INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

NPTEL

NPTEL ONLINE CERTIFICATION COURSE An initiative of MHRD

Ecology and Society

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Ecology and Society

This course on ecology and society is being designed in such a way that we are able to contextualize the debate the growing as are aware about the ecological crisis which we are facing in almost every countries and there has been an increasing concern about the ecological problems which we have and even in the global forum and even at the regional level these are being addressed. Now in this course I would like you to have a look at how we do go above the course and in essence the aims and objectives if not the preamble of the course.

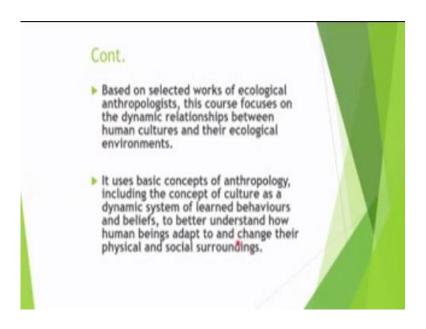
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Introducing the Course The course focuses on the ecology of human societies -human-environment relationships, with reference to cultural ecology and issues surrounding sustainable development. The ecology of human societies is about connections between ecological and human social, cultural, and organizational processes.

Now this course will primarily focus on the cultural ecology and the relationship between humans and environment relationship that is by basing on some of the anthropological works it has been done over the past few decades and mostly why is this ecology and society given so much of importance is because, it tries to address and look at how societies tries to connect between ecology and human social cultural and organizational processes.

So in the course of this there is an increasing need to contextualize and make a debate trying to find out the deeper meanings of how we humans tries to perceive not just the environment but the overall relationship that exists between different forms of life system or the ecosystem in general that is biotic and non biotic.

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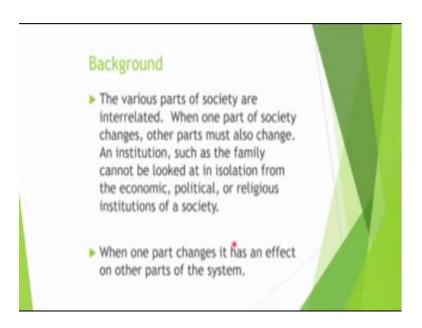


Now I will be trying to as I said I will be trying to be very specific and tries to look at some of the selected ecological anthropology's works and then in this course the focuses will be primarily on human cultures and their ecological environment and some of the concepts which is widely used in anthropology such as culture the kind of belief system which people have for instance the indigenous peoples they have process for generations and how are these knowledge systems to be understood because unless a deeper understandings of this knowledge system is explore.

It is difficult to address some of the problems which are normally encounter simply because if you look at the debate on development wise, development being equation today is simply because the oftentimes the indigenous peoples are the most vulnerable and the most affected and why is this so, so in vivo this one needs to look at the kind of relationship, the kind of connections with these societies have with nature.

Now as lotto says society and culture or society and nature has to be a given much more important and it should be understood in order to Maxim's of the world eco ecosystem and moving on some of I am trying to.

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Now give an explanation about the sort of a brief background of how the need to bring in society in the context of the debate which was around the ecology to the crisis. Now if you look around the society cannot be afford to be sinned in isolation from nature because it is society which has over generations have evolved over time if you look at the evolution of human society beginning from say the food gathering or hunting society and moving on to the agriculture of feudal society and to industrial society.

In this evolution of society human societies have evolved themselves and in this evolution the relationship between human and nature also changes. Now if we are trying to bring in four instances the concept of sustainability how do we understand or which part or which section of the society or which period the society have sustainably used their resources in a more sustainable manner.

