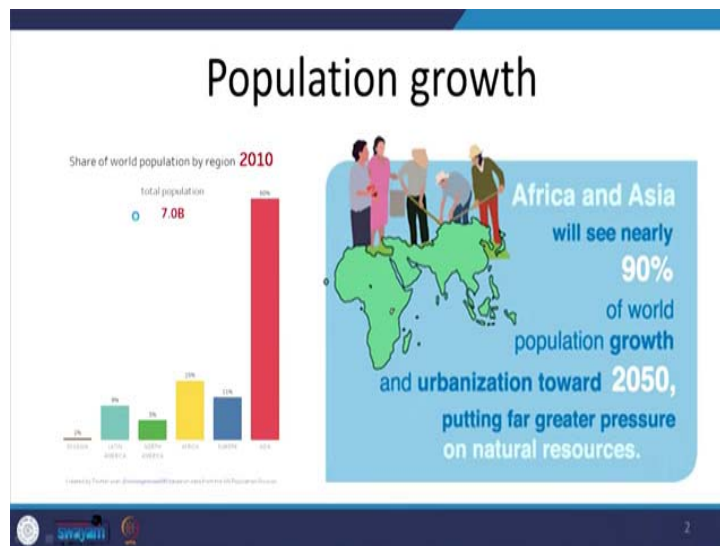


Sustainable Architecture
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Indian Institute of Technology, Roorkee

Lecture- 08
Social and Economic impacts of Development

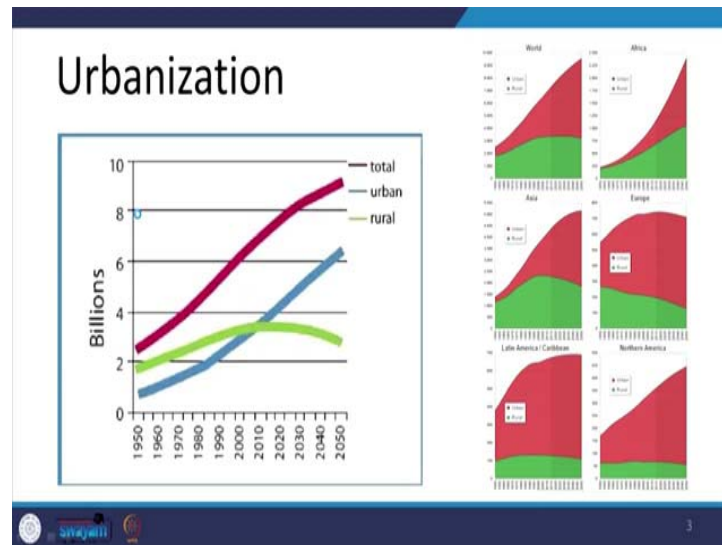
Good morning, welcome to the online course on Sustainable Architecture; I am your instructor Dr. Avlokita Agrawal, Assistant Professor at Department of Architecture and Planning IIT, Roorkee. In the previous three lectures, we have seen the impacts of built environment and development on the elements of nature; that is water, land and air. In today's lecture, we would see how the changes which have been inflicted upon natural environment or what is the impacts of built environment and the impacts on natural environment have on the social and cultural well being of human beings?

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If we look at the historic data of population growth and also look at the forecasts as shown on the screen; we see that the overall world population is increasing at a very first pachase. And it is estimated, it is projected that the population growth of Africa and Asia will be almost 90 percent of the total population growth in the world and urbanization by 2050, which implies it would be putting a much more pressure on natural resources.

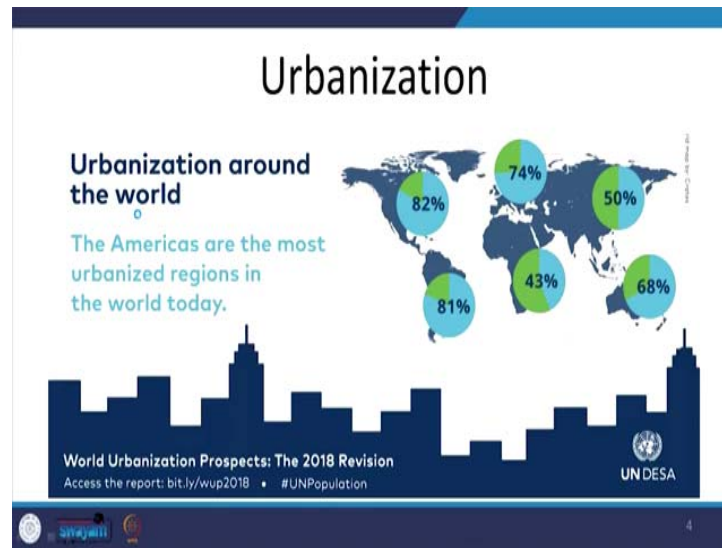
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Out of this overall population growth, if we see the percentage share of urban ~~population~~ population, we see it to be increasing steeply.

