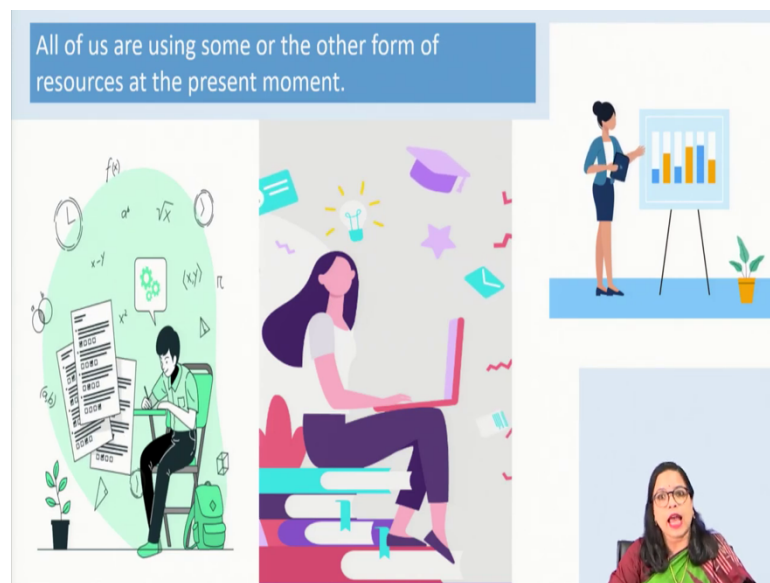


Sociology and Resource Management
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Module - 01
Natural Resource Management and Different Theoretical Approaches
Lecture - 01
Categorizing Resources Governed under Different Property Regimes

A warm welcome to the course titled, 'natural resource management and different theoretical approaches'. Through this course, I intend to help you all understand the essence of resources, their interaction with the society, and the resulting outcomes. During the first two weeks, I will introduce you to different kinds of resources and help you situate them in the broader societal context. So, let us get started with the first module, 'categorizing resources governed under different property regimes'.

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I am sure all of us know what resources are. In fact, in the very present moment, we all are using some or the other form of resources. If we go by the definition, then resources are

anything that have utility and add value to life. Then it brings us to categorization of the resources as either man-made or natural.

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Resources are categorized either as manmade or natural. And on the one hand, we consume resources on a day-to-day basis in the form of natural resources like the water that we consume, the land that we live on, and the forest from where we draw our fodder and food; they are all naturally occurring. But on the other hand, there are manmade resources like the internet, the medium we are using to get connected right now and the knowledge we are sharing.

Human beings have created these platforms with the help of existing resources. Our interaction with different natural and manmade resources sheds light on the production and consumption of these resources. And when we talk about the production and consumption of resources, the interesting aspect of ownership comes into the picture.



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Ownership of Resources

- ❖ **Property** means resources or things that are owned or possessed by individuals or groups having some value.
- ❖ **Property rights** allow the owner to take specific decisions or act in certain ways with regard to their property.
- ❖ **Rights** are always accompanied by **duties** both of which are determined by **rules**, which are directives that state what actions are allowed and what are not in relation to a property.

De Jure Rights	De Facto Rights
Officially Sanctioned	Non-sanctioned

- ❖ **Property regimes** are created to protect the resources from encroachment — Element of coercion that ensures adherence of rights and duties by individuals and groups protecting the property from all kinds of harm (Bromley, 1990).



Then we encounter two broad questions, who owns these resources we want to consume and who possesses the right or has access to the resources? Before we delve into the questions, we must first decode how we determine the ownership of these resources because the ownership can further determine who can have the right to use them and who does not have the right to use them. This brings us to the concepts of property, property rights, and property regime.

Let us analyze them one by one to gain more clarity on resource usage. The term property means resources or things having some value and owned or possessed by individuals or groups. It also signifies specific directives informing us about ownership status, various interrelationships arising out of that property, and what rights these statuses grant the owner.

For example, a person who owns a house possesses it, maintains it, determines who can have access to it, and establishes in society that the house belongs to them. Further, the right to property or the house allows them to take specific decisions or act in a certain way concerning the property in question. Here, rights mean the decision or actions allowed at the property user's end.

Like which colour they want to paint the house and how to decorate it or who is allowed into the house and who is not. However, rights are always accompanied by duties, both of which are determined by the rules. Like here, the house owner's responsibility is to pay

taxes to the government for their property, not infringe upon others' property, and abide by the government's rules.

And these rules determine the direction that states what actions are allowed and what is not in relation to the property. In Daniel Bromley's words, property rights are a structure of rights and duties that will give any particular benefit stream protection against adverse claims. Having rights over a specific property will prohibit others from claiming the same property.

To understand property rights in relation to resources in a better way, we need to delve into the concept of de jure and de facto. De jure rights originated when people or individuals are officially given the rights over a property. The government often bestows these rights, whose officials entrust the resource users with such rights. Because of their legitimate nature, they are naturally secure and hold well in a court of law. On the other hand, de facto property rights are determined and implemented by the resource users.


The rights do not have an official or legitimate source, making them less secure in nature than the de jure. These two kinds of property rights often exist together in practice; for instance, in the case of a national park, the government has given the rights of the forest protection committee the right to access but not the right to withdraw. So, while they are free to enter the forest, they cannot retrieve any part of the forest for their own use, which is a protected site in that case.

