CHAPTER 4
SANITARY MIRAGE
Greater Bombay and Hydro-politics

The idea of suburban Bombay had been entertained as early as 1860s and had received an impetus with the formation of the BB and CI railways. Versova was a coveted suburb at this time. Suburban expansion, however received a real stimulus with the plague of 1896, the favoured areas of settlement being Thana, Kurla, and Bandra. At this time, an attempt was made by JN Tata to create a regular colony of middle class people in Bandora. Kurla had a floating population of 7000 people, nearly half of whom were employed by mills to which Kurla owed its importance and existence. But the endemicty of cholera in Kurla made the latter a source of danger to Bombay. A Municipality had been established here therefore. Salsette's promised growth was indicated by the fact that the total number of new dwelling houses erected

---

1 Bombay Builder, op. cit, Vol. I, March 1866, p 184
from the years 1908-09 to 1912-13, within the Municipal districts of Thana, Bandra and Kurla, and the twelve Notified Areas surrounding the other railway stations. stood at 430.3

THE TOWN PLANNING MOVEMENT AND SUBURBAN EXPANSION UP TO 1920

The development plan of Salsette was steered by the ideas that were generated in the enquiry made by the Government in 1907 which championed the idea of ‘compartmentalization’ of population so as to prevent the intrusion of one class into areas suitable for others.4 There were other reasons as well. The haphazard development of railways in Bombay, at this time, had cut up all major roads leading out of the city creating an impediment in communication. This had resulted in a serious pressure on land ultimately, causing congestion and a spiralling of rents. Therefore, the expansion of the Island city of Bombay was looked upon as a solution to this problem. To the Health Officers, of Bombay city, like Turner, Salsette development meant facilitating migration of workers, from the overcrowded and insanitary areas in the expensive parts of the city, to other sites more remote, where cheap dwellings could be erected.5 But it was the Town Planning Bill introduced in the Legislative Council, in March 1909,6 that crystallized the idea.

At this juncture, Town Planning was being viewed, all over India, as a panacea for insanitation in cities. The idea received support from the First All India Sanitary Conference held in 1911. For Bombay, it was suggested that such schemes be executed by the municipal body along with landlords, subject of course, to the

3 RBDC. op. cit. pp xxii
5 Turner. Sanitation op. cit. p 880
6 RBDC. op. cit. p iii
guiding authority of the local Government. Mr. Turner and Mr. J P Orr emerged as the pioneers in the new science of town-planning. Even the Government of India, recognizing the importance of town expansion, in their letter of 26th July 1912, suggested the outright purchase of agricultural land, situated on the outskirts of the city, by the local bodies for the purpose.

In Bombay the Town Planning work proceeded on a combination of the English principle of "betterment" and the German principle of redistribution. The latter was to help in the shaping of plots in order to make them more suitable for building. Betterment, on the other hand, forced contribution from the owner towards the cost of the scheme in proportion to the extent to which their land was improved by the completed scheme.

Encouraged by the Report of Mr. P. J. Mead, on "The Possibilities of Development of Salsette as a Residential Area" this area began receiving greater attention from the Government. Investigations carried out by Major J. L. Marjoribanks in 1912, with a view to comprehending the malarial possibilities of this island, showed the suitability of the section from Ghatkopar to Andheri for development. Trombay and the northern portion of the island were condemned, as generally malarious, while the village lands of Malavni and the islets of the west coast were recommended as "the most ideal of all sites for a garden city." Additionally, Salsette also promised to be a reserve for mills, which could no longer be started in Bombay city. In this way the city could also be relieved of its labour population. Above all, it assured the

7 Proceedings Of The First All-India Sanitary Conference Held at Bombay On 13th And 14th November 1911, Calcutta, Superintendent Government Printing, India. 1912. p 77. Hereafter, AISC
8 ISP op. cit. p 1115
10 RBDC. op. cit. pp xxii-xxiii

At this stage, Salsette was under a Special Officer who was to command the development of the area. A special PWD Office was also suggested for the commencement of water supply and drainage surveys and to negotiate with the Bombay Municipality for the same.\footnote{Ibid. p18.} With the passage of the Bombay Town Planning Act in 1915, Salsette Island also became a part of urban Bombay. At this time Town Planning came to be euphemistically associated with “The DEVELOPMENT of an INDIAN CITY worthy of civic pride; NOT an imitation of European cities. CONTROL over the FUTURE GROWTH of your town with adequate provision for future requirements; NOT HAPHAZARD laying out of buildings and roads with resultant COSTLY improvement schemes.”\footnote{PWD Gen. 1918-21. Vol. 630. A.E. Mirams. Town Planning in Bombay under the Town Planning Act. 1915, Appendix B. pp 262- 268}

In spite of the high sounding ideology that was enunciated by the Government, Salsette came to typify the colonial development strategy where growth was expected without any monetary support. Contradictory policies of the British Government created hurdles in the developmental path of this region also. While the Government encouraged migration to this region, during the plague, on the one hand, on the other, it mulcted the people by imposing a fine on the buildings constructed, to the extent of Rs. 5000 per acre. Later, these fines were transmuted into a land tax. This pocket filling policy of the Government, therefore, effectually stopped the rush of people to Salsette,\footnote{RBDC. op. cit. p 114} and deterred capitalists, who had hitherto been interested in investing in this area, from escalating their area of operations.\footnote{Ibid. Minutes by JE Saklatwala. 16\textsuperscript{th} November 1913, p151} Similarly, the enhancement of railway fare seriously disabled the Salsette development scenario at this stage.
Prospects of the growth of the island were further hampered by the dismal state of its local self governing bodies. District officers were largely indifferent and unsympathetic towards the local bodies and their difficulties. In other cases, they constantly interfered with the municipal administration. Between 1912-16, the Government made free grants of Rs. 73,098 for Bandra and Santa Cruz. Eight different improvement schemes were dealt with. But all of these schemes only concentrated on the improvement of communication via construction of roads. Town Improvement thus became synonymous with construction of new roads.

Municipal taxation also posed a challenge to the other two key elements of the development here, viz. water supply and drainage, the expenses of which had to be borne by the local municipalities. Water supply was usually given preference over drainage because of the popular demand for the former and the fact that they took comparatively lesser time to construct.

**SUBURBAN WATER SUPPLY: A TANGLED MESH**

Piped water supply to Salsette was caught in difficulties right from its inception. By the last decade of the nineteenth century, water was being supplied to Kurla, Bandra, Santa Cruz, Andheri and Thana by the Bombay Municipality. Deeply resentful of the water supply to these areas, as it felt that the wants of the city were being...
sacrificed for the former, the Bombay Municipality charged high water rates to these local bodies. At Bandra, additionally, water distribution for charitable purposes was viewed unfavourably as a result of which, the pleas of the Bandra Municipality for reduction of water rates went unheard. Relations between suburban municipalities and the Bombay Corporation were therefore, acrimonious right from the beginning. The plague, as noted in the previous chapter, added to this strain, as the suburban municipalities had to be supplied with additional water.

In 1909, J.P. Mead appointed Special Officer Salsette, aptly noted, that Bombay had appropriated Salsette's water supply even though the development of the latter was in the interest of the island city. Therefore, he felt that it was natural to "expect that Bombay should meet us half way in the matter of water supply and communications." Water was thus expected on favourable conditions from the Bombay Municipality. Although this was an engineering question, it was suggested, that the cheapest way of providing water would be via a 24" main from Vihar which would give over 3 million gallons to Andheri and other areas as they developed. At this time, Salsette required about 85 lakh gallons a month, of which Kurla took 35 lakhs. The difficulty, however, was that of financing the schemes. Supply to the eastern side of the island, including Kurla, was however, not considered economical. But since there was a distinct possibility of Kurla being absorbed into Bombay municipal limits, it was suggested that these schemes be confined to the Western side of the Taluka only. Thana was expected to make its own arrangements. It was further recommended that schemes could be financed with local rates which were bound to be high, at the outset, but were likely to decrease as consumption increased. But at places such as Trombay, which being a hilly area, delivery of water was likely to be difficult and therefore expensive. Hence, it was understood that private enterprise would be encouraged and Government functioning would be limited to control of building activity.

---

20 Mead, op. cit. p 13
21 Ibid. pp 3-4
Amongst the local bodies in Salsette, at this time, Santa Cruz had a small supply of piped water of about 1.32 lakh gallons per month and Vakola cantonment 7.75 lakhs a month. The supply at Andheri stood at 1.25 lakhs per month. There was also free water supply from a charitable trust started by Mr. Nasserwanji Wadia, for 3 months of the year. Though Malad presented an eligible site for development it had no water supply. Borivali had a large number of wells. At Kurla, pipe water was available, but being insufficient. Kurla resorted to the objectionable method of tapping mains outside the island. Hence, an independent scheme at Asalpha was under consideration, which if carried through, promised to supply cheap and plentiful water. However, finances came in the way of the scheme. The question of Kurla was water supply also complicated by the indecision regarding its inclusion within the city limits.  

In spite of Mead's suggestions and Government's desire to develop Salsette, stringent conditions and high rates continued to characterize the provision of water to these regions throughout. Agreements made until 1918, with the Bandra Municipality, clearly bring out the callousness of the terms of supply to the local municipalities. In case of Bandra, it was dictated that the latter was to be served from the Bombay municipal mains, but the arrangement was to extend only to water meant for consumption, within the municipal limits of Bandra, and for persons residing at Santa Cruz. The Municipality of Bandra was to take charge of the whole supply system, within the limits of Bandra and at Santa Cruz, except that to the slaughter houses, belonging to the Bombay Municipality and to Government and to BB and CI Railway Company. As regards Santa Cruz, Bandra was to make its own arrangements for conducting, maintaining and collecting all charges of such supply. Delivery of water could be stopped or suspended in case of accidents on the Bombay works or due to any unavoidable or any unforeseen circumstances. In such a case, the Bandra Municipality could make no claims against the Bombay Municipality. Similarly, the latter was not under any obligation to supply to the Bandra Municipality any specified quantity of water per day or any other period of time. Bandra Municipality was granted the right to collect water rates and other payments in respect of water provided to private and other consumers. A refund would be

---

22 Ibid, pp 20-24
received by the Bandra Municipality, for water supplied to charitable institutions, from the Bombay Municipality. However, the class to which this charitable institution belonged and whether such a refund was to be granted, would be at the sole discretion of the Commissioner and was not to exceed the proportion of the total consumption. Further, if money to the Bombay Municipality was not paid in the stipulated period, within 30 days of the delivery of the bill, the water supply was to be cut off.

The severity of these measures however, did not ensure pure water to Bandra. Until June 1912, Bandra received water from the Vihar Lake. But due to low pressure the Bombay Municipality transferred the connection to the Tulsi main, which gave a better pressure. When this water first became impure, in 1913, some of the worst samples, which could be found, were sent to the Chemical Analyzer to the Government who declared them as ‘fair samples of potable water’ and blame was placed on the system of mains in Bandra, which were seemingly faulty. Finally, a reversion to Vihar was obtained for a few days, which brought about pure water temporarily. Suspecting, that the trouble was caused by insufficient flushing of the Bandra mains, the Bandra Municipality resorted to flushing, on several occasions. Despite this, technical compliance as well as payment of considerable money to the Bombay Municipality, the water quality continued to be appalling. But since there was hope of participation in an independent water scheme for Salsette, the Bandra Municipality naturally hesitated to spend the considerable sums necessary to revise its system of mains. In view of the fact that “the exact form of the scheme is not yet finally settled, in spite of continuous correspondence with the sanitary engineer during the past two or three years” Bandra continued to tolerate the impure water, which was so bad that a few boarders from St Stanislaus School even succumbed to enteric fever. The Government however refused to be held responsible and denied the charge.

---

The harsh measures and high water rates naturally encouraged people at Bandra, to retaliate, by tampering with meters or damaging them, to avoid payment especially in the months of October, May and June as these were months of high consumption of water and there were no meter repairers.26 In the rest of Salsette too, people habitually evaded taxes. In Kurla especially large consumers like the local mills and Railway took considerable time in paying water bills on account of their technical formalities involved thus accounting for large amounts of water-rate arrears.

