

People's Perception on Mansagar Lake

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1. Background

The paper is part of PhD research on Urban Lake Governance in India which includes in-depth case study of Mansagar Lake Governance¹. The focus of the paper is on people's perception on social and ecological aspects of Mansagar. The perception is captured through questionnaire survey of hundred and fifty strategically and randomly sampled local people of Jaipur, those who live and work in the proximity of Mansagar and to whom 'Mansagar Matters'. The paper is a concise of the results from questionnaire and includes broad analysis. The analysis is based on the literature reviews, interviews of the experts and field observations on Mansagar Lake Governance. The interviews of the experts and field observations crucial in a case study based applied research like this since they involve first hand learning from the experience and perceptions of the people and experts. The paper is dedicated to the people and experts of Jaipur particularly who supported and helped in studying the diverse aspects of Mansagar and who agreed to answer the questionnaire.

2. The Lake Mansagar

Mansagar Lake is a typical traditional water harvesting structure commonly known as water reservoir. It was planned in the late 16th century under the decision of the then ruler to overcome a famine period in the region and constructed amidst the picturesque landscape of hilly surroundings. Mansagar is the only significant water body in Jaipur. The main characteristics of the Mansagar are linked to the social and ecological activities of the lake, the shoreline, and the surroundings as presented in figure 1.

3. The respondents

The respondents are the local people either living and/or working in the 200 meters radius of the Mansagar shores. According to the density of Jaipur (3000 people per sq. kms.), more than 50,000 people are estimated to live and work in the Mansagar environs. Another 25,000 people living away from Mansagar are estimated to visit or pass through Mansagar every day. Total hundred and fifty people responded to the questionnaire during the primary fieldwork from Oct'29 till Nov'07, 2012.

4. The Findings from the Questionnaire

The questionnaire invited people to respond to following aspects: sustainability of Mansagar; ongoing lake maintenance activities; efforts of various organizations towards the maintenance of Mansagar; and people's contribution towards the maintenance of Mansagar. The thirty three questions (thirty three in numbers) are mix of descriptive and multiple choices. Besides, there are basic questions on acquaintance with the lake and its maintenance in order to identify appropriate respondent. The key results and analyses are discussed below.

4.1. Sustainability of Mansagar

Regarding positive aspects of Mansagar, 50% respondents appreciated the picturesque view of the green mountains from the lake. About 30% were happy about the new developments of Chaupati and Lake Drive road, merely 10% talked about the lake and its water and 5% about the Jal Mahal, and the rest had diverse responses. Regarding negative aspects of Mansagar, almost 60% respondents complained about uncleanliness in Chaupati, 20% complained about the smelly open drains (nalas) of Brahmatalai, Nagtalai, and Gujarghati; and 10% complained about unorganized and lack of facilities in Chaupati including safety (also in Lake Drive), and the rest had diverse complaints including no access to Jal Mahal. It is not surprising that people relate Mansagar Lake with the shoreline activities since this is where people physically interact with the lake. Shorelines form crucial interface between the social and ecological boundaries and this is why lake shorelines are vulnerable to change. Almost every lake development/restoration involves realignment of the shoreline. Figure 3 is a graphical representation of my understanding of the reduction in the area of Mansagar over time.

Regarding the role of Mansagar, 80% respondents linked Mansagar's role as heritage of the city and further linked it to the local economy from tourism and recreational activities. This is because, people associate Mansagar with Jal Mahal and Chaupati i.e. they form the image of the place and the lake. It is no exaggeration to say that humans are psychologically trained to measure/visualize the humanly constructed facilities and the nature often goes unnoticed or is taken for granted. Since the research aims for sustainability of the lake, it triggers a question for which there is no ready answer: whether Jal Mahal/ Chaupati have any impact on Mansagar's sustainability? Jal Mahal, politically-socially speaking, yes! but technically-ecologically speaking, no..! Chaupati has social and ecological impact on Mansagar. Around 10% respondents attached emotional value for the only lake in the city. Merely, 5% respondents showed concern about Mansagar role as waste water sink of the city.

Almost 84-89 respondents believe that the main source of water for Mansagar Lake is rain water from the surrounding mountains. With multiple choices option, 68 respondents showed concern about untreated waste water from nearby residential and industrial areas flowing into the lake. Regarding the lake water quality, one third of the respondents rated it medium i.e. ok and the general remark was better than before. Their assessment was thus comparative to the water quality prior to the installation of STP (secondary treatment plant) and TTP (tertiary treatment plant) at Brahmmapuri. Almost every respondent appreciated round the year presence of water in the lake. Respondents were also appreciative about lesser smell compared to five years ago.

¹ Contact the author for more papers on Mansagar: Dec.2011. Collective Action towards Ecological Performance of Mansagar Lake; and July.2012.

0. The Lake. The current water spread area of the lake is approximately 333 acres and is a matter under controversy. Almost double the area is covered with diverse shoreline activities. The lake is recipient of the waste water from the city of Jaipur. The average and maximum depth of water in the lake are estimated as 15 feet and 30 feet respectively.

