United Nations Sustainable Development Goals (UN SDGs)
Doctor Shiva Ji
Department of Design
Indian Institute of Technology, Hyderabad
Lecture 15
SDG 14: Life Below Water Part 2

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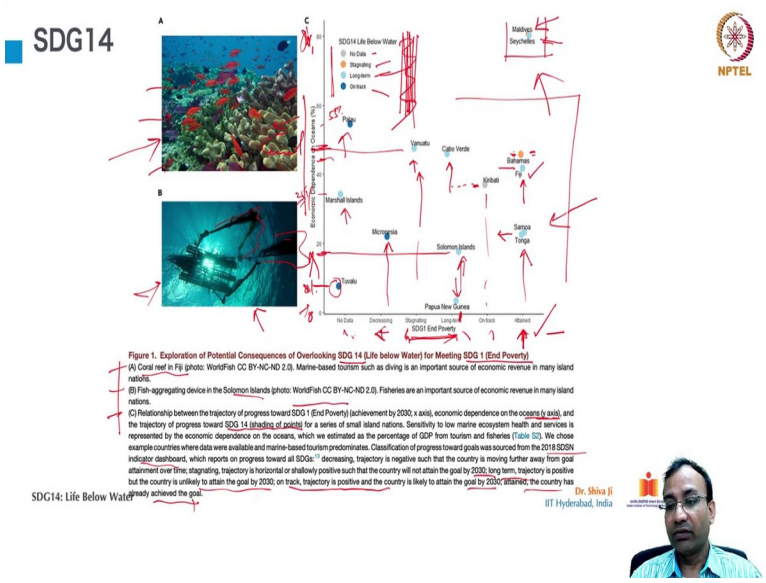

So exploration of potential consequences of overlooking SDG 14, Life Below Water, for making SDG 1, End Poverty. So, you see what happens. So, there are these 3 pictures given over here. The first one, a coral reef in Fiji, Fiji, may be, you may be knowing is a small country, I think next to Australia and that side. Marine based tourism such as diving is an important source of economic revenue in many island nations including Fiji, and this picture is from there.

So, you see this flourishing, nice beautiful picture where you see the corals, these are the corals here and these are the marine lives, fish and other animals, and the second picture fish aggregating device in Solomon Islands, another island. Fisheries are an important source of economic revenue in many island nations. This is very usual. So, you can see this, fish aggregating device. So, you see these nets from here, hanging and from this. This picture is from below the water.

And the third, this graph, we have relationship between the trajectory of progress towards SDG 1, End Poverty, achievement by 2030 x-axis. So, yeah, here, on this side. So, no data, decreasing, stagnating, long term, on track, attained. So, which country has attained this target, which has not actually attained or maybe it is decreasing, falling behind, long term or on track or stagnation or no data. So, on this line.

Then we have economic dependence on oceans, y-axis. So, here we have this dependence on ocean percentage wise. So, 0 percent to 80 percent over here at the top. And the trajectory of progress towards SDG 14, the shading of points you can see, these, so no data in this grayish this circle, stagnation by this yellow and then light blue, long term and on track, dark blue. For a series of small island nations, sensitivity to low marine ecosystem, health and services is represented by the economic dependence on the ocean which we estimated as the percentage of GDP from tourism and fisheries.

We choose examples countries where data was available and marine-based tourism predominates. Classification of progress towards goal was sourced from, this source you can see over here 2018 SDSN indicator dashboard which reports on progress towards all SDGs, decreasing trajectory is negative such that the country is moving further away from the goal attainment over time.

Stagnating trajectory is horizontal or shallowing positive such that the country will not attain the goal by 2030. Long term trajectory is positive but the country is unlikely to attain by 2030. On track trajectory is positive and the country is likely to attain the goal by 2013. Attained, the country has already achieved it. So, those are the parameters. So, you can see different countries over here.

No data from Tuvalu, Marshall Islands and Palau also. Well, dependence wise if you see, close to an 8 percent, it looks over here, Marshall Islands, close to over 30, 35 percent, 34 percent, something like that. And then Palau, I think close to 55 percentage or something like that, Decreasing, Micronesia, Papua New Guinea in the long term range, Solomon Island also, Cabo Verde and Vanuatu is here in stagnating. This thing is, dependence is here, Solomon Islands, the dependence is little less than 20 percent.