When we analyze the property regimes, they are created to protect the resources from encroachment. Bromley treats property regimes as systems of authority since rights and duties lie at the very core of it. There is an element of coercion both within and outside the property regime boundary that helps to create or to ensure the adherence of rights and duties by individuals and groups and helps protect the property from all kinds of harm.

Coercion within property regimes is internalized externally as well as internally. External coercion keeps outsiders at bay, while internal coercion keeps a check on the over-exploitation of the resources by the users and the community. The decision for which kind of regime is suitable for what kind of a resource is determined by the nature of the natural resource and the intention of the future users of the resources.

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History of Property Regimes



- ❖ In the old days, all natural resources were held in common by villages who later realized the **limited** nature of these resources, and the concept of **property** was born.
- ❖ If the villages were doing a good job at looking after their resources, how did other forms of property regime rise?

1. The **exploitation** of natural resources meant for the sustenance of villagers by **powerful leaders** who had influence beyond the boundaries of the village.
2. The **colonizers** abused their power and **exported** natural resources to other countries for profit.

- ❖ As the villages lost control over their resources, **public** and **private** property were born.



Initially, it was believed that everything was held in commons, be it land, pastures, forest, everything. But with the advent of demarcating boundaries between what is mine and what is theirs, people realized that resources are limited in nature, and they have certain values. Before moving on, let us briefly look at the history of property regimes at a time when local villages were the basic unit of resource production and consumption.

The villagers would be greatly cautious about resource usage, making sure not to or cross its carrying capacity. There are two reasons why the system of resource management broke down. Firstly, due to the emergence of the charismatic leader whose reign transcended the village boundaries, they began to treat these resources as a source of profit as opposed to the means of survival for the villagers.

As a result, crops and other natural resources began to circulate in the markets, with some of the supplies even being exported for generating greater income. And here the linkage of resource with the market began for the first time. Secondly, with the forces of colonization that severely impeded the authority of the villages, the colonizers were in constant need of money. To continue their project, they relied upon the exploitation of the natural resources where they were stationed to accumulate wealth or the capital.

The combined capture of power by the local leaders and the colonial rulers gradually rendered the reign of village management powerless. And once the colonizers were defeated and the nations began to rise, local sources of authority like the village were still

not restored to the former status in the fear that they would undermine the authority of the central government.

Consequently, properties that were earlier controlled under the village management regime and that were managed as commons passed on to the hands of the central government. And where we categorized as state or the public property, this was also the beginning of other property management regimes that we know of today.

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Property Rights Regime and Natural Resources: A Conceptual Analysis



- ❖ **Schlager & Ostrom (1992)** conceptualized two kinds of actions that resource users engage in everyday:
- **Operational level action** – Guided by already existing operational rules – For example, areas in the village where cattle can graze and areas out of bound.
- **Collective-action level action** – Collective level rules that enable a collective of people to change operational level rules – For example, fixing the maximum number of cows/sheep allowed to graze at a time, and so on.



Having discussed about the concept of property, property rights, and property regime let us now analyze Adella schlager's and Elinor Ostrom's work which explained the working of property regime. They have categorized or theorized two tiers of action that people undertake while they engage in their daily activities in relation to properties. The first is at the operational level of action and the second is the collective choice level of action, these two kinds of actions are determined by appropriate rules. Actions of operation nature are guided by rules that correspond at an operational level.

An example of operational level rule would be predetermined rules that existed since long time and no one knows who framed it or who is responsible for producing these rules. Like stating which areas in the village cattle could be grazed and which areas are forbidden for cattle grazing or other uses, whereas collective choice rules determine the action undertaken by a collective of people.

So, if we go back to the earlier example of collective choice rule we would be able to change the operational rule. Specifying the number of sheep's or cows or cattle that one can graze in the land, who can use the land and when or etcetera. Thus, operational rules affect the immediate arrangement while the collective choice rules have the potential to shape the future operational rule and the use of the resources. Together the collective choice action and the rules affect the functioning at the operational level. Now, that we have discussed or covered the basics of property right.

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Let us take a look at two different types of property rights that come into the picture while dealing with natural resources that are managed by a community. According to Schlager and Ostrom these are property rights at operational tier. Property rights and the collective choice tier, under the operational tier there are two further kinds of rights like, access and withdrawal. To have access rights means entitled to enter or permitted to access a particular tangible property.

For example, if you have a club membership then you only will be able or entitled to enter the club as you have the access right whereas, withdrawal rights enables one to procure resources from a given property. For example, in order to draw water from a well in the village you must have the withdrawal rights, everyone is not allowed to draw water from the well and also some are given the special rights. So, it happens in some villages which are also you know this distinction is based on caste or other criteria.

So, who then is the authority to decide the collective choice rights, an individual or a group has in order to understand this we have to refer to Schlager and Ostrom. And they consider that the management rights, exclusion rights, and the alienation rights together make up the collective choice rights in case of managing a resource. Here the management rights enable the right holder the right to control the internal rules of usage of a resource and to make changes in it for its betterment.

Management rights holder also have right to decide who can procure the resource in what ways that is they formulate the withdrawal rights at the operational tier. For example, we all know that for the smooth functioning of a cricket team there is a managing body which decides which players can play the match and in what order. Similarly, here the management rights holder determine the rules of the resource use.

To have exclusion rights means to be able to decide who has the right to enter the property in what ways and can that right be passed over to somebody else. Holders of exclusion right get to conceive the criteria that individuals or groups should meet to create a property. For example, you must have seen instructions where to enter a property you must be of a certain age group. Like the children's play area, here the holders of exclusion rights determine the age group and the rules of transfer of membership as well.


