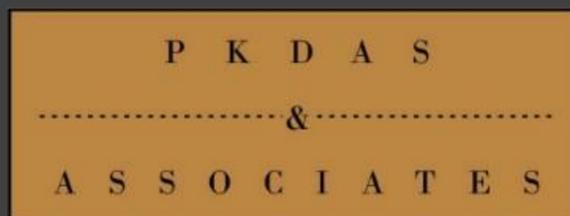


**THE WUHAN PLACEMAKING WEEK 2018**

**PLACEMAKING FOR  
SUSTAINABLE ECOLOGY OF CITIES' :**

**THE RE-INVIGORATION OF IRLA NULLAH, MUMBAI**



**4<sup>th</sup> DECEMBER 2018**

# **PRODUCTION OF BACKYARDS**





# **THE NULLAHS OF MUMBAI**



Aerial Image of the Irla Nullah taken in 2006

## EVOLVING A PLAN FOR TRANSFORMATIVE, CITY-WIDE CHANGE

Mumbai has a large network of water channels and water courses that aid the natural storm water drainage in the city. The city authorities are apathetic towards their protection, conservation and integration with the city's Development Plan. Instead, these assets are merely looked upon to maximize construction and to accommodate real estate interests.

This initiative addresses the abuse and exclusion of over 300 kms of watercourses, that includes four rivers within the city that have been turned into 'nullahs' or drains. It brings to light the continuing degradation of the vital 140 sq. km of natural areas of the city -- its mangroves, wetlands, creeks, salt pans, rivers, lakes, beaches, hills and forests.

The Irla Nullah Re-invigoration Plan -- part of a larger citizens' movement advocating the Juhu Vision Plan that covers an area of 4 sq. km -- focuses on cleaning and turning the waters of a polluted and much-abused natural watercourse backyard and its immediate precinct in the western suburb of Juhu into a vibrant public space and neighborhood fore-court generating rich social, political and environmental dividends since these are the natural storm water drains of the city.

Imagine a scenario where Mumbaikars have easy access to over 600 kilometers of landscaped walking and cycling tracks and open spaces along the watercourses that intermingle and interweave through various parts of the city's urban fabric?

This is the over-arching vision that has manifested itself in a tangible pilot effort -- the Irla Nullah Re-invigoration Project.



