Chapter 6

Conclusion
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In this study, I have carefully examined the history and dynamics of inequitable access to ecosystem services provided by urban commons in a growing metropolitan city in India. I have also studied the impact of changing use-regimes of services on the ecology of the commons. This research helps to highlight the importance of understanding the contextual histories of a landscape, while at the same time, recognizing the diversity of its uses, irrespective of what may be powerful representations of the landscape. It also helps to identify those users of a landscape who have been historically vulnerable to exclusion and eventual alienation – a necessary first step towards constructing inclusive and equitable policies to govern these valuable resources.

Using the case of the south Indian city of Bengaluru, I have recreated a history of exclusionary regimes governing urban common pool resources (lakes) over a period of 129 years (From circa 1885 to 2015). This thesis broadly addresses the changing nature of ecological and social vulnerabilities within the context of an urban lake social-ecological system in Bengaluru. The specific objectives were to:

a) Explore the dynamic nature of human dependency on urban lakes and its impact on the ecology of the lakes
b) Analyse the social-ecological vulnerability of lakes within a larger urban landscape
c) Analyse the vulnerability of lake-dependent communities with varied socio-economic identities, and
d) Derive inclusive guidelines that consider varied dependencies on ecosystem services as well as heterogeneities -within and across the lake system- for equitable governance of the commons.

In Chapter 2, through a combination of historical mapping, archival and field studies, and qualitative interviews, I demonstrate that the distribution of lakes and wells within the colonial boundaries of Bengaluru have steadily and drastically decreased since 1885 as a result of decreased use of these water sources. In 1885, when dependency on these water bodies was maximum, both as a source of drinking water, as well as for other purposes
such as irrigation, they were distributed evenly across the city. Over time, as first dependency on lakes and later on wells, ceased because of complex non-linear interplays between the advent of piped water distribution, changing perceptions, and decline of agriculture, we see the reduction in numbers and distribution of these water bodies in the intervening years of 1935, 1973, and 2014. Colonial state led restrictions on use of lakes and wells especially for livelihood supporting activities such as agriculture, commercial laundering, and the manufacture of bricks too contributed to their decline over time.

In Chapter 3, I document how changing perceptions of the utility of the water resource in one of these lakes – the Sampangi – creates an historical account of transformations (from circa 1885 to 2014). This lake has today been converted to a sports stadium (Sri Kanteerava Sports Stadium). This chapter explores the various politically oriented conflicts that shaped the landscape into what it is today. It shows how dominant notions of aesthetics and recreational utilities were prioritized in decision-making processes to the exclusion of other uses that were mostly related to lives and livelihoods directly linked to provisioning and cultural dependencies formed around the water body. As these groups also represent the least powerful of lake dependents, they also became highly vulnerable to exclusion and eventual alienation.

These two chapters provide a historical account of landscape transformations over a period of 129 years, while at the same time engaging both with recorded as well as remembered changes to the social ecological system at large. They provide evidence that the ecosystem services derived from the landscape were shaped by social constructions of the utility of the resource as well those derived from continued use of the water body. I also demonstrate that exclusion and eventual alienation of communities from the resource is a historically contingent process, and therefore has a significant impact on dependencies on lakes in the present day.

Chapter 4 documents perceived changes in ecosystem services derived from lakes over long periods of time, while relating these changes to the present day. Results from this chapter show that despite a drastic reduction in the total number of provisioning and cultural ecosystem services from lakes, they remain dynamic spaces that are integral to lives and livelihoods of lake dependent communities. Further, the chapter demonstrates
that the decline in ecosystem services (and therefore the alienation of certain dependent communities) has occurred first due to changing ecological conditions surrounding the water body (pollution, conversion, etc.), and more recently through various forms of ecosystem enclosures (privatization, gating, etc.). In a continued historical pattern, these ecosystem enclosures too reflect priorities of politically dominant groups that have no need for livelihood uses and therefore value their recreational and aesthetic uses. In yet another historical continuity, groups most vulnerable to exclusion are the traditional ecosystem service users such as pastoralists, commercial launderers, and farmers. Further, while this process of exclusion and eventual alienation is slowly being established within the peri-urban regions, exclusionary governance regimes are already operational within the heart of the city.

