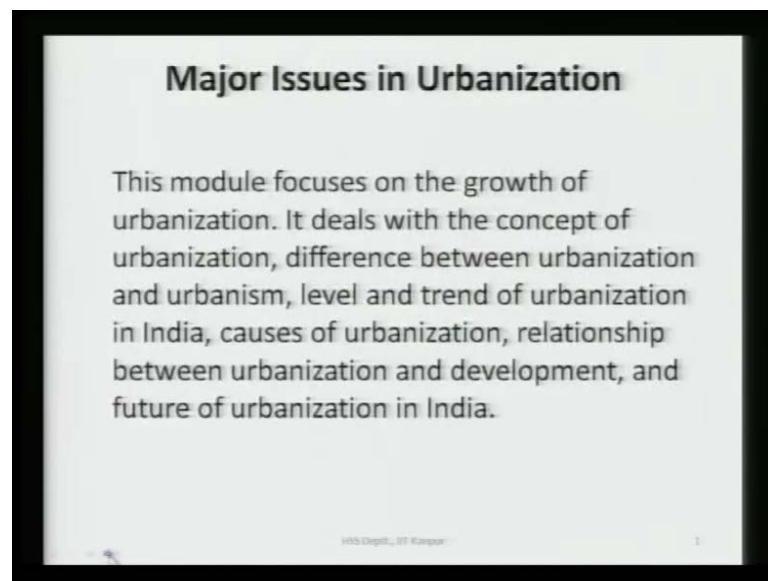**Population and Society**

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Lecture No. # 21

**Urbanization and Development**

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So, today we are going to start a new module and that is on urbanization and development. This is the first lecture of this module, and in this lecture you know I will talk about what is urbanization? What is urbanism? And then in the subsequent lectures I am going to discuss level and trend of urbanization in India, causes of urbanization, relationship between urbanization and development, and future of urbanization in India.

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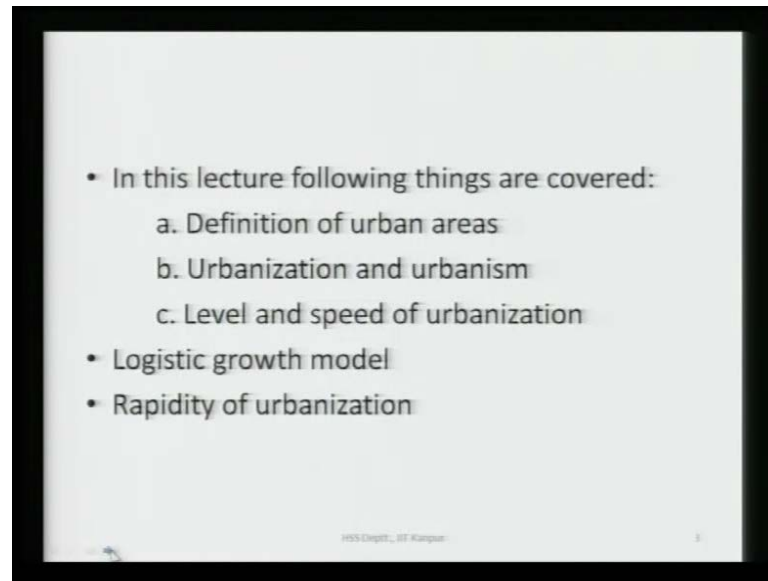
In specifically in this lecture today following things will be covered: What is definition of urban areas? Urbanization and urbanism and level and speed of urbanization, how do we define level and speed of urbanization. And if time permits, I also want to introduce the idea of logistic growth model and rapidity of urbanization.

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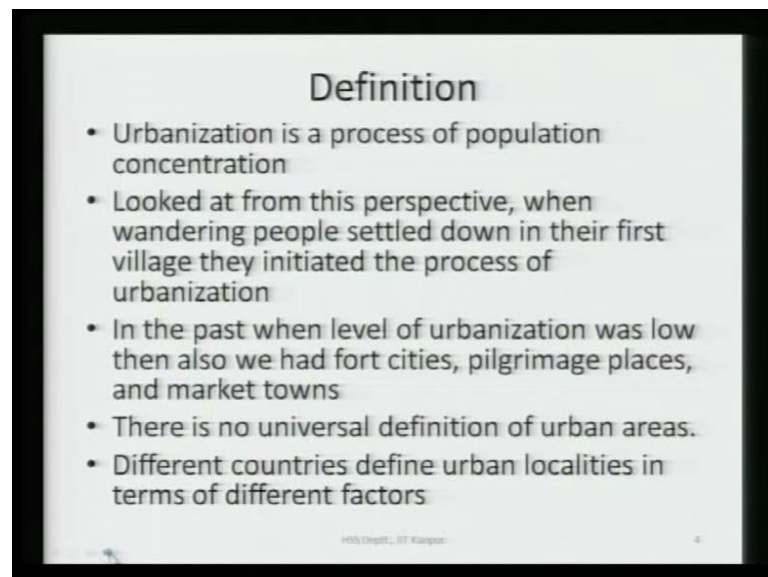
When it comes to definition, see urbanization has been defined in different ways by different urban sociologist but what is common to all of them is that it is a process of population concentration. Looked at from this perspective that urbanization is a process

of population concentration, I can say that when wandering people nomad's, tribal communities they settled down in their first village somewhere; they initiated the process of urbanization.

Today, we put urbanization as something different from rural population but one can look at that way from the perspective of concentration that realization or village settlement was the first step towards urbanization. It is now that movement of people from rural areas to last towns, cities, and urban agglomerations are causing a new wave of urbanization in the world in general and in India in particular, but it is not urban world dichotomy as such, it is a process of concentration of people at one place or at several places.

Now in the past when level of urbanization was low, then also we had urban populations, we had fort cities; we had pilgrimage places and market towns. There is mention of Ayodhya and several such places in Buddhist literature showing that some of these cities or some of these pilgrimage places like Ayodhya or Kashi existed more than 3000 years ago in India.

So, even when urban population was small or most people of India lived in small rural villages, there were urban towns or urban areas urban places, cities they were of religious interest or political interest or they were market towns. Now as we should be more concerned when we talk about urbanization today with the definition of urban population which is used by demographers of our times. Now different countries have different definitions of urban localities, if you will make a survey and these definitions are available in demographic year books on net. You can know them from census definitions of different countries and you find that there are large variations.

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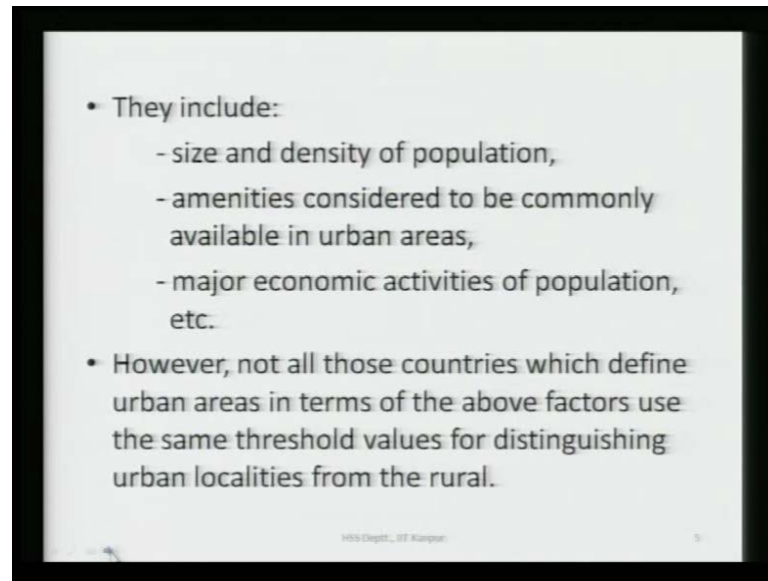
Some countries define urban population on the basis of size and density of population. This is true that today all the countries, all population censuses make a distinction between rural and urban, but how is urban define that varies. So, at some places in some regions urban population is defined on the basis of size, and density of the place or habitation, locality.

