CHAPTER II

REVIEW OF LITERATURE

This chapter is the review of Literature. definitions, this review comprises of the work done by other scholars in the field of Spatial Planning, Planning cycle, objectives of plan implementation, Method for Evaluation of spatial plan implementation, comparative case studies, use of GIS for analysis, identification of planning systems, Land use and property rights, the provision of schemes in Urban Development Act, Planning act and Municipal act, the role of developers and the development process, value capture methods including review of value capture in International and National planning systems. The case studies for the comparative planning systems and the use of instruments to address specific planning situations. The use of instruments and mechanism based on the theoretical framework is covered especially on how the plans utilize them for implementation.

2.0. Definitions

**Master Plan:** The Master plan is a statutory document that identifies growth perspectives, develops land use plans addressing the agglomeration area’s growth, and lays out development control regulations (DCRs) to regulate the city’s development.

**Planning Instrument:** The instrument is the procedure with which the planning principle/objective is executed. The instrument typically has a legal basis, it may be carried out in a project, and it involves specialized agencies and funding. (Terry van Dijk, 2005)¹.

**Financial Instruments:** includes all forms of finance based instruments such as taxes, charges and levies. These are used by Planning and Urban Local bodies under relevant provisions of law.

**Transfer of Development Right:** Transfer of Development Rights (TDR) means making available certain amount of additional built up area in lieu of the area relinquished or surrendered by the owner of the land, so that he can use extra built up

area either himself or transfer it to another in need of the extra built up area for an agreed sum of money.

**Mechanism:** a process or system that is used to produce a particular result. (Merriam-Webster Dictionary).

**Land Acquisition:** “Land Acquisition” means the acquisition of land for some public purpose by a government agency from individual landowners, as authorized by the law, after paying a government-fixed compensation to cover losses incurred by landowners from surrendering their land to the concerned government agency. Bulk land acquisition is to be processed as stated in the RFCTLARR, (Amendment) second ordinance 2015. (Right to Fair Compensation and transparency in Land Acquisition, Rehabilitation and Resettlement).

**Compensation:** This is monetary component or issue of Development right (i.e in form of TDR) in lieu of land being forfeited by the land owner to the authority for the development of planning proposal.

**Cost Recovery:** Refers to the recovery, through contributions from private developers, of those costs that are directly related to the realization of public infrastructure and facilities that benefit the development.

**Value Capturing’ or ‘Value Capture’:** is limited to recouping the value increase that is the result only of public investments, and this value increase might be higher or lower than the investments.

India’s urbanisation has been discussed by various authors in form of a patterns, with continual concentration of population and activities in large cities (Kundu, 1983) and along the corridors (Sivaramakrishnan, 2005) increased sub urbanisation (Kala Sridhar, 2005) This is manifested in a high percentage of urban population being concentrated in class I towns with about, 70 percent (264.90 million) (Census of India 2011). The continual increase of metropolitan cities and their population adding up to 160.50 million, account for 42.56 percent of the total urban population (Census of India 2011). It is estimated that India will have 68 cities by 2030 with a population of over 1 million, 13 cities with more than 4 million people, and 6 megacities with populations of 10 million or more (MGI, global study). Metropolitan cities in the
country are to stay as important urban centres not only from the population viewpoint, by also for their role as engines of enterprise, innovation and culture.

Early in the 1980’s itself, the National Commission on Urbanization (NCU)\(^2\) identified that the main spatial problem that the country is currently facing is the excessive concentration of economic activities in a few metropolitan centers or metro-regions. This trend has given rise to irrational population distribution, generating spatial imbalances. Keeping the above in view, the NCU had recommended that the spatial planning strategy shall be progressive realization of the long-term goal of balanced spatial and economic development through spatial development strategies and urbanization policies.

On Metropolitan centres, Michael Goldsmith characterizes them by: “relatively large land area, relatively large populations, large range of economic activities, extensive number of governmental bodies or agencies and/or some formed structure, probably considerable social segregation and possible ethnic diversity reflected by a range of social problems (...), poor physical infrastructure (...) and a range of environmental problems, particularly poor air quality. But they are also honey pots, continuing to attract people from outside to their centre. They are places in which the process of globalization effectively occurs, acting as centers of innovation, creators of new markets and trends. Finally, such areas may also face public resource crisis, particularly financial (...)” (Michael Goldsmith 2000: 326)\(^3\).

The Indian metropolitan city usually has a city core (old city), the cantonment areas set up by the British, the new extensions, an agricultural hinterland and an emerging economic centre and administrative centres well connected by rail, road and port. The Metropolitan cities in country are usually characterized by multiple municipalities each delivering services within their own jurisdiction. The physical expansion of the cities extends into the rural hinterland and majority of urban services (transportation, water supply, solid waste management, and housing, for example) spill over municipal boundaries. The structure of the urban city especially the city of Bangalore

has been discussed as that of “leap frogging” stimulated by institutional and economic functions (V.K.Tiwari and Sastry et.al).

The popular perception is that urban areas are better served with regard to water supply, sanitation and other amenities, this is not certain as per the recent NSS survey conducted in the country. The population is not homogenous and comprises of several social and economic classes as well as castes. The presence of slums and their growing share in contributing to housing for the poor, are cause of concern for both planners and city managers. Though the metropolitan centers may exhibit similarities to the issues and problems faced and also may share the overall evolution of city structure, each city is distinct, shaped by its geography, Economic, History, people and institutions and development. The Metropolitan city is also “shaped” by the planning and development initiatives. The availability of jobs, schools/education, housing, open spaces, mobility options and a perceived quality of life ensures the city livability, therefore its competitiveness. The “quality of life” is result of well thought out and realized measures of the plan. The carrying out of physical development according to a framework (plan, or vision, etc) in a timely and efficient manner to meet growing needs of the city demonstrate how a few world cities offer both high quality and remain competitive. (Singapore, Vancouver, New York, London, etc). The realization of the Plan and its physical components in a time bound manner which we mention as “implementation” has made the difference between cities which just aspire and the ones that have attained the global cities status. Mere visioning or forward looking statements do not result in transforming centers of high quality places; a body of knowledge for converting ideas and visions into actionable formats is required.

The problem of metropolitan cities is not merely that of accommodating the populations but also offer the “quality of life “ by provision and management of all urban facilities and infrastructure, by carrying out urban development that realizes the physical aspects of the city such housing, open spaces, environmental features, roads, etc. To have urban development taking place in a guided manner and in a timely sequence and through multiple stakeholders become the core issue of city development and planning. This is to be carried out within the tenets of the law and to greater extent of preservation of public interests within the fine balance of competing interests prevailing in the metropolitan cities.
Even though well-organized city developments can be identified in both in Ancient, Medieval period of Indian settlement history, the current practice of planning is inspired largely from the British. The practice of preparing a “blue print” for the city development for a given time horizon under statute is the concept of master plan. This is derived from U.K Town and Country Planning Act of 1947. This has “traditionally been concerned with the allocation of land for various uses, the control of development and the installation of infrastructure” (Rakodi, 1993).

The setting up of the Town and Country Planning Organisation (TCPO) and enabling the states to enact the respective state Town planning act (as land and its use is a state subject) has resulted in undertaking of master planning exercises or preparation of plans for various cities in the country. As per URDPFI 2014, there are over 2400 statutory plans formulated in the country and many more to be added as indicated by the census of the growing number of towns. The preparation of the Plan is a statutory process and its scope is defined under the Town and Country Planning Act of each state. Broadly, it includes allocation of land for various uses such as residential, commercial, industrial, recreational, public etc and proposals for development of the city during the plan period, which is usually long-term, ranging from 10-20 years, keeping in view the projected demographic growth. The Karnataka Town and Country Planning Act, 1961 (KTCP Act) stipulates the act for the provision of orderly growth of the urban areas in the State of Karnataka while allowing for the management of all matters related to land, including curbing of speculation and profiteering, etc.

2.1. Planning Process

Sachithanandan A.N. (2004) states that: the planning process includes plan making, development component and enforcement function. Planning is a continuous, time-oriented, cyclic process and, therefore, spatial development planning shall be seen and practiced as a process where planning, implementation, monitoring, review and plan

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5 Sachithanandan, A.N (2004), Preparing the planners for plan implementation, Plan implementation and Enforcement : Innovative Mechanisms and Techniques, National Town & country Planners Congress.
 updations go on as a dynamic process\textsuperscript{6}. Following diagram portrays the general process of planning as adopted by the URDPFI guidelines, 2014.

**Chart 2.1: Planning Process**

![Planning Process Diagram]

Source: URDPFI, 2014.

The contents of the master plan include the plan proposals, land use proposals, transportation mainly in form of road networks, the land use zoning with the regulations for the planning period\textsuperscript{7}. Once the plans have been drawn up, it is assumed that the translation of the proposals into actionable program, will happen on its own accord. Rarely the authorities involved with the master plan, are clearly vested with the responsibility of implementation on the ground. The regulatory aspects of the plan such as the administration of the zonal regulations through permit and sanctions are followed by the local authorities (custodians of the plan). There is very little feedback on the extent of the physical development carried out as envisaged by the plan for the further formulation of the plans. Across the literatures, a strong monitoring and feedback system is mandated for the working of plans and implementation. The feedback of the actions undertaken during the course of the plans act as inputs to the plan formulation thereby completing the cycle.

\textsuperscript{6} Draft URDPFI Guidelines, Vol-I, MoUD, Pg. 23

\textsuperscript{7} Usually the Master Plan is to be revised once in 10 years time frame. This is quite rare as many cities face difficulty in preparing the plans.
The activity of urban development entails the involvement of various actors—both Government and private entities, use of resources, adhering to specific laws and rules, guided by standards to deliver physical development on ground. Though the plans comprise of several proposals and implementation components, the prioritization and choice of implementation of the same is not only technical but also “Political”. As the development takes place in spaces and locations, the plans can dictate the location of the development as well as the content of the development. The physical development occurs on a given piece of land and this is more often on the parcels of land owned by the private citizens. The planning proposals then may create situations where the rights of the individual property are either curtailed or encouraged or maintain a status quo. The objective of the plan may not be in accordance with the owner’s aspiration. To some extent imposition of planning values in form of plan proposals creates a tension between the various interests. Prevailing upon predominantly public interest to sustain a proposal requires both the support of the law, political will and use of methods that can help mitigate the excessive curtailment or encouragement such that the proposal becomes acceptable to the land owners. Most of the planning proposals are not restricted to an individual property boundary they often involve a large number of properties and therefore a large number of private owners. For the proposals to take shape, the coming together of the landowners needs to be facilitated, the truck infrastructure, common amenities and the facilities require to be addressed on basis of the collective needs. Locations with an advantage of topography, access may be required for specific purpose as indicated by the plan. There is a need to shift to the next level, beyond the indicative aspects of the plan for mutual adjustments and negotiations to house all conflicting and competing interests. This should be carried out in a manner such that public interests are protected, in an efficient and in a time bound manner. While the coming together of individual owners is a necessity for assembly of land for the plan implementation, commitment of the Government stakeholders for the provision of infrastructure for facilitating the development is absolutely necessary. Carol Rakodi (2001) discusses the need for the large majority of the urban actors in urban development must accept the requirements and restrictions as legitimate and potentially enforceable for the system to work. Apart from this political will is necessary for the implementation. The timely intervention by the

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Government Stakeholders in form of approvals, procedures, investments and political will are of great importance. Plans then are not regulatory documents, but also become the instrument for “communication” negotiation and consensus amongst various stakeholders.

