Lecture – 31
Housing Strategy for Cities

Welcome to lecture 31, in this lecture we will discuss how to make a housing strategy in a city, in the last lecture we discussed about various methods of public private partnerships and also in the last week, we discussed various aspect of implementation of the projects. So, today in this subject basically, we will be covering 2, 3 aspects.

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Contents

- Housing Typology
- Housing strategy process
- Housing Strategy for core city and new urban extensions

First is; in a city, what are the basic housing typologies and what is the basic differences between the housing typology, second we will discuss that how to make a housing strategy in a city, what is the basic process and what kind of housing strategies could be taken for the core city and the new urban extension. So before I start the discussion, let me ask you that how we develop housing in a city.

Do we really follow a plan or we just let it develop as per the market demand or as per the how the developers do, by and large, you will find that in our cities, we most probably or mostly, in most of the cases as a city level, we do not follow a particular plan of the housing development

and in every city authorities, they allows the housing development based on the housing proposal which they received from the developers mostly.

And sometimes, they provide some amount of housing for the poor people through the centrally sponsored scheme like Pradhan Mantri Awas Yojana and all those schemes but as a whole, a complete planning; a comprehensive planning and strategies for different categories of housing is absent, so let us see today that what are the typologies and methods for making a planning of the housing at the city level.

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So before that we will see first the typology of the housing and the housing classification, now we can classify the housing based on the land ownership, the origin, structural quality, economic group, typology of the built form or suppliers or origin. Now, let us see one by one and also we can classify them based on the functionality.

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Based on ownership

INTRODUCTORY SESSION

1. Introduction to Housing
2. Housing classifications
3. Existing housing situations

- Freehold
- Leasehold
- Rental

- Group Housing
- Plotted Housing

Now, so based on the land ownership, you might have seen that there could be housing which is freehold or leasehold or rental, now in the freehold you know that the absolute right of the housing or the property is given to the owner where there is no limitation of the enjoyment of the rights, all types of rights; right to use, right to sale, right to subdivide, right to; every right is given.

Whereas, the lease hold, only few rights are given for a particular period of time, it can be 30 years, 40 years, 50 years based on the situation and also it can be rental, so rental is basically given for a shorter time period, it may be 1 year, 2 year for the people who need the housing for the shorter period, so these are the differentiation based on the ownership. On the other hand, we can classify the housing based on the ownership on the group housing and plotted housing.

The basic difference between group housing and plotted housing is; the group housing they own the apartment plus land both, so in the group housing, they own the apartment and land and the common facilities both, whereas, I am sorry, in the plotted housing, they own the apartment, land and common facilities everything and in the group housing, they own only the apartment, you might have seen that.

So, in the group housing, they do not own the common areas and the land whereas, the common areas and land is a common property, is a property of the community, so that is the basic

difference between the group housing and plotted housing and it is also differentiated based on the ownership.

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These are typical example of plotted housing.

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These are typical examples of group housing.

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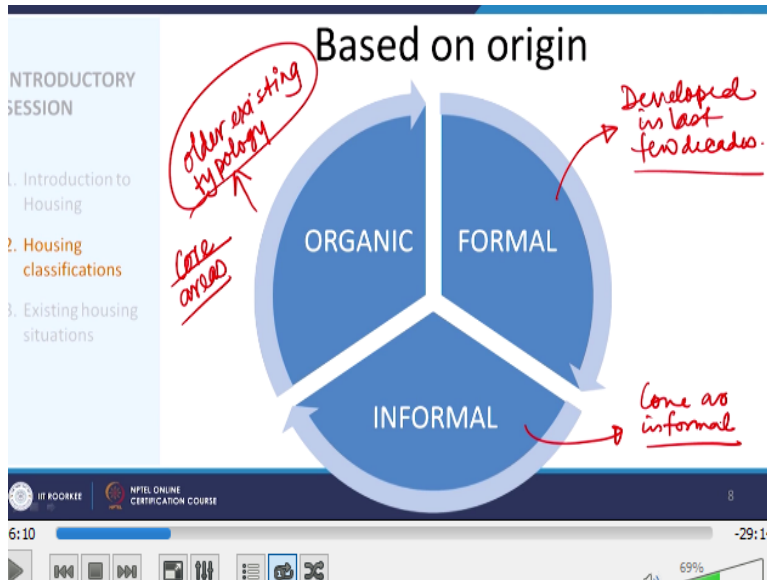
Now, based on the origin, we classify housing in 3 categories, one is organic, which are the older and existing housing typology, in most of the cities you might have seen that this organic housings are mostly concentrated on the core areas or in; or also peripheral areas. The formal housing typologies which are; which developed in last few decades like, the group housing like any other formal housing.

