

Event: Build India.

India is presently suffering from the enormous growth of urbanization. Presently, Indian Population is 17.5% of the world's population and accelerating urbanization is forcefully effecting the transformation of Indian society. Slightly more than 28 percent of the country's population is urbanized, but unfortunately 21.68 percent (61.8 million) of the urban population live in slum area.

To build India, essentially means to start with the sustainable and inclusive growth of the cities. They act as crucible of innovation and engine of growth of the country. While Mumbai is the Economic capital of the country, it also has the largest share in the percentage of slums!

Being the economic capital of the country, Mumbai provides enormous employment opportunities. It attracts people from all parts of the country, majorly the lower income peoples and the unskilled labours from the rural area. The high rate of migration from rural area to the urban sector formulated slum area, because these men are unskilled labours to industries.

Mumbai is having 55% of its population living in slums. People living in slums have formed the integral part in the life of the city. They have been the fundamental support system of the city. Practically, they are driving the city. Most of them stay in the slum colonies, as they lack any other alternative due to weak economic conditions.

Current population of Mumbai is 20.5 millions, and 55% live in slums, i.e. 11.3 million population lives in slums. To build Mumbai, we need to redevelop slums and improve quality of life of every slum dweller. The city has to become slum free.

It has become a very common urban scenario that thousands of dwellings in Mumbai made of informal structure, are squeezed into areas of a small city block. In these cramped dwellings, often only an arm-span in width, entire families live without running water, electricity. Few have beds; they sleep on scraps of cloth padding on the dirty floor.

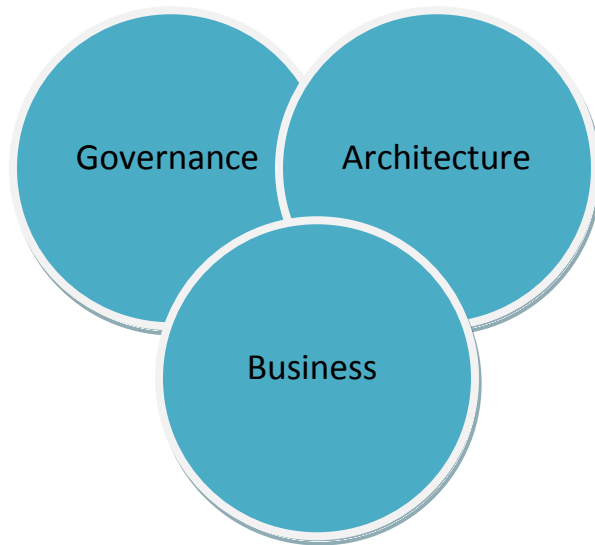
To solve this challenge, Indian government along with private businesses and NGOs is working with various schemes to drive this city towards growth. In past few years, the developments have failed the challenge of sustainability and unable to set excellent infrastructure for city.

Vertical Slums: Critics are of the opinion that, under the various redevelopment schemes in which government works with profit oriented business and NGOs, slums are not developed but, just transformed into Vertical Slums. Because, giving them a house to live, is first step in the right direction but, not sufficient enough to put the city in the direction of growth. These developments have failed to empower the people in the slums.

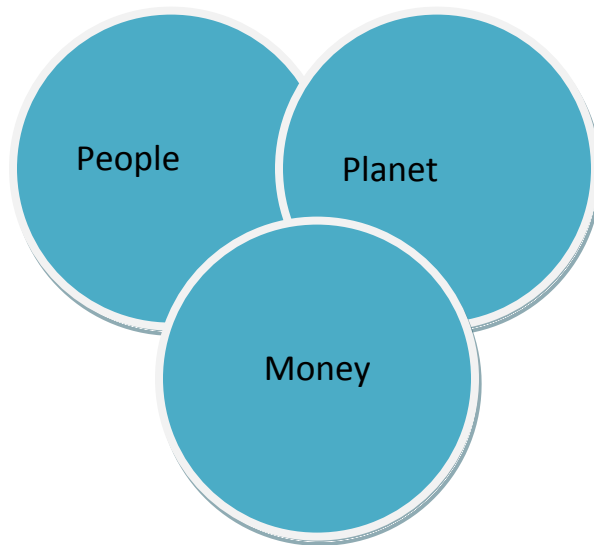
One of the ways, in which significant development of the city is underway is by Public-Private-Partnership schemes. These developments, primarily focus on profits and corruption inside governance, makes it more difficult to give Economic capital of the country, the best infrastructure possible. Resources are inefficiently used and time is wasted and the bottom-line generated is Vertical Slum.