1. The hills on the north and partly on the west are the main catchment areas. There is a newly constructed lake drive road with a limited entry at the foothills at the north.
2. On the east side, the Mansagar dam is a historic structure currently not in use. The overflow of the lake is from the south of the dam. The top of the dam is a public garden.
3. The west side is thronged with urban activities including the promenade known as Chaupati, a highway, and array of recreational, commercial, institutional and residential developments. The promenade is the heart of Mansagar.
4. The south side consists of the newly reclaimed (and controversial) land, the inflow drainage channels from the city and the southern catchment area of Jaipur old city.
5. Jal Mahal is the historic water palace located in the middle of Mansagar. Mansagar Lake is mainly known by the Jal Mahal. Jal Mahal was in state of despair until its recent restoration.
6. The islands in the lake are homes to several bird species including migratory birds.

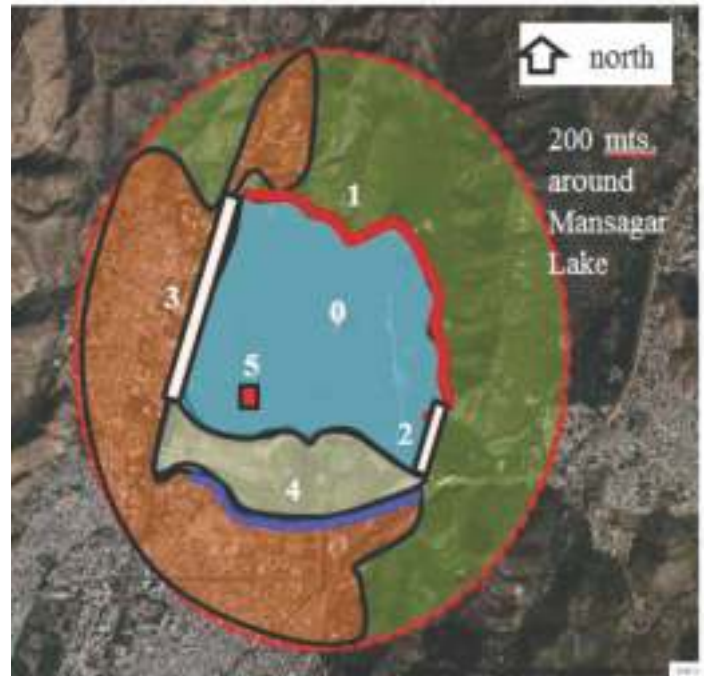


Figure 1.1. Mansagar lake environs

The profile of respondents mainly consisted of employers and employees of private businesses (103 out of 150) of formal and informal shops. Rest of the respondents consisted of: government employees (13), retired personnel (12), student (12) and others (10). The respondents belong to diverse social and economic backgrounds. Importantly, most respondents visit Mansagar atleast once a day (87 out of 150). The purposes of visit by such respondents are primarily work, fitness, and spirituality. Respondents visiting once a week (32 out of 150) or once a month (20 out of 150) are mostly those living in the vicinity and out of them many are women. The purpose of visit by such respondents is primarily recreation. The ethnic profile of the respondents is diverse. The tourists from outside the Jaipur city are excluded from the survey.



Figure 2. The respondents



Figure 1.2. Mansagar lake environs

(Source: <http://www.birdfair.org/index.htm>)



The pivot of Man Sagar Conservation and Jal Mahal Renovation, Mr. N.R. Kothari and Mrs. Anila Kothari at 12th Birding Fair; they celebrated their 50th Wedding Anniversary in January, 2013

1. The highway- First critical delineation of the land of the lake bed, particularly in physical location and top of road level. It alienated the Nahargarh catchment area from the Mansagar lake. The left over area is till today an illegal-unplanned development undergoing through the conflict of infrastructure development by JDA and JMC.

4. New reclamation- The new reclamation, if developed for recreation, may extend the shoreline for interaction with the lake. However, the nature of development is crucial in terms of accessibility (physical-psychological) to the lake by common people. The question is: is reclamation essential for lake restoration?



2. Lake Drive road- The concrete paved is a wasted delineation and wasted opportunity of nature (both lake and forest) conservation. It certainly alienated the lake bed from the foothill of the forest. Big question: why?

3. Brahmajpuri nala- The lined open drainage carry mix of treated and untreated waste water delineates the lake from the south catchment area which is the future north of the Jaipur city till the main road along Badli Choupad (refer the catchment plan). A necessary delineation to alienate developments from the lake but constructing a nala was just rude to the lake.

Regarding reasons for reduction in the area of Mansagar in last few decades, 97 respondents selected: urban development coming closer to the lake. From the other multiple choices, 57 people selected 'encroachment in the shorelines' and 51 people selected, 'every lake development plan consumes shore area of lake' as well as 'loss of catchment area'. The graphical representation is endorsed by people.