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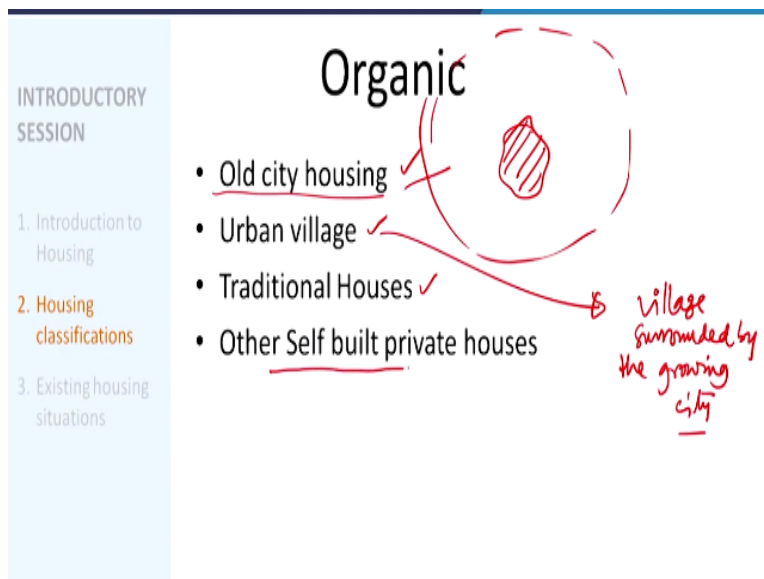
And informal housing, which has come as informal where no formal transactions took place, now let us see the typology, so in the organic typologies, the old city housing, urban village, traditional house, then other self-built private houses are there. So, let me tell you that old city

housing you might have seen that for example, the older cities of Rajasthan, older cities in the Southern India, they have the core city.

And around that core city, the whole city has developed, in the urban village, it is basically a village but surrounded by the growing city, you might have seen that all the metropolitan cities which has grown from a small cities to a large cities, they have basically surrounded the neighbouring villages and those villages has become urban village, those are called urban village. The traditional houses are basically older houses having traditional architectural style or traditional cultural representation in terms of the building and the arts.

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Core city organic housing

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And also there are other self-built or the privately built plotted housing, apart from this, there could be core city.

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So, these are the examples of the core city housing, you can see this is from the city of Jodhpur, urban village.

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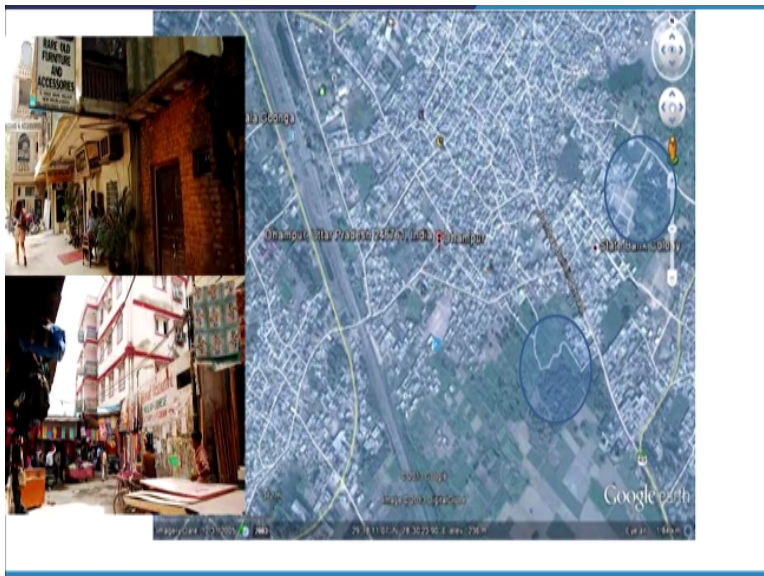
These are the examples of urban village.

