

Human Settlements Planning

Lecture 9

Regional Planning

Regional planning is a category of planning and development that deals with designing and placing infrastructure and other suitable elements across a larger area within a city. Regional planning zones may encompass several towns, cities or even parts of different states, each of which could have their own planning offices in the realm of 'urban planning'.

If you look at the planning regions of Tamil Nadu; Madras Metropolitan region - this area is covered by Chingleput district, the palar basin in the north arcot district. In Vellore Region, you have the remaining parts of the north Arcot district. South Arcot region including Cuddalore - Neyveli lignite are and Ponnaiyar Basin. Then you have the Salem region. We have the Coimbatore region, the Nilgiris region, Tiruchirapalli - Thanjavur region or across the Cauvery delta. You have Madurai region and Tirunelveli region including Kanyakumari. These are planning regions encompassing the state of TamilNadu, similar to this every state has its own regions and regional planning commissions set across every state encompassing the entire state comprising of districts, cities as well as other metropolitan areas. Within these subdivision regulations, earlier in every city, much land is either vacant or inefficiently used. So, there is always a speculative prospect. As time changes, as needs change, there is always a sense of what else can be done to that vacant land or if that particular use has become obsolete, what can replace that building? So, various methods have been proposed to emphasize taxation on land. Necessity for regulations over the subdivision of urban land was urgent, since use and development of land constitute a right bestowed by the community upon the individual, and this right may be withdrawn if he violates the conditions.

Subdivision and layout - A piece of land divided into more than 8 parcels, each of which is to be sold separately is called layout, whereas or less than or equal to 8 divisions is called a subdivision of land. So, many interests are involved when the land is being sold. To the land developer, the subdividing of land is primarily a matter of profit, to the community it is a matter of public concern, activities determine quality of living. Where such activities are uncontrolled they place a huge burden on the public treasury, so you have excessive costs of public improvements, maintenance and increase in cost of service provisions that need to be made for the land and ancillary related problems.

Transforming the city plan into a Reality - Many elements in the overall plan are realized at the time the land is developed. Highways, streets, alleys, sewers, water lines, power lines, schools, transportation lines, police, fire protection, this list goes on. The city plan is either realized or is lost in the subdivision of land. So, when land is being subdivided, it cannot be done without any

thought process of how exactly is this going to work economically. It has to have a lot of other considerations that go into this.

Subdivision procedure - Land is surveyed. Official records are consulted as well as proposed. Highways, special easements, right of way, all that is looked into. Amenities, cultural and social facilities. You have to refer to subdivision ordinances. Planner or engineer to prepare preliminary plan which includes the size, shape, number of lots, location of streets, radii, turning radii of roads, drainage, utilities, etc. So, how does the subdivision go about.

Next, an estimate is prepared. What is going to be the cost of development? Tentative map is filed with the local planning agency. So, approval can be obtained such that; incorporate suggestions are made, if any and are re-submitted. So, if the approval is not going to happen in the first phase, tentative suggestions are made and these changes have to be incorporated and resubmitted and the procedure starts once again from the first step.

Zoning

Now, if you go about looking at the procedure of '**zoning**'. What exactly does zoning do? Zoning is a device of land use regulation used by local governments in most developed countries. The word is derived from the practice of designating permitted uses of land, based on mapped zones which separate one set of land uses from another. Theoretically, the primary purpose of zoning is to segregate uses that are thought to be incompatible. In practice, zoning is used to prevent new development from interfering with existing residents or businesses and to preserve the 'character' of a community. So, the zoning what it actually does is, to prevent the mix of uses which will alter the quality of a particular area. Now, if you look at an area like R.A Puram, Abiramapuram; they are considered predominantly residential areas. Now, if I go put a major mall in the midst of this, it changes the entire traffic pattern, that area could be used to only single movement vehicles or maximum pedestrian vehicles. But if I am going to have a mall in that area now, the entire traffic pattern will change, the typology of crowd will change, the demographics of that area will change. So, by changing the zoning of a particular area, it could have a series of repercussions which cannot be controlled. So it is very important in the stage of zoning that everything is done impeccably and even if it is going to be a mixed use area, it is done within certain limitations keeping in mind the built infrastructure that is going to support this structure. Zoning may include the regulation of the kinds of activities which will be acceptable on particular lots, such as; open space, residential, commercial, or industrial. The densities at which those activities can be performed from low density housing such as single family homes to high density such as high rise apartment buildings. The height of the buildings, the amount of space structures may occupy, the location of a building on the lot i.e the setbacks. From the road how far is the distance going to be to the building, will there be adequate space. The proportions of the types of space on a lot, such as; how much landscaped