And long term, it is going to achieve in the long term range. Kiribati, well there is no data, but it looks it is on track, but how do they conclude this? Samoa and Tonga, they have attained, and their dependency is little over 20 percent, and then we have Fiji, attained, its dependencies is over 40 percent. Bahamas, it is stagnating on SDG 14, Life Below Water but SDG 1 it has attained.

So, Bahamas its dependence is also I think close to 50 percent or. So, and then we have at the top Maldives and Seychelles. So, Seychelles, if you see, is the light blue. So, in the long term, this SDG 1, it has attained. There is no poverty related issues in Seychelles and Maldives. But on Life Below Water, SDG 14, Seychelles is having long term this thing, and Maldives is under stagnation. So, this needs to do a lot on this SDG 14.

So, this is this distribution, a very interesting distribution for correlation. Their economic dependence, SDG 1 and SDG 14 because 1 and 14 is also kind of linked very much in these countries, in all of these countries because this is end poverty, the first one, if you remember, the most crucial one. So, interesting analysis.

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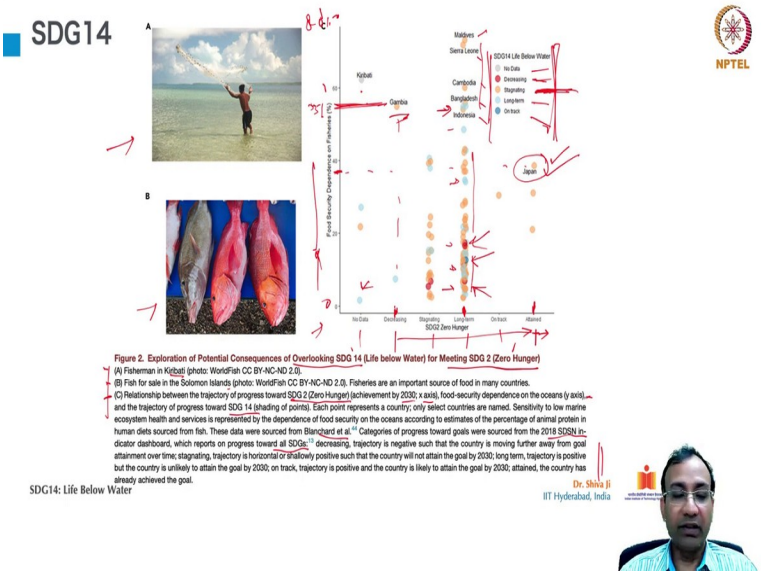

Then we have another exploration of potential consequences of overlooking SDG 14 for meeting SDG 2. So, now this correlation between 14 and 2. So, let us see. There are 3 pictures over here. First one, fisherman in Kiribati. You see this. It is very nice, pristine scene of ocean we see over here. The second one, fish for sale in Solomon Islands. And

third one, see relationship between trajectory of progress towards SDG 2, Zero Hunger. And on this one, achievement by 2030 x axis.

So, Zero Hunger, by 2030, no data, decreasing, stagnation, long term, on track and attained, this distribution here. Food security dependence on the oceans, y-axis. So, food dependency. Again 0 to 60 and perhaps here maybe 80 percent. So, that is the distribution on y axis and the trajectory of progress towards the SDG 14, shading of points. So, you can see this is the legend for SDG 14.

If it is here, no data, red decreasing, yellow stagnation, light blue long term, and dark blue, on track. Each point represents a country. Only select countries are named sensitivity to low marine ecosystem health and services represented by the dependence of food security. On the oceans, according to estimates of the percentage of animal protein in human diet sourced from fish.

These data were sourced from Blanchard et al, you can refer this source. Categories of progress towards goal or sourced from the 2018 SDSN indicator dashboard which reports on progress towards all SDGs. Decreasing trajectory is negative such that the country is moving further away. And the same reason from the previous one. So, let us see.

Well, for Zero Hunger, there is no data for Kiribati, and then we have Gambia. Here, with this yellow, stagnation. So, SDG 14, it is under stagnation but food dependence is, I think a close to 55 percent or so. And this is under decreasing. So, they need to work for this. And then we have here Indonesia, Bangladesh, Cambodia, Sierra Leone, Maldives.