Drawing on these results, Chapter 5 delves into the impacts of one form of ecosystem ‘enclosure’ namely Public-Private Partnerships (PPPs). The chapter underscores the fact that ecosystem enclosures because of privatization affect the diversity of provisioning and cultural ecosystem services accessible from lakes. These results have implications for other more recent manifestations of ecosystem enclosures such as gating, home guard patrolling, and restrictions on access.

This prioritization of urban bourgeoisie notions of nature is not unique to Bengaluru. It has been noted by researchers working in other cities of developing India such as Delhi and Mumbai. Changes in the Mangarbani gardens of Delhi have been attributed to an interplay between bourgeois environmentalism, that is impeded by other users of public areas who see the resource in more utilitarian ways (for example, as a source of firewood) (Baviskar in press). While the study ends on a positive note by highlighting the new and often fruitful alliances forged over urban nature, it acknowledges that the meanings and practices around it remain intensely contested for (Baviskar in press). Imperial Delhi too like Bengaluru had to depend upon distant sources of water to meet the demands of its increasing populations (Kumar 2002).

The transformation of Bombay – a small collection of about seven islands with fishing communities and salt pans – into that thriving metropolis today known as Mumbai too is an example of how certain priorities and expectations of urban nature have historically
been reflected in the modern urban form. Every aspect of the city’s development from the conversion of its coconut farms to the reclamation of land from mangroves and from the ocean itself has been the locus of struggles between different stakeholders who each prioritized different uses of the land (Dossal 2010). While these conflicts were indeed intense, and well documented, the eventual outcome was the prioritization of aesthetics and recreation (Dossal 2010) – a situation similar to what we observe in Bengaluru.

Similar to the city that I have studied, Mumbai too favoured its bungalows, while shops and hutments were deemed a ‘nuisance’. Yet, at the same time, the two cities differed in one crucial aspect of their trajectory of their development. Bengaluru had an existing zone of artisans, weavers, and workers represented within the native Pete of the city. Every effort however, was made to keep this zone of the city away from the colonial population, and this eventually became the setting for numerous conflicts around shared ecosystem resources such as the Sampangi lake (Unnikrishnan et al., 2016). In Mumbai on the other hand, every effort was made to attract a large worker base into the developing city throughout the 18th century (Dossal 2010). Conflicts began to arise when these populations started viewing resources (such as land and water) differently from their colonial employers, and indeed fought over their very control (Dossal 2010).

Through all these narratives however, is the common thread of differing expectations from land and water across the spectrum of stakeholders. It also highlights the complexity of inclusively managing the commons with heterogeneous communities.

In documenting the complexity of this change and its implications for the present day, this thesis also underscores the importance of understanding the historical changes in the use of and governance of urban commons. There is clear evidence that resource dependents are heterogeneous and have different political bargaining powers, and in general the stakeholders with power are heard and unduly influence the management of commons. This supports similar findings in several studies across the country on access and appropriation of urban commons (Baviskar 2011; Sundaresan 2011; Parthasarathy 2011; Mundoli et al., 2014; Vij and Narain 2016; Narain and Vij 2016). This thesis has used the case of Bengaluru’s changing waterscape to show how urban commons in general are contested for spaces between the state and diverse communities with varying interests in preserving and/or utilizing the resource. It has also demonstrated the political
nature of these contestations with elite urban priorities dictating the eventual transformation of the water body. In the case of Bengaluru, as my research has demonstrated, urban elite notions of aesthetics and recreation have since the time of the Mysore rulers and the British been given importance over the more utilitarian aspects of its water bodies.

While the specific details about individual stakeholders and conflicts over a resource may be unique to a given area, it is probably safe to say that the notion of contestations for urban commons can be generalized to other kind of common pool resources such as village forests, open wells, cemeteries, grazing, and threshing commons. Further, these findings are relevant not just to the lakes of Bengaluru, but other forms of ecosystem resources across the developing south. Inequities in the access to and appropriation from common pool resources such as forests and in other rural areas have been documented in great detail (Gadgil and Guha 1995; Saberwal and Lele 2004, Agrawal 2005).

