

# Bangalore

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Bangalore, located in the state of Karnataka in southern India, is the third most populous city in India, after Mumbai and New Delhi.<sup>1</sup> Though best known for its high-tech industry and as the major Asian hub for information technology (IT) outsourcing, its reputation often overshadows festering issues threatening the city and its population, especially insufficient infrastructure and planning, unequal economic growth, and dismal slums. This paper presents an overview of various aspects of Bangalore that have helped to shape its development, including its history, politics, governance, economics, as well as urban planning issues, highlighting areas with pressing policy questions requiring attention.

## 1 Colonial period

Bangalore has been an inhabited town since at least 1537. Its importance grew slowly and inconsistently over the years, as various local and regional leaders controlled the area, culminating with the powerful Tipu Sultan.<sup>2</sup> Events during the subsequent British colonial era left lasting impacts on and help explain aspects of the geography, culture and economics of the Bangalore as it exists today.

Even before the defeat of the Tipu Sultan, on May 4, 1799, Bangalore was a focal point of British presence in Southern India. In fact, British troops camped around Ulsoor Lake in what is now central Bangalore, training for their decisive attack on the sultan's forces in nearby Srirangapattana.<sup>3</sup> After the

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<sup>1</sup>Helders, S. World Gazetteer

<sup>2</sup>Nair, 18-20

<sup>3</sup>Jasanoff, 149-154, 156-187.

battle, new permanent military barracks were built just outside Bangalore, solidifying Britain's long-term commitment to the growth and stability of the city.<sup>4</sup>

As a consequence of the colonial presence, Bangalore developed as nearly two separate cities: the Cantonment (also known as Civil and Military Station, or C&M) where most British and other Westerners lived and carried out business (administered under colonial rule); and the so-called Old City, where Indians lived, under civic control.<sup>5</sup> Consequently, the city was divided across the North-South axis between an older West and a newer East. There is still some evidence of this division; for example, somewhat redundant main markets and main railway stations in each of the areas are still in use today. A map of the city as it existed in 1924 is included in Figure 1.

The division of the city was more than purely spatial: efforts were undertaken to prevent the intermingling of ideas and population between the two areas. Socially, Westerners were dissuaded from visiting areas outside the Cantonment; lower-class Indians were deterred by both the British as well as conservative elders from visiting the Cantonment except in the pursuit of employment or education.<sup>6</sup>

The contrast in styles between the East and West of the city was strikingly evident: “[T]he old city epitomized the very worst in city planning, and nourished disease and death.” However, in the British controlled areas, “[t]he street was [not simply] what was left after houses were set up, but the vital arteries of the city, built for wheeled vehicles and speed. . . . [This provided a] striking contrast to the old city area.”<sup>7</sup>

When planning new districts for the Indian population, the British were sensitive to various prejudices of the local populace: due to caste and religious animosity in influential circles, various homogeneous ghettos were created. This often caused some compunction amongst the Western administrators, but their trepidation was overruled by the desire to pacify the elites (generally upper castes). In fact, when parts of the city were rebuilt in the wake of the plague, “[p]hysical distance between homes [of different classes] . . . diminished the possibility of undesirable social contact.”<sup>8</sup>

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<sup>4</sup>Srinivas, 16.

<sup>5</sup>Srinivas, 28-32.

<sup>6</sup>Ibid., 15, 16.

<sup>7</sup>Nair, 47.

<sup>8</sup>Ibid., 51.

Upon the arrival of British forces, most of the economy around Bangalore was confined to textiles production. The disproportionately large contingent of Western military forces in Bangalore substantially altered the development of the economy. During colonial occupation, the British built numerous roads and a critical railway link to various population and industrial centres in Southern India.<sup>9</sup> These links, coupled with the multilingual local population (Kannada, Tamil, Telugu, Urdu and English were commonly spoken<sup>10</sup>), made Bangalore an ideal choice for a trade conduit between India and Britain. As such, Bangalore missed much of the heavy industrialization and associated growth that occurred in other Indian cities such as Bombay and Calcutta, but instead developed aspects of a regional commercial hub.