2.2. Plan Implementation

The current implementation of plans lays emphasis on the large scale intervention by the state both in terms of resources and the capacity. In order to implement the proposals, land has to be mobilized through acquisition of lands and paying out compensations. High level of co-ordination is required amongst the organizations for correct phasing and sequencing of the steps for implementation. The High powered expert committee (HPEC) (March 2011) constituted by the MoUD, GOI observes that “......Master Plans typically view cities in isolation from the larger region in which they are located. The procedures for the preparation and implementation of the Master Plans have tended to be rigid, time-consuming, and weak on the costing and financing of the future requirements of infrastructure. While cities are fast growing and dynamic entities, Master Plans have remained largely static”\(^9\). Some of the observations on the implementation of the plan are:

a) The spatial documents suffer from inappropriate scales. Either the details are missing awaiting a detailed process of planning to follow or the details are too many, making the plan very rigid.

b) The land uses are prescriptive and does not map completely the complexity on the ground. They are two dimensional land use plans and do not possess the anticipatory capacity of provisioning for the future. The prescriptive form of land use designation makes the changes on the ground less adaptable. The rigidity leads to conflict and difficulty in implementation.

c) The designation of the zones and the land uses rarely recognise the land values, social and economical process. The regulations drawn up are not based on the market dictates or the economic structure of supply and demand.

\(^9\)Report on Indian Urban Infrastructure and Services, The High Powered Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services, MoUD, p-.25, 2010
d) The frequency at which the plan is made is intermittent, often a lengthy period of preparing the plan and thereafter long duration for acceptance and enforcement.

e) There is no scope for the interaction or negotiation between the private sector and the public sector making it less participatory.

f) Lack of adequate institutional mechanism for implementation of the Plan.

g) Lack of adequate financial or non-financial incentives as compensation for acquiring land or carrying out reservation for specific purposes.

h) Poor capacity of the organization to implement the plans.

The above observation as echoed in other writings carry a view point that the plan implementation is not carried out and the means to the implementation are not adequate reducing the plan and its purpose. It will be necessary to enquire if the contents of the plan comprise of adequate mechanisms/instruments, adequate resources and institutional arrangements along with the “will” to enable the “implementation”. Can the stakeholders be convinced on the merit of the plan proposals and the need for its implementation? What kind of methods for land mobilization, active participation of people in the plan formulation and implementation are provided for? The present day shortcomings of the master plan as indicated by the reports can be attributed to the procedural as well as the lack of organizational skills to engage in planning that is oriented to the implementation. This could also be attributed to lack of “planning culture” that is oriented towards outcomes and therefore implementation.

The success of the plan implementation is not only the measure of the physical development, but also the how much the intended beneficiaries have received from the set of implementation actions. Not only that urban development is localized, but it has its impacts on the other developments being shaped, these can be quite complex to assess. So a plan cannot at the outset be judged by what it appears to state or propose, but also often, for what it does not convey directly. A Plan offers several possibilities for shaping the city, and this is limited by the potentials embedded in it as well as the ways it is to put to use in order to meet the implementation requirements. In any case,
the implementation that follows will have both intended and unintended consequences.

While the formulation of the plans is based on various studies and surveys consultative exercises, forecasts, priorities, scenario’s – broadly based on a set of assumptions and the use of rational methods and models. It is at best based on the abstraction of the understanding of what the future may hold and may look like. As there is time lag between the formulation of the plans and the subsequent implementation, the translation of plan proposals into actionable formats may be difficult due to the changed circumstances, resources; leadership, demands of the populations, need for facilities as well as location changes. Though literature survey indicates the need for robust public participation during the formulation of proposals and implementation, they do come up with their share of difficulties on account of efficiency and speed. Long protracted delays are not conducive for implementation.

2.3. Indian Experience: Institutions for Urban Development

Before the independence, the British Government set up the city corporations for the local management of the urban areas. In addition for the growing urban areas, they also set up the Cantonment Board and the City Improvement Trust Boards (CITB) to address the growing needs of the urban areas. The CITB for Bangalore was responsible for setting up of various extensions in the city such as the Palace Orchards, Malleshwaram and V.V.Puram. The predominant purpose of the boards was to facilitate housing and overall development beyond the fringe areas of the city corporation. Since Independence and the enactment of the Town and Country Planning acts in the state, urban areas which meeting specific criteria have been declared as Local Planning Authorities under the respective town and country planning act. The LPA for Metropolitan cities usually cover larger areas beyond the jurisdictions of urban local body, villages, etc and comprise of developable areas known as the “conurbation area“ and a reserve agricultural tract of land mainly comprising of villages. Keeping the limitations in mind that planning by permit and enforcement was not adequate, the Government in 1976 enacted the Urban Development Act (UDA), an organization that was empowered to carry out the development functions efficiently and was conceived in form the “Bangalore Development Authority” for Bangalore. Similarly other cities in the country too
witnessed setting up of authorities. The proposals drawn up by the plans could be implemented effectively as the overlap for the development function with the corporation was not present. (ULB could carry out its own development within its jurisdiction while the authority could focus on the peripheral areas, even though the Planning activity and the plans covered the entire area without discriminating the jurisdictions). Powers were vested with authority to carry out bulk land acquisition; sales of site and provision of infrastructure were enabled to provide overall development. The Authority was supposedly to run its operations in a self sustaining manner- by use of any methods such as, by sale of sites, cost recovery of infrastructure, taxes, building permission fee, etc. The BDA working shows its familiarity to bulk land acquisition and carrying out the real estate cycle of development and sale of sites processes (CRISIL 2009). The limited interpretation of development function hampers the functioning of the authority to serve the larger interest of city development activities. As long as the possibilities of green field development is possible by acquiring land at lower cost and selling the same after development, with a cost/ profit margin. The authorities will have no incentive for not continuing to do the same activities carried out previously.

While the CAA 74th Amendment mandates the devolution of the powers of planning to urban local body (ULB), partial devolution has given limited powers to the ULB especially in the areas of land use and management. Socio economic planning is still the responsibility of the ULB under the 12th schedule. ULB today are responsible for the provision of municipal services, provision of some basic infrastructure through its budgets, grants and borrowings, while exercising limited powers in providing permit and enforcement of the buildings coming within its jurisdiction. The authorities by the virtue of the development cycle develop layouts or schemes, allocate the sites, wait for the entire areas to be reasonably populated, before the layout, the roads, civic amenities sites, other assets are handed over to the municipality. While the costs are reasonably recovered through this operation, the burden of maintenance is passed on to the ULB. As the layouts are also of low density and the yield from the prevailing low taxes and efficiency are not adequate for the maintenance of these areas.
The increasing recognition\textsuperscript{10} of the need for carrying out redevelopment of old areas (Gita, 1993), renewal, affordable housing for the poor, decongestion schemes, relocation of functions such as wholesale markets, etc are limited by the lack of unified planning and development agency with powers to make the necessary adjustments, reservation of lands, engage with the citizens, negotiate and finally enforce the choices that are made. Also, as the planning tradition has been of recent origin in the country, experience in handling such planning and initiatives are inadequate.

To have a firm grip on the mode of development rather than the development outcomes, institutions were designed. Bulk land acquisition either for housing or industries were meant to control speculation and the prevailing social and economic conditions allowed the authorities to draw up procedures for such bulk acquisition and disposal.

Parastatals such as the housing boards, water and drainage boards, slum clearance boards, etc were formed to address specific infrastructure and development process. In turn, this has led to a situation with multiplicity of organizations with overlaps, conflicts and lack of co-ordination (Ravindra, 2005). The working of the organizations to serve its own internal corporate logic, often contrary to the overall plan imperatives have led to the widespread problem of the “institutions”. The “leapfrogging” of the development and sub urbanization or growth in the fringe areas of the city observed are also result of such institutional development initiatives.

\textbf{2.4. Financing the Development}

Urban Development including land and infrastructure requires sizeable funds. The simplest of the means of financing is through use of fiscal tools (taxation). The land based fiscal instruments enable raising finances based on the asset (Land / Property) while the others are linked to the development such as charges, fees. There has been discussion on the introduction of simplified fiscal tool that raise resources for the development based on the land value. (MoUD 2013). The attempt to introduce Bonds at the municipal level has received limited success. Bangalore and Ahmedabad were

at forefront in raising the municipal bonds as early as 2004. The recent introduction of Infrastructure Investment Trusts (InVIT) and Real Estate Investment Trusts (REIT) are yet take shape completely as viable source of financing the urban development. In any case, authorities are faced with difficulties in purchasing land for housing and infrastructure, let alone find adequate funds for the realization of the infrastructure. As the infrastructure provision is also bundled with operation and maintenance, the financial jugglery best allows the agencies to sustainable poor to average quality of services. Additional sources are not yet available to match the growing demands. “Pay as you grow” schemes have not been useful as the initial capital expenditure requires funds to be available initially and the collection process are quite time consuming and expensive. Sale of Public lands (Peterson, 2007) and assets has been slow due to procedures and governance issues surrounding the sale of public lands.

Large scale urban development and infrastructure provision has been possible through the use of loans and funds from multilateral agencies. The recently concluded GoI programme, JnNURM on a mission mode has resulted in improving the slightly the development activity and at best, be described as having served in clearing some backlog of infrastructure creation. The reforms both the mandatory and optional reforms have allowed the repealing of certain laws such as the rent control act, urban land control and regulation act (ULCRA) in few states (for eg: Maharashtra), introduction fund based accounting systems, property taxes collection, amendments to byelaws for participatory governance, model byelaws, etc. Getting the urban/spatial plan implementation has not been emphasized although some corporate styled vision statements for the identified 63 City development Plan cities in the country have been created. This is more or less statement that does not spell out implementation or provide follow-up or institutionalization for providing sufficient planning or implementation direction.

2.5. Alternate Means

Another change evidenced in the planning process is the shift to finding alternate means of finance for the plan implementation. Meshram (2004) states that the traditional system of funding based on budgetary allocations would be constrained due to increase in fiscal deficit and calls for devising innovative methods and
technologies for resource mobilization\textsuperscript{11}. Urban development preceded by planning must include the possibility of “self-financed developments”. The use of PPP / PSP has received mixed responses in urban development and is too focused on well-structured projects that have to be remunerative and viable. Plan based intervention using PPP models are rare in the review of literature in the Indian case. The Ministry of Urban Development (MoUD, 2013) recently has prepared a study on the Land based Fiscal tools and practices for generating additional resources.

\textbf{2.6. Use of Fiscal Instruments}

In this report Mr. Phatak has elaborated the concept of ‘fiscal tools’ and classifies it as:

- General Taxes: like property tax, where revenues generated can be used for a variety of purposes.
- Benefit Taxes: like the development charge, which are levied for a specific purpose and their use is defined as a part of the Town Planning Act in many states.
- Fees or User Charges: where what is charged, what is spent and how it is spend is clearly defined.
- Regulatory Fees: that should only recover the cost of regulation.
- Every other fiscal measure should have a constitutional authority.

He proposes the Urban Benefit Infrastructure Tax (UBIT) to be collected by the authority at the time of sanctions for development. The other authors have discussed the land and land based rights as source of revenue/ income that can be generated for carrying out development. These do not necessarily priorities the planning objectives over the resource generation.

Chart 2.2: Value Capturing Mechanism

Source: Adapted from the model proposed by SGS economic Pvt. Ltd.

An illustration of the various fiscal instruments designed to address resources for urban development and management are given below.

**Table 2.1: Fiscal instruments for Urban development and management**

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<thead>
<tr>
<th></th>
<th>User charges</th>
<th>Pre-decided charges</th>
<th>Betterment levy</th>
<th>Impact fees</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Road Toll charges</td>
<td>Land value tax</td>
<td>Ring Road cess</td>
<td>Parking Fee</td>
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<tr>
<td>2</td>
<td>Infrastructure Cess</td>
<td>Fuel tax transfer</td>
<td>Area betterment</td>
<td>Congestion</td>
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<tr>
<td>3</td>
<td>Solid waste Management Cess</td>
<td>Vehicle Registration surcharges</td>
<td>Plan sanction and project approval</td>
<td>Violation–deviation charges</td>
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<td>4</td>
<td>Local Option sales tax</td>
<td></td>
<td>Regularization fee- Akrama–Sakrama</td>
<td></td>
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<tr>
<td>5</td>
<td>Storm Water utility</td>
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<td>6</td>
<td>Development Cost charges</td>
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</tbody>
</table>

The proposal of introducing the Urban Benefit Infrastructure Tax (UBIT) by the MoUD can help streamlining the number of taxes into an unified single tax applicable
at the permit stage of the development. This can contribute to the substantial generation of funds for development. It is proposed that the tax be indexed to the Government Guideline values of land, such that buoyancy is available. The exact administration of the tax needs to be worked out with consultation of the state governments.