This challenge demands a paradigm shift in the current process model. So that the bottom-line generated are not Vertical slums but, enhance the life of slum dwellers. It demands out of the box solutions to redesign the current process model to bring innovation in mainstream Business , Governance and Architecture.

These innovations have to focus on Governance-Business-Architecture and integrating them.



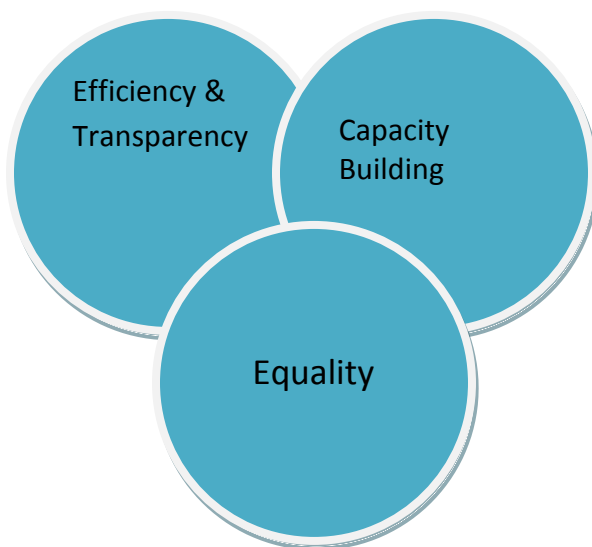
Business: Businesses have to become more responsible, and look beyond the balance sheets, but focus on triple bottom line: People-Planet-Money.



Triple Bottom Line

Governance: Governance will have to establish Laws to generate constructive environment for businesses and NGOs, to set city towards inclusive growth.

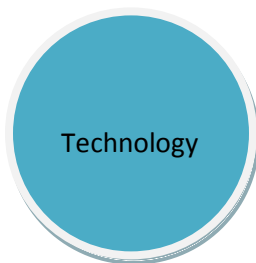
Where the government has to set standard of excellence with focus on:



Architecture: Architecture will have to focus on:



Technology: Technology is one of the strongest instruments to change the current dynamics.



Technology can add value in Governance, Business & Architecture to enhance productivity and set the city in the direction of :



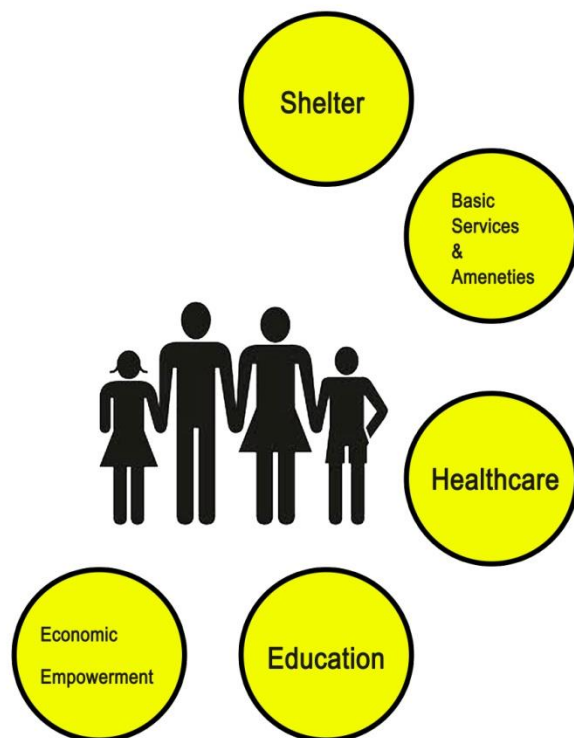
Core Objectives:

- (A) How can we build business to make Mumbai Slum-free?
- (B) How can out of the box, game changing solutions be generated, that would provide Mumbai a world class & Sustainable infrastructure, by slum redevelopment?
- (C) How can government act as catalyst in fostering the growth of city to make it slum free?
- (D) How can technology enable us to solve issues of Governance, Business & Architecture?