## 2 Central planning era

After gaining independence in 1947, India decided against implementing a decentralized free market economy, and opted instead for a Soviet-inspired centrally-planned approach with heavy emphasis on the sanctity of village life and the principle of self-reliance. This policy had effects on the economy and culture that are still visible today<sup>11</sup>

The government undertook a broad-based initiative to spread industrial production over a vast area, inadvertently restricting productivity benefits that could have accrued through co-location of industries. As well, special attention was paid to underdeveloped areas and most Foreign Direct Investment (FDI) was restricted either outright, or curtailed through excessively onerous requirements.<sup>12</sup> As such, perceived fairness and equality became favoured over efficiency and productivity gains. These principles insidiously integrated themselves into various levels of the government and culture; this nonchalance and lack of innovation became endemic to all but the highest echelons of society.

Simultaneously, (and not without an air of hypocrisy given the stated objective of equality) the government put a great deal of effort into creating and maintaining a set of world-class institutions of higher learning, such as the Indian Institutes of Science (IISc) and Indian Institutes of Technology (IIT). These

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<sup>9</sup>Srinivas, 13-18.

<sup>10</sup>Ibid., 16.

<sup>11</sup>Nair, 81.

<sup>12</sup>Krishnan, 4.

institutions were quite well maintained, but could only serve a small number of Indians annually. Their presence benefited a few elites tremendously but had no discernible impact on others, reinforcing the vast disparity amongst the population. Due to the tightly regulated economy, most of the graduates of these institutions either emigrated to Europe or North America, where their skills were highly valued, or pursued careers in the bureaucracy.<sup>13</sup>

Between the 1940s and the 1970s, Bangalore was renowned primarily for various large public-sector, layouts constructed in outlying areas North and East of the city, including the Hindustan Aeronautics Limited (HAL) layout, and the Defence Layout. These industries employed a large number of people, including some highly-skilled, white-collar workers. Starting in the 1980s, economic policy loosened slightly, and FDI started appearing at low rates, but the public-sector still was still the primary source of industrial development.<sup>14</sup>

These ill-conceived economic policies caused tremendous short-term hardship to Indians. India fell substantially behind other similar economies that adopted more liberal economic policies with less state intervention. Table 1 illustrates just how destructive the central planning regime was to the Indian economy. In 1950, South Korea, was about as poor on average as India, but by 1995, it had a per capita GDP nearly one order of magnitude higher than India. Although the reversal of these economic policies would allow the economy to recover and grow, the changes in society and culture that they precipitated became endemic and still have negative impacts on Bangalore's development to this day.

### 3 Early liberalisation and its effects

The opening of the Indian economy to increasing levels of FDI in the early 1990s heralded a massive restructuring of the Indian economy and society. The service sector began to grow significantly faster: between 1992 and 1997, services grew at 7.6% annually, the same rate as the economy overall. Between 1997 and 2001, however, services grew at 8.1%, as compared to 4.8% for the economy as a whole. Labour movements lost their influence, and could no longer forestall the introduction of productivity enhancements

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<sup>13</sup>Ibid., 5.

<sup>14</sup>Krishnan, 7-9.

(many banks had not computerized well into the 1990s).<sup>15</sup>

As liberalization proceeded, the spatial layout of industries in India changed markedly. Industries began to move away from the widely distributed geographic patterns enforced by the government, and gravitate towards industry-specific hubs, increasing the economy's efficiency. Bangalore figured strongly in this transformation, becoming the major Indian hub for the IT industry.<sup>16 17</sup>

Although the economy transformed rather rapidly, other aspects of society did not evolve at the same rate. Some Bangaloreans retained the strong preference for site ownership instilled during the central planning era, and strived to avoid high-rise apartments. Nostalgia for simpler living and a more rural lifestyle still had a substantial impact on urban planning decisions. These tendencies, along with the rapid expansion of the city, conspired to render Bangalore with an inadequate housing stock and transportation infrastructure.<sup>18</sup>

Most of the master plans that were constructed during these years attempted to restrict mixed zoning. This tended to destroy local economies that capitalized on economies of scope, i.e. multiple production centres co-located. Local entrepreneurs thus developed strong incentives to stymie these plans. Master plans were thus delayed, altered, and in some circumstances, altogether blocked by the combined efforts of local businessmen, corrupt politicians, elites with better access to the judiciary and planning officials, as well as society's general distrust of any centrally-planned projects (an attitude cultivated in the previous era).<sup>19</sup>

In order to foster the growth of nascent tertiary industries in India and the IT sector in Bangalore in particular, the government enacted legislation relaxing labour laws, decreasing barriers to FDI, and eliminating most taxes on new Research and Development-focused companies.<sup>20</sup> This prompted many foreign companies, including HP, IBM, Microsoft, and Yahoo to set up local offices and cultivated a small set of domestic R&D shops. The consequent substantial growth in software-related industries in Bangalore

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<sup>15</sup>Benjamin, 38-40.