Not only this, water management issues, at this stage, created inter suburban friction as well. Even while complaining about the high rates, Bandra, which was in charge of the Santa Cruz water supply, charged higher rates to the latter. Water had been brought to Santa Cruz, by the Water Committee, here, at its own expense, from the Bandra Municipality from its Vihar main in 1898. Since then it had been paying a rate of Rs. 1-2-0 per 1000 gallons while the Bandra Municipality itself, received its supply at the rate of 12 annas per 1000 gallons. Thus, the latter charged an extra 6 annas to the former. By 1918, the rates to Bandra were reduced by the Bombay Municipality, on the distinct understanding that the benefits of this move would accrue to the inhabitants of Bandra as well as the areas served by it. Bandra itself profited by Rs. 10,000 annually as a result of this reduction, yet no such benefit was passed on to Santa Cruz. Besides, the placing of the water meters near the mains, by the side of the public thoroughfares, exposed them to damage by pedestrians or carriages. Hence, people at Santa Cruz were put to frequent expenses on account of repair charges. However, requests of the Santa Cruz Municipality went unheard.27

GOVERNMENT MEASURES

Since water supply was crucial to the development of Salsette, therefore, ingenious means were often sought by the Government, to solve this problem, right from the


27 GD Compilation 1919, File. No. 561. Letter from Framroze R. Joshi, Secretary and Member, Water committee Santa Cruz to NB Mehta, Chief Officer, Bandra Municipality, 17th October 1918, pp M17-M22.
time that the question of Salsette development came to the forefront. But
departamental politics and financial considerations came in the way of the completion
of most of the proposed schemes.

**Water Supply: An Industrial By-Product**

As early as 1912, a suggestion was made to supply water to Salsette from the
enormous quantity of tail water, which came out of the power house of the Tata’s at
Khopoli. The Tatas, who had a supplying capacity of 100 million gallons a day,
showed willingness to offer this ‘by product’ on royalty to anyone who was willing
to take up the cost and profit of distribution. They therefore tried to convince the
Bombay Government that, instead of duplicating the Tansa mains, which was then
under consideration, the money so required, could be spent on the mains from
Khopoli. They were certain that there would be greater profit for Bombay if its area
of water operation was thus enlarged. Moreover, they argued, this connection with a
supply of 100 million gallons a day promised a greater security for water supply in
the city. Salsette at this time required an estimated 1 ½ million gallons per day; a
quantity deemed sufficient for the next 10 years.

But the Khopoli plan was shelved, as the Tansa duplication scheme seemed more
seductive at this stage, especially with the Corporation agreeing to supply up to 1 ½
million gallons per day, for the 10 years after the introduction of this water.
Government calculations, also predicted, that this amount would be ample unless
there should be a commercial development in Salsette, of which there were no signs

---

28 GD Compilations 1916-18. File No. 680. Letter from Messrs. Tata Sons And
Company. Agents. Tata Hydro Electric Power Supply Co. Ltd. to E G Turner
Special Officer Bandra. 27th January. 1912. Scheme for the supply of water to
Salsette, p 1.

29 PWD Gen. 1918-1921 Vol. 1046. Letter no. 105/12. from Messrs. Tata Sons and
Co., agents. the Tata Hydro-e lecric Power Supply Co. ltd. To E.G. Turner. Special
Officer. Salsette Building Sites. 24th February 1912. p 106

30 GD Compilations 1916-18: File No. 680. Letter from Turner to Sanitary Engineer
to Government. Scheme for the supply of water to Salsette. 29th May 1913. p 13

198
then. However, the Municipality clarified that the water would be only supplied out of the surplus and that the quantity would be diminished if the requirements of Bombay increased. Clearly therefore water supply to Salsette was not a priority of the Corporation.

In the meanwhile suggestions were made, that experiments in boring be started, to search for an artesian water supply in Salsette. In this, the Government was encouraged by the example of the Khargoda boring at Ahmadabad, which was then supplying 400 gallons a minute. It was estimated that, for a population of 2800 people, 10 gallons per head would suffice and the cost of sinking a 10 inch bore, one thousand feet, would be roughly 15,000 rupees. The areas of Andheri or Borivali were selected for this, as the boring materials and supplies could be easily obtained from the railway sidings and since no borings had been previously made in this area. So serious was the intention of the Government, that the matter was even referred to the GSI. The latter however did not advise a deep boring, except as a 'pure speculation', since the conditions at Khargoda were completely different from those at Salsette, which had mainly hard basalts, thus suggesting an impossibility of the existence of water bearing rocks. In view of the remote chances of locating water in Salsette and the improbability of any boring plant being available for the purpose, apart from the financial stringency due to the First World War, the experiment was ultimately abandoned.

Aarey, Kanheri and Powai

Towards the end of the First World War however, population growth in Salsette made the settlement of the water supply question an important one. More water

---

31 Ibid. Letter from P.R. Cadell to the Special Officer. 22nd May 1913. p 11.
32 Ibid. From FG Pratt Ag Commissioner, Northern Division to Secretary to Government, GD Bombay. 18th December. 1915. p 103.
34 Ibid. From the Director Geological Survey of in India to the Sanitary Engineer to Government of India. 25th March 1916. pp 111-112.
requirement was estimated for this region, as development here envisaged fair sized gardens to each house. Besides, since Town Planning schemes had already been encouraged, at the expense of the landowners of Salsette, with people having paid large sums of money, a lot of rush was expected at the end of the war. But the manner in which these water supply schemes, for Salsette, were planned once again draws attention to the politics of water supply and development in colonial Bombay. Water supply related questions were often thrown back and forth from the GD to RD. The Government itself was undecided as to whether water supply to the suburban regions was to be made independent of the city’s supply, or whether it could continue to depend upon the surplus water provided by the Tansa duplication. The Bombay Corporation, on the other hand, seemed reluctant to supply water to the suburban division as it was trapped in its own problem, of a deficient reserve for the city itself.

By 1918, the Government had three options before it; acquiring water from Are, buying Powai for permanent use or leasing Powai. But decision regarding any one of the three was hampered by the usual indecisiveness of the Government. The leasing of Powai would have meant purchase of additional pipes, at ruinous prices, during war time. Hence, it was stalled. Buying the lake entailed raising the dam, but if Aarey was adopted, much more money would have been required.³⁵

Differing perceptions, regarding the manner in which Salsette was to be supplied with water, also came in the way. The Salsette Development Officer, Cowan, felt that the solution lay in keeping the Aarey scheme for the western suburbs, leaving Kurla to be included in Bombay, since there were more prospects of more mills going up there. Powai could be taken on a few years lease and water from here could

³⁵ Ibid, GD Note, from Mr. Cowan to Mr. Pratt, no date, p M145
be provided to the areas between Andheri and Bandra. The Aarey scheme could follow later once the future of Kurla was settled. On account of this dithering, both Aarey and Powai schemes were pursued in a lackadaisical manner.

Conceived as early as 1913, the Aarey scheme, costing about Rs. 20 ½ lakhs, was to consist of an impounding reservoir on a large Nala within 2 miles of Goregaon railway station on the BB and CI railway line. From this reservoir, the supply was to be taken by gravitation to three service reservoirs to be created at Andheri, Bandra and Kurla, from where it would be distributed to the several localities round about through cast iron pipes, under effective heads averaging about 30 to 40 feet. The total population that would be provided for was estimated at 65,000 persons, at 20 gallons per head and the daily supply proposed to be given, including the requirement of the Kurla Mills, was about 2 million gallons. The supply could be supplemented by another tank in an adjacent valley when necessary. This scheme, in addition to supplying cheaper water, also promised to liberate Salsette from its dependence on the Bombay Municipality.

By 1917, the Sanitary Engineer, had reported in its favour, as it could amply supply the future requirements of Salsette. Eager to get the proposal to this scheme transferred to his control, he opined that the scheme could be financed, by saving the money which the Kurla and Bandra Municipality otherwise paid for obtaining water from the Bombay Municipality.

The scheme was however dumped by 1919 as it was estimated that the water to be supplied from this valley would not amount to more than 1.9 million gallons a day, which would be less than that supplied from the Powai scheme, which was 2 million gallons daily. This supply would suffice for 10 years, but thereafter a larger quantity would be required. In other words, it would be impossible to replace Powai with

---

36 Ibid. Letter to Shoubridge from Mr. Cowan, 29th January 1918, pp M 146-147
37 Ibid. Note from V.T. Agashe, Sanitary Engineer to Government of Bombay, dated 10th June 1913, p 17.
Aarey after 10 years. Moreover, water from Aarey could not be delivered to Pali and Bandra hill. It seemed likely to prove defective from an engineering point of view also. Now, the Kanheri scheme was looked upon favourably as it assured water to the tune of 2.85 million gallons and could favourably replace Powai. It was assumed at this time, that Kurla would, eventually, be a part of the city. But as usual no decision was reached at with regard to Kanheri either, as the latter scheme was also a costly one.

In the interim period, the idea of Powai Lake was also probed for supply of water to Salsette. Abandoned in 1892, its pumps sold to the Madras Government, the land and buildings, adjacent to the lake, had been given to Agave Fibre Syndicate for the cultivation of the Agave plant and its manufacture into fibre. It now appeared to the Government that after the war this water could be profitably used for industrial purposes in Salsette. The Bombay Municipality reciprocated the desire, by showing its willingness to dispose it off, at a cost of about 3 ½ Lakhs of rupees. Even though the suitability of the source, on account of its low elevation, was indeed found questionable by the Sanitary Engineer, the Government accepted the offer, initially, as it felt that the treatment of the water by mechanical filters would make it potable. But it decided to wait for the war to get over, before deciding in favour of either Aarey or Powai, on account of the large quantity of piping required.

Towards the end of the First World War, however, the private land within the catchment area, measuring 2150 acres was sold to a syndicate of Bombay merchants. This development made the water in the lake unsuitable for permanent use. But having sanctioned a large number of Town Planning schemes, which resulted in further migrations to Andheri, Vile Parla, Santa Cruz and Bandra in

---

40 RABP. op. cit. 1898-99, p 87
41 PWD General 1918-1921, vol. 1046. Letter No. 4656 of 1917. From H.O.B. Shoubridge, Sanitary Engineer To Government. Bombay, To the Joint Secretary To Government. PWD, Bombay. 8th December 1917, pp 269-270
42 Ibid. Letter No. E.W./ A.46/1 of 1918. From The Municipal Commissioner to the Secretary to Government. General Department. 1st May 1918, p 281
Salsette by 1919, the Government was constrained to find the requisite amount of water for their fruition. It requested the Corporation therefore, for sale of raw water, ranging from a minimum of 300,000 gallons per day to 2,000,000 gallons per day, to the Salsette for a period of 10 years at a moderate rate.\textsuperscript{13}

With many in the Corporation opposed to the idea of sharing water with the neighbouring island, on the one hand and complaints from people in Salsette about the step motherly treatment meted out to them by the Bombay Municipality, on the other, the idea of Powai received a further boost. Well aware of the fact, that the water temporarily allotted to them out of the Tulsi and Tansa, would soon be required by Bombay itself, they clamoured for an increased supply from Powai by an increase in the height of the dam. Popular opinion was also critical of the Government for investing money in costly reclamation schemes rather than finance the water supply to Salsette.\textsuperscript{14} Even so the Powai scheme kept being tossed from the Revenue Department, which was vitally concerned from the point of view of industrial development, to the General Department, without any resolution.\textsuperscript{15}

The greatest push for Powai however, came when shortage of water supply began to jeopardize the development of an industrial corridor from Kurla to Thana, in the Eastern Salsette region. Powai was now considered a suitable source of water for the development for this area.\textsuperscript{16} Tardy decision making on the part of the Government, irked the industrialists, who also strongly disapproved the closure of wells in Salsette. Pipe water supply to Salsette, according to them, had led to the

\textsuperscript{13} PWD Gen. 1918-21, Vol. 920. Government Letter to the Municipal Commissioner for the City of Bombay, no. 148, 8\textsuperscript{th} January 1919, p 263


\textsuperscript{15} GD Compilations 1916-18 File No. 680. Letter from The Office of the Director of Industries, Secretariat Poona, by P.J. Mead. to G.A. Thomas Secretary to Government. 11\textsuperscript{th} October 1918, p SM 185

\textsuperscript{16} PWD Gen. 1918-21. Vol. 1047. Letter. no. 162. to Pvt. Secretary to Sir George Ambrose Lloyd, from agents Dharamsi Morarji and Co., 17\textsuperscript{th} September 1920, pp 207-08
abandoning of wells. Eager to acquire adequate water supply for their factories, they tried to cajole the Government into believing, that water supplied to the ordinary population was ‘consumed’ and not ‘usefully applied.’ They maintained, that since domestic water supplies were paid for indirectly, the cost of water was not appreciated by domestic consumers. On the other hand, water for trade purposes could be paid for directly and so would not be wasted.\(^7\)

This finally led to the sanctioning of the scheme. It was decided that a service reservoir would be constructed by the newly formed DD, near the filters, and they were to lay their own mains therefrom. The Municipality was to construct the filters and increase the capacity of the Lake from 2 to 3 million gallons per day by raising the dam another 5 feet.\(^8\) But the delay in decision making increased the price of the construction of the reservoir by Rs. 77,584, over the original estimate. The total cost of the works in June 1921 stood at Rs. 2,88,730.\(^9\) Even though the work was completed by 1921, the lake water could not be brought into use, because of the decision taken by the Development Department; an issue which has been discussed later. The Corporation too, now altered its stand, and reserved the lake for being incorporated with the Bombay City Supply.\(^10\) Therefore, neither the Lake nor the works appertaining thereto were taken over by the Government. The additional works were also not utilized and the filtration plant remained unused forever.