In some other countries and regions urban locality is defined on the basis of amenities. Amenity like roads, electricity, good housing, water sanitation, health facilities and so on. And in some countries urban locality is defined on the basis of composition of economic activities. And there are many other variations; say if you go by definitions given in demographic yearbooks, there are a lot of definitions of urban populations.

Moreover, not all those countries which define urban areas in terms of one or two of these indicators of factors use the same threshhold values for distinguishing urban localities from the rural. What I mean that suppose some country defines urban population on the basis of size, then there are some countries for which a locality of size 5000 only that is qualified as urban.
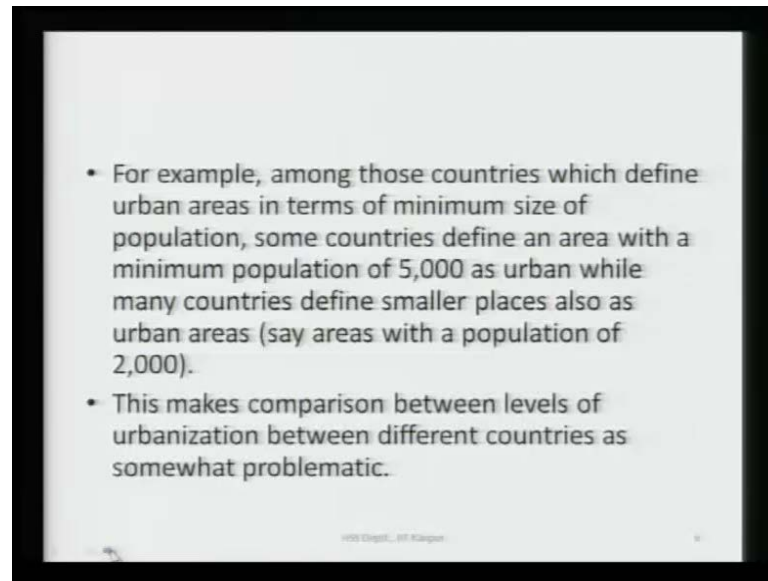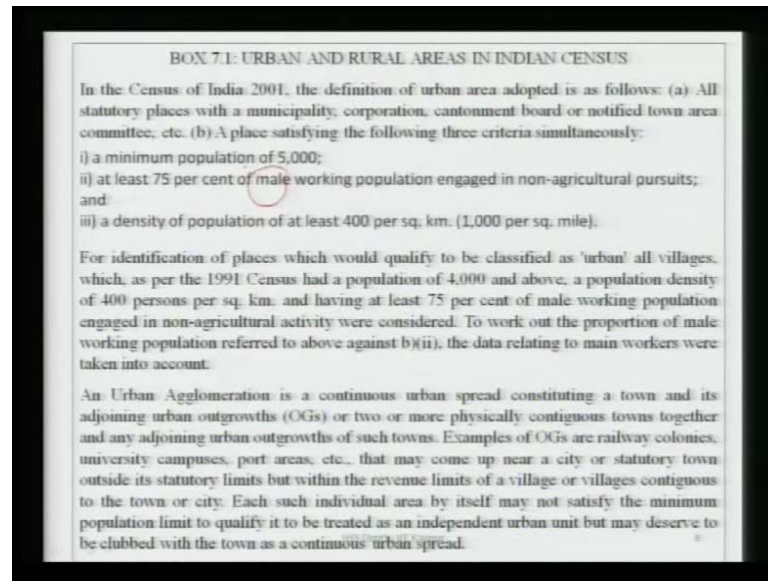
And in many other countries particularly in Europe, many localities of size 2000 are also qualified as urban. This makes comparison between levels of urbanization between different countries as somewhat problematic and this also means that in the same country if definition of urbanization changes or definition of urban locality changes, comparison of levels of urbanization overtime becomes different, this happen in India.

So, if you compare levels of urbanization in India on the basis of census data from say 1991 to 2001, you face the problem that in between there have been changes in the definition of urban localities. And in those censuses in which urban locality definition were changed produced data which are not strictly comparable or for comparison you first have to adjust for the changes of definition.

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BOX 7.1: URBAN AND RURAL AREAS IN INDIAN CENSUS

In the Census of India 2001, the definition of urban area adopted is as follows: (a) All statutory places with a municipality, corporation, cantonment board or notified town area committee, etc. (b) A place satisfying the following three criteria simultaneously:

i) a minimum population of 5,000;
ii) at least 75 per cent of male working population engaged in non-agricultural pursuits; and
iii) a density of population of at least 400 per sq. km. (1,000 per sq. mile).

For identification of places which would qualify to be classified as 'urban' all villages, which, as per the 1991 Census had a population of 4,000 and above, a population density of 400 persons per sq. km. and having at least 75 per cent of male working population engaged in non-agricultural activity were considered. To work out the proportion of male working population referred to above against b)(ii), the data relating to main workers were taken into account.

An Urban Agglomeration is a continuous urban spread constituting a town and its adjoining urban outgrowths (OGs) or two or more physically contiguous towns together and any adjoining urban outgrowths of such towns. Examples of OGs are railway colonies, university campuses, port areas, etc., that may come up near a city or statutory town outside its statutory limits but within the revenue limits of a village or villages contiguous to the town or city. Each such individual area by itself may not satisfy the minimum population limit to qualify it to be treated as an independent urban unit but may deserve to be clubbed with the town as a continuous urban spread.

Let us look at the definition of urban locality as used in 2001 census. In the next slide you know in this box we have the definition. The definition of urban area adopted it as follows. All statues first of all statutory places with a municipality, corporation, cantonment board or notified town area committee are called urban. This is the administrative definition of urban localities. For all localities having a local seat of administration which may be a municipality, corporation, cantonment board or simply notified town area committee for a small place, all such localities are classified as urban.

Other places which do not have municipality or corporation or not even notified town area committee, if the locality satisfied one of these condition then also it can be classified as urban, a minimum population of size 5000. If there is a locality which does not have local seat of administration, but where more than 5000 people live or where 75 percent of male is working population. Look at this part male you know it is not total working population where 75 percent of male working population is engaged in non agricultural pursuits. Broadly you can divide all agricultural all economic activities into three parts primary, secondary and tertiary. By primary I mean, agriculture secondary is manufacturing and tertiary are service, health, insurance, education, transport, and communication.