<sup>16</sup>Krishnan, 7-9.

<sup>17</sup>Narayana, 20.

<sup>18</sup>Nair, 126-130.

<sup>19</sup>Ibid., 124-125, 130-132.

<sup>20</sup>Krishnan, 7-9.

is illustrated in Table 2.

## 4 Contemporary political changes

In concert with economic decentralization, India also began the process of political decentralization. In 1994, the seventy-fourth amendment to the Constitution of India was passed, codifying standardized planning and project decentralization. It requires states to pass legislation transferring planning and control of projects with primarily local impacts in all urban agglomerations with more than one million people from unelected and/or unresponsive development authorities to elected local councils. It spells out guidelines for the composition of these elected bodies (including quotas for women and backwards castes), and requires states to give the councils broad discretion to conceive and administer urban development plans.<sup>21</sup> The motivation of these constitutional changes was to exploit India's fair election process to bestow upon citizens greater influence in setting local policy. Unfortunately, the reliance on state cooperation has turned out to be a major impediment to its success; years after its enactment working-class citizens continue to feel that their opinions are not carefully considered.

Tonn makes the bold claim that representative democracy is fundamentally biased against unorganized citizens.<sup>22</sup> On its face, this claim seems to be generally accurate: unorganized citizens do indeed find it difficult to gain the attention of their elected representatives. However, unorganized citizens soon learn how to organize themselves into a voting bloc and elect sympathetic representatives. These voting blocs are often derided by those who are convinced that representatives' primary motivation and objective is the procurement of pork for their electorates. While this behaviour can be deleterious to the health of the region, it is actually a demonstration of the power of representative democracy to deliver benefits to the electorate.

If representative democracy *per se* is not to blame, and legislation has been passed to give them greater say, why do poorer citizens continue to be marginalized? Equality in voting is a necessary but insufficient condition for suppressing marginalization. This has been demonstrated in countries such as Brazil, with

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<sup>21</sup>Madon, 179-182.

<sup>22</sup>Tonn, 413-414.

a free and fair electoral system, but rampant poverty and crime in favelas.<sup>23</sup>

Clarity of legislation is a significant concern. The 74th amendment is unnecessarily complicated, to the point where years after its enactment, most politicians responsible for its implementation at the state and lower levels are still unaware of its provisions and their impact. This lack of clarity is compounded by what Heitzmann refers to as the “notification” issue.<sup>24</sup>

With neither proper notification of issues of importance, nor easy access to legal and other information, asserting one’s rights becomes difficult. For those with few connections and little money, the challenge becomes nearly insurmountable given the lack of connections to policy-makers and government officials or access to the latest technologies. Various non-governmental organizations (NGOs) have attempted to aid and mobilize groups of concerned citizens, but were unable to successfully do so. The reasons for this failure are not clearly or satisfactorily described in the literature, and more research in this area is warranted.<sup>25</sup>

The entrenched interests’ incentives are generally quite selfish: they simply aspire to relinquish as little power as possible. In Bangalore’s implementation of the 74th amendment, bureaucrats feared any system that would allow elected councils (whom they feared would be filled with the poorly educated and corrupt) to take control of various public works projects, and politicians saw an opportunity to further their goal of maintaining control over information by obstructing any initiatives that would make it freer. These two factions, though generally at odds with one another “conspi[red]” to reinforce their agendas by using various unsavoury tactics during the crafting of the Karnataka State act implementing the constitutional directive. Heitzmann commented that “any person or group who intended to address local governance was forced to discuss . . . drafts or proposals which were . . . obsolete or to hypothesize on future versions which remained unknowable[;] . . . [t]he state bureaucracy, by manipulating the timing of information release, was able to direct the entire implementation process with little interference from outside agents.”<sup>26</sup> The absence of cultural mores highlighting the value of an inclusive political process, and the lack of any praxis

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<sup>23</sup>Caldeira, 154-158.