Even the filtration works proved to be a failure. Powai yet again gave a proof of the slipshod manner in which contracts were completed and the risks of excessive reliance on technology. In this case the Standing Committee had authorized the Commissioner to enter into a contract with Messrs. Jessop and Company Limited, sole agents in India for Paterson Filters, for the supply, delivery and erection of a water purification plant required in connection with the scheme for the utilization of

\(^7\) Ibid. Letter from Dharamsi Morarji and Co. to the Chief Secretary to the Government of Bombay. 16\(^{th}\) August 1920, pp 225-226

\(^8\) Modak Municipal Engineering. op. cit. p 23


\(^10\) MCR. op. cit. 1921-22. pp xii-xiii
the Powai lake waters at a cost of Rs. 1,36,689 in 1919. On its completion, when tested for its efficacy, the plant proved to be unsatisfactory as it had been made without the approval or consultation of the original Company. The Municipality's refusal to take it over, once again involved a great financial loss.\footnote{Procs SC, op. cit. April to June 1926. Report of the Sub-Committee of the Standing Committee regarding the question of entrusting the work of completing the filtration plant at Tulsi and Powai Lakes to Messrs. The Paterson Engineering Company Limited, on certain conditions. Bombay, 31st May 1926, pp 354-357.}

At any rate, the cost of Powai had to be borne by the suburbs subsequently.

THE DELIVERY BOY: 1920

The formation of the Development Department and the Bombay Suburban Division at the end of the First World War inaugurated a new era in the water politics of the suburban region. The former was carved out mainly for development purpose and was promised water supply and roads. The DD was to carry out large schemes for the systematic development of the suburbs in Salsette, via Town Planning schemes to be executed by local authorities, and purchase areas outright with a view to resale after development with the least possible cost.

The Salsette scheme was concerned with the development of Trombay peninsula, partly for housing and partly for industrial purposes, with a small industrial scheme in Kurla-Kirol, a very large residential scheme for the area lying between the GIP and the BB and CI railways south of Andheri, and several small residential schemes on the west.

From 1921 onwards the DD sanctioned building plans including new houses in suburban Bombay. By 1922, 5 TP schemes were completed these being. Bandra no I, Andheri No. I, Santacruz No. I, Andheri No.II and Borivali No. I. These covered an area of 181.9 acres. But the BDD too showed greater interest in constructing roads which would provide access to plots, leaving the land to the owner. Therefore.
roads of ample width were constructed. The impressive development plan of Salsette at this stage envisaged 24 schemes of which 6 did not materialize eventually. Khar, covering an area of 132.39 acres, and divided into 350 holdings was developed as a model scheme. With the opening of the Khar station in 1924 between Bandra and Santa Cruz plots here began to sell fast.

Anxious to speed up development in Salsette, therefore, early in 1920, the Government entered into an agreement with the Khopoli Land Company limited, for the grant to the latter of the right to the tail water from the power house of the Tata Hydroelectric Power Supply Company at Khopoli with a view to the utilization of the water for industrial and other purposes. The matter was subsequently reconsidered and by arrangement with the Khopoli Land Company, their rights and assets were surrendered to Government, in return for a payment of Rs. 2,72,564-10-4 as compensation. However, this amount, despite being debited in 1922, to the Bombay Development Scheme and the right to use the tail water being given to the DD, no scheme involving the use of this water was contemplated. Instead the scheme was considered a valuable reserve for future purposes, and put into cold storage.

To resolve the water supply related problem, there was even a suggestion that the Development Department should establish a joint Water Board for Bombay and Salsette. The Corporation, at this time was planning to include Kurla and Ghatkopar in the city and even considered the inclusion of Trombay, Bandra and Santa Cruz.

52 Dirk H G Van Den Heuvel. A Comparative History Of The Development And Urbanization Of The Port Cities Of Bombay And Rotterdam During The Period 1920-60, p 268
53 David, op. cit. City of dreams, p 255. The Bombay Town Planning schemes were financed by the owners themselves. Ibid, p 256
55 PWD Gen. 1918-21, Vol. 638. Bombay Development. Note by Mr. PW Monie, Additional Secretary To Government of India, 9th January 1920, p 8
But, the DD which by now had emerged as the sole authority of water supply management and distribution from the Vihar and Tulsi mains, to Salsette and Trombay, from 27-10-1921, saw the matter differently. It was vested with this authority for a period of 10 years, i.e. till 27-10-1931. In reality, the actual management water supply did not take place till much later.56

To resolve the question of water, the DD reopened the matter with the Corporation, in order to obtain the supply from the Tansa mains, generally, rather than get water from an independent supply limited to one source. This decision was based on the reasoning that since Salsette was to be developed as an urban area, with a view to its ultimate inclusion in Bombay city, it would be preferable to have one water system only. Moreover, it felt that if the independent scheme were carried through, all the water would be used for the Western fringe of Salsette from Bandra to Versova and nothing would be available for central or eastern Salsette or Trombay, reserved for industrial development, except the small quantities that the Corporation would be able to spare from time to time. The Corporation agreed to give the DD, on behalf of the Government, a total supply of 2,700,00 gallons per day for 10 years from the Tulsi and Vihar mains, inclusive of the quantities then supplied to Bandra and Kurla and elsewhere. The underlying principle behind this arrangement was that with the increase of Tansa supply, water from the latter and its future extensions would be given to Bombay alone while the Salsette lakes would be used to supply water to the areas around them.57 Thus, the Powai scheme was rejected.

Management of water supply also began much later as in the early 1920s, sale of lands, in Salsette, suffered a slowdown due to the difficulty in enticing the typical residents of Bombay, to shift to newer areas. Inadequacy of suburban railway and water supply were the other hurdles.58 Even the terms and conditions of the supply, as imposed by the BMC for the provision of water to Salsette, were not acceptable to the DD. Consequently, even by 1923, the actual management and distribution of

57 RDD. op. cit. 1922. p 13
58 RDD. op. cit. 1924. p 11
water supply had not yet been taken over by the DD.\textsuperscript{59} In fact even at this stage, the DD did not seriously contemplate taking over the "entire" management and distribution of water supply in Salsette. It expressly stated its intention of being a mere watchdog to keep an eye on the quantities consumed by the existing Municipalities, with a view to arranging for the available supply to be made to go as far as possible. Its ultimate aim however, was to transfer all water supply and drainage schemes to local authorities as soon as possible. Only certain vague proposals were being considered, regarding Kurla water supply.\textsuperscript{60}

The reason was not far to seek. The insistence of the BMC at this juncture, that the DD charge the suburban customers the same rate as the former did in Bombay, thereby prohibiting the latter from making profits on the water so distributed,\textsuperscript{61} were resisted by the DD. The latter insisted that the cost of distribution in Salsette would be higher, especially in places such as Trombay since money would be required for pipes, maintenance and supervision.\textsuperscript{62} Finally, the Corporation had to accept the terms.\textsuperscript{63}

Pending the takeover by the DD, suburban water supply therefore continued to be in the hands of the Bombay Municipality. By this time, although the latter had reduced the water supply rates for the DD, in case of Salsette supply, it rebuffed pleas of the suburban municipalities for the same and pressed the DD to take over the entire supply of Salsette as soon as possible.\textsuperscript{64}

Anticipating reduced rates, the suburban municipalities seemed to be eager, at this stage, for the takeover of the water supply by the DD. The DD however waived off any possibility, of cheaper water by stating that the low rates, at which it acquired

\textsuperscript{59} PWD DD 1924. File no. 37. Letter from WA Niven Hydraulic Engineer to Ex. Engineer. Suburban Sanitary District. Bandra, 16/03/1923, p 57

\textsuperscript{60} PWD DD 1923. File No. 37. UOR. No. 37/SB. 26\textsuperscript{th} April 1923, pp 35-37

\textsuperscript{61} PWD DD 1924. File no. 37. Letter from WA Niven, Hydraulic Engineer to Director Development Department. 17/7/1923, p 77

\textsuperscript{62} Ibid. GOR. No. SB 1639, 14\textsuperscript{th} November. 1923, p 91

\textsuperscript{63} Ibid. Accompaniment to GOR SB 1639, 14\textsuperscript{th} November 1923, p 92

\textsuperscript{64} PWD DD 1923. File No. 37. DD note. 23/4/1923, pp 33-34
water from the Bombay Corporation, were on account of bulk supply of 2.7 million gallons. But since the cost of distribution was liable to be high in Salsette, the charges to suburban municipalities were not likely to be reduced even if it took over the latter’s supply.\(^65\)

**IN DEEP WATERS**

The eventual takeover however, proved to be an eyewash. Water supply continued to be in deep trouble because, the supply of water was with the BMC and the DD was only the ‘delivery boy’.\(^66\) Relentless problem of poor quality water and a complete lack of coordination between the BMC, DD and the Suburban Sanitary District Officer additionally complicated the water supply scenario in Salsette. Municipalities were left to themselves to overhaul their own distribution systems. Although the coordinating agency, for the development of Salsette, the DD was not directly responsible for anything. Thus, the formation of the DD to hasten this development also proved disappointing as the Government expected it to merely ‘advise and assist’ the existing municipalities in the process of development.\(^67\)

**Bridling Water Supply**

The actual duty, of the provision of water, devolved on the local Municipalities which were financially weak. Money for the planning of water supply and drainage schemes was extracted from these bodies irrespective of the acceptance of such projects. Most of them still had agreements with the Bombay Municipal Corporation on water supply. While each of these areas had been allotted a certain quota of water, all of them had not developed the demand. Worse still, this allotment was

\(^65\) Ibid. Letter to the President, Bandra Municipality, from the Director of Development Department, 5\(^{th}\) June 1923, p 43

\(^66\) PWD DD 1928-29, File no S19/5 Pt II. Letter to the president of the Bandra Municipality from HD Smith Deputy Secretary To The Government of Bombay, 16\(^{th}\) August 1927, p 15

\(^67\) PWD Gen. 1918-21, Vol. 638. Bombay Development. Note by Mr. PW Monie. Additional Secretary To Government of India, 9\(^{th}\) January 1920, p 7
only on paper with the actual supply being controlled by the Bombay Municipality. Hence, there was no means of calculating whether the supply, being delivered, was actually in accordance with what had been allotted.68

By 1922, only a certain quota of water had been allotted to each area of Salsette, but this was all on paper. Of this only 60 percent was being used.69 Unequal access to water typified the supply system here. The consumption, per head, of ordinary population was, in Kurla for example, 11.4 gallons per head as contrasted to 6 gallons per head in Bandra, 5 gallons per head in Andheri and 10 gallons per head in Santa Cruz.70 In addition to this, all Municipalities were in a position to renew their agreements with the Bombay Municipality. The DD was therefore, sharp enough to realize that the solution of the civic problems of the suburban areas would not, for several years, devolve on the Bombay municipality, and also the fact that it was impossible to exercise a sufficient control over the Salsette supply “unless we deal with the local bodies directly and not through the Bombay Municipality.”71 Once again, therefore, rigorous terms of supply came to be devised; this time by the DD, to maintain adequate control over the local municipalities. The cases of Kurla and Bandra give an excellent example of how the DD tried to establish its control over suburban water supply management.

