

INTEGRATED PLANNING APPROACH TO OVERCOME ISSUES CAUSED BY MULTIPLICITY OF URBAN AUTHORITIES: A CASE OF AURANGABAD

12

Ar. Nikita P. Pawar
Urban Designer
KRVIA, Mumbai
ar.nikitapawar@gmail.com

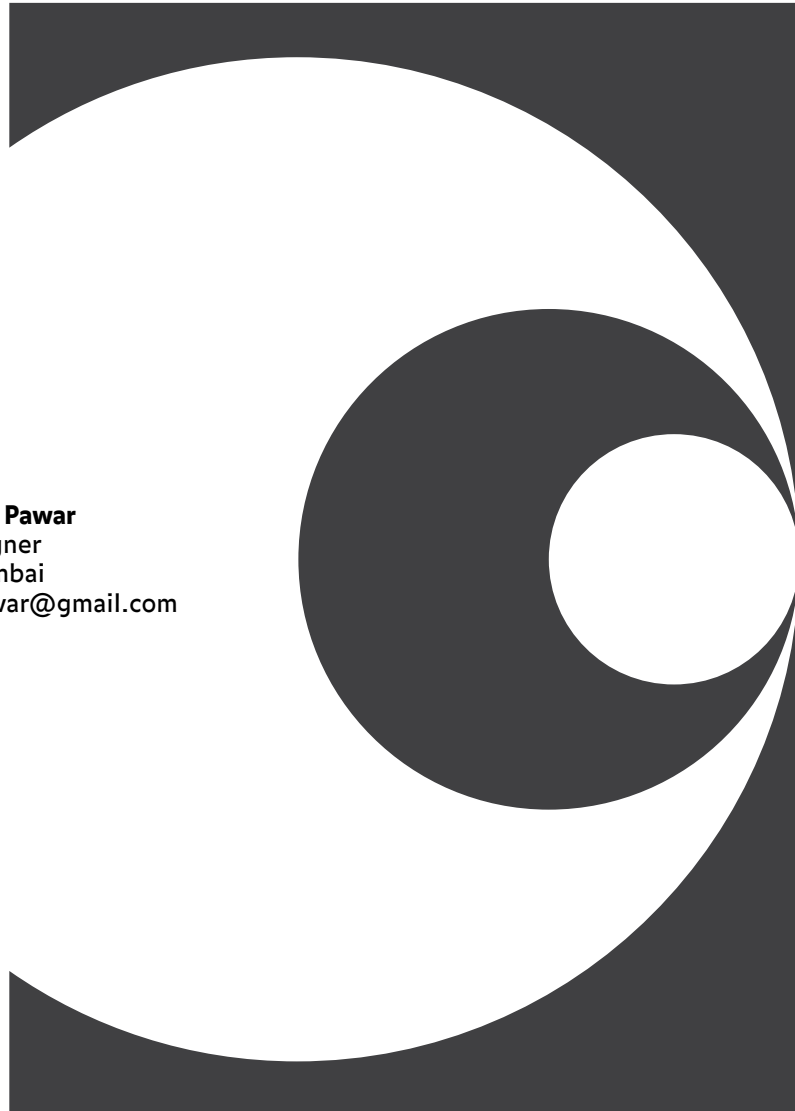




Figure 1: Urban Planning Structure in India
(Source: Author)

ABSTRACT

A city is an area where a large population resides and is governed by a mayor and councillors. The population of a city is generally determined by the vibrancy of its economic activity and increases in proportion to the same. The growing population causes a strain on the civic amenities of the city. If the city's planning and governance are dealt with by a single authority, citizens' demands may be easily met. However, looking over today's situation, great pressure owing to population growth and industrialization may be seen. Thus, several special planning agencies are carrying out their mandates in silos, resulting in discord. This indirectly impacts the city's urban form. This research intends to develop a single framework that can assimilate and integrate the roles and mandates of numerous planning bodies synergistically. For conducting empirical research, high-potential Aurangabad city has been identified as a site. However, the site's potential is wasted due to a lack of integration between these multiple agencies. This paper aims to utilize this potential by connecting physical, social, environmental, and economic aspects in conflict zones.

