps to delieneate and

safeguard the fringe of the lake; and politically it projects a tangible development to realize by the masses. Shore developments are also useful in the long run for people's participation in the lake governance process. Without people's participation, maintenance of the lake in the long run will always remain a challenge.

Following is a preliminary road map for the governance of Gurram Cheruvu:

1. A leadership that is willing to initiate the lake development activity and who bears a vision for long term maintenance of the lake. Development 'alone' is short term. Locating the authorized body who can take up the initiative is crucial.

2. Maintenance without people's cooperation and participation is a challenge. People will be involved if they realize a direct and indirect benefit of their involvement. Employment generation from the lake development activity is necessary for involvement.

3. Maintenance can be optimized by understanding the local ecological environs. Cosmetic landscape designs are high maintenance and short termed. Greening with local flora and cleaning with local assistance is necessary.

4. Water hyacinths are there to live. They are part of the bio-diversity. Integrating them with the water balance can optimize the maintenance. Installation of waste water treatment plant is the start point. Regular cleaning of water hyacinth is crucial.

5. A comprehensive plan to integrate the lake environs- the inlet, the lake bed and the outlet is technically fundamental in the long run. Thoughts about the physical and psychological access to water are crucial for the lake protection in the future.

6. A monitoring and evaluation method should be developed using the community participation. This will help in increasing sense of ownership and association with the lake among the local community. This will also help in community vigilance.

7. A 'state of the environment' report stating the current challenges and the possible opportunities is a must and can be brought to the notice of the Lake protection Committee of Hyderabad, the Ministry of Environment and to the common man and media.

The roadmap can be also referred for governing most urban lakes in India. The way towards sustainability of Gurram Cheruvu and other urban lakes in India is through a good lake governance approach that includes restoration, development and long term maintenance plan.

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