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Traditional Houses

Traditional houses, you can see the particular architectural style, which depicts the area of the regional setting for example, this picture shows the hill areas which shows the cultural setting of the hill areas, this picture is taken from southern part of the India.

Private plotted houses

Then, private plotted housing, apart from these, these are privately developed plotted housing.

Formal housing

- Private developers housing ✓ – GH
- Public developers housing – Housing Board
- Joint ventures housing ⟶ Public + Private
- Cooperative housing ⟶ done
- Employees/Institutional Housing ✓
- Rental Housing (private/public)

In the formal categories, there are private developers housing basically, these are group housing, private developers housing, public developer for example, housing board, there could be cooperative housing and joint venture housing, so joint venture housing is developed through public and private together. So, here the public developer that is a government developer, they take the share of the land and private they take the share of the finance.

In cooperative housing, it is done by cooperatives or it can be done by the employees and institutional housing and it can be rental housing also.

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Private developers housing

Now, let us see some of the example you will understand better.

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These are typical privately developed developers housing, you will find most of the cities in Delhi or in many metropolises or even medium type cities.

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These are publicly developed, public housing project, these example is shown, it is done by MAHADA which is in Maharashtra; Maharashtra housing and area development authority.

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Joint venture developers housing

Udayan, The Condoville, a 'Model Housing Project'
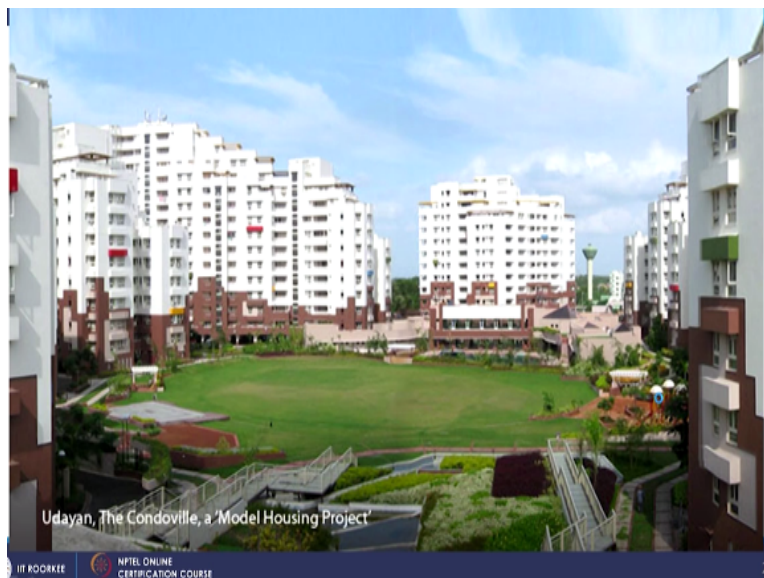
And then, there could be joint ventures housing, this is one of the earliest joint ventures housing which is this particular project is was done by government of West Bengal and the Bengal Ambuja group.

Then, cooperative housing; in cooperative housing people join together to make cooperative and make houses on their own using the technical help from architects and engineers and the advantage of the cooperative housing is that they get maximum advantage of being together and they can take all the decisions in the designs and the execution and also in cooperative housing, a community is built from the beginning.

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Then, employ housing, you can see that in India there are this type of housing like Kendriya Vihar or the housing projects done by the various departments or by the central or state government, some of the local government, they also come up with their own employees housing.

Informal housing

INTRODUCTORY SESSION

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- Slums (Bastee, Juggi-jhopri, Chawls)
- Squatters → along rail line
- Other illegal houses — unauthorised canals
- Pavement dwellers

Then, informal housing; in informal category there are slums which is known as Bastees, Juggi-jhopri, Chawls, Squatters basically, whose squats along rail lines or canals etc., or there could be any illegal or unauthorised housing, there could be pavement dwellers.

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Slums

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So, let us see some example, these are typical example of a larger slums, this picture is taken from the Dharavi slum in Mumbai.