At Kurla, an internally faulty distribution, provided by the Bombay Corporation, resulted in some portions of the town getting more than their due share while the others not a drop of water. Some of the service pipes were very old and it was apprehended that considerable wastage of water took place in them. However, Kurla received a greater supply of water than any other local area, despite which it had requested an increase to their supply by 75,000 gallons per day. By 1923, Kurla with a population of 26059, consumed 407420 gallons per day. Gross consumption per head was 16 gallons approximately. Consumption by mill and railways with a

---

68 PWD DD, 1922-27, File No S-19/7 Pt. I, Copy of a Report no 3736, Water Supply to Kurla Municipality. 15th November 1922, pp 5-6
69 Ibid. Letter from Deputy Director Brown, 4th May 1923, p 13
70 Ibid. Report from the Superintending Engineer, no. II, 22-5-1923, p 19
71 Ibid. Report No. 3736, 15th November 1922, p 5
population of 8000, was 2,02,510 and the balance used by the ordinary population was only 204910. The 24" Vihar main, that supplied water to Kurla as well as to the Northern parts of the island, belonged to the Bombay Municipality and the DD had no control over it. This placed the DD in a very anomalous position, as it realized that it would be powerless, to sanction any fresh connections from this main or alter any of the existing ones. Therefore, as a first measure, the DD desired the discontinuation of this main, and so devising the distribution system that the necessity of using this main would entirely disappear, before entering into any agreement with the Kurla municipality. The DD desired the supply to be at the rate of 6 annas per 1000 gallons later changed to 7 for recouping the losses of Powai. Further, the Kurla Municipality was to be responsible for any damage to any meter by violence or accident. Quarterly bills were to be prepared and payments were to be made accordingly. Trading concerns and mills were to be charged a concessional rate not exceeding 2 annas per 100 gallons. No liability was to be attached to the DD for stoppage or reduction of supply through any cause whatever. By 1926, Kurla water supply came under the control of the DD.

In the case of Bandra, the agreement with the Bombay Municipality was to expire by 1924 and the Bombay Municipality was not keen on increasing supply to the former, as long as the DD had its required quantity of water. Bandra at this point, intended undertaking an underground drainage scheme, with the help of the Government. The latter too was anxious to prevent the renewal of the contract between the Bandra and Bombay Municipalities. Everyone at this juncture, was convinced that this takeover would be mutually beneficial to the Bandra Municipality, its people as well as the Government, since cheaper water was expected which would aid in the cause of the said underground drainage scheme.

The Bandra takeover was very shrewdly premeditated and managed by the DD. The supply at Bandra was in any case being debited against the quota allotted to the DD. However, with the meters being read by the Bombay Municipality, the DD had no idea of how much was actually being consumed. Since Bandra had an existing distribution system and the facilities for maintaining it in order, the DD knew that it

72 Ibid. Report from the Superintending Engineer, no. II, 22-5-1923, pp 19-23
would not be burdened with the responsibility for the internal administration of the water supply. The existing distribution system, being faulty, with short supply complaints in certain areas such as the Bandra and Pali Hills, the DD planned to ask the Bandra Municipality to thoroughly overhaul its system, before asking for unrestricted supply. Moreover, it anticipated that the Municipality would also be carrying out the Khar Water supply scheme which would obviate the necessity of feeding the Pali hill. In such a scenario, an astute DD expected that the Bombay Municipality would insist on closing at least one out of the three existing connections and adjust the distribution system accordingly. This then would not only help the DD to control the Bandra Municipality but also give it sufficient power to negotiate with the Bombay Municipality for the additional connection required for Khar water supply. 74

By this time the relations of the Bandra municipality with the Bombay Municipality had visibly deteriorated. Its consumption stood at 12,5,09,200 gallons of water, of which, nearly 2/3rds was used through private connections, and the quantity consumed for trade purposes, was hardly 1/10th of the total. In Bandra, the Municipal Board, consisting mostly of landlords, was averse to increasing the water rate for domestic purposes and had adopted the 'doubtful' policy of imposing a heavier rate on water for industrial purposes instead of encouraging trade and industry, as desired by the Government. The latter felt that the municipal finance suffered as a result. The little extra revenue realized from water supplied for trade purposes was not a sufficient set off against the loss of income caused by supplying 8 times the quantity for domestic consumption at a cheap rate. Moreover, many municipal mains were very old which led to fearful leakage. As a result, the Municipality had to pay for 2,26,95,400 gallons which were unaccounted for. Consequently, the Government desired that the Board raise water rates, for domestic consumption, and utilize the surplus in renewing the old street mains instead of depriving petty trade and industry and charging them double the rate. 75

74 Ibid. Letter by T.S. Soorma EE to DD. 4th July 1924. pp 33-39
75 Ibid. U.O. R no. 206. to DD from Collector BSD. 11th July 1925. pp 129-130.
Bombay Municipality too, resented the apparently cheaper rate at which Bandra was supplied water. It felt that “there is no earthly reason why the inhabitants of Bandra should pay nothing towards the capital cost of water and get their water cheaper than the citizens of Bombay who supply it.” There was a common perception that cheaper water aided migrations surprisingly though. Bandra showed hardly any infrastructural developments to accommodate the migrating population. Therefore, was highly desirous of allying with DD at this time.

Negotiations which had started in 1924, culminated in the takeover of the Bandra water supply by the DD in 1926. The terms of supply were as stringent as those at Kurla. In addition, the Municipality was held totally responsible for the water quality, delivered from the Tulsi pipe, belonging to the Bombay Municipality; the entire liability of maintenance, control or the efficient working of the pipes or fitting beyond the main meters lay upon it, and extension of the system, beyond the supply granted, would have to be carried out by the latter. Consumption of water by the Bandra Municipality was determined by the readings of the main meters at the head of the service mains. If it had any doubts about the correctness of the meters it would pay all the expenses in connection with the removal, re-fixing and testing of the meters which would be charged by the Bombay Municipality to the Development Department. Bills had to be paid within 40 days by the Bandra Municipality to the Development Department failing which a notice would be issued and if the payment was not received thereafter within a week the water supply would be shut. In addition it had to take charge of the supply made to BB & CI also.

The honeymoon, after the takeover, proved to be a short one. It appeared that the Bandra Municipality owed the Bombay Municipality arrears in water rates, the responsibility for the payment of which the latter heaped on the DD. The DD on its part stubbornly denied having taken any such liability for the payment, by the Bandra Municipality, of charges for water supplied by Bombay Municipality prior to

---

77 Ibid, Letter to the President, Bandra Municipality from the Development Directorate, 22nd August 1924, pp 47-51
1st Jan 1926. In retaliation, the Bombay Municipality threatened to take action in 15 days by cutting off water supply, which the Government opposed as it felt that it should have been given prior notice to effectively arbitrate in the dispute. Considering this action the DD requested that the Municipality postpone such a move in view of public interest. The Corporation remained unmoved in its resolve.

Within a year of the takeover, Bandra was faced with the problem of low pressure which threatened to increase, once the construction of the Tulsi filters was completed. Since on the construction of the filters, water from this lake would be supplied to the Bombay city as well. Construction of a service reservoir with adequate distributing mains for Bandra, was therefore urged. Characteristically, the DD, in a bid to avoid its responsibility, suggested that the ‘extreme measure’ of constructing a service reservoir could be avoided if the size of the connections with the Tulsi mains could be increased. By now, the demand at Bandra had risen from 3 lakh gallon to 4 lakh gallons hence the old connections were found inadequate. However, it steadfastly refused to go beyond the role assigned to it; that of delivering the stipulated supply at their off-take point. It was not at all concerned with the distribution of Bandra water. The concerns of Bandra were further slaughtered in the interest of the Slaughter House. The Municipality was also made to pay for its malfunctioning meters!

One can therefore say without doubt that the suburbs had to surrender unconditionally to the terms dictated by the DD, BSD or the BMC.

Financial Forecasts

Right from the outset, the DD, refused to commit itself in any of the water supply schemes which did not promise profits. In the hilly area of Trombay it declined any promise of water supply to plots, other than those along the roads under construction, or likely to be constructed in the near future, because it wished to limit

78 Ibid. Letter from RD Bell, secretary to the Government of Bombay. Development Department. To the Municipal Commissioner, 14th June 1927, p 309
80 Ibid. Official Note. 29-7-1927, pp 11-12.
its financial liabilities. Only temporary water mains were laid for such areas.⁸¹ What is even more surprising is the fact, that this vital information of water supply was not even revealed to the Land Manager who was therefore forced to acknowledge to possible purchasers of land, that water supply could not be definitely guaranteed.⁸²

Likewise, it refused to take over water supply to the Salt Department since it was apt to prove unprofitable.⁸³ In 1924, when the poor residents of the Tara Village, at Santa Cruz, consisting of fisher folk, applied for water, they had to submit to the harsh terms and conditions of water supply via a stand post.⁸⁴ Later, in 1927, it refused to take over the Wadia Water Fund, at Andheri, while it showed willingness to take over the Andheri water supply. The NAC here, was asked to continue to remain in charge of it. Rather, it was to pay to the DD, the charges of water consumption out of the interest it received.⁸⁵

Guided by its ‘financial forecasts’ i.e. water supply extensions, based completely on financial viability of the scheme, water was not supplied even if suburban sections needed it, till the schemes became self supporting in nature. The village of Amboli near Andheri bore the heat of this decision. Compelled by scarcity, in 1924, the villagers here petitioned the Government for water supply. They reasoned that the water pipe, laid along the Ghodbunder Road from Andheri, could be extended to their village. Some people here were even willing to take pipes to their bungalows. They also requested that the poor people be allowed to draw their supply from the terminal place of the pipes which could be left open in periods of scarcity.⁸⁶ Despite the urgent nature of the problem and the swelling population of labourers here, the

⁸¹ PWD DD 1924, File no. 37, UOR No. 37/DB, 13th December 1922, pp 13-17
⁸² Ibid, Letter to the Deputy Director, Water Supply, Trombay Scheme, from the Land Manager. 18/2/23, pp 21-22
⁸³ PWD DD 1923, File No. 37, UOR No. 37/SB, 20th April 1923, p 67
⁸⁶ PWD DD 1928, S-19/13. Letter to the Deputy Secretary to the Government of Bombay, DD, from D Mello a resident. 8th December 1924, pp 1-3
Government turned a deaf ear to the repeated requests of the people. In 1927, when it finally did relent, because the supply showed signs of becoming self supporting, the permission was withdrawn again since a large number of people here could not afford to take connections in their own respective houses. On a request to the District Local Board, to arrange for a free tap, they were informed that a payment of Rs. 130 would be required to avail of this facility, which they obviously could not afford to pay. 87

**Oppression and Contestation**

Oppressive water supply management of the DD naturally left the people dissatisfied. At Andheri, a public meeting held on the 21st of March 1926, under the auspices of the Andheri Land Holders and Resident’s Association and attended by several leading persons, pressed the people, to ‘bestir’ themselves on the water related grievances. Peeved by the policies of the DD, people now petitioned the Government, praying for a transfer of the administration of the water supply from the latter to the Local authorities, for the time being, emphasizing amongst other grievances, the unsatisfactory treatment given and the insufficient attention paid by the Executive Engineer to the correspondence and complaints of the people; the inconveniences due to the administrative authorities being at a distance from the locality and those caused by preventing the public from engaging the services of any licensed plumber from Bombay or Bandra and generally the unsatisfactory working of the DD rules for water supply. 88

The DD however, hit back claiming that almost 61% of the water supplied by the Bombay Municipality had either not been paid for or wasted when it was under the Notified Area Committee. Few complaints were addressed and the charges continued to remain high. 89

Adding insult to injury, the poor quality water supplied to the people made Andheri vulnerable to all sorts of virulent epidemics. The quality of water supply was so bad

87 Ibid. Letter to the Deputy Secretary to Government, DD from the Amboli residents. 13th December 1928, p169
88 PWD DD 1927. File no. 37. 17/04/1926, p 10
89 Ibid. DD note no. SB 404. 17/4 1926, pp 4-9
that even animals refused to drink. The Andheri residents strongly suspected that the problem was due to the putrefaction of some animal matter in the water main. Water here, was supplied by the Tulsi Lake and the lower levels of the lake, in the summer season, were held accountable for the smell. To remedy the situation, the Corporation was willing to filter the water but wanted the DD to share the cost of constructing the filters, which the latter refused, claiming, that as per agreement, the water supplied by the Municipality was prima faci pure water and expected to be of the same quality as that supplied to the city of Bombay. Moreover, under the terms of agreement, the Corporation was bound to supply pure water to the island of Salsette. The Government too shirked its duty by making it clear that it could not take the task for supplying water fit for domestic consumption. Angered by this uncompromising spirit of both the Government and the DD, an incensed Corporation retaliated by refusing to be held accountable either, claiming that the water supplied to Salsette was of the same quality as that provided to the City of Bombay. The DD was therefore notified that it could arrange for an independent water supply or purification works.

