

**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

**NPTEL  
NPTEL ONLINE CERTIFICATION COURSE**

**Housing Policy & Planning**

**Lec – 22  
Housing Strategy for City-1\_ An overview**

**Dr. Uttam K. Roy  
Department of Architecture and Planning  
Indian Institute of Technology Roorkee**

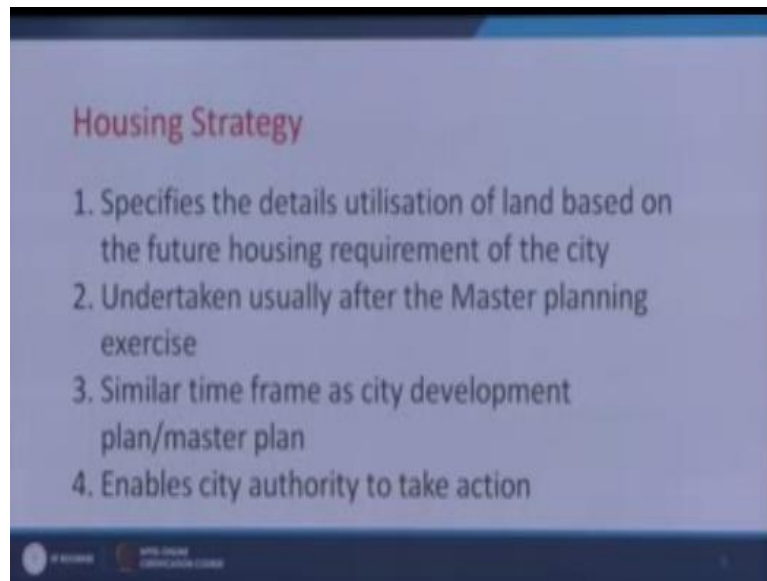
Hello last two lectures we discussed the infrastructures and planning elements for physical infrastructures and social infrastructures. Today we discuss the broad methodology of making housing strategy plan for city so before we go to the main content or today lecture, let us tell you that why we make the housing stagey. I mention you that in our master planning on city planning exercise basically at the end of the exercise.

We show how the city will grow with broad road net work major roads are shown and land use profile is also shown, major land use, which we discussed in last few discussion and apart from the land use we also mention density gross density and after that we for every sector like every infrastructure, water supply and the transportation on every type of infrastructure we allocate resources based on the population, but we told that the after the city planning exercise if the cities very weak and the worst area is allotted for different kind of uses.

So it is not sufficient to for the master plan or the city development plan to come into the action. So before coming to the action at the each and every plot level are the ground level we need to make detail planning for each sectors, each components of the plan. For example housing itself is big sector because it takes substantial land element in city 50 to 60%. So invest other than housing the infrastructure like road it takes around 20 to 25% of his city and apart from housing all utilities including water supply sewerage everything all those takes much area.

So we need to develop the spectral plan or detail master plan for each and every component related to infrastructure or land. So one of the very important component is the housing strategy. The basic objective of the housing strategy is that we make detail planning.

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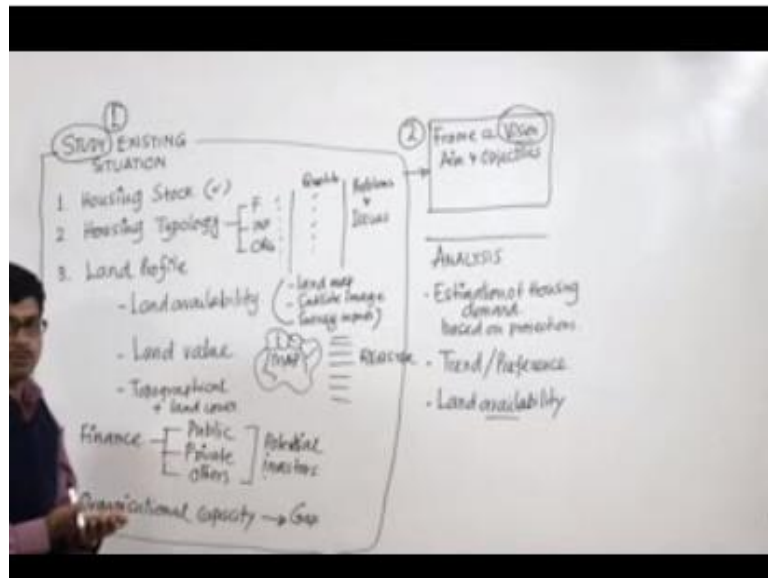
So basically the housing strategy specifies the details of the utilization of land based on the future housing requirement of the city. In a city planning exercise we project the current population and based on the future projected population we allocate the bulk land or the gross land as gross residential land use, but in housing strategy we specify the detail utilization in terms of typology in terms of it is bill form everything of the land as per the future requirement now based on the future population we estimate the future requirement of the housing.

