UN SDGs: 17 goals to transform our world

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Module 33

Summary

Hello everyone. I welcome you all to this last and 33rd module of the course of UN SDGs which is going to be the summary of this course.

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So as you can see, in this illustration, which is beautifully depicting the extent of human intervention on the planet. So roughly around a few 1000 BC's. If you see this first one talks about the quality of fence, keeps out giraffes and the lions and the elephants and the other animals and used to be first a small protective area which started slowly growing and growing and has grown so much that rest of the all other species are now confined to a very small area region or place and rest where not humans are present today. That actually shows the extent of human intervention on the planet which has caused all of these issues and we are discussing about UN SDGS, how to go back?

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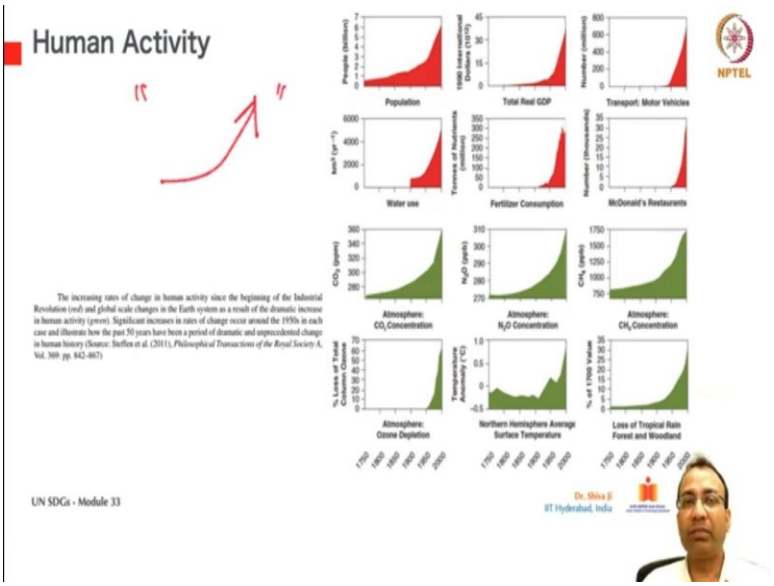

So, overall in summation, if you see this table represents human activity. Human activities of population, total real GDP, number of motor vehicles, water consumption, fertilizer consumption, even some fast food restaurants and CO2 concentration in the atmosphere, how much it has increased over the years N2O, CH4 ozone depletion, Northern Hemisphere average surface temperature, how much it is disturbed, how much it is rising, loss of foreign race, tropical rain and rainforests and woodlands over the years.

So in all of these graphs, if you see the human activity is directly responsible for this sudden exponential rise and can be termed as one of the largest interventions and on all of these millions and billions of years in the history of this planet that one species has dominated so much.

So if you read this, the increasing rate of change in human activity since the beginning of the industrial revolution, these reds and global scale changes in the Earth's system as a result of dramatic increase in human activities, these greens, significant increase in rates of change occur around 1950s in each case and illustrate how the past 50 years have been a period of dramatic and unprecedented change in human history. So it sums up basically, the larger and larger the human footprint is getting on this planet.

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In the name of development lot of not so desirable things have also happened and are happening even today. So this illustration depicts that.

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A visual is stronger than a 1000 words. That is why I am using these in the beginning of this summary module so that we can convey our thought process is very clearly.

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Next in this line if you see we have just experienced covid-19, this pandemic and this has actually brought so much of a disturbance havoc on this planet but there are many more things which can bring even bigger havocs for the society, for the human society at large, namely recession and even bigger than could be climate change and even bigger than that this huge gigantic tsunami of destruction could be if we lose on the biodiversity which is directly connected to climate change which is directly connected to the human intervention, human activities.

Well by human of course it kind of encompasses all the humans of all societies, all cultures, all countries but particularly that is not true. If you see the tribespeople, the other local cultures which are still thriving in the sink of nature at their own place. Perhaps, definitely, they are not responsible, but others are.

So in the previous modules, we have identified, we have seen, we have analysed which of the societies, which are the countries, which have contributed, to this phenomenon. They must actually change their way. So by human intervention definitely, there should be, a star that it does not represents all the humans even though we are terming it but that is not the case.

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So, some more glimpses of changes occurring in various domains, various things. So, if you see laws of nature, they do not care whether it is you, me or anybody else. Similarly, if they get rise in their exponential rate, they are not going to care which country, which society, or which group of people it is hitting. That is why it is a common problem and yeah, a directionless movement where nobody cares about where we are driving. We are going to hit together a dead end. That is not desirable. Similarly, all of these 9 illustrations actually, talk about different stakes, different statements, how this can be controlled.

What is the current scenario? In the central one, if you see, it is said that in the year 2014, there used be 1 man-made article lying somewhere in the oceans compared to the 5 aquatic animals. It is going to increase to 1 is to 1 ratio by year 2050. That is the pace at which a waste generation is happening.

So this is what we are talking about and the cost to fix the climate change and when to stop is right now right at this moment, wherever in whichever position you are, whatever you are doing immediately, everyone should start behaving in a responsible way. And see another one here. The Stone Age did not end because we ran out of stone and you see this modern person coughing in the smoke and about waste, about other economic phenomena.

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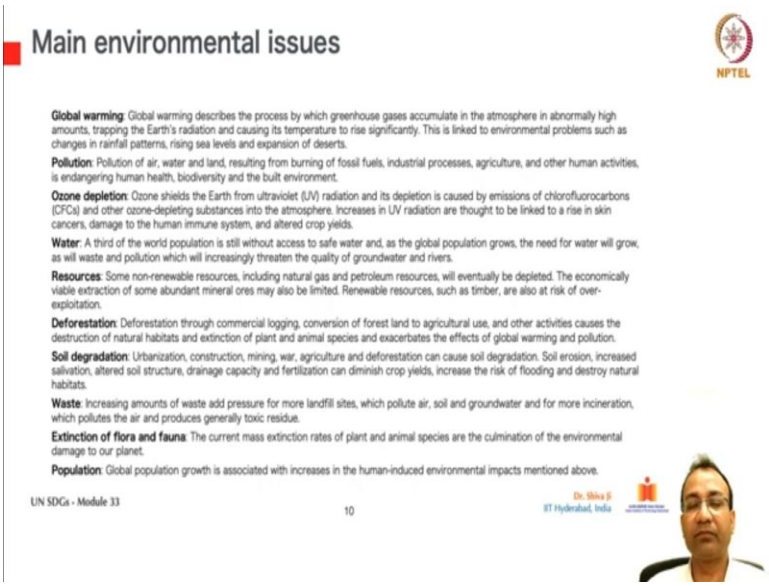

So in a nutshell, if you see what are the main environmental issues? Categorically, you can a take these names out but there are even more global warming, pollution, ozone depletion, water, resource consumption, deforestation, soil degradation, waste, extinction of flora and fauna, population and there are many more. The main are listed over here. So population if you see is at the bottom of all because more mouths to feed, more resources needed, more energy needed, more waste will be generated. So there is a direct relation in this kind of scenario. So, you can understand.

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So in this whole phenomena if we see, we are talking about sustainable development. Well, this is my personal understanding that sustainable development is a term which qualifies as an oxymoron. Oxymoron is a kind of apparently contradictory terms when they appear in the conjunction. So as long as development is there here we have seen it before, some kind of impact will be there.