Figure 3. Delineation-Alienation of Mansagar over time

4.2. Ongoing lake maintenance activities and the efforts of various organizations

About 86% respondents believe that Mansagar has improved in last decade. Rest also agree to the improved lake; however they expressed concern about the deterioration arising due to the current legal issues of the governing organisations, which provides room to shun maintenance responsibilities. Regarding rating the maintenance of specific areas, 120 respondents rated high for Jal Mahal maintenance, followed by 74 respondents rating high for Chaupati and 70 respondents rating high for Lake Drive. Almost everyone appreciated the restoration of Jalmahal. They also expressed pride of having Chaupati as the only public space for everyone in the city.

Regarding rating the overall maintenance in terms of cleanliness, greenery and safety in Mansagar environs, the result is mixed as shown in the table. The figures in the table correlate with the rating of the organisations responsible for cleanliness, greenery, and safety.

No. of Respondents Overall Maintenance	High	Medium	Low	Don't know
A. Cleanliness	51	68	30	1
B. Greenery	87	50	13	0
C. Safety	60	40	50	0

On the contrary, 72-77 respondents rated low for the three nalas namely, Brahmatalai, Nagtalai, and Gujarghati. Some respondents remarked to give double zeros to the organizations maintaining the nalas. People showed concern over these open drains which are the sources of health issues in the Mansagar environs. People expressed angst over the inability of the governing organizations to deal with the nalas particularly referring to the problems of over flow during monsoon and foul smell and mosquitoes round the year.

4.3. Peoples' contribution towards the maintenance of Mansagar lake

This section made the respondents think deeply unlike the previous sections when they were prompt to answer. Respondents felt involved with Mansagar by now. First, they were asked to imagine if Mansagar does not exist in future, how it will affect 'them' positively and negatively. It was followed by suggestions to sustain Mansagar in future. Finally how community should contribute to the sustainability of Mansagar and if they are willing to contribute? About a third of the respondents expressed awkwardness if Mansagar disappears in future. The question came as shock to most respondents. Many remarked that they are not prepared to answer how it will affect their life. After thinking for a while, the common response was: the reclamation of Mansagar will lead to loss of public place, loss of tourism and local employment. About a third of the respondents showed concern over loss of a natural resource, bio-diversity and linked ground water issues. Few respondents also remarked that reclamation of Mansagar will result in habitation and new business and employment opportunities, but made a remark that the place will become like other urban developments with full of traffic and pollution. Under this frame of mind, almost 70% respondents suggest improvement of facilities around the lakes and stricter laws to ensure existence of Mansagar.

Regarding contribution of the community and self, most respondents tuned in demanding better accountability from the governing organizations. They feel that government organizations are responsible for the maintenance and existence of the lake. Many also believe that awareness amongst the local people is crucial to the existence of Mansagar. About real contribution, with multiple choices, 40% respondents feel that people should contribute as requested by government in the form of tax or charge or manpower and 40% feel that it

should be based on user fees and there are always people who think resources are for free. These responses correlate with the results of their willingness to contribute.

5. Social-ecological Learning

This paper is a concise version of the survey results. A detail version forms part of the PhD manuscript. The first impression from the survey is: Mansagar 'the Lake' is overshadowed by the interlinked issues of Jal Mahal, Chaupati and the new reclaimed land, although this may be a research bias since the focus is on lake. It was evident in every survey, when respondents had to disentangle the social-political issues of Jal Mahal, Chaupati and the new reclaimed land and speak about 'Mansagar the Lake'. The survey involved wandering in the Mansagar environs for several days and helped in learning the ecological finesse and linked urban issues of the lake. Tracing the inlet channels, watching the birds and fishes from the islands, going up the hills and experiencing the fauna, flora and the picturesque landscape brought valuable observations.

An important part of each survey was the discussion with the respondent (and observers) after completion of the questionnaire. Most people expressed a sense of empowerment during the course of the survey-interview, since their perception is valued and asked for an issue which they usually consider too big and outside their scope. Reaching out to people's mind led to construct a scenario that: at the core, people are willing and motivated to do things for society such as saving Mansagar's existence; they are waiting an opportunity that someone leads to organize them for collective actions towards society. If the survey made the hundred fifty respondents and approximately two hundred observers think deeply about Mansagar, the mission 'Sustainability of Mansagar', may be on its way. If you are interested to get your views and suggestions recorded, please send an email to the author.

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Tom Jones passes away

Tom Jones passed away on 11 January 2013 at his home town in Anglesey in North Wales in UK. He was suffering from illness for some time.

Tom was known for his scientific pursuits and was recipient of numerous awards. He was inventor of the device popularly called as the 'balloon-test' (breath-analyser) to detect level of alcohol from one's breath, usually carried out by the police to check drunken-driving.

Tom is survived by his wife, Mrs. Rajkumari W. Jones who had taught physics at University of Manchester and had been leading the Squirrel Conservation in Britain through a Trust headed by Prince of Wales.

Both had found out about the Jaipur Fair over internet, joined it for two consecutive years and contributed to it in a big way. The Fair organizers condole this sad demise and pray the Almighty to provide salvation to the departed soul.

