



LANDSCAPE TRANSFORMATION IN BANGALORE AND ITS IMPACTS ON QUALITY OF NATURE AND HUMAN LIFE

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Abstract

Bangalore's landscape has witnessed several transformations in the past two centuries. A city that has founded about 5 centuries ago is undergoing urbanization at a pace that was not comprehended by planners two decades ago. As a result substantial landscape changes are taking place without much heed to the overall impact on Bangalore's environment and most fundamentally without long term planning. Whilst the impact of overall urbanization on the local environment has had telling effects in terms of high degrees of pollution, threatening the city's surface water and ground water aquifers, there is now the increasing probability that proposed expansion of the city is likely to destroy patches of forests left in the immediate vicinity of the city, that reflect endemic biodiversity of the region.

The pre-independence growth of Bangalore reflected a need for sanitary development that did not compromise too much the quality of local habitats, both natural and human-formed, in the latter case particularly wetlands. However, the past three decades of planning has induced growth that directly threatens the sustenance of such habitats.

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This paper will broadly describes the nature of changes that have taken place in the landscape of Bangalore and surrounding areas, and consider the implications of such growth. The possibility of managing the city's growth keeping in view a symbiotic relationship with the natural environment, and the benefits that accrue from it, will be considered as a method for planned development.

Introduction:

Hosakerehalli, approximately 13 kms. from Vidhana Soudha, was a typical hamlet characterizing rural life of the region, three decades ago. Farmers grew a variety of crops that were largely rain fed, and gains from land were maximized by utilizing water from the Hosakere (New Tank) during the lean season.

Hosakere had a wonderful watershed formed by the surrounding hills. Streams flowed seasonally, interconnecting neighbouring tanks, and their clear waters bubbled with aquatic life, allowing for some fishing that brought in the extra nutrition free to those who were lucky. Shepherds grazed their cattle and sheep thorough the day, as buffalos and pigs wallowed in streams and puddles. Kids would return from school and jump in the tank for a swim. It was hard life, but easy to manage because it was familiar life.

The closest urban settlement was three kilometers away, and was the fledging neighbourhood of Mysore Bank Colony, or Banashankari I Stage. This neighbourhood demonstrated a character somewhat evolved over the adjacent and older Hanumanthanagar area, with streets being slightly wider, and plot sizes slightly bigger, and independent. There was some provision for playgrounds, but really very little otherwise by way of educational facilities or civic amenities. Houses lining main streets easily let off a portion for commercial development, and soon a rather quiet "main" street with a bus terminus became the de facto market area. Once the street became very busy, and traffic flows were choked, people concluded that this area was "developing" fast.

The area between Mysore Bank Colony and Hosakerehalli remained largely agricultural, with a couple of tanks touching up the character of the gently rolling fields.

Mr. Krishna Bhat of the Girinagar Housing Cooperative Society was fighting a long and arduous battle with the Bangalore Development Authority (BDA) to be allowed

to develop the Girinagar layout here. He had negotiated the purchase of these agricultural lands from farmers, and promised an excellent and affordable housing estate to the Society members. For various reasons the BDA would not allow him this freedom and he would take them to Court ever so often. Perhaps in an effort to retain the confidence of his investors he would regularly advertise in papers details of his legal battles. And eventually succeeded in retaining control over the lands that the Society developed. Girinagar soon transformed into a densely populated area.

BDA, the haughty authority:

Upon its creation in 1976, the BDA was eager to expand Banashankari. The village of Kathriguppa separated Banashankari I Stage, on the south-western side of Bangalore, and Banashankari II Stage, more south and adjacent to Jayanagar. Banashankari II Stage's proximity to Jayanagar leveraged its cause and houses came up very fast. To complete its vast scheme of providing sites for housing, the BDA notified all lands in between these two stages of Banashankari, separated as they were by a distance of about 5 kms. Land acquisition was substantially achieved by the late seventies and in its characteristic style, the BDA developed yet another residential layout based on the gridiron pattern; Banashankari III Stage, replete with various phases, blocks, and streets. Farming communities of Kathriguppa and Hosakerehalli villages were left to live where they were, if they chose to, but the life they led would radically change. Monetary compensation for agricultural land lost was all that they would have in the end to secure them a future.