So how to remove SD from the list of oxymorons is the challenge upon us. Otherwise it is really a contradictory conjunction. It does not makes any sense because as long as development is there in the present form we are seeing that it is not sustainable. So we have to break this oxymoron into a real sustainable development.

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So climate change as a phenomena we are aware of global warming, extinction of species, many things, shift in weather and climatic patterns and lot of things. So a lot of these things they just do not happen and go away. They come with consequences and in many cases severe consequences and if it continues, the consequences can be catastrophic even for the survival of species on the planet to simply note.

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So we do not need regular changes, regular changes are a pass, people are trying. We need innovative, creative and disruptive ideas to change the regular phenomena. So for that we need novelty out-of-the-box solutions. In any terms products, processes, systems anywhere, wherever you can intervene you must do. You need to do significant improvement. That is the point.

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Well design, of course, plays an important role in policy framing, framework generation implementation, actionable strategies and things like that. So design thinking definitely helps, system thinking definitely helps. We have seen it earlier. Nothing stands in isolation, even a

single water bottle, it is part of the ecosystem, it does not make sense, any difference that you are able to buy a 10, 20 rupees water bottle.

The point is who is going to pay for the cost it is exerting on the environment, on the planet, on the water resource, on the other species, on the bottom of oceans and all of those things. So it is systemic issue. Design with empathy is essential so that we can feel and what is going on. Conscious design, aware design is needed. So design for consciousness is the one of the prime required things for design for sustainability.

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Improvement areas, multiple Improvement areas you can have your own. I am just listing a few over here design for sustainability, sustainable product service systems, distributed economic model, consider life cycle analysis of products and designs, minimizing consumption of materials, energy, all of them, optimizing the source resources and biocompatibility energy and all of those minimizing impact in overall sense.

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So ESE aspects, we are aware about of sustainability, environmental, social and economic. At the conjunction of these 3, it happens a sustainable solution. So how this takes place, is the game, for us.

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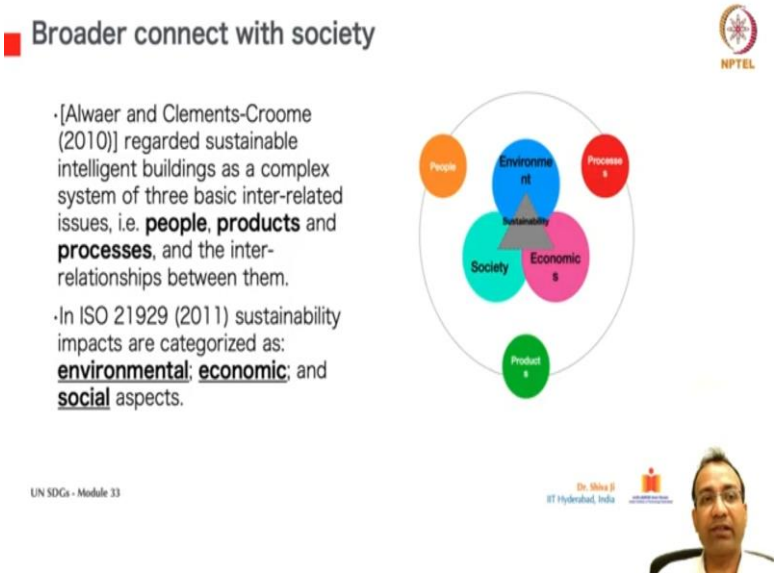

And it definitely connects with the broader society, people, processes and products. So coherent solution, which you can derive from this combination, you may call it as a sustainable solution.

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Some examples, well we have seen a lot of examples in the previous modules.

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But still to give you some ideas of innovative thinking, creative solutions and going a length, longer to come up with something very, very relevant, you can see this here. Permeable paving, surfaces, no concrete blocks, because we are aware of today most of the places in the urban area, semi-urban areas are paved and there is a huge volume of runoff water which just goes in the drains and it goes off.

So there is very little water which percolates in the ground. So there is no groundwater recharge. Exhaustion is more, no recharge and results into no groundwater very severe conditions. So why cannot we go for solutions?

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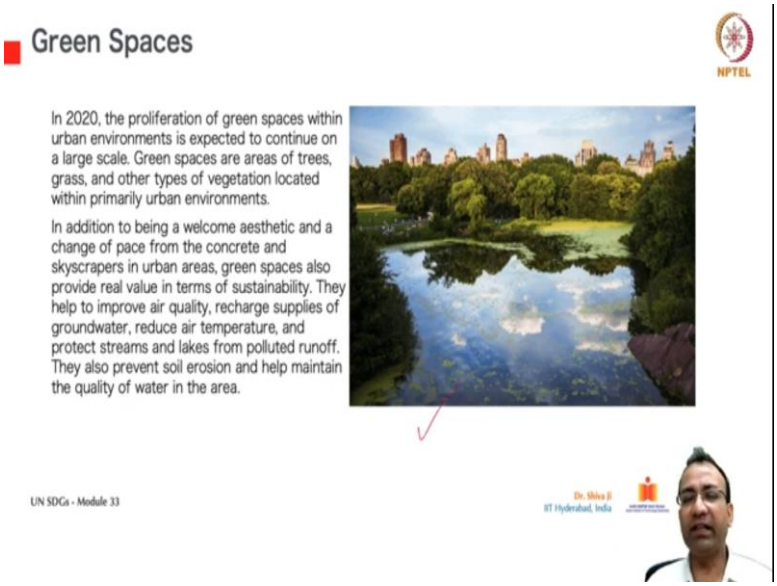

Green spaces. More and more green spaces because in urban centers, they are densely packed, more number of people per square kilometer and per se. So how we can go back to the nature because we have observed in the previous modules, how important it is to have a breathing, lungs, urban lungs for the urban areas, for the towns, even villages where one can go to, simply sit around and have a experience of nature and other flora and fauna can also survive. Otherwise in the concrete jungle, you can see here at the background, only man-made things. So that is not actually good.

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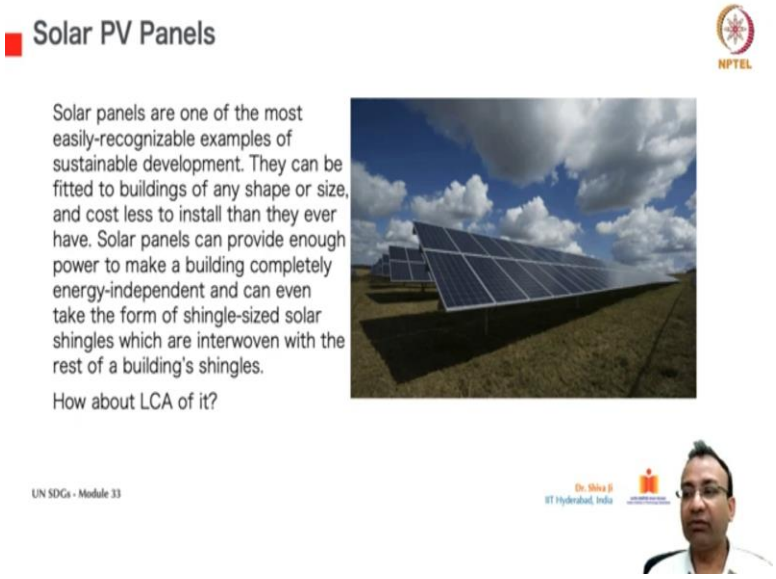

And making use of renewable energy resources more and more. So their component must increase but we need to be able to mindful of overall impacts also. For example, in case of such solutions, if there are energy storage systems and if those are batteries, so batteries have their own impact, if you study it from LCA perspective. We must actually solve this problem at war footing basis so that we can truly call it a clean energy with 0 impact. So that is essential. Clean plus 0 impact of any sort is essential for renewable energy resources.