Then we take this exercise after the master planning, I told you and similar time frame if the master planning or city development plan is done for 5 years plan. Similar the housing strategy can take the same time and it enables the city authority to take action at the ground level to develop housing. Respective of the implant whether it is private sector or public sector the city authority can take action because the whole picture it is clear cut road map of the city authority or the housing development.

So city authority can take action. So now what are basic stages so we have simply the methodology of preparing housing strategy into 7 simple steps this is generalized methodology I am going to explain to you, but it can differ from city to city or context and regional area to area. So first steps what we do for the housing strategy like any planning strategy what we do is study of existing situation. Given city is given you as planner and you

take the city and you study each and every element of the housing component what is there existing.

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So study existing situation now what exactly the study existing situation basically we study the first of all we estimate the current housing stock. So current housing stock means combining every categories of the housing we have to assess what is the current housing stock and what could be estimated shortage. Then we try to identify so this is qualitative parameter as whole for the city that what is the total housing stock and with the description and classification. Now based on that we make the housing typology for example we discussed that their various type typologies where board classifications where formal informal and organic.

So based on the board space classification what we discussed earlier at the beginning of the course based on that every typological can be identified and after that the quantity also can be estimate that is the second stage what we need to. We are going to assess the typology why the housing situation, housing quality it present condition problems, issues and trend, and apart from that after housing typology studies we have study the land profile. So in the land profile we have to take account of the land availability, now the land availability data may not be available every time.

So the one of the major initiative could be that to take the existing data from the government department usually land registration department are the responsible department to have the land data so you can take that data and you can update the data with the site features with the current survey input because those maps may not be updated as per those could be older map. So you should update that map with the incurrent input and you can also utilize the input of the satellite data imagery.

So land availability based on the basically land map then satellite image and also you can take survey input. So after the basically you are going to get a clear picture of the city that what are the lands available at the city under with ownership may be you find that some lands are own by you private agencies or private people or some lands could be own by the public authority land like municipal corporation or any public authority so that identification is very important.

The second part the study of land value. So based on the government circle rate or may be the current rate from the ground through the survey you can take exact account of the land value for each and every person of the city now for every person of the land value you may not get that data excitedly so what we can do, we can take demand the zones where the land value demarks and for age based on the variations we take similar zones where the land value is more or less same or similar.

So identifying of those zones of the land value high, medium and low or the in between that are very high land value and identify those pockets and we can mention that land value. So land value and land availability this will be prepared in a special map and with a register so both these required one is map, another is the register. So in the map basically you have to provide zone wise land values data. This two figure is important to make land profile apart from the land availability and land value there could be other parameters like land profile physical profile to progress profile that also you can take into account to land cover.

For example you might find that some part of the city area is covered by the forest area so even it is own by the government authority it may not be utilize for the future development so because it is protected land or reserved lands. So those kind of information should be taken into our exercise e as a land profile data The next thing what you have top do is so you have studied the housing stock as a whole to estimate the total housing at so of now today housing

typology, the land profile, and then we have to take the account of the another very important resource that is called the finance, so finance available at the public sector private sector and others.

So basically it is very difficult to estimate how much finance is available, but definitely you can try to give an estimate the potential investors. So for this you can take an account of the existing real estate porters or real estate market survey organization reports all those also in addition to that report you can also conduct fill survey from your side to identify fill survey and interviews with prospective agency or stake holders to identify your access your potential investors but basically the objective of this assessment is to identify or assess the potential investor from the private side you will find that if the land value is very high that means the city holder parts, some of the parts of the highly development potential.

So developer will be keen to invest on those areas so you can take an account or the preference from the developer or from the other agency that where they will be willing to invest their money to develop the future housing development similar the NGOs and smoother similar organizations can be interviewed or taken in the board to discuss and to assess their willingness to contribute in the housing in the full some other housing like core city housing. So those kind of willingness of the people or the stake holder it invest in any kind of housing that need to be taken care of then finally you have to taken account on this stock of the present organizational capability.

Capacity in terms of the organization whether the organization is ready or is capable enough to execute large projects either the organization is capable enough to appoint various kinds of private investors or private developer, so that they can for for joint venture or affordable housing for the partnership scheme or various kinds of schemes which can be possible thorough joint venture mode or public private partnership mode so those kind of assessment need to be done at the institutional level.

