

Biodiversity Protection, Farmers and Breeders Right

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Lecture 06: Traditional Resources Rights, Ecosystem Measures

Welcome to the lecture on traditional resource rights and ecosystem. In this lecture, we will cover the aspects of traditional resource rights, concept of ecosystem, ecosystem structure, and importantly, ecosystem approach, and this is what the CBD emphasizes on. We will also take up aspects of where ecosystem measures are important for restoration of ecosystem, and hence we will take up the aspect of the UN decade on ecosystem restoration. The adaptive measures that are required also need to be ecosystem based for a full implementation of conservation measures. Now, these are the key aspects. So, what are traditional resources is important to understand before we try to understand traditional resource rights.

Traditional resources are tangible and intangible assets and attributes that are deemed to be of value to indigenous and local communities. Therefore, the paradigm of what we call traditional resources is inherently linked with the immediate dwelling of the local communities. Now, this can include plant, animal, and other material objects which have different value not only in terms of livelihood, but in terms of religious aspect, in terms of aesthetic value, and the economic and social value. Communities have been effectively conserving biological diversity since ages.

Hence, their experience is important to understand how conservation can be more effectively implemented, and it is from that perspective we will begin to understand now traditional resource rights. To begin with traditional resource rights as a concept emerged from the context of the movement on indigenous people. Taking into consideration the views and concerns of indigenous people, and how communities their participation, recognition of their rights is integral to identifying a very effective framework to implement the measures. So, therefore, the traditional resource rights paradigm is a human rights paradigm. An understanding of this is more of a process than a product.

Internationally this has been a very important backdrop to look at what kind of sui generis systems are available when it comes to the recognition of the rights in relation to indigenous and local communities. It is important to visit the context of the principal forums for representation of indigenous issues in the UN. We have the ILO convention 169. Then the other important focus has been the food and agriculture organization in terms of recognizing farmer rights on traditional farming practices, and how that has been a very important context of looking at conservation of plant genetic resources. The

activities of the UNCED, the UN conference on environment development are important to understand the representation of indigenous people in relation to the aspect of the activities under the UNCED.

Now, Agenda 21 has been a very important movement with respect to defining the plans in relation to the sustainability aspects. So, all in all, these fora are important to look at how the movement of the representation of indigenous issues has happened in the UN. Beyond this of course, we also look at the current negotiations that are happening in relation to the treaty on TK is significant. If you look at it historically, the WIPO from the point of view of the post TRIPS understanding took up the cause of looking at genetic resources and TK as an important context under its intergovernmental committee on genetic resources and TK. Today, we are able to now look at a development of a international framework for looking at the context of genetic resources and TK and the involvement of local people.

What should be the international arrangement on that? So, therefore, the significant development in order to look at the representation of indigenous issues. The voluntary fund for indigenous issue, indigenous people has been a very important development in 2004, where direct participation of the stakeholders has been considered. So, while the discussion can be quite detailed, but it is important to understand these are the important key milestones when it comes to the representation of indigenous issues. So, when we look at the traditional resource rights, what are these rights? As I mentioned earlier, human rights is the basic framework. Local communities have the right to determine land and territory, their cultural property, recognition of the cultural heritage, customary law and practices have to be respected and included wherever the need and expectations have to be understood.

Our rights are integral to cultivation practices, indigenous and local communities rights have to be recognized in relation to PIC, prior informed consent and full disclosure, their rights to privacy, their religious freedom. So, a plethora of rights are available under the resource traditional resource rights. So, the traditional resource rights, once again I emphasize, takes into consideration the rights associated with the immediate dwelling and the practices associated with indigenous and local people. Involving these set of rights into the general fora is necessary to look at a meaningful implementation of any measures so far as the principles of biodiversity conservation are concerned. We now move to the context of ecosystem.

Now, what is an ecosystem? An ecosystem has two components, the abiotic and the biotic component. The abiotic component is the non-living component which involves the environment, physical environment and understanding of those components is

important in order to look at how the interaction of the biotic component happens with the abiotic component. The biotic component has the living organisms which includes plants, animals and microorganisms. So, living organisms interact with the abiotic component and that interaction and understanding of that interrelationship is important when we look at ecological functions. Agricultural functions are therefore, a continuum of the activities involved in the interaction of the living and the non-living components.

Given that, let us now look at the ecosystem approach. Now, article 2 of the CBD defines ecosystem to mean a dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a functional unit. CBD advances an ecosystem approach when it comes to the implementation of the key objectives of the convention. It is important to understand what is an ecosystem approach. An ecosystem approach is a strategy for integrating the management of land, water, living resource in order to promote conservation and sustainable use in an equitable way.

The second meeting of the COP adopted the ecosystem approach under the decision II/8 in 1995. Ten different principles have been identified and five different key points have arrived out of the implementation of the ten principles as an operational guidance. Now, these are the different principles of ecosystem approach. Briefly principle 1 is dealing with the objective of management of land, water and living resource. We are defining that as the main objective in terms of a matter of a societal choice.

Principle 2 recognizes that there must be a decentralization of the entire management to the local level. Principle 3, recognizes the aspect of ecosystem functions or services in terms of actual or potential value should be a consideration for ecosystem managers in order to look at a given ecosystem and also the adjacent functionalities. Principle 4 talks about the gains out of the management of ecosystems, and such ecosystem management programs ought to take into consideration three different aspects. To avoid market distortions that affect biodiversity adversely, incentivize the process of promotion of biodiversity conservation and sustainable use. Looking at the costs and benefits of the given ecosystem, it is important to look at mechanisms that are feasible for implementation.