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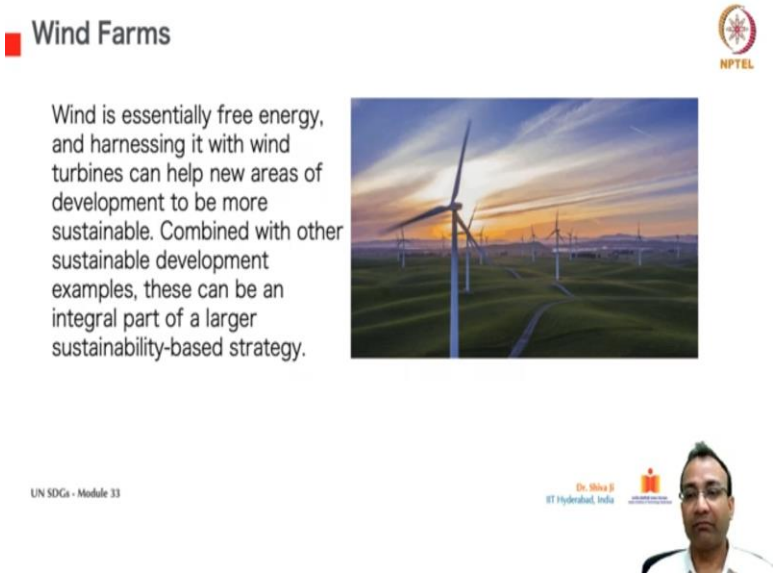

Same goes here also, wind farms.

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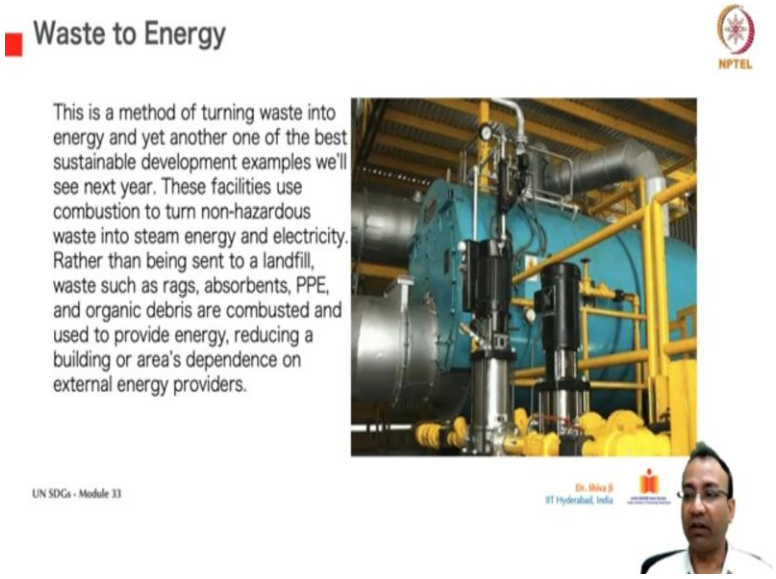

Waste to energy. Since there are huge volumes of waste getting generated these days. So, instead of putting in general dumping yards or throwing it may be in the lakes, rivers and oceans or just in some open land, somewhere polluting and all of that, why cannot we make use of this waste to transform it totally into something else and leave no waste at all?

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Even water treatment, water consumption is in the highest than ever before. So is the same water a finite amount of water only is available on the planet and it is the same water keeps moving in the cycle and cycle. We are aware of this water cycle. Our these exhaustion actually it goes into

the rivers, lakes and from there it reaches to the oceans, from oceans it comes into the vapor. The vapor actually float over here in cloud. Then they rain. We get that water.

Then again it goes so this is a cycle in which is going on for millions and billions of years on this planet. I do not know how many times the glass of water what you are going to consume today may have actually ran on this planet and may have been consumed by plants and animals and even dinosaurs and all in so many times because we are having a finite amount of resources. So we must take care of it because if we end up polluting all of them, where else we are going to fetch water from? There is no water in available in the space. There is no tap above in the skies.

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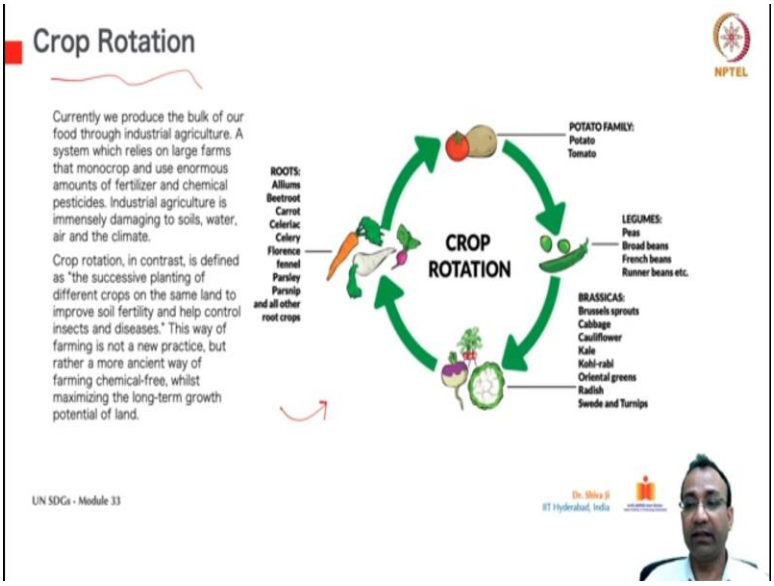

Crop rotation, food security is essential to manage these crops in a very responsible manner and take care of the topsoil because topsoil actually gives us opportunity to grow food in it. So multiple solution not just crop rotation technique. The food security comes lot of techniques and methods to all of them like a true sense.

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And a efficient solution, not just for water, for electricity also, for anything and everything. So, we must be actually optimize we must actually minimize consumption very responsible consumption.

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Managing our forests. So they should not be responsible or reckless in cutting of trees but we can only devise a process a method like how we can plant and go for in a systematic harvesting of forest and woods in a very comprehensible because still if you see there is no nil impacting material compared to a timber or a piece of wood. Whatever metals, the polymers and glasses

and stuff you bring they all have certain impacts. So, in a reasonable and responsible way how this can be managed.