So, for SDG 2, they are at long term target, but for this is SDG 14, you can see most of these are under stagnation, yellows. So, that means there is a lot to do. And few reds also I see over here. Only one dark blue I see over here and few light blues scattered here and there up till this length, till Bangladesh, at that point. So, a lot needs to be done, that is the conclusion what I see.

And attained, Zero Hunger is attained in Japan completely, but the food dependence, if you see, is under 40 percent. And on SDG 14, it is stagnating. So, they need to do for

SDG 14. So, that is the correlation between these two SDGs food dependence of these countries. So, very interesting analysis.

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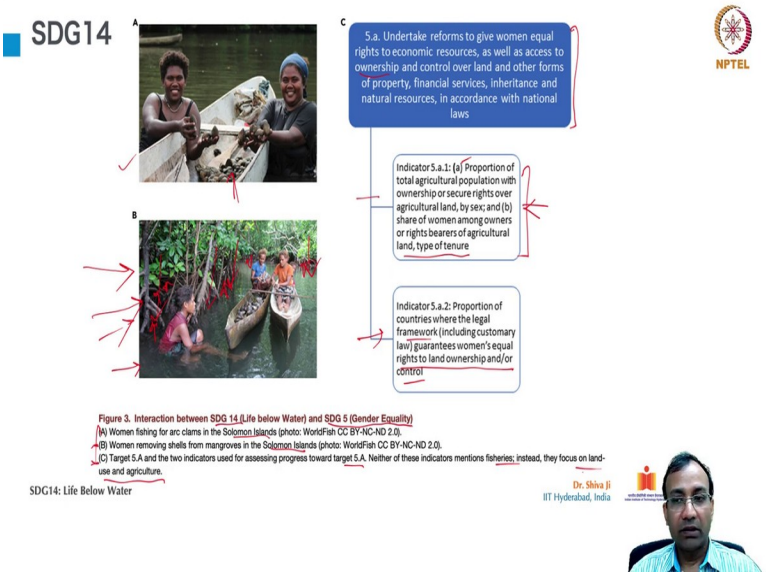

The third one will see interaction between SDG 14 and SDG 5 Gender Equality. So, here we have women fishing for arc clams in the Solomon Islands, this picture, you see these, these clams in their hands. And women removing shells from mangrove in the Solomon Islands. This picture you see, these mangroves, these are marine plants, trees. They are very much helpful for environment.

They save from tsunamis, flooding and excessive water, plus they provide nice ecosystem harboring place for marine life in the roots and these places where there is no water, a lot of aquatic species actually live and thrive. So, some of them you may be aware of from West Bengal and parts of Bangladesh. That is a area which is similar in this kind of environment in India.

So, the third graph, it targets, it says about target 5.a, and the 2 indicators used for assessing progress towards target 5.a. Neither of these indicators mention fisheries, instead they focus on land use and agriculture. So, what it says, undertake reforms to give women equal rights to economic resources as well as access to ownership and control over land, another forms of property, financial services, inheritance and natural resources in accordance with national laws.

So, indicator 5.a.1, a, it says proportion of total agricultural population with ownership or secure rights over the agriculture land by sex, and b, the share of women among owners or right-bearers of agricultural land type of tenure. So, basically making women part of the property ownership in all possible ways. Second one, indicator 5.a.2 proportion of countries where legal framework including customary law guarantees women's equal rights to land ownership or in control. So, these are the 2 associated target points.

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Some mention of underwater life in our day-to-day literature. This, I have referred from children book. So, how, it talks about how to protect life underwater. Hi I am Annie Sunbeam. Can you spy way to stop the source of the daze and save marine life? So, you see number of every day human consumer products which are shown over here which kind of needs some this thing to save our marine environment.

So, you see a lot of stuff are mentioned which, for which we are dependent on oceans also. And several things, so interesting examples of plantation, cycling, plastic products, several aquatic animals et cetera. And then it talks about how the CO2 is mixing in the saline water and making it more acidic. When the water becomes more acidic, shells and sea animals dissolve, because their shells, calcium carbonate, you may be aware of, these corals actually they are not so much resistant to more acidic environment. So, it is harmful to them. And that is how entire coral reefs are under threat.