Finally, the alienation rights are the rights to put on sale, rent the first two rights that is one's management right and one's exclusion right. Alienation rights are the final in nature; which means, once they have been exercised the holders of the right loses the right to exercise it in the future.

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Types of Property Rights Holders

	Owner	Proprietor	Claimant	Authorized User
Access and Withdrawal	X	X	X	X
Management	X	X	X	
Exclusion	X	X		
Alienation	X			

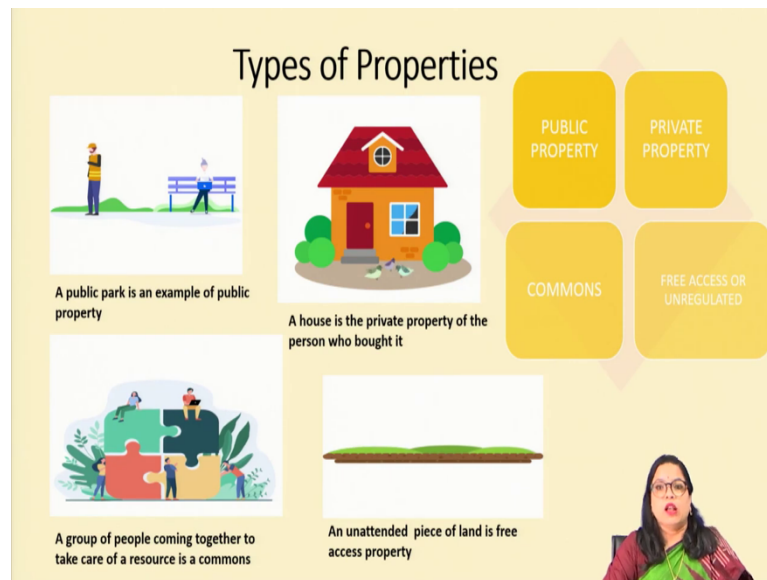
Table 1: Adapted from Schlager & Elinor Ostrom (1992) "Property-rights regimes and natural resources: a conceptual analysis." *Land economics* p. 252



Schlager and Ostrom researched in the areas of fisheries namely the lobster industry of Maine and were able to identify four sections of property rights holders namely, the authorized users, the claimants, the proprietors, and finally, the owners. The table here represents how owners, claimant, proprietor and authorized users have access and withdrawal rights. Here owners, claimant, proprietor have management rights; whereas, owners and proprietor have exclusion rights and the owners alone have the alienation right.

Hence, owners of a resource enjoy all the rights associated with the management of a resource. Finally, the owners have all the rights at both the tiers; this means, they have access as well as withdrawal rights at the operational tier and rights of management and exclusion as well as alienation at the collective choice tier. Having discussed the property rights and different rights associated with it, let us examine the natural resources and their governance.

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Natural resources can be managed as public property, private property, commons, and as free access or unregulated property. Though the distinction is not watertight always we might encounter some resources which have some or the other feature from each domain. We will try to specify the resources through property rights that govern them, their ownership and usage to make it clearer to all of you.

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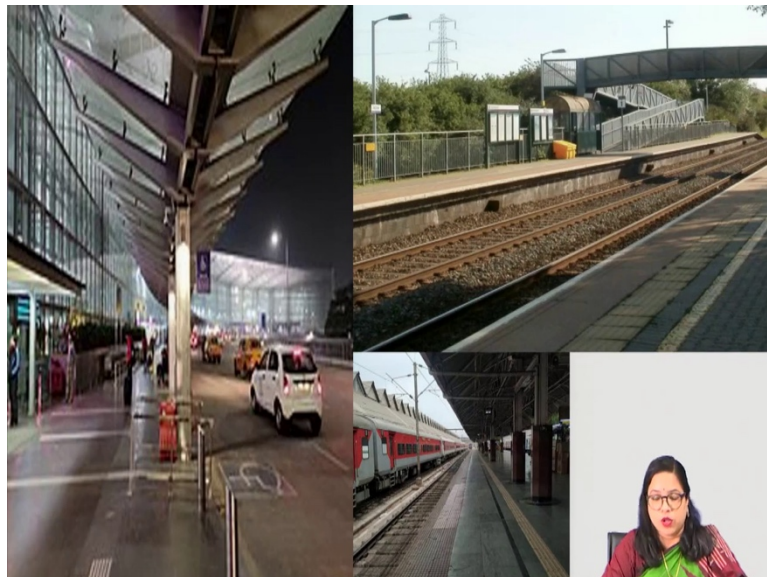


Now I will talk about the first kind of property which is the public property. As the meaning of the word suggests, these resources concern the people as a whole and are open

to all. Some researchers have noted that public resources are non-rivalrous and non-excludable. Since no one can be excluded there is no conflict over them. However, they are not always free to all. Anyone who wants to access it must abide by certain rules that are set by the governing authority who are generally the enforcing authorities of the state. For example – Public parks – anyone can access them but must follow all the rules determined by the municipality of the area where the park is situated.

Like one can only access the park during its operational hours and should not loiter the park or pluck any flowers from it or destroy the benches in the park. If anyone engages in such activities, then they might be restricted from accessing the parks.

