



REGULATORY GUIDELINES FOR URBAN UPGRADATION THE CASE OF MUMBAI

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Agenda for this Presentation



Aim: Present regulations for slum redevelopment in Mumbai

Illustrate the case of SPARC and a housing society of slum dwellers

Specifically look at:

- The crisis of slums in Mumbai
- The attempts by government to improve the situation of the poor
- The case of SPARC, an NGO, and Rajiv Indira-Suryodaya, a housing society of slum dwellers, who are working to redevelop a slum
- How a central government legislation checks these efforts
- What changes need to occur to make slum redevelopment efforts successful

Slums in Mumbai



In Mumbai 6.6 million people live in slums.

Although 55% of the city lives in slums, they occupy only about 20% of city land.

These slums are located throughout the city on:

- private land
- state government lands
- municipal lands
- central government lands

There are about 4000 slum pockets in Mumbai.

They exist on any open unprotected land such as pavements, railway tracks, airports, open drains and dumping grounds.

All slums have inadequate housing, water and sanitation and are overcrowded.

In Mumbai, more than 70,000 families live in slums along the airport



In Mumbai, thousands of families live in slums along the railway tracks



**In Mumbai, thousands of families live in slums
along pavements**





Government Efforts to improve living conditions

The government has made several attempts to change this situation.

- Slum eradication and relocation
- Slum improvement
- Slum upgradation
- Slum redevelopment and rehabilitation

But there was little change in living conditions and slums continued to grow



Slum Rehabilitation Scheme

In 1995, the state government initiated the Slum Rehabilitation Scheme.

- This is widely considered the most progressive effort so far
- All those living in slum structures prior to 1.1.95 are eligible for SRS
- They can get a 225 sq. feet house free of cost
- The funding for this scheme is extremely innovative

Innovative Funding for Slum Upgradation



Premise: Real estate prices are high and land is a scarce resource

Incentive Built Up Area

For every 10 square meters of free rehabilitation tenements constructed, developers are allowed to construct a certain amount of for-sale tenements

In the island city, the ratio is 1:0.75

In suburbs and extended suburbs the ratio is 1:1

In particularly difficult areas, such as Dharavi where this case study is based, the ratio is 1:1.33

Innovative Funding for Slum Upgradation



Transferable Development Rights

Development Control Regulations restrict the built up area on a particular plot of land. This is called Floor Space Index (FSI)

Since SRS provides incentive built up area, the total amount of FSI granted exceeds the amount that can be constructed on one particular plot

SRS allows for extra FSI to be sold – as if it were land itself – in the open market in suburbs and extended suburbs of Mumbai.

This is called Transferable Development Rights

Innovative Funding for Slum Upgradation



An example (in Dharavi)

Rehabilitation Area :	1500 sq. meters
Incentive FSI @ 1:1.33 :	1999 sq. meters for sale
Total BUA granted :	3499 sq. meters
Permissible BUA:	2500 sq. meters
Extra BUA as TDR:	999 sq. meters