Since data on female working population is not so reliable, so for defining urban locality we depend on male working population. And if 75 percent of male working population is

engaged in non agricultural activities, it may be secondary it may be tertiary. So it may be manufacturing or it may be service sector, then also a locality can be classified as urban. And third is the density of population factor. If the density of population is at least 400 per square kilometer or in terms of miles 1000 per square mile, then also the locality can be classified as urban.
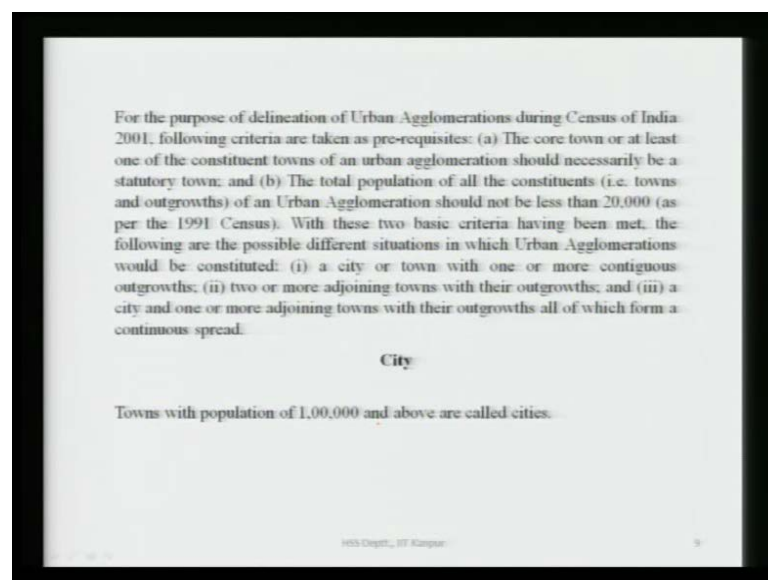
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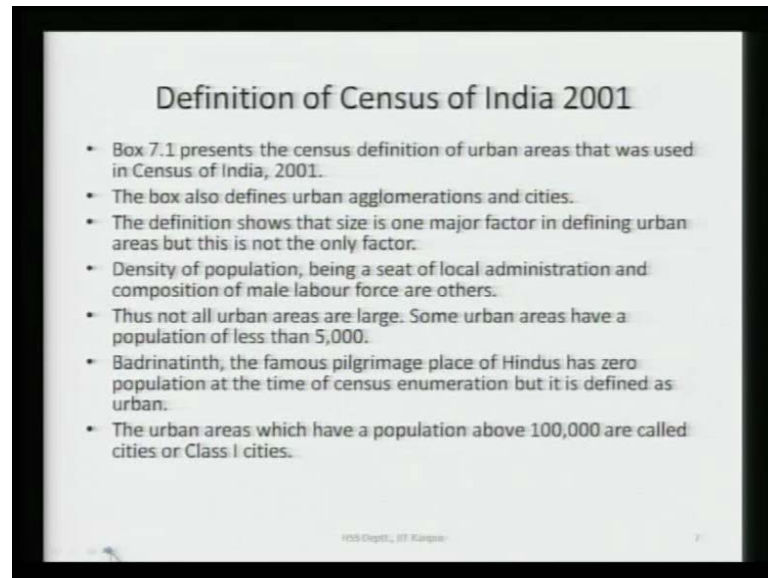
So our definition is based on size, labour force and density of population. You know sometimes there are localities which do not qualify any of these conditions even then they are classified as urban. I thought this example may interest you that Badrinath, the famous pilgrimage place of Hindu's. When census has taken in the month of February you know census figure usually refer to first of April and the census operation starts in February.

In the month of February or March sometime, the size of population of Badrinath is 0 nobody is living there, but Badrinath cannot be classified as rural, it is not village, so although, so these are broad guidelines that the size of locality should be 5000 or more. 75 percent of male working population should be engaged in non agricultural activities and density should be more than 400 per square kilometer or 1000 per square mile. But the census authorities at the state level apply their mind to classify localities into urban, and rural and those urban localities where size of population is 100000 or more are called class one cities.

Then, there is another concept in urbanization in 2001 census of India and that is the concept of urban agglomeration. Sometime some large urban localities are so close to each other that for all practical purposes they constitute one large city. Although they may have different administrative municipality or corporations or cantonment board or railway colonies or small industrial colonies, but they can be combined for morphological, geographical, administrative purpose, demographic purposes and (( )).

It is a continuous urban spread constituting a town and it is adjoining urban outgrowths or two or more physically contiguous towns together. And any adjoining urban outgrowths of such towns urban periphery, urban outgrowth or urban periphery, suburban what you called suburbas. Examples of outgrowth can be railway colonies, sometimes some railway colonies are located at the outskirt of the city or university campuses. Usually university campuses are located at some end of city, port areas that may come up near a city or statutory town outside its statutory limits, but within the revenue limits of a village or village contiguous to the town or city. Each such individual area by itself may not satisfy the minimum population. So, the population of that outgrowth may be less than 5000. Even then it becomes part of the urban agglomeration. So this is our census 2001 definition.

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For the purpose of delineation of Urban Agglomerations during Census of India 2001, following criteria are taken as pre-requisites: (a) The core town or at least one of the constituent towns of an urban agglomeration should necessarily be a statutory town; and (b) The total population of all the constituents (i.e. towns and outgrowths) of an Urban Agglomeration should not be less than 20,000 (as per the 1991 Census). With these two basic criteria having been met, the following are the possible different situations in which Urban Agglomerations would be constituted: (i) a city or town with one or more contiguous outgrowths; (ii) two or more adjoining towns with their outgrowths; and (iii) a city and one or more adjoining towns with their outgrowths all of which form a continuous spread.

City

Towns with population of 1,00,000 and above are called cities.

There are two types a, the core town or at least one of the constituent towns of urban agglomeration should necessarily be a statutory town and two the total population of all

the constituents of an urban agglomeration should not be less than 20000. With these two basic criteria having been met, the following are the possible different situations city or town or two or more adjoining towns.
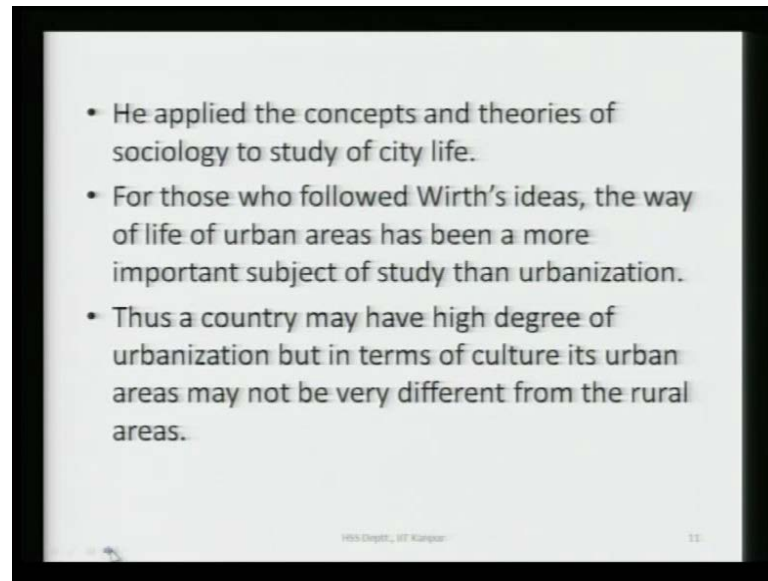
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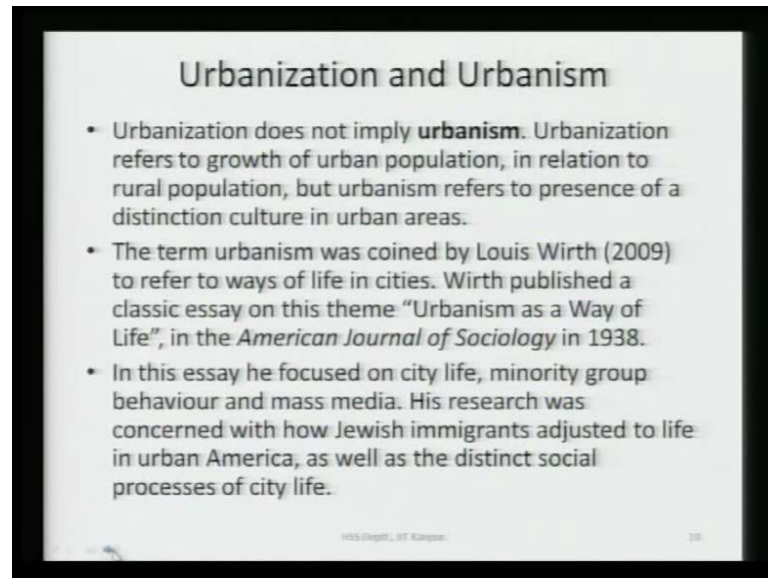
Now, sociologist**…** This is basically a demographic definition of urbanization. Sociologists are more concern with a concept call urbanism. Urbanization does not necessarily imply urbanism. Urbanization refers to growth of urban population in relation to rural population or in relation to total population of the country, but urbanism refers to presence of a distinct culture in urban areas. Quality of you can say quality of urban population or urban culture or certain processes of absorption or assimilation or differences in amenities or life styles.