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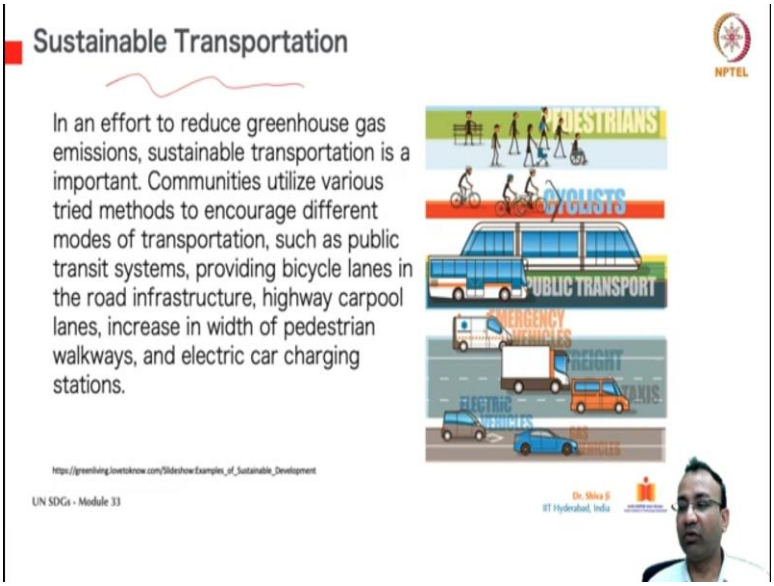

Sustainable transportation. People are moving larger than ever. So all forms of transportation if you see, even trains and flights, water based transportation ships, etc. So very efficient one and relatively mass rapid transportation systems compared to individual ones.

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So the world has moved on from those MDGs from the earlier era to the SGD era and in the SDG era there are several other things where we have encompassed a lot of things. So you can see briefly there were 8 MDGs and here we are with the 17 SDGs.

So, which is built on the understanding of the interconnectedness of prosperity of business society and environment, ESC aspects. All societal sectors are connected, essential for collaboration across societies, countries. It serves a holistic approach, purpose, long-term investments, need for innovative approaches, emerging planning based, coalescing interest and with local resources in and around particular issues, etc. So very detailed we have already studied.

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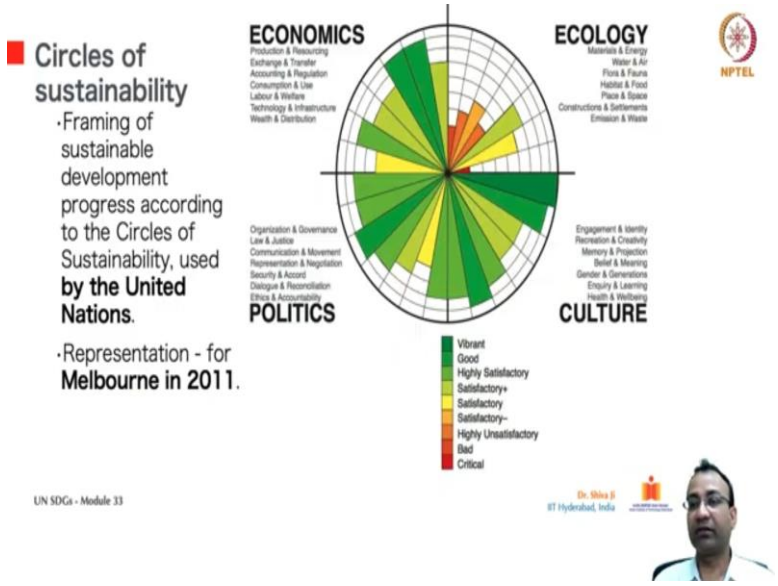

So, briefly about circles of sustainability. So, apart from EACs, this model is also there in which the 4 major verticals are economics, politics, culture and ecology and inside that in these criterion, you can see these are listed over here and you can go for testing of a place. How that particular place is a doing?

So, in this case you can see Melbourne in 2011, it is evident that on materials and energy and emissions and waste and water and air and then habitat and food. It is in the red and orange zone. The most critical here is in the red zone which is the emission and waste. So you can estimate where there is the larger impact and you can go for rectification.

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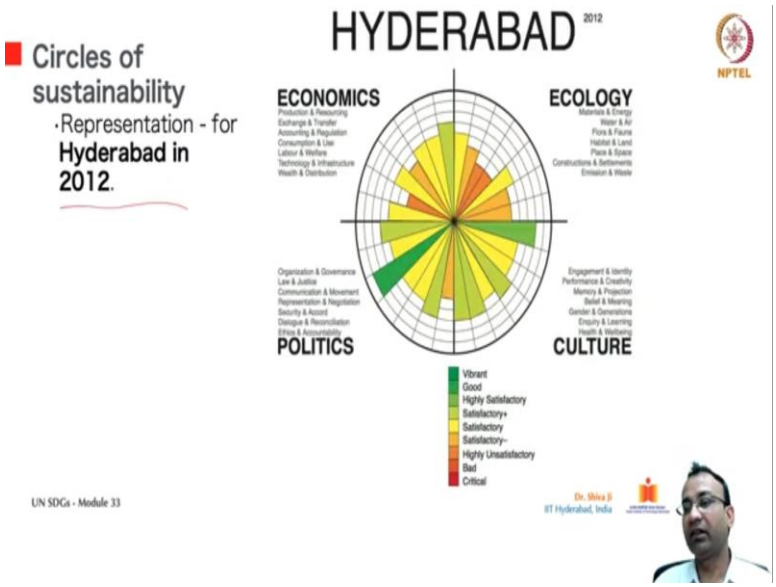

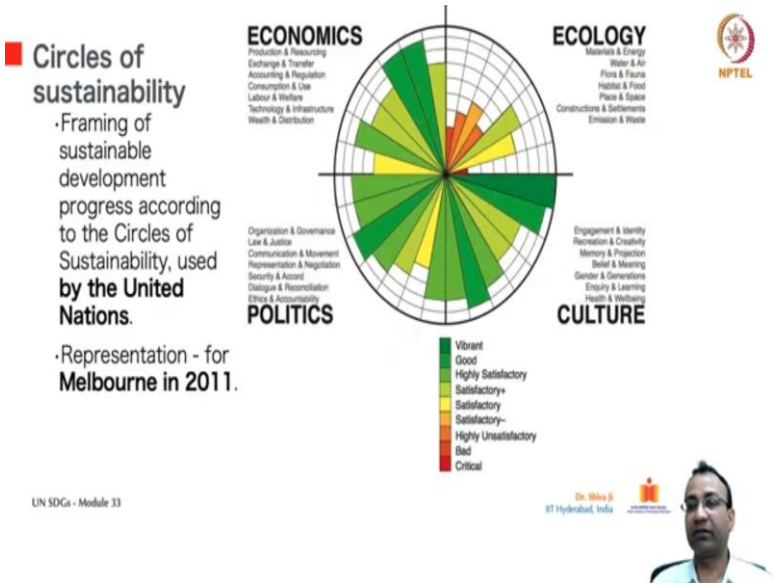

Similarly, for Hyderabad, India in 2012. So compared to Melbourne, we see a less greener criterion over here majorly in the yellows and oranges. Well, fortunately no reds, not even 1 but majorly in the yellows and oranges. No dark green anywhere. That means majorly we need to work in most of these areas and in general, we need to work all along. So this is one important finding observation from this kind of data analysis.