The case study of Rajiv Indira-Suryodaya



212 slum families belong of Rajiv Indira-Suryodaya Cooperative Housing Society

SPARC is developing their land

5 buildings are planned -- 3 for rehabilitation and 2 buildings for sale

So far, 1 rehab building with 90 tenements completed and occupied

Second building for 64 tenements almost ready

Third building for 56 tenements is underway



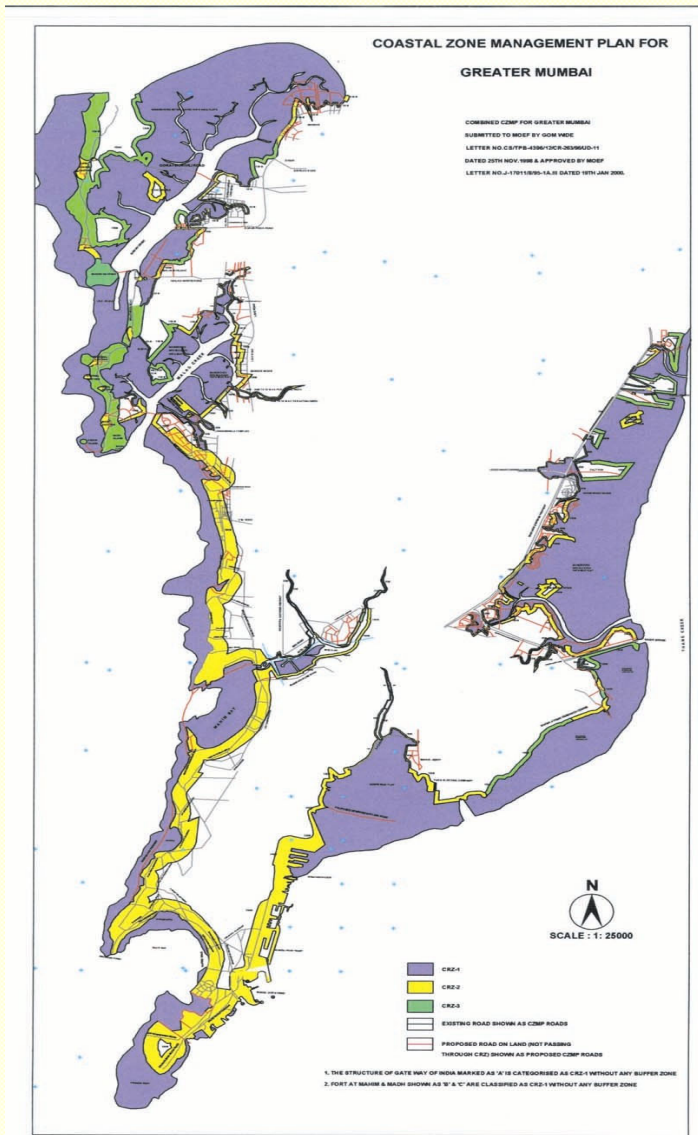
However there is a problem

Central government regulations restrict development along the coast in order to protect the environment

This is known as the Coastal Regulations Zone and it overrides the benefits of the Slum Rehabilitation Scheme

In fact, more than half of the plot area i.e. 1564 sq. meters is affected by CRZ II

Coastal Regulations Zone



There are three zones.

CRZ I – Area between the high tide and low tide line, where no development is permitted

CRZ II – where substantial development has already occurred, but further development is controlled

CRZ III – where sporadic development has occurred, and only repairs and reconstruction is allowed

How CRZ affects Mumbai



A very large part of Mumbai falls into CRZ area. This means

- No construction is allowed on the seaward side of existing roads or authorized structures
- FSI in CRZ II is frozen
- Design and construction had to be consistent with the surrounding landscape
- Lands on either side of a creek also fall into CRZ II



How CRZ affects slums in Mumbai

Nearly 134 slums or 30,000 households fall within CRZ.

- All slums are considered unauthorized structures
- Slums on seaward side cannot access SRS
- Slums on landward side have restricted FSI

