

Comparative Perspectives on Spatial Planning: Case of Hong Kong, Shanghai and Pune

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Abstract: Urbanization refers to the population shift from rural to urban residency, the gradual increase in the proportion of people living in urban areas, and the ways in which each society adapts to this change (Burgess, 2004). It can occur either organically or planned as a result of individual, collective and state action making city living highly beneficial. Therefore, it needs to be prepared to absorb huge increases in urban population and resulting pressure on basic infrastructure and livelihood opportunities. In order to secure a better future and to improve the quality of life of all the citizens, city needs to be reinvented, by incorporating creativity and innovation with the approaches, we use in its planning. This paper presents an overview of the progress, challenges and some key interventions to reinvent the city in South Asian region with the examples of good planning practices adopted in Shanghai and Hong Kong. These cities have been known for its efficient spatial planning processes, especially w.r.t land development and execution of plans. By formulating and implementing successful public policies, these cities have shown that better planning of cities can help countries to pave way towards higher economic prosperity, and achieve improved quality of life. Therefore, the selected cities, are taken as the cases, representing a strong form of urban governance and spatial planning being, implemented with relatively high levels of compliance with development control and planning regulations. And for Indian cities not being far away in terms of being developed as global importance, adoption of these good spatial planning practices becomes an inevitable process. There is a need to re-look at the spatial planning regime of Indian cities, and modify it appropriately to not only improve the overall economic growth but to also enhance livability.

Keywords: Hong Kong, Pune, Regional development, Shanghai, Spatial planning reforms, Urban planning.

1. Introduction

Spatial planning is a key instrument for establishing long-term, sustainable frameworks for social, territorial and economic development both within and between cities. Its primary role is to enhance the integration between sectors such as housing, transport, energy and industry, and to improve national and local systems of urban and rural development, also taking into account environmental considerations.

In India, spatial planning is based on Master Plans, Zonal Plans, Zoning Regulation, Bye Laws and related guidelines approved by the State Government. And all these instruments are seen as remedy to all urban problems in India, irrespective to its settlement pattern. The issue is with implementation of

plan to its full extent, due to objectives very general in nature, and projects not being well backed up with finance and schemes. Also, long time frame of a city Master Plan, counts for a very long period and thus ultimately the recommendations of Master Plan become redundant with dynamic growth of the city. During the plan period due to certain drastic changes in govt. policies or some time there are strong socio-economic changes or with certain emergencies, there happens a dire need for change of plan. Thus, evaluation and monitoring of Master Plans generally becomes a task in Indian scenario with no short horizon plans.

And to guide all these aspects legislatively, we have a federal policy with decentralized governance structure. Although, the institution dynamic has evolved since decades but instead of an ordered change, various institutions fit into a new model of local governance haphazardly. Though there is a defined competency relationship between state and centre, for legislative and executive functions, however fiscal federalism is highly skewed towards centre (kesar, 2013). This creates dependency of ULB's on centre, seriously impairing their capacity towards project implementation and inducing finance mechanisms to support their funds. As already established in the context of spatial planning, India needs a new approach towards the overall framework of planning. Thereby, this study provides a comparative spatial planning analysis across South Asian cities and taking out learning for better planning practices and policies that can be adopted in a relevant manner for Indian context.

Shanghai has rebuilt the country's economy, transforming itself from a financial center into a comprehensive manufacturing hub. The 1990s policy changed the institutional framework in terms of allocation of central and local government tax revenue, where central government started acting as the authority for the production of macro-economic planning and thus accordingly allocating development funds to the local governments. Thus local government gained power in terms financial and autonomous decision, making conditions more favorable for city-initiated and city-oriented development and management. China's open door policy, central government's strategy and policy for developing Pudong in 1991 as the major CBD, Shanghai EXPO in 2010, have made way for many strong spatial planning reforms. Controlled and

planned urbanization at various hierarchies, avoided many of the problems associated with autonomous rapid urbanization, ensuring infrastructure well in place first, so as to guarantee a basic standard for the public environment. (Institute, 2007)

