

ISOLA Conference
PUNE, 20TH FEBRUARY 2015

Placing Landscapes in Public Domain

PKDAS
Architect - Activist

OPEN MUMBAI

Re-envisioning the city and its open spaces

MUMBAI WATERFRONTS CENTRE

AND

P K DAS

&

ASSOCIATES

OPEN MUMBAI

Expand & network public open spaces

Conserve natural assets & protect eco-sensitive borders

Prepare a comprehensive waterfronts plan

Establish walking & cycling tracks

Promote social, cultural & recreational opportunity

**Create spaces for art, culture and leisure & enhance
the aesthetics of the city**

Participation, governance & public spaces

Undertake necessary amendments in the DP & DCR



MUMBAI'S OPEN SPACES MAP

INDEX

	Nos.	AREA-SQKM	%	SIGN
GREATER MUMBAI BOUNDARY	(A)	482.74		
WARD BOUNDARY				
RAILWAY STATIONS & PROPERTY		9.41	1.94%	
AIRPORTS, DEFENCE, PORTS		14.55	3.01%	
MAJOR ROADS & HIGHWAYS		30.00	6.21%	
GARDENS [G] & PARKS [P]	318	2.49	0.52%	
PLAYGROUNDS [P.G]	631	4.01	0.83%	
RECREATION GROUNDS [R.G]	603	7.18	1.62%	
ENCROACHED OPEN SPACE [on G, P.G., R.G]	501	5.30	1.09%	
ENCROACHED SPACE ON N.D.Z.		4.80	1.00%	
FISH DRYING YARDS	5	0.16	0.03%	
LAKES, PONDS & TANKS	23	7.06	1.46%	
CREEKS, RIVERS AND NALAS		13.14	2.72%	
WET LANDS [Includes salt pans]		8.01	1.66%	
MANGROVES		61.42	12.70%	
BEACHES	10	1.44	0.29%	
PROMENADES	6	0.12	0.02%	
HILLS , FORESTS & NATIONAL PARK		53.60	11.10%	
N.D.Z [excluding hills, mangroves, wetlands]		39.50	8.18%	
TOTAL AREA	(B)	262.20	54.40%	
Balance land area for development of Housing (5 categories as per DP), Industrial (6 categories as per DP), Commercial (2 categories as per DP), Amenities (34 categories as per DP), Services (15 categories as per DP)	- (A) less (B) =	220.54	45.60%	

Not to scale

Various reservations are as per the Development Plan.

Names & listing of the R.G's, P.G's, G's & P are not fully available.



Comprehensive mapping of the open spaces of Mumbai has been carried out by P.K.Das & Associates, Planners & Architects. Open spaces include the various Development Plan reservations - Recreation Grounds (RG), Play Grounds (PG), Parks (P) and Gardens (G). It also includes the diversity of natural assets like hills, forests, lakes, rivers, water bodies, creeks, mangroves, wet-lands, salt pans, beaches and rock formations, which together provide a distinct geographic character to the city, considered here as a part of the open spaces structure. Also promenades and coastal gardens have been included. Encroachments on all the above categories of open spaces have been marked too. Layout RG's and public spaces at railway stations, markets and public amenity buildings are considered by us as significant open spaces but have not been documented here.

Preparation and publication for the first time of such a comprehensive Open Spaces Map of Mumbai is drawn for the purpose of Re-Visioning Mumbai with open spaces as the basis for the city's planning and development. A Vision Plan draft with this objective is presently under way, along with detailed ward maps and listing of 1552 available open spaces. This process will culminate in exhibitions to facilitate public participation and dialogue. The idea is to ensure that the open spaces are conserved and protected from all forms of building construction activity. This map includes a ward based listing document of open spaces.

Limitations and Assumptions : This map has been prepared from a comparative study of the Development Plan and the google maps which are not to date. Road areas are approximate too, considering the total length as 2050 kms. This map does not distinguish between the different encroachments on various land use reservations. Reservations for swimming pools as in the D.P. have not been included in this map. Certain RGs, PGs and Gs have been developed in parts with clubs & other related buildings. These have not been distinguished in our mapping.