Keywords: Integrated Planning, Planning authorities, Governing Authority, Urbanization

1. INTRODUCTION

A special planning approach is required for each vision to transform into reality, and strategies must be developed for it. This is an extensive and deliberate process that incorporates tactics, methods and cutting-edge technologies for fulfilling competing needs of government planning and citizen aspirations. To design these plans, a professional planning structure is required that is prepared to handle upcoming challenges and is sensitive towards the city's shaping. In the Indian context, these urban planning structures comprise planning authorities work at different levels, that is, from national, state, regional, district and local levels (see Fig. 1). The working scale of planning authorities depends on the city's scale and vice versa. Thus the establishment of these planning structures is critical, as the city's growth and structure are intertwined (MUD, 2014). There are governing authorities who consider city development to go with planning authorities. The governing and planning authorities can be either one or different depending on the scale of the city. In small cities, it is manageable by a single or maximum of two authorities who will plan and govern the city. However, in other cases with a large city scale, managing with only one planning and controlling entity can be challenging. So, there is the participation of multiple authorities including special planning authorities and quasi authorities who play their individual roles in the planning of areas. Likewise, multiple governing authorities govern these specific areas. When these authorities collide, a slew of complications arise due to different norms and regulations. Hence, if suitable actions are not taken, the city's urban form and development will be affected. Along with the planning structure, the authority's planning strategy should be scrutinized. In the top-down approach, the citizen's view is barely taken into account by the authority, while planning an area (see Fig. 2).

As a response, people object to these powers. The disparity within the two approaches is reflected in situations like - lack of connectivity, uneven land use and ignorance towards natural features, untreated edges and unplanned zones. In such scenarios, the overlaps and resulting conflicts between multiple authorities become evident. With growing urbanisation, migrants began to settle in the area, leading to the

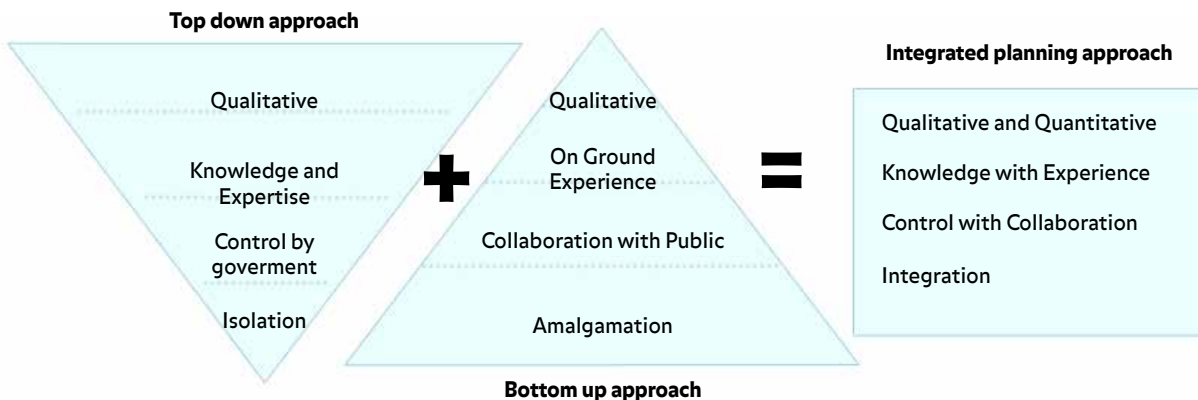


Figure 2: Planning approaches
(Source: Author)

increasing density of the area and putting strain on planning authorities. A special planning authority, CIDCO, was appointed which planned Navi Mumbai to decongest Mumbai and generate economy. Due to isolated planning, it failed to connect Navi Mumbai with Mumbai the way it was imagined. At the same time, in Hubli, with proper integration of land-use zoning and transportation systems in place, underutilised areas were properly utilised (EMBARQ, 2014). The problem of lack of integration among municipal authorities is becoming more prevalent in many Indian cities which reflects discontinuity in the city's growth. This discontinuity can occasionally stifle the city's progress. As a result, it's critical to maintain a balance between these two approaches and plan accordingly.