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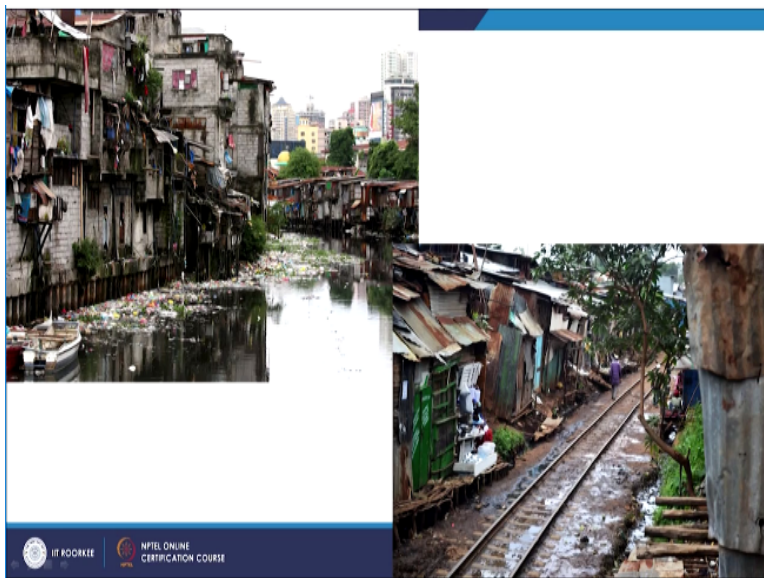
These are squatters, you can see that squatters along the railway lines and squatters along the canal and how dirty and it can be.

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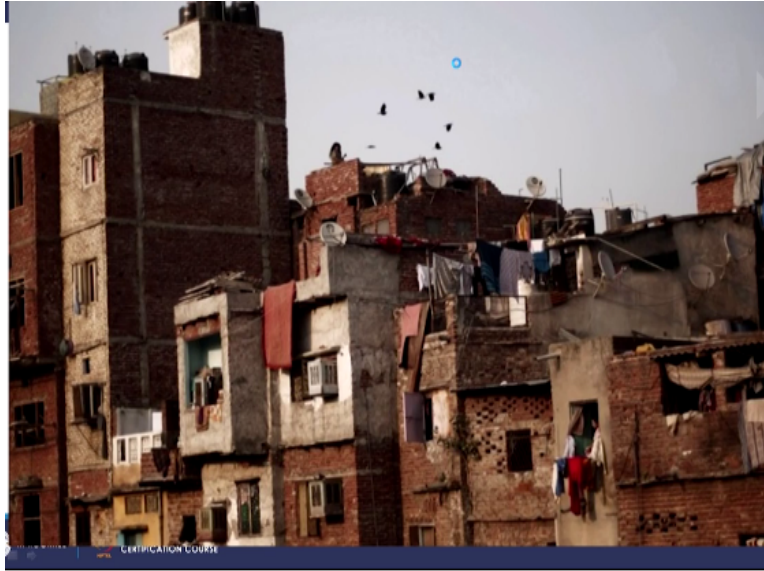
So, these are some unauthorised construction around Delhi which shows that there is very unhygienic condition and very vulnerable fragile condition of the building which is basically illegal buildings.

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Pavement dwellers

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And pavement dwellers, cases of pavement dwellers are also there.

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Now, classification based on the economic group, we can classify based on the economic group in terms of HIJ, MIG, LIG, EWS, I hope you have come across about this terminologies, so I am not going into much details, so time to time government of India, they classify and they gives a the income range for identifying HIG, MIG, LIG and EWS and mostly, if you have seen that the housing shortage is mostly taken care.

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Based on Built form

- **High rise**
- **Mid rise (5-11)**
- **Low rise (walkup)**

I mean, mostly importance to these 2 groups, based on built form, we have high rise, we can have high rise, midrise, low rise or something like that.

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Based on Structural Quality

- Kutcha
- Semi pucca
- Pucca

Based on the structural quality, it is divided like Kutcha, Semi pucca, pucca.

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These are semi pucca kind of housing.

Kutcha

These are Kutcha housing; you can see the wall and the roof both are made of temporary fragile material.