A few enterprising farmers who were cash surplus managed to develop their own little housing estates out of their farm land, some providing these estates with water and sanitary facilities, but most without. Those who bought sites from these entrepreneurs did so "at their own risk" for their lands could anytime be acquired by the BDA, unless individual site owners managed to get their properties "regularized". Such neighbourhoods possessed very little in terms of infrastructure and convenience, but did supply substantially housing sites into the market. By default they were contributing to the rapid urbanization process.

Transforming Landscapes, and How:

As these neighbourhoods slowly evolved, or in plain terms the now barren land marked by muddy roads and silt laden storm water drains got built over, the character of this landscape changed. The first change was in the nature of the streams. They became perennial, not because the tanks they flowed from were full of water, but

because the BDA, the Girinagar Housing Society, and a wide variety of layouts promoted by ex-farmers, connected their sanitary disposal pipes directly into the streams. Eutrophic, slushy, stinking, slow moving waters coursed through this landscape, and very soon much of the aquatic life disappeared from these watercourses. The buffalos and pigs continued to wallow in these waters, and kicked up plenty of insects for egrets and mynas to feast on. Hosakere, which was a seasonal tank, and when full with rainwater provided water clean enough for a swim, became a reservoir trapping sewage perennially from the local area. It was very soon transformed into a festering zone for mosquitoes.

For the farmers and their families, who were now scraping a living out of rearing cows and selling milk, and supplying vegetables grown in some yet to be acquired wetlands fed by sewage, the struggle for sustenance was complicated by the struggle to remain healthy. It was possible to make more money, for instance by selling their houses, for land values had improved, but this did not guarantee a life that was comfortable. Women and girl children were increasingly sought after as domestic help in the many houses that came up. Unemployed men hung around, or got drunk silly. Children continued to go to school, but couldn't swim in their local tank. Shepherds watched as their sheep and goats ran from site to site in search of green, unlike the rolling fields that were.

Soon the distinction between the village and the city disappeared physically, and distinguishing Hosakerehalli from the rest of the BDA developed landscape, was possible only by noticing that the gridiron pattern collapsed into a maze of narrow, winding streets filled with houses, with no sanitation, and dirty water overflowing from gutters.

Today Hosakerehalli remains in much the same manner. Roads have got paved, and underground drainage has been provided, but the streams do not exist. Hosakere tank exists, but full of sewage. What exists in place of the stream is a concrete lined massive sewerage canal, which takes sewage to the Hosakere Tank, and thence to the Vrishabhavathi.

Amorphous Villages, Formed Layouts

The story of Hosakerehalli has been described in some detail, for it is not the story of just this village. It is in fact the story of tens of villages that dot the landscape of Bangalore Metropolitan area, where BDA has exercised its superior control and provided little opportunity for such villages to define their own process of adjustment with the growth of Bangalore. Most are now highly congested neighbourhoods, in many cases relegating old dwellers to conditions of living typical of slums.

In every case, it is the very same systematic assault on landscapes, converting any form and feature of the land, into a sort of BDA prototype of residential development. Trees and groves disappear, as they cannot accommodate the vision of "development" latent to BDA planners. Hilllocks, if not too imposing, are leveled, and sites marked over. Watercourses by default become sewer lines. The planning is independent of the context, and admittedly follows an easily replicable strategy of Bangalore's growth. There is no scope of working with landforms, being sensitive to wetlands, imaginatively addressing the needs of local communities, or developing neighbourhoods with character. Distinctive character is anathema to BDA's scheme of things. Sameness is what matters, for without that, the branding and commercial ratings of the institution would suffer.