The rural population out of the total population would be on a decline in the years to come and there will be more and more concentration of people in the urban areas. Our urban areas as we have already seen are relying under the pressure of this population, they are not able to cope up, they are not able to manage their resources, the consumption the way it is going right now and in the time to come; this pressure is going to increase, as the world is gradually becoming more and more urbanized.

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If we look at the America, it is already more than 80 percent urbanized; while if we look at Asia and Africa, it is around 50 percent urbanized.

We are looking at greater concentration of population in these two continents and we are also looking at an increased urbanization in these two continents. We already know the kind of dismal situation that we have in Asia of which we are part. If we are becoming more and more urbanized towards 2050; we are going to face severe crisis of resources as an estimate which has been ~~put by~~; put up by world agencies only one third of the built stock in India has been constructed as of you now.

Around 60 percent of the built stock is yet to come up in the time, which implies that more and more buildings will be built; more and more urban areas will be created. We already are seeing a shortage of forests per ~~capita~~; capita; we are already seeing a shortage of water, clean air, land, cultivable land for feeding this existing population; what would the projected population do to us? Now, that is just an estimate of how the world is going to be and majority of the ~~seeio-cultural~~ socio-cultural problems are because of the settlements becoming larger in size and more and more urbanized.

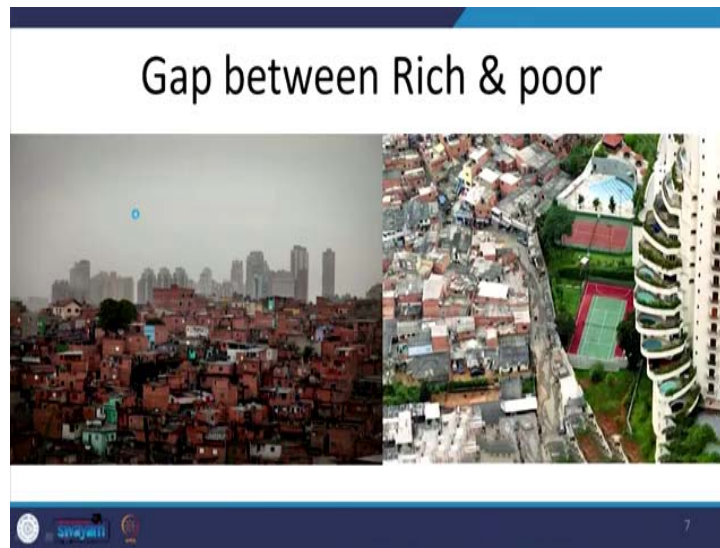
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If we look at the problems socio cultural problems of urbanization, the first and the most severe problem is the gap which is increasing between the rich and the poor. Because of flocking of people of all types of all skill sets of all characteristics in one center urban center; this gap is going to increase further.

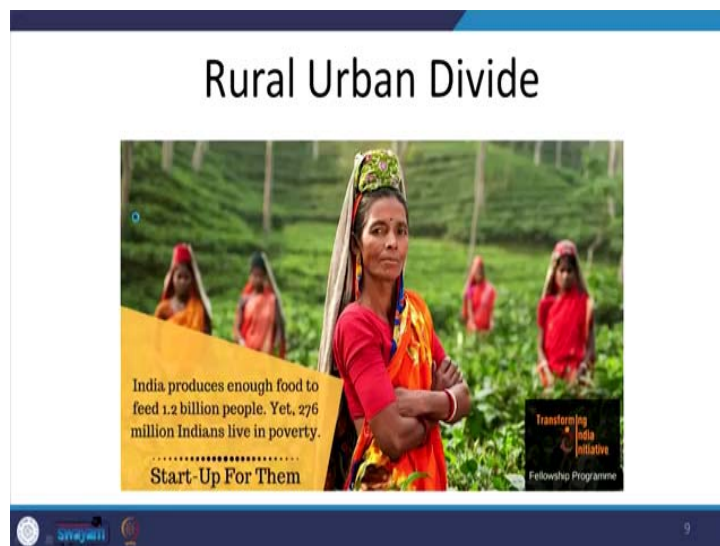
There are people who possessed certain skill set for example, farming, but they come to an urban center in search for a better employment and they do not get paid enough; they become poorer. While there is other class which is becoming richer because it has adapted; the class has adapted or has developed the skill set, this gap is divided between the rich and the poor is evident across the world in urban centers.

