Research Paper Geography

A Review of Delhi Master Plans in Regard to Management of Traditional Water Bodies of Delhi

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ABSTRACT

Master Plans of Delhi (MPD) were formed for planned, organized and structured development of Delhi. The need of formulation of MPD was felt to arrest the haphazard growth of the city and to meet the increasing need of residential and commercial space in Delhi for rapidly growing population of the city. In the present paper MPD-1962, 2001 and 2021 has been reviewed in regard to management status of traditional water bodies of Delhi in these plans. In Master Plan for Delhi 1962 and 2001 there is very little mention of the traditional water bodies and their roles recognized to the recreational purpose only. Town planners and architects have failed to see the value of traditional water bodies in the city. In MPD-2021, value and role of these traditional water bodies has been identified in the city planning process and concern has been shown for their protection.

KEYWORDS Master Plan for Delhi (MPD), Traditional Water Bodies, Urbanization, Conservation

1. Introduction

In order to have planned development of Delhi in the face of growing urbanization the first Master Plan of Delhi was promulgated on September 1, 1962 and has been the frame for guiding development since them. With the ever changing needs of the city in terms of urban development, infrastructure, environment along with the experiences of plan implementation of the previous decades the Master Plan of Delhi has been extensively modified considering new emerging issues and challenges. The present paper is a review of various Master Plans for Delhi in reference to management of traditional water bodies .

2. Master Plan for Delhi, 1962

Master Plan for Delhi (MPD) -1962 was formulated for the further expansion of Delhi in a systematic and planned manner. While analyzing the MPD-1962 one can note that the traditional water bodies which dotted the landscape of Delhi were not much emphasized and there was no plans to enhance their role in the sustainable development of the city.

Najafgarh jheel was mentioned in this MPD. There was proposal to develop the jheel for fishing and sailing. While considering all historical monuments determinants for planning for recreation spaces, only Hauz Khas lake was considered as salient feature for recreational purpose among the various historical water bodies of Delhi. Low lying areas left out considering them constraints for development. Therefore the low lying areas easily encroached and converted into unauthorized constructions. Although water bodies got some mention but only because of their recreational purpose, their ecological role has been ignored in the plan.

3. Master Plan for Delhi-Perspective, 2001

Keeping in view the gaps in first Master Plan and multifarious development in the city, the second Master Plan was modified in accordance with the Delhi Development Act and came into existence as MPD-2001. This plan was promulgated in August 1990. In this plan Delhi has been divided into 15 zones out of which 8 are in urban Delhi (A,B,C,D,E, F,G,H) and remaining six are in the urban extension and rural area (J,K,L,M,N,P). Zone 'O' assigned to the River Yamuna and river front. In this plan 37 use zones have been broadly classified in nine categories of land use. In these land use categories, water body was included as one of the land use categories for the first time.

MPD-2001 highlighted the need of development of water bodies in the urban extensions. In this concern plan proposes that, "In the Urban Extensions wherever possible water bodies (lakes) should be developed to act as major lung spaces and to attract migratory birds and to improve the microclimate."

Although this plan emphasized the need to conserve the historical buildings but it is silent about the conservation and revival of various historic water bodies of Delhi.

Unluckily there was no mention of preservation and conservation of historic water bodies and the village ponds of rural Delhi. Various water bodies which were located on the land proposed to acquire for urban expansions were shown in residential use and later some of them developed as parks by DDA.

4. Master Plan of Delhi-2021

MPD-2021 is an extensive modification of the Master Plan with the perspective for the year 2021 along with all the amendments carried out till date.

In the previous two plans water bodies were found little mention under the heading of 'Environment'. But in this MPD-2021 role of water bodies has been duly highlighted under the heading of 'Natural Resources'. This plan includes management of water (surface and ground), air and noise in the Natural Resource Conservation.