Slums on the seaward side cannot be redeveloped



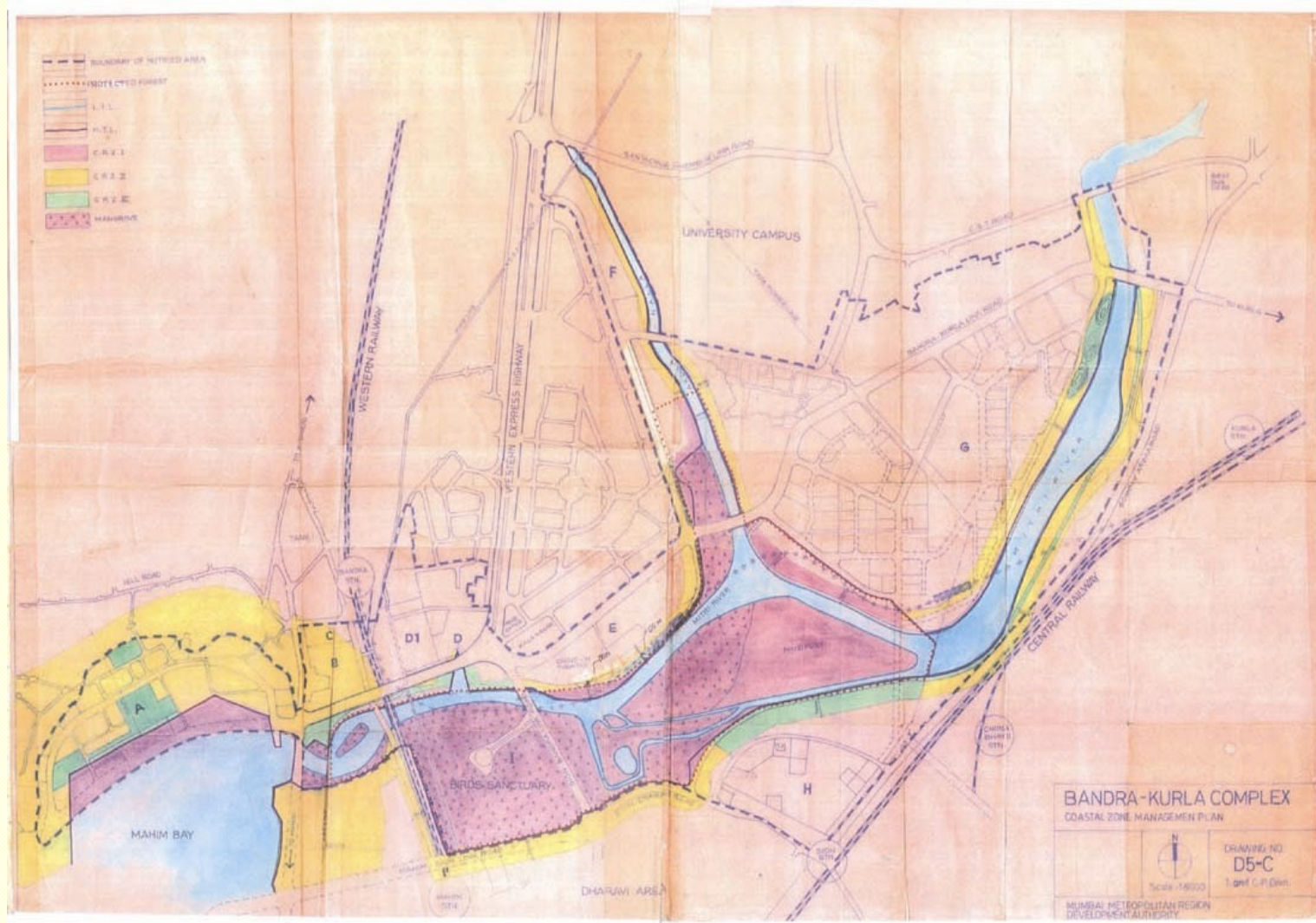
Slums on the landward side have restricted development



