

Natural Resources Management (NRM)
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Common Property Rights (CPR)

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Common Property Rights (CPR) in NRM

- ☐ Property right is a social relationship between a resource user and other potential users, with respect to a particular object, place, or feature of the land.
- ☐ Common property does not describe the resource itself, but rather it depicts the relations that society establishes towards that resource
- ☐ Common property resources are for the common use of any community
- ☐ These resources are free and open access to a set of users
- ☐ These resources are owned, exploited, managed by any identifiable community and no individual person has his own rights regarding those resources
- ☐ It includes water resources like rivers, rivulets, streams, irrigation, drainage channels, canals, pond, tanks, lake, sea
- ☐ Land resources like a wasteland, pasture lands for cattle grazing
- ☐ Forest resources like woodlots, unclassified government forest, protective forest

So, friends, today we will discuss about a very important aspect of natural resource management and that is about Common Property Rights. In brief, we call them as CPR many a times you might have heard about common property rights in various aspects. Today, I will try my best to explain you that how it is important in case of natural resource management.

First of all, let us find out what is CPR? What is common property right? What do you understand by this terminology? Property right is a social relationship between a resource user and other potential users. So, with respect to a particular object, place or feature of the land means that in one community in one particular location, it is the relationship between suppose a resource like water, a pond. Now, a pond is a resource for a village. Now, that pond if it is not owned by any particular individual, then it is a common property of that particular village. Now, if I as a villager use that the water of that pond on a regular basis and tomorrow another villagers my neighbor, he or she also comes and start taking water from the pond same pond or utilize the water of that pond for various purposes, then we get into

certain issues. How to share a resource which is common to many and there comes the issue of common property rights; the relation between one individual users with the other users.

Now, common property does not describe the resource itself, but what it does it rather actually explains the relationships that a society establishes towards the resource; very important to understand. I repeat it once again, common property say here that pond example of pond I have given. Common property when I say or when we say does not describe that pond itself, but rather it describes the relationship that me and my neighbors actually having with that pond, is it clear? Because that is the point of interest for every one is the utilization of the water from that pond.

So, we do not give much important on the particular pond itself rather how the people are actually having relationship with that pond or pond's water; that is all is about common property right. Common property resources like the pond that I have given an example are for the common use of any community in the entire village. As I said, unless that pond belongs to me, my pond, in my own land, I have created this pond then it belongs to me; if that pond is a natural pond, it belongs to everyone in the village.

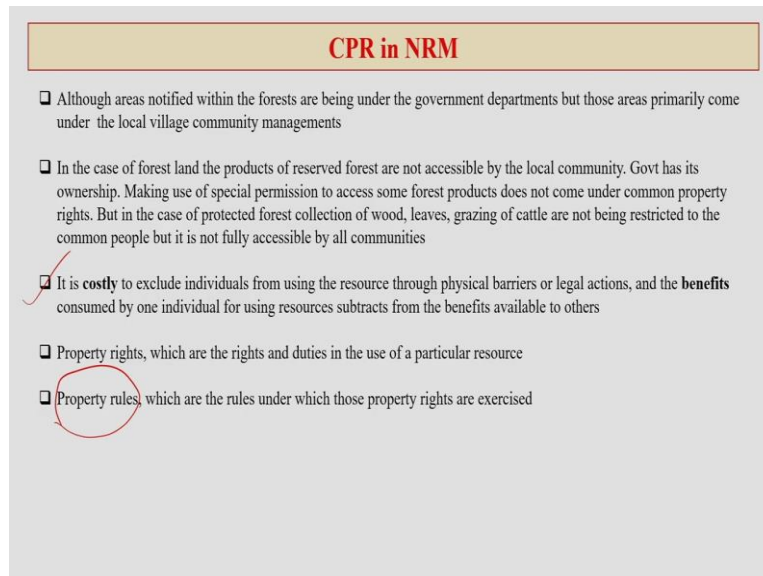
Now, these kinds of resources which are common to all are free and it is having open access to a set of users. When I say set of users; probably that particular village certainly if some people come from another village, there will be some other kinds of dynamics and issue. So, kind of an area of jurisdiction in kind of ownership.

Now, these kinds of resources are owned, exploited or managed by any identifiable community like suppose in a village. From other village if somebody comes, they may not easily use that pond water because it is within the jurisdiction of that village. So, the village Panchayat will have a say on that common property here we are talking about the pond and ponds water.