Principle 5 deals with specifically the mandate of the conservation of ecosystem structure and its functioning, which ought to be a priority under the ecosystem approach. The principle 6 takes into consideration the management of ecosystems within the limits of the functions. Principle 7 identifies the need for looking at appropriate spatial and temporal scales whenever we look at ecosystem the implementation. Principle 8 takes into consideration the need to understand that ecosystem functions can happen at

different lag times, how do you really set the long term and the short term objectives. Principle 9 looks at the need to recognize that change is even inevitable in an ecosystem and hence management of an ecosystem must consider the changes involved.

Principle 10 looks at the need to appropriately balance the conservation and use of biodiversity. Now, the context of using scientific indigenous and local knowledge innovation and practices is one important requirement that is laid out in principle 11. Principle 12 talks about the need to involve relevant sectors of the society and also look at involving all disciplines of science when you deal with ecosystem approach. Now, all of these principles are have been identified into an operational guidance into five different points. One focusing on relationship and processes within ecosystem, another looking at enhancing the benefit sharing, what are the adaptive management practices.

Taking into consideration management aspects by decentralizing it to the local community level and also looking at operational scales. The need for ensuring intersectoral cooperation is also one of the important operational guidance. If you look at the COP 2 to the further conference of party meetings, this operational guidance has become a key factor for looking at the implementation of ecosystem approach. We will now take up the aspect of ecosystem measures. Ecosystem measures are important for the conservation of an ecosystem.

How do they help us? They help us in understanding of the health of the ecosystem and how an ecosystem needs to be managed. Therefore, when we talk about ecosystem measures, it is an integral linkage of the structural and the functional aspects of the ecosystem. And today when we talk about ecologically sustainable approaches, ecosystem measures are central to that development. The topic of ecosystem measures has received a wider importance in view of the need to restore ecosystems. So, we will also try to understand what are the measures in relation to restoration of ecosystems.

The loss of biodiversity is happening at a very rapid pace. This has not only affected the ecosystem, but also the functions of the ecosystem and the value that the ecosystem can give us in terms of ecosystem goods and services. The overall environmental sustainability is severely affected. Ecosystem restoration takes into consideration as is enunciated in article 8 of the Convention on Biological Diversity. The need to rehabilitate, restore degraded ecosystems, promote the recovery of threatened species inter alia through the development and implementation of plans and other management strategies.

Given the importance of ecosystem restoration, let us understand what are the efforts that are happening internationally. 2021 to 2030 has been identified as the decade of

ecosystem restoration with the objective to prevent, halt and reverse the degradation of ecosystems worldwide. In order to take forward this, specific objectives have been laid out. This also fits into the goal 15 of the SDGs, which are devoted to protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification and halting and reversing land degradation and thereby halting biodiversity loss. Now, when we look at ecosystem restoration activities under the decade, we are looking at how the productivity and capacity of ecosystems can be improved to meet societal needs.

Some of the activities that are under this particular decade are enhancing the organic carbon in agricultural soils to make the soil more productive, increasing the fish stock, remediating polluted sites and restoring habitats. Restoring fauna and flora can also assist in the restoration processes. There are several partners in the effort to restore ecosystems. They are not only international organizations, they are also non-governmental organizations, UN based organizations working in concert along with the CBD and the UN agencies in order to work on the ecosystem restoration. So, as you can see, ecosystem restoration is an activity which is spanning over a period of time, and it is only when we see the completion of this decade is the outcome going to be realized.

In order to take forward the activity in relation to ecosystem restoration, 10 different principles have been identified. The need for contribution at the global front, engagement at a broader scale, taking into consideration activities of different nature, identifying the benefits restoration activities can have with respect to nature and people, identifying what are the factors that are leading to degradation of ecosystems, how one can integrate knowledge to take forward ecosystem restoration, activities need to be in the form of measured goals, the context of local implementation as well as on the context of land and seascape assume importance. Ecosystem restoration is a process that need to be monitored and managed over a period of time, and what are the policy initiatives and interventions that are required, and to be integrated into the entire ecosystem restoration emphasis. So, these 10 principles guide ecosystem restoration activities which have been announced under the decade. These well fall into the various Aichi targets, namely the Aichi target 5, 14 and 15.

To reverse the loss of natural habitats that includes forests, and how at least we can bring it down by a half the rate of biodiversity loss. Now, Aichi Target 14 identifies the need to look at essential services that ecosystem provide and an understanding of how they contribute to health livelihoods and well being. So, the activities taken up in this regard take into consideration these aspects. The Aichi Target 15 dealing with ecosystem resilience considers the need for understanding of how carbon stocks can be enhanced, and the need for restoration at least 15 percent of the degraded ecosystems which would

have an effect on understanding climate change mitigation and adaptation and combating desertification. So, the activities encompassed under the decade do have a direct impact when it comes to the assessment of these Aichi targets.

There are several initiatives that have been taken up under the ecosystem restoration initiative. One such is the forest ecosystem restoration initiative which supports the Aichi Targets that we have discussed just a while back. The initiative is propelled by regional capacity building workshops identifying best practices and exchanges experiences in relation to the forest ecosystem conservation and restoration. This is one activity, there are several other regional activities that have been taken forward. So, global studies on ecosystem restoration identify six ecosystems for work, the agroecosystems, grasslands, forest, drylands, wetlands and coastal areas.

In conclusion, we have discussed the aspects of traditional resource rights. Traditional resource rights are more of a process than a product. There are a range of rights in relation to traditional resource rights. The emphasis of ecosystem approach is vital for the overall implementation of the principles of CBD. Key principles which are 10 of them in relation to ecosystem approach have been identified along with the operational guidelines.

Several ecosystem measures in an integrated way would help in the halting of biodiversity loss, and several activities have gained thrust under the decade on ecosystem restoration. So, what you can see on this slide are the references to the lecture, those from the FAO, the IUCN and the CBD, the activities under the restoration of ecosystems decade itself. Thank you.