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Form	Housing supply	Setting	Group
Organic	Old city housing	Urban	MIG, LIG ✔
	Urban village	Do	LIG, EWS ✔
	Traditional Housing	Rural	MIG, LIG
	Private plotted houses	Rural	MIG, LIG
Formal	Private developers housing	Both	HIG, MIG, LIG
	Cooperative housing	Both	HIG, MIG
	Employees housing	Both	HIG, MIG
	Public developers housing	Both	All
	Private plotted housing	Urban	HIG, MIG
	Rental housing	Urban	HIG, MIG
	PPP or Joint ventures companies housing	Urban	All
Informal	Illegal /unauthorized housing	Both	LIG, EWS
	Unauthorized land invasion slum and squatter	Urban	EWS
	Rental in unauthorized/illegal houses	Urban	LIG, EWS

So, in short the forms are like this, the organic form, formal form, informal from, these are the housing categories, typologies and you can see the which group is scattered by the housing typology. Now, from this chart you can see that formal housing typologies, these are mostly, so mostly higher income group, middle income group and in some cases, lower income group is scattered by the formal housing typologies.

Whereas, informal housing typologies, they cater the LIG and EWS categories and also the organic category, they also cater the EWS and LIG. Now, the challenge is how we can cater the EWS and LIG with the formal also, so with the formal how we can include the LIG and EWS, so that is the most challenging question in our; in front of us.

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Functional classifications for special housing categories

– Transit houses
– Extreme weather houses
– Old age/senior citizens housing
– Working women/men home/hostels

Now, apart from this, there could be some functional classification for special categories of housing for example, transit houses, if there is a disaster or if there is any such situation where you need to shift the people from one place to another place and then after some time, you move them in their original place, those kind of situations in the transit houses. The extreme weather houses whenever, there is extreme weather like extreme flood, extreme cold, all the situations, you can have to shift the people.

And you can have; you have to give their required houses, the old age or the senior citizens housing, you might have seen that in our cities, metro cities and any other cities now, there is a trend that the senior citizens they want to have their house particularly main built for the senior citizens because they provide and they offer multiple facilities which is otherwise not available in normal housing complexes.

For example, some medical facilities, some assisted facilities, so that is coming off in bigger cities, working women's or men's home hostels, suppose some single persons who are a part of

family which is shifting from one city to another city for their job or education, so it is they cannot afford a full house or full apartments, so they can afford may be 1 room or 2 room unit, so for them, they need short period, short duration but 1 or 2 room apartments.

There could be service apartments, when companies they send their employees for a job for to a city for particular jobs, so people need to stay there for little more than 1, 2 days like 1 week or 1 month for (()) (15:13), so for those kind of duration may be Hotel is not affordable to them, so service apartments give them an affordable range of housing accommodation, at the same time they provide Hotel like facilities.

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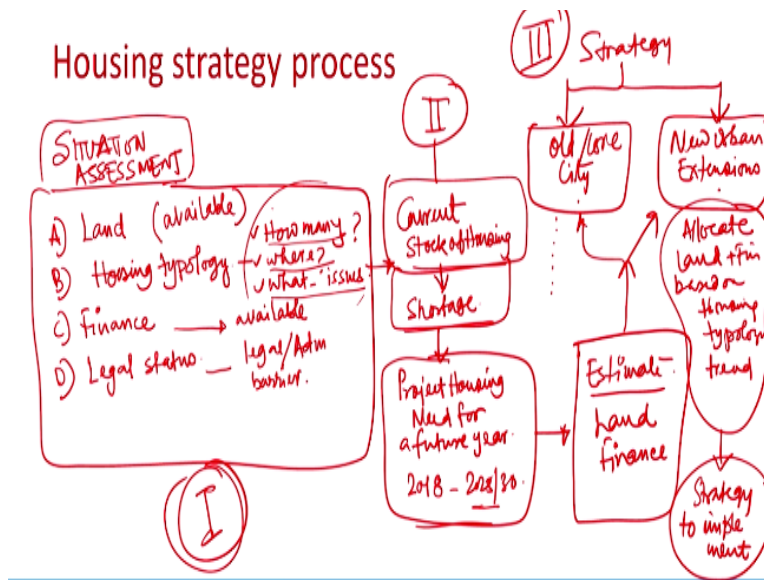
Now, these so far we have discussed the housing typologies, now how to visualise that what kind of housing typologies will be required within 5 years or 10 years or 15 years and how to make a complete or comprehensive plan for each and every category of the housing, so let us see the basic housing strategies, how we can do. Now, in the housing strategy process, the first stage is situation assessment.

So, when you do situation assessment, we see category the elements like land then, housing typology, then finance then legal status etc. Now, the question in land is that whether we have the available land or not, so availability of the land is important, how much land you have within the

public ownership which can be used for the housing or under the public, private ownership. In the housing typology, the main question is how many.

