

Annexure 1

STRATEGY for better Urban Form

Demarcate the planning localities

Mapping of the city should be carried out to identify the various localities. These localities can be mapped based on similarities in history, show similar livelihood patterns, those developed by a certain agency (government/ private/trust) or developed at a given point of time, or slum pockets, or showing certain common physical characteristics.

Studies of each of the localities

Each of the localities need to be studied in detail to understand its present activities, existing infrastructure, building heights, ground coverage, setbacks, FSI, typological conditions, livelihood patterns, light and ventilation conditions, plot sizes, etc. This would be towards establishing building potential.

Develop specific DCR for each of these localities

Based on these studies, develop specific development control regulations for each of the localities.

Establish Difference between Development Right and Building Potential

There may be difference between development rights available to plot owner and the building potential that is available on his/ her plot. If the difference is positive, i.e. if the building potential is lower than development right then the balance development right should be transferred to localities having building potential higher than development rights. This means localities which have higher infrastructure etc. can absorb development from localities having lower infrastructure.

DCR for informal localities

Localities with significant amount of slums, should be identified as informal localities and special development control regulations for up gradation and reconstruction of such localities should be formulated with community participation.

Language of DCR to be simplified removing all possible individual interpretations.

The Written regulation can be interpreted in many ways and needs to be concise and unambiguous. No Discretionary modifications to DCR should be possible. FSI should be defined in clear and complete terms with no "free of FSI" spaces like flower beds, balconies, car parking, etc.

Section 33 of the DCR to be removed.

Section 33 of the DCR have been relaxed compromising the habitability aspects. This should not be carried forward into the new DCR.

Implement systems for evaluating the urban impact of infrastructure through a transparent community participation process.

Approval submissions for large public projects (exceeding 5000 sqmt) should contain an impact assessment of such a project on the locality. Such a proposal should be made open for public review. The suggestions and objections of the people, if found reasonable, should be incorporated in the design.

TDR needs to be indexed as per the value of property when transferred between areas.

TDR needs to be indexed as per the value of the property in generating and receiving parcels. This means that FSI generated in a low value area will be proportionately reduce as it is transferred to a high value area. This is so to create a more even distribution of development across the city so that TDR can be used as a generator of positive urban form.

New forms of town planning schemes will need to evolve

New forms of town planning schemes will need to evolve that are appropriate for Mumbai where land is of such high value. The pitfalls of traditional TPS schemes that have been attempted but failed in Mumbai must be studied to evolve an implementable mechanism.

Incentivise residential, commercial and amenity plots to give barrier free public spaces to the city so that the percentage of public space per person can be increased. Encourage the creation of Urban open spaces such as plazas and promenade

Environmental features should be protected

The edges along water courses need to be protected and reserved as public open spaces. Further efforts should be made to open private occupation of water edges to public.

KEY RECOMMENDATIONS

- DP should consider cultural significance of Heritage precincts and urban villages on urban form of city.
- ELU and preparatory study report should include grade wise classification of Heritage buildings.
- DP should aspire to increase open spaces in city. In public survey findings it clearly shows that people want gardens and parks, the sea front public open space is out of perception of users.
- 70km of Mumbai's edge is a waterfront of which only 10km is open for public access. The Development Plan 2014-2034 (DP) must aspire to grant larger access to Mumbai's waterfront to the public thus defining its urban form in the process.
- Informal housing occupies 42% to 58% of the city hence detail mapping of slums is essential to understand impact of urban form of housing and all other amenities on DP 2014-2034 and make appropriate reservations for the same.

- Public housing must be developed by government/ MCGM and not builders or developers.
- Development Control Regulations (DCR) must guarantee minimum quality of life through proper light, ventilation and set back guidelines.
- Fragile or vulnerable areas have no mention in the DP Preparatory Studies with regard to Disaster Control Management. These areas need to be marked and have special considerations in the DP.
- DCR has become larger than DP, emphasises extensively on Floor Space Index (FSI) and DCR is modified on an average once a month. DP must have guiding principles and DCR must be a tool to ensure these.
- There is no analysis of carrying capacity of increased pressure on vehicle and road. FSI increase is indexed against road and other social infrastructure. FSI permissions must supplement with amenities and carrying capacities of localities.
- Projects by various special planning authority should be in control of nodal agency i.e. MCGM.
- Along the proposed metro corridor footpaths are reduced to 6 inches and 8 inches. DP does not mention any policy regarding the up gradation of footpath widths.

TRANSPORTATION and Urban Form

- Western express /Eastern Express highway should have dedicated bus lanes.
- Care to be taken in the DP that elevated transport structures do not encroach on other areas. Spaces under flyovers are misused. Thus tunnels serve as better options compared to flyovers especially at junctions.
- Roads near stations must have pedestrianized zones as in any case they are dominated by pedestrians.
- visible improvement in pedestrian infrastructure (pedestrian aspect is totally missing at junctions, subways, raised zebra, crossing, traffic calming etc for safety)
- visible improvement in cycling infrastructure (safe cycle track network, Govt bike sharing centres, cycle parking spaces etc)
- Seamless integration of all the modes of Transportation (single card system, physical integration of train station and bus stops, taxi/rickshaw stands, information integration)

HERITAGE and Urban Form

- Conservation is essential for urban form of the city and reservation for the same must be made in the DP. Map and protect heritage buildings in the DP. Development plan must show 100m and 300m regulatory zones for heritage. Acquiring and management of these sites must be planned along with the review of the heritage building listings.
- Many important heritages are neglected at present like Shewri fort, Mudflats and many institutes like Hawfkin Institute.