Now for all these to have an answer we will try to look in some of the ecological anthropological works we based on case studies in different societies and try to look at how these traditional ecological knowledge have been used by people over generations. Now for instance if a part of society changes it is tantamount that other parts also will be changing and for instance if you look into institutions such as family which cannot be afford to be talked and looked into

isolation, because the economic political or religious institutions of a society are more or less interwoven and interrelated, we cannot afford to you know like see things on the affirmed an economic perspective or for that matter the state or the markets or development way of looking at thing that is the whole idea of utilitarian perspective. Now we need to bring in other issues such as the socio cultural and religious dimensions in order to have a much more holistic approach in understanding ecology.

And thereby how ecology and societies are interrelated and moving on how do we look at society.

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How do we tries to see society in a more holistic way, society needs to be looked at by taking into to the interrelated parts which actually forms the core of most social theories. Now for example if you take the organismic theory of Herbert Spencer for example it talks about the interrelationship of the parts of humans body and based on this we can also contextualize that the manner in which societies evolve over time it actually grows up and but one thing which we should differentiate between the organismic orgasmic understanding of society and what the society as it evolved the more society grows up there has it has it becomes more and more

complex and this complexity in some way tends to make society as defragmented and we tend to

be more guided by our own self-interest and that is how society is to be defensive from the

human parts of the body by sort of like looking at Herbert Spencer's understanding of

organismic theory of theory of society.

Now we should also accept the fact that there is a difference in terms of organizing principles

and the way society is organized and some of these organizations are mostly to determine the

needs of the rest of the system that is we humans have different needs different stages of needs

most some of the basic needs are food, shelter and also as a human being we have multiple forms

of myths.

And we tends to prioritize our needs keeping in mind the basic needs like food, shelter for

instance and we move on by trying to find deeper meanings of our needs and perhaps with the

ecological crisis or the environmental crisis which we are facing presently some of the

philosophers like Norwegian philosopher like our leanest by trying to conceptualize the term

called Deep Ecology tries to ask much more deeper meanings of life that is what he put it in sort

that the maxims of the environment or the ecological crisis one needs to have that self realization

that a self-realization is nothing but to end it in questioning deeper meanings of our existence.

And of course I am going to discuss in more details about Deep Ecology in a future upcoming

discussant.

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Now as I was talking about what are the kind of needs we human have, humans or mankind is relatively free from biological instincts drives and predispositions unlike our fellow beings like animals and so and so forth. Humans rather rely on instincts that is we are much more reflexive by saying so I am not saying that the animals are not reflexive but we have instincts which are more or less based on subjectivity where we can really think about the pros and cons just between what is good what is bad and many of much of our behavior is learned through the process of socialization.

Now why is this human socialization important in the context of ecology, now for instance Murray Bookchin talks about social ecology and in social ecology he also talks about the domination and hierarchy of nature? Now what he discussed in social ecology was humans through a socialization process tends to have that kind of in it behavior and this socialization is very important and crucial in order to have a perception and attitudes towards nature.

Now in the course of how society evolves there is certain sections of groups who tends to dominate the other groups and often times these dominant groups are a few sections of people and these few sections of people also replicate in terms of the society and ecological relationships which we have for instance if you take the case of a capitalist society how many

sections of the society actually profit from the capitalist system. Marxist talks about those

capitalists that is the boudoir society which are actually a handful of them which happens to

exploit the proletariat those working class and by exploiting those working class the bourgeois

in a way making sort of taking advantage or profit by exploiting or at the course of the working

class. Now similarly if you take capitalism or Marx understanding of capitalism as a perspective

of looking at the relationship between human and nature or society and nature it is pretty much

evident that it is only few sections of the society which actually exploit or make use of the

resources and at the cause of these few people's interest.

There are a lot of people like who have been exploited and have undergoes different kinds of

sufferings for instance Human Development induce displacement like for instance when a dam is

being built the environmentally impact is enormous and environmental impact needs to be situate

in the cultural and economic perspective, because there are communities who have actually been

dependent on there is a graphical space for generations and when this communities who is been

so much dependent on the natural resources in their surrounding or in their environment are

being affected and being displaced.