Mumbai' watercourses map. Image courtesy MCGM

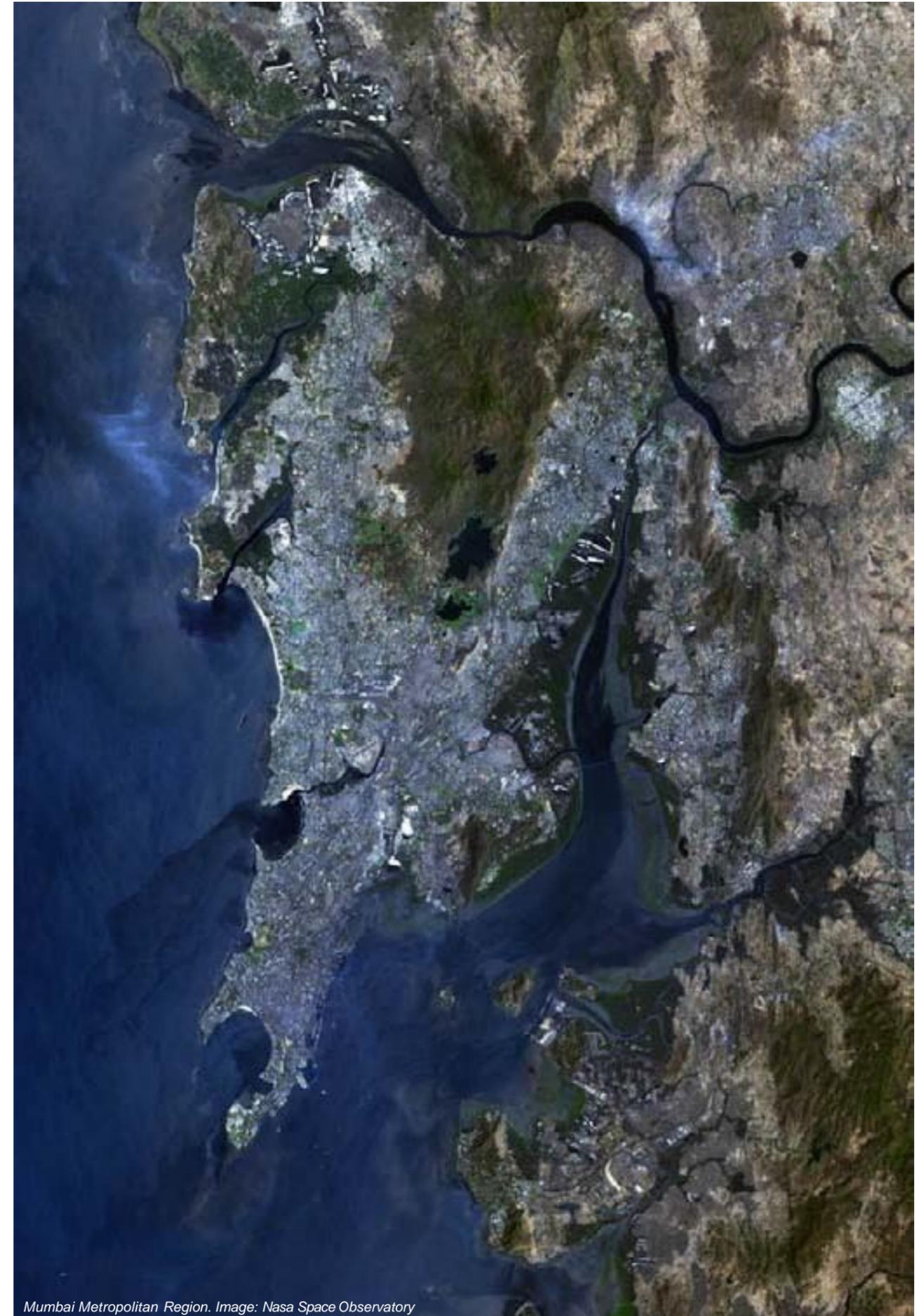
**A LARGER ECOLOGY &  
THE CITY**

## RECLAIMING WATERFRONTS AND EXPANDING PUBLIC SPACES

A Movement for Protection of Mumbai's Seafront

One of Mumbai's greatest assets is its coastline which forms a series of unique and picturesque waterfronts. Unfortunately, these have become the backyard of the city and degenerated into its biggest dumping ground.

Reclamation, sewage disposal and encroachment have ravaged the waterfronts.