References: For the preparation of the Open Spaces Map, we have relied upon Google maps and referred to the Development Plan 1991 and 'know your ward' documents, prepared by the MCGM, various A-Z maps, the listing of reserved open spaces - RG, PG, P, and G, by the MCGM Garden Department (listing 700 nos.) and 'Breathing Space' a survey document by 'Citispace' (listing 600 nos.)

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Prepared & Published by

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MAPPING MUMBAI'S OPEN SPACES

KEY ELEMENTS

- **Sea Fronts**
 - **Rivers**
 - **Creeks**
 - **Wetlands**
 - **Mangroves**
 - **Lakes**
 - **Ponds**
- **Water courses (Nullahs)**
- **Recreational Grounds, Playgrounds, Parks**
 - **Historical sites**
 - **Transportation hubs**
- **Spaces around market places & public buildings**
- **Various services corridors- Pipelines, HT lines, Fly-overs & Bridges. Etc.**

SEA FRONTS - PROMENADES

BEFORE



AFTER



BANDRA BANDSTAND



RIVERS - LIESURE & CULTURAL SPACES

BEFORE



AFTER



Proposed Plan

INTERNATIONAL EXAMPLES



River front in Berlin, Germany



Cheonggyecheon river, Korea, Seoul



Stockholm, Sweden

MITHI RIVER

CREEKS - NEIGHBORHOOD PARKS



PROPOSED PLAN AT MALAD C

INTERNATIONAL EXAMPLES



Proposed Development at Sherman Creek, Manhattan



Weedon Island, St Petersburg, Florida



Mangrove forest in Laem Phak Bia, Ban Laem,
Phetchaburi, Thailand

MALAD CREEK

WETLANDS - NATURE WALK

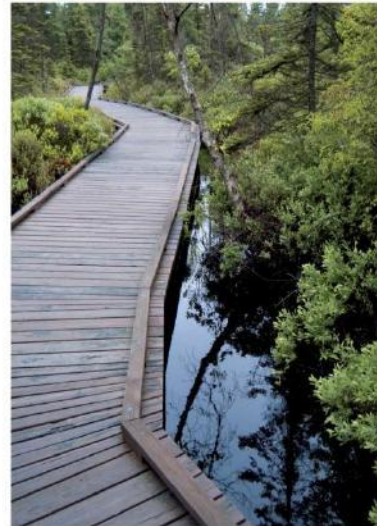
BEFORE



AFTER



INTERNATIONAL EXAMPLES



Dartmouth, Nova Scotia



Boardwalks at Miami



Vermilion County wetland, Illinois

SEWRI WETLAND

BEACHES - OPEN & CLEAR

BEFORE



AFTER

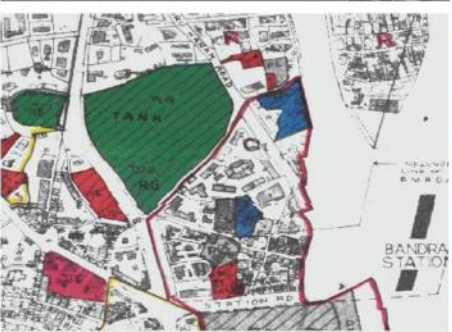


JUHU BEACH

PONDS - CONSERVATION & INTEGRATION



Proposed 3D at Bandra Talao



INTERNATIONAL EXAMPLES



Wuhan - China near East Lake



Kota Kinabalu City, Malaysia



Lugarno, Sydney

BANDRA TALAO

WATERCOURSES (NULLAH'S) - WALKING & CYCLING



IRLA NULLAH

FORT PRECINCTS - CULTURAL SPACES

BEFORE



AFTER



LAND'S END

HISTORICAL SITES - RESTORATION & INTEGRATION

BEFORE



AFTER



GATEWAY OF INDIA

NEIGHBOURHOOD PLANNING

- **As the city expands, each area or neighborhood develops its own identity.**
- **Each neighborhood has different needs, demands, & aspirations. Also physical & geographic conditions vary between them.**
- **Neighborhood planning would address this diversity & also enable people's active participation**



Commercial Hustle on Footpaths



Slums & Gaothans

PROPOSED NETWORK OVERVIEW FOR JUHU



INTERNATIONAL EXAMPLES



Cheonggyecheon, Stream



Cheonggyecheon, Stream



Las Ramblas, Barcelona, Spain

VISION JUHU



Juhugiri. Pyar se.