Hong Kong, though a small territory, has experienced rapid development in becoming a Metropolitan city. In the last 20-30 years, the city has faced massive problems arising from rapid rate of the urban population (Dwyer, 1968). With a pressing need for rebuilding and rehabilitation after World War 2, first strategic plan for the its territory was outlined with various physical planning proposals including the provision of a cross-harbor tunnels, reclamations, creation of industrial and residential zones and development of new towns in rural New Territories (Charlie Q. L. Xue, 2012)

Preparation of these statutory plans, since then have been an effective tool for deciding local level projects. The famous ‘Ten-Year Housing Target Programme’ in Hong Kong changed the era of urban planning for its citizens in a great way. In response to the need for this major housing programme within the 10-year period, the Government decided to accelerate the development of new towns and to expand market towns in the New Territories, with new means of PPP development and land leasing mechanisms.

Pune also known as the “Educational and Cultural Centre” of the country has developed as the counter magnet for industrial locations and as a service sector along with manufacturing base. This in turn, has created immense pressure on the provision of infrastructure and led to the haphazard development of the city radial in all directions. The city’s growth and especially the large in-migration has changed Pune’s social fabric significantly. (Carsten Butsch, 2017). Due to unprecedented growth drastic economic changes in the city, a proper planning solution to control the development of city is being tried to capture through its spatial plans, but yet has been unsuccessful. The city is currently undergoing with dynamism of their spatial plans and thus provide a promising case to make these plans more responsive and flexible with learnings.

2. Methodology

To meet the objectives of the study, methodology is formulated by defining terms and considering the various approaches that might be taken in response to the requirements of the research.

- a) Assessment of urban planning administrative system: examine the institutional system framework and policy making authorities.
- b) Transition of Spatial plans and its parameters: Evaluating the plans w.r.t urbanization challenges faced and analyzing the driving factors for the same.
- c) Models of land development: analyzing various methods of developing and acquiring land. This aspect helps in shaping up of the projects proposed in spatial plans with proper finance mechanisms utilized by a city.

These factors are being used to derive inferences and scope

of identifiable parameters across the cities. Reviewing the applicability and relevance of these parameters in terms of spatial planning system, helps in driving the points of discussion for the topic.

A. Urban Planning administrative system

Shanghai follows a pyramid structure of the Chinese planning system, with different administrative levels at National, provincial and city level (figure 1). “Land use law” defined by the Ministry of Land Resources, formulates overall landuse plan for the city and thus, the allocation of land is strictly controlled by the Ministry of Land Resources. “Urban and rural planning law”, takes in concern the planning of the economic and social development of the country. It takes into account the recent action plans and annual implementation of plans as the basis for intermediate time directions. While, Comprehensive plans at city level help to adjust relevant policies as per the requirements and periodic assessments of plans. This framework helps in developing cross-sectoral linkages in a plan along with the keeping it dynamic in itself.