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Other example of public or the state property are the airports and railway platforms. In both the cases gaining access requires payment of a certain type or of certain amount. For airports a hefty parking fee has to be paid for gaining access to the airport for the use of the parking lot. Moreover, only people with valid flight tickets can enter the departure terminal, others are only allowed to sit in the waiting areas.

In case of railway platforms, a platform ticket has to be purchased to enter the station without a valid journey ticket. So, here the access is regulated by the state appointed agents such as police officials, or security personnel. Sometimes the government also outsources the governing process to private firms or agencies on a contractual basis.

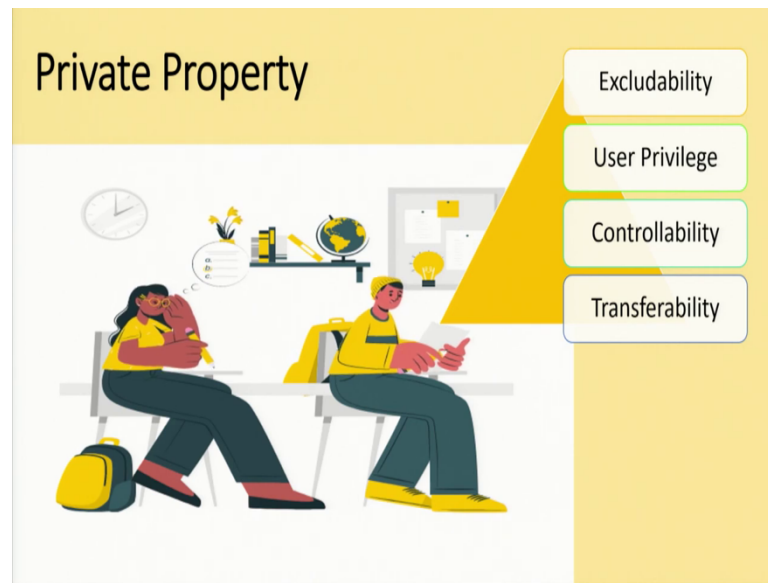
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For example, there are several national parks throughout India which require the users to pay an entry fee for or to a well the jungle safari. The responsibility of the fee collection in this case the kiosk as well as the safari vehicles have been transferred to members of the forest protection committee under the joint forest management program. Villagers who act as members of the forest protection committee are also responsible for protecting, managing the forest and saving them.

These properties which are public in nature are open to all, but not free always. As James Quilligan states in theory public still means people, but in practice public means the government. There have also been instances where public or the state property being converted into the different or other forms of property and vice versa. For example, there are land auctions through which the Indian state or the central government sells public land to private builders or private buyers, or residential for business purposes. So, public property does not mean that they will always remain as a public property.

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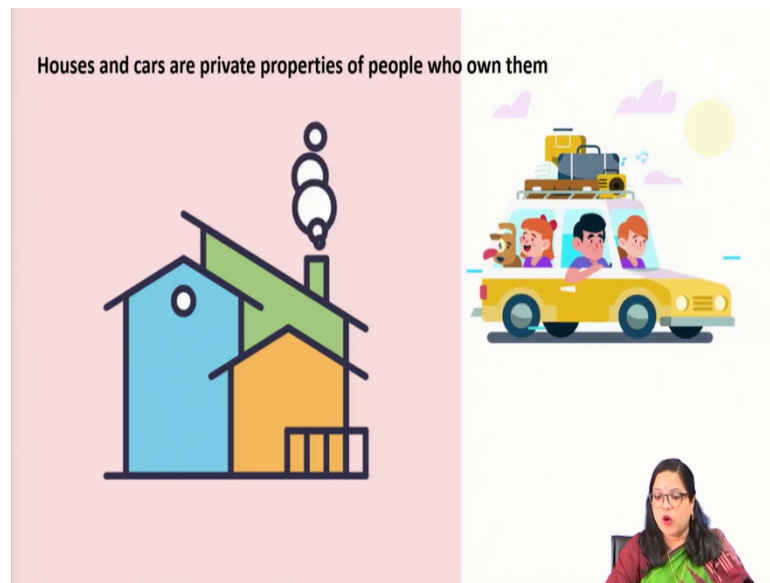


Let's now discuss the next type that is Private property—as the meaning of the word suggests these resources belong to or can be used by a particular person, community or group. According to Topher McDougal, the four basic characteristics attributed to this kind of property are excludability, user privilege, controllability, and transferability.

Private properties are excludable meaning the owners can restrict others from using these personal assets. Use privilege refers to the ability of the owner to exclusively derive benefits from their private property. Private property is accompanied by the aspect of controllability which allows the owner to act upon their property for various reasons. Finally, transfer rights enable the owner to sell or put their private property on rent as per their will.

For example – the things I or you own like the watch I am wearing is my private property. The laptop that you are using, the pen you are holding in your hands or the book that you have are your private property if you own them.

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Similarly, individuals or multiple families might own a patch of land, house or other immovable resources as private property, restricting its use and access to only few or certain individuals.

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Sometimes, private property may take the shape of a public space and allow uninhibited movement of people. Take your favourite store in a shopping mall, for example. You are welcome to visit it as per the scheduled timings and use it for your personal interests like buying products. However, it is still owned by a private company/individual or a corporate

chain. The products will become yours only when you pay for them and hence the transfer of rights over the product takes place here from the shop owner to you. But, the shop which you could use freely for your interest is not a public property even though it appears as a public space.

