

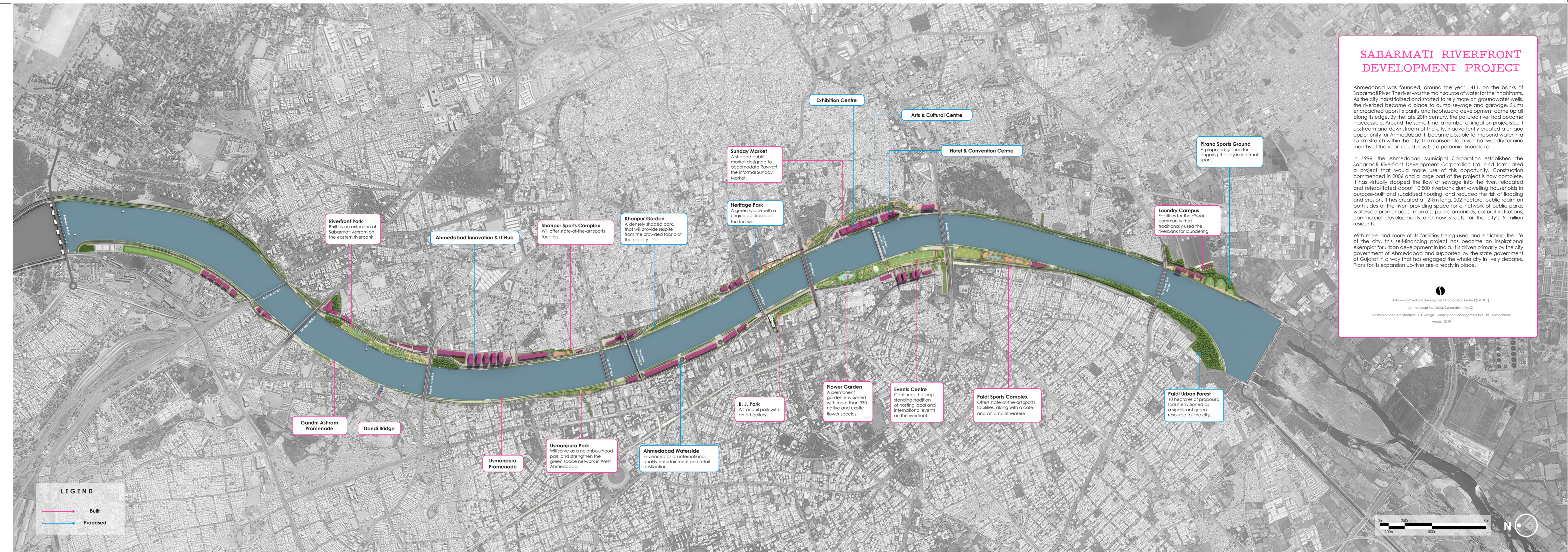
SABARMATI RIVERFRONT DEVELOPMENT PROJECT

Ahmedabad was founded, around the year 1411, on the banks of Sabarmati River. The river was the main source of water for the inhabitants. As the city industrialized and started to rely more on groundwater wells, the riverbed became a place to dump sewage and garbage. Slums encroached upon its banks and haphazard development came up all along its edge. By the late 20th century, the polluted river had become inaccessible. Around the same time, a number of irrigation projects built upstream and downstream of the city, inadvertently created a unique opportunity for Ahmedabad. It became possible to impound water in a 1.5-km stretch within the city. The monsoon fed river that was dry for nine months of the year, could now be a perennial linear lake.

In 1996, the Ahmedabad Municipal Corporation established the Sabarmati Riverfront Development Corporation Ltd. and formulated a project that would make use of this opportunity. Construction commenced in 2006 and a large part of the project is now complete. It has virtually stopped the flow of sewage into the river, relocated and rehabilitated about 10,500 riverbank slum-dwelling households in purpose-built and subsidized housing, and reduced the risk of flooding and erosion. It has created a 12-km long, 202 hectare, public realm on both sides of the river, providing space for a network of public parks, waterside promenades, markets, public amenities, cultural institutions, commercial developments and new streets for the city's 5 million residents.

With more and more of its facilities being used and enriching the life of the city, this self-financing project has become an inspirational exemplar for urban development in India. It is driven primarily by the city government of Ahmedabad and supported by the state government of Gujarat in a way that has engaged the whole city in lively debates. Plans for its expansion up-river are already in place.

Sabarmati Riverfront Development Corporation Limited (SRFDCL)
Ahmedabad Municipal Corporation (AMC)
Masterplan and Architecture: HCP Design, Planning and Management Pvt. Ltd., Ahmedabad
August, 2019