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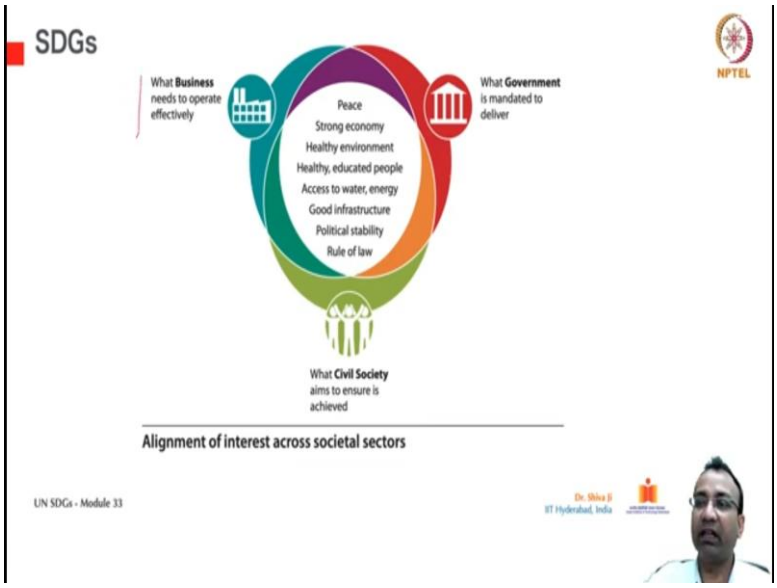

So SDGs what businesses needs to operate effectively what government in mandated to deliver what civil society aims to ensure is achieved. So when all of these interests are aligned in proper manner it becomes sustainable.

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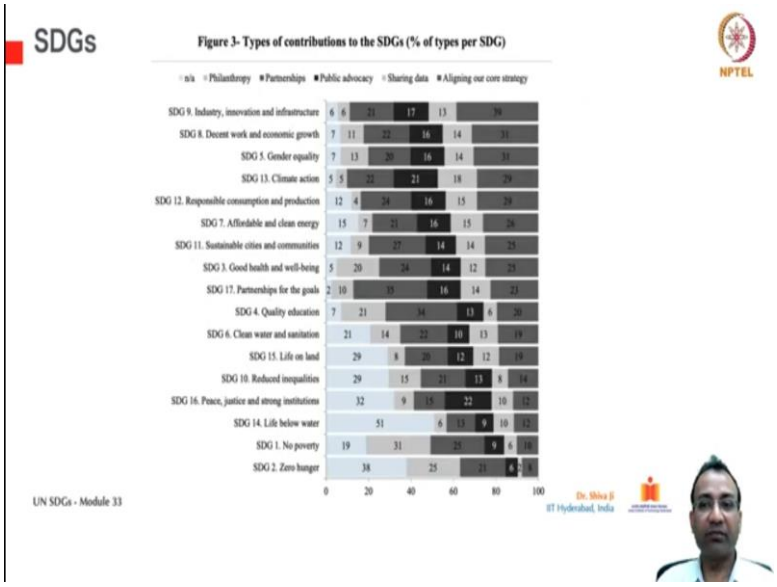

So here you can see the type of contributions to the SDGs percentage of types per SDG. So philanthropy, partnerships, public advocacy, sharing data, aligning our core strategy. So, all of these are in listed over here.

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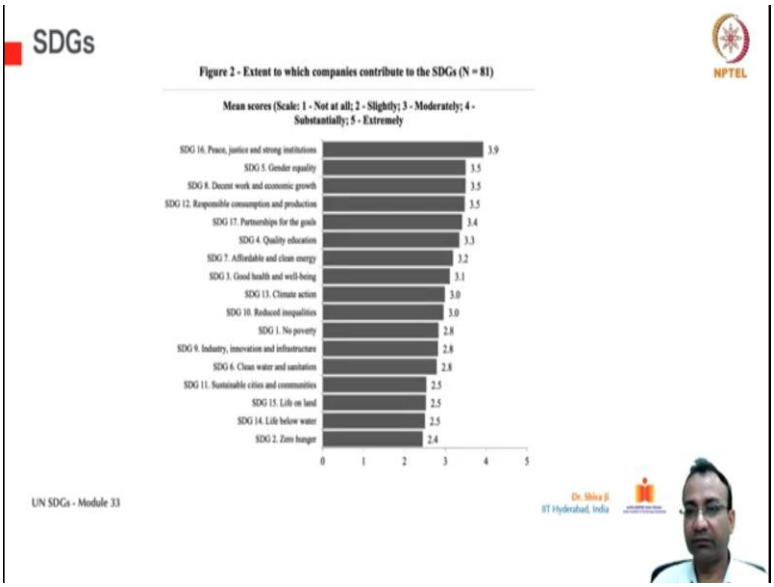

Extent to which companies contribute to SDGs you can see over here. More and more for peace, justice and strong institutions is 16, then gender equality, decent work and economic growth, responsible consumption and production and so on.

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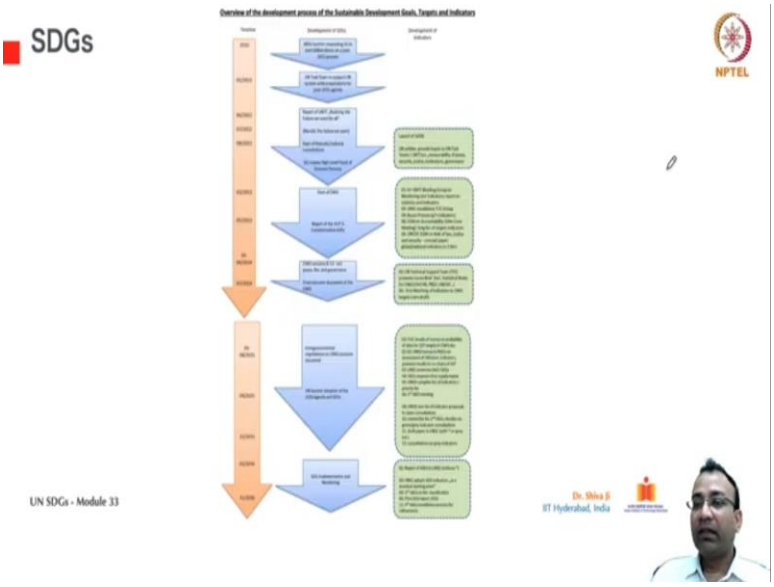

This talks about overview of the development process of the sustainable development goals, targets and indicators. So on this left hand, we have the timeline and at the middle, we have development of SDGs, how it has come across and then we have here indicators on the right side column. You can go in detail.

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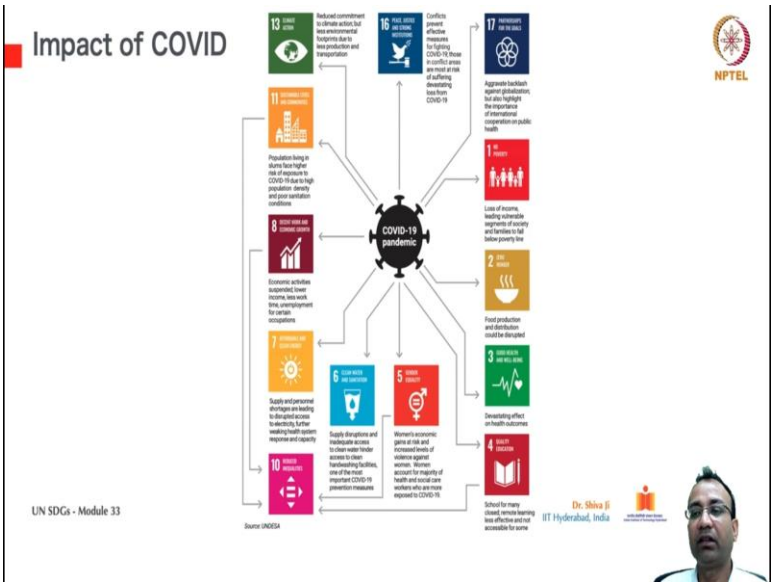

Well covid-19 has also brought huge impact on the society and even on the implementation of SDGs also. So you can see that listed over here. So if I talk about the first one, no poverty, loss of income leading vulnerable segments of society and families to fall below poverty line. So we are aware there was huge number of job cuts, loss of opportunities pushing a millions of families into deprivation and scarcity of resources and funds.