We tend to become more vulnerable and the means of not only their means of livelihood are

disrupted but even the social and cultural if not religious attachment to that the graphical space or

the logical which is being put into problems. Now you know I am saying and discussing all this

is because we humans as we know have are guided by our certain kinds of instincts and we also

agreed that the behavior which we have is learned through different kind of a socialization

process beginning from the infancy and through the institutions of family.

And through these socializations our belief our ideas our perspective our outlook is being said

and designed. Now why do we need to focused looking at human lives the reason being that is

the kind of crisis.

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Which we are facing now globally and even in the regional context are mostly because humans arts and yarn or quest for things beyond the humans basic needs. Now I quote Matt Mahoney when he sees that the world has enough resources to meet the needs of mankind but not to, not sufficient enough to meet the needs of humans greed and selfishness. Now in this context we can perhaps look at what actually is human needs and are we really focusing on our basic needs for are we being influenced by certain factors or things happening around us.

Perhaps maybe the western values or maybe the Western industrial cultures are we able to sustain ourselves by looking at these needs, do we really sustain ourselves with the resources which we have right now with us therefore it is vital for us to be concerned and ask ourselves as moral philosopher artists and I have talked about by asking deeper meanings. Now there is also an increasing awareness which arises out of our capacity as a human beings that is the need which involves not just around us a means of livelihood.

But the quest to fulfill different other needs for instance we can take examples of religions or maybe let us say philosophy or maybe different forms of paradigm. Now for instance if you take the examples of Gautam Buddha he renounced worldly pleasures and the material possessions of life and his quest or and for him was much more deeper meanings in life that is nothing but the

enlightenment and as we all know like the life of Gautam Buddha he was in exile in the forest for a brief period of years and then finally he attended enlightenment what we can reflect perhaps from Buddha or the Buddhist principles of perceiving nature is we need to have that caring and nurturance of nature that is the resources has to be utilized and exploited for our to satisfy our basic needs and not behind it. Now in the upcoming lectures on this course we would also be discussing some of the religious philosophy which actually talks about how in different parts of the world some societies are more close to nature through their religious and cultural beliefs.

Now mostly the Eastern religious traditions are considered to be much more closer to more harmonious to in terms of sharing the relationship and whereas if you take the examples of lean white argument of how and why he brought in the judeo-christian religions to be in some way responsible for the ecological crisis which we face now. Now if you look at lean White's argument which of course I will come up in more details in the upcoming classes and just giving a brief introduction of how religions.

In some way the belief and practices of mankind is also responsible for the kind of problems which we are facing today the judeo-christian religion is considered to be more anthropocentric by saying anthropocentric I meant to say that there is a belief which is human being as above all the other ecosystem or nature and human seems to be the center of this ecosystem and within some way is being perceived to have overriding powers or authorities to use and exploits the other forms of life if not ecosystem both basic and non biotic.

Now this kind of perceptions which are more or less within the frame of a tapas entry is pretty much being synonymous to the Christian way of perceiving things. I will cite the few case studies on how with the conversion to Christianity mostly in the Northeast reasoned some indigenous communities and with I am part of this region have actually encounter the kind of shift in this belief of many of the indigenous communities of this region have actually a converted to Christianity beginning from the latter part of the 19th century and mostly in the early 20th century.

And in this if you look at the kind of changes not just religiously, socially, culturally but the understanding on the way of perceiving environment has totally changed as a result of this conversion to Christianity because many of these communities of societies before the preconversion to these by this Christian missionaries they practice their own traditional religions mostly animistic and some even follow the totemism, now this kind of indigenous knowledge.

If we revisit and look at they tend to perceive nature in a more secret or with reverence at least even like looking at their culture practices they tends to follow different kinds of rituals and ceremonies which have been practiced all the past generations and which actually is seen to be much more in harmonious or sort of a symbiotic relationship they share with the natural environment which they have inhabited.

