

Infrastructure Development in Nagpur City From 1854 To 1947

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Abstract

The arrival of the Great Indian Peninsula Railway in 1867 reshaped the city's commercial geography overnight. The Ambazari waterworks of 1873 brought piped water to the city for the first time. The Municipal Committee, constituted in 1864, became the primary vehicle for urban governance and public services. The Bengal-Nagpur Railway of 1881–1889, the expansion of educational and health infrastructure, the establishment of the Nagpur Improvement Trust in 1936, and the gradual development of industry in the city together created the urban foundations upon which independent India would build after 1947. 2.

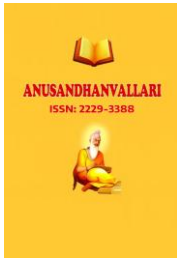
Keywords Nagpur, Colonial Administration, Central Provinces, Infrastructure, Railways, Great Indian Peninsula Railway, Bengal-Nagpur Railway, Ambazari Waterworks, Municipal Committee, Nagpur Improvement Trust, Cotton Trade, Public Health, Urban Planning, Doctrine of Lapse, Sitabuldi, Vidarbha

Introduction

There is a particular kind of pathos to the city of 1853 — the last year Nagpur belonged to its own rulers. The Bhonsle raja Raghoji III had died that year, and under the Doctrine of Lapse, Governor-General Lord Dalhousie declared his adopted heir illegitimate and absorbed Nagpur's vast territory into the British East India Company's dominions. It was, as the 1870 Central Provinces Gazetteer candidly records, a moment that set in motion one of the most profound physical transformations of any Indian city in the nineteenth century. 'Almost everything had to be done,' wrote Charles Grant, the Gazetteer's editor, in his famous prefatory survey of what the new administration had found and what it had set out to accomplish. The prisons were 'temporary makeshifts of the worst description.' The roads were earthen tracks, impassable in the monsoon. There was no piped water, no municipal government, no railway, no telegraph. By 1947, when the British finally departed, Nagpur was one of the most strategically important railway junctions in peninsular India, the capital of a major province, a significant industrial centre, and a city served by waterworks, hospitals, colleges, and a network of metalled roads that would have been unrecognisable to anyone who had known the Bhonsle capital of fifty years earlier.

The British period of Nagpur's infrastructure development falls naturally into three phases. The first, from annexation in 1854 to roughly 1880, was a phase of foundational investment: the establishment of administrative institutions, the construction of trunk roads, the arrival of the railway, and the first tentative steps toward organised municipal governance and public health. The second phase, from about 1880 to 1920, was one of consolidation and expansion: the water supply was extended and improved, the railway network multiplied, industry began to develop around the cotton mills, and the educational and medical infrastructure of the provincial capital was built out. The third phase, from 1920 to 1947, saw the rise of Indian political engagement with urban governance, the creation of the Nagpur Improvement Trust, and the first serious attempts at systematic town planning. These phases are examined below in thematic sub-sections.

Annexation, Governance, and the Municipal Committee



The annexation of Nagpur in 1854 required the colonial government to build an administrative apparatus almost from nothing. Nagpur became the capital of the newly constituted Central Provinces in 1861, a status that concentrated both investment and talent in the city. The 1870 Gazetteer records that the new administration was confronted with thirty-nine tasks, 'among which — putting aside departments already in full working, which only needed stimulation — may be counted the land-revenue settlement and record of agricultural rights; the introduction of State education; the construction of trunk roads; the organisation of a regular constabulary; the creation of an honorary magistracy; the introduction of jail discipline, and the erection of suitable jail buildings; the preservation of forests; the improved preparation of cotton for the English market; the extension of irrigation; the establishment of mercantile fairs.' It is an extraordinary list, and it tells us everything about what the colonial administration thought infrastructure meant: settlement and revenue before sanitation; roads before waterworks; prisons before hospitals.