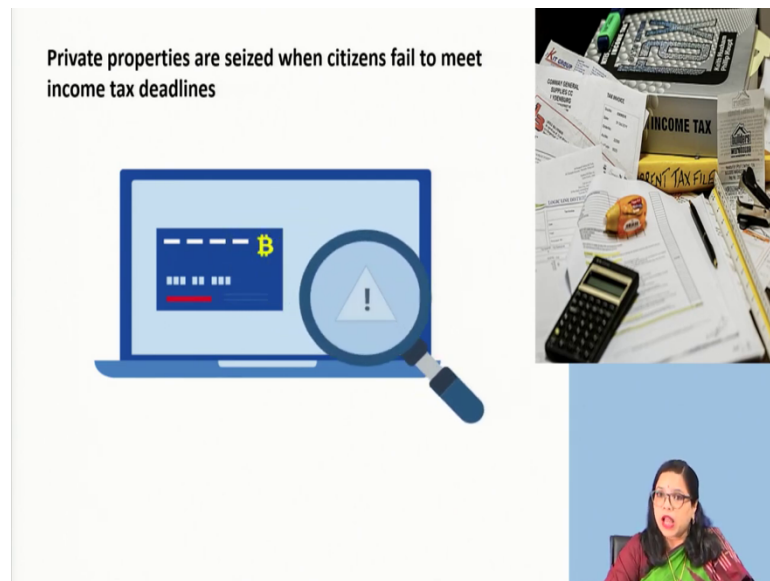
Here, it is worth mentioning that the government sometimes has the authority to withhold private properties in cases where the private property is obstructing the access of a public property, and in other cases where the private property has been obtained through illegal means.

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We are all familiar with the site of the shops and the houses being bulldozed to allow the extension of public roads or to accommodate the increasing flow of traffic.

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Let's consider the other case. As citizens of India, we all have to declare our income once a year and pay our taxes. The income tax department keeps a record of every earning citizen's income to tax ratio and has the authority to seize private property if all sources of income have not been legitimately declared. The advantage of private property over other properties is that because of its excluding nature, there is less pressure on the resources, and they remain in better condition. Under private property, also fall an interesting category of intellectual resources born out of human mind, which we will discuss in the course in detail later. Under the private property also recites an interesting category of intellectual resources borne out of the human mind, this we will discuss in detail in the course later.

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The third kind of property or the commons are a particular type of institutional arrangement for governing the use and disposition of resources. Under the Roman law, commons property was referred to as *res communis*. Here the community, group or a particular individual does not have the ownership over the resource and mostly common are owned by the government/state but are the custodians of the resources.

They govern the resources and decide the rules for managing the resource. This also means that commons are free from the restrictions that markets pose. Here you might be confused

between the public resources and the commons. Commons, unlike public resources are not openly accessible to all.

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For example, let's imagine a village pond situated in X village. Being situated in X village it can be accessed by only villagers of X. Thus, it is a limited-access resource by its nature or physicality. This means, only the residents of X village can consume the benefits. Again, everyone can not draw from the village pond according to his/her desire.

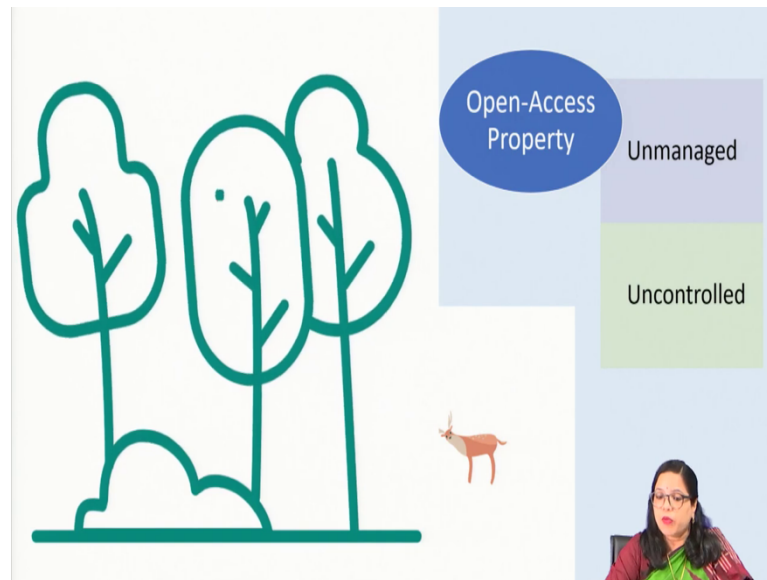
He/she has to follow the rules set up by the community determining its usage or the pre-determined rules. Like what amount of water can be drawn by each household on an everyday basis. How to determine the sequence of drawing water from the pond. These rules are important to avoid over-exploitation of the water in the pond and conserve for the future generations.

Since these resources are limited in nature their management plays an important role. So if the pond has limited number of fishes in it, then over-fishing will prevent them from breeding normally, causing the fishes to become extinct from the pond. However, in the last few decades, scholars have reflected on how large corporates have started seizing various commons resources for the purpose of making profit.

This phenomenon has been termed enclosure of commons. "The issue for those being dispossessed is one of survival", in the words of Donald M. Nonini. As a result,

communities that depend on such commons are putting up a strong fight to resist its enclosure, giving these resources a social character. We will also discuss about these in the upcoming modules.