And then, where are those housing typology situated and what are the issues, in the finance the questions are whether it is available for large project, in the legal status that what are the legal or administrative barrier, so based on this situation assessment, we try to assess the current stock of housing and also shortage and also we project the housing need for a future year for example, if we do the plan in 2018, it can be 2025 or 30.

So, after calculating the current stock, we also calculate the shortage and then we make the projected housing requirement for a future year like 2025 and 30. Now, based on this, now this projection is based on the population projection which is given in the city plan and based on this, we do basically, we estimate the requirement of land, finance required for the future housing and we then tried to earmark the allocations or the strategy for old or core city or existing city and strategy for new urban extension, right.

So, in the old and core city housing, we take some strategies to develop and renew those kinds of housing and the new housing urban extension, we provide or we allocate the land and finance based on housing typology and its trend. For example, the housing typology studies in this stage one which I discussed here like how many typologies are there in the city, where they are located, what are the issues and what are the trends?

And after studying that we can identify that what is the major trend, which housing typologies are preferred in the city and based on that we can allocate these kind; the land and the finance and we can also identify few strategy for the to implement, so this is in short of the how we do the housing strategy. So, in the stage 1, what we are telling as a housing situation assessment, in stage 2, we are analysing the situation assessment in terms of the stock of the housing, shortage and the projection.

And in stage 3, we are making a strategy for the old city, new urban extension and we are allocating the land and the finance for every sector. Now, let us see that in core city and the new urban extension, what kinds of strategies are taken.

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Core City housing Strategy

1. Understanding core city context
2. Understanding issues
3. Infrastructure stress and holding capacity
4. Re-densification and de-densification
5. Prescribing appropriate development controls
6. Incentivize and enforce

So, in the core cities, basic important part is understanding of the core city context, the core city or the existing city it may be having different kind of housing typologies, different kind of housing density, different kind of infrastructure stress, so understanding that context, its origin, its culture and also understanding its issues, what kind of issues that they are; issues in terms of the socio economic problem, issues in terms of these infrastructure stress, issues in terms of the dilapidation etc.

And then we need to assess the infrastructure stress and how much infrastructure that particular area it can carry or it can hold, so that we called as either holding capacity or carrying capacity, how much infrastructure it can be developed in maximum extent, most of the cases you will find that the core city existing cities, in the existing cities, the roads are so narrow that you cannot augment the infrastructure beyond the level.

So, considering that threshold that holding capacity, you cannot re-densify that area from a particular from beyond some level, so based on the infrastructure level either you propose re-densification or de-densification, if you feel that the infrastructure can be augmented and that

enhance infrastructure can take care of the future population and future more housing, you can redensify that means enhancement of the population density.

For example, if the current density is 200 per hectare, you can enhance to a like 400 or 500 or whatever is possible within the infrastructure level and if you find that the infrastructure augmentation is not possible and before that it has become very congested, very chaotic, so you de-densify, you allow very less amount of a fear and you encourage them to ship to other part of the city in the new urban area.

So that kind of strategies to pull and push is required for when you make the housing planning for the city. Next is the and this is not sufficient along with that you have to prescribe the development controls in terms of a fear, building heights and other development controls, so that you can, not only prescribe you can also ensure that the core cities are developed according to your studies or the intention.

And you can make a system of incentives and the enforcement, incentives in terms of a fear, incentives in terms of the tax rebate, incentive in some; in terms of the accessibility, so many things can be designed in the cities to either re- densify in the core city or de-densify, so that people can either concentrate or they can disperse to the new areas.

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Housing for New Areas

1. Land Assembly
2. Land subdivision (Plotted or Group Housing?)
3. Applying Contemporary concepts (TOD, Compact City, Smart City, NMT etc)
4. Investment and Development strategy
5. Land disposal mechanism
6. Check and balance.

Now, in the new areas, basically it is required that you need to have a large amount of land to make new development, so land assembly is what is required. So, there are 4 methods of land assembly, we have discussed earlier, so in the land assembly, our objective is to assemble land for the public infrastructure, then is land subdivision, how we divide a particular land into small pieces of land, so that you can provide the land for plotted or group housing category or any other categories.