Double 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, re-develop slums
 Form a model for neighbourhood planning,
 participation & governance

Vision Juhu *Expanding public space*

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

Supported by: Juhu Citizen's Welfare Group (JCWG) • Gulmohar Area Society's Welfare Group
 Juhu Scheme Residents Association • JVPD Housing Association Limited • Gaothan Area Residents Association of Juhu (GARAJ)
 Juhu Residents Association • Irla Residents Association • Rotary Club of Juhu • Reserach Sponsor: ICICI Prudential
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PUBLIC CAMPAIGN POSTER - VISION JUHU

OPEN MUMBAI PLAN

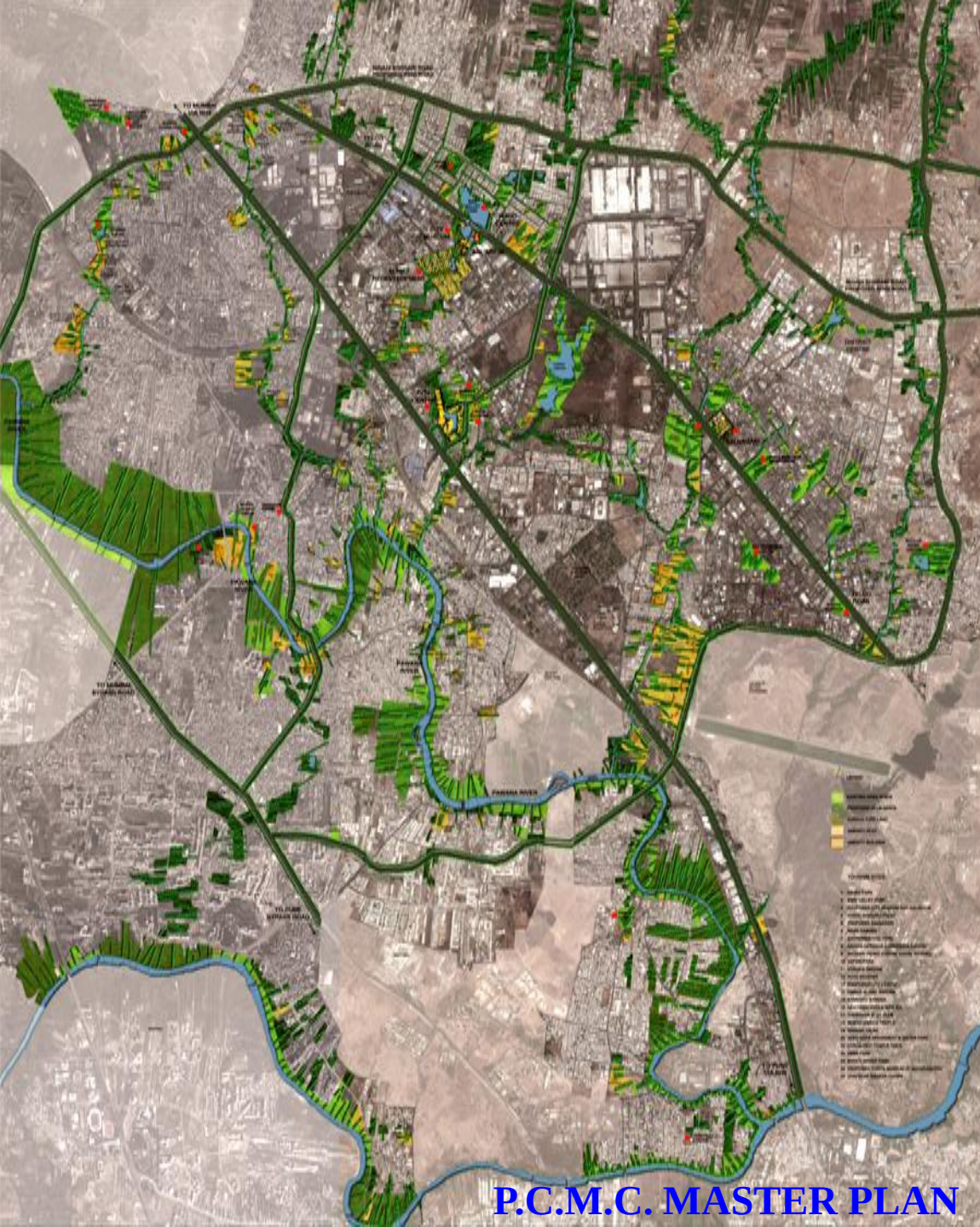


WHAT WE DON'T SEE AND REALIZE AS OUR PUBLIC SPACES ASSETS:

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



RE- ENVISIONING PIMPRI CHINCHWAD



P.C.M.C. MASTER PLAN

RE- ENVISIONING PIMPRI CHINCHWAD



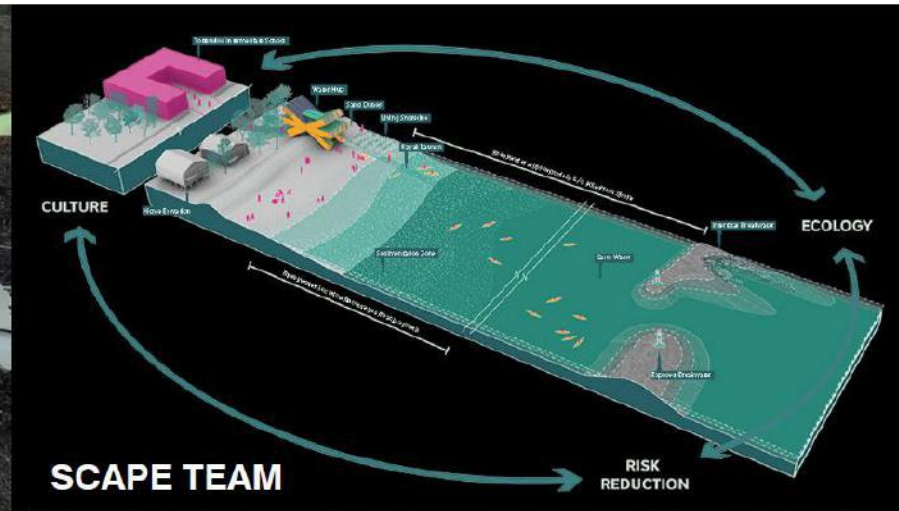
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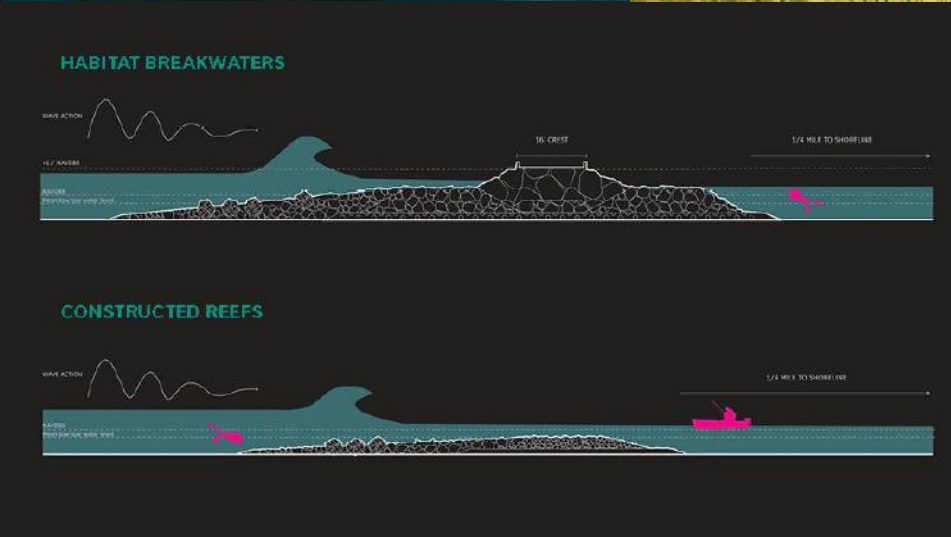
PAWANA RIVERFRONT

AN EXAMPLE - PROPOSAL ALONG PAVANA RIVER

REBUILD BY DESIGN COMPETITION – NEW YORK & NEW JERSEY: PROPOSALS



SCAPE TEAM PROPOSAL FOR REBUILD BY DESIGN







THANK YOU