<sup>24</sup>Madon, 177.

<sup>25</sup>Madon, 180.

<sup>26</sup>Ibid.

of responsive government in India appears to have been critical to the failure of the 74th amendment to achieve its stated goal.

In addition (and in no small part *due*) to their marginalization in the political arena, the living conditions of Bangalore's poor is a critical and urgent policy issue which often goes unaddressed. In 2000, official estimates counted the number of slums at 401, in which 1.35 million people, or 25% of the population, resided. Unofficial estimates stretch as high as a count of 1000, comprising up to 40% of the city's population. Conditions in these slums can be dismal: some studies claim that half of all slum-dwellers are dependant upon poorly-maintained and polluted public fountains for water, and many residents have no access to proper toilet facilities. Instead, they are forced to use unsanitary communal toilets or even fields. Unsurprisingly, these conditions result in widespread health problems including "scabies, diarrhoea, cholera, typhoid, [and] eye infections."<sup>27</sup>

One of the most critical issues faced by the poor in Bangalore is the irregularity of their dwellings. Many slums are constructed on what is technically publicly- or privately-owned land, leaving residents few official channels for their complaints and diminished social status. Although numerous attempts to regularize land ownership have been made, there are still a number of stumbling blocks. The average middle-class city-dweller is generally not greatly moved by plight of poverty in his city; the poor are viewed as almost a separate problem in a separate realm that happens to be superimposed on his city.<sup>28</sup> Government services can be scarce in slums; there are ongoing efforts to improve this. Slums on privately- or railway-owned land cannot easily be regularized. Slums in those areas are officially ignored by city departments, and are technically ineligible for government-provided services. In practice, however, most can get some services through the patronage of their elected officials.<sup>29</sup> This continues to reinforce the belief amongst citizens that civil servants and government agents are corrupt and can only be swayed with bribes.

Economically, however, Bangalore's slums appear to fare better. Unlike most other cities with such problems, "[i]n Bangalore, the tacit acceptance of informal sector activity in slum housing areas, although

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<sup>27</sup>Benjamin, 38-40.

<sup>28</sup>Narayana, 3-5.

<sup>29</sup>Devas, 396, 403.

it contravenes formal regulations, has allowed that sector to flourish.”<sup>30</sup>

Given these sobering facts, Benjamin claims that Bangalore’s focus on attracting and retaining high-tech industries is “perverse” and destructive. He contends that despite the large contribution IT makes to the local GDP, the sector is not truly well-integrated into the local economy and exists on its own to a large degree.<sup>31</sup> This makes sense, since many services provided do not provide a lot of value-added. Instead, as an offshore satellite, they provided low- to medium-value services at low cost. It is true that even the predicted tighter integration of the IT industry into the domestic economy will probably not directly contribute many jobs for unskilled labourers. However, neglecting the long-term benefits brought to the city by a vibrant IT sector is a mistake. The continued success of this industry and its integration into the domestic economy should substantially increase the productivity of millions of Indian workers, lifting many out of poverty. The increased prestige and mind-share gained by having Bangalore on the minds of technology executives worldwide is also worth considering.

That being said, the positive aspects of the focus on high-tech industry do not absolve the government from its failure to provide essential services to the poor. Industrial interests, with their close links to state and national governments often subvert the wishes and initiatives of local governance to push their agenda. This ends up thwarting well intentioned local solutions to the poverty problem.<sup>32</sup>

The difficulty faced by the working class in influencing local, regional, state, and national governments yields a disgruntled electorate unwilling or unable to conceive of their governments as agents of positive change or even agents possessing the will and ability to solve problems they consider important. This attitude has far-reaching impacts; simply put, denizens of Bangalore have lost all belief that government-provided services could become reliable, and thus go through great pains to procure private-sector replacements.