The term urbanism was coined by Louis Wirth in an article in 1938, which was published in the American journal of sociology, he gave this concept. And in this essay he focused on city life minority group behavior and mass media. His research was concerned not with expansion of cities, but more with how Jewish immigrants adjusted to life in urban America as well as the distinct social processes of city life. So, Sociologist make a distinction between urbanization which refers to demographic growth of localities or population growth of so called urban localities and urbanism which refers to culture or quality of urban population.

- He applied the concepts and theories of sociology to study of city life.
- For those who followed Wirth's ideas, the way of life of urban areas has been a more important subject of study than urbanization.
- Thus a country may have high degree of urbanization but in terms of culture its urban areas may not be very different from the rural areas.

Louis Wirth applied the concept and theories of sociology to study of city life. Many sociologists are doing this urban. When we say that somebody is urban sociologist normally our expectations are that the person is studying city life by applying tools and techniques of sociology. It is mostly demographers who are more interested in growth of urban population in relation to total population or causes of urbanization etcetera. For those who followed Wirth's ideas, the way of life of urban areas has been a more important subject of study than urbanization thus a country may have high degree of urbanization, but in terms of culture its urban areas may not be very different from the rural areas or a country may have low degree of urbanization, but the quality or culture of urban places may be very distinct very different from that of the rural population.

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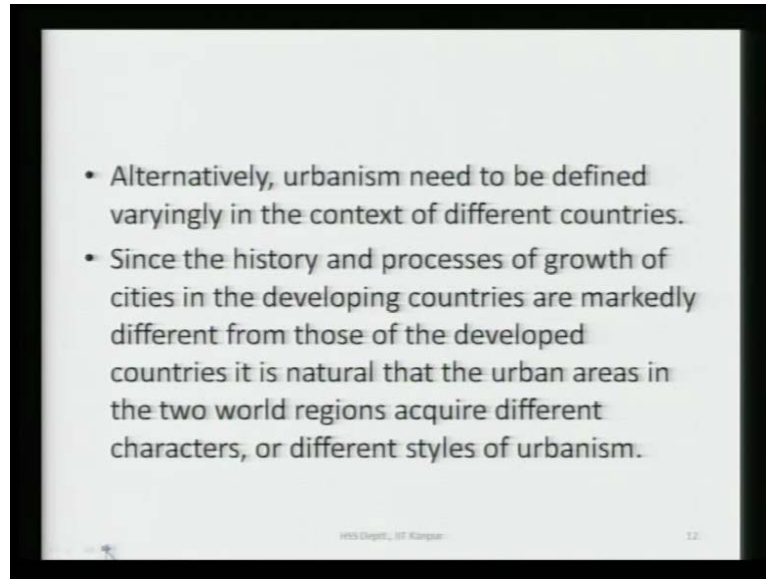
Alternatively, urbanism needs to be defined varyingly in the context of different countries. Here, when I say quality of social life or quality of social processes, as a sociologist I must say that then urbanism would be a historical context. The meaning of urban processes or culture or quality of life of city dwellers has to be defined historically. We do not expect the same type of urban life in India which existed in say urban areas of Europe 100 years ago or in urban areas of India also the quality of life or city processes or institutions social institutions of urban places are changing.

So, urbanism has to be defined in the context of different countries historically. Since, the history and processes of growth of cities in the developing countries are markedly different from those of the developed countries, it is natural that the urban area in the two world regions acquire different characters or different styles of urbanism.
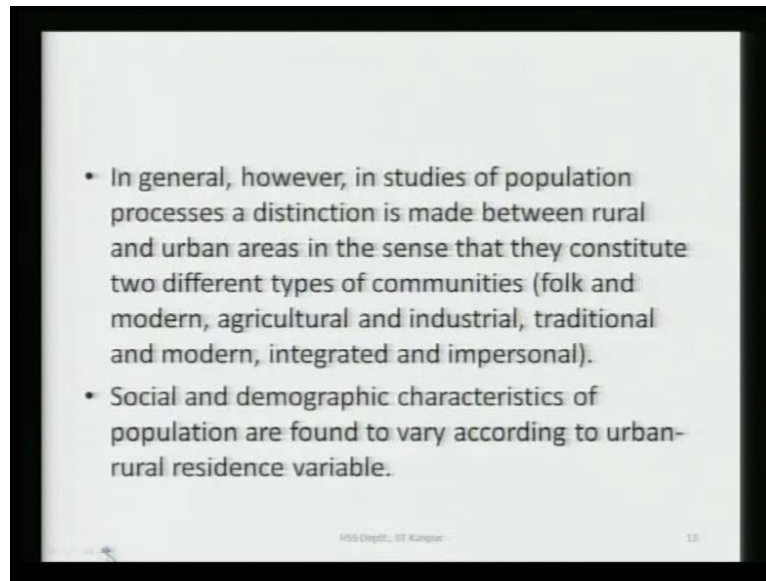
In general, however in studies of population processes a distinction is made between rural and urban areas in the sense that they constitute two different types of communities, folk and modern, agricultural and industrial, traditional and modern, integrated and impersonal. And the way this term urban and rural is used in our government documents or planning commission documents, it is also used in the sense that urban areas are developed and rural areas are under developed or undeveloped.

That is why in the 11th five year plan perspective of inclusive growth, almost all social indicators whether education or employment or skills or income or anything is presented separately for urban and rural area and they have said that urban areas have advanced. And what we need today is an inclusive growth in which people belong into rural areas, who work predominantly in agriculture can also benefit from the fruits of development. So, you see all chapters whether poverty, education, skill employment, health, housing for everything data are given separately for urban and rural areas.

Social and demographic characteristics of population are found to vary according to urban-rural residence variable. We have seen when we are talking about birth rate, death rate, migration rate, how birth rates of urban areas are lower than the birth rates of rural areas; death rates of urban areas are also lower than death rates of rural areas and in almost all demographic indicator there is a difference.

This morning, I was just reading one working paper by Usha Ram of IIPS, she has just produced that paper on childlessness and because I was to give a lecture on urbanization so I looked at that paper and I found that even in that the extent of childlessness in India, they are making a difference between urban and rural area. So, you consider any demographic or socio economic indicator of development, it is customary to make a difference between urban and rural area.