People-Centric approach:

There is need to have people-centric approach towards slum redevelopment. To enhance life of any slum dweller basic minimum there is need for:

- 1] Proper shelter
- 2] Access to basic services & amenities
- 3] Access to Healthcare
- 4] Education
- 5] Economic Empowerment



Solutions should focus on the following 3 key immediate issues:

- 1] Integrating slum settlements and communities into the Urban Areas
- 2] Strengthen the legal & Policy framework to facilitate the process of Slum upgrading.
- 3] Designing innovative framework of Business, Architecture & Governance, which should be inclusive of all the stakeholders involved in the process, for the efficient & smooth implementation of policy objective of Government.

Governing Principles:

- 1] Slums are integral part of the urban areas and contribute significantly to their economy both through the labour market & informal production activities.
- 2] It is imperative to help Urban poor in building Urban prosperity and make sufficient provision for them to have access to affordable land, house sites & Services.
- 3] Present planning and development framework views slums as "Problem Areas" requiring correction action.
- 4] There is need for a greater commitment to institutional re-orientation by adopting a more 'enabling' approach to the delivery of basic services accessible to poor.
- 5] Major areas of attention for governance to facilitate the vision of slum-free Mumbai is
 - a) Capacity Building
 - b) Resource allocation & Use
 - c) Efficient & Transparent mechanism

Challenge: We encourage students to form multidisciplinary teams, to identify specific problems in the current scenario. Solution need not be holistic to encompass the entire issue, but, your team is encouraged to focus on specific issues. Identify challenges in the issue/issues selected and focus on generating innovation.

Slum Redevelopment:

We have divided it in two major categories, according to built environment development scheme:

- 1] Complete redevelopment scheme of built environment: Slum dwellers are provided house in new apartment on the current site or resettlement site elsewhere. These apartments are in general multistory apartment of average height of 20 floors in Mumbai.
- 2] Build environment upgrading: Slum dwellers are provided onsite built environment upgrading, this may include reorganizing there structure of individual household and community.

Improving Quality of Life:

Areas of Focus, to improve quality of life of slum-dwellers:

- 1) Providing shelter and Environmental Upgrading**
- 2) Improving access to social Services**
- 3) Strengthening Municipal Governance and Management**
- 4) Economic Empowerment**
- 5) Financing sustainable slum improvement & Services**

[1] Providing shelter and Environmental Upgrading:

(A) Shelter Upgrading

(B) Environmental Improvement

(A) Shelter Upgrading:

We need to empower and enable poor to fulfill their own housing needs, just like any other city dweller by facilitating access to :

- (a) Serviced land
- (b) Home loan financing
- (c) Other technical and institutional support

Given the magnitude of Urban poverty and the availability of public funds, it is neither practical nor desirable to provide free housing for all the urban poor, because this would undermine the inherent capacity of most slum dwellers to provide for their own shelter needs within an enabling policy framework.

Bottlenecks:

To enable shelter to all slum dwellers, following are the few bottlenecks to solve:

1] Land for Affordable Housing:

Can we bring more efficiency inside the current framework of governance, which would facilitate greater support to regularize the concept of **high density, mixed use** occupation for slum areas? **This will help to keep land costs down** in Mumbai and ensure that the market for land in slum areas will be determined by high density, low income characteristics and not subject to widespread commercial speculation as elsewhere in the urban area.

2] Security of Tenure:

The lack of security of tenure is one of the major reasons for poor households are unwilling to engage into the shelter upgrading. The possibility of future eviction or resettlement acts as disincentive for current private partner to invest money into the running developments and also discourages the slum dwellers. To enable faster growth in the city, mechanism to establish trust with the slum dwellers is only by ensuring secured tenure. Can we design such mechanism?