Power generation is rarely sufficient to meet demand (price ceilings have been enacted resulting in scarcity and rationing). In response, generators and uninterruptable power supply (UPS) battery systems have become nearly ubiquitous in most offices, shopping districts catering to middle-class or higher shop-

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<sup>30</sup>Ibid., 402-403.

<sup>31</sup>Ibid., 39.

<sup>32</sup>Ibid., 45-47.

pers, and even in many upper-class residences. In fact, the nearly synchronized clicks of hundreds of diesel generators starting up on Commercial Street (a main shopping corridor) and the unfazed shoppers who hardly seem to notice is quite striking.<sup>33</sup>

Water service is often unreliable, and can be absent for days at a time. Numerous companies offer a private water delivery service; for a monthly fee, a tanker appears periodically to refill a specially-constructed reservoir under the house. Despite the damage caused to the water table by overuse, bore wells are nearly universal in some parts of town. In order to provide adequate pressure, water is pumped up to a tank above the edifice (often using power from a generator to eliminate reliance on the public grid). The public education system is similarly maligned, and most students from well-off families opt out of the public system in favour of private schooling.<sup>34</sup>

The traffic in Bangalore is atrocious, and although a Metro system is being built, the sole public transportation alternative is a system of buses, which run on surface streets without dedicated lanes. This prevents buses from providing faster service than any private conveyance. In fact, scooters and motorcycles are able to navigate the traffic substantially faster than buses, setting up a textbook case of the tragedy of the commons. Everyone who is able opts out of the transit system, increases the traffic, resulting in an even slower bus system.<sup>35</sup> As with electricity and water, most businesses bypass the public infrastructure as much as possible; nearly every major IT company, (including HP, Google, and Microsoft) runs its own private transportation system. These systems generally consist of drivers that service *ad hoc* carpools of employees, which are organized and paid for by the companies.<sup>36</sup>

In the end, those who succeed in opting out of public services are no longer closely vested in their quality and efficiency. Thus, despite generally being more wealthy and influential, they do not pressure leaders for more effective service, leaving those with fewer resources and no ability to opt out to fight a nearly unwinnable battle against the utilities.

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<sup>33</sup>Author's personal experiences; four trips to Bangalore 2006-2008.

<sup>34</sup>Ibid.

<sup>35</sup>Hardin.

<sup>36</sup>Author's personal experiences.

## 5 Conclusions

Bangalore has evolved tremendously from its origins as a textile hub, through intermediary roles as an trade hub and export point during colonial times and the host of large-scale public-sector industries, to its current position as a global IT centre. Each of these phases had significant and lasting impacts on the city and the culture of its residents. The unprecedented and largely uncontrolled growth of the city (and in fact India in general) has created a number of pressing policy issues that must be addressed soon: crumbling and unsatisfactory physical infrastructure, corruption, poor utilities, insufficient housing, poverty, dismal conditions in slums, and a feeling of general disenfranchisement amongst the working class. If these issues are not properly addressed by the combination of NGOs, local councils, regional, state, and national governments, Bangalore risks jeopardizing its leadership position in India and the world.

Table 1: Per capita GDP a percentage of US GDP

Country	1950	1960	1970	1980	1995
Bangladesh		8.3	7.0	6.5	5.1
India	7.1	7.5	6.5	5.7	5.2
Pakistan	9.0	7.8	8.4	7.6	8.3
Sri Lanka	11.4	10.2	9.4	9.4	12.1
South Korea	7.6	11.8	11.8	24.8	42.4

Source: Hossain et al.

Table 2: Globalization and internationalization of trade of Bangalore

Indicators of globalization of IT trade	1993-94	1999-00	2004-05
Total exports (Rs. in billions)			
· Bangalore	20.87	88.69	432.21
· Karnataka	30.25	128.54	626.39
· India	863.97	2125.80	5081.88
Share in nation's total exports			
· Bangalore	2.42	4.17	8.50
· Karnataka	3.50	6.05	12.33
Share of IT exports in total exports			
· Bangalore	10.92	70.83	70.67
· Karnataka	7.77	50.38	50.27
· India	2.43	9.36	16.79
Share in nation's IT exports			
· Bangalore	10.87	31.57	35.81
· Karnataka	11.20	32.55	36.92
<i>Growth rates</i>			
Total exports			
· Bangalore	22.96	30.21	28.73
· India	13.73	15.63	15.91
IT exports			
· Bangalore	60.60	30.16	50.40
· India	37.90	27.45	36.17