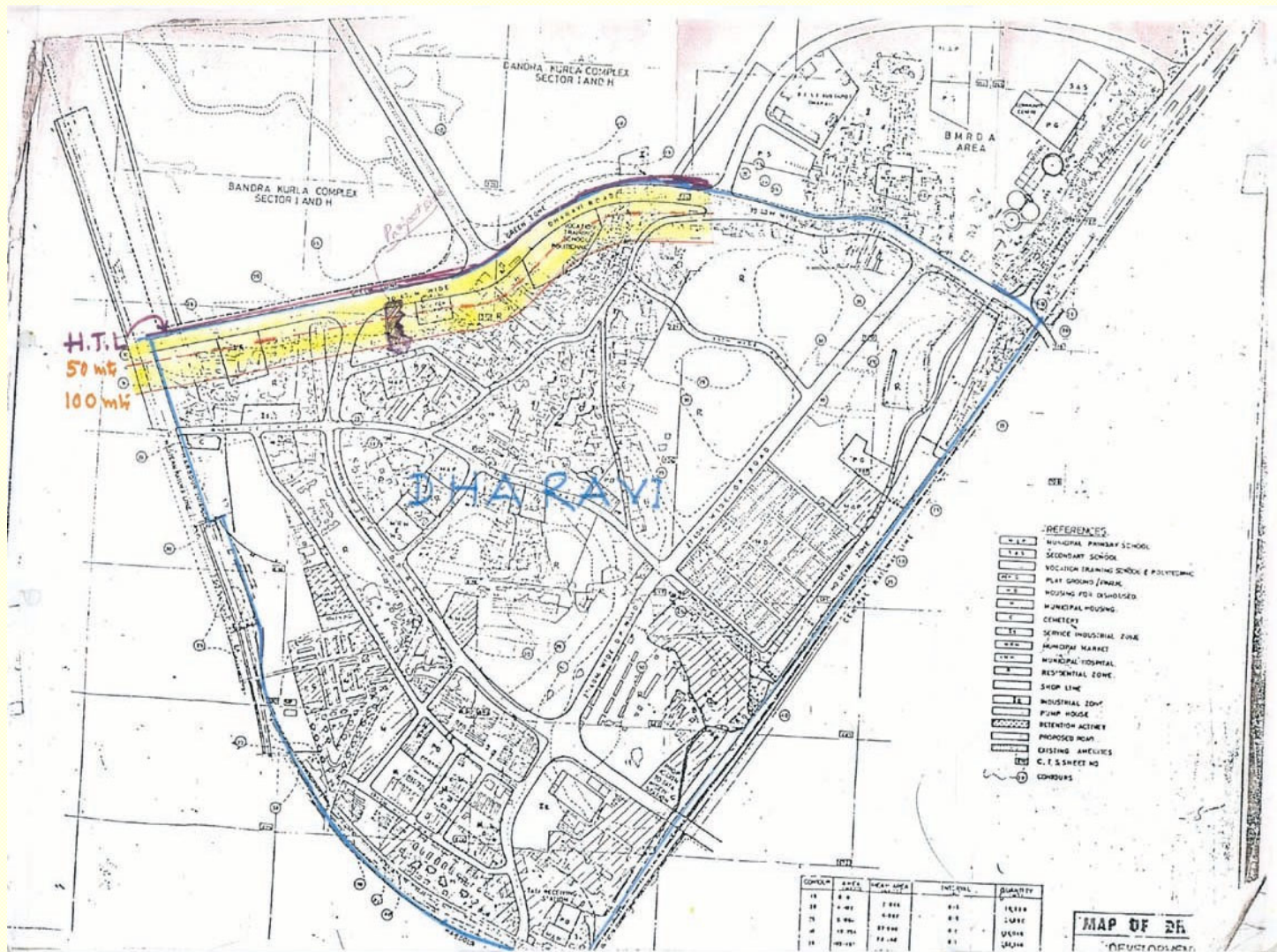
Slums along creeks also fall into CRZ



Dharavi, which is along the Mithi River, falls into CRZ II



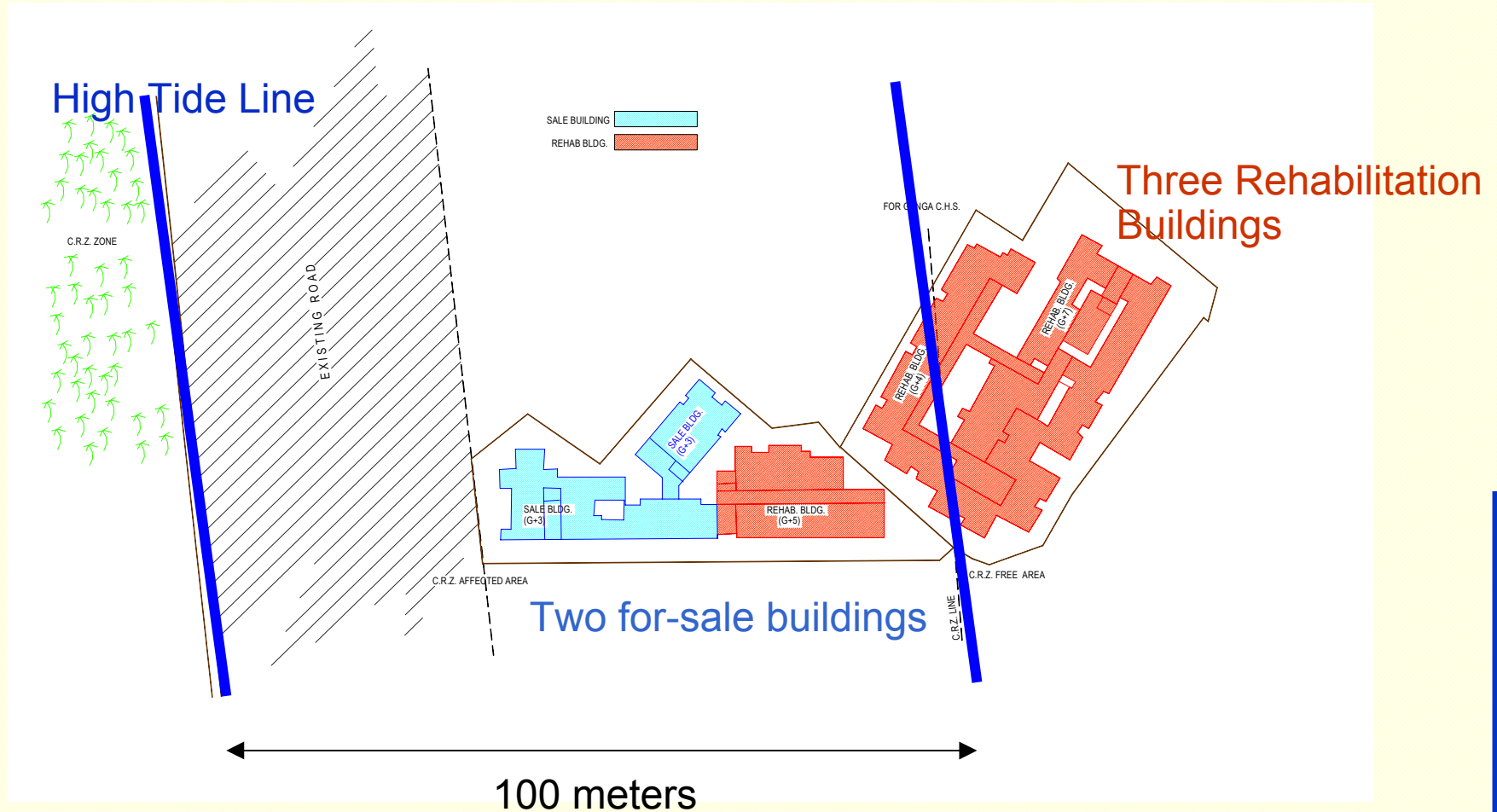
In fact, more than 3080 families in Dharavi are affected by CRZ II





SPARC's construction falls into CRZ II

Map of SPARC plot



How this affects the financial viability of SPARC's construction



This plot abuts the Mahim Creek and half the land falls into CRZ II

Here, FSI is restricted to 1.33

SPARC can only construct 3 story buildings and must sell rest as TDR

Selling already built tenements is more lucrative than selling TDR

Community loses Rs. 900 per square foot

Community totally loses Rs. 17 million



SPARC's efforts

SPARC found that there was a mistake on the CZMP plan

On Chief Naval Hydrographer's map, the width of creek is only 50 meters

But CRZ marked as 100 meters

However CRZ Rules say CRZ along creeks should be either 100 meters or the width of the creek, whichever is less.