Efficient Commissioner, Mindlessly Spreading Metropolis

Mr. Jayakar Jerome, the present Commissioner of BDA has been extraordinarily efficient, especially considering the history of the institution, in developing more and more BDA layouts. Anjanapura, between Kanakapura and Bannerghatta roads, got "developed" in no time. About 10,000 housing sites were created here. Banashankari VI Stage is in the offing, between Kanakapura and Mysore Roads. Another 15,000 sites would be offered here. In the past three years, Mr. Jerome has achieved the phenomenal target of offering over 25,000 housing sites, the magnitude of which can be best comprehended when compared with the approximately 75000 sites that were offered since the creation of BDA in 1976, till he took over.

Clearly Bangalore is expanding at a scale that is unprecedented. It is expanding on the basis of a plan, the BDA's plan. The plan is developed in house, considered in house, reviewed in house, approved in house, and the ultimate approval coming from none other than the Chief Minister. The public has no role in this. They are mere bystanders, and recipients of the product. Three years after Anjanapura sites were sanctioned, there is yet no housing development at all. The public money got locked into the BDA system, but they should not complain at their loss of time and interest on the money, for BDA shall deliver.

But are these neighbourhoods being occupied. Hardly. Three years after Anjanapura sites were allotted, there are no houses, no shops, no schools, no hospitals, no parks, no playgrounds,..... no bustling life. Perturbed by this lack of "development", Mr. Jerome held a "function" to light up the area. Thousands of streetlights were installed, and the whole area lit up, every evening and night. Power is consumed,

the lights burn, but there is no suburb. Raising questions of appropriateness of plan, of demand of housing sites. Was there really a demand for housing in Bangalore? Of residential sites? Are people buying sites as an investment, to sell land later and gain a higher dividend on savings than low interest rates allow? Or is this Bangalore city creating beast, mindlessly working, efficiently even, fulfilling its purpose per plan, and spreading this metropolis? An Authority to "Develop" Bangalore. But to what end?

Dominating Landscapes, by design

It is by this form of dominance over landscape that the BDA is making Bangalore what it is. The Town and Country Planning Act empowers the public to review schemes proposed for housing and urban development, but this law never applies to the BDA. When Anjanapura or Banashankari VI Stage layouts were proposed and developed by BDA, there was no advertisement inviting the public to review the layout plans, as required. BDA is a para-statal authority that behaves like a supra authority.

The most recent manifestation of this is in the BDA's preliminary notification dated 7th November 2002 to acquire land in Vajarahalli, Hosahalli, Uttarahalli, BM Kaval, Raghuvanahalli, Thalagattapura, Turahalli and Gubbalala villages running along the Kanakapura road. In all 1500 acres are notified. Much of this land is agricultural, but a substantial portion has features that make this landscape unique in several ways. The Turalli Gudda, a wonderful composition of rocks near Gubbalala, has for long been a destination for rockclimbers. Besides, it presents the grandeur of millions of years of the earth's age in dramatic rock forms.

Some private layouts have already come up in this area in a rather unplanned manner, but the VI Stage of the BDA, as a scheme, would urbanise this stretch at a magnitude that would steal the quiet ambience of this place forever.

The B M Kaval forest stretches across this region, and it appears that BDA's scheme would in effect bring the city to surround this forest, and potentially block an elephant corridor between Bannerghatta and Savandurga forests. B M Kaval has certain stretches of forest that reflects the endemic vegetation of the region, and very few patches of such forests remain in the Bangalore Metropolitan region. Besides it is an excellent habitat for birds and butterflies, with over 200 species of birds identified here. A grouping of the fauna of this region is as follows :

Animal Groups	No. of Species
Mammals	21 species
Birds	208 species
Reptiles	34 species
Amphibians	10 species
Butterflies	105 species

Contiguous with this forest is Roerich's 400-acre estate, flush with lavender trees. How can one establish a value to protect the character of these landscapes? Presently it is well nigh impossible to present such views, except by pleading a case with the Commissioner of BDA, not as a matter of Right, but perhaps his discretion. And there is no guarantee that a public concern to protect a local area forest from urban sprawl will be considered at all.

Conservative Planning, Futuristic Ambition

The fundamental problem in planning Bangalore's growth and development is that the approach adopted is extremely conservative, and incapable of adapting to local landforms. When this approach has the sanction of the State, then it becomes inimical to any possibility of encouraging discussion and debate in public. Over time the public has already been made apathetic to such discourses, that it is considered invariable that such loss of habitat takes place when a city grows.