2. City Expansion, Multiplicity of Planning Authorities and Engendered Issue

Urbanisation leads to city expansion, new satellite towns emerge to accommodate the rising population and relieve pressure on the parent city. It becomes impossible for a single authority to oversee this expansion, thus new public and parasternal bodies are added to help the existing institutions. These authorities are relatively ineffective in conceptualizing a bigger vision and instead attempt to develop the area that has been assigned to them in a more effective manner. Thus, there is a loss of consistency in planning, which leads to conditions such as fragmentation, urban sprawl, a shortage of affordable housing, and constant changes in land use, among others. Ananya Roy (2009), properly outlined why Indian towns remain unplanned in her paper *Why India Cannot Plan Its Cities*. She explained that since development is occurring at a quicker pace, city planning authorities are unable to keep up with it and are attempting to incorporate quasi-government and parasternal groups, resulting in issues such as infrastructure shortages and growth management. For example, the city's massive IT sector is being pushed to the outskirts, with no essential services available. Due to insufficient site and services, direct employees face numerous challenges, including the need to stay where houses are available, to purchase water and to commute to work by cab or other modes on a daily basis. This creates new job opportunities for those who provide these services.

Meanwhile, for satisfying these demands of direct employees, a large mall, various real estate projects, hotels and other businesses are springing up along the corridor and a new satellite town is formed. Developers use publicity to generate revenue while hiding the unfavourable aspects of their project to sell it. The same applies for the Dholera smart city where huge tracts agricultural land are being forcefully acquired and transformed into non-agricultural land under the Central Land Acquisition Act or the Gujarat Town Planning and Urban Development Act 1976. Due to this, the livelihoods of the people living there have been affected as majority of the population are unskilled labourers who cannot work in the newly-formed industries. Rather than focussing only on economic development, it is critical to incorporate economic and social development in urban development.

3. Integrated Planning Approach

Integrated planning refers to people assembling together from various institutes with a common goal in mind and participating through planning processes to attain that goal. All policies, programmes, and proposals are evaluated in connection with others during this planning process. The economic, environmental, physical and social parameters of the city or a part of the city are the key parameters on which the approach is focused. It's a well-balanced approach between top-down and bottom-up. It also assists local governments in developing guidelines for implementing projects and programmes that are consistent with the national and provincial government's goals (Manyanga, n.d.). The planning process operate on a variety of scales, including region, state, city, neighbourhood, etc. This entails realigning the proposed initiatives and comparing them to the development vision. It is most effective when used comprehensively across the major challenges confronting a region, taking into account the interconnections and interrelationships that occur, as well as the efficiencies realized through coordination. Citizens' opinions are sought at each level, along with institutions, in order to know about the issues that have arisen as a result of the development vision. Hence, it fosters people-centred development because development is about people (Mzimela, 2013).

Case Study

1. Integrated planning approach for Wellington: Within New Zealand, Wellington is unique in that its metropolitan urban area is governed by five territorial local councils and one regional council. Local Government Commission for council collaboration identified five important areas in consultation with the region's councils as key to Wellington's future prosperity. They included transport, economic development and spatial planning. These priority areas had all come up frequently in the debate over the proposed region-wide unitary council. A report on spatial planning was released in late 2015 with benefits such as drawing together a single common destiny for the region and providing for scenarios across the region through complementary and diversified building types (BML, 2017). The research technique was as follows: (1) conducting preliminary research (2) identifying stakeholders (3) Comparing other cities' issues and integration processes they have implemented (4) preparing a report.

The process of integration in Wellington takes place in three-levels :

1. Partial integration allows to develop and share knowledge of how each territorial authority expects to respond to a set of issues/ circumstances and also their identification.
2. Moderate integration works best when the requirements of individual territorial authorities are similar and are anticipated to evolve in the same way over time. This makes defining a uniform service standard and objectives much easier.
3. Full integration will take time to accomplish the reliance on the introduction of an overall coordinative approach to planning in the area, but it is important to strategize to achieve integration (BML, 2017).