Applying contemporary concept like transit oriented development, compact city, smart city, non-motorised transportation into the new areas, you might have seen that in the core areas, this kinds of concepts may not be applicable because the space is so narrow, so congested, it is very hard to adequate to accommodate them in the congested areas, so in the new urban extension definitely, you can develop the concept like transit oriented development, compact city, and smart city and the non-motorised transportation.
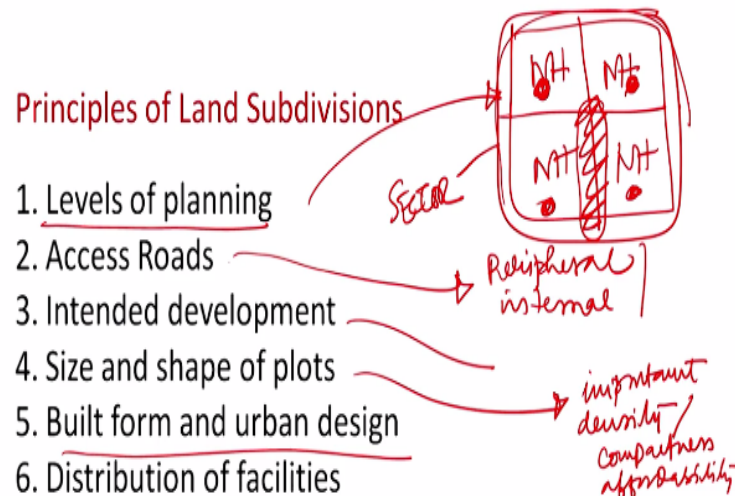
Then, what is your investment and development strategy for the new urban extension, you might have received a large amount of land but what you will; you are going to do with finance, how you are going to mobilise the finance so, what is the role of the private developer, what is the role of the other funding agencies that you have to work out with your team. The land disposal; once you got the land, you have sub divided the land into plotted and group housing.

So, how you dispose them to particular group, particular individual, what is your strategy, are you going to give some priority for the poor people, are you going to give some priority for some particular housing typology for example, say institutional housing or cooperative housing to enhance the involvement of the community or are you going to give the priority for the developers housing, if so what are the control mechanisms, these are the questions coming, should come in your mind before disposing the land for the market.

And you should have a system of check and balance, so that the development of the housing is become harmonious with the surroundings then, it should comply with the overall provisions of the city plan and the master plan, so the housing development should not be done in isolation,

housing development plan should be done in continuity, in integration with the city plan and the other infrastructure plan like road, networks, sewerage, drainage etc.

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Principles of Land Subdivisions

1. Levels of planning
2. Access Roads
3. Intended development
4. Size and shape of plots
5. Built form and urban design
6. Distribution of facilities

So, let us have a quick look of the how we do the land subdivision, earlier we talked that in the new urban extension, you need to assemble the land and subdivide the land into various pieces so, here in the subdivision of the land, you have to think about the levels of planning that means, you can subdivided the land into various categories like you can divide into several neighbourhood and 4 or 5 neighbourhood can make a sector.

And you can provide the neighbourhood level facilities like that and a sector can also have their own facilities, so this kind of levels is required to consider, the access road; the peripheral access road or the internal access road need to be discussed so, peripheral and internal that is required to be considered, intended development, one kind of development you are going to have like, group housing, plotted housing, cooperative housing, institutional housing, density, the height whether it is low studded height or medium height or the large or the very high studded.

So, those kind of typologies you need to be considered before land subdivision, then size and shape of the plots, the; it is also important to maintain the density and compactness and affordability, you cannot make very large plot which people cannot afford or you cannot make a very small plot which people cannot make the house, so deciding the size and shape of the plot,

so that each category of the people they can make their house properly and they can develop the dense house, dense development.

Because land is very scarce community, so at the same time you have to provide the adequate land personal size to the individual person at the same time, as a whole, as a community up to develop a particular density to maintain the density and the housing prices because land is very costly commodities and next is built form and the urban design, overall in 3 dimensionally, how the area looks like, how a housing community, a community, a sector looks like.

Does it gives a very soothing effect or does it give in a harmonious effect, what kind of effect, it will be in terms of their colour, in terms of their built form, in terms of their treatment in the building, so all those kinds of things are also need to be considered later on, we will discuss few elements of the design in some lecture, so I am not going into much details at this point of time. Then, distribution of the facilities; the facilities has to be distributed in such a way.