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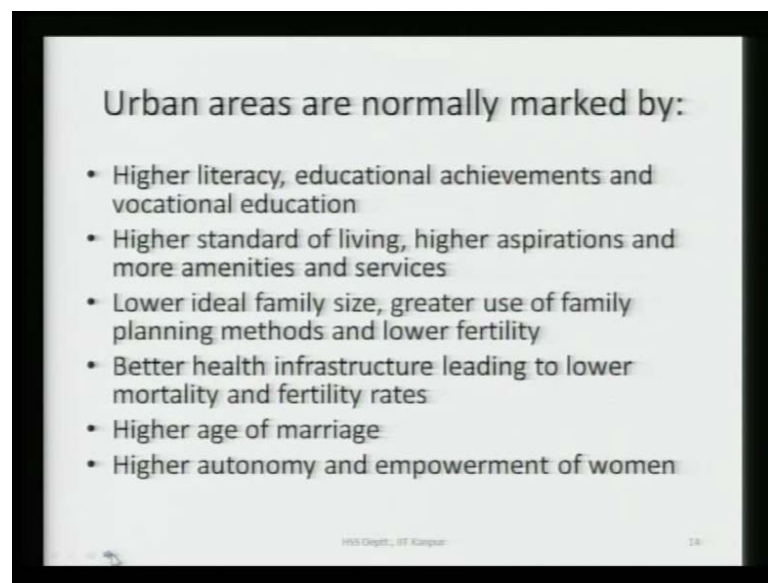
Normally, urban areas are marked by higher literacy, education achievements, vocational education, higher standard of living, aspirations, more amenities and services, lower ideal family size, how many children people would like to have and greater use of family planning methods so couple protection rate and lower fertility. Better health infrastructure due to more of secondary and tertiary health facilities located in urban areas and that list to lower mortality and fertility situation. Mortality, fertility, morbidity, they are all usually lower in urban area.

But, as I said that this thing has to be seen historically. This has not always been in the case. In the beginning of industrialization in today's developed countries, urban areas had a much higher death rate than rural areas and that was because of poverty, unemployment, lack of health institutions, uncertainty, absence of labor, loss political instability, crime. It was not always so that urban areas offered better facilities or better amenities or were characterized by improved demographic situation.

In urban areas, we have higher age of marriage, associated with educational and literacy achievements and higher autonomy and empowerment of women. I was looking at data on domestic violence and it is interesting to see that in all respects, even with regard to domestic violence, physical, sexual, emotional, urban areas present a somewhat better picture.

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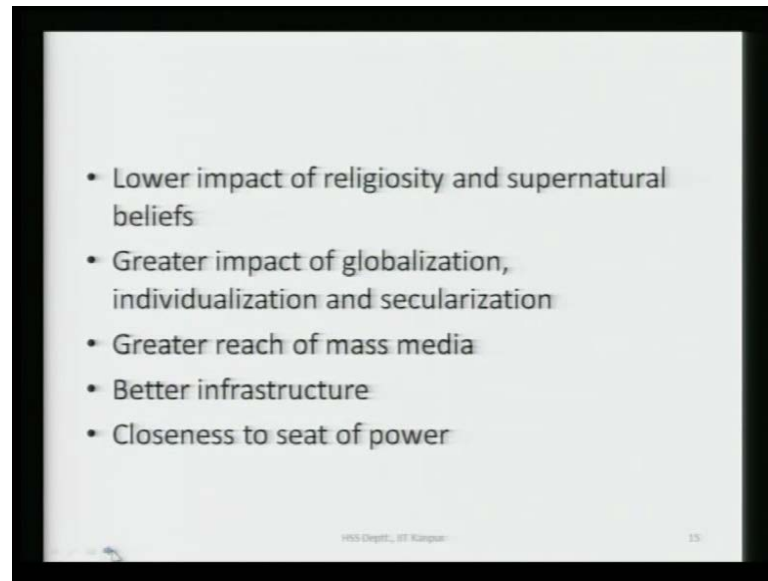
Then in urban areas we have lower impact of religiosity people are more secular. People belong into different religions live together in the same locality, same apartments. So, they are secular and their belief in supernatural is less. There is greater impact of globalization, individualization and secularization, greater reach of mass media, better infrastructure, roads, electricity, water supply and they are close to seat of power.

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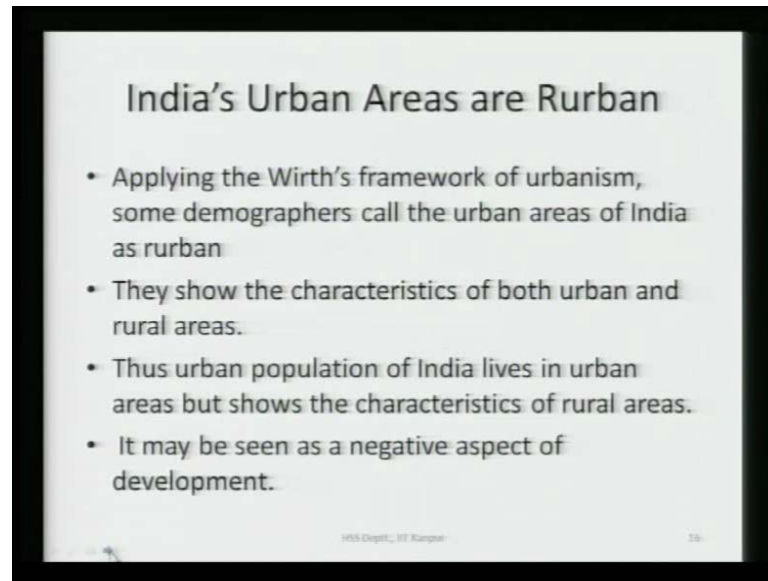
However, these days some sociologists are making a cliché that in India we should promote what they call rurbanism. Applying the worst framework of urbanism some demographers call the urban areas of India as rurban that was in a negative sense initially. When I was a student of population studies, I used this term rurban in a pejorative sense, that the quality of urban population in India is so low, and urban areas are marked by many parts of urban areas are marked by illiteracy, poor health, slums, high mortality, high morbidity, crime, violence, lack of amenities of all kinds that they cannot be really called urban. They are more of rurban type; rurban was used in a pejorative sense.

But, today rurban is being used in a positive sense. That perhaps the future of India lies with rurbans not with urban areas or not with rural area. These rurbans would show the characteristics of both urban and rural areas. I read in newspaper that some software companies established their units in remote rural areas of Haryana and the purpose was that for doing routine kinds of thing for which much education, much training is not required, just literate or primary pass women can also do that kind of coding if some training is provided to them two months, three months training.

So, the company is benefited in the sense that for the work for which company had to pay say 25000 rupees per month to someone in Bangalore. The same work gets done by rural women who are given 3 to 5000 rupees per month and the rural area also develops.

When the average income of rural areas goes up, because these literate or just primary pass, elementary education pass women can be given employment in software industry like this.

Then, due to forward and backward linkages of economics, the standard of living and the whole rural economy benefits, and then the village acquire the character of rurban. Urban areas can acquire character of rurban, rural areas can also acquire character of rurban mixed dual. It may be seen as a negative aspect of development.

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- For other sociologists, however, rurbanism is not necessarily bad.
- It may be seen as a positive concept which shows an emerging integration of rural and urban communities with respect to principles and practices governing land use, energy, transportation, governance, and all aspects of economic, ecological, and social development.
- Indiresan (2008) argues that rurbanisation is a solution to India's development problems.

But it may also be seen as a positive aspect of development. It shows as a positive concept it shows an emerging integration of rural and urban communities with respect to principles and practices governing, land use, energy, transportation, governance and all aspects of economic ecological and social development.

When I go for fieldwork to different states one say Haryana another to Bihar, I find that villages of Haryana, if you with the term village for villages of Bihar, then villages of Haryana or villages of Punjab cannot be called villages, they must be called rurbans house, schools, temples, roads and in amenities and facilities, in quality of housing schooling they are much better than the villages of Bihar's. So, they are better rurban. Indiresan argues the rurbanisation is a solution to India's development problems which is leading to say concentration or centralization of economic and political power. So, this is about the concept of urbanization.