So and then on the second, direct impact on food production and distribution, good health and well-being, lot of people actually went indoors affecting their general health condition so devastating effects.

On the fourth, schools for many were closed and not every school was equipped for online education and not every family, every children, every student was having resources enabling them to go for an online education. So resulting into loss or break of a longer period for education. For the fifth, women's economic gains at risk, they were more under pressure job losses were even more for fairer gender.

For the clean water also, there were a lot of challenges, supply disruption inadequate access to clean water, all of those things. On the 7th, affordable and clean energy supply in personal shortage brought in a lot of disruption, economic activities were suspended, lower income, less time of working, lesser employment resulting into lot of a pressure on this one on the 8th and

then we have here the 10th, reduced inequalities. Then we have 11th, 13th, 16th and 17th. So measure impacted SDGs from covid-19.

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The 4 complementary pillars of inclusive growth and development you can see over here. These are the ones. So income growth, labour productivity growth, full and productive employment and decent work for all, labour rights, reduced inequalities. Directly connected to the SDG 1, 2, 3, 5 and 16.

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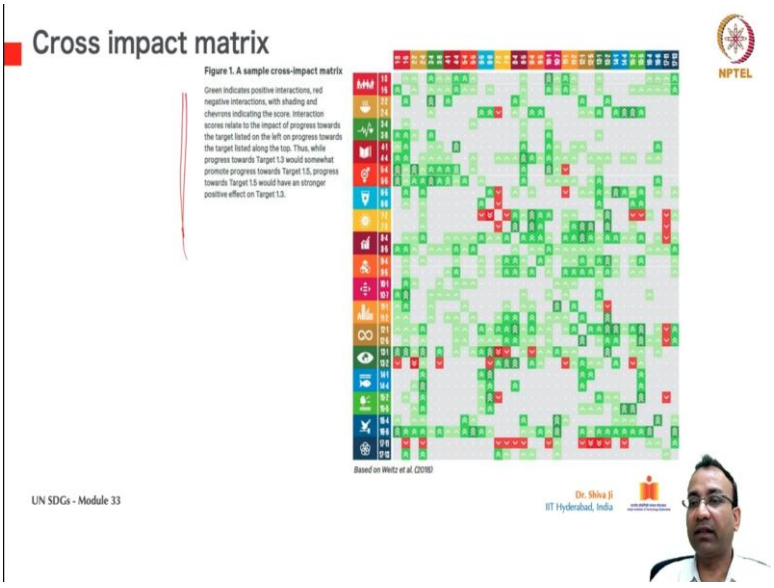

You can make your own cross impact matrices where you can analyze a particular place like how they are interrelated from one SDG to others, what is the relationship whether it is improving at a faster rate or is it at neutral or maybe it is going down in minus. So there is no growth rather it is going down. So such indicator tables gives you idea about what is going on.

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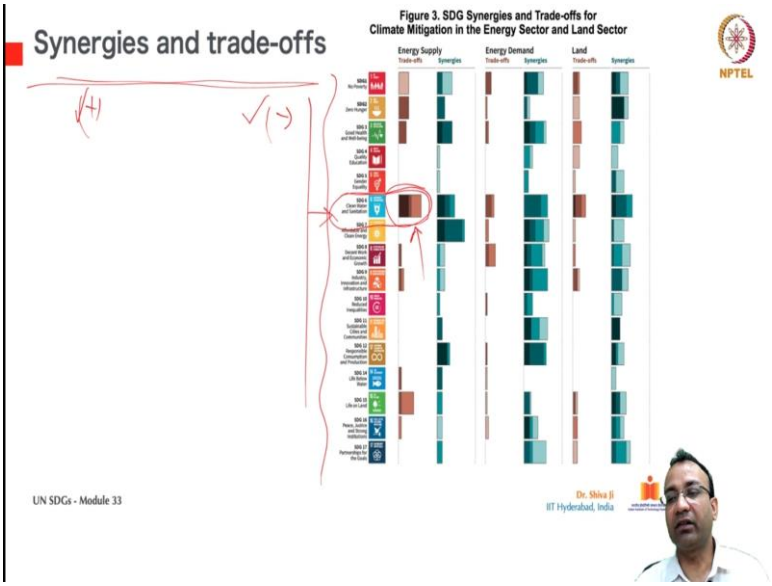

And this impact all SDGs progresses or if there are great challenges, if it is not moving or if it is at neutral, we analyze it at this scale. If it is going in positive direction, if it is working, if there are positive results, we call it in synergy and if it is not working, if it is going in the minus dimension, if the situation is getting worse than before we call it trade-offs and then in the middle at 0 level, we have the neutral ones.

So this analysis, you can undertake of any place, any organization, any such policy implementation or program and analyze on what SDGs it is touching and whether it is going in synergy or is it neutral or it is in trade-off and accordingly, you can work for it. For example, in energy supply scenario, if you see, it is having a huge trade-off with respect to is SDG 6 that is clean water. So it must actually attract attention and organization stakeholders must actually work for this.

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And such materials or maybe products or processes, you can undertake any one and analyze. We have done it in the previous modules. Maybe you can take clues and you can go for analyzing such entities. It will help you coming up with a deeper understanding of how things are working in reality.

So sustainability principles in 7 areas, you can see over here, safety and health, local communities, ethical standards, stakeholder engagement, disclosure and transparency, values for stakeholders, environmental protection. Well, this is not exhaustive. You can have your own based on the context in which you need to evaluate it.

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So this is particularly from World Steel Association. That is why it is having that focus. So here, our 7 sustainability principles are aligned with the UN sustainable development goals, this is from World Steel Association so that you can see over here, the seven areas, safety and health values for stakeholders, environmental protection, disclosure and transparency, local communities, ethical standards, stakeholder engagement.

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So transformations, if you see transformations happen at multiple levels. You can see transformation 1 at education, gender and inequality level, mental, social, like empowering that

kind of a transformation which are going to have a long lasting lifelong impacts. If you are able to get in proper education, quality education, you can transform your whole life, your family's life. Transformation 2 at health and well-being and demographical levels. For more summations and healthier life. Third at energy, decarbonization and sustainable industry.

So transformation at global and environmental scales, social scales, transformation at food security and security of other elements, natural elements like air, water, land and all of them. So, keeping them intact in their natural condition, transformation fifth for sustainable cities and communities, which are the largest consumer of resources, energy and everything, huge generator of waste. So if we transform them then definitely this scene might change and it is not that it cannot be done.

So remember, transformation 6, digital revolution for sustainable development. So taking help of technology for the betterment of tomorrow, betterment of today, betterment of anything and everything, every single person, every single species.

So in what multiple ways we can make use of because, remember science and technology has always both the faces. When Alfred Nobel actually prepared the composition of dynamite, he was scared what wrong it can do. So he gave this statement. Definitely you have such item which carries from so much potential for both, for good and bad. So it is up to you, it is up to the society, it is up to the people, what use you are going to do with it.

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Humanitarian response, sustainable development and sustaining peace and partnerships are 3 sides of the same triangle. So if one is there, 2 other also will be there If 1 gets distracted, the two others also will get distracted. So a peaceful society is essential for sustainable development. These are the words of UN secretary-general.