My research enriches our understanding of both historical events driving resource management as well as underscoring the importance of incorporating historical contingency into present day resource planning and management. It documents the decline of community led systems of commons management as a consequence of changing priorities associated with these resources. It provides an effective approach to being cognizant of every actor benefiting from use of the resource, while at the same time, identifying those actors whose use of the resource renders them vulnerable to exclusion. This thesis highlights the importance of continued provisioning and cultural dependencies for the sustainability of the resource. At the same time, it brings to light the deficiencies of new governance regimes such as Public Private Partnerships (PPPs) and other forms of ecosystem enclosure on communities vulnerable to exclusion.

This thesis has shown that through the colonial times (about 1799 onwards) until the present day, the landscape including the lakes of Bengaluru and around them has been transformed by various inter-related factors. There have been massive changes in land use, livelihoods, and social fabric around these water bodies. However, the connecting threads across this drastic change have everything to do with how its many stakeholders perceive the water body, and who eventually wins in the battle for the resource. The
outcome of the often-intense conflicts governing the use and appropriation of these water bodies is decided by the most powerful views surrounding them. In this case, they happen to be the trumping of the aesthetic appreciation and recreational viewpoints over the more utilitarian aspects (the purpose for which they were originally constructed for) of the lakes of Bengaluru.

My research shows that perception of the utility of urban commons has undergone a radical shift in the span of over a century. From being seen primarily through lenses shaped by their utilitarian value to communities until about the middle of the eighteenth century, they have since been viewed through lenses shaped by their utility in enhancing the beauty of the landscape they have been a part of. Further, I have argued that at all historically, there has been marked heterogeneity in the actors (both the state and communities) associated with urban commons. In the colonial era, the heterogeneity of the state was demonstrated at two broad levels – that of the colonial overlord, and their subsidiaries, the Wodeyars of Mysore. The British state was further divided into different sets of stakeholders such as the sanitation engineers or the military personnel, each of whom differed in their views with respect to the resource. This created the potential for conflict not just between the native state and the colonial rulers, but also among the various ranks of the colonial state. At the level of the communities too, heterogeneity existed among the various users of the resource, as demonstrated by the differing bundles of property rights they possessed. This heterogeneity at the state level (as seen through the multiplicity of state entities responsible for the management of lakes) and resource users has continued into the present day, further creating conflict over ideas of access, appropriation, and management of the resource. Given that the power is asymmetrically distributed, the political nature of decisions made around water bodies becomes deeply emphasized. As Morrison says, “The control over and use of water is, and has long been associated with social and political power, a linkage no less true of kingship and rule a thousand or more years ago than of present day electoral politics” (Morrison 2015, pp: 561)

From my thesis, one may ask how then does one reimagine urban commons? The answer to this question could be extensive and elaborate, but here I provide a brief outline with
necessary caveats. Following Ostrom, communities dependent upon commons have largely been categorized as being homogenous, with similar aspirations concerning the resource. This has been at the root of many suggestions for community led ideas of managing urban commons. Urban commons however, as shown through this research, are highly dynamic spaces, where different groups of users utilize different zones of the commons differently, all of whom differ in the levels of power they wield over the resource. This means that each of these stakeholders view the commons differently, thereby creating increased potential for conflict over the resource, creating implications for equitable and sustainable management of urban commons. Recognition of this heterogeneity would definitely constitute a necessary first step towards reimagining and restoring the social ecological system represented by urban commons. This can only be brought about through a contextual, historically contingent approach to studying, managing, and governing urban commons. This is especially important because contemporary development discourses across the global south have tended to focus on binaries such as tradition and modernity or past and the future (Morrison 2015). A historical perspective may well allow us to look beyond and above these binaries for a more comprehensive and holistic understanding of complex social ecological systems.

This thesis has demonstrated the changing nature of urban commons within the city of Bengaluru and the diverse threats to continued and equitable distribution of ecosystem services from them. It has also demonstrated the political nature of both dependencies and perceptions surrounding them, while at the same time challenging contemporary management regimes that exacerbate exclusion, further underscoring the need to factor in this awareness in policy and planning mechanisms governing urban commons. Governance of urban commons has to be inclusive and take into consideration the diverse uses and values among all citizens of the city.

**References**


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