Now or maybe if you take the example of hunting before any kind of hunting expedition is second usually a kind of magic or if not certain rituals are practice so that only those animals which are deserving to sort of be in the part of the game the souls are being invited. Now these rituals and ceremonies are nothing but which are being carried out so that there is a balance in the ecosystem so that other animals if not maybe another forms of lives are not being disrupted or effective.

So in a sense those practices are to be interpreted as much more ecologically balanced and seen to be much more sustainable. Now why is there an increasing it of in terms of focusing on this the native the emergence if not in business is no tribal societies is because there is an increasing realization from different practitioners or different bodies like maybe the scientists maybe the policy makers, planners because they feel that science and technology no doubt has mega life much more easier and then whatever we are now the positions is because of science and technology.

But science and technology alone is not in a position or able to bring a solution to the kind of ecological problems which we are facing now, therefore there is an increasing need that one needs to accommodate and make those communities who have traditional wisdom, traditional knowledge, indigenous knowledge to be part of the knowledge society. Now they have

increasingly realized that this the formal and the informal knowledge has to coexist and only them if these two book alongside apparently maybe there will be some way of another alternative way of perceiving things or maybe a solution.

Now let me not go into the details for the time being but I am just making a brief overview or understanding of why many of the third world is not indigenous communities are slowly given importance and there is a quest for accommodating them to be part of the sort of development discourse which we are facing now or which we have perhaps encountered in the post-colonial period.

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Now I will just give sort of a brief conceptual introduction of which often is seen to be overlapping because in general understanding ecology and environment is seen to be one and the same well which is not the same at all because it is different and also how this development and economic growth has to be interlinked in the context of this sustainable development and how society nature and culture are interrelated.

Because we cannot leave one and then discuss something else or one cannot be understood in isolation because there is this understanding if it has to be in a holistic approach these should be interrelated and then given much more an idea.

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Now what then is ecology, the ecology tries to maxims or understand the relationship of living organisms to one another and to their physical environment that is how the living organisms are sharing that relationship with the physical space they have inhabited. Now when I say living organism it also includes the human and it is interesting to see how human societies for generations have sort of adapt or tries to sustain themselves for with the physical environment they have inhabited.

Now for instance the climate change which is hardly talked about and debated if you try to contextualize the formations within the human societies it will be interesting to see how different forms of societies or communities in terms of their relationship or with natural resources have changed as a result of climate change and one cannot deny that we humans try to find out different forms of four modes of adaptations.

In order to make sense of the environment not just for sustainable or sustenance but also for different aspects like the kind of adjustment which is required on our part and ecology also refers to the interrelations of human beings flora, fauna plants and animals with elements of the natural and the physical environment that is biotic and non biotic components. Now there is the kind of relationship which are shared by all the living and even nonliving things in the physical environment which we are into.

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Now what then is environment, environment refers to the surroundings or the context within with humans, animals, plants and other at least it is the context and not the relationship which means ecology has a much more deeper and wider meaning and we humans live in close interaction with this natural environment that has not only step our cultural identity but our value system as well as economic well-being.

Now you can pick any communities which are not being influenced by their environment maybe their identity or maybe the food causes food habits or maybe the kind of attires which we normally put on. Now for example we lost that North Pole where the Eskimos sleep is considered to be pretty full and they also find a way to adapt to this kind of cold climate and

similarly in many tropical countries or maybe who are close to the equatorial regions they have adapt themselves and find their own way of living with the weather and the climatic conditions or environment which they have into and which also serve not only their cultural identity and values but also their you can make whelming.

Now for instance by and again I will give an example of indigenous communities in the north east India region because this is where I have pursued some of my doctoral research and I time and again try to said an example of these communities. Now if you look at the communities here there have been practicing this shifting cultivation which is also locally known as zooming, now zooming to an outsider might be just an agriculture if not economic practices, but there are communities who have not only regions and ceremonies around it but zooming to them has become not just a means of sustenance but a way of life which is much more behind this a mere economic well-being right.