So, that particular village where I stay along with my neighbors, we will have a kind of a ownership to that pond which does not belong to me or any other neighbor directly but it belongs to our village. So, I and my neighbors are actually using that pond water and ideally it should be managed by our village and community but me or any individuals living in that village, we will not have any direct right regarding that pond. So, it is a common property for that village. Here comes the scale issue. Here I am talking time and again the village because within that jurisdiction.

Next, when we say common property in the paradigm of natural resources, it could be resources like river, rivulets, irrigation channel, drainage channel, canals, ponds, tanks, et cetera. It could be also a waste land, a pasture land for cattle grazing, a forest, a wood land, unclassified government forest. So, this could be also a common property of that village where I stay along with my neighbors.

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CPR in NRM

- ☐ Although areas notified within the forests are being under the government departments but those areas primarily come under the local village community managements
- ☐ In the case of forest land the products of reserved forest are not accessible by the local community. Govt has its ownership. Making use of special permission to access some forest products does not come under common property rights. But in the case of protected forest collection of wood, leaves, grazing of cattle are not being restricted to the common people but it is not fully accessible by all communities
- ☒ It is **costly** to exclude individuals from using the resource through physical barriers or legal actions, and the **benefits** consumed by one individual for using resources subtracts from the benefits available to others
- ☐ Property rights, which are the rights and duties in the use of a particular resource
- ☒ Property rules, which are the rules under which those property rights are exercised

Common property right, although, as I said are area specific, within the forest or within that village, that particular community is allowed to use, because there is jurisdictions also involved even though it is common. But it may not be common for all villages in the district; every village will have its boundary, virtual boundary and also a village Panchayat, who will actually have a kind of administrative setup for proper utilization of that common property.

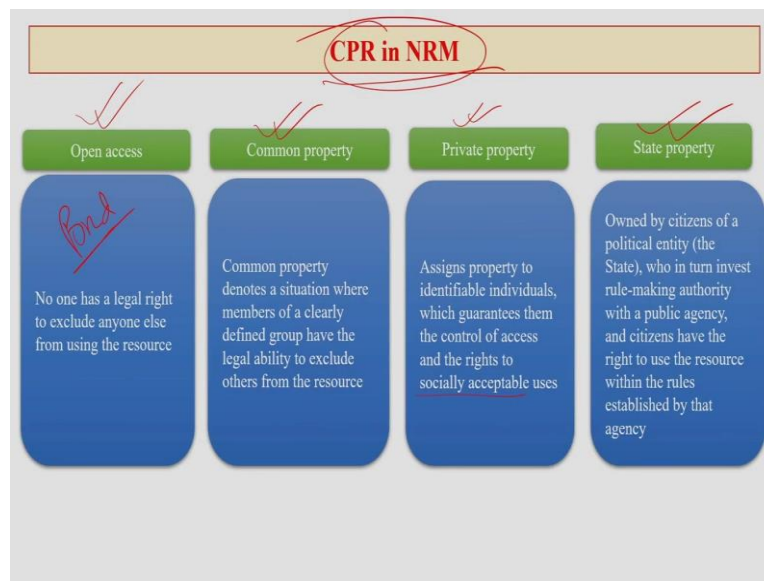
In case of forest land, the products of suppose reserved forest, they are not accessible to the community. So, within my village, if I have a protected forest by my state government, than that particular forest even though it is within my village, I will not have access because that is protected. Government has his ownership on that and makes use of special permission to access this kind of forest to have forest products that does not come under the common property right. You do not have straight common property right CPR to such kind of resources, which are under the protection of government. But in case of protected forest collection of wood, leaves, grazing of cattle's, most of the times are being allowed for the common people for the people who are residing at that village, but it is not fully accessible by all the communities. So, there is certain kind of administrative policies exist for those resources, which is within my village, but under the ownership of government.

So, it is not a straightaway kind of access like the pond case that. And also it is often found that it could be very costly to exclude individual from using the resources through physical barriers or any legal actions, because the forest that which is under the government protection, and if you being a community on that particular village, you say to the government that I want to use it because I need it for my survival. At times, it could be a costly affair, you may have to go for legal actions or maybe you can go and collect wood and leaves without the knowledge of government, but that can go into some kind of legal actions; could become an issue of law in order.