space, impervious surface, traffic lanes, and parking must be provided. So, impervious surface is required because if you are going to have a landscaped area, that is considered an open space which will provide for water absorption and rain water harvesting. If it's going to be concreted roads and impervious surface, that will add on to the percentage of a built up area which will give everyone and especially the city an idea of what is the lung area or the lung space ratio to that of the built up area. Most Zoning systems have a procedure for granting variances exceptions. Variances are nothing but exceptions to the zoning rules, usually because of some perceived hardship caused by the particular nature of the property in question. So, the prime example for this is; Pondy Bazaar and the Usman road if you look at it. All of these tall buildings that are built which are required for the commercial district in that area, but there is no adequate parking, no setbacks, all the shops abut the roads. All of these are granted after variances because in that area, because of lack of space, certain permissions are granted for those commercial activities to continue because if those commercial activities are removed, the area will become redundant and the commercial value and the land value will completely plummet. Basically, urban zones fall into one of five major categories; so you have residential, mixed residential- commercial, commercial, industrial and special. Special encompasses power plants, sports complexes, airports, shopping malls, etc.

Now, if you look at the Zoning types; Zoning codes have evolved over the years as urban planning theory has changed, legal constraints have fluctuated and political priorities have shifted. The various approaches to zoning can be divided into four broad categories, you have; Euclidean, Performance, Incentive and finally, design-based. Now, if you look at Standard Euclidean, it is also referred to as the; Building block zoning. This is characterized by segregation of land uses into specified geographic districts and dimensional standard stipulating limitations on the magnitude of development activity that is allowed to take place on lots within each type of district. So, this is a very standard way/ type of zoning. In this, uses within each district are usually heavily prescribed to exclude other types of uses. So, residential layouts will completely disallow any commercial or industrial uses. So, a sense of mixed use is very limited in this scenario. Some accessory or conditional uses may be allowed in order to accommodate the needs of the primary uses. This is what a typically residential layout if you look at, will have one provision store, one grocery store or one vegetable market. So, all of this is added to aid in the primary use of residential layout that is primarily meant to be. If this was not there, there would be a complete influx of traffic and services that are required to support this need. To avoid that, usually basic commercial activities will be provided along with the primary use.

Now, if you look at the standard Euclidean, what are the standards applied. Dimensional standards apply to any structures built on lots within each zoning district, and typically take the form of setbacks, height limits, minimum lot sizes, lot coverage limits and other limitations on

the 'building envelope'. Euclidean zoning is utilized by some municipalities because of its relative effectiveness, ease of implementation i.e you have one set of explicit, prescriptive rules, long-established legal precedent and familiarity to planners and design professionals.

Euclidean II is another type of zoning. In this zoning uses traditional Euclidean zoning classifications like we just discussed; industrial, commercial, multi-family, residential but small changes that places them in a hierarchical order or in a 'nesting' order which makes one zoning class within another similar. So, there is a hierarchical order that is placed in this. For example; multi family is not only permitted in the higher order and multi family zoning districts but also permitted in high order commercial and industrial zoning districts as well. Protection of land values is maintained by stratifying the zoning districts into levels according to their location in the urban society. So, neighbourhood, community, municipality and region. This is the hierarchy of neighbourhood location in urban society.

Now, the next type of Zoning is 'Performance Zoning', also known as effects based planning. Performance zoning uses performance based or goal-oriented criteria to establish review parameters for proposed development projects in any area of the municipality. Performance Zoning often utilizes a 'points based' system whereby a property developer can apply credits toward meeting established zoning goals through selecting from a 'menu' of compliance options. So, some examples are; mitigation of environmental impacts, providing public amenities, building affordable housing units, etc. These are certain examples of compliance options.