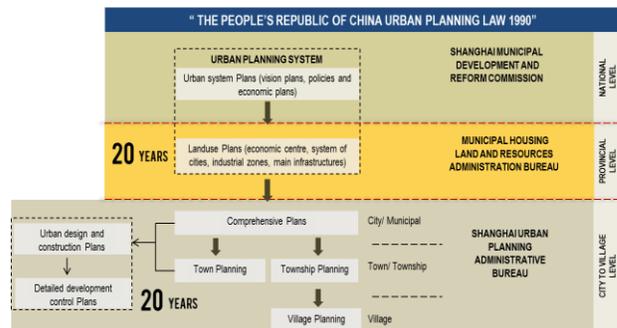


Fig. 1. Urban planning system of Shanghai

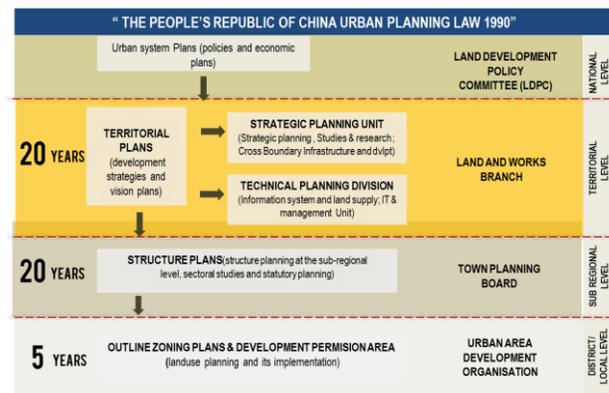


Fig. 2. Urban Planning system of Hong Kong

Hong Kong planning system works a bit differently under the China urban planning law of 1990 (figure 2). The town planning ordinance defines the procedure to be adopted in preparing and approving statutory town plans, capturing all the necessary data required to feed in for a strategic territorial plan. The Structure Plans and zoning plans at the bottom most level of the pyramid work on short term period horizons. It is guided by Hong Kong Planning Standards and Guidelines (HKPSG) manual for

determining the scale, location and site requirements of various land uses and facilities over the course of time. This kind of framework makes spatial planning more responsive and flexible.

For the city of Pune, Ministry of Housing and Urban Affairs at the central level, acts as the advisory committee for providing assistance in orderly urbanisation. This is mainly in the form of policy planning and allocation of plan funds to the states. It is supported in these tasks by the Town and Country Planning Organisation (TCPO) at the state level, and urban planning is governed by respective town planning acts and other development acts under Town planning departments, all working together on a long time framework of 20 years simultaneously.

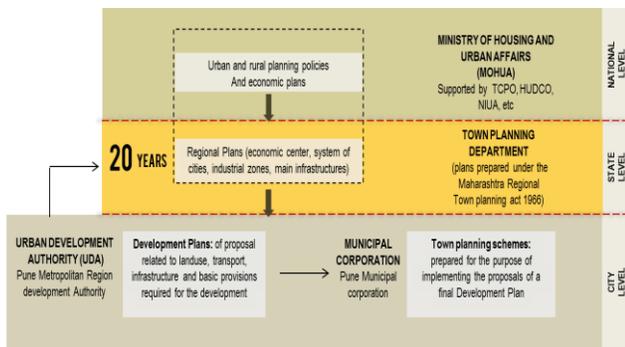


Fig. 3. Urban planning system for Pune

B. Transition of Spatial Plans

Shanghai city expansion has been a result of huge demand for dynamic economic activities and the fast increasing in inflow population. In decades Shanghai had pursued the urban planning policy to transform from a super dense, mono-centric city to a multi-centric metropolis. Outline of master plan made in 1959 (figure 4), targeted at controlling the population growth in the central part of shanghai to satellite towns, in order to decentralize its population and economic activities. (Sun, The history of Shanghai urban, 1999)

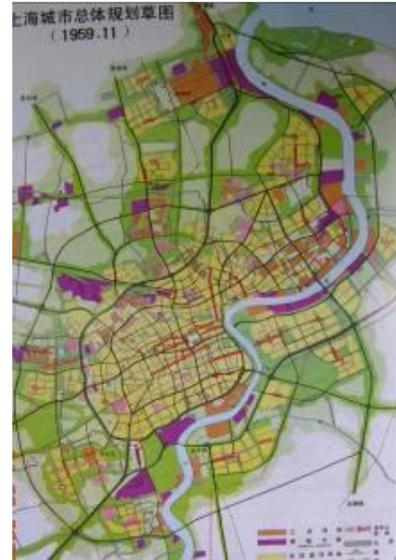
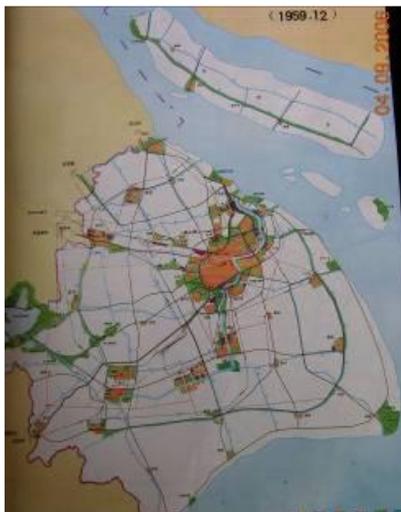