For the very first time the term "traditional water bodies" has been used in the plan and concern has been shown over the abuse of these traditions water bodies. In this concern the MPD-2021 states that "A large number of the traditional water bodies in the form of ponds, etc. (excluding areas of unintended water logging along railway tracks, highways and canals etc) have been encroached or have otherwise become defunct".

Problem of depletion of ground water level has been focused in this plan and brings out that recharge of ground water gets limited due to decreased availability of permeable surfaces owing to urbanization and the runoff getting diverted into the sewer or storm water drains that convey the water into the river Yamuna.

Keeping the problem of ground water depletion in mind, this plan emphasized the need of conservation and development of water bodies. For this, the plan proposes that, "Development of parks and green corridors along the nallahs should in-

corporate conservation of ground water and water bodies. To recharge the ground water, conservation of water bodies and rainwater shall be essential. The area near Najafgarh jheel and its surroundings and the ridge can also be used as potential water conservation area".

For the preservation of water bodies plan proposes that, "water bodies, having a minimum size of surface area of 1 hac, shall be preserved by the concerned authorities. Further efforts shall be made at the local level to retain the smaller water bodies".

MPD-2021 further says that to deal with water supply and various water related issue there is need of not only to initiate new projects and upgrade present infrastructure but also to promote water conservation through an integrated and a community driven model, comprising of complimentary short term and long term measure (which includes water bodies).

In this regard followings are the plan proposals:-

- Ground water recharging through rain water harvesting, conserving water bodies and controlling ground water extraction.
- Blue print is required to be prepared for integrated water Management of all the water resources in the NCR (National Capital Region).
- There is need to identify all the potential surface water sources, ground water aquifers and inter basin transfer of water to the region.
- This should include water mapping, desilting of existing lakes/depressions for augmentation of storage of rain/flood water.
- It should also ensure the conservation of natural depressions, water bodies, flood plains and aquifer.
- Major water bodies can be developed as places of tourists interests/picnic spots to make them sources of revenue as well as to ensure their protection.
- The concepts of 'zero run-off drainage', with retention ponds, sediments traps and balancing lakes should be adopted with a segregated waste water disposal system.
- At the time of preparation of Zonal Development Plans, water bodies, large depressions and other ground water recharging areas will be identified and protected from unintentional filling and encroachments.

Despite all these concern about traditional water bodies, MPD-2021 is silent about the management of water bodies, having a size of surface area less than 1 hac. There should be some plans for management of smaller water bodies in this MPD to guide the local level authority. More over, once again this plan also overlooked the ecological role of these water bodies as store house of biodiversity limiting their role only as recharging zone of aquifers.

5 . Conclusion

Hence, the review of Master Plan for Delhi- 1962, 2001, 2021, in terms of role of traditional water bodies in the city plan, clearly suggest that initial phase of urban planning has been insensitive towards these traditional water bodies and they were orphaned by the planners in the city plan and left to meet their own fate in the rapidly growing Delhi. In the first two plans, there was no mention of the traditional water bodies regarding enhancement of their basic role and potentials in the sustainable development of the city.

Although the National Commission on Urbanization (1988) has also observed that there should be development of water bodies within city areas to feed reservoirs and/or permit ground water recharge instead of constantly looking for new and distant sources of water but MPD overlooked this fact. Earlier planning response towards these water bodies were limited to their recreational values and role of climate moderator in the urban areas. Their overall ecological value was being over looked in the plan and in the absence of any consideration and care from administrators, planners and users these water bodies gone into disuse and gulped by land grabbers in the process of urban expansion. In this way these recharge zones of ground water started vanishing and problem of ground water depletion became so aggravated coupled with indiscriminate extraction of ground water. Therefore in the recent MPD-2021, value and role of these traditional water bodies has been identified first time in the city planning process and concern has been shown for their protection. But still there is lack of integrated and holistic approach in the plans. For the proper management of traditional water bodies, it is imperative to undertake an integrated and holistic approach based urban planning on the presumption of ecosystem.

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