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So SDGs for their comparison of interventions against the SDGs, you can check for their performances on the environmental, social and economic parameters and as informed earlier you

can go for calling it in synergy, a neutral or a trade-offs and accordingly you can choose these representations.

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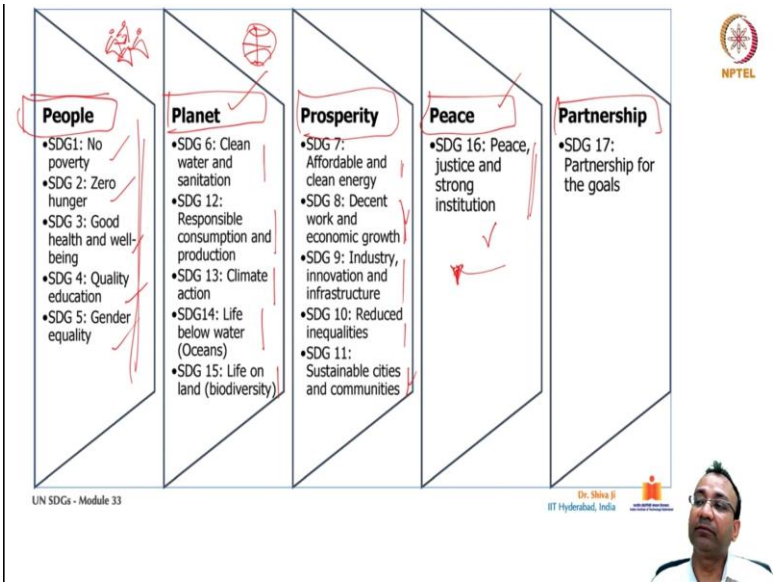

Another important point I wanted to highlight the summary is this. How these SDGs are actually grouped, how they are formed. So if you see there is an order of these 5 Ps. There is one of the analogies of structuring these SDGs, how they are structured, how they are laid, in this lay outing. So, the first 5 actually talked about people, individual centric, social centric, community-centric like majorly human centric. So more and more if you see 0 poverty 0 hunger and of good health, well-being, quality education, gender equality.

So all about you and me. Then comes the second criteria for the planet. The planet where we are living. This is our home and only home. Always remember. So keeping its resources neat and clean the way we have got from the mother nature.

So clean water and sanitation, responsible consumption and production so that there is no waste. Climate action to negate the climate change impacts, life below water life on land. So all sorts of a different species of flora and fauna and all the other aerial, aquatic animal, land based animals and birds and reptiles and creatures including them all plants and trees, shrubs, bushes, everything. So taking care of the planet.

Then comes more subtle things of prosperity. So how do you feel prosperous? How do you experience this prosperity and how do you feel it at country level, at global level? So when

things are in order like affordable and clean energy, decent work and economic growth which will empower and help every individual, every household for their own prosperity. Industrial innovation in infrastructure reduce inequalities in sustainable cities and communities so that every place becomes a place of prosperity.

The fourth is the most important thing without which all other are very difficult to gain is very simple but not the least, the peace. Wherever society and in that society there is peace, justice and strong institutions you can definitely see people are okay, people are living their life in good condition, they are making progress, they are developing, they are doing a lot of innovations and stuff.

So taking ahead things and wherever they are in any country, any place where there is a disturbance in peace, you can see the Civil War situation going on in, a fighting is going on where loss of all institutions, no opportunity, you cannot even go out and return safely. Nobody can guarantee that. That kind of a miserable situation.

So peace is the utmost thing and finally, the partnership. All of these things can be achieved by moving together, moving hand in hand. So partnerships means exchange of ideas like technologies, materials, resources, opportunities, accessibility all of them are combined. So this is this lay outing of SDGs which is very essential. You can understand in this way also how it helps.

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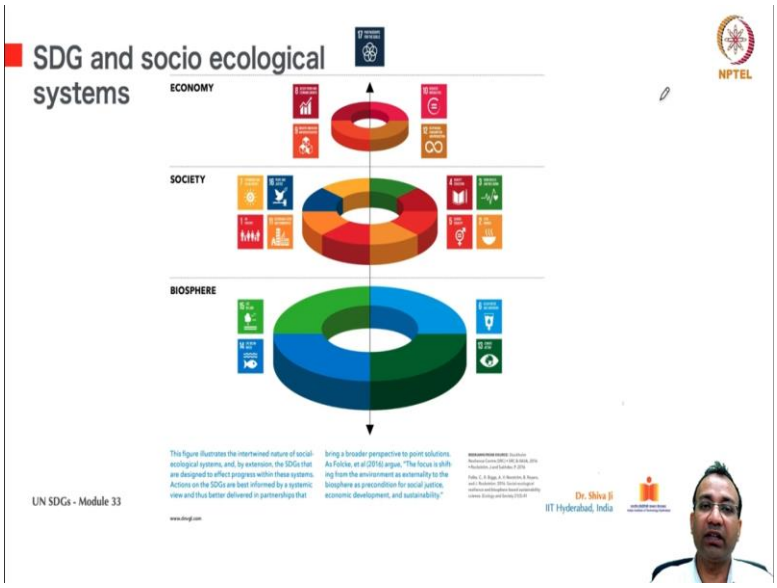

Another layout, another system in which these are laid. So you can see for economy, these are the 4 at the top 8, 9, 10 and 12. Social related we have 7, 16, 1st, 11, 4th, 3rd, 5th and 2nd. Biosphere related we have 15, 14, 6 and 13. Now the top comes the 17th one, the partnership. So this is also one interesting layout in arrangement, you can understand how these SDGs are framed.

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There is another one which talks about SDG pyramid. So that the bottom comes with the people. So most of these SDG listed here are associated with the people. So from first to tenth, then

comes ecology, we have 5 and then the remaining 2 at spiritual level, more subtle level. So, this is also another in arrangement.

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Well, in overall sense, if you see the SDGs are a set of 17 goals for the world's future through 2030. This is the target year. We want to achieve all of this by this year backed up by a set of 169 detail targets. So I am just giving you a brief again about SDGs through this negotiated over 2 year period at the United Nations so the leader organization and agreed by nearly most of the countries on 25th September 2015.

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So what is it about all these 17 SDGs? First and the foremost, these goals apply to every country, every sector, cities, businesses, schools, organization all the challenge to add, this is called universality. Irrespective of a country or states or maybe races, languages, colour tone irrespective of economic status, it applies to everyone. That is why one of the biggest advantages or merits of SDGs is that its universality.

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Next second, it is recognized that the goals are all interconnected in a system. So it is a system. If you take 1 out it may or may not work. So all 17 are essential to work together. This is called

interconnectedness and it works in a system. We cannot aim to achieve just 1 goal. We must achieve them all. This is called integration. So all 17 are integrated.