So that each and every people, they get equitable share of the access to the facilities for example, the school, Health system, the commodity facilities, the recreational facilities, all the facilities has to be distributed in a very harmonious way, so that and a very equitable way, so that people can access the facilities. Now, just let us have a quick look of this some of the example.

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So, in this example, you can see that this is a neighbourhood, this is another neighbourhood, this is another neighbourhood, this is another neighbourhood and these are the peripheral larger road and these are the internal road, so this internal road are 10 meter and these are collector road about 18 meter and how there is a system of continuous open space you can understand, so every neighbourhood is having one open space.

And it has also a common facilities like that so, these are the common facilities which will serve the neighbourhood 1, neighbourhood 2, neighbourhood 3 and neighbourhood 4, so this type of system is also replicated in the surrounding sector, so this example is taken from new town Kolkata.

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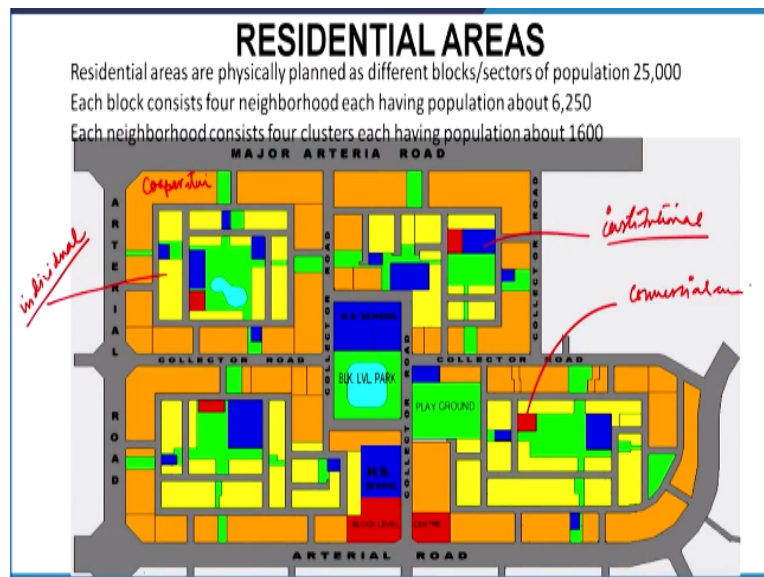
Now, you can see how the plots are distributed, so these are basically housing cooperative plot, these are individual plots and these are institutional like schools or health facility and these are the commercial areas, so this kind of patterns you have to developed whenever you met new urban extension and the new land subdivision, definitely these kind of development will give you will offer you a high density development with a organised and planned arrangement of the infrastructure services.

And definitely a higher quality of the living and higher quality of the life, so but it takes lot of persuasion in terms of the land assembly, land pooling and creating a robust design

implementing that managing finance everything but definitely if you can do this, your city is going to get a age and your city is going to get a definitely a revised or a better image compared to the other cities.

So, these are the examples of the land subdivision in the new urban extensions, so this I will conclude today's lecture today, we have discussed basically various aspects of the housing strategy, we started with the classifications of the housing, we have seen that housing classification broadly those are organic housing, formal and informal housing and it can be classified based on the built form based on the land ownership, based on the functional categories.

And then we discuss the housing strategy making plan making process, it has 3 major stages, in the first stage, we make the assessment or the situation assessment of the housing in the existing city in terms of the land, finance and the housing typologies. In the second stage, we estimate for the future housing requirement, future population, what kind of housing is required in what quantity and in the third; we make the strategies for the core areas, existing city areas and the new urban extension.

Then, we discussed the strategies, typical strategies in the core areas and new urban extension and we will also discuss that how we can make new urban extension for the land subdivision, what are the few principles of the land subdivision and also we have seen some of the examples. I share few reference materials where you can see some of the cases regarding core city housing or the new urban extensions.

But seeing the examples is not sufficient, it is very important to reflect and to think what you can do for your city for your home city or for the city where you are working, can you make some new development, new areas, can you convert the existing code areas or the existing city areas from older looking area from a new looking or renewed areas, those kind of challenges will be there in front of you.

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Next LECTURE

32. Housing & Urban Poverty

I hope that you can address those challenge, next lecture we will discuss on the very important part of the housing development that is housing and the urban poverty, so with this I thank you very much for attending this lecture.