Mumbai Metropolitan Region. Image: Nasa Space Observatory



# OPEN MUMBAI

## WHAT WE DON'T SEE AND REALIZE AS OUR PUBLIC SPACES ASSETS:

482 SQ KMS OF TOTAL AREA

149 KMS OF COASTLINE

16 KMS OF BEACHES

40.7 KMS OF RIVERS COVERING 1.5 SQ KMS

09.25 SQ KMS OF CREEKS

48 KMS OF 'NULLAHS'

305 KMS OF POTENTIAL PEDESTRIAN AVENUES ALONG ROADS

64.31 SQ KMS OF FORESTS AND HILLS

155 ACRES OF 51 RAILWAY STATIONS



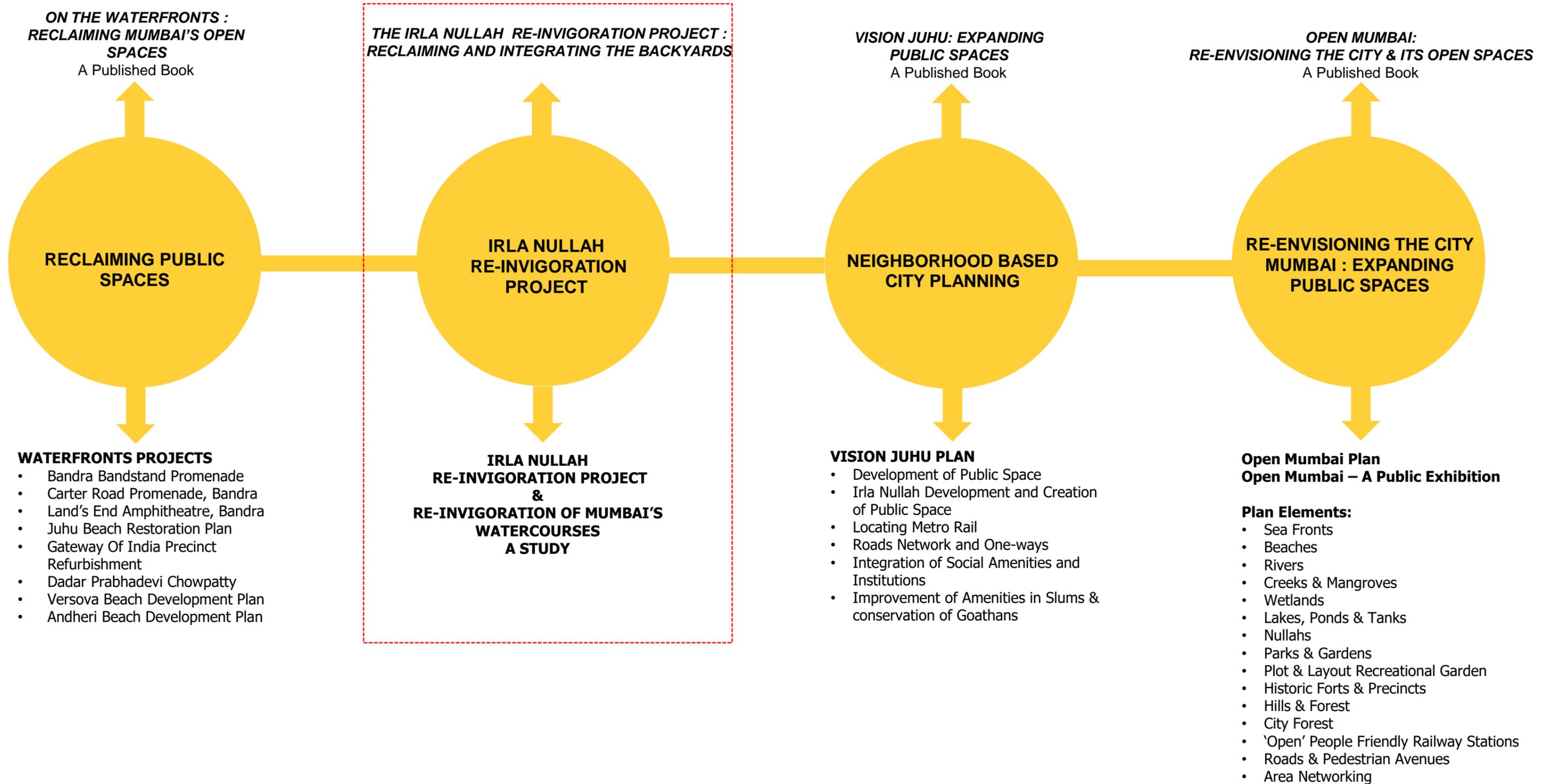






**INTEGRATION :**  
**IRLA NULLAH RE-INVIGORATION**  
**PROJECT**

**NEIGHBOURHOOD PROJECTS TO A CITY-WIDE MOVEMENT**  
22 years and continuing





the  
vision juhu  
plan

\* Juhu-giri: Taken from a colloquial slang 'dada-giri' which means 'by coercive force'. Here it is re-interpreted as the collective power of the people of Juhu.

\*Pyar se: means 'With love'

# Juhugiri. Pyar se.

- Free open space: add almost 3 Oval maidans
- Create 10-km tree-lined, flood-free walkway along Irla nala
- Inter-connect open spaces with institutions & amenities
- Re-align & integrate Metro rail network with public spaces
- Protect beach, improve access, enhance facilities
- Provide civic amenities for gaothans, redevelop slums
- Form a model for neighbourhood planning, participation & governance

## Vision Juhu Expanding public space

Kamala Raheja Vidyanidhi Institute for Architecture • PK Das & Associates, Architects • Mumbai Waterfronts Centre

Research Sponsor: ICICI Prudential  
Contacts: anirudh.paul@gmail.com • pkdas.arch@gmail.com • daryidmonte@gmail.com



This was a project campaign poster made for response and reaction in public meetings from citizens and local stakeholders. The idea was to popularize the movement and thereby the planning process of such public interest projects in cities.

# The Vision Juhu Movement has been rooted in public participation and democratic planning ideals.

These clearly manifested themselves when citizens would turn up regularly in large numbers to oppose wrong doings and malpractices when it came to open spaces in their neighbourhood.