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I am not talking about the developed countries where the large part of the population has crossed that threshold, but I am talking about largely the developing nations; such scenarios are quite common. There is a larger population which is deprived of the resources, while the some few select few consume excessively high amount of resources for their survival.

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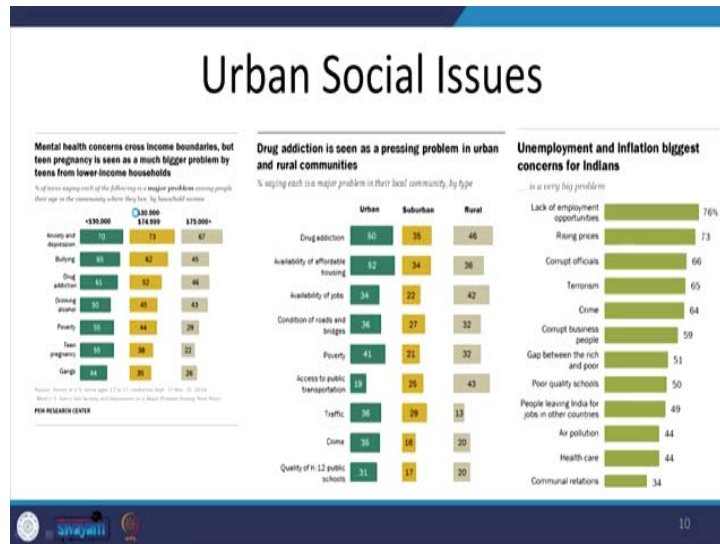


Besides this urban and poor divide there is also ~~an~~ rural urban divide because more and more urban areas; there is a greater focus on development of urban areas than equipping the rural areas with the same facilities.

For example, health, education specially in a country like ours we have very poor facilities for education of children and for health; rural areas are totally deprived of that this these two together the gap between the rich poor and this divide between rural and urban leads to many more social problems. For example, an increased rate of ~~crime~~ crime; there is an increased rate of crime simply because there are few who have accumulated a lot of resources, while there are other few who have no access to these resources.

So, the crime rate has been on rise across the world primarily because of this reason.

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There are many other urban social issues; these issues are because of the way our cities are growing. One very basic reason being the cities are much larger they are so big not people do not associate or connect with other individuals or the people living around them. Now, humans are social animals by their existence.

Now, if we do not socialize that is when a lot of social problems begin to arise. As compared to that let us look at ~~us~~ let us compare our bigger urban centers with the rural settlements which are small in size and are also more connected where the society is

more connected. In a rural area, people were more connected, people knew everybody knew each other and by virtue of that they took care of each other for their social needs; for their at times their economic needs.

While in an urban area we are not bothered about what the other person is going through; that is causing anxiety and depression in majority of the people because we are not able to socialize, we are not able to express ourselves, we vent our anxieties out and that is why a greater population percentage of population in urban areas is depressed; they bear anxiety and depression. There is bullying because people do not know each other, they do not sympathize with each other, they do not have the fear of being scolded or caught by other people for misbehaving; that is why bullying which further leads to anxiety and depression.

Anxiety and depression further leads to addictions; drug addiction amongst teenagers, children, grownups; people look towards drug addiction and alcoholism as a way of escaping the anxiety and depression though it is not, but it is often sought as a way out of depression and anxiety. So, there is a greater percentage of population which is becoming addicted to drugs and alcohol; larger in urban areas and lesser in rural areas because there is a check.

Because of the disconnect between family members themselves because of nuclear families becoming more promoted, more pronounced in urban areas as children move to urban areas and the elderly parents are left behind in the rural areas or ancestral homes. There are problems of elderly not being properly taken care of and also of an increasing rate of crime against elderly because they are not attended.