What we do basically we take the stock of the institution we take their manpower availability whether they have the technique manpower or not we see their organizational profile the decision making process ad based on that there are expected tool by which we can access the capability of the organization where they can take up further action out this exercise or not. So after this exercise we can be able to tell that whatever are the gap basically in the

organization in terms of manpower in terms of finance in terms of legal or may institute reform.

So this is the first stage of the housing strategy exercise what we are doing and we are telling at a study is her the study sis the key words you should remember that this s the first strategy very important for a housing strategy. This second part based on the study we care very much clear about the city profile and the city profile of the housing and what kind of housing are there they land profile financial profile and organizational profile and what are the basic problem and issue so here after the quality.

What are the basic problems and issues so here after the quantity we are also identifying the problems and issues of every component of the housing and we are identifying problems and issues for the organization as well problems and issues for the land finance every sector. So second stage will be to frame a, basically vision that for housing strategy what kind of housing typology what kind of housing goal we are going to achieve. So this will come to ultimately in aim and objectives, so this becomes second exercise where the key words is vision or aim and objective the second stage.

So the visioning exercise could be done in a participatory method using the opinions and feedback of the elected members using the opinions from the stake holders like private stake holders, people who are residing in this area people who want to migrate and want to stay there the third stage. So this is the first stage of a study of the housing strategy second stage is the visioning exercise the third stage what you have to do is what we call as a analysis now what kind of analysis will be required for making a housing strategy the first analysis is required for the housing strategy is the estimation of housing demand.

So based on the total housing stock and the future projected population we can establish the gap of the housing stock for the present population. And for future population and that you will be the housing demand so this is the first thing what we have to this will be based on the projection. The second analysis is which we have to do is the basically the train analysis of the housing typology the what kind of train is visible in that city what type of housing typology is preferred by the people. That is need to be started so train, or preference through the interviews through the service atleast at the sample level for each typology.

So based on the trained and preference we will be able to tell that what are the typology prefer by the people and what could be the future direction development towards that housing typology. The next part will be the analysis of the land availability, now based on the land availability and land value what we already have prepared if we can super impose both the maps and we can come out that what are the amount of the land available in the high land value area what are the land pockets are available in the medium land value area or low land value area. So similarly following that we can make a matrix of land availability and land value.

Our objective is to capture the land value before any planning intervention or before any infrastructure pervasion because land value is a very important part in housing strategy and housing development so land availability as per the land availability map and the land value both has to be studied and at the end of the analysis we have to make a plan having assuring the pockets of the land available as per every kind of land value as per the market study.

The next stage will be that the possible financial investment, the estimation of investment from the data so this kind of and for organizational, we make a strength weakness opportunity and trade so this analyses we tell the strength of a organizational, weakness and what are the opportunities and challenge for the organizational. So, after this analysis this is a third stage we are making for this housing strategy.

So, after this the analyses we are clear about the estimation of housing demand the trend of the different kind of housing. We might end of that weakness see that same of housing typologies and not referred by the people same of the housing typologies are much referred by the people those kind of cross cutting preference is need to be figure out here in this process. Then the land availability land value possible investment and swot analyses.

So, after this analysis we need to make up kind of synthesis of the analyses data. So, what kind of synthesis we do here. So, in the synthesis we make basically the supply demand matching, because we have already estimated the demand for the housing. So, the demand side we have housing, land, fiancé at the supply side we have to see that what are the land is available, fiancé available and how it is matching which this or not. Therefore, considering now here let me take example in the city of any you find that the future housing requirement

for the another five years is so 50,000. But, for 50,000 population you need a land of if you consider 500 per hectare so unit 100 hectare of land so you might find that you have only 80 hectares of land in your hand.

Which is having a mix of high value, medium value or low value land so you might be working with your density either you go with more density or you have a variable density combination of the low, medium or high based on the housing typology this kind of matching and correlation is required at the synthesize level after the analysis so based on that what we do after these is some kind of scenario building now what is a scenario, scenario is basically.

The possible future position or possible future framework by which each and every stakeholders like private and public and the modalities can change so there could be various scenarios and most scenarios are sacrosanct or kind of a perfect so what we can do we can make decide scenario of two or three or four scenarios based on the matching of the land, finance and housing typology so this kind of scenario.

We have to make like so this is the fifth stage what we are doing so in the scenario we are basically giving the broad idea of the housing strategy that what kind of housing will be required typology wise how much land is allocated per typology and how much finance is allocated this two are very important resource required for the housing development and varying this parameters of varying this allocation land and finance.