3] Rationalization of Norms and Standards:

To facilitate greater efficiency in the current process, there is need to redefine norms and standards to allow high density, low cost housing units with provision for adequate access, ventilation, light, safety and privacy.

4] Incremental Unit Design & Layout patterns:

Can we design innovative models of Architecture and layout patterns? Which would enable flexibility for dwelling units to expand incrementally in keeping with family's changing requirements and economic situation.

5] Community Participation:

Can we design better participatory approaches to involve local communities of slum dwellers in the core decisions and design of the building? Some of the supporting measures:

a] Cost effective Technology: Technology is a powerful enablers to facilitate community participation with the decision making institutions. This will help to bridge the gap of communication between government, builders/developers or Architects and Slum dwellers.

b] Housing Clinics: Housing clinics where practical training could be imparted to grass roots leaders, to enable them to act as key resources of information to slum dwellers. This will enable slum dwellers to collaborate effectively with government for greater efficiency in development programme.

6] Project Planning and Management:

Can we design efficient project planning and management system to government, which would foster the inclusive growth of city? This would involve, legal clearances, better assessment of feasibility reports provided by builders and transparency.

7] Financing Shelter Upgrading:

Can we enable slum dwellers for effective Home loan financing?

[2] Providing shelter and Environmental Upgrading:

(A) Shelter Upgrading

(B) Environmental Improvement

(B) Environmental Improvement:

To improve quality of life, it is imperative that we improve facilities like water supply, drainage, sanitation, improved access to slums, electricity etc.

Bottlenecks:

1] Methodology

2] Physical infrastructure development

1] Methodology: To improve environment in slums requires tremendous resources, investment and co-ordination between governance, Private businesses/NGOs and local community. To enable fast growth of the city, we need to have efficient mechanisms of strategy and execution. How can we design it efficient enough?

Key Issues to solve in Methodology:

a) Community based approach: Improvement in the informal steeling should be driven by Community based approach, with active involvement and participation of the members of the community at every stage of the design, implementation and maintenance. Communities should be encouraged to contribute to the operation of services.

b) Inclusive approach for Women and children: It is important to give more value towards women and children in the design and implementation of the physical infrastructure upgrading and delivery of social and economic services.

C) Service delivery on individual household basis: Basic services such as water, sanitation and electricity should be provided on an individual household basis.

2] Physical Infrastructure Development:

a) Water Supply: It is imperative that every slum dwellers receives sufficient water supply. Quantum, duration, timing and water quality are the parameters to design the effective water supply system.

b) Sanitation: Community latrines within slum/informal settlements degenerate quickly on account of poor operations and maintenance, thus becoming counterproductive of public health. Absence of underground drainage and sewerage systems, limits improvement of sanitation in many areas, thus there is need to innovate.

c) Pedestrian and Vehicular access way: Many slums are disintegrated from the core activities, thus it becomes important to promote physical integration with the neighborhood areas. This will help social integration within and between communities.

d) Storm Water drains: During rains, slum dwellers face tremendous problems and this generates health problems for thousands of families.

e) Electricity: Only mere provision of street lighting without formal household connections leads to illegal tapping and loss of revenue for government, which also leads to unplanned loading of the system and fire hazards. There is need to innovate the technology for such services and also in community management system for local areas.

f) Solid Waste Collection: Due to improper solid waste management, it gives birth to many diseases in the slums. Sustained community level initiatives are necessary and models to implement.

[3]Improving access to social services:

To build capacities of poor and empower them to improve their own living conditions and quality of life, improved access to social services is needed. This would reduce social inequalities and promote integration of people residing in slums into the social and economic networks of the city as whole, thereby enhancing the overall productivity of the city.