Plus that reduces the number of fish and other aquatic life forms. Finally dissolving it of its life abilities to sustain life in this. So, that thing is a very interesting this thing which teaches sensitivity about water ecosystems to our children because this is, this awareness we want from early childhood so that one need not actually be fed one, when he or she actually grows, these habits actually are very essential from the beginning, early ages itself. So, it is a commendable effort from the publishers.

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Another interesting and beautiful picture of how life, how human habitats are also planned close to the water. Water brings life, so.

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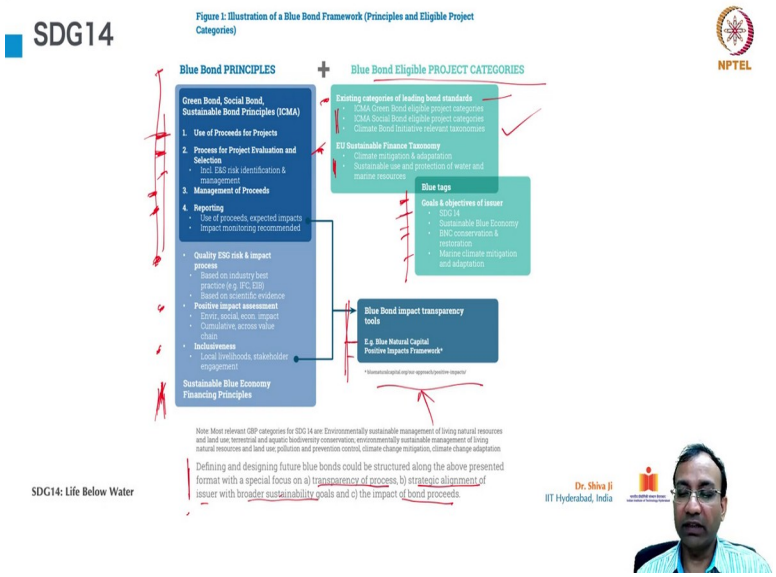

So, here this slide talks about illustration of Blue Bond framework, principles and eligible project categories. So, let us see what are those Blue Bond principles that are given over here, and eligible project categories on this side. So, it talks about defining and designing future Blue Bonds could be structured along their presented format with a special focus on transparency or process, strategic alignment of issuer with broader sustainability goals and impact of bond proceeds.

So, user proceeds for project, process for project evaluation and selection, inclusive, this identification management et cetera, management of protocols, and fourth on reporting, user proceeds, expected impacts, impact monitoring recommended. So, quality ESG risk impact process, positive impact assessment, inclusiveness. So, these are the sustainable blue economy financial principles.

And with the Blue Bound eligible project categories, so existing categories of leading bond standards, so these are then standards given over here. EU's sustainable finance taxonomy given over here. Maybe you can search these for more details, you will find interesting methods of how economics and projects can be visualized together.

Blue tags, so goals and objectives of this one, like SDG 14, sustainable blue economy, BNC conservation, marine climate mitigation adoption et cetera, and transparency tools,

for that you can refer over here, blue natural capital positive impact framework. Some more details, refer this link, search for this.

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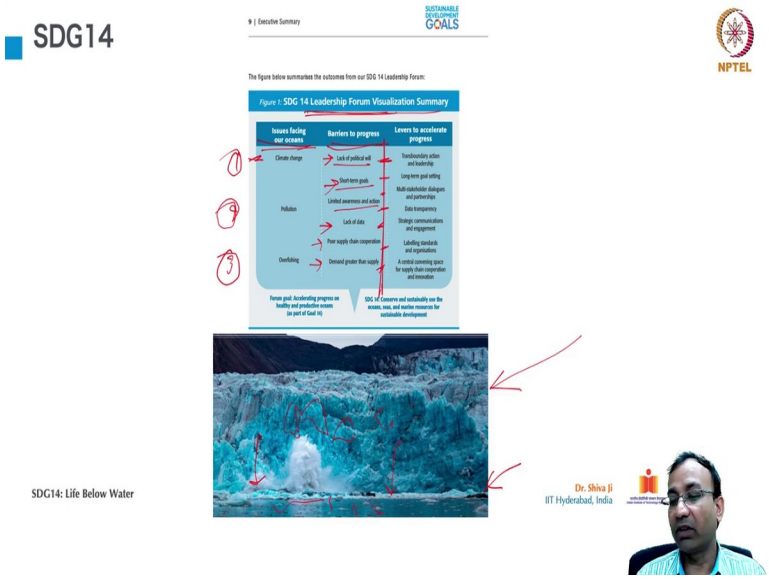