- 1. A Public Realm**
Ahmedabad's river edge was privately owned and virtually inaccessible to the public. The project has socialized this edge and created a 202 hectare public realm along both banks of the river by building 24 kilometers of embankments and reclaiming land from the riverbed. The embankments and reclamation works are carefully designed to ensure that the river's natural flood carrying capacity is not reduced.
- 2. Sewage Interception**
Untreated sewage was flowing into the river from over thirty storm-water drains and open 'nalas'. These flows were diverted into two large interceptor sewers embedded in the reclaimed land along both edges of the river. The interceptor sewers transported the sewage to two existing downstream sewage treatment plants. The capacity of these plants was also upgraded. Almost all these works are complete and the flow of sewage into the river has virtually ceased.
- 3. Ground-Water Recharge**
The project is designed to take advantage of the river by creating a public realm along its edges from where citizens can enjoy the water. To ensure this, the water in the lake has to be continually replenished. This is because the riverbed is sandy and water continually seeps into the ground. At present, the lake is replenished with water from the Normada canal, which crosses the Sabarmati just upstream of Ahmedabad. The project envisages that eventually all the water needed for replenishment will come from Ahmedabad's sewage treatment plants. When, eventually, treated sewage water is used for replenishment, the Sabarmati Riverfront Development will be, in effect, a large scale ground-water recharge project.
- 4. Providing Housing**
Approximately 10,500 households living in riverbank slums were identified, through a detailed on-site survey as being affected by the project's socialization of the river's edge. They were relocated in highly subsidised, purpose-built low-rise apartments, clustered in 19 housing colonies in various parts of the city. The project has in-effect resulted in a large, one-time transfer of payment in the form of subsidised housing to a large number of the poorest households in the city. It has given these highly vulnerable households secure tenure and rescued them from the regular threat of annual flooding. They are now able to access municipal water supply and drainage. Over all, one of the biggest achievements of the project has been the grant of housing and dignity to individuals and families who were once slum dwellers on the river bank.
- 5. Protecting Livelihoods**
Two sets of people whose livelihoods depended on the river were affected by the development of the riverfront - riverbed washer folk and vendors in the Ellis Bridge Sunday Market. To protect the livelihoods of the washer folk, a large laundry facility with suitable infrastructure has been built on the reclaimed land. Most of the washer folk, who used to hand-wash clothes when they worked on the riverbed, have now invested in washing machines and have chosen to mechanize their business. The project has not only protected their livelihoods but also given them a chance to improve them. To protect and expand the Sunday Market a large open-air market has been constructed between Ellis Bridge and Sardar Bridge. It is now a very vibrant market that primarily serves the need of low-income families from the surrounding areas and bargain hunters from the city.
- 6. Riverside Protection**
A few of Ahmedabad's down-stream riverside neighborhoods were low-lying. They faced the risk of flooding annually when the Sabarmati was in spate. The building of sufficiently high embankments has eliminated this risk. The building of the embankments has also eliminated the risk of erosion of the Sabarmati's sandy riverbanks. Prior to the building of these embankments only those riverside landowners who could afford to build private walls were able to protect their plots from the risk of erosion.
- 7. Parks & Promenades**
Ahmedabad severely lacked parks. To address this, over half the reclaimed land has been used for new parks. Many of the parks, like the 1.2 km long Ashrambaug, the Municipal Flower Garden and the Usmanpura Garden, are completed and in use. Work on developing other parks is underway. The 24 km long embankments on both sides of the river are designed to have pedestrian promenades at the water level. These promenades are protected from the city's din and lined by trees that will provide ample shade and soften the concrete embankments. The promenades have many places to sit and enjoy the water and many locations from where the water can be accessed for leisure activities and rituals. The network of gardens and promenades that the project has provided has enriched the average citizen's life greatly in the center of Ahmedabad.
- 8. Social & Cultural Amenities**
The design of the project delineated over ten percent of the reclaimed land for a variety of social, trade and cultural amenities. An open-air market, that can house over 1200 vendors and which caters primarily to the needs of low-income families, has been in use for two years. (This has been described in detail in point number 5 above) A vast event-centre now provides a municipal venue, of civic scale, for holding a variety of public and private events. There are numerous locations for food vendors along the riverfront.
- 9. Street Network**
Building two, much needed, north-south links on both banks of the river has augmented the city's street network. These streets, which also serve to access the 12 km of new facilities along the river, use about twenty percent of the reclaimed land. They have been carefully designed to ensure that they do not become barriers to accessing the riverfront but facilitate it.
- 10. Financing The Riverfront**
Up until the present all the expense on executing the project, including the relocation housing, has been met by funding from borrowings and grants. Eventually, the entire expense for the project will be recovered from the sale of 14.5 percent of the reclaimed land - for commercial and residential development. Carefully crafted urban design guidelines have been put in place to ensure that this development is of the highest quality and works to create a high quality public realm with open and equitable access. The project is also designed to be low cost. All works along the river, inclusive of interest on borrowings have, up to now, cost approximately Rs. 1500 crores (US\$ 215 million). The market value of relocation housing when it was transferred was approximately Rs. 1100 crores (US\$ 157 million).
- 11. Spurring Development**
The 11 kms. long project which cuts through the middle of the city is primarily aimed at cleaning up the river, socializing its edge and creating a network of parks, promenades, streets and civic amenities. Along with this it is also aimed at catalyzing the improvement of areas adjoining the river along both of its edges. Towards this end, a series of exploratory Precinct Plans have been developed to identify the needs and development potential of precincts along the riverfront. Two of these plans have been further detailed by the Ahmedabad Municipal Corporation as statutory redevelopment plans - the Ashram Road Central Business District Plan and the Dabeshwara Business District Plan. These are already attracting enthusiastic interest from investors.
- 12. Civic Participation**
Such a large and complex civic project cannot be realized without engaging citizens in the process of development and garnering their support. The project ensured this engagement through many means: countless public and private presentations and consultation meetings, workshops and deliberations, negotiations and persuasions, exhibitions and publications, press notes and clarifications, academic studies and disputations and many shows and events. The very realization of the project, within a normally debilitating democratic context, is a testimony to the effort that the Riverfront Development Company put into engaging and involving the city in this transformative civic project.