So, the benefits consumed by any individual for using resources such as this kind of forest, from the benefits, which are available to others can bring you into some kind of problem. So, it is important to know that how much right and how much accessibility you have to that resource which is within your area, but not common to all. Probably it is protected and protected for certain regions by the government. So, property rights which are the rights and duties in case of utilizing a particular resource. As I said, in this case, the example of pond, that is my common property and me and my other neighbors of my village can use that for appropriate purposes.

So, property rules are the rules under which those property rights are exercised. So, property rules are the rules under which those property rights are exercised very clearly; means you just cannot claim your right on certain property or natural resources available within your village or within your community. So, there has to be clarity about the access to that particular resource. Alright, now, I will discuss a little bit more into different type of property and how actually those work in the paradigm of common property right of NRM.

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Open access one, like the example of pond; no one has a legal right to exclude anyone else from using the resource in an area. So, no one can stop me or my fellow neighbor to utilize that common pond and its water; open access, but remember, if that pond for some reason is located within a protected forest, then we cannot just have access just like that, this is what is the slight difference between open access and access with permission.

Now, common property; common property denotes a situation where members of a clearly defined group have the legal ability to exclude others to be able to use that particular resource. So, even though it is a common property, but it is common to a community, a specific community, mostly these kinds of cases will actually occur in areas which are dominated by local inhabitants' tribal community. So they have a right to certain natural resources. And they can actually stop others from using those particular resources by showing certain legal document or legal cases. So, even though common, but not common for all.

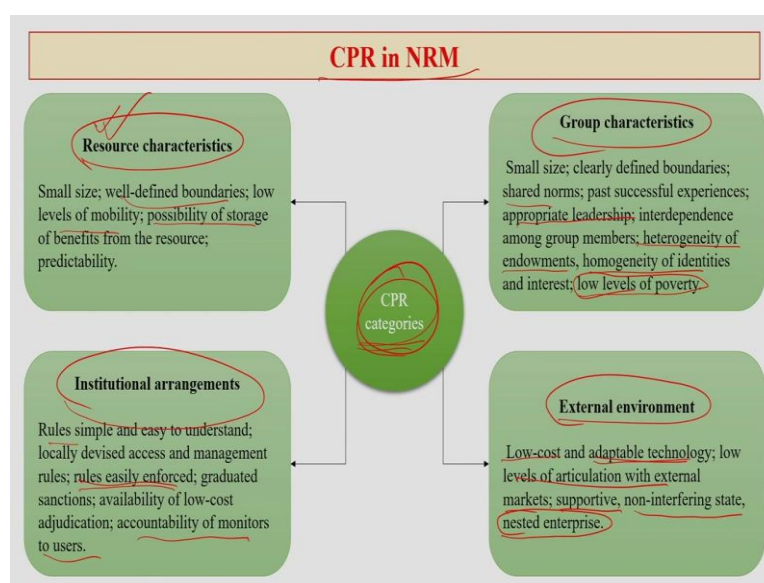
Private property; it is a very straightforward case means you have created, you have purchased, you own it. So, it assigns the property to identifiable individuals. Say this wristwatch that I am wearing, this is purchased by me, it is my wristwatch. So, I have the full right on this wristwatch. Yes, what I do with that is my choice, I can transfer this right to my son or my friend, I can give as a gift to them. So, I transferred the right of associated with my wristwatch to my son or to my friend, which is possible. Because I own this I can transfer also the right to others. Or certainly I can deny someone to use my wristwatch; this is my wristwatch.

So, private property assigns property to identifiable individuals like in this case me who guarantees them to control of access and the rights to socially acceptable uses. Why this word I say? Suppose this wristwatch if I give it to someone, he or she can use it, there is no issue probably I can at the max can give a letter also stating that this so called so model watch has been given as a gift to these individuals. So, I transferred the right. But if I do not do that and somebody uses my wristwatch without my permission that is not socially acceptable. And we know that then what we call in that case if somebody takes my watch without taking my permission.

State property, which is owned by citizens of a political entity, the state who in turn, invest kind of rulemaking authority or a public agency department and they will take care of that state property and citizens, will have the right to use that particular resource, but remaining within the rules that is established by that regulating agency.