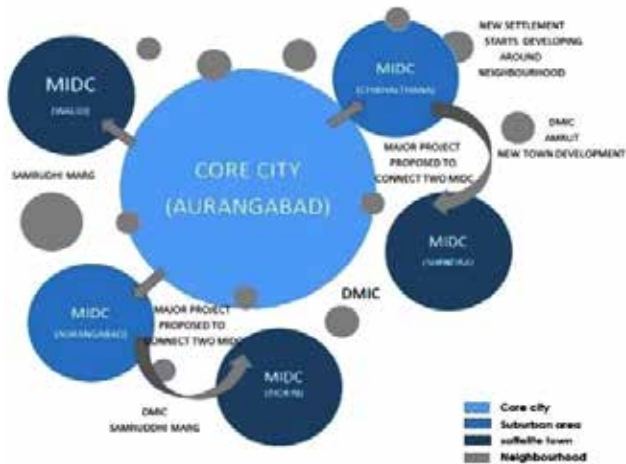


Figure 3: Growing pattern of city Aurangabad
(Source: Author)

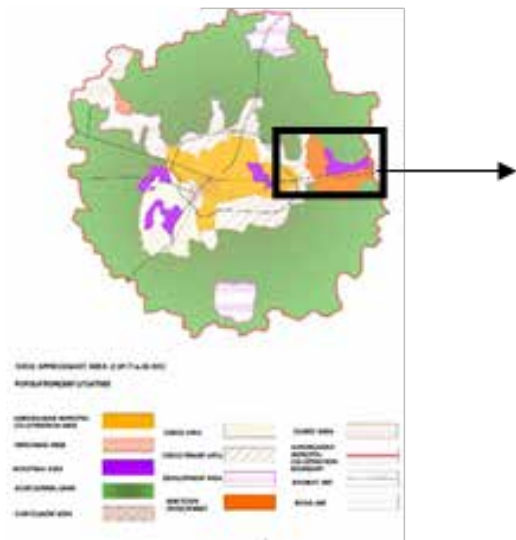


Figure 5: Regional plan of Aurangabad
(Source: <https://dtp.maharashtra.gov.in/en/aurangabad>)

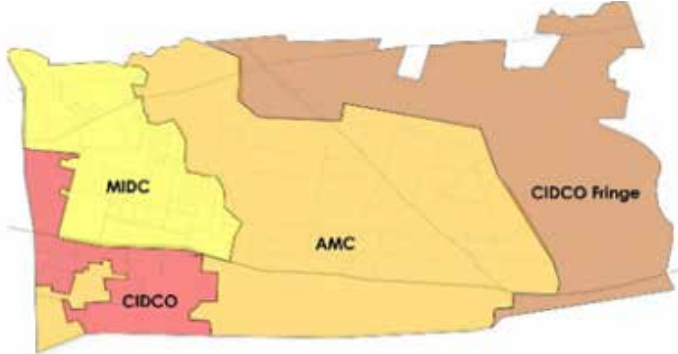


Figure 4: Authority Map
(Source: Adapted by Author from <http://rts.aurangabadmahapalika>)

4. Aurangabad City and Urban Institutions

Aurangabad is Maharashtra's historic and tourist capital. Due to the existence of five MIDCs, it is gaining a second identity as an industrial town. It is also known as Asia's fastest growing metropolis. Many important projects such as DMIC, Samruddhi Marg and the Smart City project have been planned due to its good location, low land cost, low labour cost, and great connectivity with other cities. Following the new proposal of MIDC, three satellite towns began to emerge around Aurangabad and various other projects were suggested along the town's course (see Fig. 3). Few of these projects were planned, while others were unplanned; there were legal and illegal projects, formal and informal services, and ample and insufficient services. These projects and neighbourhoods were handled by special planning authorities. Each of these had their own rules and regulations to steer the city's development. As an output, integration between the areas is missing in the updated DP (2010-2030). Citizens and government officials are constantly changing or transforming land usage based on their convictions (see Figs. 4 & 5). Uneven urban form studies from the site were selected based on three conditions. (1) number of authorities involved (2) maximum issues present (3) location of site.

Depending on conditions, three sites were selected. These sites were majorly the satellite towns which were located around Aurangabad and had different projects proposed

around them. But after comparison of three sites, a single site with the most potential was selected for further focus. The area which was selected for study in detail is Chikhalthana, which area is being transformed due to many projects being proposed along its periphery, which have diverse scenarios, resulting in a discordant situation at the intersection of two project zones.

5. Current Scenario of the Selected Site

5.1. The neighbourhood site planned by CIDCO, New Aurangabad, is developed in a residential plotted system form for the wealthy, as a gated community. It has a tiny portion set aside for service businesses. CIDCO planned the area and handed it over to AMC in 2006 for maintenance. The area includes all amenities and services. Except for the safety concerns caused by single land use, there are no serious issues in this area.