The appeal of performance zoning lies in its high level of flexibility, rationality, transparency and accountability. Performance zoning can be extremely difficult to implement and can require a high level of discretionary activity on part of the supervising authority and that is one of the negative aspects of this because as governments change because it is going to be very subjective of the superior authority who is going to overlook this, this can constantly change. The Zoning could constantly change. That is one of the limitations of performance zoning.

Now, finally if you look at incentive zoning, this is intended to provide a reward-based system to encourage development that meets established urban development goals. Typically, a base level of prescriptive limitations on development will be established and an extensive list of incentive criteria will be established for developers to adopt or not at their discretion. So this is not subjective and this is where it differentiates from the performance based zoning. A reward scale is connected to the incentive criteria which provides an enticement for developers to incorporate the desired development criteria into their projects. Now, common examples include; FAR i.e floor area ratio, bonuses for affordable housing provided on-site, and height limit bonuses for the inclusion of public amenities on-site. Incentive zoning allows for a higher

degree of flexibility, but can be complex to administer. The more a proposed development takes advantage of incentive criteria, the more closely it has to be reviewed on a discretionary basis. So, what other basis you are going to give these incentives on? There is a list certain that is pertaining to it, but what if a particular project checks on everything on that list. These incentives go on adding and again, discretionary basis of a superior authority comes into question because in incentive zoning, it is usually preferred when it's going to be one or two incentives. But sometimes developers agree to show that they want all the incentives could actually on paper have a lot of incentive requirements fulfilled but in reality, in ground reality when the project takes off those might necessarily not be there. So, constantly a person from the planning authority has to keep an eye on this project to ensure that what all incentives are given, what all theories are going to be based on, all of that is implemented and successfully implemented for enjoying those incentives provided by the planning authorities. Now, form based zoning. Form based zoning regulates not the type of land use, but the form that land use may take. For instance, form based zoning in a dense area may insist on low setbacks, high density and pedestrian accessibility among other things. Form based zoning may also specify other desirable design features, however when form based codes do not contain appropriate illustrations and diagrams, they have been criticized as being difficult to interpret. As another example, in a largely suburban single family residential area, uses such as offices, retail or even light industrial would be permitted so long as they conformed i.e the setback is within the building size, lot coverage, height, and other factors and other things that are going to be pertaining to existing development of that particular area.

Zonal Plan and Master Plan

If you look at the Zonal plan, nothing but the divisional plan, it details out the policy of the master plan and acts as link between the layout and the Master plan. The development schemes/ layout plans indicating use premises should conform to the main master plan/ Zonal plan. Indian masterplan approach was fundamentally guided by the British Town planning legislations and further integrating the western concept of 'zoning' into the Master planning lead to the preparation of new lower hierarchy development plans called 'Zonal development plans' handling more comprehensive and more focused objectives derived from the master plan. As we have seen, a master plan is prepared for every 20 to 25 years and so by that time, all the data is collected, it could become obsolete. That's when a western concept of introducing a lower hierarchy of a zonal development plan came into being. So, a Zonal development plan obviously has to be in cohesion with the main master plan but the master plan document will be the mother document or the main document. It is based on this that the zonal plans are prepared and not vice versa. Zonal development plans are the next level hierarchical policy plans after the master plans which detail out the broad objectives of the Master plan at comparatively smaller regions while incorporating the guidelines and proposals

by the Master plan without deviating far from the primary goal or development set by the Master plan. Unlike Master plans here, these zonal plans are prepared for shorter terms with a lot more focus on detailing and just not looking at the bigger picture. As the city in its initial stage of growth, there is urban agglomeration taking place into the city which is usually derived due to one or a few unique characteristics spreading almost homogeneous throughout the city but as the city keeps growing bigger, there are different new characteristics brushed without prior knowledge on different parts of the city holding huge population. This arises new problems with solutions generally out of the scope of the single character oriented Master plans which treats the whole city equal and develops the regulations based on the common or prominent character of the city with major aspects in detail. Also, it is impossible to advocate these changes into the Master plan due to its long term visionary approach. So, when you look at a zonal plan, there are a lot of changes that occur with time. As we just saw, zonal plan is done for a shorter period of time unlike the master plan. So, when you are looking at a projection for a shorter period of time there could be changes that are anticipated, say 2 years from now or three years from now but to adapt these changes into a masterplan which is made for two decades or two and a half decades, that is obviously going to require long term visionary approach and cannot be done overnight. At this point the Authorities have come up with such inspiring solution of preparation of separate development plans for different smaller regions called zones which are divided based on the broad prevailing character of the area. Now, having an opportunity of independent planning for each zone, these zonal development plans put their focus on those sub objectives developed according to the uniqueness of the zones. So, as the changes happen in every zone and you realize that every change cannot be adapted into the master plan and each zone is unique in its own way, what has happened over time is, a lot more power is given into these zonal development plans. So, for a shorter period of time if zonal development plans are developed and are focussed in such a way that those changes can be brought about but as far as they are updated in the master plan, it is sufficient. Because you can't keep going back into a document that is obsolete which has been prepared 20 years ago or 25 years ago and expect those zonal changes to be made appropriately. A zonal development plan has received a lot more importance over a period of time in the recent years because its been realized that if we keep depending on the master plan and the changes that are going to be incorporated in the masterplan, it will be a very slow process.