Does it really have to proceed on such inattentive lines of planning? There is no one within the process of decision making willing to raise this question, and thus it is assumed, as part of a final decision, that such issues do not exist.

The result therefore would be, as in the case of Hosakerehalli, a most unintelligent approach to urbanization, which destroys wetlands, crashes through unique landforms, such as rock formations, chokes ecologically sensitive areas, such as B M Kaval forest, pollutes as a rule water courses or water bodies, and creates a dull city, an insensitive city, that is the same anywhere: J P Nagar, or Banashankari, even HSR Layout, or even Indiranagar. If character is eventually developed in these neighbourhoods, it is not because it was originally designed to, but due to the ingenuity of residents and commercial agencies to drive some life into a rather monotonous urban landscape.

There are other deeper issues here too: of how water and power and travel and transport facilities are developed, and the long-term implications of the use of such

infrastructure on the overall quality of life in the city. A mature planning process would require attending to all these details, care for nature, for the value of a village, concern for the dislocation of communities, integrating transport facilities with commercial, entertainment, schooling, health and work facilities. It might be certainly invariable in the growth of a city to transform our rural and natural landscapes to an urbanized form. But the process need not be ugly, as it is today.

Law demands careful planning

The law enables a mature process of planning. To list a few possibilities mandated by law:

- 1) The Karnataka Town and Country Planning Act delineate the procedure for consulting and working with the public in a systematic manner when developing urban and industrial layouts. Rarely has this requirement been fulfilled, especially by the BDA. In a recent case, the authority concerned in promoting the highly controversial Bangalore Mysore Infrastructure Corridor project, involving acquisition of over 21 000 acres of land to build an expressway and 5 cities between Bangalore and Mysore, called for public comments on this massive scheme by way of advertisements. But when various members of the public did make the effort to be involved, there was no scheme to examine. Nothing in fact was available for examination in the office of the Director of Town Planning. Such dishonest approaches do not bode well for the future of our cities.
- 2) The Nagarpalika Act requires the constitution of Ward Committees, and as well a District or Metropolitan Planning Committee, as the case may be. A decade after this law was passed; there is still no move to fulfill these constitutional guarantees to involve people and their elected representatives in meaningful planning. What instead is being pushed forward as a participative method is a corporate, unaccountable and perhaps illegal forum of highly influential individuals characterizing the Bangalore Agenda Task Force. Their imaginations determine what takes "Bangalore Forward" in whatever direction they deem fit, and may perhaps not necessarily be in the direction that is appropriate.
- 3) The Environment Protection Act has several features that demand of city planners and developers a careful consideration of all impacts of urbanizations. Rarely is this law even considered relevant to urban planning. If the Water and Air Acts were to be implemented in its truest spirit, most cities would have to be shut down, as the sewage they let out without treatment warrant such action.

- 4) There is then an extensive detailing of technical requirements in planning and development of urban areas, industries and infrastructure contained in the National Building Code of India. Anything that is built by humans on Indian soil must conform to this code, which has been developed quite systematically and with the sanction of law, Bureau of Indian Standards Act. But never is there any discussion of being guided by such knowledge. If careful evaluation of compliance with the Code were forced, for instance of commercial buildings, it is likely that most would not comply. And this is only to state the degree of violation, and not necessarily appreciate their impacts.

Such lackadaisical attitudes to planning, promote a quality of public administration that will by design remain sloppy, and worse, insensitive to landscape demands and local concerns. It is quite possible to contain the adverse implications of such sloppy designs by some rather arduous and major adjustments later. But it simply does not seem to be an appropriate manner to use meager resources.

Resource poor institutions should be all the more caring for detail, and stick to the appropriate codes of planning and development, consult whenever necessary, and wherever possible, for it helps to build safe, comfortable cities that create the least adverse impacts on the natural landscapes, and those communities that cannot easily adapt to urban lifestyles.

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