5.2. The industrial area planned by MIDC in 1978 comprises all three categories of industries. MIDC plans and maintains all of the anticipated services and amenities within the area. There is little provision for workers' housing or affordable housing, resulting in the formation of slums in some parts. Many industries are closing down as the area falls under the jurisdiction of the city. According to the byelaws, pollution-producing industries in cities should be shut down. Closed industries are being converted into residential land and a large township with high rates is being proposed on the site.

5.3. The livelihood of agricultural people are being harmed as the rural Chiklathana village is getting converted into an urban new town by AMC. People are transforming agricultural land into non-agricultural land and townships as the pace of land conversion rises. Lack of amenities and services in this area are the result of uncontrolled construction or byelaw violations. There are possibilities to reserve some part of the land for affordable housing. People in this area mostly belong to the working-class or daily wages labour.

5.4. Fringe areas which bridge the rural and urban worlds are being developed by CIDCO. This area was planned in 2016 and recently the draft plan is being approved for this area. Majority of the land is slated for residential usage, with the remaining acres being used for industrial and green belt purposes. The land value, density and income level are all far too low. There are chances of suggesting alterations in the DP and byelaws.

6. Site Finding and Analysis

The site consists of four planning authorities who have planned four different areas. Two sites are fully constructed, while the other two are in the stage of planning. Due to the integrated planning in the area, the site is facing different issues and challenges, which are categorised under three factors. A site analysis based on the issue is conducted:

1) Issues based on physical factors

i) Lack of affordable housing for the tertiary growing sector: Due to proposals of five MIDCs, large numbers of migrants come to the city in search of jobs. Various initiatives are suggested. However, none of them consider affordable housing. Thus many people from the tertiary sector encroach the area and slums are formed.

ii) Lack of road connectivity: When a single authority was planning the whole area, there were provisions made for continuous roads. But when the territory became splintered with various authorities, this was no longer the case. These authorities started planning roads according to their convictions. Thus only one road is present at the moment that connects all the authorities. The pressure on this single road increases and the problems like congestion, pollution, parking etc. increase proportionately.

iii) Lack of public transport: Lack of accessibility, less road width, single activity, less density creates obstacles for public transport to be proposed. In the present condition only rickshaws act as public transport which is unaffordable for many.

iv) Land use concerns: There are numerous issues in concern with land use, such as planning of different areas which were planned at different times. Also, prior to the planning of a few locations, there were some operations that had gone unnoticed:

a) Changing Land Use: Proposed new developments on the outskirts lead to agricultural land transformation into non-agricultural land. Residential land is being converted from industrial land. Land in gaothans are being transformed to industrial uses, among other things. Due to this, facilities planned get affected.

- b) Unseemly distribution of land use: In many localities, residential areas are placed adjacent to industrial areas. Those adjacent to different economic groups have diverse typologies and create obstructions for light, ventilation and other factors.
- c) Uneven distribution of amenities: Certain areas have less amenities than others. While using the amenities of other locations, conflicts arise between the people of adjacent areas.

v) *Sudden variation in typologies* : The overall site had low-rise structures. The farmers, whose land is being acquired for conversion into non-agriculture land, were given a TDR. The farmers in turn sold the TDR to developers resulting in construction of high-rise towers.

2) Issues base on environment factor

i) Poor condition of water resources

Aurangabad has two major rivers, one of which meets the Godavari River at one end. The River Sukhna flows from the site. Aurangabad has a water shortage. As a result, it is designated as a drought-prone area. Though there are problems, these natural elements are overlooked during planning, causing the river to be damaged in different ways, including :

- a) Encroachment on the river edge
- b) Industrial waste being directly thrown in river
- c) In many locations, drainage is opening up in the tributary, converting it to a nala
- d) Agricultural garbage, dwelling waste, and crematorium waste are all dumped in the nala.

ii) Underutilization and inconsistency between open spaces

There are numerous open spaces suggested in the area. But the value of these open spaces is low due to a lack of consistency between them. Hence, the areas remain untreated. Also, open or green places on the edge of two differently planned areas are treated like no man's land. Dumping of waste, construction material of neighbourhood sites decreases the site's value.