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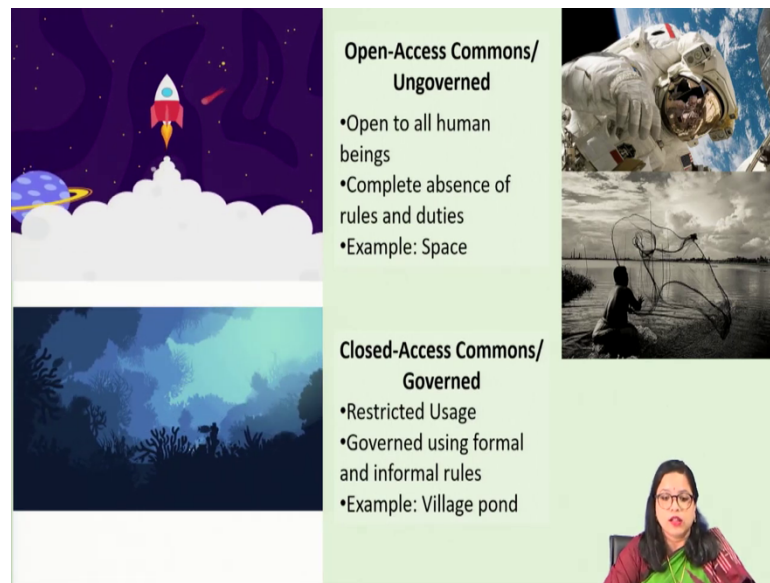


Finally, we come to the discussion of *res nullis*, as the Romans called it, or free access property. Here, the term property is a misnomer as the resource does not really belong to anyone, making it a fertile ground for several competing parties. For example, animals living in the forest are nobody's property until they get poached by hunters. The first hunter to slay a deer, for instance, will have a claim on the animal. Free-access properties emerge from the remnants of once restricted access properties.

The former often fall into ruin due to years of mismanagement and gradually turn to open access. An example of this would be a *de jure* property that has been sanctioned by the government but never used for any purpose. Since, it has not been used for a over a period of time there will be an overgrowth of the shrubs and grasses on the land.

Eventually this abundant piece of land will be used as a *de facto* property by the cattle owners who lead their herds to such lands for grazing. After having a detailed discussion on different property rights, let us examine the different types of common resources. Since we will be studying common resources in detail over a period of time or coming weeks it is important examining the resources for better understanding.

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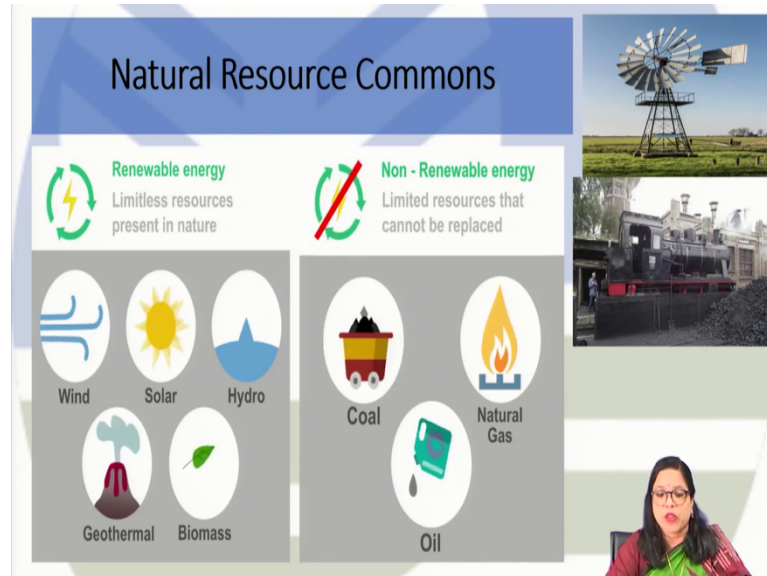
Yochai Benkler has divided commons into four kinds based on two criteria. The first criterion is whether the commons resources are open-access or limited-access. The space is an example of open-access commons. It is open to all human beings on earth to explore. The village pond that I talked about earlier is an example of limited-access commons since its usage is restricted. Bromley, however, is of the opinion that there are crucial differences between open or free access resources and other common property resources. When there is grave mismanagement of resources or complete absence of rules and duties regarding the protection of natural resources, then a commons property resource gets converted into free-access resource.

The second criterion is whether the common resources are governed or ungoverned. Most commons resources are governed using formal or informal rules. Sometimes, the rules are not structured or easily discernible giving it an appearance of being unmanaged. This usually happens in case of open-access commons like the space. Any country that has financial and technological means can send representatives to the space but they have to abide by the rules led down by the UNCOPUOS or United Nations Committee on the Peaceful Uses of Outer Space.

Commons resources have also been classified according to the nature of the resource in question. Keeping this criterion in mind, Nonini has divided commons into four types:

natural resources commons, social commons, intellectual and cultural commons, and species commons. Now I will briefly focus on each of these kinds to make things clearer.

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The first type is the natural resource commons. These are commons resources that have developed around environment-based resources which get degraded over a period of time and are of both renewable and non-renewable in nature. Renewable natural resources include forests, water bodies, lands, fisheries and so on, which can be replenished through the natural process of reproduction. Examples of non-renewable resources are fossil fuels which are not replenished at the same rate as that of consumption.

Thus, natural resource commons suffer from the problems of rivalry and subtractability. Imagine there are two fishermen trying to fish from the same pond; each one will want to keep the best catch and their relationship with each other would be anything but friendly. As the problem here of rivalry exists; so, one person's use will always affect the other person's use.