## Juhu's green lung back after 8-yr fight

BMC has taken over a 3.5-acre plot in Gulmohar locality that was given to Ronson Foundation for construction of a club



**RESIDENTS SPEAK**

At last, we have got our open space back. It's a big victory for us.

**SHABITA BHALI**

When the BMC was taking down unauthorized structures on the plot, we felt proud to be citizens of the city.

**SHABITA BHALI**

When the BMC threatened to remove the trees that had grown up on the plot, the structures remain, but they have been looked up by officials.

## Juhu residents fight for access to playground

Allego that Ronson Foundation, which was granted BMC permission for development and maintenance was later allowed to build a club; the trust has taken charge of the entire plot shutting them out




**M**embers of the Gulmohar Area Societies' Welfare Group have been fighting for access to a 3.5-acre plot in Gulmohar locality that was given to Ronson Foundation for construction of a club. The trust has taken charge of the entire plot shutting them out.

The plot, owned by Ronson Foundation, was granted BMC permission for development and maintenance. However, the trust later allowed to build a club, which has taken charge of the entire plot, shutting out the residents.

The residents, who have been fighting for access to the plot, have been successful in getting the BMC to take over the plot. The BMC has now taken over the plot and has started the process of developing it as a recreation ground.

The residents are happy with the decision and are looking forward to the development of the plot. They believe that the plot will be a great asset to the community and will provide a place for children to play and for people to enjoy.

## Gunning For Green Neighbourhood

An open space opposite Vidyanidhi school reserved as a recreation ground was taken over by the builder to build a club in the garb of maintenance. The Gulmohar Area Societies' Welfare Group opposed it when the builder started hacking trees. Schoolchildren and residents took to the streets, and approached one authority after another. With the help of then mayor Shubha Raut and now MP Gurudas Kamat, the residents managed to obtain a stay from civic chief Swadheen Kshatriya four months ago. Residents are confident that the problem will soon be sorted as they have finally managed to convince all the authorities concerned about the genuineness of the issue.




### Residents pry open park gates

Residents of Juhu have managed to pry open the gates of a park that had been closed for years. The park, which was originally reserved as a park and a playground, had been taken over by the builder for construction of a club. The residents, who have been fighting for access to the plot, have been successful in getting the BMC to take over the plot. The BMC has now taken over the plot and has started the process of developing it as a recreation ground.



## Residents win fight over entry to open ground

After a March 18 meeting, the BMC asked Ronson Foundation to give public access to the ground near Kaifi Azmi Park



**THE** residents of Juhu have won yet another battle in their fight to get access to a 3.5-acre plot in Gulmohar locality that was given to Ronson Foundation for construction of a club. The BMC has now taken over the plot and has started the process of developing it as a recreation ground.

The residents, who have been fighting for access to the plot, have been successful in getting the BMC to take over the plot. The BMC has now taken over the plot and has started the process of developing it as a recreation ground.



## Residents have also won access to ground behind school

After a year ago, the Gulmohar Area Societies' Welfare Group has managed to get access to a 3.5-acre plot in Gulmohar locality that was given to Ronson Foundation for construction of a club. The trust has taken charge of the entire plot shutting them out.

The residents, who have been fighting for access to the plot, have been successful in getting the BMC to take over the plot. The BMC has now taken over the plot and has started the process of developing it as a recreation ground.

## THE IRLA NULLAH RE-INVIGORATION PLAN

Importantly, this movement and the project are a unique example of the need for waging citizens' struggles for exercising their Right to the City and in scripting its current and future growth and take on several challenges.

A plan that networks and integrates the nullah into the neighbourhood as well as with the multiple amenities and institutions in the precinct through green streets and roads that promote a walking culture along the nullah as well as within the Irla precinct.

These include the conservation of a vital natural asset; its integration with the neighborhood and the city; expanding public spaces -- both in physical and democratic terms; popularising and demystifying the planning process for effective participation in conceptualisation and implementation process, primarily effecting a paradigm shift in understanding of sustainable ecology and building with nature and its benefits to the quality of life and environment.

Phase 1 of the project includes the development of three citizens' parks namely the Kishore Kumar baug, Kaifi Azmi Park and the Childrens' Forest Park; a public, open air amphitheatre - the Vijay Tendulkar Rang Manch; walking and cycling tracks along the nullah complete with lighting and landscaping, and most importantly the cleaning of the waters in the nullah itself.