The water management policies of the DD, in fact, struck at the very roots of the concept of planned development and the idea of a garden city in Salsette. High costs of construction in Santa Cruz, on account of prohibitive rates of interests of the Government loans, combined with high water taxes, made living conditions unfavourable here. Thus, to economise on the water charges, steps had to perforce be taken to reduce water consumption. These included keeping taps open only during fixed hours, restricting the use of flushes, and holding in abeyance the provision of

---

90 Ibid, Letter from HK Kriplani, Municipal Commissioner, to The Director of Development. 13/8/1926. p 57.
91 Ibid, DD Note, 2/9/26, pp 59-60
92 Ibid, Letter to the Municipal Commissioner for the city of Bombay, from Development Directorate. 20th October 1926. p 64
gardens. But the relief obtained was negligible. This caused considerable dissatisfaction to tenants who were driven back to the island city.\(^4\)

Sanitary progress was similarly affected. Even though Cooperative Housing Societies were encouraged to provide buildings with water closets on up to date sanitary lines, which had to be flushed with water, yet, high water charges left people wondering whether they were being penalised for being ahead of others in the area for its sanitary arrangements. The Saraswat Cooperative Society, the largest in Santa Cruz in 1927, large enough to claim the status of a small Municipality, and the only society with Government approved sanitary appliances, found itself in this unenviable position. This therefore, while discouraging building construction on sanitary lines, encouraged at the same time, the use of well water for flushing the water closets in the suburbs. \(^5\) The Saraswat Society was however callously informed by the DD to draw all their supplies from the wells.\(^6\)

**Inter Suburban Disparity**

Disparity in supply policies to the suburbs equally impacted the water scenario. The case of Khar is illustrative. A large number of plots in Khar had been sold initially with the promised water supply arrangements. In 1924, a demand of about 40,000 gallons a day for domestic purposes and 20,000 gallons for roads and drainage was expected. The DD therefore, briefly toyed with the idea of supplying water to Khar independently in the hope that the revenue here would increase from year to year and in the end be a considerable source of profit to the Municipality.\(^7\)

\(^4\) PWD DD 1926 File No. 37/4, Letter to the Director Development Department from Secretary Saraswat Suburban Cooperative Housing Society, 20\(^{th}\) February 1926, pp 1-3

\(^5\) PWD DD 1928. File No. 37/4, Letter to the Chief Engineer, Development Department, from the Chairman. The Saraswat Suburban Cooperative Society Housing Ltd. 15\(^{th}\) July 1927, pp 1-4

\(^6\) Ibid. Govt. UOR No. 37/4/ SB, 3\(^{rd}\) August, 1927, p 97

\(^7\) PWD DD 1925-27. S-19/1 Pt. I. Government UOR no.24/3/SC. regarding water supply to SS no. 7 Khar Model suburb, 19\(^{th}\) November 1924, p 47
When financial forecasts, in 1925, showed that the Khar scheme would become self-supporting only after the area had 640 connections and the demand for water supply had reached 640,000 gallons and that the first five years were likely to be those of loss, the Khar water supply was transferred as a municipal obligation to Bandra Municipality. The latter on its part refused to shoulder it as it was short of water itself, besides being afraid of undertaking capital expenditure, which was likely to remain unremunerative for some years. In addition there was a dispute as to whether the Municipality should pay the DD charges for preparing the plans.

The DD now sought to connect the Khar scheme to the Santa Cruz scheme which was under its control, anticipating that Santa Cruz would sooner or later be absorbed into Bandra, for such practical purposes of local self governance as sewage and water supply, although in reality the Santa Cruz people, for communal reasons, wanted to amalgamate with Andheri. Khar therefore, continued to suffer from low water pressure. People who had been sold plots, on the promise of a 24 hour water supply, felt cheated and complained bitterly about this as water did not reach even the first floor during the day time.

To make things worse, water was sold at higher rates to Khar. Hiralal M. Desai, the Secretary of Khar Resident’s Association, accused the DD, which he called the ‘pet child’ of the Government, of carrying on profiteering with the water purchased by it from the Bombay Municipality. While it purchased water from the Municipality, at the rate of 5 annas per 1000 gallons, it sold the same at the rate of Rs. 1 per 1000 gallons, thus earning a profit of 11 annas per thousand gallons. In addition to this exorbitant rate, the DD had to be paid an amount of Rs. 100, as premium at the time of getting the connection, a deposit of Rs. 50 and a monthly rent of Rs. 1, for meter hire. Thus, a middle class resident who wished to enjoy a country life in the suburbs

---

98 Ibid, UOR No. S-19/1/D.B. 14-8-1925, p 67
100 Ibid, DD note, 10/8/1925, p 85
101 PWD DD 1928-29, S-19/1 PT. II. DD U.O.R. No. 19/1/SB. 16th June 1927, p 9
had to pay heavily for the water supply. Whole sale consumers like the Bandra Municipality on the other hand purchased water from the DD at 7 annas per 1000 gallons and redistributed the same at 12 annas among their consumers. Suburban residents who expected water to be supplied as cheaply as possible found it anomalous, that the DD charged them more than what Bandra Municipality did its residents to distribute the water. The DD was thus condemned strongly. Bitter residents noted that, although the Governor seemingly evinced great interest in the development of the suburbs, the greatest need, that is water supply, did not receive the slightest attention, despite the persistent agitations from various suburban associations.103

Typically, an infuriated DD challenged the residents of Khar to induce their Municipality to take over the scheme. It exhorted the citizens to be thankful for the efforts being made to make life in the suburbs comfortable via the introduction of means of communication, lighting, water supply and so on.104 But the demands, for the reduced charges on water, were not acceded to, as they would have caused great losses to the DD, which sought to recoup the losses suffered on the Powai scheme.105 Thus, Khar presented a picture that was a far cry from the model suburb it was meant to be.

Upshot

In the long run, DD schemes, designed to meet future requirements for a period of 30 years, suffered heavy losses in the quantity of water, they were supposed to deliver, and consequently their revenue bearing capacity. These losses came up to 10% of the total supply and happened on account of leakages, bursts in the mains, scouring out of the pipe system and especially the dead ends, in order to wash out the smell of stagnant water. This happened particularly in Trombay where large mains, designed with reference to future requirements, lay idle for want of demand. Even trouble with the meters of the Bombay Municipality was partially responsible

103 Ibid, The Times of India, 17th January, 1928, p 25
104 Ibid, Letter to the Editor Times of India, from R.D. Bell, Secretary to Government DD, no. SB 112, of 18th Jan 1928, p 26
105 Ibid, DD Note L 422B of 23/2/29, pp 90-95
for this situation. In this matter the decision making powers, more often than not lay with the Municipal Commissioner, thus proving unfavourable to the DD.\textsuperscript{106}

Finally, the policies of the DD made life in the suburbs difficult. Even though plots were purchased under the presumption that all amenities would be provided before starting the building operations, the latter was delayed in the absence of water supply. Water had thus to be provided by laying pipes over long distances, to connect the mains.\textsuperscript{107} Living in the suburbs at this time was more costly than living in the city, where people paid less in terms of taxes. The ratepayer in the suburbs gave 7\% house tax, 6\% sanitary cess plus a water rate at Rs. 1 per thousand gallons, which on an average worked out at 10\% of the total rental value, thus making a total tax of 23\%. Rate payers of Bombay, on the other hand gave 18\% and got better amenities in return.\textsuperscript{108}

Failure of the DDs water management policies in the Salsette hastened the move towards the creation of Greater Bombay

TOWARDS GREATER BOMBAY: WATER SUPPLY AND INTER REGIONAL RIVALRY

The ideas of Greater Bombay had originated in 1918, when the Development Officer of Salsette, Mr. C.S.Cowan, sent to the Government a report on the advisability of including Kurla, Kirol and Ghatkopar within the limits of the Bombay Municipality, with which the Commissioner also agreed.\textsuperscript{109} However, it did not seem to have materialized. The formation of the BSD after the 1\textsuperscript{st} World War gave rise to the

\textsuperscript{106} PWD DD 1928-29 S-19 PT. III, Extract Paras., from the report of an inspection of the office of the EE, Housing and Suburban Division, by the Audit Accounts Officer, Bombay Development Scheme, held from 16\textsuperscript{th} to 19\textsuperscript{th} January 1928, pp 44-45
\textsuperscript{107} PWD DD 1928-29, S-19/1 PT. II, U.R. No. e-7/4634, 20\textsuperscript{th} December 1929, pp 130-31
\textsuperscript{108} Ibid. The Times of India, 20\textsuperscript{th} January 1928, p 37
same question as to whether it was to be counted as the suburb in the conventional sense, since many businessmen resided in Bandra, Andheri, Kurla and Ghatkopar. Additionally there were cotton mills at Kurla.\textsuperscript{110}

The question resurfaced in 1924 again. However it fizzled out, as inclusion of the ill developed suburbs was not easy. Kurla, especially, was full of squatters and cesspools and flourishing slums, so much so that it presented the danger of becoming a social and sanitary menace to the city.\textsuperscript{111} The formation of the DD to improve water supply had proved to be disappointing even at this date. Piped water supply eluded a majority of the suburbs and well water was still the mainstay of water supply. Moreover, there were many complaints regarding the inadequacy of sanitary and public health arrangement. It was felt at this time, that the Town and Island of Bombay was, by itself, an unwieldy unit for administration and therefore the addition of the areas of the North would add to its already burgeoning problems. Only the inclusion of Kurla was favoured, as it lay at the main entrance of the city and with its factories and industrial population presented problems similar to those of the city. In addition, its municipal mismanagement and insanitary conditions made it a menace to Bombay.\textsuperscript{112}

By late 1920s, though further development was anticipated there were several problems that prevented its merger with Bombay; prime amongst these being the complexity of the local self governance of the suburban region. There were multiple local bodies with intense differences. The only issues which connected them were a common and overwhelming problem of water shortage and surface drainage which could not be settled by artificial municipal boundaries. But the joint action required to solve this problem was not possible which was evinced by the fact that in 1925, a proposal to create only two municipalities, at Bandra and Andheri, had been rejected by people of Santa Cruz, who on account of sectional and communal feelings.