In our traditional Indian society, the concept of joint families was there, where children, their parents, their grandparents would all stay together and complement the home in some way or the other; while they take care of each other's need, they take care of the household as such. In today's times, in urban areas the children are being neglected, there is an increasing rate of crime against children. While in a traditional society, we had elderly taking care of children and vice versa both were taken care of; there was hardly any rate of crime against elderly and children.

The society was a ~~small-scale~~small-scale society; so everybody knew what who the other person is and if anybody would see anything wrong happening against somebody, people

were cautious; they would immediately notice and raise an alarm. In today's times, it hardly happens because I do not know who the other person is and that is why we see a greater rate of crime against elderly and children and also women; all these three being relatively soft ~~targets~~; targets; they are physically weak relatively.

I am not saying that they are weak, but by nature they are more prone to be overpowered by bullying people. So, we see an increasing rate of crime against women in urban areas; in urban centers. This is simply by virtue of the planning by virtue of the urban design; the design of our cities, the design of our urban areas. We also see a lot of increase in the health problems; in cities in urban areas.

Besides anxiety and depression, we see more and more of hypertension related problems on the rise in urban areas. Hypertension which includes high blood pressure, diabetes; these are on the rise because of stresses which people undergo on a daily basis; that is a social problem it to large extent; if you talk to doctors, if you talk; if you look at the reasons which actually cause these it the primary reason is stress.

And lot of these stresses can be taken off if the society is a well organized and connected society, if we live if we are more ~~soeial~~social, we are likely to be happier and having lesser of these stresses and then lesser of these health problems which are far more pronounced increased in urban areas.

One significant problem that we have in urban areas is of postpartum depression in mothers. When women become mothers, they are already; they undergo a lot of biological changes in their bodies. Along with that, they undergo a lot of social change in their lives because there is a new member to be taken care of and often women would undergo depression because they have a lot of increased responsibility, but nobody to talk to nobody to share around them.


However, that never happened in traditional societies because people were always around each other; that is what human beings are social animals need. So, more and more women are getting into postpartum depressions because of these that is specially in the urban areas, urban centers. Such are the psychological problems besides the health problems as we have seen from the impacts of air on human well being and health; all these social problems are further resulting in economic problems.

So, there is an increased cost of welfare more and more medicare; medical facilities are needed for the same population because people are unhealthy, people are not fit. Besides the increasing costs of medical facilities, it also impacts the economy because they are poor performers. There are more hours of absence from the work, there is a reduced productivity, people work lesser in their offices in at their workplaces; all this eventually lead-ing to an economy loss a loss of economy.

Because of urban areas getting crowded and there are infrastructural problems, the access to basic needs is not there.

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Access to Basic Needs



Today, more than 1 billion people don't have access to improved water supply, and 2.4 billion lack access to improved sanitation

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People do not have access to clean drinking water and hygienic sanitation facilities even within the urban areas. Some people have the access to the best of facilities while some have none; this is because of the increased tremendous pressure on the natural resources in urban areas.

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Access to Health



Despite undoubted health advances in many areas, poor health continues to be a constraint for development efforts

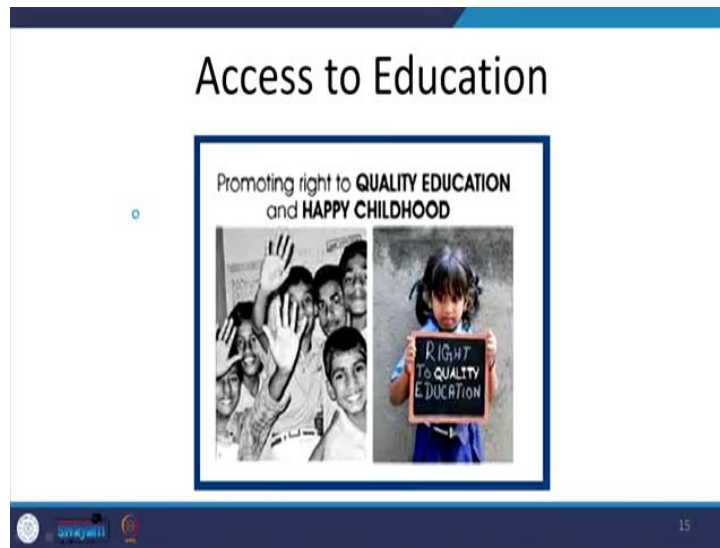
About 400 million lack healthcare worldwide

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There is a weak access to health despite a lot of hospitals and clinics being available in the cities, the access to healthcare facilities is not there for everyone because it comes at a price.