So, suppose a forest within my village and that forest is a protected forest. It is under state government. So, the State Ministry of forest and environment probably or somebody some other State Department will take care of that resource. And if I want to access that forest or forest product, then definitely I need to seek permission from that particular department or agency to which the state has given the right to decide whom to give access and whom do not. So, this is how the right associated with a natural resource or for that matter, any resource takes place.

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Now, common property right categories; there are different types of categories under common property right. Now, how they are actually decided, how they are actually formulated these different CPR categories. Now, one is on the basis of resource characteristics, the resource that we are talking about size, size of the resource, boundary, low level of mobility, possibility of storage of benefits from the resource creditability so and so forth; means all the characters associated with that particular resource that will decide also the category of CPR.

Next group characteristics, size clearly defined boundaries, shared norms, past successful experience, appropriate leadership, interdependence between community of people, heterogeneity of endowments of certain community, homogeneity of identities and their interests, low level of poverties. So, these are certain characteristics of a group that also will decide the category of CPR. External environment like low cost or adaptable technology which are being used by the people for their suppose utilization of various natural resources for generating livelihood.

So, what kind of low cost adaptable technology that is coming from outside the village, low levels of articulation with external markets means your products which ultimately from your village need to go to the market right, then only we can fit some profit and then our livelihood is ensured.

Supportive mechanisms, non interfering state or State Department's, nested enterprises; these are certain external environment means outside your village, which can actually also influence and decides the different CPR categories.

Institutional arrangement; various rules it could be either in established by State Department or village level also institution, rules for to access to particular resources, rules which can easily be enforced in a particular area, then availability of low cost adjudications, accountability of monitors to users. This is also important, so, who are actually are accountable for the utilization of the resources.

Suppose, in my village, as I said that, I have a forest that is protected state government is incharge. Suppose in my village, if I have a natural resource like petroleum under the ground, now, there has to be some kind of regulation, accountability, monitoring of those resources; how they are being extracted from the ecosystem of my village and being utilized for the betterment of society. Now, that thing is kind of institutional arrangements and that also will

decide what type of common property right that me and my neighbors in the village would be entitled to.

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CPR in NRM

- ✓ Common property regime is used to refer a property rights arrangement in which a group of resource users share rights and duties towards a resource management
- ✓ Property rights emerge in response to conflict over resources and well-defined property rights help to promote more efficient use of resources and more responsible long term care and utilization of the resource base
- ✓ The property rights can be clearly specified and exclusive to members of the user group. They are secure if they receive appropriate legal support government.

Handwritten notes: "Water User Group" with an arrow pointing to "Pond", and "Tragedy Common".

Now, friends, common property regime are actually a very sensitive aspect. The right to any resources, natural resources is a very sensible aspect and how to deal with that is important to manage those particular resources for the benefit of the larger society. Common property design is often used to refer a property rights, arrangement and in which a group of resource users, in case that pond me and my neighbors, we will share the rights and also duties towards the resource and its management. Who will take care? Otherwise what will happen that we will end up with tragedy, Tragedy of Common, we will discuss about this later.

So, unless that particular pond which is having access to all, there has to be someone some group who will share the rights as well as the duties to manage that particular pond or otherwise that pond one day will be destroyed, and that will be a tragedy for common.

Now, property rights, it emerges in response to conflict over resources. And a well defined property right often helps to promote more efficient use of the resources and more responsible long care and utilization of this resource base. I would go one step farther and would say that the appropriate property rights regime, it can actually decides the peaceful state of a particular area, the development, overall development and most importantly, the happiness of the community.

So, friends, handling property rights in a proper manner is critical for natural resource management. The property rights can be clearly specified and exclusive to members of the

user group. Suppose the point that I have talked about, we can form a water user group for that particular pond that just me and my neighbors we are accessing. So we can develop a water user group, who will have the rights and also the duties towards the pond and that will ensure the sustainability of that natural resource and long time uses of a particular resource for the betterment of that particular society.

So, property rights can be clearly specified and exclusive to the members of the user group and they secure if they receive appropriate legal support from the government. So, this thing has to be also supported by the government. So, if you form a water user group, certainly your local Panchayat means, the bottom level administrative unit, political institutions, they will have also a kind of responsibility to give certain kind of power to this water user group to maintain and manage a particular water resource in this case, as I said that a pond. So, I think that the right to common property and its proper management is very, very critical for common property right as well as its role in natural resource management.