2.7. Use of Regulations

It is now recognized that the urban spatial structures are shaped through interaction with regulations, primary infrastructure investments and taxes (Alain Bertaud, 2004). The regulatory instruments are based on the premise that it is possible to shape the urban development by modulating the private property rights, to allow, encourage, curtail the rights of development suitably. The enactment of the Town country Planning acts has allowed the creation and use of instruments that suitably modulate the private property rights. Regulations have significant impact in implementing the spatial plans; as much as the good regulations promote growth, poorly designed procedures can create challenges. It is often referred to…. that rigid plans with prescriptive land uses and carried out in top down fashion may create a false market and result in huge alterations in property values by determination of location suitability of road networks, infrastructure and land use. (A.K. Jain, 2003: 1)  

On the use of Floor Area Ratio (FAR) as a regulatory instrument in the country, the High Powered Empowered Committee on assessment of India’s Infrastructure needs (HPEC, MoUD, 2010) points out that “.....The FAR/FSI rules are also relaxed on a highly selective and non-transparent basis without ensuring that infrastructure is put in place to support the increased density. In Mumbai, for example, the rights of FAR/FSI exceptions are traded, and higher densities are allowed to spread arbitrarily throughout the city rather than in areas where infrastructure could be built to support the higher density. In actual practice, the FAR/FSI restrictions do not prevent density as they are intended to. They merely affect how much built space is formal and how much informal and illegal” 13. Intervention through the use of regulatory instruments for implementation not only requires design, but the capacity to absorb the unintended

consequences and distortionary effects on the working of the urban land markets. Another instrument such as the transfer of development right that allows the transfer of rights to another plot in lieu of the land being used for specific or limited purpose is often found limiting. The current thinking that there is no free lunch resonates with the ideas on urban development that …..*space*, is a not a ‘free’ good but a valuable but limited resource. (Van den Broeck et al 2010)¹⁴ and needs to be carefully handled for long term sustenance of the city. The regulations drawn up in the Master plan documents are integral part of the documents and are equally enforceable on both public and private players involved in the development. In the earlier circumstance, it was possible that the bulk of development was carried out by the Government itself or by limited private action. The economics of the land and construction within the overall supply and demand positions allowed Governments to devise “ideal “low density”, containing regulations for development. Post liberalization the private sector has a renewed participation in the urban development, regulations no longer are meant to contain the development but encourage development , allow for cost recovery, allow for subsidies and help the Government in form of taxes.

The regulations in the review of the plans allow for the establishment of new townships, integrated townships, group housing projects with mixed or multiple uses, high density and multi-dwelling units in form of apartments, etc. The regulations for the new developments invariably seek reservations of land for amenities, open spaces, roads and other infrastructure provision. Many onsite and offsite infrastructure dedicated to the new developments are to be provided lessening the burden on the Government.

### 2.8. Use of TDR and Sale of Development Rights

On the other hand, in Mumbai, TDR is used as a substitute for monetary compensation. This set a precedent to be followed through the state and through many states through modification in the TP Act. In Mumbai, incentive FSI has been used for various purposes (from slum/chawls rehabilitation, amenities, IT/ITES) and has probably been successful due to its geography, land constraints and a low FSI base. Through the case of the *Sale of Development Rights*, Mr. Phatak highlights the

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….case of Sao Paolo, Brazil, where the planning authorities auction development rights in the stock exchange while the base right for development FSI has been frozen at 1 and has made it mandatory for the developer to purchase anything beyond that from the market. A similar model was also tried in France.

In India, this is very popular and has been adopted by most of the cities (like, Chennai, Mangalore, Ahmedabad, and Mumbai) by introducing a premium or chargeable FSI. Hyderabad charges for construction of high rises. The problem of the fiscal tools is that they serve the financial aspect without effecting the underlying the built and physical environment.

And lastly, ‘Regularization of Unauthorized Development’ which, according to Mr. Phatak, is peculiar only to the Indian context and has no international examples. In the case of Maharashtra, the unauthorized constructions/developments in the peri-urban areas were brought under the legislative purview through the Gunthewari Act. Gujarat has a similar legislation and the Ahmedabad Urban Development Authority regularly announces impact fees. Bangalore has its own version of the “Akrama – Sakrama Scheme “for regularization of unauthorized and violated private buildings, which is yet to be enacted by the state.

2.9. Land Mobilization for Implementation

Some characteristics peculiar to the land and land use planning are that the land use planning is about land and this is finite as well as scarce resource. Planning involves modulation of the property rights. (land is a cornerstone of political, social and economic system), allocates and controls a particular resource called the property rights. The land use planning decisions are long-term decisions;

Since the independence there has been changing perception on the Land- though this was considered as the fundamental right, subsequent changes and amendments in the constitution brought provisions to allow the state to acquire land for public purposes. In the Planning report by the Government, emphasis is laid on the distribution of land, effective land management and for providing for public purposes. On these lines, the ULCRA act was brought in to avoid large land parcels being vested in the hands of few persons. This primarily is to put all land mobilization for urban development in the hands of the government and the designated agencies. The mobilization of land for
the plan purposes have largely been in form of large scale land acquisition on the basis of Master plan provisions within the conurbation area. Development Schemes are prepared by the authority and approval obtained from the government for the acquisition of land through the LAA act. In some cases, in order to expedite housing development and also to allow for private participation, housing societies were allotted bulk land. In addition to this public auction of lands are also employed. Innovations in bulk land acquisition can be observed across the country, notably in various geographies, land mobilization was carried out through various guidelines and methods such as the Haryana model, Guided Urban Land development and voluntary land contribution models for the green field developments. In each of these models, the giving up of private lands for the scheme is incentivized. (for eg. BDA model of 60 : 40 land sharing ratio and handing of one developed site for every acre of land lost, etc ).

Historically, the British introduced the Town planning schemes which is based on the land pooling and re-adjustment mechanism. This was tried in few areas and as this involved lengthy process, relied upon determining the initial and increase in value of land due to infrastructure, imposing a fair tax, it was easy to adopt the large scale land acquisition over the TPS mechanism.

The parts of the plan which comprise of proposals that need the reservation of land for the road networks, civic amenities, open spaces and greens are insisted while the permissions for development are accorded. For instance, if a period of 5 years or more lapses since the formulation of the plan, then the land owner can change the use of his land from that of the proposed one in the Master plan. This has been the practice followed such that all the greens, amenities earmarked remain only on paper and are not realized on ground. With the amendment of the act provisions, road networks are now to stay on the plan proposals as long as they are implemented. If these proposals are within the municipal areas then the responsibility is of the urban local body to implement the proposals. Authorities without the resource base cannot afford to buy the land or acquire on its own.

Mumbai has been in the forefront in introducing a method called the “Accommodation reservation” and issuing the Development rights such that land loser is compensated adequately. The transactions of the land are usually fraught with
difficulties, such as the availability of poor records titles and establishing boundaries with rights. This is also led to certain – reluctance on the implementing agencies to actively take part in the land transactions based proposals. Different tenures of land ownership and the revenue procedures complicate this further. The GOI has initiated a programme on pilot basis to create the “Platinum” – a land titling project for the urban centres in the country.

2.10. Land Laws and Property Rights

The notion that land is a private property and its transaction needs to be regulated and if it is to be acquired for public purpose the process has to be just and fair was recognized well before the adoption of Constitution in 1950. Transfer of Property Act 1882 and Land Acquisition Act 1894 reflect the viewpoints.

However, the way private property was viewed in the Constitution evolved over the years. Article 19 (f) of the Constitution recognized “to acquire, hold and dispose of property” as one of the fundamental rights of citizens. Consequently, Article 31 (2) provided for compensation at the market price for compulsory acquisition of any private property by the state. Considering right to own property as enshrined in the Constitution was a distinct break from the British legal tradition and more in tune with the fifth amendment to the bill of rights in the American Constitution that reads ‘No person shall inter alia be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.’ However, along with the fundamental right to property Indian Constitution also included the Directive Principles of the State Policy (Article 39(b)) that required that the “ownership and control of the material resources of the country are so distributed as best to sub-serve the common good; and that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment”

The 25th Constitutional amendment of 1971 made any legislation enacted to subserve the Directive Principle non-justifiable. The amendment declared “Notwithstanding anything contained in Article 13, no law giving effect to the policy of state toward securing all or any of the principles laid down in Part IV shall be deemed to be void on the ground that it is inconsistent with, or abridges any of the rights conferred by Articles 14 or 19, and no law containing a declaration that it is for giving effect to
such policy shall be called in question in any court on the ground that it does not give
effect to such policy.” This amendment further replaced the word ‘compensation’ by
the word ‘amount’ in Article 31(2) and adequacy of amount was made non-justifiable.

By the 44th Amendment of 1978, Article 38 (2) was added which states that “the
State shall, in particular, strive to eliminate inequalities in status, facilities and
opportunities, not only amongst individuals, but amongst groups of people residing in
different areas or engaged in different vocations”. By the same Amendment “to
acquire, hold and dispose of property” was deleted as a Fundamental Right and a new
Article 300A was added that reads, as “No Person shall be deprived of his property
save by authority of law.” Thus the fundamental right was reduced to a mere legal
right.

The 25th Constitutional Amendment was crucial in empowering government to obtain
land without paying compensation at market rate or demonstrating its public purpose,
on the ground that the action sub serves the Directive Principle of the Constitution.
The key Directive Principle in this regard is “that the ownership and control of the
material resources of the community are so distributed as best to subserve the
common good” As a result of this amendment many legislative initiatives provided
for ‘amount’ instead of ‘compensation’ enabling more aggressive intervention in land.
Urban Land (Ceiling and Regulation) Act 1976 (India 1976)\textsuperscript{15} was considered to be
the most progressive piece of legislation of the time. For the first time the criterion of
public purpose was not mentioned for expropriating property rights in land. However
the law was repealed by the Central Government in 1999. Its principal objectives
were:

- Preventing the concentration of urban land in the hands of a few persons and
  speculation and profiteering therein
- Bringing about an equitable distribution of land to subserve the common good

\textsuperscript{15}Under the provisions of this act vacant Land in excess of the ceiling could be taken over by paying an
amount at the rate not exceeding Rs. 10 per sq.m. and total amount not exceeding Rs. 2 lakhs.
After the Constitution was amended to strengthen the state’s power to intervene in the land market, Land Acquisition Act 1894 (India 1894) was amended in 1984 to make the process fair.

The right to fair compensation in Land Acquisition and transparency in LA (RCFTLA), now proposes to more clearly define the scope of public purpose, exclude acquisition for private entities not engaged in producing public goods or services and re-enshrine the principle of compensation at one and half times the market value with 100% solatium.

It was believed that the best way to achieve these objectives was to have public ownership of urban land. Many urban development authorities therefore adopted the instrument of compulsory acquisition of land for ‘planned’ urban expansion. Development of new state capitals like Chandigarh, Gandhinagar or Naya Raipur relied on large-scale land acquisition. State Housing Boards also resorted to compulsory acquisition of land. Apart from the large-scale land acquisition, most master plans relied on compulsory acquisition of land required for serving public purposes – education, healthcare, recreation, transport, fire protection, police and postal services and other public utilities.

From mid-80s (particularly after the amendment of Land Acquisition Act), large-scale acquisition of land became increasingly expensive. The demand for the rehabilitation and resettlement of displaced persons and general resistance to compulsory acquisition, large-scale public ownership of land began to lose its status as the main plank of urban land policy. The provisions of the RCFLTA 2013 would further erode the feasibility of a model that relies on large-scale public ownership of land.