3) Issues based on socio-economic factors.

i. Safety issue:

Areas facing the issue of safety are :

- a) Neighbourhood with a single type of land use
- b) Gated community neighbourhoods
- c) Lack of active areas in certain industrial areas that are closed; open spaces that are unused, and roads where no public activity is taking place. All these conditions make the area inactive.

ii. Conflicts between the neighbourhoods of different income class.

The area surrounding MIDC 3 is planned for accommodating a variety of users and income levels. People who own industries, for example, reside in one neighbourhood, while people who work in industries live in another. Thus, there is conflict at the intersection of these two neighbourhoods.

The site consists of four planning authorities who have planned four different areas. Two of the sites are fully constructed, while the other two are in the planning stages. Because of the area's integrated planning, the site has to deal with a variety of challenges, which are

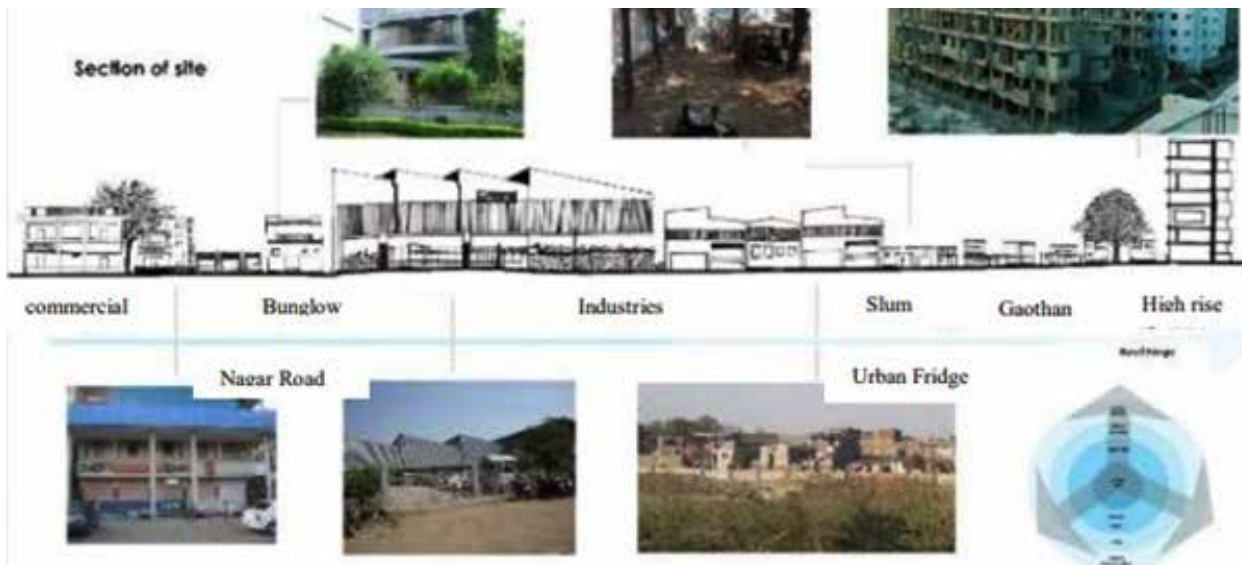


Figure 6: Site section
(Source: Author)

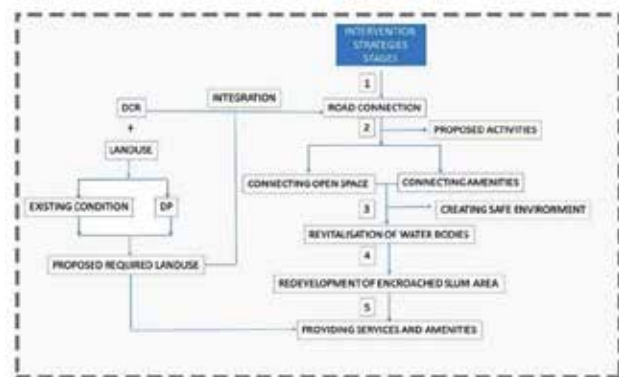


Figure 7: Strategies for intervention
(Source: Author)



Figure 8: Macro level planning
(Source: Author)

classified into three categories, and a site analysis is conducted accordingly (see Fig. 6).

