

Biodiversity Protection, Farmers and Breeders Right

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Lecture 40 : Biodiversity and Human Happiness

Welcome to the lecture 40 on Biodiversity and Human Happiness. The relevance of biodiversity with human happiness is increasing and human happiness and its inter linkage with biodiversity is not only a study by research groups, but internationally this has become relevant for coming up with several policy mandates. These are the concepts that we would cover in this lecture, biodiversity and its relation to health, what is gross national happiness, how the mandate of biodiversity and mental health has been identified from the WHO perspective. What are the areas where biodiversity can contribute to human happiness? From the country perspective, we will understand the national mission on biodiversity and human well-being, announced in 2018 for India and what are the different missions as a part of that. There are several country cooperation studies and mandates with respect to WHO. We will look at the WHO India country cooperation strategy 2019-2023.

These are the keywords for the lecture. Biodiversity is directly linked with the health of an ecosystem. We understand this generally. Human health is also impacted by biodiversity.

If the provisioning aspects of ecosystem services that we discussed in the earlier lectures are severely affected that would affect human health. And hence, biodiversity is essential for human life. From the perspective of the sustainable development goals, it is relevant to recall the goal 3 which talks about ensuring healthy lives and promoting well-being for all at all ages. So, the relevance of biodiversity for human health has been integrated into several sectors where directly or indirectly health is impacted. The reports that have come out of the MEA, the Millennium Ecosystem Assessment and the IPCC, the Intergovernmental Panel for Climate Change indicate clearly that the state of the global environment and the sustainability of ecosystems affects human well-being.

In 2023, the IPBES had a specific mandate of reviewing the inter linkage among biodiversity, water, food and health. In the 2018 meeting of the conference of parties, the COP meeting 14 of the CBD at Sharmal Sheikh, a comprehensive decision on biodiversity and health was taken. So, today we see the need for direct studies understanding the relationship between biodiversity and health becoming more and more important. The decision of the CBD COP emphasized on the value of one health approach and this brings in the need to promote and facilitate dialogue on biodiversity health approaches that are

relevant at different levels with respect to several stakeholders. The nature for health is an important initiative which has been identified to look at what are the integrated approaches for health of people, animals and the environment particularly from the context of future pandemics.

And this is where we see the combined efforts of the United Nations Environment Programme, the Secretary of the CBD, the UN Development Programme, the WHO, the World Organization of Animal Health coming together for this particular initiative. The greater cooperation between the WHO and CBD has been identified to bring the work programme in this area. One health as it defined by WHO talks about an approach to design and implement programmes, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes. As we realize one health mandate is quite complex from the point of view of bringing in multidisciplinary and the need for working across several sectors. To that extent a draft global action plan for biodiversity and health has been identified.

We need to also appreciate the development of the index with respect to happiness. Gross national happiness is a very important index that has been included into the mandates with respect to biodiversity and human happiness. So, this index is used to measure the collective happiness in a particular country, and Bhutan takes the credit of coming up with the GNH. This falls in line with the goal 8 of the SDG which talks about promoting sustained inclusive and sustainable economic growth, full and productive employment and decent work to all. So, there are several domains for measurement of gross national happiness.

We talk about health, education, community, vitality, diversity from the cultural end and its resilience, the use of time in a balanced manner, supporting ecological diversity, what are the ways in which psychological well-being is being addressed. Is the standard of living improving in terms of different standards? What are the good governance mechanisms available? So, all of these contribute to what we call the gross national happiness. There are several studies now coming up on the linkage between biodiversity and happiness. The increased green cover helps in providing support to human well-being. There are several studies which indicate greater the green cover, greater is the ability to cope up with stress, the value of exercise, health, recreation, leisure, fitness all these are interlinked.

From the perspective of the WHO, the mental health atlas has been developed. There are several publications available and one can access from the WHO website, the data that is coming up with respect to the status of mental health and how mental health services can help with respect to improving well-being. Policies have been identified, what are the interfacing legislations that provide support, available and utilization of services and data

collection systems. This document underlies the aspect of what we call the development of the WHO comprehensive mental health action plan which was adopted at the World Health Assembly and later on it was extended to the period of 2030. So, the loss of biodiversity is also impacting mental health and this greater recognition is what we see as the concerted effort bringing together several organizations to work on this particular aspect as well.