Fig. 4. Shanghai master plan 1959



Fig. 5. Shanghai master plan 1986



With increasing city problems in response to land-use, infrastructure lags, traffic congestion and provision of residential space, Shanghai Master Plan 1986 (figure 5) developed a combined city with integrated transport connections between central city and suburban towns. In order to meet the economic demands and improve the living environment, the focus shifted to series of major projects, such as rail transport systems, elevated roads, expressways, cross river tunnels and bridges, as well as sewerage engineering. This led to the formulation of policies at local level working with huge fiscal budgets. In response to attaining the financial requirements, PPP model came into the force, to reduce the burden on government funds. Over the course of years, plans for the urbanization of the suburbs outside the Central City, and urban conservation and urban renewal initiatives for central city became the major focus of plan. Thus in order to seize the opportunity to promote its own development, Shanghai

Comprehensive Plan 1999–2020 divided Shanghai full territory’s city–town system into hierarchies of Central City, satellite cities, central towns and central villages, covering all administrative areas. (Mao, 2008) This whole development was emphasized with strong central city and suburban connections. In the central city the principle “double increase and double decrease” was followed, which meant to increase the green and open space, to decrease the building volume and FAR, to optimize the spatial structure and enhance the ecological environment construction. The recommendations of these spatial plan can be seen directly proportional to the evolution of the city and its needs. This approach of planning has led the development of the city as the international economic hub with strong regional connectivity in a sustainable way.

The early plans for Hong Kong were created as a British colony layout to strengthen the political, military and economic power of the colonial regime through city planning. Planning work in the 1950's and 1960's paved the way for future new town development. Proposals for the future land use and population distribution pattern throughout the Territory became evident. (Charlie Q.L. Xue, 2012). With the preparation of a "Colony Outline Plan" in 1965, the changing economic and social conditions revised the government priorities and policies. Thus, Territorial Development Strategy plans since 1984, has produced a long-term land use/transportation strategy for Hong Kong. Land development proposals at town planning level under this plans, include financial feasibility, aiming to minimize costs and maximizing benefits, with the incorporation of PPP model and land development models. Outline development plans (figure 6) at local level have since been an effective tool in tackling the situations as ground level due to their dynamism. This bottom up approach has helped the city of Hong Kong in terms of efficient land use planning, incorporation of issues at local levels and opening up new economic opportunities through new projects.

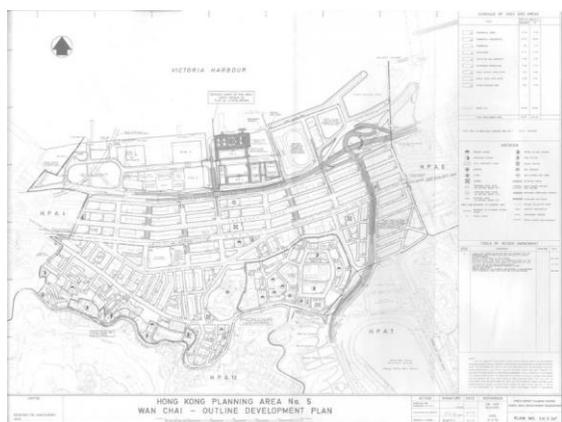


Fig. 6. Outline development plan Hong Kong

For the City of Pune, 1971 plays an important role in shaping the spatial planning of the city. The city's traditional academic-cum-administrative character heralded a change in Pune's role to that of an industrial city. This occurred through the rapid

improvement of infrastructure, particularly road constructions and widening, growth of public transport and improvement in health care. This was the time, when suburban development started around Pune city and was incorporated in the regional development corridors. (malse, 1991). In course if time from 1987 onwards, substantial housing development was proceeded without proper planning and permission in the fringes of the PMC. But, with DP revision in every 20 years by the Planning Authority, many projects were delayed for want of funds and some due to delays in land acquisition process (express). In DP of 1987, it is estimated that the land use in the sanctioned DP has been implemented to the extent of 28.5% only (city development plan Pune 2006-12). With the introduction of City Development Plan (CDP) under JNNURM, a crucial link has been created in development of infrastructure, basic services for the poor and adoption of urban sector reforms. It has laid the foundation for strong city level proposals. Currently the city is working on the proposals and guidelines proposed under the Development plan for PMR of 2007. Though there has been an increase in the employment opportunities because of the industrial growth, but spatial plans over the course of year, have never been able to promote any policies or programs specific to this issue. The legal framework has made the plans more binding than being flexible.