We can make different kind of scenarios at least 3 or 4 then we select the scenario also so scenario based on some competitive analysis or based on some stakeholders consultation usually decides scenarios can be grouped into a preferential manner 1,2,3,4 and it can be presented to the city authority and the people of the city and based on the result of the discussion and the stakeholders consultation maybe one scenario could be chosen out.

Of the develop scenarios after the scenario building what we do basically we make the strategy for each and every housing typology in terms of their land in terms of their finance development control their implementation mechanism everything and so this strategy based on the chosen scenario will mention the land, finance, development control, implementation and so on. So the strategy part we will tell very clearly that what kind of housing typology will be there based on our scenario how much land will be required how to mobilize.



The resource and how to implement what kind of modalities will be there to implement the each type of housing typology and then we make a action plan at the end so action plan basically consisting the phasing and not only phasing apart from the phasing it will indicate each and every implementation part likes a organization or agency who will implement the project based on the timeline another point you should remember that at the strategy level.

We need to link each and every typology of the housing with the current housing program like Pradhan mantra awas yojna or technology submission so those kind of input should come at the strategy level that how we can link and how we can after the available programs and the scenarios or the programs in the schemes with the our requirement so those kind of strategic statements of strategic actions will come.

At the strategy level so this is the 6 stage of our exercise and then we are coming to the final stage of the exercise which is called as action plan so following this exercise, following this methodology starting from the study of the existing situation we are making a vision then analysis and then synthesis then making scenarios making strategy and making action plan so this kind of exercise could be done for bigger cities and at the end of the strategy planning or the strategy document for the housing we will be able to see for each and every category of the housing each and every packets of the housing likes a by enlarge you will find for a city some part of the will be already build-up area having the core city housing much congestion at much complex city.

In the centre beyond that you will find gradual city going to be partially developed and beyond that there is a elements scope of further development as a new areas of housing so your strategy level in your strategy should be very specific to the what are the strategy you are taking for the core city, complex city and the congested areas which is already developed due go for further development all those areas or you do not do anything and you keep it like that you preserve that area or you go for another development for the new areas.

So your treatment for the existing housing, already developed build-up areas and the new housing areas will be different so these particular element that based on this methodology at the strategy level what kind of strategy could be taken for the existing city population existing build-up areas, existing housing typologies and what kind of strategy could be taken

for the new housing areas both are important because the people who are living in a existing city they also need constant up gradation, re densification and renewal on.

The other hand the new housing areas which you are basically going to plan those are going to be new areas and for the new areas those will accommodate the future population for that you have to meticulously plan its land subdivision, land disposal, future network of the roads, infrastructure and its development everything so in the next two lecture we will discuss this two element.

So today we basically discussed the housing strategy formulation exercise its fundamental stages we told that it has 7 fundamental stages the first stage is the study of the existing situation. Second is the setting aims and objectives what we told as the visioning exercise. Third is the analysis in the analysis we are analyzing various aspects of the housing typology, land, finance everything and the organization and then we are making a synthesis of the analyzed data to make future scenarios making scenarios we are making few scenarios and identifying one final scenario and based on the scenario we are making the development strategy for core city housing the new areas of housing and the special housing and at the new housing typology and also we are making a action plan consisting the phasing plan and the agencies that means.

When it will be done and who will be delivering that particular projects or particular housing delivery so please give this in your mind so in future we will show you a case study or some examples but this is the generalized or simplified housing strategy formulation methodology which can be followed so next day we will discuss about the how the housing strategy can be taken for the core city or existing city development.

And also the next we will discuss that how the housing strategy could be different in the new areas of the housing where the vacant land or the existing green land can be converted to the future housing development in a sustainable manner. So for today I thank you.

**For further Details Contact**

**Coordinator, Educational Technology Cell**

**Indian Institute of Technology Roorkee**

**Roorkee – 247 667**

**Email: [etcell.iitrke@gmail.com](mailto:etcell.iitrke@gmail.com), [etcell@iitr.ernet.in](mailto:etcell@iitr.ernet.in)**

**Website: [www.iitr.ac.in/centers/ETC](http://www.iitr.ac.in/centers/ETC), [www.nptel.ac.in](http://www.nptel.ac.in)**

**Production Team**

**Neetesh Kumar**

**Jitender Kumar**

**Pankaj Saini**

**Graphics**

**Binoy. V. P**

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**Video Editing**

**Arun. S**

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**Prof. B. K. Gandhi**

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