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CPR in NRM

Advantages

- ❑ The resource may have physical traits to make any physical division or demarcation. Either the resource system cannot be bounded (the high seas, the stratosphere) or the resources in question may be mobile over a large territory (air, water, fish, wildlife). Such resources have to be managed in very large units.
- ❑ In many resource systems, watershed catchments for instance, uses in one zone immediately affect uses and productivity in another: deforesting a hillside ruins the water supply and downhill soil quality. If different persons own the uphill forests and the downhill fields or, for that matter, small adjacent patches of forest and pasture - and make their decisions about resource use independently and separately, they may well cause harm to each other. If these externalities are substantial, the owners/users will want to negotiate mutually beneficial contracts
e.g. People who use a common property right to manage a catchment area may all share ownership of the upland forests, manage forest harvesting to prevent soil erosion and damage to fields below, and earn more from their downhill farms than what they sacrifice by not cutting as much uphill timber.
- ❑ If resources are readily divisible into parcels, the administrative support to enforce property rights to individual parcels may not be available in that case CPR can be treated as a way of instituting collective management rules by creating imaginary social fencing and informal courts internal to the user group

Now, CPR, what are the advantages it has? The resource and already from the discussions, we have understood that it has a lot of advantages, because if you have a resource in your village, you can actually have access, many people can have access, you can have a long term benefits out of that particular resource provided that you maintain that resource in an appropriate manner.

So, in case of many resource systems, you will find that say for watershed in a catchment area, it uses in one zone immediately affect the productivity of the other. So, suppose in one

watershed, you create recharge well, definitely that watershed will get benefited, but the nearby one also will get positively affected.

Now, the case is that if you start thinking that no I will not do recharge well, and all those things water better watershed management in my watershed because the benefit is also getting to the adjacent water set. So, I will not do because they are they if they do then we will do then there is a issue and let me tell you frankly that that kind of issues often come when it comes to a natural resource management and that has to be handled in a very smart manner.

So, we will also see that if resources are readily dividable into suppose some units, the administrative support from the local institution to enforce the property rights to individual units may not be available in every case.

So, in that case, common property right can be treated as a way of institutionalizing the collective management rules, how? By creating a imaginary social kind of fencing and informal courts internal to the user group, in a sense that you will have a kind of a committee who will take decisions if somebody who are not within that particular group and has no right to use that particular pond, if he comes and uses it without approval or permission of the group, what should be done with him.

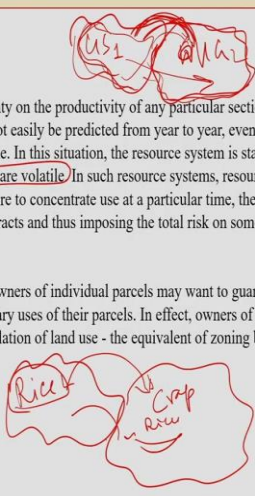
So, these kinds of aspects can also be integrated into common property right regime and especially, it could be very easy actually to manage certain natural resources, which are very critical to our daily life, especially people who are living in villages in rural area.

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CPR in NRM

Advantages

- ❑ In fragile environments, nature may impose great uncertainty on the productivity of any particular section of a resource system, and the location of the unproductive sections cannot easily be predicted from year to year, even if the average or total productivity of the entire area is fairly steady over time. In this situation, the resource system is stationary and may even have obvious boundaries, but the productive portions are volatile. In such resource systems, resource users may well prefer to share the entire area and decide together where to concentrate use at a particular time, thereby sharing risks and benefits rather than parceling the area into individual tracts and thus imposing the total risk on some of their members
- ❑ In order to optimize the productivity of their own parcel, owners of individual parcels may want to guarantee that owners of adjacent parcels also make compatible and complementary uses of their parcels. In effect, owners of individual but contiguous parcels may have an interest in the mutual regulation of land use - the equivalent of zoning by CPR.



Then people who are living in hilly ecosystem or any kind of fragile environment, there are the issue of common property right is more sensitive, because nature can create some kind of uncertainty on the productivity of any particular crop. So, in those areas, fragile environment, the location of the unproductive section cannot easily be predicted from year to year, season to season. So, what we do, in this situation, the resource system is stationary and may even have obvious boundaries, but the productive portions are volatile. And in such resource systems, the resource users may well prefer to share the entire area and decide together where to concentrate uses at a particular time and thus you actually share the risk associated in that particular area with that particular resources and also along with sharing the risk you also share the benefits.