\textsuperscript{111} Procs. BMC Jan to March 1926. Report of the Committee appointed to consider and report on the reorganization of Local Self Government Salsette. Minute of dissent by RP Masani, 19\textsuperscript{th} January 1925, 15\textsuperscript{th} May 1924, pp 2791-2796

\textsuperscript{112} Ibid. pp 2761-64
refused to ally themselves with their immediate neighbour Bandra and preferred an amalgamation with Andheri and Vile Parla. Therefore, only the inclusion Kurla was favoured. The financial obligations of the Bombay Municipality, in connection with water supply drainage and sewerage for the present and future, and the impending transfer of the Improvement Trust, made the situation more difficult. But the Government was keen to transfer the problem of water supply, on the local authorities, where it felt it had to incur losses, at this juncture and proposed to create a Water Board.\textsuperscript{113}

This idea found favour with the First All India Local Self Government Conference which opined that the Government, in consultation with the Bombay Suburban District Branch of the Local Self Government Institute, appoint a committee, consisting of a majority of representatives elected by Local Bodies, concerned in the Water Supply question, to go into the whole question of water supply of this district and devise means to reduce the then exorbitant and prohibitive charges as well as consider an independent water supply scheme for the district. They concurred in the idea of a Water Board in place of the Development Department and also suggested direct contracts between the several Local Bodies and the Bombay Municipality. \textsuperscript{114}

But the Government once again backtracked by refusing to believe that the local bodies were desirous of direct relations with the BMC. It claimed that both Kurla and Bandra Municipality had their own distribution systems and their supply was provided by the DD with their approval. The refusal of Bandra Municipality to install a water supply at Khar, in its own financial interest, was cited as an example to substantiate their claims. According to the Government, the NACs were incapable of discharging these responsibilities as they involved heavy capital investments. As

\textsuperscript{113} A Note on the Coordination of Administration of Greater Bombay. Government Central Press, Bombay. 1930. pp 14-16. Hereafter, A Note on Coordination. In 1930 the BSD comprised 4 municipalities, 12 NACs, 1 District local Board, 1 cantonment authority and 1 Sanitary Committee.

regards the Water Board, it was opined that unless it was in a position of taking the full financial responsibility, of managing the existing water schemes, and of installing new systems, where there was public demand, change of the existing agreements was not practicable. All the same, it consistently maintained that these water supply schemes, still involved annual loss to the Government.\(^{115}\)

In 1933, the idea of the amalgamation of the suburbs by dividing the BSD into 2 divisions was once again reconsidered.\(^{116}\) But at this point in time both the Trust and the BDD having been liquidated, the Corporation was saddled with immense financial and administrative responsibilities and wished to avoid the liability of less developed lands to its area of jurisdiction. Furthermore, the expansion of the Corporation, to include the suburbs

\(^{115}\) Ibid. Letter no. JS1402 from the Development Department to the Honorary Secretary BSD Branch of the Local Self Government Institute, 23\(^{rd}\) July 1928, pp 20-23

as well, would have involved a degree of centralization and cut at the root of the spirit of autonomy shown in the suburbs. In addition, the services of a large number of public spirited men would have been lost as it would have been impossible to represent all of them in the Corporation. It was now felt that the larger principles of local self Government would suffer. An unduly large Municipality would not be in touch with the people. Smaller areas and special needs would therefore not be satisfied and jealousies would abound in areas where attention was not paid. It would be possible for the Corporation to provide common necessities but not individual luxuries. Hence a Greater Bombay Council was visualized.\footnote{GD Files. 66/33A of 1933. Review of Greater Bombay, pp 23-25}

But all the while, amidst these discussions, an important consideration was not lost sight of. Since the larger area of the BSD was occupied by certain Lakes and catchment areas of the water supply to Bombay city and suburbs, therefore, it was thought desirable to include this area in the jurisdiction of the proposed Greater Bombay Council. In such an arrangement while taxes would be collected by the Corporation, the task of imposition would be left to the Council.\footnote{Ibid. pp 29-31}

**Revived and Rejected: Kanheri and Powai**

Even as the talks of Greater Bombay progressed grudgingly, increased water consumption of the Bombay city, began to seriously conflict with the supply to Salsette. The Bombay Municipality now urged the restriction of the hours of supply to Salsette.\footnote{PWD Development Branch 1933-34-35. ‘A’ Class File No. 7678/27 Pt. I. Letter to the Deputy Secretary to Government. PWD from HK Kripalani. Bombay Municipality. 16\textsuperscript{th} January 1933. p 16 A} Realizing that that the agreement of the Bombay Municipality, to supply water to Salsette, was about to expire in 1936. Salsette was constrained to find a new source of water. The idea of a lake and dam at Kanheri valley re-emerged.\footnote{Ibid. Letter to the Deputy Secretary to Government. PWD. Bombay. from the Ex. Engineer Poona Water Works Division. 27\textsuperscript{th} January 1933. p 5}
Even at this stage, the process of getting sanctions was complicated. The preliminary survey, for the Kanheri scheme involved an expense of Rs. 3000. But, since only a saving of Rs. 1500 was available in the budget of 1933-34, it was decided to allot the balance, later, in the next year’s budget. Moreover, the scheme being in the nature of a new service, sanction of the Legislative Council was also required.  

Ambitious, in nature, the Kanheri scheme was designed to meet the requirements of a larger area including the hitherto neglected villages of Borivali, Kandivali, Malad and Goregaon on account of their proximity to the site of the proposed reservoir and the pipeline. The scheme promised ample water which could accommodate an increase of population by 50% over that of the census of 1931. It showed the potential for development in 3 stages for supply: 3, 4 ½ and 6 million gallons per day according to increasing demand at estimated costs of Rs. 50, 62.61 and 70 lakhs respectively. Poor financial status prevented its execution.

The Powai scheme too, was reconsidered. Hopes of redeeming the water of Powai Lake having been raised again by the engineers at the Poona Water Works, the Government requested the Bombay Municipality to hand it over to them. Although the water from the Powai Lake could be made potable, the scheme, with an availability of 2.2 million gallons however, could not meet the requirements of Salsette. All the same, it was acknowledged that it could prove a useful reserve, to make up any deficiency, if Bombay Corporation agreed to supply water to the Salsette region after 1936.

But, apart from the question of feasibility of its water being made potable and of the necessary cost of transfer from the Bombay Municipality, the Government would have been constrained to take up another scheme, to make for the deficiency of

121 Ibid. Statement of Demand for a Supplementary Grant. The Hon. Sir Shah Nawaz Khan Ghulam Murtaza Bhutto, 4th August 1934, p 77
122 Ibid. Letter to the Secretary to Government PWD from the Superintending Engineer, N.C., 9th February 1934, pp 21-24
123 Ibid. Letter to the Municipal Commissioner of Bombay from the Superintending Engineer, N.C., 22nd May 1933, p 17
124 Ibid. Government Memorandum, No. 7678/27-D. 3rd April 1934, p 105
water. Hence, the Bombay Municipality was requested to hand over the lake on the condition that after its water was made potable and brought into full use, any deficiency experienced in the supply to the suburbs would be made good by the Bombay Municipality, by allowing the area to be supplied with water the way it was earlier.  

Further negotiations however, failed as the Government declined the offer, due to the differences in price, and the probable additional cost of about Rs. 13½ lakhs, which they would have to incur on the new works and extensions. It was then suggested, that the Government would take over the lake on terms, similar to the Vihar Lake i.e., for 99 years on payment of monthly or yearly instalments. The Government however disagreed with the price asked for and dropped the idea of taking over the Powai Lake in view of its small capacity against their immediate requirements of 6 million gallons per day for the suburbs.  

Powai and Kanheri remained paper lodged illusions and nothing came to pass in terms of an independent water supply to the suburbs.

Government now expected that the renewed arrangements, with the Bombay Municipality, would allow the water supply to Salsette to increase to another 3.5 million gallons a day, even though this was hardly sufficient to meet the ever increasing needs of Salsette for drinking purposes alone, while more was required to meet the requirements of the underground drainage schemes that both Bandra and Kurla Municipalities had undertaken. The prospective daily demand for water in Salsette and Trombay, during the next 5 years, was estimated at 6 million gallons a day through Government connections alone. The bulk of the increased requirement was however to be in respect of the area, then served by the Tulsi main, which was not used for the Bombay city. Therefore, the Government requested the Corporation to make available the desired quantities of water. The Corporation, while agreeing, increased the charges of water supply further to 10 annas per thousand gallons which the Government objected to, as it felt, that there had been no capital expenditure by the Corporation on the supply reservoirs or the feeding mains, with which alone the

---

125 Ibid. p 106
126 Mumbai’s Water. op. cit. p 83
Salsette area was concerned; more so, in view of the fact, that the Government had agreed to bear the extra charges for the chlorination of water provided from Tulsi Lake for the benefit of the Salsette. There was a general complaint that the rate was very high for water supply and if they were raised further it would bring about a serious setback in the healthy growth of the suburbs. It now tried to cajole the Municipal Corporation into believing that the latter had a direct interest in the welfare and health of the suburbs and hence “it was a fair claim on the Municipality that the terms on which they assist to maintain the suburban water supply scheme should be reasonably low.” Hence the existing rate of 6 annas per thousand gallons was requested to be maintained.  

By 1937, Bandra and Khar received 2.103 million gallons per day from the Tulsi Lake; the Government bearing the cost of chlorinating this water supply. Santa Cruz, Vile Parle and Andheri were supplied from Tansa, 2.2 million gallons per day. An independent feeder main was to be laid out from Andheri to Santa Cruz, at the cost of the Government. Kurla, Ghatkopar and Trombay were to be supplied 1.5 million gallons per day from the Vihar Lake. The rates however remained a source of dissension, with the Bombay Municipality alleging that the Government was making a handsome profit via the sale of water and the latter denying the charge.

Water supply issues continued to plague the suburbs. Bandra too, by now, wanted that the lowest possible rates of water supply, as it considered itself to be a vital portion of the Bombay Municipality. Residents of Khar continued to grumble about the low pressure as a result of which they did not get water, in the morning, even on the ground floor. Despite Bandra Municipality’s resolution, to sanction the laying of a new 10 inch pipe from the Tulsi main to Khar, Bombay Municipality steadfastly refused to concede to this request for a long time. Therefore, Khar

128 Ibid. Letter from Municipal Commissioner IH Taunton. to the Dy. Secretary to the Government of Bombay PWD. 17-4-1937. p 159
129 Ibid. a letter from PA Dias President Bandra Municipality. To The Deputy Secretary To The Government Of Bombay PWD. 19th Jan 1937. p 111
Residents Association threatened to take up the matter if the Bandra Municipality did not pressurize the Bombay Municipality.\textsuperscript{130}

Nor was the water supply of the same standard of potability and fitness for use as in the Bombay city. The bacteriological and chemical reports of water from Tulsi and Vihar lakes supplied to various places such as Andheri, Vile Parle, Santa Cruz and Trombay showed that it was dangerously contaminated with chlorine and nitrates.\textsuperscript{131} Excess nitrates meant contamination with sewage.

Despite these poor conditions, the suburban consumers paid a rate calculated to make good the whole amount paid by the Local Municipality in the supply and distribution of water. While the mains of the Bombay Municipality passed through the suburban district and water for consumption was available, for ready use except the distribution system, the Government of Bombay purchased this water at a cost of 6 annas per 1000 gallons and then retailed it to the customers at a cost of Rs. 1 per 1000 gallons. Thus at Bandra, for example, the Municipality paid 7 annas per 1000 gallons and the consumers paid 14 annas per 1000 gallons. To the Bandra public these two middle men proved very costly.\textsuperscript{132}

Taxation also followed suit. On the eve of Independence, amongst the 33 suburban municipalities the incidence of taxation was the highest in the Bombay Suburban Division standing at 10-0-3 in 1944-45 and 10-5-6 in 1945-46 \textsuperscript{133} and further to 11-7-9 in 1946-47.\textsuperscript{134}

\textsuperscript{130} Ibid. cutting from Bombay Chronicle, p 223
\textsuperscript{131} Ibid. Letter from the Superintendent Engineer, Northern Circle, Bombay, to Consulting Public Health Engineer to Government, Poona, 3\textsuperscript{rd} February 1937, p 105
\textsuperscript{132} SS Naik, Water Supply (Part I and II) published by Chunilal D Barivala for the Local Self Government Institute, Bombay 1946, p 46
\textsuperscript{134} Ibid. 1946-47, pp 2-4
Post War Reconstruction

Though proposals for Greater Bombay were revived in 1937 and yet again in 1938 by the Congress Ministry then in power, it was only in 1945 that Greater Bombay came into existence by the Greater Bombay laws and the Bombay High Court Act of 1945. Greater Bombay was to comprise the areas of The Town and Island of Bombay, the limits of the Port of Bombay, municipal boroughs of Bandra, Parle-Andheri and Kurla and of the municipal districts of Ghatkopar-Kirol and Juhu and 28 villages of the Suburban Districts.\(^{135}\) However, this only extended the jurisdiction of the city police and the civil jurisdiction of the Bombay High Court and thus inaugurated a part of the Greater Bombay scheme.

But this dissection was resented and at a special Greater Bombay Conference of members of local bodies in the BSD, on the 1\(^{st}\) of December 1945, there was a strong protest against the district’s dissection by which a part had been retained in the Greater Bombay while the remaining had been transferred to the Thana District. Areas, excluded from Greater Bombay, felt that they were an integral part of the city of Bombay, with which they were united economically, socially, industrially, commercially, educationally and otherwise. As a result of this arbitrary division, the incidence of criminality had shifted from the city and the suburban portion of the district to the northern part since these were unguarded regions. Considerable inconvenience was also caused to the litigating public of both the areas consequently.\(^{136}\)

There were other problems as well. The city, at this time, was faced with alarming congestion. Although capable of holding only 12 lakhs of people, it accommodated 25 lakhs. Simultaneously, suburban population, in the areas, contiguous to the city.