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Now, we will little bit talk about measurements of urbanization, because later on when you are reading literature on urbanization, you will come across these terms and you must be clear about uses of these terms. Urbanization is measured in terms of level or sometimes called degree of urbanization. These words are used inter changeably level of urbanization and degree of urbanization, and there is another concept of speed of urbanization. Level of urbanization is defined as the percentage of total population of an area, country, state, region, district or block that is living in localities which are defined as urban. All countries classify locality into urban and rural and collect data on their population. Thus, level of urbanization is urban population divided by total population into 100.
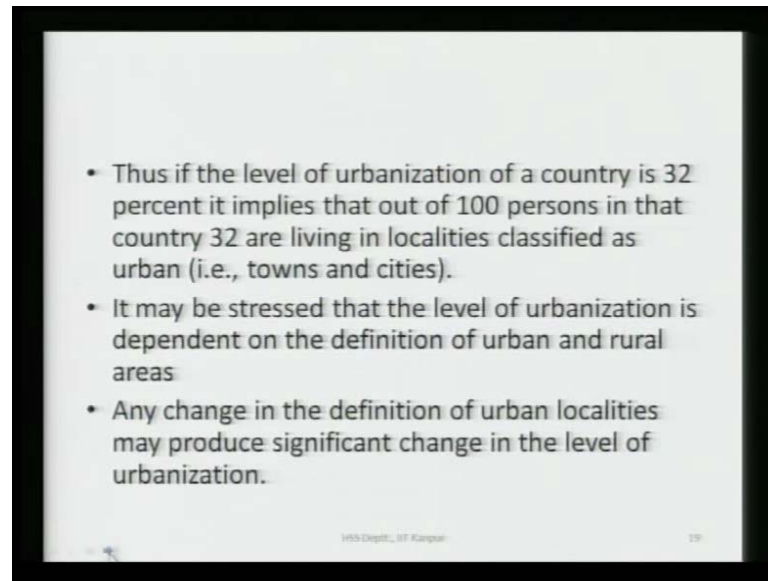
- Thus if the level of urbanization of a country is 32 percent it implies that out of 100 persons in that country 32 are living in localities classified as urban (i.e., towns and cities).
- It may be stressed that the level of urbanization is dependent on the definition of urban and rural areas
- Any change in the definition of urban localities may produce significant change in the level of urbanization.

Thus, if the level of urbanization of a country is 32 percent, it implies that out of 100 persons in that country 32 are living in localities which are classified as urban. They may be large cities or they may be medium or small size or tiny. In 2001, the level of urbanization in India was 27 point something percent which means, out of every 100 persons in India, 27 persons were living in those localities which had local seat of administration or were size was more than 5000 or density of population was more than 1000 per square mile or 75 percent of main workers among males were engaged in non agricultural activities. It may be said that the level of urbanization is dependent on the definition of urban and rural. This I have already said. Any change in the definition of urban localities may produce corresponding change in the level.

- Speed of urbanization during a given period is defined as percentage change (per year) in the level of urbanization.
- Thus the speed of urbanization during 1991-2001 may be calculated as follows:

SPEED OF URBANIZATION, 1991-2001 = ((DIFFERENCE IN THE LEVELS OF URBANIZATION DURING 1991-2001)/ LEVEL OF URBANIZATION IN 1991)*100/10

Now, speed of urbanization during a given period is defined as percentage change in the level of urbanization. It tells us how fast is the process of urbanization, how fast is the level or degree of urbanization changing. Thus, the speed of urbanization during 1991 to 2001 may be calculated as degree of urbanization in 2001, minus degree of urbanization in 1991, divided by degree of urbanization in 1991, and it can be expressed in percentage form. If you want annual speed, then this whole thing can be divided by 10, so this formula.

- Since level of urbanization can vary from zero to 100 only as the level of urbanization increases the potential to urbanize faster decreases.
- In this context, to compare speed of urbanization between countries at different levels of urbanization urban-rural ratio may be a better measure than the level of urbanization.
- Its limits are from 0 to ∞.

I think the speed of urbanization in India during 1991 to 2001 was around 0.8 percent; that means, every year level of urbanization in India was changing by 0.8 percent. Since, level of urbanization can vary from 0 to 100 only as the level of urbanization increases the potential to urbanize faster decreases. So, we do not expect two countries one country at 20 percent level of urbanization; another country at 80 percent level of urbanization to be urbanizing at similar speeds.

In this context to compare speed of urbanization between countries at different levels of urbanization, urban rural ratio may be a better measure than the level of urbanization, because its limits go from 0 to infinity. It is like in statistics when you are dealing with binary variables or dichotomous variables as dependent variables or probability is as dependent variables, they are better converted into probit or log it modes first, and then multiple regression analysis is applied. So that we remain within the domain of possibilities otherwise practically urbanization cannot be negative, it cannot be more than hundred percent. And, if we use this percentage urban as the dependent variable, then your predictive equations can sometime cross these limits.

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Other measures are Davis's Kingsley Davis, our famous sociologist, human society. He defines urbanization like sigma P i square by P, where P i is the urban population living in towns or cities of certain size and above and P is the total population of the country like population in 5000 plus 10000 plus 20000 plus 50000 plus 100000 plus; they are

added and then divided by P. What is this formula doing? This formula, you see this 100000 is present in 50000 plus in 20000 plus in 10000 plus and also in 5000 plus. So, this formula is giving more importance to larger cities and towns and lesser importance to smaller town. Assuming that bigger cities or bigger towns show a higher level of urbanization greater concentration of population then medium size or smaller size towns, this formula seems to be a better measure of degree of urbanization in the country.

There is another concept which is not commonly used that is Arriaga's index of average city size. He makes use of the idea of probability that imagine that you draw a person randomly from any locality in the country and calculate or estimate, what is the average city size of that probability distribution of size of cities or towns or localities from which this randomly selected person comes. You will find that the value of estimated city size is sigma C i square by sigma C i and this is Arriaga's index of urbanization.

The basic idea behind Arriaga's index is similar to the idea behind Davis's index of urbanization. Both of them are giving more importance to bigger cities in Davis's model by adding population of bigger cities more number of times and here in Arriaga's index, they get more importance because their population is squared, and then added.

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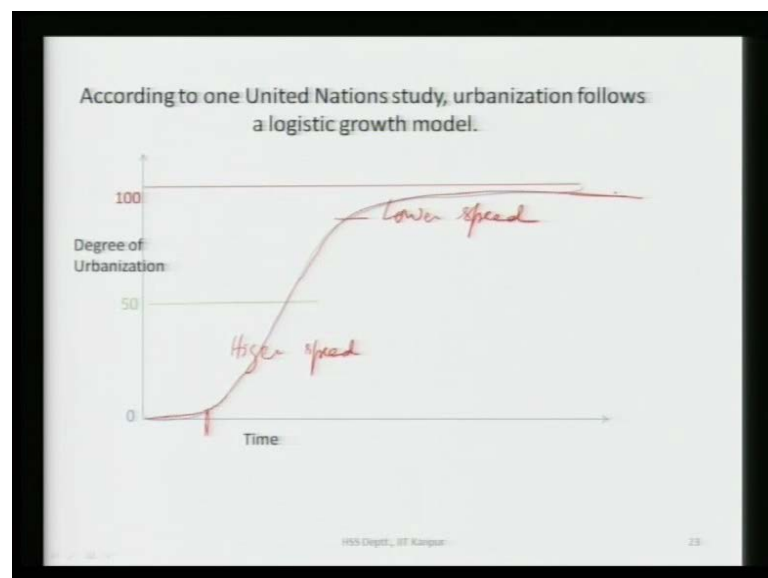
According to United Nations study sometimes in 1970s, United Nations published a manual called manual 8 and in that manual they developed the idea of logistic growth model. This is logistic growth model. You see in this logistic growth model initially,

when urbanization is low; here urbanization is 0. When urbanization is low, it is growing at a very slow pace and as time passes and a certain level of urbanization is this then degree of urbanization starts increasing at a faster rate, means there is higher speed of urbanization. This is the time when there is higher speed of urbanization. Urbanization is growing and it continues to grow.