Coming to the question of the legality of the zonal development plans, though both zonal plans and master plans are approved and authorised equally by the state Governments, any changes or amendments are directed only towards the statutory master plan which reflects those changes will be taken into the consideration. So, any changes in the zonal plan might not be changed regardingly, it might be taken into implementation but regardless of that, it might not be changed in the main master plan. The Zonal development plan contains the detailed land use plan for the purpose of Roads, Housing, School, Recreation, Hospitals, Industry, Markets,

Business, public Utilities, and other categories. Most development authorities prefer the development of these zonal plans simultaneously with the preparation of the master plans to provide immediate aid as tool to the master plan implementation at ground level. So, that is the most required thing. Yes, you obviously want your zonal plan and your master plan to go hand in hand but it necessarily needn't happen in every case and your zonal plan, obviously has to be kept up to date with the changes that are occurring with respect to that zone. That is the main advantage of having a zonal plan, it is for a smaller period of time, it is for a smaller area. So, any changes or surveys that are done can be incorporated in an easier fashion, the information can be implemented in a better fashion. So, the master plan can be a guiding document but the zonal plan will have to be an implementation plan.

Now, we will move on to a Planned unit development or otherwise, usually referred to as, PUD. What is this? It is actually a type of building development and also a regulatory process. As a building development, it is designed grouping of both varied and compatible land uses, such as; housing, recreation, commercial centers, and industrial parks, all within one contained development or subdivision. The origins of PUDs in the new American communities can be traced to the British's movements during the 1950s. The developments in Britain's new communities dealt with the locations of industrial elements and how they were publicly dictated before building ever began in order to uphold an economic base. However, in America, privately controlled communities often had to attract industry after the residential sectors had been built and occupied. The oldest forms of PUDs in America appeared shortly after World War II in the Levittowns and the Park Forest developments as whole communities within the limits and orbits of large metropolitan centers. The first zoning evidence of PUD was created by Prince George's County, Maryland in 1949. It 'permitted the development of a large tract of land as a complete neighbourhood unit, having a range of dwelling types, the necessary local shopping facilities and off-street parking areas, parks, playgrounds, school sites, and other community facilities.' PUD is treated also a regulatory process as a means of land regulation which promotes; large scale, unified land development by means of mid-range, realistic programmes in case of physically curable, social and economic deficiencies in land and cityscapes. Where appropriate, this development control can promote both; > A mixture of land uses and dwelling types with at least one of the land uses being regional in nature. > The clustering of residential land uses providing public and common open space. > Increased administrative discretion to a local professional planning staff while setting aside present land use regulations and rigid flat approval processes. > The enhancement of the bargaining process between the developer and the government municipalities which in turn strengthen the municipality's site plan review and control over development for potentially increased profits due to land efficiency, multiple land uses and increased residential densities.

Now, if you look at the PUDs which are usually taken upon now, in the recent times, they take on a variety of forms ranging from small cluster of houses combined with open spaces to new and developing towns with thousands of residents and various land uses. However, the definition of a PUD does not take into consideration these types of developments unless they fit into a category of size ranging from 100 to 200 acres. In a PUD, the property owner owns the land the dwelling sits on. So, it does not have to be rented and if the property owner owns the land, he even owns the construction site that sits on it.