BEFORE



AFTER



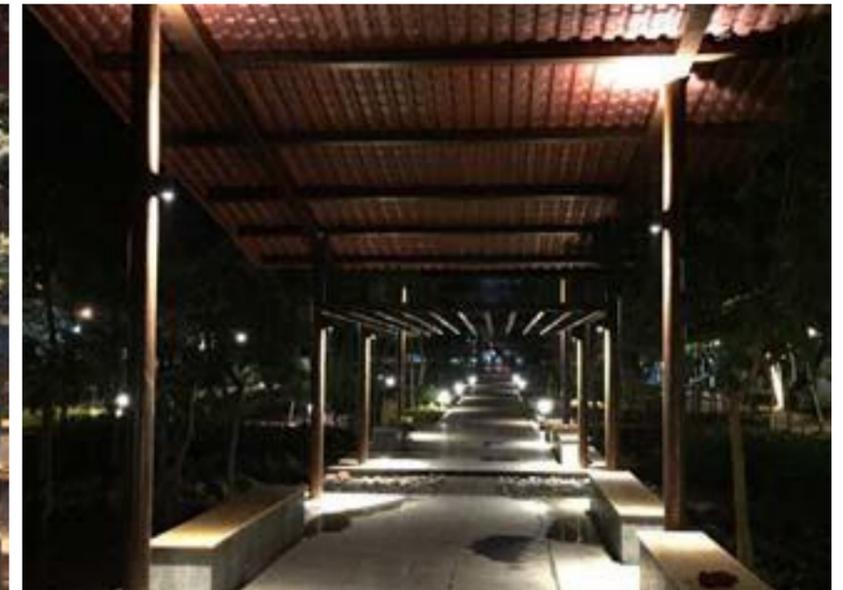
AFTER



# KAIFI AZMI UDYAN



# KISHORE KUMAR BAUG + VIJAY TENDULKAR RANG MANCH

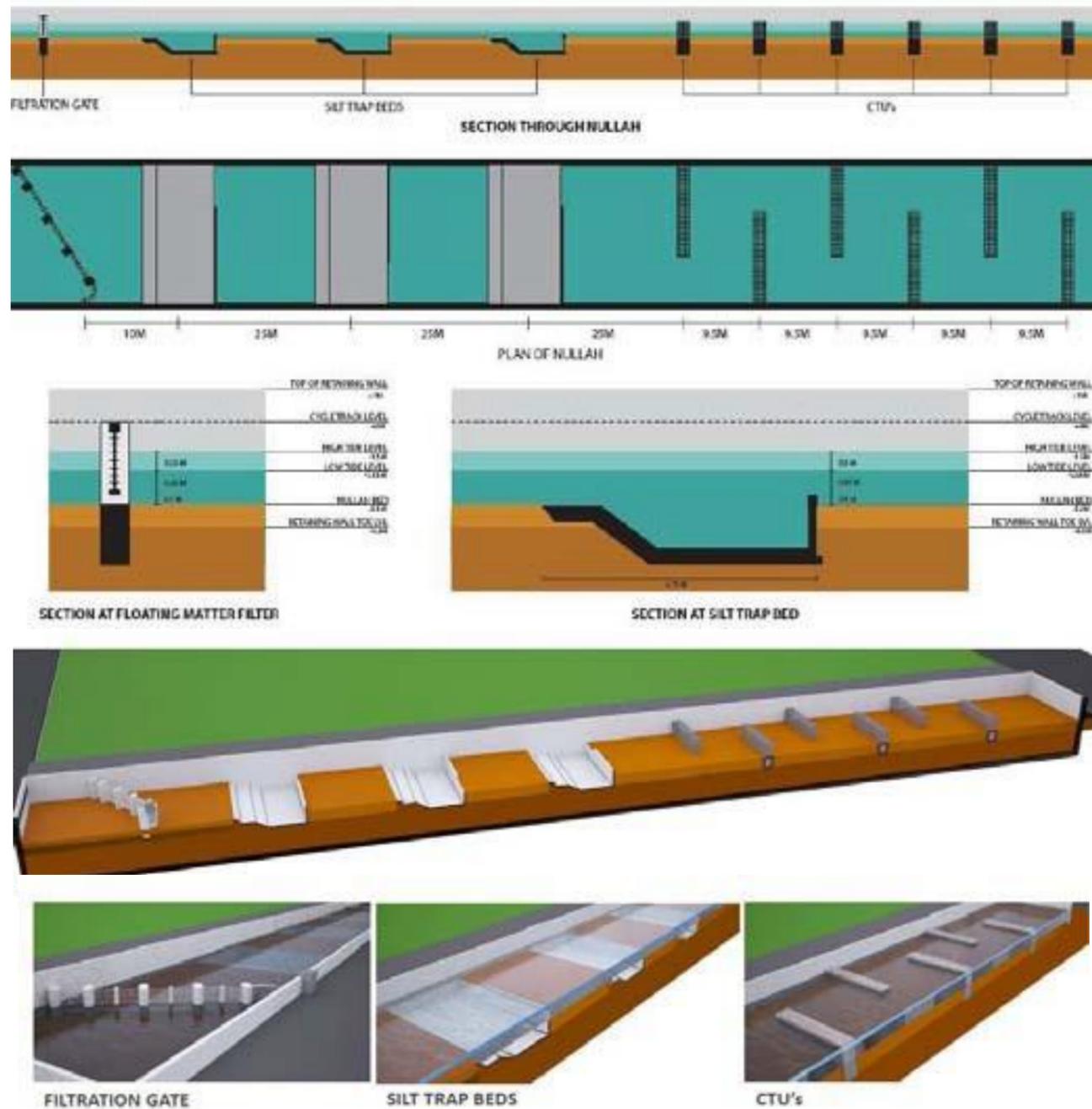




## CLEANING THE IRLA NULLAH

One of the focal points of the project and one that was key to the success of the re-appropriation and re-invigoration of the nullah itself was the challenge of cleaning the water. It has been mentioned earlier, that these water bodies were originally built as natural and open storm water channels that would take water from inland into the sea. Unfortunately over the years, most of the flow in these water bodies is contributed by illegal sewage and waste water connections from adjacent areas.

There is a tremendous amount of silt that has accumulated over the years on the nullah bed, and the effective cleaning of the water would also entail reducing this bio-waste silt from the bed itself in order to reduce the foul smell and odour of the water too.



The design team has worked closely with the National Environmental Engineering Research Institute (NEERI) to develop a system for cleaning the water. This system comprises of several elements that include 1) a floating matter filtration gate, 2) silt trap beds, 3) compact treatment units and 4) floating beds of phytoid plants.