For Planning purposes, based on the land laws, many of them are utilized for regulation such as the procedures and what land can be converted from the agricultural land and non-agricultural land, agricultural land holding by the private owners, the provision of agricultural land zone and declaration of the Greenbelt. Common property resources such as water bodies, grazing lands, etc are to be preserved by the act provisions.
2.11. Implementation of Plans and Policies

Implementation: is the process of putting a decision or plan into effect; execution (or the doing of an action (Merriam –Webster). The term implementation has various meanings and is understood with some variations in the fields of policy, program, Plan and projects. While the fields of project and program (health, educations) management is well documented. Policy/plan implementation remains an area that offers research opportunities to explore and contribute to the body of knowledge as well as theory. Implementation studies are found at the intersection of public administration, organizational theory, Public management research Planning and political science studies (Schofield and Sausman 2004). Implementation involves both organizational systems and processes and actions of members of the organization. Implementation is complex, as there are several causative variables as covered by various literatures. There have been attempts to identify variables influencing the implementation process both empirically (sorg 1987; Brinkerhoff 1999; Pearson-Nelson 2005) and conceptually (Van horn and Van meter 1974; Rainey and Steinbeur 1999). The goals set by the policy/plan on paper and the difference in the way they are carried out in practice is understood as “implementation gap”. It can also be said that the implementation gap covers the 16 “…the discrepancies between prescriptions and what happened on the ground”. Essentially, all implementation studies require the use of one or more technique to know the extent of translation of goals or the assessment of implementation gap. Unlike the implementation of projects, which is straight and linear in form of steps and milestones, the spatial plan implementation is complex as they cannot be compared. Spatial plan implementation requires special attention and is quite distinct from other implementation. Distinction between the Planning and Plan implementation must be made as the planning is an activity while the Plan is product of intentions that requires translation into action through physical development. Methods of evaluation are important for understanding the implementation.

2.12. Types of Evaluation

The evaluation of the plan implementation can be carried out either ex-ante or ex-post methods. The ex-ante methods include the use of tools such as the Planning Balance sheets, Goal Achievement matrix that can help rationalize decisions during the decisions for formulation of the plans. While the ex-post evaluation will require studies to determine the implementation post plan preparation for a given period and a particular aspect of the spatial plan. The results of the ex-post evaluation are very useful as the inputs for the plan formulation.

2.13. Evaluation of Plan Implementation

While there is a prolific body of research on the evaluation on policy implementation, there has been a lack of parallel inquiry into evaluation in the planning field (Talen, 1996). Although some work has attempted to link policy-implementation theory to planning practice, planners have not yet developed an equivalent ability to link plans and plan implementation practices to subsequent impacts (Berke et al., 2006). Given the lack of methods to empirically evaluate plan implementation, many plans are impressionistically rather than empirically assessed (Laurian et al., 2004). As a consequence, planners know very little about the effects of plan on the city development process. Although, measuring the effect of plans on urban development is a challenge, and comparisons between local institutions and across metropolitan areas are constrained by the sheer variety of local practices. A fuller understanding of the relationship between planning tools and markets should enable policy makers both to better appreciate the likely impacts of planning tools and to tailor them to achieve desired outcomes (Adams et al., 2005).

Modeling the effects of planning has been relatively little researched, partly because their Quantification is very difficult. Silver &Goode (1990) and McGough & Tsoloacos (1994) adopted macroeconomic models to analyze national or regional data, but planning variable is absent. There are usually two types of evaluation approaches to assess the impact of plans Non-quantitative and quantitative methods. The non-quantitative method is frequently used; however, it is observed that the evaluation criteria are subjective and vague. The quantitative approach is seldom applied due to methodological and data difficulties. Nevertheless, it has been proved to provide solid support to the assessment of the role of plan in implementation. Since
the late 1970s, several categories of quantitative approaches have been developed with the advancing computer technology. For example, Alterman and Hill (1978) use grid overlays to quantify “accordance and deviations” between land use plans and actual land use.

Regression analysis is used to test the explanatory strength of political and other factors that could affect implementation. Calkins (1979) applies “planning monitor” to measure the extent to which the goals and objectives of the plan are met and to explain any differences between planned and actual change. This is accomplished using various ratios that produce effectiveness measures, such as the ratio between actual occurrence and anticipated occurrence as a measure of forecasting effectiveness. Calkins (1979) also includes effectiveness measure, of spatial objectives in which planned and actual inventory values for a number of sub regions are calculated. Alexander and Faludi (1989) develop a model, plan/programme-implementation-process (PPIP), and give five criteria for comprehensive evaluation: conformity, rational process, optimality \textit{ex ante}, optimality \textit{ex post}, and utilisation. Moreover, a proposed framework including a serious of evaluation questions is provided to avoid the extremes of policy and plan evaluation implied in the traditional model with its standard of conformity and the ‘decision-centred’ model with its standard of utilization. However, no empirical studies were provided for this type of evaluation.

The more recent approach of plan evaluation demonstrated by Berke et al (2006) represents another attempt to assess the impacts of plan in the implementation quantitatively. He used a sample of plans, permits, and district-council planning agencies in New Zealand, and examines two conceptions of success in plan implementation (conformance and performance), the effects of the implementation practices of planning agencies, and the capacity of agencies and permit applicants to bring about success.

Based on the evaluation outcome, a question appears, that is, is a plan with high implementation conformance good one? Another key point is that, if implementation is defined and measured in terms of conformance, plans and planners have an important influence on implementation success. Alternatively, if implementation is
defined and measured in terms of performance, plans and planners are less influential in implementation.

These lessons have broad implications for the theory and practice of plan implementation. Alexander and Faludi (1989) argue that plans not implemented do not always indicate failure, and on the other hand, plans do not cease to be a criterion of success. They hold the middle ground where implementation is still important but where, as long as outcomes are beneficial, departures from plans are viewed with equanimity.

Identifying the factors affecting implementation is as important as plan implementation. Laurian et al (2004) categorize the factors of plan implementation into two types: internal factors to the plan (e.g. its quality) and external factors to the plan (e.g. the characteristics of the planning agency and of local developers). Key factors of implementation are: the quality of the plan; the capacity and commitment of land developers to implement plans; the capacity and commitment of the staff and leadership of planning agencies to implement plans; and the interactions between developers and agencies. Therefore, while analyzing the effects of plan, we cannot simply conclude that a plan with high level of implementation is a good one. Only the combination of quantitative analysis and qualitative analysis can help achieve better understanding of the role of plan in city development. Wong, et al.(2009) argue the use of indices for the measurement of plan implementation impacts by using indices for poverty, employment, deprivation, etc.

The research on plan implementation in India is very limited. Among the few studies, Tandell and Nallithiga compare the conformance and deviation between plans and actual development (approved development proposal) in Mumbai city. Then the factors affecting plan implementation, such as the planning control framework and social and economic changes, are analyzed. Pu (2005) adopts an approach similar to that of Alterman and Hill, and uses grid overlay to quantify “accordance’s and deviations” between city master plan of Tianjin city (the 1984/1995 and 2002 versions) and actual land use in different years. Then he conducts questionnaire survey and identifies various factors related to plan implementation.
2.14. Challenges for Evaluation of Plan Implementation

The difficulties for evaluation of plan implementation mainly stems from the following:

1. Methodology for measurement in quantitative manner of the objectives of the plan such as social, economic and ecological development goals of a city. Whether Qualitatively “Good Plans” get better implemented?  

2. Timing of impacts of plan for measurement as the master plans usually have long time horizon such as 10 -15 years, even 20 years.

3. Evaluation of plan implementation based on physical plans or on the object oriented plans.

4. In the fast-growing cities, the evaluation of plan implementation is even more difficult.

2.15. Evaluation of Spatial Plan Implementation:

The evaluation of the spatial plans for the BMA are carried out in two stages for its breadth and depth, in the first stage, the qualitative review of the Master plan documents are carried out by the studying the documents, the city growth and development over the years. Though the objectives are difficult to measure, the evaluation of the development aspects of the Master plan are taken up. The key development aspects such as the finances, regulation, PPP/PSP and the projects such as housing, roads are qualitatively reviewed to cover the breadth of the issues. Once the overall assessment is carried out, the depth of implementation in form of spatial plan implementation is carried out by studying the selected planning districts 308, 309, and 311 located in the North (witnessed fast growing part of the city). The study of the urbanization and the changes taken place between 2003 and 2013 has been documented. The main aspects include changes that have occurred in the landscape using temporal spatial remote sensing data, analyzing the spatial changes and assessment by using spatial metrics. The Spatial metrics have emerged from landscape ecology concept and various urban studies have utilized them. There is substantial literature on the Landscape metrics and it is well documented body of

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17In other words, is the degree to which a plan is implemented related to its quality (Laurian et al, 2004)
research using these metrics to quantify urban patterns, especially patterns of growth or urbanization. These metrics also aim at analyzing very different morphological characteristics of the urban landscape and have been used in a number of cities (Huang et al., 2007; Schneider and Woodcock, 2008; Schwarz, 2010; Wu et al., 2011).

Priyadarshini shetty, et al.(2012) have discussed the effect of metrics at different scales of Bangalore city with study of trends over a two time period. The metrics used were: Total Class Area (CA), Percentage of Landscape (PLAND), Shannon’s Diversity Index (Entropy), Largest Shape Index (LSI), Largest Patch Index (LPI), Clumpiness Index (CLUMPY), Normalized Landscape Shape Index (nLSI) and Contagion Index (CONTAG) were estimated for the entire extent and the two subsets of their study area.

The CA, LPI, PLAND are useful and fundamental in revealing the characteristics of the morphology of the ongoing development.

**Planning district study area**: The study areas comprises of the following extents.

**Table 2.2: Extents of the Planning Districts- Latitudes and Longitudes.**

<table>
<thead>
<tr>
<th>Planning district No</th>
<th>Latitude</th>
<th>Longitude</th>
<th>latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>309</td>
<td>13° 2'44.26&quot; N</td>
<td>77°39'34.49&quot; E</td>
<td>13°6'57.41&quot; N</td>
<td>77°38'42.81&quot; E</td>
</tr>
<tr>
<td>311</td>
<td>13° 2'53.76&quot; N</td>
<td>77°38'52.92&quot; E</td>
<td>13° 0'21.68&quot; N</td>
<td>77°40'50.77&quot; E</td>
</tr>
<tr>
<td>308</td>
<td>13° 8'7.47&quot; N</td>
<td>77°35'16.24&quot; E</td>
<td>13°10'51.02&quot; N</td>
<td>77°33'58.84&quot; E</td>
</tr>
</tbody>
</table>

The satellite images for the two time period (2003 and 2013) were obtained for the Area which lies in the Northern part of Bangalore city, of Planning District 308, 309 and 311, the boundary has been delineated from the master plan extract of BDA RMP 2015. The data and information has been subjected to process in different plat forms, like satellite image processing for the classification, error detection of the acquired data and information.
2.16. Method:

The Classification done in two stages supervised classification and unsupervised classification in order get accurate classification result from the satellite imagery. Unsupervised classification is automated classification preformed in the software with the specified numbers of classification using classification tools, and the supervised classification is done by taking reference of field survey data by creating signature file to be processed in the software. After classification process, the output data and information are validated with the field visits/survey and necessary correction carried out. The output data are presented in excel and field survey data and land use specified to each class type is added. The exported data in form of “tiff format is put into the process for deriving spatial statistical data. Fragstats 4 software has been utilized for generation of statistics. The final outputs exported into excel and graph for the documentation.

The Total Class Area (CA) is a measure of landscape composition; specifically, how much of the landscape is comprised of a particular patch type. In addition to its direct interpretive value, class area is used in the computations for many of the class and landscape metrics. CA equals the sum of the areas (sq.mtr) of all patches of the corresponding patch type, divided by 10,000 (to convert to hectares); that is, total class area. CA > 0, without limit.

Percentage of Landscape (PLAND) equals the sum of the areas (sq.mtr) of all patches of the corresponding patch type, divided by total landscape area (sq.mtr), multiplied by 100 (to convert to a percentage). In other words, PLAND equals the percentage the landscape comprised of the corresponding patch type. Percentage of landscape quantities the proportional abundance of each patch type in the landscape. However, because PLAND is a relative measure, it may be a more appropriate measure of landscape composition than class area for comparing among landscapes of varying sizes.