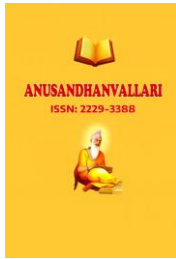
The Nagpur Municipal Committee, constituted in 1864, was the institutional vehicle through which the physical city would be managed and improved. The 1908 Gazetteer traces the evolution of this institution with care: 'The municipality of Nagpur was first established in 1864 as a branch of the District administration. When the first Municipal Act was passed in 1873 the committee was reconstituted with a majority of members elected by the townspeople, and in 1883 the constitution was still further enfranchised.' The municipal income in 1865 was Rs. 1,26,100, derived primarily from octroi — a tax on goods entering the city — and this rose to Rs. 1,59,100 by 1882 and to approximately four lakhs by 1908. This revenue funded roads, conservancy, street lighting, water supply, and public markets.

By 1884, the municipal administration had recognised that the scale of Nagpur had outgrown a single committee, and a special sub-committee was formed for the administration of the civil station. This arrangement continued through the late colonial period, the sub-committee eventually gaining 'practically independent powers,' as the 1908 Gazetteer notes. This administrative bifurcation reflected and reinforced the spatial division of the city between the planned European civil lines to the west and north, and the densely populated Indian city to the east and south.

Roads and Public Works: Building the Colonial City

The systematic construction of metalled roads was among the first and most visible acts of British infrastructure investment in Nagpur. The 1870 Gazetteer records that the construction of trunk roads was among the thirty-nine primary tasks the new administration identified, and Charles Grant, the Gazetteer's author, devotes considerable space to describing the road-building programme and its economic consequences. The 1908 Gazetteer identifies the road-making policy initiated by Sir R. Temple in 1862 as a turning point, noting that this, combined with the opening of the railway in 1867 and the further rail extensions of the 1880s, had 'all contributed to the enormous increase in trade which has been a feature of the last forty years.'

The main arterial roads of the district radiated outward from Nagpur in several directions. The Great Northern Road ran northward toward Jabalpur and eventually connected with the main all-India highway network; the Great Eastern Road ran toward Bhandara; the Chanda Road ran southward; the North-Western Road bifurcated at Saoner to lead either to Itarsi or to Chhindwada. The 1908 Gazetteer describes these roads in considerable detail, noting that the North-Western Road as far as Saoner was 'metalled and provided with culverts and causeways' and that beyond Saoner the Itarsi road was 'now being metalled and provided with causeways.' The progressive extension of metalled surfacing was a constant preoccupation of the Public Works Department throughout the colonial period, always slightly ahead of the deterioration caused by the monsoon and the heavy traffic of cotton-laden carts. Within the city itself, road construction was primarily the responsibility of the Municipal Committee. The 1908 Gazetteer describes how the committee, from the 1870s onward, 'has spent large sums on widening of old streets and the building of new ones, and has taken up considerable areas of land in the south and north which are



being let out for private house-building according to standard plans.' The main business street of the city by 1908 was the Hansapuri road, running east-west through the northern wards, and this had replaced the old Bhonsle-era lanes as the primary commercial artery. The Gazetteer notes, with a mixture of satisfaction and frustration, that 'wide new streets are being pushed further each year into the crowded areas,' but that much of the old city still retained its pre-colonial street pattern of narrow lanes and beaten clay.

The civil lines — the European quarter to the west and north of Sitabuldi hill — were planned and built to a very different standard. The 1908 Gazetteer describes them as laid out 'on the usual Indian lines with wide roads and compounds, cricket and football fields, polo-grounds, a race-course and a golf-course.' The roads of the civil lines were broad, straight, and increasingly planted with shade trees — a deliberate design intended to make the tropical climate more bearable for European residents and to create the aesthetic of an ordered, rational, governable space. This spatial bifurcation between the planned European city and the organic Indian city was the fundamental geography of colonial Nagpur.

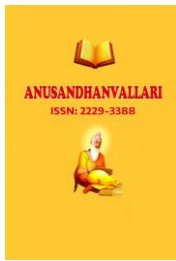
The Railway Establishment.

No single piece of infrastructure changed colonial Nagpur more profoundly or more rapidly than the railway. When the Great Indian Peninsula Railway completed its line to Nagpur in 1867, linking the city with Bombay via Bhusawal, the effect on the cotton trade was immediate and dramatic. The 1870 Gazetteer, written only three years after the event, is eloquent on the scale of the transformation: 'Since the extension of the Great Indian Peninsula Railway to Nagpur in 1867 the cotton trade has almost deserted its old routes — northward to Mirzapur, and eastward to Cuttack via the Mahanadi — and has turned almost entirely in the direction of the western coast, where the cotton is delivered in the shape best fitted for marine transport.' Almost overnight, the centuries-old bullock-cart trade routes of the Bhonsle era were rendered obsolete.