\(^{135}\) GD fles 4837/33-1 of 1946. Ad interim report of the Committee of the Corporation regarding the question of extending the Municipal limits of the city of Bombay. 9\(^{th}\) October 1946. pp 1-6

had also increased. Thus, the spill over of the city’s population could not be provided for without the risk of further creation of slums. There were 86 slums in Bombay which included the 4 insanitary villages of Parel, Worli- Koliwada, Colaba and Dharavi. The industrial requirements, especially those of the obnoxious trades like tanneries, slaughter houses and chemical factories, along with their population had to be provided for and for these it was necessary to rope in even the hitherto non municipal areas. Hence, a panel of the Government recommended that the Thana City limits be immediately included within the Greater Bombay Region on the grounds of Public Health; that the Thana creek be looked at as a natural common boundary. The panel also urged extra territorial or mural jurisdiction over areas up to Virar in the North West and Kalyan in the North East of certain purposes. These areas were important for the city as a considerable population moved from here to the city and back. The city was also dependent on these places for its supply of fruits vegetables, milk and other commodities. Hence, in the interest of the public health of the city, the outright annexation of the whole suburban region was suggested.137

Apprehending risk to the health and safety of the island city of Bombay, on account of these reasons, the improvement of this region assumed a priority with the Government now. Therefore, the BG Kher ministry, which assumed power in April 1946, had on its agenda town improvement schemes and slum clearance. The Government policy at this time gave preference to towns of industrial importance and towns likely to develop as industrial centres. A Committee known as the Bombay City and Suburbs Post War Development Committee was appointed to advise Government on the formulation of plans for the development of Greater Bombay.138 In 1948, the Master Plan created by city engineer, NV Modak and American architect and Town Planning consultant, envisaged the division of Greater Bombay for the purposes of water supply. A total of 20 m.g.p.d was deemed enough for this area for the next 10 years. They felt that such an uninterrupted supply was

137 Ibid, pp 71-72
possible after the completion of the Vaitarna cum Tansa scheme.\textsuperscript{139} Nothing however came of this.

Further, in view of the industrial development that was envisaged at this point of time, it was necessary to expand the city limits. This buttressed the idea of the formation of Greater Bombay by the extension of city limits; an idea comparable to the scheme which was introduced in London in 1921 when it was faced with a similar problem of expansion.\textsuperscript{140}

Consummation of this idea was however difficult. The inclusion of the suburban area into the city of Bombay, to develop them on modern lines, would have increased the total are of the Bombay municipal limits from 26 square miles to about 88 square miles. Work, estimated to cost roughly about Rs. 5 crores, would have had to be undertaken to give to the municipal areas the same standard of amenities as enjoyed by the City proper. The only solution to this was a free grant by the Government by suitable annual instalments.\textsuperscript{141}

Apart from the earlier problems of multiple local authorities, and varying levels of taxation, in the suburban region, in the city itself, improvements at this time were expected to cost around 8 crores for which additional taxes would have to be raised. Annexation of suburban areas would, therefore, have entailed enforcement of the city’s tax burden on the former. If Bombay rates were made applicable to the suburban areas there would be a rise from 50 to 100\% in taxes in municipal areas and over 200 percent in non municipal areas. This would be in addition to the higher


\textsuperscript{140} Bombay Legislative Assembly Debates. Vol. 16. part 2. Feb-March 1950. Government Central Press. 1950, Speech of Shri H.V. Pataskar, p 1289: Hereafter. BLA Debates. The idea had been put up in 1927 too, due to an epidemic in Kurla, which greatly threatened the health of Bombay, but the question of finance always acted as a hurdle. Ibid. Speech of Yusuf Meherally. p 1178

rates that the suburban people were already paying in buying all their requirements, besides higher water charges. Furthermore, the annexation would give the annexed parts a legal right to ask for the same services that the city enjoyed. Supply of tap water to everyone even at this stage was not easy.

The water policy presented greater complications. The suburban people paid exceedingly high charges for water. It was questioned as to whether the annexed suburban parts would be given unmetered water supply at the Bombay rate. It was felt that in the near future the City itself would have to give a thought to the supply of water on a metered basis. And if this happened then the suburban people who expected cheaper water supply after the merger would be sadly disillusioned.\(^{142}\)

Thus, a federation of local bodies, which would help in the development of each locality according to its needs and financial resources, was recommended. Once again, the creation of a Greater Bombay Council, made up of direct representatives from each of the wards of the city and from the wards created afresh, from the suburban areas, was recommended. Here, the fundamental guiding principle would be to leave the local functions to the management of local units and general functions to the Central body. The general functions would include arterial roads, water supply, main drainage, public utility services, Fire Brigade, Town Planning and so on, whereas local units could take care of registration of voters, adulteration of food, regulation of offensive trades etc.\(^{143}\)

**The Sanitary Chimera**

At this time Bandra and Kurla purchased water from the Government and delivered it from their own distribution system. The Government itself took this water from the Corporation. Water was supplied by meter to the consumers here at the rate of 10 gallons per head of the population as against the 28 gallons per head in the city. If water was supplied to these areas then it was to be either at the rateable value or under the existing conditions. But if the charges were kept the same as those in the city then the income of the Corporation would go down considerably. But if charged

\(^{142}\) Minute of Dissent Chunilal, op. cit. pp 79-84

\(^{143}\) Ibid, pp 90-93
at the rateable value then the consumption would increase considerably. Unless the Government helped financially the suburban areas would have to be satisfied with the quality of services provided by the Corporation. It was recognized, in no uncertain terms, that even in the city of Bombay the quality of services enjoyed in different quarters of the city were different despite the same amount of taxes paid by the people. The post independence scenario further complicated the problem. In the wake of the partition and the rehabilitation, that took place in the city, the need for a master plan was urgently felt, which would help develop the city in a systematic way. Sanitation in Greater Bombay especially, posed a greater problem as there was no underground sewerage or storm water drainage. No improvement in the water supply or sanitation was proposed till the completion of the Tansa cum Vaitarna scheme and the provision of sewers in the district. This scheme would ensure a supply of 20 gallons per head per day.  

In the absence of a Master Plan and financial assistance from the Government, which expected the Corporation to shoulder the responsibility, in view of the great revenue it would earn from the BSD, a Greater Bombay Improvement Trust was contemplated in 1948. Under this the Bombay Municipality would be placed as one among several federating units. Even so, the other local bodies would have a voice and representation. It was proposed that each local unit would maintain standards of local administration on a level commensurate with local resources and would contribute commensurately to all common resources. At the same time it would

---

145 Ibid, GD Note, 27-4-48, p 148; Government also felt that the Municipality would not share this increased revenue with it. However, the added suburban area was expected to provide an annual income of 31 lakhs of rupees, from which it was impossible to provide for water supply and drainage and other amenities: BLA Debates, op. cit. Vol. 16. part 2. Feb-March 1950. Government Central Press, 1950. Speech of RB Raut, p 1362
carry out the requirements of the Trust in matters like building regulations, town planning so as to fit local administration into a local plan.\textsuperscript{146}

Finally, after much consideration, in 1950, the municipal limits of the city were expanded to include the Andheri Taluka, on grounds of the rapid growth of the population of the city, the absence of any scope for expansion and ironically "the growing dependence of the suburbs on the city for water supply" and medical relief but not without opposition. Regrettably, this decision went against the spirit of the national policy of urbanisation which dictated that an urban area was not to accommodate more than 10 lakhs of people. But by accepting the growth of population as a given, this move paved the way for a limitless expansion of the city limits.\textsuperscript{147}

The principle of representation was also debatable. It was felt that these suburbs were not adequately represented as a result of which their problems would be ignored under the vastly centralized system and the funds generated by the suburbs would not be used on their welfare. It was wondered how the population of the city would reduce by the extension of the limits of the city. Many members of the Legislative Assembly reasoned that the expansion of the population had taken place for a variety of reasons which needed to be addressed specifically. The solution therefore lay in taking other measures and not simply the expansion of the city limits. But a far more serious charge was, that the suburban region was actually required for its resources and hence the farce of expansion\textsuperscript{148} had been resorted to.

This seemed true. Though the statement of objects and reason claimed that the aim of the bill was to complete the process of unification that had started in 1945, the Bill contradicted itself. In spite of the ostensible merger, unification and integration the separateness of the suburbs was to be maintained so far as it's civic and

\textsuperscript{146} Ibid. GD Note. 17-4-1948. pp 177-181
municipal affairs were concerned. However, the properties of the former Municipalities were to be annexed by the Bombay Municipality.\(^{149}\)

Similarly, serious doubts were expressed regarding the Corporations' abilities to provide water. Parel, Worli and Dharavi even at this time already suffered from acute shortage of water, despite being a part of the city.\(^{150}\)

Allegations were made in the Assembly that the Greater Bombay was desired by moneyed people who had acquired large tracts of land here and now wished for returns for their money. Accordingly, demands were made for the circulation of the bill for eliciting public opinion.\(^{151}\) This was however not done eventually. There were further accusations that the Congress Government, which was facing a challenge in the Corporation from the Samajwadi Party, wanted to strengthen its position in the suburbs by the process of amalgamation.\(^{152}\)

By this time an important feature that had emerged was the dependence of the State's economy on Greater Bombay for its industrial activity. The latter region accounted for 75% of its industrial activity.\(^{153}\) Phenomenal population growth as

\[ G.12: \text{Population rise in Greater Bombay. Bombay Municipal Plan, p 22} \]

---

\(^{149}\) Ibid, Speech of Shri JH Shamsuddin, p1563

\(^{150}\) Ibid, Speech of Shri RM Nalawade, p1560

\(^{151}\) Ibid, Speech of Shri Karandikar, pp 1675-76

\(^{152}\) Ibid, Tulsidas Jadhav, p 1713; At this time there were 33 Samajwadi, and 36 independent candidates in the Corporation. The Congress itself had 48 candidates out of which some were independent. There was a fear that the Samajwadi candidates would overwhelm the suburban Municipalities in the near future.

\(^{153}\) YD Phadke, Politics and Language, Himalaya Publishing House, Bombay, 1979, p 39
well, led to an attempt in 1954, to regulate the city development with the passage of the Bombay Town Planning Act.  

By 1956 plans were again afloat for the second round of merger. Even though the Government projected the plan as one of coordinated development, extension, this time, was necessitated apparently due to the anticipation of a greater influx of population once the State was reorganized on a bilingual basis. Government now argued that a bigger Bombay state required a bigger Bombay city. This time predominantly agricultural villages were to be merged without their consent. Resistance was expected. The proposal for the new merger was passed in decidedly abnormal condition by the Corporation, at a time when more than 44 of its members had resigned as they were opposed to the merger. Naturally, many considered the move a politically motivated one, with the idea of the creation of a city state of Bombay, via the expansion and the accommodation of a larger population. Since the state was about to be divided on bilingual lines, the question of the city of Bombay would definitely be a tricky one to solve. Hence, the expansion of limits and population would justify the formation of a city state.