Then a time comes beyond which urbanization is growing, but the level of urbanization now grows at lower speed. So level of urbanization is growing, but the speed has fallen. So your level of urbanization is constantly growing and saturating at some point which may be close to 100. No one country will perhaps at the present state of knowledge we can say that, no country will perhaps reach 100 percent urban, we do need agricultural and rural population. And in practically also, me rural population will remain in all countries, we cannot imagine a situation in which the whole population is living in large cities.

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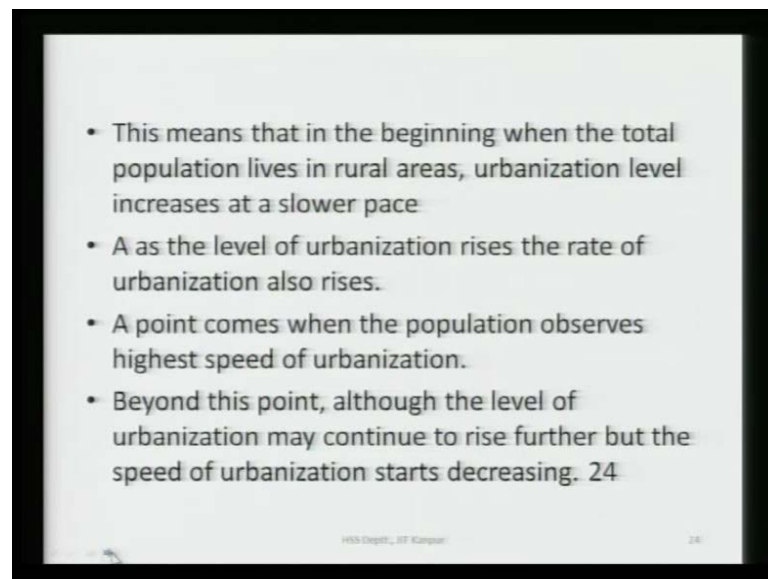
So close to 80 percent, 90 percent somewhere here the logistic growth model saturates. This means that in the beginning of urbanization level increases at slower pace than a faster pace and a point comes when population observes highest speed of urbanization beyond this point. Although, the level of urbanization may continue to rise further, but the speed of urbanization starts declining.

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At some level below 100 percent urbanization stops. Interestingly, this logistic model also gives rise to a formula and a method called URGD method, which could be used for projections or predictions of urban population. Imagine that population of urban areas is growing at rate u exponential rate u, and rural population is growing at rate r. Then, one can easily write that population of urban areas at time t U t is U 0 initial urban population e raised for U t, and total population of the country is urban plus total, this part shows urban and this rural at time t.

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From this formula, you get U t by T means level of urbanization at time t is 1 upon 1 plus e raised power minus dt, where d is the difference in growth rates of urban and rural population and this gives us a logistic growth model. Like tables of normal distribution, Poisson distribution binomial model, like life expectancies models with which you are more familiar, United Nations also produced tables of this logistic growth model for different values of d's. So, if you know d or if you can assume d for the future, then you can easily make use of those tables and predict, what will be the level of urbanization in the country 10 years from now, 20 years from now and so on.

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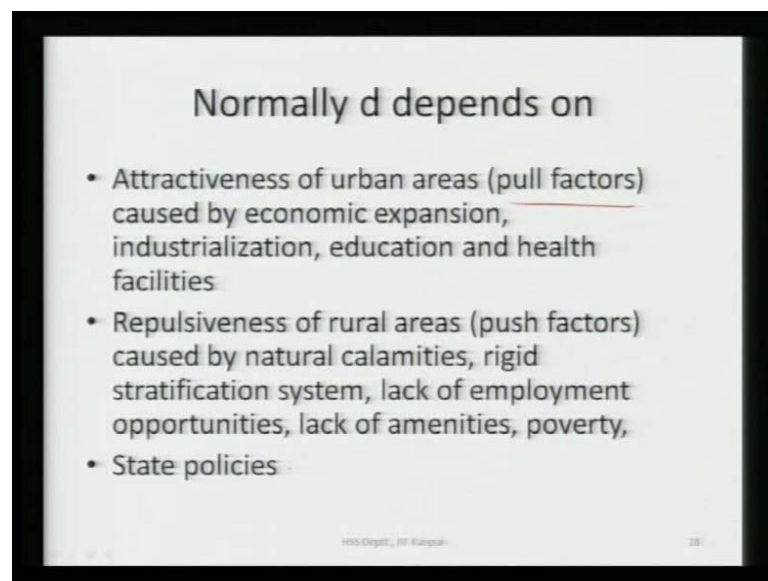
Here a question arises on what factors, what socio economic factors urbanization depends? It depends on attractiveness of urban areas what we call pull factors, which is caused by economic expansion, industrialization, education and health, repulsiveness of rural areas which may be called push factors caused by natural calamities, rigid stratification system, caste system as in our country, lack of employment and lack of amenities and poverty, also state policies. In the next lecture, we will focus on urban trends in India.
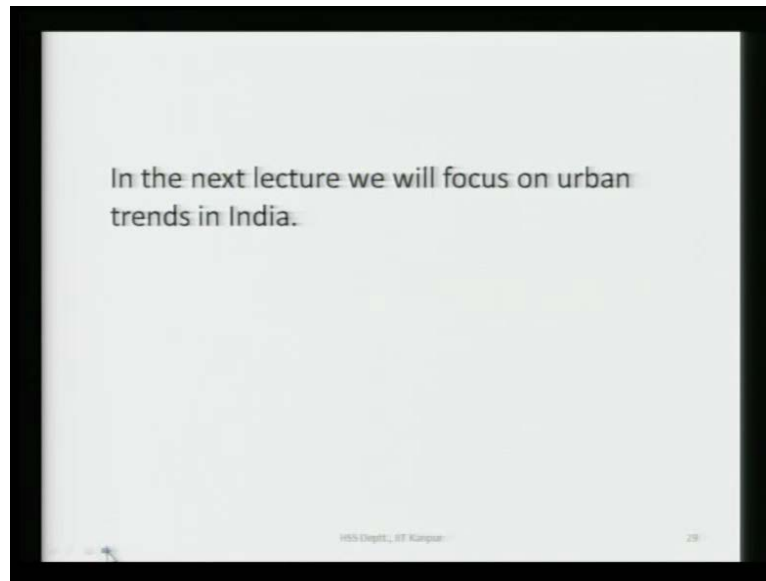
So, I hope this presentation what we have been able to do today is what is the definition of urban locality in India census, how is urbanization defined demographically and sociologically, how level of urbanization measurement can be improved further by giving more weight age to larger cities urban, agglomerations or bigger towns than medium size or smaller or tiny towns. And then for projections of urban population, you can use logistic growth model, because urban level cannot be expected to grow indefinitely. It grows initially it grows at a small speed, then as urbanization level becomes higher, then the speed increases. Then comes a time may be at 50 percent or 60 percent sometime a time comes when urbanization is increasing, but the speed of urbanization has slow down. And eventually, at some point of time it is stagnates and so the urbanization level may show some kind of logistic growth model.