- Urban villages should be protected from getting lost in high-rise development.
- Of the 16,000 cessed properties 5000 are more than 100 years old; hence issues related to conservation of them should be considered in development plan.
- Several heritage sites have close proximity in the city and thus these must have an integrated plan in the DP.
- Development and conservation must find a balance in the DP.
- Repair and reconstruction of buildings should be preferred instead of constructing new buildings with offbeat typologies of building like G+5, 6 stories of parking podiums which disregards the quality of life in streets.
- The city is already extremely dense and thus the DP and the DCR to give to encourage repairs instead of redevelopment. When TDR is given for reconstruction it can be given for repairs as well. Repairs are less expensive and more energy efficient compared to redevelopment.
- Encouragement must be given for adaptive reuse.

PUBLIC SPACE and Urban Form

- Public space can be increased by modifying the DCR. Public space in Mumbai is very less at 1.2 sq.mt./person. Private open space can be made available for the public realm by giving incentive to private space owners.
- All new developments to mandatorily have public realm at various levels, which may connect to major railway stations and roads.
- Public realm in privet building can be incorporated through DCR. This might help in adding some amount of public space to city.
- Space above the railway lines can be used for public space as done in Hong Kong.
- Mumbai sea edge can be used as pedestrian walkways. Creek edges must respond to create public spaces.
- In existing city form spaces and bazaar streets allows activities to create linear pedestrian link system to railway station.
- Dharavi can be pedestrianized while a loop vehicular public transport can be designed around it.
- Make natural features like mangroves accessible as public space using eco-sensitive design solutions.
- Concretization of nallas must be stopped.

OPEN SPACE and Urban Form

- Elements that clearly affect the urban form and impart identity to the locality are open spaces, built environment, semi built environment, building heights, footpaths and streets, marginalised open spaces, nallah etc. and thus the DP and the DCR must clearly address these. The identities imparted by the above may be cultural, social and environmental.

- As per the 1991 DP there were 3246 open spaces which occupied 2968 ha. and 309 water bodies that occupied 895 ha.
- Of the total open spaces in the city only 36% are freely accessible while 10% have restricted entry, 31% are not in use and 23% are occupied sites. The vacant and unused open spaces must be acquired by DP.
- These open spaces must have physical, design and maintenance accessibility to all the citizens. High compound walls, parking, hawking and encroachment along the edge deny visual access to open spaces.
- Kattas serve as better design solutions than high walls. All open spaces must have provision for ramps and railings. The DP and the DCR must address these issues.
- Eco- sensitive open spaces and water bodies must be preserved and not necessarily made open to public. E.g. mangroves of Sion-Mahim Link Road, water body in Chembur, hill slopes in Tardeo and salt pans in Mulund.
- About 19% of the total open spaces are occupied by Slums. MHADA to take over the development of slum occupied open spaces and release back maximum area as open spaces.
- All open spaces in the city should be available for use in afternoon for the benefit of senior citizens, small children, women, student, informal workers etc. Currently the entries to play grounds in Educational institutes are denied. The entries to be made open for public after school hours.
- Road signage must show nearby open spaces.

DENSITY and Urban Form

- Mumbai island city's gross density is 448p/ha while Manhattan is only 250p/ha.
- The area required for every one hectare of buildable area either, the area required for institutional, street and open space is very high or gross density is too high. The DP and DCR must ensure the area required for amenities and street space before giving permissions for such high FSI.
- Thus not FSI but density must be used as a tool for redevelopment. The holding capacity of each area to be determined and then the FSI to be derived on this basis for the specific site.
- Mumbai must set aside land for affordable housing at about 25% to 50% like many countries in the world, where construction cost is taken from its residents but they are not charged for land.
- Looking at existing infrastructure, the city may not accommodate beyond certain density, hence DP should demarcate area wise permissible density.

LIVELIHOODS and Urban Form

- Urban form is related to livelihood and infrastructure for livelihood. Housing types enable certain work and living relationship, especially the space outside house. E.g. kumbhar-wada and fishing villages. SRA development does not provide for such spaces.

- Instead of completely destroy work and live relationship, “conservative surgery” approach helps to keep urban fabric and increase housing stock.
- Separate DCR must be made for repair, retrofitting and up gradation for existing villages, chawls and slums. City has a large housing stock in the form of chawls. These can be upgraded with internal toilets and elevators.
- DP should reserve typology like chawls for senior citizens in future for hostel and housing. As the cities average ages is going to grow by 2034.
- Site and services schemes must be facilitated and legislated through urban design guidelines.
- FSI free spaces in DCR should accommodate and encourage entrepreneur activities considering cities changing economic/ livelihood pattern.
- Discourage parking and introduce typology with G+2 work spaces within residential apartments.
- FSI should not be allowed to dictate urban form in the city. FSI of 500 tenements to a hectare is very high in the case of slums. Slum rehabilitation schemes must not compromise on light, ventilation and setbacks.
- The DP and DCR to protect primary activities like dhobi ghats, fishing, net making, boat repairs, agriculture. These require adequate market space, toilets, crèches etc.
- Reservations must be made for skill up gradation centres in every ward.
- DP should encourage urban agriculture.
- Reservations for rental housing, hostel, and night shelters must be made in the DP.