PLAND is used to show the percentage wise land use distribution in the study area. This study has 4 important classifications, Vegetation, which includes water bodies and forest area, Open Spaces, the places vacant, and Quarry the places of mining areas. The percentage wise the Built-up and Open Spaces has increased in the present study due to the rapid growth in the population and urbanization around the city.
Built up area in form of patches identified are measure of the extent of built up in the study areas. The population figures have been included in the GIS maps to provide the analytical support. The qualitative review of the plan areas enable us a firm understanding of the dynamics of the urban areas and the extent of the spatial plan implementation.

The spatial plan physical components and proposals are analyzed for implementation, they include growth in the periphery (fringe), Conservation of agricultural land zone (3.08), Preservation of the sensitive lands or valley areas/open spaces, planning proposals or schemes implementation, formation of road networks.

We turn to the question what kind of planning is conducive for the implementation and thereby the urban development.

2.17. Spatial Planning: Role of Planning in Implementation:

Since the end of the 19th century, there has been evolution of the planning theory and shift in its focus. The blue printing form of planning was considered too rigid. The definition of planning through the instrument rationality was short lived. Spatial planning definitions have relied upon the use of collaborative and communicative means, instances of borrowing concepts from other fields such as business has led to the coining of the term - strategic planning. The earlier systems approach, interactive approach, with each of them have its bearing on theory, but little impact and understanding for the practitioner in shaping the city through its built form.

Urban planning may be defined as the process by which the use of land in towns and cities is regulated in the public interest. Spatial planning involves ‘critical thinking about space and places as the basis for action or intervention’, (RTPI, 2007). Spatial planning is the practice of space shaping and delivery at the local and regional levels that aims to:

i. enable a vision for future regions and places that is based on evidence, local distinctiveness and community derived objectives;

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ii. translate the vision into a set of policies, priorities, programmes and land allocations together with the public resources to deliver them;

iii. create a framework for private investment and regeneration that promotes economic, environmental and social wellbeing for the area; and

iv. co-ordinate and deliver the public sector components of the vision with other agencies and processes.’

Shaw and Nadin (1996) further elaborated; spatial planning refers to the methods used largely by the public sector to influence the future distribution of activities in space. It is undertaken with the aim of producing a more rational organization of activities in space, including the linkages between them; and to balancing development with the need to protect the environment.

The Committee on Urban Management of Bangalore City (1997) highlights the need for planning to overcome demands of housing, infrastructure and amenities and places planning by far the most important tool for rising public confidence and morale. The other role that planning is expected to play is that of co-ordination and helping to smoothen the relationship between the elected representatives and the official in charge of the city.

Even within the changing trends in planning certain countries / regions (Spain, Italy, etc) have retained the model of development based on “urban area approach” or the “urban project”. This is by using the methods that are rooted in the urban design and architectural practice/ tradition. Generally, it is necessary to setup the large goals through planning and set the spatial and qualitative appeal, leaving the details to be filled in a phased manner through design. This makes it necessary to enable the possibilities for use of instruments and mechanisms to move beyond mere aspects of allocation by the master plan towards organizing space productively towards implementation.

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In the same line of thought, there have been several thinkers who favour the use of instrument rationality to address not only physical form, but also the social issues. Planning, then should serve what private and public act alone cannot achieve on its own and address the qualitative aspects of the urban development. The concept of ‘Strategic planning’ which is the …process that attempts to develop and implement strategies to reach a specific goal with the available and appropriate means’ becomes significant. Prioritisation and thrust are important aspects that determine eventually what gets implemented.

2.18 International and National Case Studies

The review of the International and National case studies is to allow the study of the planning systems and the mechanisms used for the implementation of the plans. The scope of spatial planning differs greatly from one country to another, but most share a number of similarities. Spatial planning is critical for delivering economic, social and environmental benefits by creating more stable and predictable conditions for investment and development, by securing community benefits from development, and by promoting prudent use of land and natural resources for development. The Study uses the case studies for understanding the planning system and the use of mechanisms/instruments.

2.19. Methodology for the Comparative Research

There are also many examples where cases are compared in different countries aiming to create comparative understanding of planning experiences and to identify lessons for comparable planning issues (Blazyca 2003; Evers, 2004; Booth et al 2007). Pickvance 2005, distinguishes comparative analysis from the juxataposition of descriptions of series of cases, he states that sequential presentation of descriptive data are informative about the cases concerned. They make the reader aware of the dissimilarities and similarities. Introduction of additional explanatory variables strengthens the comparative analysis. In planning comparative case study research is dominant, as many studies can been seen as strategic explorations into particular phenomena with the intent to provide an explanation (Masser and Williams, 1986).

Van Djik (2002: 914) assumes that the comparative analysis of planning systems can be done at number of levels of increasing complexity. The idea of the study is to
facilitate learning and an idea of improving one’s own system. De Jong (2004: 1055-1056) writes that planners wanting to adopt transplants from countries varying greatly in terms of administrative culture and structure should reckon on considerable institutional complications. Care needs to be taken in transforming them in such a way that they meet domestic context. However it is generally assumed that transplanting planning institutions from countries with similar political, legal and cultural characteristics is easier. Various groups such as Anglo Saxon, Napoleonic other continental, communist systems, Asian systems are identifiable in the current systems worldwide.

The EU compendium of spatial planning systems and policies proposes major traditions of spatial planning:

1. Regional economic planning approach in which spatial planning has very broad meaning relating to the pursuit of wide social and economic objectives.

2. The comprehensive integrated approach in which spatial planning is conducted through a very systematic and formal hierarchy of plans from the national to the local level which coordinate public sector activity across different sectors but focuses more specifically on spatial co-ordination than economic development. The Netherlands is one example.

3. The land use management approach where planning is more closely associated with the narrower task of controlling the change of use of land at the strategic and local levels.

4. The Urbanism tradition which has a strong architectural flavor and concern with urban design townscape and building control, regulation has been undertaken through rigid zoning and codes- Spain and Italy are examples of this category.

Countries may move from one approach to another over time, Britain for example is currently moving from land use management approach to a comprehensive integrated approach. The traditions are based on the European context but may be extended to
countries worldwide. Philip Booth (2003) traces the changes to the British development control and planning towards the planning by consent\textsuperscript{22}.

The case study is useful in understanding of the planning system, tools and techniques used and on how these instruments address the various planning situations of growth, conservation and preservation. The first step is exploratory research in countries that have a similar context to India/ BMA, because studying countries with a similar context reduces the need for additional explanatory variables for describing the plan system. On the completion of the preliminary step, the next is to select for in-depth study of those countries that show the use of key variable such as formal land use plans and Zoning for implementation.

There are atleast four functions present in every planning system\textsuperscript{23} (Mazza, 2004):

1. A strategic function concerning both the definition of the goals and of policies to achieve theme , and the construction of ( spatial) frameworks for action.
2. A regulative function , dealing with land use regulations
3. A design functions, regarding the definition of policies and projects for spatial development and
4. An informative function, dealing with the production and circulation of information.

European spatial systems can be identified by the two types – Confirmatory and Performance based planning.


Table 2.3: Two Models of Planning Systems

<table>
<thead>
<tr>
<th></th>
<th>Conforming Planning System</th>
<th>Performing Planning System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles</td>
<td>Hierarchy, dirigisme</td>
<td>Vertical and horizontal subsidiary</td>
</tr>
<tr>
<td>Technical assumption</td>
<td>Plan as binding, collective strategy</td>
<td>Plan as non binding collective strategy</td>
</tr>
<tr>
<td>Systemic consequences</td>
<td>Fusion of spheres of interaction, planning functions are melted</td>
<td>Distinct spheres of interaction, planning + control</td>
</tr>
<tr>
<td>Juridical effects</td>
<td>Incoherences resolved according to conformance</td>
<td>Existing use rights in land till different public decision</td>
</tr>
<tr>
<td>Advantages</td>
<td>Certainty</td>
<td>Flexibility</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>Rigidity</td>
<td>Discretion</td>
</tr>
<tr>
<td>Political and technical responsibilities</td>
<td>Centered on Plan elaboration</td>
<td>Centered on Plan elaboration and project evaluation</td>
</tr>
<tr>
<td>In force</td>
<td>All European countries, USA</td>
<td>UK, EU spatial Planning</td>
</tr>
</tbody>
</table>

Adapted from: conforming and performing planning systems in Europe: An unbearable cohabitation. Umberto Janin Rivolin. Pg. 12.

On the comparison of the Spatial planning systems in Europe\(^{24}\), Gerhard Larsson (2006), states that there is significant consensus of opinion when it comes to forming suitable systems for handling spatial planning and implementation issues. He discusses the following topics in relation with the planning and implementation.

- consistency and completeness in the established systems;
- institutional support and division of responsibilities;
- binding power at different levels;
- flexibility;
- integration and coordination;
- public/private participation and partnership;
- Compensation.

\(^{24}\) Gerhard Larsson, (2006), Spatial Planning systems in western Europe an overview, IOS press, Netherlands
Table 2.4: Overview of the International Case studies: Planning systems

<table>
<thead>
<tr>
<th>Name of the city</th>
<th>Description</th>
<th>London</th>
<th>Valencia</th>
<th>Portland</th>
<th>Singapore</th>
<th>Sydney</th>
<th>Johannesburg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Planning system</td>
<td>Dvpt led</td>
<td>Plan led</td>
<td>Plan led</td>
<td>Plan led</td>
<td>Plan led</td>
<td>Plan led</td>
</tr>
<tr>
<td>2</td>
<td>Types of Plan documents</td>
<td>SP, LDF, EIA, SPDD</td>
<td>LU and detailed plans</td>
<td>LU and detailed plans</td>
<td>SP, CP, Master plan 2014, LU and detailed height, street plans</td>
<td>LU and detailed plans</td>
<td>LU and detailed plans</td>
</tr>
<tr>
<td>4</td>
<td>Off site -Infrastructure development responsibility</td>
<td>Govt</td>
<td>Pvt sector</td>
<td>Govt</td>
<td>Govt</td>
<td>Govt</td>
<td>Govt</td>
</tr>
<tr>
<td>5</td>
<td>Land mobilization/ comp acquisition</td>
<td>NA</td>
<td>LPR / compulsory Acq</td>
<td>NA</td>
<td>Yes/ through GLS/ URA</td>
<td>NA</td>
<td>Compulsory Acq</td>
</tr>
<tr>
<td>6</td>
<td>Type of authority</td>
<td>Local Govt</td>
<td>Local Govt</td>
<td>City</td>
<td>URA</td>
<td>NSW</td>
<td>City Govt.</td>
</tr>
<tr>
<td>7</td>
<td>Land use Plans</td>
<td>NA</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>FAR as a tool</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (bonus FAR)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>Planning permissions</td>
<td>Negotiated/ conditions</td>
<td>Procedural+ addnl</td>
<td>Procedural</td>
<td>Procedural +add</td>
<td>Negotiated +add</td>
<td>Procedural</td>
</tr>
<tr>
<td>10</td>
<td>Development auth/corpn</td>
<td>Yes (local body &amp; UDC)</td>
<td>Yes(local body)</td>
<td>Yes</td>
<td>HDB, LTA PWD</td>
<td>NSW- city Govt</td>
<td>JDA</td>
</tr>
<tr>
<td>11</td>
<td>Digital/GIS</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>Monitoring</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>CIP/FOP/Budgeting linked to Plans</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**NOTE 1:** Since the Comparative review of International and National case study details are extensive, the notes have been placed in Annexure –II.
2.20. Salient Features of the Plan System facilitating the Implementation:

In several countries, before the implementation can commence, they are usually “plans” with some statutory binding powers /rules that guide the prospective developments. In Spain, municipalities are obliged to approve binding land-use plans that have to cover the whole municipal territory and these cover outline land-use plans with land-use regulations that have statutory consequences for the use of the land: they zone land into different uses, and often also define the building density. As a rule, these plans do not take factor specific development projects and they constitute the existing planning frame. Though positioned as plans to create legal certainty about the future building possibilities, in practice, it may call for more detailed plan to either complement or modified the existing one.