Logistic growth model also has a mathematical logic behind it as shown by United Nations that populations urban and rural are growing exponentially and the difference between urban and rural growth rates d is fixed than u t by T t follows a logistic model. I am sure that you have lots of questions in your mind or comments or maybe you can add something to what I have said on the basis of your readings of sociology anthropology.

Sir, I have a clarification like you talked about the increasing urban population and urbanization. So, what is the difference of rate of growth between urban population and rural population and with like with each census is it widening, the gap is widening?

, you see as you have seen in the earlier lectures, growth of population of a locality depends on fertility, mortality and migration. Difference between birth rate and death rate is called natural growth rate. In urban areas birth rates are lower, death rates are also lower, but because the differences in death rates are rather small and differences in birth rates are more, urban areas have lower and much lower birth rates in India than the rural areas. So, the natural growth of urban areas is usually smaller than the natural growth rate of rural areas.

For India as a whole, our natural growth rate is 1.5 SRS 2009 bulletin showing growth rate for 2008 gives a natural growth rate of 1.5. Natural growth rate of urban areas would be much smaller than this. They also give natural growth rates of urban area and natural growth rate of rural areas is somewhat higher than 1.56, that is because of greater difference between birth. But otherwise, if we just look at the overall growth rate actual growth rate of towns and rural area then while mostly the rural areas are growing at 1.6, 1.7, 1.8 percent per year. Several cities and towns are growing at rate 3 percent, 4 percent and that is because of the share of rural to urban migration.

In different countries, there are different shares of natural increase and migration. But in India, I have seen in several studies that contribution of migration is almost as much as those of natural increase. So, if a town is growing at say 4 percent rate per year, then roughly in the past, if it was growing at 4 percent per year, then it was 2 percent due to natural increase birth rate minus death rate and 2 percent due to migration rural to urban migration. Now that according to SRS 2009, our natural growth rate has fallen. So, with the similar rate of migration then the overall growth rate of cities will also fall. So, a city which earlier showed a growth rate of say 4 percent, if migration rate remain same then in place of growing at 4 percent, I expect it to grow at rate say 3.5 percent. So, it depends on both natural increase and migration.

What would you call like academic institutions or steel factories in the rural areas and their population is all most like more than that 7000 or 10000, this is also called urbanization?

Normally, they may be located in rural areas, but normally in these industrial plants are located close to some city, some big city, and some large city. If there at the periphery of a large city, like main industrial units are located in the peri urban area of Kanpur, in

Manthanachaubepur which are outside the urban limits, which are in rural areas, but they are very close to city of Kanpur. All practical purposes you can call them peri urban or suburban, then they become part of urban agglomeration of Kanpur. But if there is an industrial unite in very remote area remote rural area.

Plants.

Some steel plants, then we then a new township comes and that township will have a new name and a locality with that new name may be independently classified as urban or sometime if the plant is very small, then it can even be part of the rural area. If for administrative purposes that locality in which the unity is located is part of some gram panchayat. So, if it is part of gram panchayat, then that then it is part of rural area. But if it has produced a new urban locality, then it becomes urban and if it is close to a city, then it becomes part of urban agglomeration. So it depends on the location and surroundings.

Sir, do you agree with Indiresan when he says rurbanisaton is the solution to India's problems?

Yeah, Rurbanisation yes, because we cannot expect India to have that high level of urbanization as some European countries have you know. Broadly, we are now in a position that we have just a few years back we have crossed 50 percent marks. So, world is more than 50 percent urban now was at just 50 percent slightly more. The European countries are highly urban 70 percent, 80 percent, 85 percent and the countries of Asia, Africa, some countries of Latin America are less urbanized.

We cannot imagine that all countries of the world Africa, Asia, south Asia, they will also be 80 percent urban. So, what as professor Indiresan says that what we have to do that in place of converting rural areas into urban areas, it is better to provide urban type amenities in rural population. Already in some state this has been done in Kerala. In Kerala, technically we have a difference between urban and rural locality, but in rural localities also you have house, in rural localities also you have televisions, refrigerators, sofa set, schools, colleges in roads everything.

So, in terms of amenity... And you see interestingly, if urban areas are defined in terms of amenities, then what we call rural in the context of Kerala that rural is only

demographically rural. Otherwise, in terms of amenities rural has already become urban. So, you can say that in terms of amenities Kerala is 100 percent urban, but demographically because you make a distinction so differences in levels remain. In India, we cannot imagine a situation of 80 percent urban, we can just provide for urban amenities in rural areas and also diversify our economy so that wherever possible small plants or we can have expansion of certain service sectors, education, health; we can provide all health facilities at say p s c level, sub centre level as much as possible.

Lots of the things have been done in recent past under National Rural Health Mission and more of these you cannot have super facility in each village, but most health facilities which are needed by ordinary people can be provided at p s c, c s c level and in that sense, we will have more of rurbans. So, I am not using rurban in negative sense in which it was you say 30 years back, we are using I am using rurban in the sense in which professor Indiresan use this in the context of planning for urban and rural area that it is a mixture of urban and rural population and mixture of amenities.

Sir, I have two doubts. Sir, regarding the definition of urban area one of the character feature is the density of populations more than 400.

==Yes==.

That the population density in India, the national I think it is around 325. By the definition by that is the population density of 400 actually itself by the definition itself trying to excludes the major area, the major large part of India from the categories of the from the categories definition of urban because you know the national.

No, there is some communication. You see, this we cannot compare density of urban locality with density of India, because this density of India includes forest, agricultural farms, ponds, rivers, hills, everything. When we refer to density of urban locality, we refer to density of a continuous collection of houses where people are living, it is a residential area not the total area. For calculating density of population we will consider only habituated area habitation if you will consider only habitations, you will not include in the denominator, size of agricultural farms or forest or ponds or rivers or canals or else.

Economics regarding the characteristics of urban area it is one of mention that that religiosity and supernatural belief. I do not know how he define the religiosity, because the reason that in the urban area log religiosity itself, but almost all the communal tension and communal rights are occurring urban area. So, I do not know how we define the religiosity can see the religiosity of urban area as using rural area, but he should define what he is.

<mark>Yeah</mark>, This is interesting question and it is very much expected from a student of sociology; I am more trained in demography not in sociology. But you see secularization has been defined in several ways in the western context secularization meant fall in religiosity. Then, secularization in sociology is defined in the context of increasing autonomy of different institutions of society and lessening of dependence of other institution family, marriage, economic and political institutions on religious institution.

And third thing in our country, we define secularism in the sense that state will not discriminate against people on the basis of communal or religious identity. So, urban in certain senses, urban areas of India are certainly more secular. You find that in the same uh multistoried building Hindus, Muslims, Christians, high caste, low caste, South Indians, North Indians are living and they are living peacefully. They have good neighborly relations or no relations, so they are secular. And their practices rituals religious activities you know or neighborhood activities are all governed by secular consideration they are secular.

And this is also true that because of education and modernization, westernization, media impact. The impact of religion on urban population is also declining, but you are right that if there is increasing communal tension in the country, then it is first certain cities you can identify certain cities of the country where which are the sources of communal tension in the country. You know, you can identify them easily in UP, in Gujarat, in Madhyapradesh, in everywhere there are some cities.

But there it will not be demographic answer again a sociological answer can lead to satisfactory answer to that problem, that is because of religion getting converted from a system of supernatural beliefs into identity, political identity and if you have more communal riots in cities that is because communal identity or religious identity is being

asserted in the political error, not because of increase in supernatural belief. Thank you sir.

Thank you.