Floating bed treatment unit



Canna Indica variant used as plants on the floating bed

**PLACEMAKING:  
A CONTINUING ECO-STRUGGLE**

# THE MOVEMENT TO RECLAIM PUBLIC SPACES IN MUMBAI

22 years and continuing

**AWARDS AND RECOGNITION**



**Clearwater Citizens Award**  
to PK Das & Assc. by Waterfronts Center, Washington, 2002



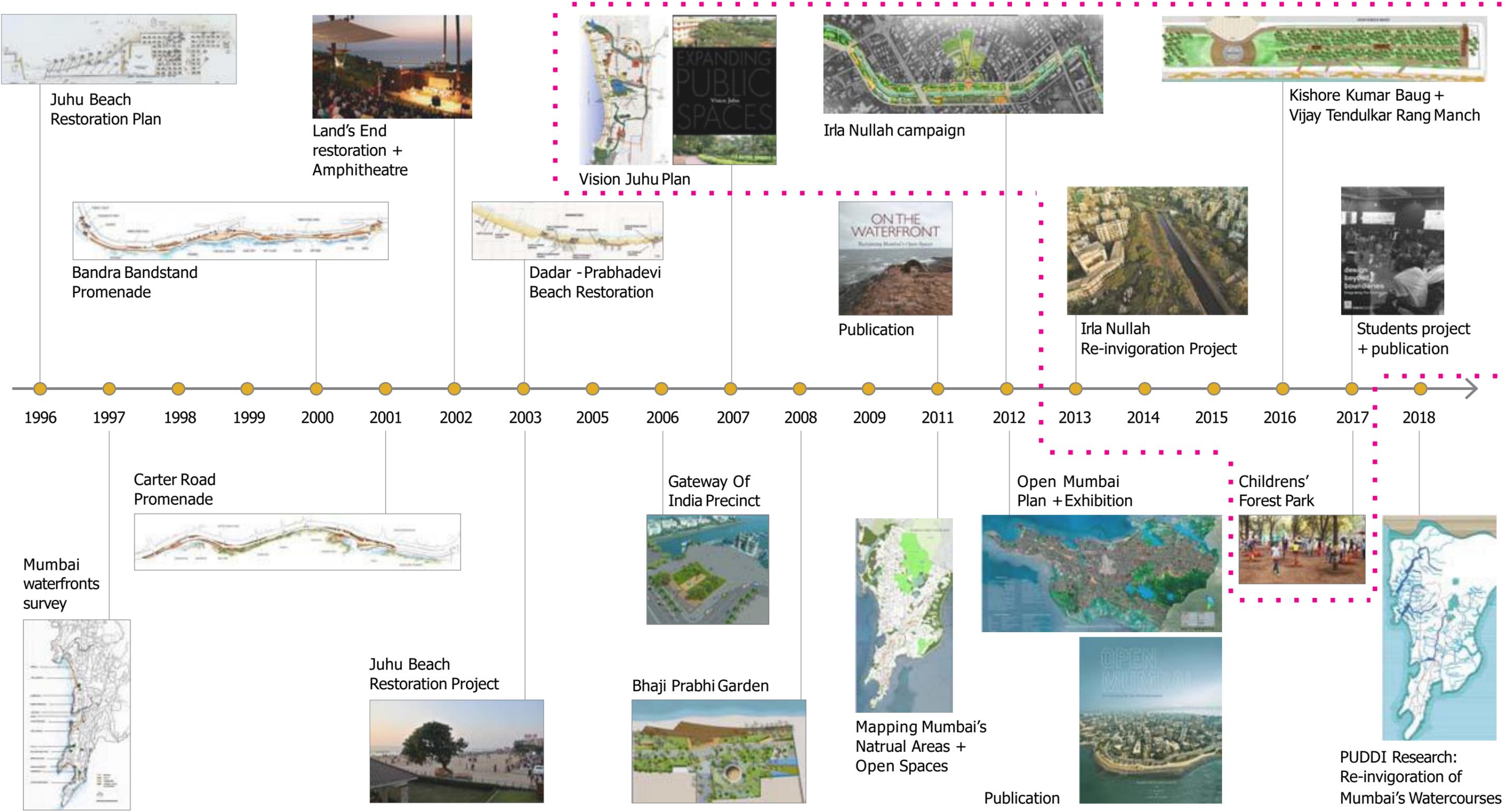
**The Urban Age Award**  
by The Deutsche Bank, 2007



**Changemakers of Mumbai Award**  
to PK Das by Hindustan Times, 2013



**The International Jane Jacobs Medal**  
to PK Das by Rockefeller Center, 2016



The timeline illustrates the progression of public space reclamation in Mumbai from 1996 to 2018. A central horizontal axis marks the years, with vertical lines connecting to various projects and publications. A pink dotted line highlights a specific period from 2005 to 2018.

- 1996:** Juhu Beach Restoration Plan
- 1997:** Mumbai waterfronts survey
- 1998:** Carter Road Promenade
- 1999:** Bandra Bandstand Promenade
- 2000:** Land's End restoration + Amphitheatre
- 2001:** Juhu Beach Restoration Project
- 2002:** Dadar - Prabhadevi Beach Restoration
- 2003:** Vision Juhu Plan
- 2005:** Bhaji Prabhi Garden
- 2006:** Gateway Of India Precinct
- 2007:** Publication: *ON THE WATERFRONT: Reclaiming Mumbai's Open Spaces*
- 2008:** Irla Nullah campaign
- 2009:** Irla Nullah Re-invigoration Project
- 2011:** Mapping Mumbai's Natural Areas + Open Spaces
- 2012:** Open Mumbai Plan + Exhibition
- 2013:** Students project + publication
- 2014:** Childrens' Forest Park
- 2015:** Kishore Kumar Baug + Vijay Tendulkar Rang Manch
- 2016:** PUDDI Research: Re-invigoration of Mumbai's Watercourses
- 2017:** (Continuation of Childrens' Forest Park)
- 2018:** (Continuation of Childrens' Forest Park)



**a continuing  
movement..**