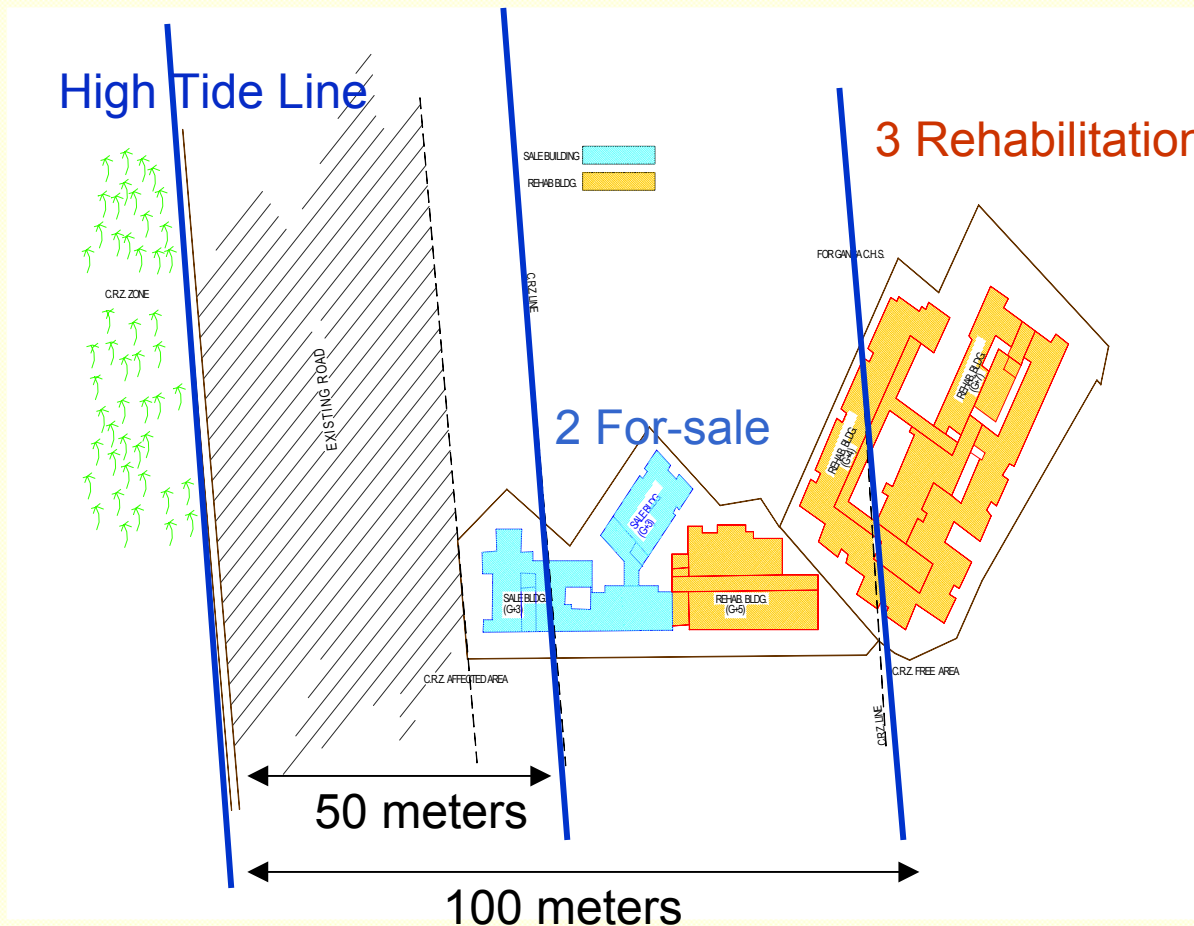
SPARC appealed to state led authority to request correction

Authority has agreed and will recommend change to the central government authority to support

SPARC is now lobbying its case in Delhi.



CRZ relaxation will greatly benefit SPARC's project



- Total BUA allowed will increase by 1104.90 sq. meters
- SPARC will make Rs. 10 million more
- This will be used to support other slum communities undertake SRS



Conclusion

This will also greatly benefit other slums

3080 families who live in this 100 meter CRZ belt in Dharavi will be able to access SRS

This will set a precedent for getting CRZ relaxations for other slum pockets – both on landward and seaward side