And the population is so much, the concentration of population in urban centers is so high that even the subsidized and government provided healthcare is not enough to cater to the needs of this entire population. Though reforms are happening, changes are happening yet; if the urban areas continue to grow like that, if the built environment continues to grow like that I am not just talking about large urban areas but the smaller towns which are becoming more and more urbanized the same problems will start creeping in these tier II, tier III cities as well; they have already started happening.

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The access to education because of the high concentration population again it is difficult for the government to provide access to good education to all the children in the cities; again because of the concentration of population.

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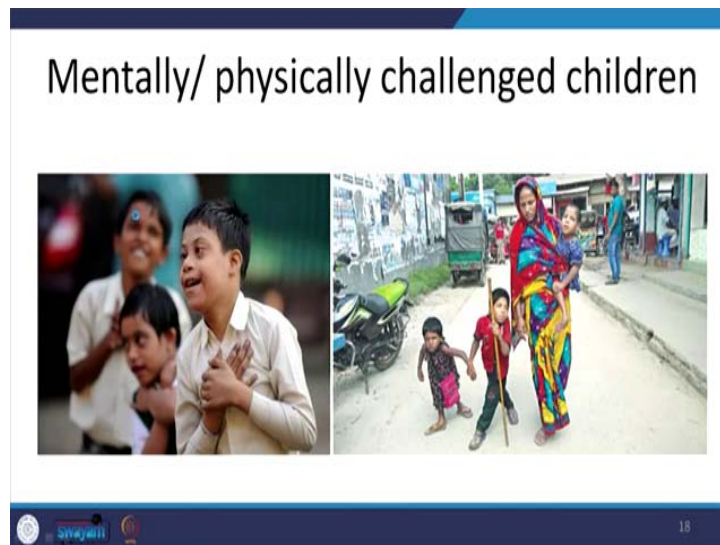
Gender equality because women and women are the softer targets, there is an increased crime and inequality against women that is more pronounced by virtue of the scale of settlement.

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We have more and more children being dragged into child labor simply because the families cannot feed, they cannot sustainably survive because of the lack of employment opportunities which are unfortunately amply available in villages, if proper promotion to agriculture and certain skills is given to them.

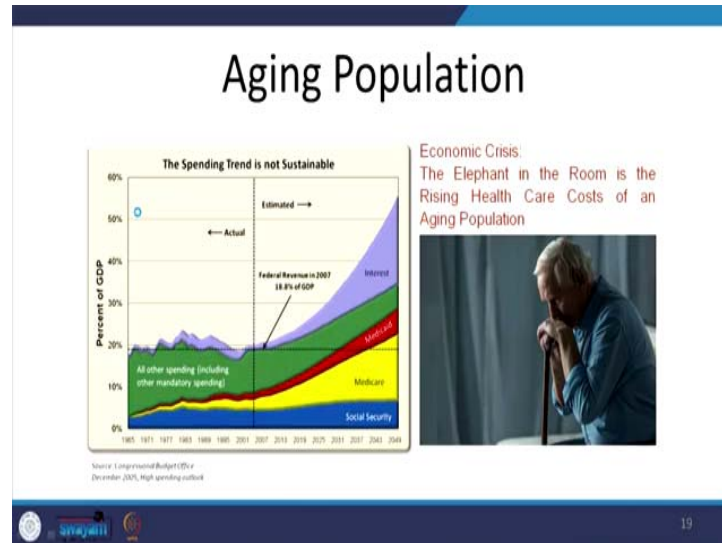
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We have more number of children who are mentally and physically challenged; this percentage is growing and it is because of the pollution to which the unborn children are subjected to. Because of this contamination and pollution, there are more children who

are growing to become mentally or physically challenged; this is a direct economy loss. A lot of health care investment, health care facilities and investment or expenditure towards taking care of such children goes in and that is a direct loss to the economy.

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There is an increasing percentage of aging population who is subjected to crime that is all for this lecture. In the next lecture, through the impacts that we have established on natural environment and on the humankind; the sociocultural problems impacts, we would establish the need for sustainability in built environment or in architecture.

So, far we have been talking about sustainability and sustainable development distinctly and these impacts distinctly. In the next lecture, we would try to connect these two aspects and then see how we can develop or why do we need to develop our built environment in such a manner, where people live happily, healthily and sustainably. See you in the next lecture.

Thank you.