So, in a sense, in a fragile environment, it is beneficial that if you work as a group, because you can divide the risk or you can distribute the risk, because suppose there is a risk involved or 50,000 rupees, if the particular crop is lost, that if that risk is divided among 100 people, 5000 per person, per family, which is manageable perhaps. And also, but remember when you share the risk, if from 50,000 investment one lakh rupees comes out means 50,000 benefit, then also you will share that benefit 500 rupees each among 100 stakeholder or a 100 household.

So, in order to optimize the productivity of a unit of land owners of individual unit may want to guarantee that owners of the adjacent unit also make compatible and complementary uses of their unit. Because in Indian case, you have supposed to land here immediately adjacent there is a land and that may belong to another user group here user group one and here is a group two. Now, any good thing that you do here, certainly that impact will be good for this

unit also. So, in order to optimize the productivity of your unit, you may also need that this unit also takes certain good steps.

So, owners of individual, but continuous units as you see here, may have an interest in the mutual regulation of the land use; this is the critical point. So, this particular field you need suppose growing rice crop and here if these unit they grow some crop, which is actually can be contradicted it to rice cropping then it will not help. Either you go this field also with rice crop or some other crop, which can actually complement the rice crop system in your adjacent unit. So, this is the way when you have this kind of situation working together will help and it can be beneficial for both parties.

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CPR in NRM

Disadvantages of rights

- ☐ Tendency of overexploitation of any natural resources that come under common property
- ☒ Example over catching of fishes leads to insufficient fish for offspring production, similar with overgrazing of cattle in limited land resources, overexploitation of water from limited water harvesting ponds
- ☒ CPR was seen as a causal factor for resource destruction because it would be in users' own private interest to harvest/exploit the resources as soon as possible, before other users did so. When everybody owns the resource, nobody has taken care or considered the conservation of resource for future use. Each user imposes an external cost to all other users in terms of reduced resource availability

"Tragedy of Commons"

So, now look at the disadvantages of CPR in NRM, just few I would like to mention here. You will find that there is always there will be a tendency of over exploitation of any natural resources that come under common property that will be kind of a very common human nature. This issue are often faced by every community regardless of caste, creed, religion, geographical location.

Suppose, an example, as you see here, catching fishes that can lead to insufficient fishes for offspring production. Means, in your supposed pond, there are fishes. Now, if you catch all the fish, then in future there will be no fish to reproduce further number of fishes. So, basically that pond system or fishery becomes unsustainable, which is similar, like the case of over grazing of cattle in limited land resources. You have little bit of grasses and pasture, where you can take only three to four supposed animal, but you have ten, one day, you see, nobody is around, you have given all ten there.

So, in one day, the entire grasses are over. So, over exploitation, is an unsustainable way or over exploitation of a resource, which is meant to be for everyone, but one individual went and completely utilized it, because that is common, everyone has access. So, that is one disadvantages of common property right.

Sometime it happens, that is why in a previous discussion, I mentioned that certain resources can be common property, but still, it should be under some observations of a group. So, forming group on the basis of utilization of resources or livelihood can be very critical for proper management of common property.

CPR often seen as a casual factor for resource destruction, because it would be in users own private interest to harvest or exploit the resources as soon as possible, as many as he or she can take, use it, sell it, or utilize it for own before anybody else can come and take that, that is a commonly known human instinct. But when everybody owns the resource, nobody has taken care or considered the conservation of that particular resource for future, then we get into an unsustainable situation, which leads to as I mentioned in the previous slide, tragedy of common. As long as that common property gives us benefit, we take it, but when it loses his productivity, then nobody wants to take care of that particular resource to rejuvenate it. That is another disadvantage.

So, as I said, that tragedy of common is a very important study, carried out by Nobel laureate Elinor Ostrom. So, each user imposes an external cost to all other users in terms of reduced resource availability, because each one of us going they are utilizing as much as possible before anybody else comes to use that resources, I want to maximize my own users. So, each user in this case imposes an external cost, because of this, I mean, you can say greed to utilize everything for my purpose. So, you put actually external cost to all other users who could have used that particular resource, if you would not have taken everything.

So, what do you have done by over exploiting that resources, you have basically reduced the resource availability to your neighbors to your community. This is another disadvantage of common property right or common property.