The 1908 Gazetteer, compiled by Captain Oldham of the Royal Engineers, gives the most precise technical account of the railway infrastructure as it existed by the early twentieth century. The Great Indian Peninsula line, completed in 1867, connected Nagpur with Bombay through Bhusawal, with a length in the Nagpur district of 27 miles and stations at Borkheri, Bori, Khapri, and Nagpur. The Bengal-Nagpur Railway, 'originally constructed on the metre-gauge in the year 1881 as the Chhattisgarh State Railway' and converted to broad gauge in 1888 under the Bengal-Nagpur Company, connected Nagpur with Calcutta, with a district length of 34 miles and stations at Nagpur, Mehdiabag, Kamptee, Salwa, Tharsa, and Khat. The 1908 Gazetteer notes that the two lines at that point shared a joint station at Nagpur that was 'neither commodious nor conveniently located' and that 'a scheme is under consideration for the construction of a large and spacious Station more in accordance with the requirements of a populous city and an important railway centre.'

The light railway programme added a third dimension to the Nagpur rail network. A 2'6" gauge line from Nagpur to Bhiwapur — 50 miles long, with stations at Itwari, Pardi, Dighori, Titur, Kuhi, Bamhni, Umrer, Nawegaon, and Bhiwapur — had just been completed in December 1907. A broad-gauge line to Ramtek was under construction, with a branch toward the manganese mines at Mansar. The 1908 Gazetteer records that 'A light railway 2'-6" gauge is under construction from Nagpur to Chanda by the Bengal-Nagpur Railway' and that a broad-gauge Nagpur-Itarsi line was proposed — 'This line will be of very great importance to Nagpur, and among other advantages will open up the rich cotton tracts round Katol.' These extensions reflected the railway's primary purpose: not urban mass transit but the extraction of agricultural and mineral resources.

The economic consequences of the railway were, as the 1908 Gazetteer documents in detail, transformative in scale. The Gazetteer records the growth in exports from Nagpur station over the railway period: in 1870, grain and oilseeds exports were 299,000 maunds and raw cotton just 3,000 maunds; by the 1902-06 average, grain and oilseeds had grown to 837,000 maunds and raw cotton to an extraordinary 606,000 maunds. The cotton export figure represents a two-hundredfold increase in forty years — a direct product of the railway connection. The



Gazetteer also records that 'Exports from Nagpur were 1.5 million maunds in 1902 and 2.5 millions in 1905,' with Kamptee sending away 'about 2 million maunds in 1905, but the bulk of this was probably manganese.'

The railway also had profound effects on the city's physical form. The GIPR station, railway workshops, and colony created a new urban nucleus to the west of the old city and to the south of the civil lines. The Itwari station, served by the light railway, created another commercial node in the northern wards of the Indian city. And the 1908 Gazetteer records the immediate prospect of a tramway: 'a contract has been given for the construction of electric tramways along the main streets' — evidence that by the early twentieth century, Nagpur was contemplating urban mass transit as well as the long-distance railway connections that the colonial economy required.

The Satpuda Railway sections — the Nagpur-Chhindwada and Nagpur-Nagbhir lines, constructed between 1904 and 1911 — completed the colonial railway infrastructure of the region. As the 1966 Gazetteer explains, 'The Satpuda Railway line was calculated to explore and open out the agricultural and mineral resources of the areas which were practically cut off from the main routes of communications.' The line connected Nagpur with the coal fields of Chhindwada and the manganese deposits around Ramtek and Mansar, making possible the development of the industrial base that would support the textile mills in the city.

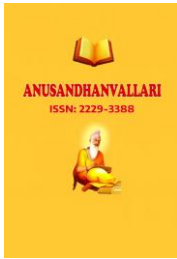
Water Supply, Drainage, and Public Health

If the railway was the infrastructure that made Nagpur economically significant in the colonial period, the waterworks were the infrastructure that made it liveable — at least for the European population and for the wealthier quarters of the Indian city. The story of water supply in colonial Nagpur is a story of chronic inadequacy gradually, incrementally, and always incompletely addressed, a story that the 1908 Gazetteer tells with unusual candour.