Increasing the green cover can have several health benefits at the individual, at the neighborhood level, in lessening social aberrations, improving cognitive skills and overall mental health. There are studies which indicate that enhanced tree canopy cover positively contributes to health including mental health. The WHO defines mental health as a state of well-being in which every individual realizes his or her own abilities and is able to cope up with normal stress of life and be able to contribute to his or her community. So, it is at this stage we have several reports that are available under the CBD which provide also evidence in relation to how the benefits of health and well-being can be realized by greater interaction with nature. This is only a glimpse into the context of biodiversity and human happiness. There are several research studies that have been conducted which use some or many factors to identify the interlinkage.

From the context of the emerging mandate under the Convention on Biological Diversity, mainstreaming biodiversity for human happiness and well-being has been growing. From the country context, India has developed its national mission on biodiversity and human well-being which began with a small group, the Ecological Collaborative which had discussions and brought these discussions to the national end and this was included under the five-year national mission under the Prime Minister Science Technology Innovation Advisory Council. There are three groups, agencies under the Government of India, the Ministry of Environment, Forest Climate Change, the Department of Biotechnology and Department of Science and Technology have contributed in order to lay down these several objectives of the mission. The objective being for a greener, healthier and a more sustainable way of life. So, this mission has been identified at different levels to include all stakeholders from the scientific institutions, researchers, governmental agencies, non-governmental agencies at several levels, the national state and the local levels.

Several objectives have been identified under this national mission. The mission identifies the need for strengthening the science of restoring, conserving and sustainability utilizing India's natural heritage. In this biodiversity is a key consideration particularly from its role in agriculture, ecosystem services, health, the relevance to bioeconomy and climate change mitigation. It aims to establish a system and policy oriented biodiversity information system, enhance the capacity of aligning the national biodiversity targets with the several sustainable development goals. This mission is also expected to provide a background for

India to take leadership by demonstrating the linkage between conservation of natural assets and social well-being.

One of the important aspects of the mission is to create the biodiversity status for India by assessing it in terms of distribution and conservation. In terms of capacity building, identifying the skill to deal with management and monitoring of biodiversity becomes relevant. How we can enhance the understanding of ecosystem functioning to for providing greater restoration in relation to the efforts that are being carried out? What are the different choices for that can be enhanced for agriculture production and livelihoods? It also envisages a policy to formulate a biodiversity based sustainable economy based on reliable information systems. The need to engage with public for security and well-being of the society has also been identified. So, there are two components to the national biodiversity mission that are relevant to discuss.

In the first component, we have the national initiative for sustained assessment of resource governance that takes into consideration characterization of India's biodiversity from the point of view of explanation, understanding the genetics, development of EPBRs people Biodiversity Registers and also cataloguing and mapping what are the different livelihoods based on biodiversity of India. So, what this involves is an extensive documentation cataloguing, mapping and monitoring and the management of biodiversity. The second component takes into consideration ecosystem services, climate change and disaster risk agriculture as a focus, health, bioeconomy, capacity building and outreach. The work on the EPBRs had already started, several biodiversity boards are also cataloguing the EPBRs. At some point of time the EPBRs will be interlinked and such information will be very valuable for conservation and also sustainable utilization of resources.

The characterization of India's biodiversity is an ongoing effort which takes into consideration the background information already developed. And cataloguing and mapping of life of India would include the understanding of how biodiversity is contributing to livelihoods and especially in the local communities. So, the national biodiversity mission is linked with several other missions which help in the work program. For instance the national mission on clean Ganga, green India mission, Swachh Bharat mission, national mission on sustaining Himalayan ecosystem, national policy on Ayush and the national wildlife action plan. Together they support the national biodiversity mission.

So, what we see going forward are several studies that will help and understand the context of how we could improve the biodiversity and look at its positive contribution to human well being. We do have support from the World Health Organization through its country cooperation strategy. The WHO India country cooperation strategy 2019-2023 identifies

several different priority areas. Accelerating progress in terms of universal health coverage is one. Addressing the determinants of health would help in the promotion of health.

What are the ways in which health emergencies can be understood to better protect the population? India has shown tremendous leadership in addressing the pandemic. One of the priority areas is how India can India's global role in health can be enhanced. So, with this we come to the conclusions. Human health and well being is dependent on biodiversity. Enhancing biodiversity and restoration activities can positively impact human well being.

National cooperation has been very beneficial with respect to understanding the linkage between biodiversity and human health. Several organizations and particularly the WHO have joined hands for this particular effort. From a country perspective, the national mission on biodiversity and human well being identifies several areas which would create the policy mandate, implementation measures with respect to biodiversity as well as for the improvement of well being of its citizens. These are a few references for the lecture. Thank you.