So, leadership forums related to SDG 14. So, issues facing our oceans climate change, first one, first and foremost, pollution, and then overfishing. So, these are the main 3 issues currently occurring for our oceans. And barriers to progress, lack of political will, because many of the countries, they are not willing. Short-term goals, they are not planning for the long term issues and consequences. Limited awareness and action, lack of data in most of the cases, enough data is not available, poor supply chain cooperation, demand greater than supply. There is always over consumption of stuff, and that is why this over exploitation.

So, levers to accelerate progress, what can be done? Transboundary action and leadership, long-term goal setting, multi-stakeholder dialogues and partnership, data transparency so that everybody is aware of the real situation, strategic communication engagement, labeling standards and organization as central convenience, convening space for supply chain cooperation innovation. So, you see another interesting picture of glacier where it is meeting the water body and you see these ice shelf. These are falling gradually and melting into the water and becoming part of this water body.

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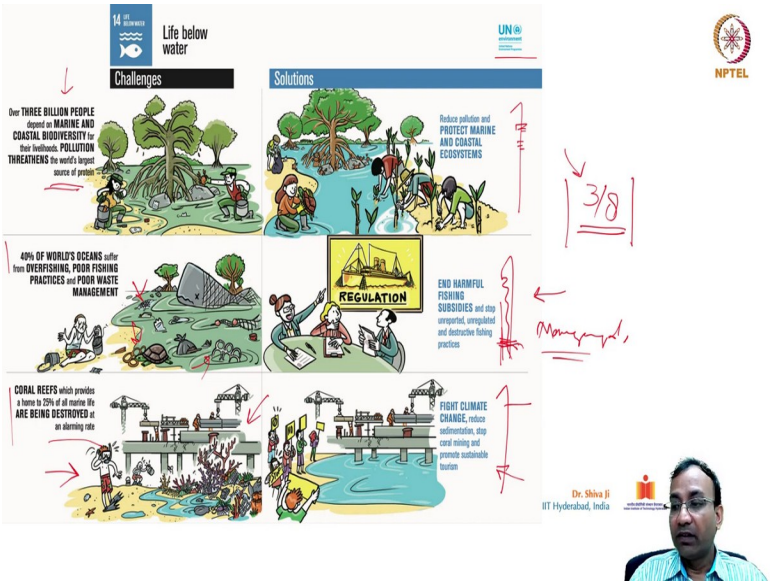

So, let us see what a UN environment says about some challenges and solutions. Over 3 billion people depend on marine and coastal biodiversity for their livelihoods, we saw in the first slide. But pollution threatens the world's largest source of protein. Because so many people are dependent, 3 out of 8, it is a major source of protein and many other food requirements for the society.

So, what happens to that if this is threatened? They directly get impacted. So, reducing pollution must be the first priority, protecting marine and coastal ecosystems. Second, 40 percent of world's oceans suffer from overfishing, poor fishing practices and poor waste management. In the previous module we saw how much of these pollution and plastic and other stuff is threatening the existence of the aquatic species.

Animals, birds, fish they are ingesting these plastic articles and stuff and they are simply dying, they are getting caught in nets and fishing nets and other plastic articles. So, those kind of stuff. So, the pollution must actually stop and waste dumping in the ocean or must stop completely and harmful fishing subsidies and stop unreported, unregulated product destructive fishing practices. So, it should follow managed practices only, not the unmanaged ones, not the unsustainable ones.

Finally, coral reefs which provide a home to 25 percent of all marine are being destroyed at an alarming rate by construction, by bigger size shapes, and by increased acidity in the

oceans, and all of those features. So, fight climate change, reduce sedimentation, stop coral mining, promote sustainable tourism so that it remains there for future also.

So, with this, we have come to the end of this session. Always remember, water is an integral part of our ecosystem and there is no life without it. Even our bodies are made up of over 70 percent often water content, and mostly other living forms also are so much dependent on water. This is an essential factor, we must preserve. So, thank you all for joining this module. See you in the next one.