The Bhonsle-era Ambazari bund and lake were the primary water sources for the city until the 1870s. These were not, by the standards of the pre-colonial period, inadequate: the lake was large, the bund well-engineered, and the system had supported a substantial urban population for well over a century. But the colonial city was growing rapidly, its European population had particular water quality requirements that the open lake system could not reliably meet, and the recurrent outbreaks of cholera and typhoid made the provision of clean piped water an urgent public health priority. 'From the first the city's chief concern has been its water-supply,' the 1908 Gazetteer states, and this is borne out by every annual municipal report of the period.

The first systematic waterworks were inaugurated in 1873, when 'the water of the lake was brought to the city in pipes, at a cost of four lakhs,' as the 1908 Gazetteer records. This first system ran by gravitation only — the water flowed from the lake to distribution points in the city without pumping — and it served the higher-elevation European quarters poorly. By 1890, it had become 'necessary to spend three lakhs more on an extension and on the pumping of water to the higher levels.' A further investment of one lakh fenced the catchment area and laid a new main pipe. The famine of 1899-1900 provided an opportunity to deepen the tank and raise the dam, at government expense, and in 1904-05 a new pumping engine was installed and a second main pipe laid.

Drainage was the parallel problem and, if anything, was even more intractable. The 1908 Gazetteer describes the drainage situation with a mixture of candour and gloom: the city has 'very fair natural drainage into the river,' but 'only small local improvements are annually being made and a second comprehensive drainage scheme is now being formulated.' The first comprehensive drainage scheme had apparently produced limited results, and the second remained in the planning stage. The construction of a proper underground sewerage system for the Indian city was one of those perpetually deferred projects that colonial municipal budgets never quite managed to fund. Up to 1885, conservancy arrangements were in the hands of the Police Department; in that year they were taken over by the Municipality. By 1908, 7,835 house latrines and 60 public latrines were in use — an improvement on the situation of twenty years earlier, but still deeply inadequate for a city of Nagpur's size and density.



Public health institutions developed alongside and in parallel with the waterworks. The 1908 Gazetteer records that by 1908 there were '20 hospitals and dispensaries in the Nagpur District, twelve of these at headquarters.' These included the Mayo Hospital with 84 beds — 'a well-equipped institution with private wards and accommodation for Europeans, recently improved at a cost of Rs. 22,000, spent chiefly on its excellent operating room' — the Dufferin Hospital for women with 35 beds, and the Mure Memorial Hospital run by the United Free Church of Scotland Mission with 30 beds. Twelve public dispensaries in the district served outlying populations. In 1906, 1,297 indoor and 259,212 outdoor patients were treated at the twelve public dispensaries, with an average daily attendance of 66 in-patients and 1,588 out-patients. The Nagpur lunatic asylum housed 150 inmates and was being enlarged.

Vaccination was compulsory in the Nagpur and Umrer municipalities and was conducted throughout the district by a Superintendent and 17 vaccinators. The number of successful primary vaccinations grew from 22,561 in 1890-91 to 27,149 in 1905-06, though the rate per thousand of population — moving from 32 to 42 per mille over fifteen years — showed how much ground remained to be covered. The recurring plague epidemics of the early twentieth century, which the 1908 Gazetteer describes as having 'not stopped the advance' of the cotton industry, were also powerful, if terrible, stimuli to public health investment, driving the municipality to 'engage energetically in plague preventive measures' from 1906 onward.

Industrial and Commercial Infrastructure

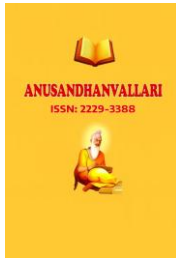
The development of Nagpur's industrial base was inseparable from its infrastructure of railways, waterworks, and commercial institutions. The Empress Mills, which the 1908 Gazetteer describes as having been 'opened in 1877,' were the flagship of Nagpur's industrial transformation. By 1904, the Empress Mills were using 1,400 looms and 75,000 spindles, employing 4,300 operatives, with a capital of 47 lakhs and an outturn of yarn and cloth valued at 61 lakhs. The Swadeshi Mills, founded in 1892 with 15 lakhs capital, used 180 looms and 16,500 spindles, employed 900 operatives, and produced goods worth 14 lakhs in 1904. Together, these two mills made Nagpur one of the most significant textile manufacturing centres in central India, a status it could never have achieved without the railway connection to the cotton-growing districts of Vidarbha on one side and the Bombay export market on the other.