Key areas of focus for improving access to social services are:

(A) Healthcare

(B) Education

(C) Child labour and Child Rights

(A) Healthcare

- 1] Participatory Health delivery:** There is need for training and basic infrastructure of healthcare in slums. Communities have to be encouraged for involvement and support.
- 2] Demand for Health Services:** There is need for community mobilization to create demand for better preventive health services to access health services in a more effective manner. Emphasis on Health education is lacking for STD/HIV prevention, as well as measures to tackle cardiovascular disorders and combat against alcoholism and violence.
- 3]Private sector partnerships:** Establishing private partnerships with private medical practitioners to undertake the delivery of curative services in slums. How can we enhance this?
- 4] Health Insurance to widen the access to curative Health Care:** There is need to design health insurance schemes for the slum dwellers, this would involve government and private partnership.

(B) Education:

Every year many children are deprived of the formal education due to lack of access to these institutions. There is urgent need to focus on increasing the school enrollment at primary level, reducing school drop-out rates particularly for girls and supplement formal school education with coaching assistance to assist slum children join the formal schooling system.

- 1] Primary Education
- 2] Pre-school and Non Formal Education: There is need to promote pre-school/ creche facilities and non formal education focusing on literacy and vocational training. Multipurpose community centre (MPCC) can act as preschool/creches facilities, non formal education classes, adult education, recreational activities etc.
- 3] Community Management in Education: Resource persons from within the community to supervise and monitor, can enhance the delivery of education services.
- 4] Education incentive schemes: Innovative incentive schemes are required to improve school attendance, particularly in relation to the female child.

(C) Child Labour and Child rights:

[4]Strengthening Municipal Governance and Management

(A) Capacity building

(B) Partnership

(A) Capacity Building:

Growing developments would require capacity building of the governance to lead and regulate the programme. This includes:

1] Human resource or Skill development programme: Skill development programme for officials and elected representatives. Specific skill development programme for preparation of Annual action/ Investment plans, development of projects for in-situ development and resettlement of slums, identification of modes and modalities to involve private sector, NGO etc.

2] E-Governance: Upgrading the skills of municipal functionaries working at operational level on the use of computers and providing them with the required hardware and software is the first important step to introduce e-governance. This promotes transparency inside the system. This infrastructure would include daily revenue collection records, property tax dues, financial information relating to budget etc.

(B) Partnership:

To realize the vision, there is need to enhance the partnership models that government employs to partner with the civil society groups. There is need to widen the base to include the wide variety of community organizations. This would foster the growth of development schemes.

(C) Monitoring & Evaluation:

Monitoring and evaluation is tool for effective objective-oriented management of development projects and programmes aimed at benefiting the poor and disadvantaged groups. In order to control the extent to which the programmes and projects of each strategic intervention are being implemented and whether defined policy objectives are being achieved, a system of monitoring and evaluation is important.

[5]Economic Empowerment:

There is need to build mechanism that would educate and empower people about financial stabilities. One of the crucial ways to support economic empowerment is by creating enterprise development schemes at the local level.

This may include:

- 1] Provisions of vocational training facilities
- 2] Implementation of savings and credit schemes for self-employment
- 3] Addressing constraints in the labour market
- 4] providing improved access to raw materials and marketing support
- 5] legal rights and redressal system
- 6] Improving Credit Worthiness of slum dwellers:

[6]Financing Sustainable Slum Improvement & Services:

The key resource towards sustainable development is financing. Some of the key focus areas are:

- 1] Private Sector funding: Businesses play an important role in investing to redevelop the slums. Thus, it is imperative to think of innovative models of financing through private sector.
- 2] Extending Tax Base: Redeveloped slum areas are de-listed from the slums and under the Tax system. This allows government to raise resources from the users, but, in some case, the families do not have financial potential.
- 3] Community cost sharing: In slums potential enough to contribute certain percentage of redevelopment, they should be encouraged for sharing costs. Thus, there is a need to design effective and efficient models.

Process followed for redevelopment schemes:

Initial Stage

All slum dwellers residing on the plot prior to 1/1/1995 and are in use of the structure are eligible for rehabilitation.