Source: Narayana, 31

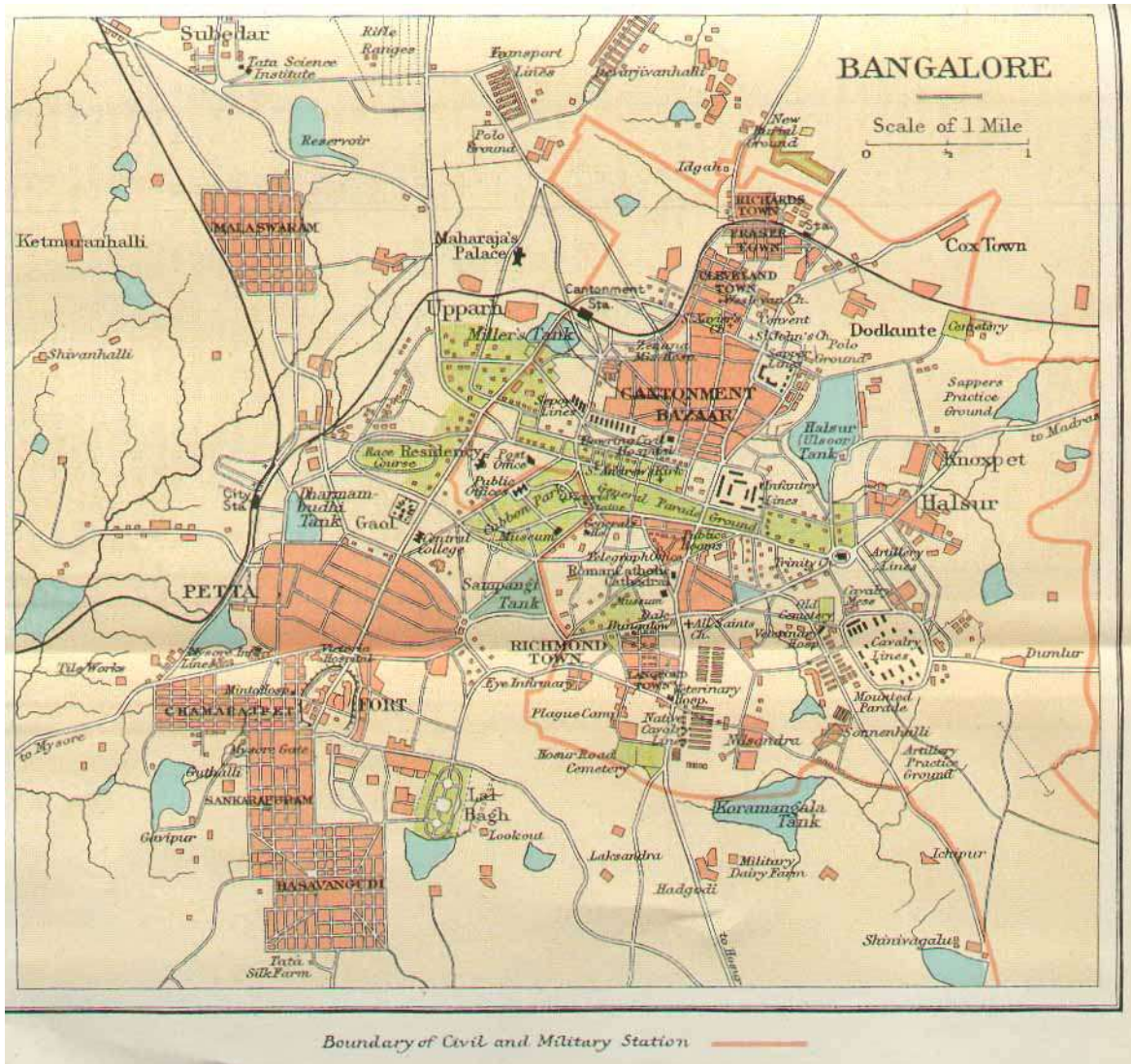


Figure 1: Bangalore in 1924. Source: Murray's Handbook for Travellers, 1924

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