C. Models of land development

Shanghai follows “Land rolling development model” as a special land development model. The government initially evaluates the price of rural collectively-owned land, and then pays to land owner the 30% of the estimated price as the “land pre-acquisition costs”. The process is done to convert the land into state-owned land. And once the Development Zone Company is setup by the Shanghai Municipal Finance Bureau, the fund is provided to the company which is equal to the estimated price of the rural collectively-owned land. This procedure allows the flow of capital between the government and the Development Zone Company as counterbalanced. In addition, the Company may mortgage the land in order to receive loans to be used for its development. (figure 7)

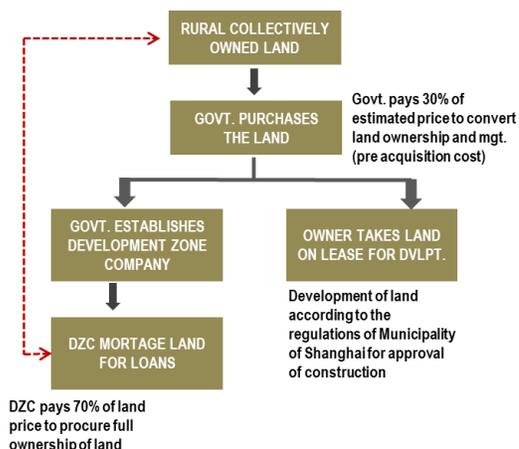


Fig. 7. Land development model in Shanghai (source: shanghai.gov.cn)

Hong Kong's land management works on leases, public auctions, tenders and private treaty grants of Government land. Hong Kong follows leasehold tenure system. All the land is owned by government. A purchaser does not buy ownership but a lease to use the land for a specified period. Land for non-institutional, use is generally leased to the highest bidder at public auction for a period of not less than 75 years. Land for residential, commercial and industrial purposes are offered for sale either by public auction or tender, while for government projects, the land taken by private treaty grants of government. The buyer pays a large lump-sum and a small annual rent. Because the only purpose of the rent is to serve as a legal symbol of the lessor/lessee relationship, the lump-sum payment for a given land lease approximates to the value of the land.

Pune takes care of the land development with the town planning scheme mechanism. It acts as a land pooling scheme, where original plots are altered for formulation of buildable plots. A complex system is used to reorganize plots, provide access to each plot, set aside land for public uses by taking a portion from each landholding, and appropriate increments in land values for infrastructure development. Allotment of the final plot is given to the owner of its original plot, with proper reconstitution and provision of infrastructure services. And hence obtaining betterment charges on same.

3. Learnings

The objective of the study was to understand and identify some successful parameters of urban planning taken up by the South Asian cities. Though these cities have had their share of serious issues in terms of either of the urban planning sectors, they have been able to tackle it with innovative and practical measures. Some important inferences that have led to the successful implementation of the spatial plans in Shanghai and Hong Kong can be described as below.

A. Monitoring and Evaluation of Plans

Shanghai and Hong Kong have been able to manage the proper implementation and revision of plans due to some specific targets that they incorporate in their policies. It takes into account the recent action plans and annual implementation plans as the basis for time direction. Hong Kong adopts a different approach in terms of long and short term planning periods. It considers the horizon of 30 years of planning period based on regional development. Within this, different time periods are defined for different proposals on short term period horizon. For example, for first 10 years, more definite projects are taken up and then afterwards the broad brushed proposals. In Shanghai, the major projects taken up by the municipal government and the financial expenditure for them is guided through five-year management plans. Periodic assessments of plans, in order to adjust relevant policies, make the spatial plans of these cities more dynamic, flexible and responsive.