Natural resources commons are further divided into two types. The first type revolves around resources which not only get exhausted but also cannot be renewed. Such resources are uncommon at this point of time. However, commons revolving around fossil fuels could be an example.

The second type of natural resources commons involve resources that get exhausted but can be renewed. Rivers, forested areas, agricultural lands, pastures are all examples of this type. It is within commons regime that there is a possibility for renewal of the mentioned resources contrary to a private or public property regime.

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Nonini's second category of commons are the social commons. These revolve around resources of social in nature that are generated out of labor undertaken by the human beings. Examples of this would include care giving jobs and other civil jobs, like maintaining cleanliness, providing security and so on. Such resources are limited and the rival in nature, since one individual can engage in only one particular activity at a particular given point of time.

So, if a nurse is attending to a patient or a sick person, their services will not be available for other sick persons at the same time. And imagine a situation that the world faced during the Covid 19 pandemic when we were short of doctors and nurses or of the social commons.

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The situation, however, improves when more individuals participate in generating the social resources or the social commons. This will require enough number of nurses to be able to cater to the needs of all sick people, this will require some social commons resources also have positive outcome; thereby, reducing the pressure on such resources. If adequate cleanliness and hygiene is maintained by the users of social commons resources in a given community that there are chances that a smaller number of individuals will be susceptible to diseases.

This will help decrease the amount of burden on the care giving resources at a given point of time; like, the decrease in the Covid cases due to the use of mask and maintaining proper hygiene. Intellectual commons are resources born out of human mind whereas cultural commons are resources that are cultural in nature. They together are classified as the third type of commons. Intellectual and cultural commons together encompass scientific discoveries and theories, technological advancements, creative products and skills required to produce them. Unlike the types of commons resources, I discussed earlier, intellectual and cultural commons resources are non-rival in nature. In fact, the more the number of users engaged in their production, the better for the sustainability of the commons. Let's consider the following example. All of us sitting in different corners of the country can choose to watch the same film or listen to the same song at this very moment without interfering with each other's experience in any way. In fact, doing so will enhance the popularity of the film and ensure its future circulation. So, one person's use

does not affect the other person's use. These commons are non-rival, but they also have unlimited accommodating power. Let us consider the case or a following example, all of us sitting in different corners of the country can choose to watch the same movie or listen to the same song. At the very moment without interfering with each other's experience in any way. In fact, doing so, will enhance the popularity of the movie and ensures its future circulation. So, once person use does not affect the other person use in this case these commons are non-rival, but they also have unlimited accommodating power.

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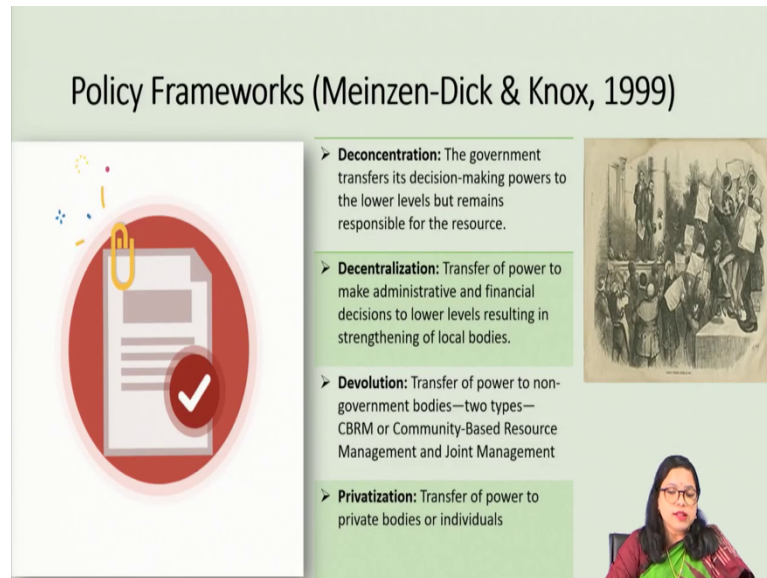
Species commons is the fourth and final type of commons classified by Nonini. These are commons that revolve around biological attributes of human beings such as body parts, organs, gene information and so on. Since the removal or theft of these resources could lead to irrevocable damage to the aggrieved human being, any kind of profit-oriented activity around them is banned.

Thus, the users of such commons come together to ensure the protection of these resources from the clutches of the market. Most of you must have heard of illegal human trafficking rackets through which women and children are transported forcefully for the purpose of exploitation. The organizations that are born out of the need to protest such crimes qualify as a species commons.

In India, an example of NGO that prevents to work or that works to prevent this human trafficking and rehabilitate the victim is Shakti Vahini working at New Delhi. So, till now

if you see I have discussed the different types of property regime how they work especially with reference to the natural resources.

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Policy Frameworks (Meinzen-Dick & Knox, 1999)

- **Deconcentration:** The government transfers its decision-making powers to the lower levels but remains responsible for the resource.
- **Decentralization:** Transfer of power to make administrative and financial decisions to lower levels resulting in strengthening of local bodies.
- **Devolution:** Transfer of power to non-government bodies—two types—CBRM or Community-Based Resource Management and Joint Management
- **Privatization:** Transfer of power to private bodies or individuals

The last part of this session I will give you a brief overview of how policy framework of various governments all over the world are shaping the area of the study. I will talk particularly about the recent tendencies seen among governmental organizations to delegate management and governance of natural resources as studied by Meinzen-Dick and Anna Knox.