The English structure/Local/Development plans or the new Local Planning Frameworks are good examples of planning documents indicating possible future developments that are non-binding zoning plans. Because these regulations are only indicative, they give no legal certainty about the future use and building possibilities.

2.21. Plan Led and Development Led Plans:

The planning literature makes various categorizations of planning systems. Here we use a categorization based on the legal and administrative systems in which planning systems operate. Development-led systems characterize the British situation, and plan-led, supposedly, planning in most of the other countries. In development-led systems, the public authority decides cases on their merits. The land use plan is only the representation of the idea of the intentions. Faludi calls this the indicative theory of zoning.

In plan-led systems, the land use plan is important as the authority defines the desired environmental outcomes in the land-use plan and is legally binding. The difference can be found in two aspects:

(1) Plan-led systems have a legally binding land use plan

(2) Plan acquires legal status at an early stage, at the ‘plan preparation and approval’.
In the UK there is only one binding land-use document, the *Planning Permission*. However, regarding whether the land use plan is approved at an early stage or not (i.e. previous to the moment of undertaking the development). Of the studied countries, only Spain, Singapore, Johannesburg, Portland could be called plan-led, for only in these countries are there general binding land-use rules approved in early stages, at the ‘plan preparation and approval’. There could be difference in the actual use of binding land use plans though based on the same ‘plan-led’ system. A comparative study of the European Commission shows these practice deviations in Plan led system. (European Commission, 1997: 45-46).

In other words, in plan-led systems the regulations is about the future use possibilities and are supposed to become legally binding before intending developers find out whether their intentions conform to the conditions imposed. Once the developer submits a building application, the local authorities check whether it fits into the legally binding land-use plan. If it does not, the application should be rejected. Faludi calls this the *imperative theory of zoning*.

In short, plan-led systems are supposed to provide at early stages certainty about the future development possibilities. On the other hand, development-led systems (like the British planning system), although there might be some indicative zoning plans in early stages, are supposed to give less certainty about the definite development possibilities.

2.21.1 Flexibility;

Flexibility in planning can be explained as the possibilities of accommodating the changes and alterations in the binding rules during the development process. The plan led development plans give less flexibility as the detailed plans may be worked out at the framework level. The development led plan provides for ample flexibility. The planning conditions and obligations can be negotiated during the implementation process.

2.21.2 Permit and Controls Based on Regulation

The plan systems facilitating the implementation are based on respective planning laws and regulations. The development is guided by the permit and control method. All proposals for the development needs to be approved by the authority on basis of a
“Plan “. Additional and supporting studies leading to clearances for environment impacts, use of sectoral infrastructure services is usually insisted. The developments must be carried out within the stipulated time period.

2.22. Land Acquisition vs. Compulsory Land Pooling

A few countries such as Netherlands/Dutch posses large land holdings acquired systematically, some of the authorities are mandated to reserve a portion of their budget for the acquisition of land such as Spain. Valencia has provided through legal means to carry out compulsory land pooling and supported by the compulsory acquisition in case of hold out by the landowners. Expropriation of private land is generally avoided barring exceptional circumstances for provision of infrastructure, etc. Land mobilization techniques along with the use of TDR are also used as means for providing land for public purposes. Social or low cost housing is a priority and part of policy is public acquiring and developing the land and distributing to the other entities at a subsidized price, loan or cost support.

2.23. City Infrastructure and Investment Plans

The studied cases have well worked out city infrastructure and investment plans linked to Spatial Plan. This is usually through the use of Business Plan including the raising of finances, milestones for implementation and developer contributions.

2.24. Cadastral, GIS and Use of Monitoring Information Tools

A good cadastral record system with clear property rights and definitions is essential for the land owners for their security and stimulate long-term investments as well as planning. A good land information system is a basic factor for the development of efficient land planning systems. The land units defined in computerized records can thus be a basis of important parts of a more general geographical information system, including also other socioeconomic, environmental and geographical information, which in turn may be of great importance for spatial planning. The use of monitoring tools with use of indicators is crucial for measuring of the implementation.

2.25. Special Agencies Setup for Economic Implementation

In the case study countries, separate agencies with powers are given an adapted legislation to stimulate development. In most of the countries also the local authorities
try to attract industries and other enterprises, partly by reserving suitable land for them in local plans. Also considerations of social needs play a different role in the spatial planning systems. Thus, in several countries, `social housing´ has special treatment and be implemented by special instruments. In England, the detailed planning and implementation of social housing may be left to the community. This is to prevent as much as possible high speculative land prices for housing and use of existing urban areas better - partly by reclaiming of derelict/vacant urban land, spare agriculture or recreational areas around the cities. In circumstances, where the economic development needs to be stimulated, Urban Development Corporation (UDC), Urban Redevelopment Authority (URA) like organizations are introduced, while the Community Land Trusts (CLT), community organizations are given the role to deliver social objectives of the plan.

2.26. Preservation of Farm and Sensitive Areas

The case studies pre-dominantly utilize the regulatory aspects of the plan for the Preservation. For farm land conservation, land pooling techniques and the improvement to the agricultural production through subsidy is provided.

2.27. Implementation of the Plans

Implementation of the plan requires that the public authorities must have the means to steer or stimulate implementation in the right time at the right place and use of instruments and methods to carry out the development through one or more means. They include:

- Land acquisition
- Legal prescriptions and contracts
- Own activities, especially infrastructure development.
- Stimulation means.
- Control by permits

The main interest for this study therefore will be on the use of Legal Prescriptions and contracts as well as the Control by permits.
### 2.28. Planning System - Indian Experiences

All the Indian cities follow a similar planning system – based on the Town and Country Planning Act of the respective states.

#### Table 2.5 Comparative Analysis of Planning System in India

<table>
<thead>
<tr>
<th>City</th>
<th>Plan making authority</th>
<th>ULB or parastatal</th>
<th>Constituted in</th>
<th>Enabling Legislation</th>
<th>Previous plan</th>
<th>Current plan in force</th>
<th>Horizon period</th>
<th>Plan within</th>
<th>Development Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyderabad</td>
<td>HMDA</td>
<td>Parastatal</td>
<td>2008</td>
<td>HMDA Act, 2008</td>
<td>1975 Master Plan for MCH Area</td>
<td>Revised Development Plan of erstwhile MCH Area</td>
<td>20 years</td>
<td>GHMDA</td>
<td>Use of FSI as a tool</td>
</tr>
<tr>
<td>Ahmadabad</td>
<td>AUDA</td>
<td>Parastatal</td>
<td>1978</td>
<td>GTPUDA, 1976</td>
<td>2002 Development Plan</td>
<td>2021 Comprehensive Development Plan (Second Revised)</td>
<td>20 years</td>
<td>Metropolitan</td>
<td>Use of FSI as a tool</td>
</tr>
<tr>
<td>NCT Delhi</td>
<td>DDA</td>
<td>Parastatal</td>
<td>1957</td>
<td>DD Act, 1957</td>
<td>Master Plan for Delhi, 2001</td>
<td>2021 Master Plan for Delhi</td>
<td>20 years</td>
<td>NCR</td>
<td>Base FSI</td>
</tr>
<tr>
<td>Mumbai</td>
<td>BMP</td>
<td>ULB</td>
<td></td>
<td>MMRTPA</td>
<td>DP for Mumbai, 1990</td>
<td>Same</td>
<td>20 years</td>
<td>MMR</td>
<td>Use of FSI as a tool</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use of FSI as a tool</th>
<th>No</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base FSI</td>
<td>Not Applicable</td>
<td>1.75</td>
<td>1.80</td>
<td>1.20</td>
<td>1.33</td>
</tr>
<tr>
<td>Upper limit (including premium FSI)</td>
<td>Not Applicable</td>
<td>3.75</td>
<td>5.40</td>
<td>3.50</td>
<td>4.5</td>
</tr>
<tr>
<td>Use of TDR as a tool</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Compiled by author from various aforementioned sources
All the cities except Ahmedabad do not have adequate plan for guiding the development beyond the Master plan and the Zonal plan. While the macro plans in form of Master plan is rigid, the subdivision plans are stipulated by the site specific regulations. The meso-level plans are missing to relate the micro level plan with the master plan.

The study has chosen the case examples\textsuperscript{25} to provide information on the use of instruments in the addressing the planning situations. In discussion of the instruments that are used for the “non financial compensation “, Leonie Janssen-Jansen, Marjolein Spaans, Menno van der Veen (2008), select various case studies across geographies and present the approach taken to tackle commonly occurring phenomenon of spatial plans such as renewal/ redevelopment , conservation, preservation, etc. To avoid the confusion and interpretation on the use of words / terminologies to their wider audience, they use the principles of “Conservation, re-allocation and Conversion” for defining the specific planning circumstance and use the case to present information.

The underlying principle of the instruments are essentially based on the modulation of land based rights and the development rights supported by both planning and property laws. The plans and proposals must have the potential to exercise the relevant instrument to further development. It becomes imperative to see the necessary dependencies between the plans, proposal, the use of instrument and how it is defined in the spatial plans.

\textsuperscript{25}Though there are several tools and techniques (fiscal, non fiscal, land based, etc as covered earlier in the literature review) that can be useful for the implementation, for the purposes of this study, the instruments that bring about the physical development through the various actors within the institutional framework is highlighted and taken up for the review. This review not exhaustive and is based on the available literature on their use in the respective context.
Table 2.6: Overview of the Use of Instruments- Case Studies: (Existing)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Geography/ Context</th>
<th>Mechanism/ Instrument</th>
<th>England</th>
<th>Valencia</th>
<th>Portland</th>
<th>Ahmadabad</th>
<th>Mumbai</th>
<th>Hyderabad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>Periphery</td>
<td>Land acquisition</td>
<td>Rare</td>
<td>Rare</td>
<td>Rare</td>
<td>Rare-except for select infra</td>
<td>Preferred</td>
<td>Preferred</td>
</tr>
<tr>
<td></td>
<td>City wide</td>
<td>Land pooling</td>
<td>NA</td>
<td>compulsory</td>
<td>NA</td>
<td>Preferred</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>City wide</td>
<td>Subdivision of land</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Preservation</td>
<td>Environmental, features</td>
<td>By Regulation of land</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>By TDR</td>
<td>NA</td>
<td>Limited</td>
<td>Limited</td>
<td>NA</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>Conservation</td>
<td>Green belt</td>
<td>UGB</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Historic areas</td>
<td>LP &amp; Readjustment</td>
<td>NA</td>
<td>Yes</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TDR</td>
<td>NA</td>
<td>Yes-limited</td>
<td>Yes-limited</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Redevelopment</td>
<td>Recycle of Industrial areas</td>
<td>Regulation/ Obligations</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Precinct area-renewal</td>
<td>LPR and compulsory acquisition</td>
<td>Yes</td>
<td>Yes</td>
<td>NA</td>
<td>Yes</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Transit Oriented Devpt</td>
<td>Zoning</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Scheme areas</td>
<td>Economic activity</td>
<td>UDC</td>
<td>SPV</td>
<td>SPV</td>
<td>Yes</td>
<td>SPV</td>
<td>SPV/SRA</td>
<td>SPV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LPR</td>
<td>NA</td>
<td>Yes</td>
<td>NA</td>
<td>Yes</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TDR</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

LPR : land pooling and re-adjustment, UGB : Urban Growth Boundary
2.29. Some Salient Development Experiences using the Instruments

Some of the case studies highlight the use of instruments (*Please refer to the annexure _ 2.2*) to provide innovation in planning leading to implementation

1. Slum redevelopment through the incentives: (Mumbai)
2. Urban cluster redevelopment – comprehensive renewal of old areas – through private initiative (Mumbai)
4. Town Planning Scheme (and pooling and re-adjustment): Ahmedabad/ Gujarat.

2.30. Spatial Plans and Value Capture Mechanisms:

Whatmore (1994) discusses the flows of the economic value between different parties involved in land development; planning gain can be understood as one of the mechanisms for regulating the burden of development costs and benefits between individual and Public interests.