B. Implementation of Projects

It is important for the plan to become feasible with proper

implementation of the projects described under it. Both the case studies have taken up a pro-active approach in terms of this aspect. Major factor of its success has been the involvement PPP mechanism and acceleration of policy regulation in the system.

In Shanghai, the State Council's institutional reform plan, 2008 emphasized at the local level policies of specific interest regarding fiscal budget, taxation, capital allocation, land use and facility construction. This gave local government a stronghold in the process of urban development. The city adopted 'Public interest positioning and market operation' for the projects where government took the service management and supervision and company was responsible for the operation and maintenance part. This attracted and encouraged individuals, enterprises, foreign capitals to participate in investing in the form of joint ventures and cooperatives.

Hong Kong has well established transport system and its implementation has been possible due to some aspects of PPP approach. For example, cross harbor tunnel as a built operate transfer project has been one of the successful development projects considered so far. After a two lane tunnel was built, in just three and half years, the toll revenue collected was more than enough to payback the construction cost. 30 years after the signing of franchise, the tunnel was transferred back to the government. It helped to demonstrate well the vision and skill of private sector, with the use of innovative techniques and delivery of a viable project.

C. Finance Mechanism

Both the case studies have some innovative funding mechanism for the plan and projects. It has helped greatly to relieve the pressure on public funds of government and have ensured a more reliable project development over the years. Land development models of land leasing and tenure provide an opportunity of rent collection as a continuous and reliable source in acquisition of land and development on it. While land rolling Model of Shanghai results in proper development of land and further using it as the basis for securing a bond to fund the schemes at the initial level. Joint development through the partnership between the public and private sectors in order to share the burden and profits of urban development have been proved highly successful in reducing the burden on government funds.

4. Discussion and Conclusion

The above learnings provide some responsive approach towards the spatial planning of a city. The study helps to understand the management and land use planning in South Asian cities, which has been seen in good shadows of urban practice for land management and policies. Since these parameters are understood only through secondary literature, it is important to understand that a detailed analysis of the decisions and actions taken during the preparation of plan, is not possible through this study. It considers the planning

outcomes and the linkages between plans but there can be cases of deviation in actual development in the cities on these considerations, to some extent. All the learnings cannot be totally dependent upon to be assumed a rational model of planning, but should be seen in as the flexibilities that can be approached by the Indian spatial planning system.

It can be well derived from the learnings that periodical assessment is a must for long horizon DPs in Indian context. Although enabling legislation and spatial plans for Pune themselves refer to monitoring and evaluation provisions, there is currently a lack of evaluation of spatial plans. Because many of the regional spatial planning laws are outdated and not revised regularly, they do not include thorough evaluation and monitoring content for spatial plans, such as monitoring report elements, indicators, public participation procedures, etc. These laws need to be updated to reflect current progress in spatial planning frameworks. Moreover, the plan offers a suggestion that public administrations create a specific body to guarantee the monitoring of spatial plans. But, the main obstacles to these participatory processes come primarily from the lack of experience in this field and the low social awareness of spatial planning issues. Practices of such evaluation procedures can be adopted from the examples of Shanghai and Hong Kong. In both the cases, administrative bodies have worked harder to involve the general public in spatial decision making along with creating monitoring and evaluation cell. Urban development plan should be made a dynamic phenomenon and should be a process rather than an end product.

Each level of plan and its various sectors needs further detailing of its contents and scope. Rethinking of the scale and interventions at sector level should be prioritized upon grand master plans. Both Shanghai and Hong Kong have successfully executed its major development plans with incorporation of real estate development model. Major sectors like housing, transport and infrastructure have now been able to manage out their

finances through such model. It also ensures better monitoring and supervision of the plans at the most local level. For the Indian context, this could be achieved by incorporating new think tanks for different sectors and inclusion of private investment in the development efforts. Local area plans as in the case of Ahmedabad, are emerging as good practices of urban development at local level. It helps to give more power to local authorities to exercise their rights and helps the grand plans to execute at area level. Also with inclusion of private investments for such projects, there can be reduction in the financial dependency of the projects on municipal funds and create a new loop of PP partnership in market.

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