7. Intervention

The overall land can be divided into four sites, each containing two parts that were neighbouring but under distinct authorities. These four locations were investigated and attempts were made to integrate them on two levels: macro and medium. While one of them, which had substantial challenges and conflicts, was investigated at a micro-level. Land use, amenities, services, and connectivity between the two areas were all prioritised at the macro level. The edge condition where two areas belonging to two distinct authorities met was researched at the medium level. One of the important levels since at the edge, numerous authorities had a big effect. The micro-level was a neighbourhood level, where two distinct authorities' neighbourhoods were placed beside each other was studied (see Fig. 7).

7.1 Macro scale intervention

Macro-level interventions are done by identifying and proposing activities along roads according to their

respective potential. The land use of some plots was changed depending on the needs of the location and surroundings. Integration of DCR is also done at this level (see Fig. 8).

7.2 Medium Level Intervention

Site 1.

1. Redevelopment of AMC area.
2. Proposal of recreational and commercial activities on the outskirts, for increasing public flow and engagement.
3. In the AMC area, open spaces and new amenities are planned.
4. Proposing roadside actions in the CIDCO which will be continued in the AMC area, reducing safety concerns (see Fig. 9).

Site 2.

1. Planning mixed-use along the edge.
2. Proposing roadside activities (shops, parking, recreational activities etc.) in the CIDCO area which will continue in the MIDC area and reduce issues related to safety.

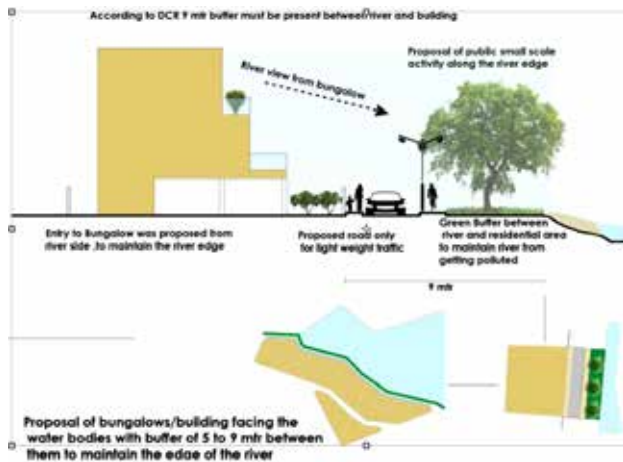


Figure 9: Micro level planning near the riverfront
(Source: Author)

Site 3.

1. Use of buffer zones as a parking lot, a play area, various types of the gathering area.
2. The green belt should be converted into a park, garden, etc.

Site 4.

1. The buffer zone between residential and industrial zones can be utilised for small-scale farming, nurseries, etc.
2. Redeveloping slums under industrial workers and MHADA schemes
3. Removing encroachment and proposing small scale recreational activities along the edge of river

7.3 Micro level intervention

1. Construction of bungalows, apartments etc. facing the riverside.
2. Proposing commercial and institutional space at the ground floor of the redeveloped buildings and proposing separate access roads for different income groups adjacent to one other. This will facilitate indirect interaction and lessen friction over time.
3. Increasing setbacks, reducing compound wall heights, etc. (see Fig. 10).

8. Conclusion

As urban planning and management work together with authorities and inhabitants, they bring value to the city's development. Since the DP, DCR, and current situation of the site are all linked, this cooperation between the authorities was accomplished by merging them. This was done on three levels : macro, medium, and micro. To some extent, it worked because the intervention included all steps for avoiding complication generated by various authorities. To conclude, the main benefits from integrated planning are :

1. The ability to coordinate and manage more major urban planning and infrastructure
2. More effective use of resources (financial, human, built, and natural).
3. Greater sensitivity to regional issues
4. Providing a unified vision and advocating for regional interests.



Figure 10: Medium level planning
(Source: Author)

However, based on the level or scale of the issue, many additional techniques can be utilised as an experiment to solve the multiple authority problem. Thus, researchers can additionally explore such techniques for continuing to grow the city while avoiding problems that arise throughout development.