Hagman Donald uses the concept of the ‘Windfalls for wipe-out’s’ to legitimize the re-capturing of the profits to compensate the land owners for such wipe outs (reduction in property values) caused by the application of regulations. To be equitable public regulations or other activities that increase property values should be recaptured by the Government: the Government thus recaptures the windfalls that it creates (Hagman and Misczynki: 1978). Fischel (1985) argues that the “zoning is not a personal property right, it is the community property right. Recapturing would result in more distributive justice as gain is unearned, to reduce the temptations to misuse the planning decisions to enrich the individuals, reduce land speculations by reducing the gains, might increase trust in Governmental planning decisions, reduced public objections to new development.

Today, in many countries, the idea of recouping the surplus value of planning decisions is acceptable theoretically as value accrued in form of gain or loss by planning decisions should be captured by the society and distributed. Extending this discussion, (Healey, et al: 1995) that the discretionary power based on ownership of the development rights is vested with the local government it is possible to formulate
development plans with obligations on the private developers. These obligations may include provision of infrastructure required for the development or any other related such as provision of affordable housing, etc. This can be expanded to the provision of affordable housing, creation of mixed communities and the redevelopment of brown field (Crook and White, 2002).

Micelli (2002) argues that in the debate of urban economists and planners about the possibility of using innovative methods and tools in managing urban plans in order to increase the effectiveness, a major step would lie in shifting from the authoritative tools towards those that employ market levers.

Local governments design a broad range of policies and instruments related to land use and fiscal activities. A number of these policies that are either fiscal or regulatory in nature have been inspired by the idea of land value capture.

Value capture refers to the process by which a portion of or all land value increments attributed to the 'community effort' are recouped by the public sector either through their conversion into public revenues through taxes, fees, exactions and other fiscal means, or more directly in on-site land improvements for the benefit of the community.

Although certain actions taken directly by private landowners may enhance the value of land, this situation tends to be the exception. The general rule is that it results from actions other than those of the landowner, most notably of the public sector as in granting of permissions for the development of specific land uses and densities or through infrastructure investments, or of market forces due to a general increase in urban population, etc. In either of these cases it is clear that property owners did nothing to enhance the land values and that it may be sociably desirable to capture all or part of the increased value for the public sector.

In the paper on Inter American comparison of the value capture methods, Smolken notes …..the comparison of some of the results obtained by the two regions with the use of the same ‘value capture principle’ to address similar problems are varied. In other words, it concentrates on how different pre-conditions or urban contexts may

---

26 IAD notes on the value capture mechanism
27 IAD notes on the value capture mechanism
influence the effectiveness of similar value capture policies. The paper does not focus on the instruments themselves, but rather on the motivation and technical justification to apply value capture principle.

Three motivations or objectives for applying value capture tools are examined:

- Value capture to deepen land value taxation
- Value capture to finance urban infrastructure
- Value capture to control land use

On comparing the working of the value capture mechanism on the basis of the efficiency in tax collection, political acceptance, Institutional readiness and general economic condition of the population. There are three types of cases observed in a number of jurisdictions:

i. Capturing value where there is no intention or awareness of doing so.
ii. Missing/lost opportunities to capture value.
iii. Value capture is achieved, but it has negative redistributive outcomes.

It is often noted as Smolka points out in his article that in cases where zoning is not available changes are forced. Similarly, due to the pressure of gains to be distributed, gold plating of the projects to increase the cost or vice versa, Incentives distort the market conditions. The lessons are important for the adaptation and use of Value capture methods for urban development, however viable and interesting proposition it offers.

Within the Planning system, the various plans need to be dovetailed and integrated in both vertical and horizontal manner. The instruments must be embedded in them. In order to implement the planning goal/ objective, schemes\textsuperscript{28} may be deployed.

The capture of value and redistribution of enhanced value for the community requires a scheme with use of one or more instruments which serve purposes of compensation as well as meeting the planning objectives.

\textsuperscript{28} Town Planning Schemes, Sec 26, Karnataka Town Country Planning Act , 1963, 2004
2.31. Conceptual Model / Approaches for Land Value Capture

As the bulk of development is to occur by the private participation, it will be important to develop contractual models between the city and the developer/s. The Negotiated agreements effected via planning system are more suitable for effecting the spatial plans implementation. Both the international case studies – UK and the Spain planning system offer insights on the implementation that results in producing planning objectives that are required by the community but provided by the private developers via development initiatives.

2.32. Negotiated Agreements through the Planning System

The three approaches are given below:

1. **Schemes** such as the “Town planning scheme” that uses the land pooling and re-adjustment, using betterment contribution and land banking for cost recovery and marginal value capture.

2. **Joint venture mechanism**: Local bodies have land with them and they can capture value from Land through entering Joint venture with private sector. In the joint venture agreement – the allocation of development rights, the program, meeting the planning objectives are important. The land use and zoning regulations are very important to support the achievement of the planning goal and the value. Eg: Slum redevelopment projects, River front development projects, etc.

3. **Urban Redevelopment**: Schemes that involve redevelopment of large parcels of lands owned the private sector with single or many owners. Both on site
and off site infrastructure needs to be accommodated within the implementation.

a. Urban Renewal cluster: The variation of the above with redevelopment of old area with multiple land owners, provision of infrastructure, creation of amenities, support the underlying economic base. (mixed use)

Muñoz Gielen, Demetrio, 2009), analyze two variables\textsuperscript{29} that are responsible for the bulk of the differences in public-value capturing. The first variable is flexibility in planning, i.e. the level of certainty about future development possibilities before negotiations between developers and local planning bodies take place. The second variable deals with an important aspect of property rights on land, i.e. whether public bodies are dependent on private parties to provide the infrastructure. The aspects of planning that influence the implementation and as well as value capture are discussed below:

2.33. Detailed Plans and Approvals

In cases studied, the binding rules are usually approved in two steps and in two different sorts of planning documents: (1) a binding land-use plan, and (2) a detailed and/or implementation-oriented planning documents, i.e. a document including not only the physical zoning, but also or exclusively the arrangements that are necessary for the implementation. In plan led systems, the phasing seems to be clearer. In the UK, it is possible to approve first an outline version and afterwards approve a detailed version (Full Planning Permission).

2.34. Contents of Binding Rules

In the negotiation for the development agreement between the developer and the authority, the binding rules play important role. Whether a formal prescription on implemented-oriented requirements, such as

(i) obligations and deadlines for the implementation can be made.

(ii) the unprofitable uses, e.g. social/affordable housing can be insisted within the legal framework,

\textsuperscript{29}Muñoz Gielen, Demetrio, 2009, Improving Public-Value Capturing in Urban Development.
(iii) the local authority can make the approval of the binding plan conditional on a contractual commitment that secures the implementation.

2.35. Compulsory Land Readjustment as Alternative to Agreement

Besides voluntary agreement, Valencian municipality has an alternative that allows them to obtain all or part of the land and the money needed for the infrastructure provision, namely Land Readjustment. In this way, and possibly a compulsory variant of it, Valencian municipality can provide the infrastructure without depending on the passive or active collaboration of the landowner. It is noteworthy that those countries, where planning law refers to infrastructure provision as a public responsibility or task (Spain), also have a public law for land readjustment regulation.

- Public involvement: in the Valencian joint development/land readjustment, the municipality can place on others the task of providing the infrastructure. In Valencia, municipalities can place this task on the landowners or on a commercial developer without land, or with only a little land. In practice these developers, called urbanizing agents, usually own a part of the land, or act on behalf of landowners, but it is not rare to find urbanizing agents with just a little or even no land.

- Cost recovery: in the Valencia re-adjustment schemes, all the involved costs and needed land are paid/ceded by the landowners, including money and land for off-site infrastructure.

- Application: the Valencia readjustment is applied in practically all developments, whether they are Greenfield, Brownfield, redevelopment, low/high density, small/large areas, etc.

2.36. Role of Plans in Getting Co-ordination and Participation for Implementation

The participation possibilities for the citizens and the private entities are determined by the nature of planning and the type of formulation procedure. The current system of planning with the Master plan and Development plan at best allows for the private participation in creating infrastructure and some housing. The bulk of plan
implementation proposals involve private lands and involvement of Govt. departments. Citizen participation though mandated in the reforms is yet to take active effect as it requires active support from the Government to operationalise the working. The citizens in their activist mode offer necessary consultative support to the proposals. The Project affected persons or the land losers are not given adequate platform and are not as yet active participants in shaping the project. Land owners in dominant position can dictate to some extent the joint development projects.

At the parcel or the plot level, development is carried out the by the private sector – individuals or entities –namely the developers. Based on the plan proposals, the parcels of land coming within a designated zone can utilize the corresponding development rights. Those lands which are in the category of Public Semi Public, Open spaces and greens have very little development rights compared to the other land use zones. For the Land owners, the process of development is not easy, comprises of procedures, which cost both time and money. The skills required to undertake the development process has been gained by a few entities namely the builders and developers. Owing to the risk and technicality of the development process, it is normal practice that the developers enter into agreements with the land owners for assembly of land, to apply for necessary approvals, preparing an architectural plan according to the regulations and obtain the necessary sanctions from the authority. The proposals contained in the plan provide the necessary certainty on which basis developers carry out the project feasibility and viability studies. This is then translated into contractual documents.

In case a Master Plan proposal which mandates a road passing through the site, reservation of the open space being indicated, the applicant relinquishes such portion of his site and organizes the internal development to maximize the development in terms of higher build ability. The internal grid and within the site network / infrastructure development is in response to the specific site geometry/conditions and it has very little to do with the surrounding grid or the desired overall alignment of the Plan proposals. A number of layouts with the roads ending nowhere is a result of this piece meal and parcel wise development. Properties which do not offer development potential by the way of one or more constraints posed by the regulation become unattractive to the land owners. Ways and means to get this amended both in formal and informal means are tried with the authority to secure the development rights. It is
here that the authority is required to step in, to organize the overall development, while minimizing the loses to individuals. Plans with schemes that promote the development in the above spirit are desirable.

Master plan proposals have been useful for Greenfield projects as they lend certainty through land use and zoning. It allows for determining the value addition and value capture at different stages of the project cycle starting from the assembly of land to the final disposal of the finished real estate product. The large parts of the city have been built on these lines, with the developer entity being at the forefront. A variation of the above is the case example of Magarpatta township development, where the land owners have become the shareholders in the development company responsible for the planning, development, implementation, Operation and management of the entire township spread over 400 acres of land. The initiative was in response to possible loss of their ownership of lands and properties to the proposed acquisition of their lands for industrial purposes by the then, Industrial development Plan. The successful development of the township is in line with the desired development intent of the state with some minor adjustments and negotiations. This has benefitted all the participants.

In the redevelopment proposals indicated by the plans, the content and the possible outcome of benefits are uncertain. First, the planning proposal often does not contain the vision or the image of the possible transformation; even such images do not contain the compelling vision as it is not produced indigenously through participation. There isn’t enough compulsion for the land owners to come together, or to undertake the development in a sequenced manner. Individual peculiarities and circumstances rule over the overall proposals. These tend to make whole exercise uncertain.

Even the procedure needs clarity, similar to the development proposal, the land owners or the developer on their own have to organize all details before approaching the authority for approvals. Also, there is no commitment of services and other facilities from the authority. Procedural and systems constraint – such as well laid out plan proposal and the use of instruments can enable implementation of redevelopment.
There is a need for the participation of the citizens in both planning and implementation. The approach of planning has shifted from top-down to bottom-up approach to make planning process more broad; partnership based and by negotiated principles and practices. Greater public support is obligatory, to ensure that plans are relevant, before implementation. Participation itself has different levels. The URDPFI recognizes the need for this and stipulates. Within the planning system, preparation of ward level plans and local area plans have been proposed. As the ward is smallest unit of three tier democracy, these plans could reflect the aspirations and actual demand at the ward level for various plan components.

The local area plan has been tried on pilot basis in Delhi. The experience has been recommended to be adopted as a means within the Delhi Master Plan. The draft Mumbai revised DP also has provision for the implementation of local area plans with the help of Town Planning Scheme (TPS) for restructuring the urban areas surrounding the stations.