The cotton market itself required substantial commercial infrastructure. In 1901, 'a large cotton-market was established near the railway station on land claimed from the waters of the Juma Talao,' as the 1908 Gazetteer records. This reclamation of lakeland for commercial use was characteristic of the pragmatic, commercially driven approach to urban land use in colonial Nagpur: wherever economic necessity demanded space, space was found. The Gazetteer also notes the development of a network of ginning and pressing factories in the smaller towns of the district — Wardha, Hinganghat, Katol — that fed cotton to the Nagpur market and to the railway.

The manganese mining industry, which became an important element of Nagpur's economic base in the late colonial period, also generated infrastructure investment. The Mansar manganese deposits, described in the 1908 Gazetteer as containing 'over 30 known manganese-ore deposits, of which about 20 have yielded ore fit for export purposes,' had been discovered and developed through the late nineteenth and early twentieth centuries. The construction of the Nagpur-Ramtek railway branch was driven primarily by the need to give these mines railway access, and the Gazetteer records that 'the bulk' of Kamptee's railway exports in 1905 were probably manganese. The mineral wealth of the Nagpur hinterland was, like its cotton, channelled through the city's railway infrastructure to the coast and beyond.

CONCLUSION

When the last British Governor vacated Government House on Sitabuldi hill in 1947, he left behind a city that was, in almost every physical sense, unrecognisable from the one that Lord Dalhousie's annexation order had transferred to British rule ninety-three years earlier. Nagpur in 1947 was one of the most important railway



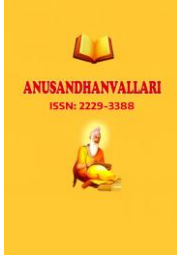
junctions in peninsular India, with lines radiating outward to Bombay, Calcutta, Delhi, Madras, and a dozen smaller destinations. It had a piped water supply — imperfect, still inadequate, still unequally distributed, but a piped supply nonetheless. It had metalled roads in its main arteries, a municipal committee that had been managing urban services for more than eighty years, a university, several colleges, a network of hospitals and dispensaries, two major textile mills, an industrial quarter, and the institutional skeleton of a self-governing city.

None of this had come without cost. The 'wretched means of communication' that the 1908 Gazetteer identified as one of the three principal obstacles to commercial development under the Bhonsle rulers had been replaced — but the railway that replaced them served the export of cotton to Lancashire far more directly than it served the local population's need for cheap, accessible transport. The waterworks that replaced the ancient tanks and stepwells were built first for the European quarters and extended to the Indian city only under persistent pressure and with chronic underfunding. The municipal institutions that managed the city were constituted on property-owning franchises that excluded the majority of the population until well into the twentieth century. The Nagpur Improvement Trust, which might have delivered a more equitable urban future, arrived too late and with too limited a mandate to substantially reshape the spatial inequalities it inherited.

Yet the infrastructure of colonial Nagpur was not only or simply an instrument of exploitation. The railways that served the colonial cotton economy also connected isolated villages to wider markets. The waterworks that served the European civil lines also reduced, in time, the mortality from cholera and typhoid in the Indian city. The educational institutions that produced clerks for colonial administration also produced the lawyers, journalists, and political organisers of the independence movement. Infrastructure, as this history demonstrates, is never politically innocent — but its consequences are never simply determined by the intentions of those who build it. The Congress session of December 1920, at which Gandhi's Non-Cooperation resolution was adopted, took place in a city built by the empire that the resolution challenged. The politicians who took over the Nagpur Municipal Corporation in the 1930s were deploying the institutions of colonial urban governance for their own very different political purposes. The infrastructure of colonial Nagpur was, in the end, the infrastructure of modern Nagpur — available to be claimed, redirected, and built upon by whoever inherited it.

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