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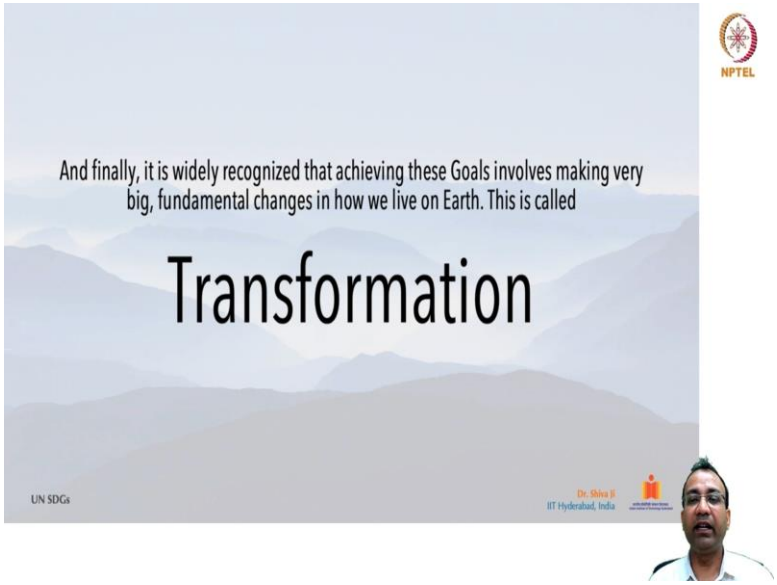

And finally, it is widely recognized that achieving these goals involves making every big fundamental changes in how we live on Earth. This is called transformation. So let us take a brief tour again of these SDGs.

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End poverty in all its forms from everywhere.

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Second, end hunger, achieve food security and improve nutrition and promote sustainable agriculture.

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Third, ensure healthy lives and promote wellbeing for all at all ages.

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Fourth, ensure inclusive and quality education for all and promote lifelong learning.

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Fifth, achieve gender equality and empower women and girls.

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Sixth, ensure access to water and sanitation for everyone.

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Ensure access to affordable, reliable, sustainable and modern energy for everyone.

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Eight, promote inclusive and sustainable economic growth, employment and decent work for everyone.

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Ninth, build resilient infrastructure. Promote sustainable industrialization and foster innovation.

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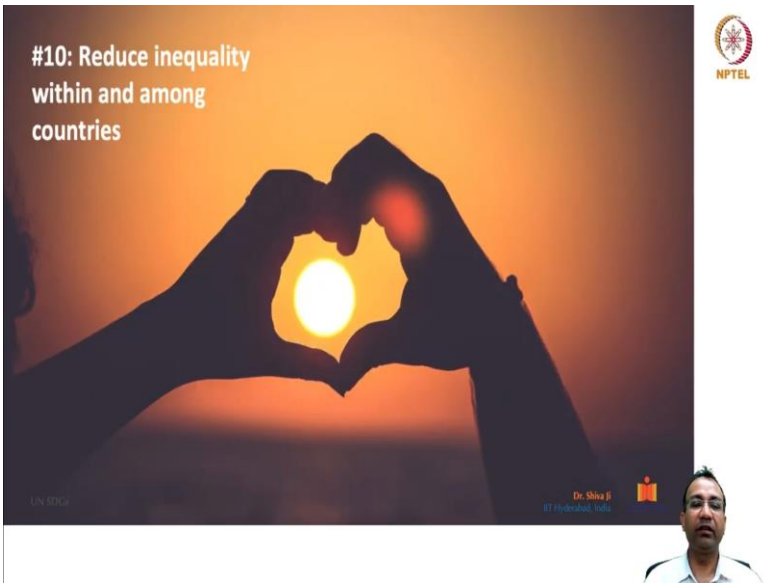

Tenth, reduce inequality within and among countries, societies, places from everywhere.

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Eleventh, make cities inclusive, safe, resilient and sustainable.

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Twelfth, ensure sustainable consumption and production patterns basically controlling the waste.

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Thirteenth, take action against climate change to combat climate change and its allied impacts.

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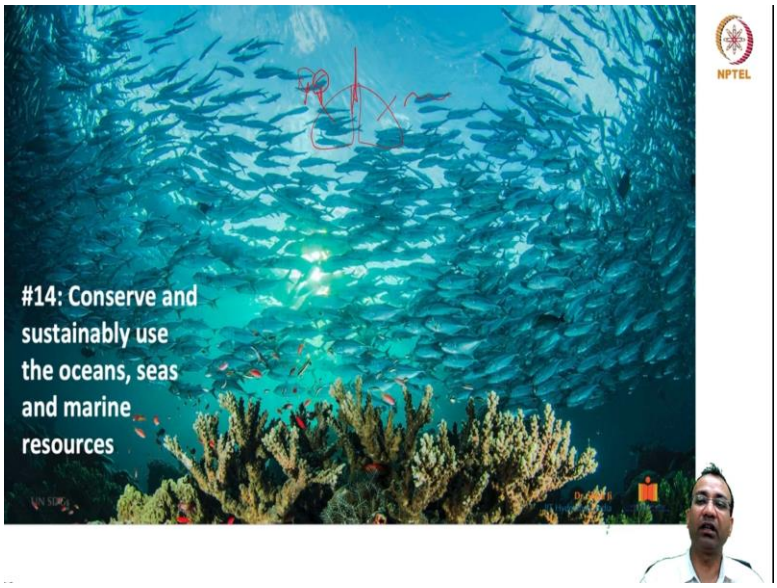

Fourteenth, conserve and sustainably use the oceans, seas and marine resources because we have studied earlier one of the lungs for this planet is of course trees, the green cover on the surface. The second one comes from underwater. So equally important both.

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Fifteenth, sustainably managed forests, combat desertification, halt and reverse land degradation halt biodiversity loss.

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Sixteenth, promote just, peaceful and inclusive societies.

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Seventeenth and last, revitalize the global partnership for sustainable development.

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So, each goal if you see is important, rather very important in itself and they are all interconnected. They are all interconnected. They all have some impacts on each other. They work in sync. They help each other. If there is a loss in one, there may be loss in many others also. So we have to understand all of these SDGs are very much integrated and united.

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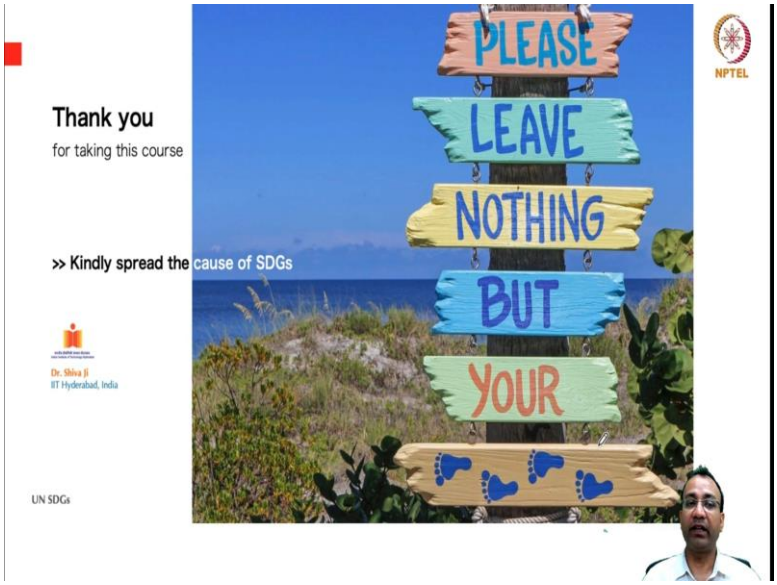

So I thank you all sincerely for taking up this course. Kindly spread the causes of SDGs. Kindly spread anything and everything possible for the growth and development, rather we call it sustainable development and leave nothing no traces, no bad impacts behind but good lessons to

learn for the next generations. So with this I thank you all for taking up this course. Thank you all.