1. At least 70% of the slum dwellers in a slum unite under a slum dwellers co-operative housing society. They appoint a chief promoter. Collect share capital of Rs. 50/- per member and Re. 1/- as entrance fee. This is then deposited in the name of the proposed housing society in the Mumbai district central co-operative/ Maharashtra State co-operative bank Ltd.
2. Documents regarding the title of the land are collected by the society. The plot is got measured and the slum structures are properly demarcated.
3. of structures on the plot is carried out and the structures are numbered on the plan. A table of house number as per plan and the name of the occupant is prepared.
4. A suitable developer is appointed by the society by a general body resolution. The developer appoints professionals like Architect/ Licensed surveyor; Structural engineer; etc.
5. The developer enters into individual agreements with all the slum dwellers agreeing to participate in the scheme.
6. A proposal enclosing requisite plans; annexures and documents is submitted by the architect to SRA.
- 7.

Second Stage:

1. Initial scrutiny of the proposal is carried out by the concerned sub-engineer. It is ensured that all requisite documents are submitted along with the proposal.
 2. If the proposal is in order, the amount of scrutiny fee to be paid is worked out by the sub-engineer.
 3. The scrutiny fee is paid by the developer.
 4. Annexure II is forwarded to the competent authority for certification.
 5. Annexure III is simultaneously forwarded to the financial wing for scrutiny.
 6. Annexure I is scrutinized by the engineering wing.
- After Annexure II & III are certified by the competent authorities, approvals to LOI, layout. Intimation of Approval and commencement certificate to the first building for work upto plinth are processed. Endeavor is made to issue all these four approvals at one go, at-least for the first rehabilitation building.
- 7.

Third Stage:

1. The society draws lots for allotment of the tenements to the members who are ready to participate in the scheme. Draw for the non- participating members from the remaining tenements is also drawn.
2. The developer arranges for transit accommodation to the slum dwellers, which can be either on-site or off site, as mutually agreed between the slum dwellers and the developers.
In case the developer has difficulty in arranging for suitable transit accommodation, due to site constraints, SRA extends all help to the developers to locate suitable site in the vicinity for construction of transit camps and helps to obtain permissions from concerned authorities for the same. In case no suitable site is available in the vicinity, transit camps of MHADA, MMRDA, etc can be taken on rental basis by the developers.SRA extends all possible help for obtaining these transit tenements from these authorities.
4. Draw of lots for allotment of transit tenements is drawn.
The slum dwellers are shifted to the transit camps and their hutments demolished. The slum dwellers who do not agree to participate in the scheme are given notice by the society stating the allotment details and requesting them to participate in the scheme.
If these members do not agree to participate within 15 days of the approval of the proposal, they are physically evicted from the site under the provisions of Sec 33 & 38 of Maharashtra Slum Areas (Improvement, Clearance and Redevelopment) Act, 1971, to ensure that there is no obstruction to the scheme.
7. After demolition of the structures, work upto plinth is completed.
8. After checking the plinth dimensions, further permission to carry out construction beyond plinth is granted.

Fourth Stage:

1. Plans for the further buildings both for sale and rehabilitation are then approved.
2. Building permissions for the sale buildings are given in the proportion of the permissions given to the rehabilitation buildings.
3. Upon completion of rehabilitation building/ wing, list of allotment is drawn up. The allotment is done in the joint name of the head of the household and the spouse.
4. Building completion certificate is submitted by the architect.
5. After checking of the building and compliance of the IOA conditions Occupation permission to the building is granted. The slum dwellers as per the allotment list are given possession of the tenements.
6. SRA issues identity cards to the slum dwellers.

Fifth Stage

1. Further construction of the remaining building/s is then taken up.
2. Further building permissions as well as occupation permissions to the buildings is then granted in due course.
3. Upon completion of the last buildings in the layout, the underlying land is transferred on lease to the society of slum dwellers. In case of Government lands, the lease rent is nominal.
4. Separate property cards for the rehabilitation building plot and the sale building plot as well as for the reservation plots to be handed over are prepared. SRA acts as facilitating agency in case of any difficulty with the revenue authorities.

Guidelines:

- 1) Focus on specific issues**
- 2) Innovative and completely evolved solution**
- 3) Team size: 4**