In few case examples, it is observed that the implementation of the Master plan proposals have been made possible by mobilizing the community and its resources. The bringing together of the community and thereby facilitating the implementation is a strategy that has worked in select areas and projects.

2.37. Recommendation of Planning System for Implementation

In the Urban and Regional Development Plans Formulation and Implementation guidelines (URDPFI 2014), Urban and Regional planning system has been divided under two heads: Core Area Planning and Specific and Investment Planning.

The Core Area Planning comprises of a set of 4 interdependent plans:

(i) a long term Perspective Plan with a vision and policy orientation,

(ii) a sustainability based long term Regional Plan (and District Plan) with optimization of regional resources for development,

(iii) a comprehensive long term settlement plan as Development Plan for urban and peri-urban areas

30People’s Participation (Source: UDPFI guidelines 2013).
(iv) A short term rolling **Local Area Plan** within the framework of Development Plan.

The Specific and Investment Planning comprises a set of three plans:

(i) A rolling **Special Purpose Plan** for special areas within the framework of Development Plan,

(ii) **Annual Plans** to translate the physical and fiscal resource requirement of development/ Local Area Plan, and

(iii) **Project/Research** to focus on items of execution.

The guidelines suggest the use of Incentives such as Transfer of Development Rights (TDR), FAR incentives, etc.

For the implementation of various programmes and projects the various plans that have been formulated according to the purpose and the time horizon is shown below.

Across the country different organizations have used the plans to achieve the objectives:
Table 2.7: Types of Plans

<table>
<thead>
<tr>
<th>Core area of Planning</th>
<th>Specific and investment planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time frame*</td>
<td>20 Years</td>
</tr>
<tr>
<td>Vision document</td>
<td>20 Years</td>
</tr>
<tr>
<td>Regional Plan</td>
<td>20 Years</td>
</tr>
<tr>
<td>Draft Development Plan</td>
<td>5-20 Year</td>
</tr>
<tr>
<td>Zonal Plan</td>
<td>5-20 Year</td>
</tr>
<tr>
<td>City Development Plan</td>
<td>1 Year</td>
</tr>
<tr>
<td>Investment Plan</td>
<td>5-20 Year</td>
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<tr>
<td>Pre-feasibility &amp; feasibility study</td>
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<tr>
<td>Concept plan</td>
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<tr>
<td>Sub-regional Plan</td>
<td></td>
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<tr>
<td>Master Plan</td>
<td></td>
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<tr>
<td>Ward Committee Plan</td>
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<tr>
<td>Comprehensive Mobility Plan</td>
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<tr>
<td>Audit and monitoring plan</td>
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<tr>
<td>Detailed Project Report</td>
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<tr>
<td>Mission Statement</td>
<td></td>
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<tr>
<td>Metropolitan Development Plan</td>
<td></td>
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<tr>
<td>Town Planning Schemes</td>
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<tr>
<td>City Sanitation Plan</td>
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<tr>
<td>Project such as; Riverfront development projects</td>
<td></td>
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<tr>
<td>District Development plan</td>
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<tr>
<td>Coastal Zone Management Plan</td>
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<tr>
<td>Disaster Management Plan</td>
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<tr>
<td>Revised Development Plan</td>
<td></td>
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<tr>
<td>Urban Insert/Redevelopment Plan</td>
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<tr>
<td>Slum Redevelopment Plan</td>
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<tr>
<td>Tourist Master Plan</td>
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<tr>
<td>Environmental Conservation Plan</td>
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<tr>
<td>Heritage Conservation Plan</td>
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</tbody>
</table>

The different organizations such as Planning Authorities, Urban Development Authorities (UDAs), are involved in the preparation of the Plans. In the spirit of 74th Constitutional Amendment Act, the above plans except the perspective plan are supposed to be prepared, approved and implemented by Urban Local Bodies. The metropolitan planning committee will have to prepare the metropolitan plans for its jurisdiction.

The recommended steps for implementation of the Plan include:

a) Formulation of the projects within framework of the approved development plan/annual plans.

b) Identification of various agencies for the development & promotion management, execution,.

c) Actions for implementation include Public sector interventions, Private sector actions and Public PrivatePartnerships.

d) The guidelines suggest the use of Incentives such as TDR, FAR incentives, etc and different forms of taxes, charges, levies, and user fees.
### Table 2.8 Planning system

<table>
<thead>
<tr>
<th>Core area of Planning</th>
<th>Specific and investment planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning System</td>
<td>Perspective Plan</td>
</tr>
<tr>
<td>Regional Planning</td>
<td>Development plan</td>
</tr>
<tr>
<td>Development plan</td>
<td>Local Area Plan</td>
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<tr>
<td></td>
<td>Special Purpose Plan</td>
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<tr>
<td></td>
<td>Annual Plan</td>
</tr>
<tr>
<td></td>
<td>Project/Research</td>
</tr>
<tr>
<td>Scope and purpose of</td>
<td>To Develop vision and</td>
</tr>
<tr>
<td>the plan</td>
<td>Provide a policy frame work for</td>
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<td>further detailing</td>
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<td></td>
<td>To identify the region and</td>
</tr>
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<td></td>
<td>regional Resource for</td>
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<tr>
<td></td>
<td>development</td>
</tr>
<tr>
<td></td>
<td>To prepare a comprehensive</td>
</tr>
<tr>
<td></td>
<td>Development plan for Urban area,</td>
</tr>
<tr>
<td></td>
<td>Peri- Urban areas (jurisdiction) &amp; District(s) Dev. Plan controlled by DPC</td>
</tr>
<tr>
<td></td>
<td>To details the land use plan and integration with Urban infrastructure and service followed by a review every 5 years</td>
</tr>
<tr>
<td></td>
<td>To identify the needs of the special area which require special plan within the framework of the development plan</td>
</tr>
<tr>
<td></td>
<td>To translate Dev. Plan in the context of annual physical and fiscal resource requirement</td>
</tr>
<tr>
<td></td>
<td>To focus items of execution of projects, including investments, costing and returns</td>
</tr>
</tbody>
</table>

2.38. Need for Strategic Spatial Planning
Based on the multicity study both International and National, MoUD sponsored School of Planning and Architecture (SPA, New Delhi) to propose an alternative to the current plan system suitable to the current realities. Strategic Spatial Planning separates the visioning tool from the regulatory tool and this serves as a platform for various stakeholders to formulate proposals, conduct negotiations, and arrive at agreements. The triggers for the preparation of proposals in the strategic urban Plan can be from the:

- Government ( State or Centre/ Or both or any ) ,
- Infrastructure provision agencies / Institutional Players
- Economic/ Investment
- Citizen demands.
- Reform programme.
- Judiciary direction.

2.39. Components of a Strategic Spatial Plan
Developing a long term vision and designing alternative futures, detailing short and long term projects, involving relevant actors and instruments needed to implement the strategic vision and participation and co-production of both policy and space;

The main themes that the Strategic Spatial plan must address are:\n
1. Land use- Transportation – Urban Form Plan
2. Natural and Built Heritage conservation Plan
3. Infrastructure Plan
4. Economic Development Plan
5. Disaster risk management Plan.

The Strategic plans also comprise of strategic projects which have intersectoral and implications and have structural impact at the city level developed with inter stakeholder negotiations. All these plans are anchored by strong leaders or agencies. They are also linked with budgets. The key outputs are then formally incorporated within the Master Plans

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31 Alternate Approaches to Master Plan , Report Submitted to MoUD, SPA, New Delhi, April 2009
2.40. Institutional Setup for the Implementation

One of the aspects needed for the implementation is the requirement of appropriate institutional set up for both co-ordination and integration. While the planning system mandates the setting of the MPC at the metropolitan level for better co-ordination and integration. The Planning is proposed to be carried out through the various levels of the plans. While regular course of development has been through the employment of contracts for implementation, specialized there has been need for the specialized set up such as formation of special purpose vehicle (SPV) as in case of the Sabarmati River Front Development Corporation (SRFDC) or another organization such as the Slum rehabilitation authority which focuses on the slum rehabilitation – resettlement and housing. The implementation of the spatial plan necessitates the powers to raise finances, speedy decision making, mobilizing resources to tackle the problem at hand. The content or the programme may be formulated through participatory and consultative manner. The implementation requires a nimble and lean setup, quick decision making for efficiency to respond to various ground realities. Also the institutional setup needs to shield the project from the vagaries of political interferences and external influences.

2.41. Formulation of Strategies for Effective Implementation

Implementation of spatial plans is complex and is dependent on several external factors such as the existing laws, planning culture and economic conditions. In response to these constraints, critical path with the use of plans and instruments in form of schemes must be explored. Having all the resources at the disposal and a very well created / crafted plan or creating a set of tools may not always be an adequate condition or a guarantee for implementation. As Albert Hirschman, points out those constraints are useful and it is not necessary to address all the problems at once. To begin the implementation process will be necessary; the action will elaborate the further objectives and set the following course. This is a strategy by doing- leading to implementation.

Having said this, to initiate an action itself requires a thrust from any of the external factors such as reform, progressive leadership, etc. The initiation and sustenance of action may itself call for certain changes to the system where the implementation has to occur, this could be in form of long or short term measures.
2.42. Summary

The literature survey has helped in understanding of implementation of spatial plans, the issues related to the implementation, and challenges of implementation evaluation, especially that of spatial plans. The method adopted for this study involves the test for conformance and on ex-post basis for evaluation by using remote sensing and change detection analysis. This is used for the in depth analysis of the spatial plan implementation for the planning districts in the northern part.

The need to expand the role of the plan and the instruments in the implementation framework has been established through the review of both International and National case studies. The theoretical working of the plan system and the salient aspects are identified. Tools such as land pooling and re-adjustment, transfer of development right have been utilized on situations to deal with the problem at hand. The singular use of any tool is not as beneficial it is. By combination and design for a specific plan proposal and its planning objective, the instruments can be enabling. The plans need to support the potential for using such instruments/ schemes. The comparative studies have given the insights on the use of planning system to enable the use of instruments and potential value capture through negotiated planning agreements.

Broadly, what is formulated in the plan in form of spatial proposal involves the definition of “rights”. The implementation then is an exercise of those “rights” by various participants and translating them into actionable formats resulting in development.

The planning and implementation are strongly interlinked; the plan assigns the development rights along with land/ property rights through its proposals. The variables that go into the plan formulation stage such as completeness, bindingness, hierarchy define the content and regulation for determining the “ interests both public and private “. If the proposal is pre-dominant public interest, the land owner gets to loose his rights. A way out of this, would be to allocate the rights or compensate for the loss of rights. The proposal can impact the value of land adversely. In case of very high degree of private interest, then the translation of the rights to built form will fetch “windfalls”. So within a plan proposal, it must be theoretically possible to offset the losers by either compensation or re-allocation of rights or allowing the “windfall “to be shared. Usually, plan proposals involve more than one owner or participant and therefore the instruments for implementation must be inclusive. Planning schemes including the land re-adjustment allow for such sharing of benefits/loses in an
equitable manner. The implementation cycle involves the various actors with varied interests to come together on the basis of the plan proposal, such that development is feasible and financially viable. A well formulated scheme will work out financial costs for both infrastructure and builtform. If there are certain planning objectives to be included in the scheme, then the costs of it will also be included and depending on definition of the objective as social or obligatory on the part of the government, it may be insisted to be delivered through a value capture process. The development of infrastructure will also expected to be on “cost sharing basis” and a “cost recovery model”. The private sector will carry out all tasks in involved in the implementation cycle. The role of the authority is to enable implementation by creating conditions with use of plans, defining the program, formulating a scheme and evincing interest of the private sector. This also includes regulation and enforcement of actions. Going forward, the government can also restrict itself in defining a strong planning goal, in defining the ‘public interest’ in the plan proposals and act as a regulator.

Conceptually the scheme for planning and development can be represented in the figure below:
Chart 2.4: Conceptually the scheme for planning and development