Once again, the formation of the new city limits encouraged the people to move towards it, instead of residing in their own area, and developing it despite the

---

154 David, Urban Explosion, op.cit, p 285  
155 BLA Debates, op. cit. 1956 Vol.1, No.8, Speech of G.D. Tapase, Minister for LSG, p125  
156 Ibid. Speech of Pandit Rao, p 149; Marathwada, Vidarbha and Saurashtra had been merged in the Bombay State.  
Corporation's dismal performance in the provision of civic amenities for the expanded area of 1950. The smaller municipalities too were not given a chance to express their views on the merger. The big fish, it was felt had eaten the smaller fish. Demand for decentralized administration with responsibility devolving on people was raised, and a petition was filed by Mr. P.B. Samant, a resident of Goregaon, challenging the validity of the new extension. The new area included a population of 82 lakhs. He feared that an additional burden of taxation, amounting to Rs. 20 per capita, without commensurate benefits would have to be borne by the people.\footnote{Times of India, 31\textsuperscript{st} January 1957, p 3}

Overruling all this opposition, in 1957, in order to achieve coordinated development of Bombay, the municipal limits of Bombay city, were further extended to include 34 villages which were a part of the Thana Municipality. Consequently, the Municipalities of Malad, Kandivali, Mulund and Borivali and the village Panchayats of Goregaon and Dahisar were abolished.\footnote{What Bombay Government Did And Said, Issued by the Directorate Of Publicity. Government Of Bombay, 1957, Vol. 1, p 173}

**DRAINAGE AND SEWERAGE**

It would be appropriate at this place to also include a discussion on the waste water management systems of the suburban areas. Up to 1920, the Government had followed a policy of encouraging water supply at the expense of drainage since the former could be financed more easily. But, it was observed by Sanitary Boards that this was not followed by the expected improvement in sanitary conditions.\footnote{GD Compilations 1920. No. 429. Letter 524, from Mechanical Engineer to Government to the Secretary to the Government, 22\textsuperscript{nd} March 1918 p 147. also refer to footnote 18 of this chapter.} The Government at this time assumed, that the majority of the water supply schemes would come without drainage as the latter would cost double the water supply scheme. Smaller municipalities would, therefore, seldom undertake the drainage. Water supply, on the other hand could be financed by the rates charged on the
houses. But improper water management had turned Salsette, into what the Times of India called, the new ‘charnel house’. The newspaper held the “policy of drift” that marked the sanitary administration of the local bodies in this area, responsible for this state of affairs.

In the absence of underground drainage and sewerage, the system of basket privies was in vogue at this time. On account of deficient water supply, the comparatively cheaper system of sceptic tanks was also considered a safe option to encourage the development of suburbs.

Prior to the development of South Salsette, it was considered advisable to obtain a report from Mr. J D Watson on a general scheme for the main drainage of the area. But the scheme, suggested by him, seems to have involved a very large expenditure. Thus, a large number of small schemes were proposed, the cost of which was to be transferred, ultimately, to the local bodies. A general large scheme was worked out so that it could help in the laying out of smaller schemes which could fit into the main drainage when required. A provisional amount up to a maximum of Rs. 30 lakhs was sanctioned for these schemes.

By 1922 sewerage schemes were considered for the following main groups of sewerage schemes were envisaged; a scheme for all areas west of the Tulsi pipeline including Bandra and Pali Hill and as far North as Andheri neighbourhood, with septic tank disposal arrangements in the area to the south of Kole Kalyan (Kalina) near the creek, into which the effluent could be discharged; a scheme for Kurla, Kurla –Kirol and Ghatkopar areas; a scheme for Chembur, the tannery area and the

---

161 Ibid, Letter from Sanitary Engineer to Government, 7th March 1919, p 150
162 PWD DD 1921-25, S-13, Report from Times of India, 12/7/24, p 131
163 PWD Gen., 1918-21, Vol. 922, Letter from the Chairman, Bombay Co-operative Housing Association, no. 112. 8th April 1919, p 195
164 PWD DD 1921-25. File No.S-13. Note by the Acting Director of Development. 10th August 1922, p 123
165 Ibid, GR no. S.C. 1589. DD. 17th August 1922. p 124
The area between the two. These schemes were to eventually form part of the final comprehensive scheme. But the outfall for the final scheme was not contemplated. The area north of Andheri was not considered for drainage as it was expected to be thinly populated for many years to come and, it was felt, could be dealt with local schemes with outfalls into the sea.

The drainage schemes in Salsette, nevertheless, were delayed due to lack of finance and negligence of the executive engineer in submitting the proper estimates. But most of these could not materialize due to the shortage of water supply which led to a low pressure. Further, the provision of local sewerage schemes was also delayed because it would additionally reduce the balance of water supply available for other areas. Bureaucratic delays also aggravated the matter. Hence, it was decided to split the drainage of Salsette into a number of small schemes “to suit the present conditions”.

But the biggest hurdle in the execution of these schemes was the multiplicity of authorities in the development plans of Bombay and the lack of firmness in decision making. The local Governments were at the mercy of the whims and fancies of the major players in this field; the DD, the Director for Public Health for the Government of Bombay the Sanitary Engineer to the Government and the Bombay Port Trust. Therefore, schemes once prepared were continuously passed on from one department to the other. The DD for example, the major executive authority since 1920, was stripped of its power to execute drainage schemes. By 1926 owing to

---

166 PWD, DD, 1923-25, File No S-13/4, DD Memo, 9th March 1922, p 1
167 PWD DD 1921-25, File No. S-13, Extract Para. 5 of a Note by Mr. DRH Browne, Supt. Engineer No. 2 Project Division, 19th July 1922, p121
168 Ibid. Memo no. 976 of 1922, On The Drainage Of Salsette and Trombay. 27th January 1922, p 27
169 PWD, DD, 1927-28, File No S-13/3, South Salsette Main Drainage, Andheri And Kurla Schemes, A Note By HT Smith, 16-8-1926, pp 57-58
170 PWD, DD. 1923-25, File No S-13/4, Suburban Scheme: South Salsette Main Drainage; Proposal For A Separate Sewerage Scheme For Khar Model Suburb. Letter From The Superintending Engineer DRH Browne, 2nd May 1923, p 13
171 Ibid. Note from the Deputy Director, 27th May 1924, p 30
retrenchment on the recommendation of the Advisory Committee for the city of Bombay and suburbs, the DD had no longer the staff in the suburban area to undertake the project. It could not therefore execute the schemes.

The decision of the municipalities to carry out the schemes departmentally was not approved by the General Department, to whom the matter was referred, nor was it in favour of the system of the grant in aid or loan required to carry out the scheme. Thus, all works were transferred to the PWD. Despite the transfer, the Government commanded the DD to retain the Andheri drainage scheme. Even though the loan, applied for in 1926, was finally sanctioned in 1928, the local body was at a loss as regards the usage of this fund. Thus even by 1928 even the Andheri drainage scheme had not materialised.

Not surprisingly therefore, even Bandra did not have a drainage system till as late as 1929, because of the constant change of executive authority. Under contemplation since 1917, its first plans and estimates for sewerage and drainage were prepared by the executive engineer, suburban sanitary division, which were then moved to the DD which prepared detailed plans and estimates. Later these were transferred to the Sanitary Engineer to Government. The latter was then asked to send these to the Bandra Municipality. But they were not. In fact most of the schemes that the DD had prepared along with the local municipalities suffered this fate. Yet, the DD on its part put forth the claim for preparation charges for 32 drainage schemes. The Bandra drainage project was finally approved, in 1933, by the Board of Public Health (earlier styled as the Sanitary Board) after a lot of correspondence with the

---

172 RDD, op. cit. 1926, p 16.
173 PWD DD, 1927-28, File No S-13/3, South Salsette Main Drainage; Andheri And Kurla Schemes, Official Note, 2-12-1926, p 27.
174 Ibid, Note from the PWD, 15-11-26, p 63
175 Ibid, Note from CD Barfiivala Chairman NAC Andheri, to the Collector Bombay Suburban district, 16th Jan 1928, p 75
176 PWD DD 1926-29, S-13/1, Letter from the President Bandra Municipality to the Collector BSD, 12-7-1929, p 15.
177 PWD, DD, 1927-28, File No S-13/3, Note from RD Bell, South Salsette Main Drainage, Andheri and Kurla Schemes, 8-2-27, p 37
BPT and the Bombay Municipality as regards the point of outfall. The scheme provided for drainage on separate systems with underground sewers etc and discharge below low water level in the Mahim Creek. Nonetheless it awaited implementation in the absence of a loan in 1934. 178

Sewage outfall, similarly, posed a problem. Sewage for example, could not be discharged in the creek near Kurla,179 as it would find its way to the Bombay Harbour which was objected to by the Port Trust. Not only this, sewage disposal, on the Kurla side of the creek, was objected to as it polluted the salt pans and thereby the salt manufactured on this side.180

The areas further north were developed in the 1940s and a treatment plant was established at Dharavi in the year 1950. By this time, sewerage facilities existed only in parts of Bandra, Khar and Kurla. Later extended suburbs, comprising the wards P R T wards were added to the areas in the year 1957 which had no sewerage facilities. Since even at this time, sewerage was low on priority in the budgetary allocations little sewage facilities could be provided in the newly amalgamated areas. However, as and when possible conveyance systems and sewage pumping stations were provided in the areas of Versova, Malad, Ghatkopar and Chembur.181

CONCLUSION

On the eve of the second merger of the suburban areas with the Bombay city, the Corporation’s financial position was untenable due to the additional responsibilities and its debt which stood at 42-45 crores of rupees, over and above which it was

179 Ibid. Note By AH Dracup Under-Secretary GD. 1-11-26, p 25.
180 PWD DD 1928-29, File no. 76/3 of Letter to the Director of Public Health for the Government of Bombay, from RK Mhatre. Officiating Assistant Director of Public Health. 12th June 1928, p 91
181 RECB. op. cit. Chapter 12, p 12-1
saddled with the responsibility of the Vaitarna scheme.\textsuperscript{182} The Corporation had been unable to provide civic amenities for the expanded area of 1950. The suburbs were already discontented at the treatment received by them. Kurla had turned into a slum area by now.\textsuperscript{183} Even after the promises made, for the areas which were merged within the limits of the city proper, the people were disillusioned with the poor civic amenities provided to them, and the additional taxation that was imposed. The suburbs had 60 squatter settlements with 50,000 people. These were to be found in Khetwadi, Khar, and Jogeshwari. Water supply here had to be had from leaks in the water mains or a few taps.\textsuperscript{184}

Complaints of water shortages were frequent, due to inadequate sizes or absence of connections as well as manipulations of supplies by landlords. Landlords were, therefore, issued notices to obtain adequate water supply to their premises, from the Municipal Water Works, provided the tenants agreed to bear additional costs of water charges.\textsuperscript{185}

Distribution of water too remained a challenge. In spite of Tansa, due to the conditions of the old masonry duct only a supply of 210 m.g.d could be brought to the city. The supply to the city, in the post 1957 period, was brought partly through the Service Reservoirs and partly by directly tapping the trunk mains. There were only 3 service reservoirs located at Malabar, Bhandarwada and Worli Hill; all in the city proper. But there were no reservoirs in the suburbs. This arrangement thus led to an uneven distribution of water and there was a want of more service reservoirs. Further, the presence of a high range of hills intervening between these suburban towns and the existing trunk mains system, created greater difficulty in conveying water, at satisfactory pressure to the western suburbs, particularly the Northern townships of Malad, Kandivli, Borivali and Dahisar. Thus, supply had to be taken round the hills resulting in a considerable drop of pressure due to long lengths.\textsuperscript{186}

\textsuperscript{182} BLA Debates, op. cit. 1956. Vol.1. No 8, MV Donde, pp 127
\textsuperscript{183} Times of India. 18\textsuperscript{th} September 1956. p 3
\textsuperscript{184} Ibid. 13\textsuperscript{th} September 1956, p 3
\textsuperscript{185} MCR. op.cit. 1955-56, p 77
\textsuperscript{186} Bombay Municipal Plan. op. cit. p 23
Even as late as 1961 when the total supply requirement of Greater Bombay was 278 m.g.p.d. only 231 m.g.p.d was supplied. Even this was sometimes further reduced to 220 m.g.p.d due to defects in distribution. This greatly affected the sanitation of the city. Thus, in 1964, when the Development Plan for Greater Bombay was finalised, the water supply was woefully inadequate.\(^{187}\)

Thus it can be concluded that in case of the neighbouring island of Salsette, water supply and drainage and sewerage were not planned as effectively as they should have been since no encouragement was given to independent hydraulic schemes conceived in the form of Kanheri and Are. Both these essential components of planned development were caught between the contradictory policies of the DD, the Government and the Bombay Municipal Corporation, each of which sought its own benefit. Further, poor municipal development, inter suburban rivalry encumbered the sanitary progress of this region. It is equally obvious that the region was only required for the development of an industrial zone and the settlement of the population which the city could no longer support. Therefore, the very idea of planned development and a ‘garden city’ envisaged for the suburbs, at the beginning of the century, turned out to be a fantasy.

Ironically the lakes of the city were situated in this suburban area and further in the hinterlands of the city. All of them had to bear the costs of this water supply. The following chapter takes a look at this theme.