Acknowledgement

I am thankful to KRVA for providing the opportunity to write this paper during my Masters. I am also thankful to Ar. Ritu Mohanty, Ar. Seema Fatima, my thesis guides and all other professors at KRVA who have helped me for my post-graduate thesis, which has been the genesis for this paper.

REFERENCES

1. BML (Boffa Miskell Limited). (Sep. 2017). Integrated Planning for Metropolitan Wellington. Wellington.
2. EMBARQ. (Feb, 2014). Shaping Hubli : Dharwad as a Connected City. Executive Report Draft, Hubli.
3. Manyanga, S. (n.d.). The Draft IDP Review 2005/2006. Durban: Thekwini Municipality.
4. MUD (Ministry of Urban development). (2014). Draft URDPFI Guidelines. Draft Report, New Delhi.
5. Mzimela, S.F. (2013). Examining the Role of Integrated Development Planning on Infrastructure Service Delivery: The Case Study of Kwanyuswa, Ethekewini Municipality. Durban.
6. Nikhil (2018). 5 Changes You would like to see in Aurangabad in the Year 2018. City Katta. Accessed from: <https://citykatta.com/poll/5-changes-you-would-like-to-see-in-aurangabad-in-year-2018/> on 5 March 2018.
7. Roy, A. (2009). Why India Cannot Plan Its Cities: Informality, Insurgence and the Idiom of Urbanization. Planning Theory, 76-87.



Ar. Nikita Pawar holds a Masters in Urban Design from KRVA, Mumbai She has a keen interest in research and planning. She had worked on projects of different scales under the government and private organizations. She has been awarded for several research papers.

Table 1: Planning approval authority in India*(Source: Author)*

State Government	State Government/ Regional Development Authority	Municipal Co-operation/development authority/Metropolitan planning committee	JNNURM
Perspective Plan	Regional Plan	1. Development Plan 2. Annual Plan 3. Zonal Plan 4. Urban Revitalisation Plan 5. Schemes/Projects	1. City Development plan 2. City Mobilisation Plan 3. City sanitation Plan

Table 2: Area Comparison*(Source: Author)*

Area	Number of Authorities involved	Location of site	Maximum issues
Chikhalthana	Six nos. MIDC, DMIC, CIDCO, AMC, Town Planning, Airport	<ul style="list-style-type: none"> On the silk route with all three modes of transport are accessible at walking distance. On the way to DMIC corridor 	<ol style="list-style-type: none"> Lack of service Major Safety issue Uneven land use pattern Major slum formation (encroachment)
Waluj	Four nos. CIDCO, MIDC, AMC, Urban planning Authority	On the way to Samruddhi Marg	<ol style="list-style-type: none"> Lack of service Uneven land use pattern Lesser slum formation (encroachment)
Bidkin	Four nos. MIDC+DMIC, CIDCO, Urban planning authority, AMC	Along the bypass and DMIC Corridor	<ol style="list-style-type: none"> Lack of service Minor Safety issue uneven land use pattern Lesser slum formation (encroachment)

Table 3: Findings*(Source: Author)*

Interview Person Authority	Finding
1. Pollution Control Board	<ul style="list-style-type: none"> Shift of dump yard from gaathan Needs more plantation All industries have their own treatment plant.
2. Architect and experts	The inner core city is underutilised but still instead of developing those, new projects are proposed at the peripheral area. As a result, a lot of green land gets converted into brown land. In many places only land use is marked while roads are not proposed, which will later on affect the development of that area.
3. Historian	It's our responsibility to conserve our natural system, historical monuments and city identity which is getting lost amongst high-rises and new proposals.
4. Farmer	In the motive of earning profit, farmers sell the land. As a result haphazard development takes place
5. Policy comparison of the authority	There are four varying DCRs which are applied in the site. Due to their variations, there is lack of development or encroachment occurs where the land-use is changing
6. Policies related to river edge	There should be buffer zones left at the river edge from about 5-15m so that recreational activities plantation, boating etc. can be proposed.
7. UDPFI	It was used as a standard to compare density, percentage of open spaces, amenities, residential etc. with the four DCRs
8. Smart city report	It helped in knowing the existing condition of the city
9. Poll vote	<ol style="list-style-type: none"> Good transportation system Better rail, air, road connectivity Smart, safe and clean Aurangabad Better water and drainage facilities Solar power and tree plantation (Nikhil 2018)