They identified four policy frameworks through which the transference generally occurs. They are Deconcentration, Decentralization, Devolution and Privatization. Under deconcentration, the power to make decision is transferred to the lower ranks of the government which itself ultimately remains accountable for the resources. In decentralization, the government transfers both the power to make administrative and financial decisions to the lower round.

The combined authority also helps in strengthening the local bodies in the vicinity of the resource. Devolution, which Meinzen and Knox especially focus on, involves programs that shift responsibility and authority from the state to non-governmental bodies. When the power to control the resources is almost completely transferred to the local users of the resource the arrangement is known as community-based resource management or CBRM.

When the government retains a considerable larger role after the transfer of certain amount of control to other users we have joint management system. Finally, there is privatization which involves the passage of power from the government to private bodies or individuals. Private companies and non-governmental organizations are examples of such bodies.

The common thread time this policy reform is that of what has been termed as subsidiarity by Doring and defined as the transfer of property “to the lowest appropriate level”. De-concentration and decentralization are vertical forms of subsidiarity while transfer of power to non-governmental bodies are horizontal form of subsidiarity.

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Rationale for Policy Frameworks

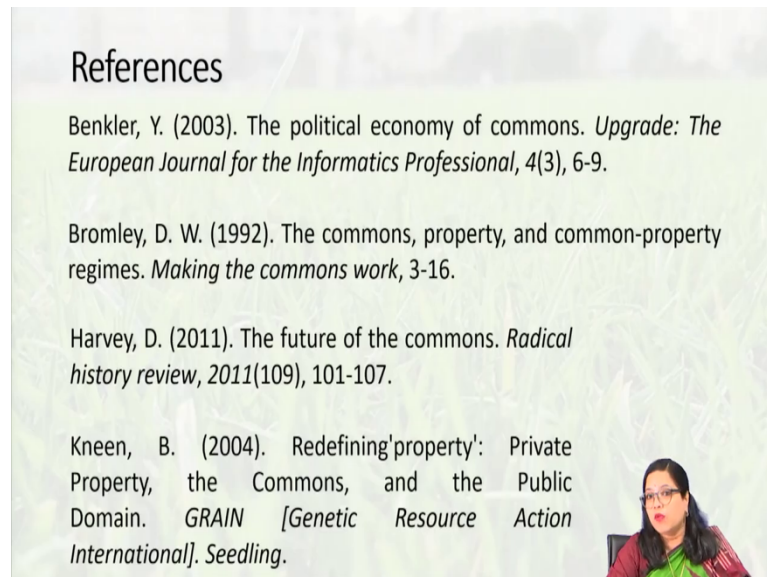
- Although the government makes the rules to manage natural resources, it does not manage to effectively implement them at the local level. The local bodies are in the vicinity of the such resources, making them a better contender for the job.
- When power is in the hands of the people directly affected by the natural resources, it gives rise to a stronger democracy.
- By delegating power to the local bodies, the government relieves itself of financial burden.

I will conclude this session by discussing reasons put forward by Meinzen-Dick and Knox for why such transference of power is happening. First, due to the inability of the government in effectively governing the resources at the local level. The government is not simply responsible for framing rules, it also must be successfully implementing them.

The local bodies are seen; however, better at this job because of their nearness to the resource and their dependence on it. Second, the will to involve local people in the management of the resources strengthens the spirit of democracy and puts the power back into the hands of people who are actually affected by the resources. Finally, the delegation of power to the local bodies reduces the financial burden that is already present on the government which would otherwise have to pay the salary to all its official in charge of managing the natural resource at the local level.

These policy reforms suggest how the discourse of resource management is gradually moving towards a bottom up approach where the immediate resource users are gaining greater control over the resources and in turn protecting them from rapid over exploitation or depletion.

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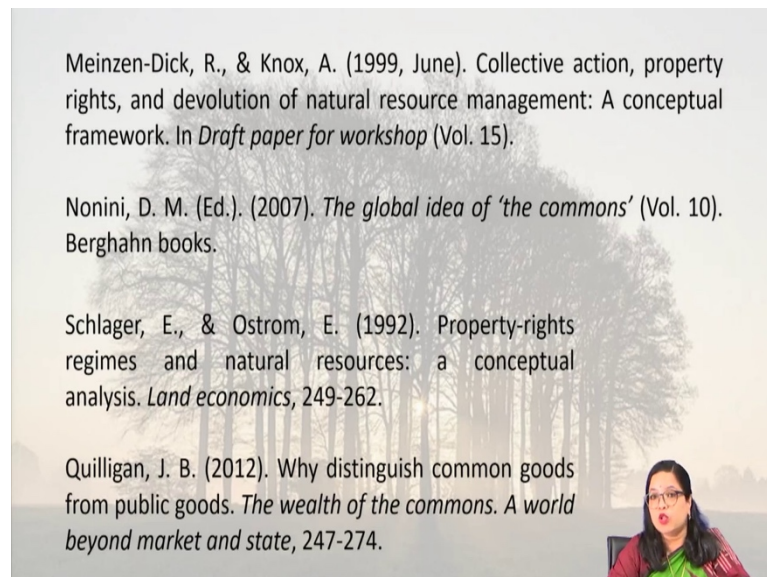
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You will learn about this further in the next session, and I will talk about common pool resources, what they are, and how they are managed.

Thank you for listening and have a great day ahead.