Now by saying so these economic practices also in some way influences not just the cultural and social practices but also the way of life, now these are something which we need to look at how environmentally to influence or have far reaching impact not only our outward identity but the inner self that is a way of perceiving or looking at things and the way in which we make sense of what we usually encounter in our life, right.

Now these close interactions which is normally share by the natural environment and humans has to be contextualized in this case.

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Now we all know what ecology and what environment is, now if we both equations that can be actually survive or live without this environment because most often times we all know that we have reached a point where we have sort of disturb or cause a lots of problems to the environment and they can be a possibilities of debating of surviving without this environment maybe virtually not in reality.

Because if you look at some of the science and the flames on science fiction for example the movies of this after which was released in 2012 you can actually witness how humans tries to create sort of a virtual world where the human in the ecosystems are to adopt or to survive event now can we really think of surviving without the environment which is something if pretty much disturbing and we not really in a true sense of afford to think of surviving without this environment.

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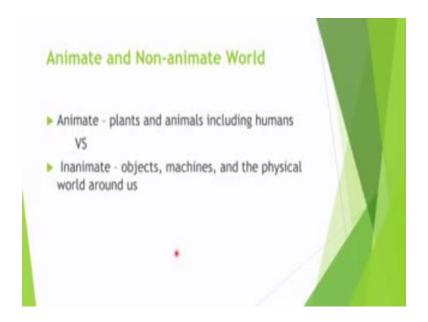


Now what is this context of environment why is it so much vital or important for our not just well-being and existence because this environment in association with learning and experience often refers to the sum of outside influence of the organism that is distinguish from the inherited potential that together influence human behavior and development. Now as we say environment has to some extent not only shapes our minds and values but it has a deep impact on the human behavior. Now how do we actually relate to the current this system of fragility we are often come across the term called ecosystem fragility right, now why is this a problem for us because it tends to treatment not just human technology and development as a result of industry revolutions and with the increasing population of human beings.

Now, these factors in a way has posed a threat to the ecosystems and which becomes a frazzled landscape whatever we have in habit. Now when does this fragility of ecosystems usually happens, when there is a more of a demand and there is a certain supply for instance say take the examples of the carrying capacity of a particular geographical area if that area or maybe an agricultural land is not able to really meet the requirements or not able to produce what is the desired output simply then there is an imbalance in this supply and demand or demand supply and vice versa.

Now these are some of the ecosystems fragility which is being encountered in the past few decades right, you can take examples of not just Lenin forests you can also take the cases of the sea marine and defend forms of water bodies right.

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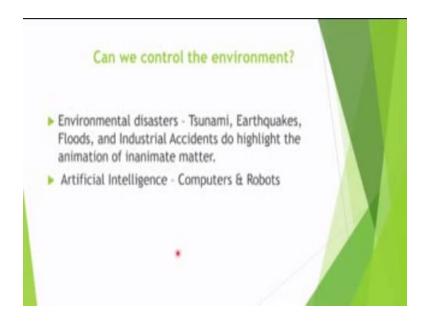
Now how do we try to link a maxim of this the animate and inanimate role that is the living and non-living because sometimes we are under the perception that we do not really the inanimate or nonliving as if it does not really matches for us and oftentimes it is being perceived to be having a limitless in the sense it can be exploit to any excess extent simply because it is inexhaustible. Now how does one look at these two relationship that is the animate and inanimate by saying animate we mean to say with the planted animals which of course includes the humans as well and they in animate those objects machines and the physical world around us, right.

For instance from a universalist or market point of view if a mining is being carried out it sees no problems in mining because they are in away extracting resources which has more of a value. Now how do we interpret and prepositions of this value the value has to be not just in from utilitarian perspective or it has to be rather seen from a more intrinsic way aspect, because if we

tends to see it merely from a utilitarian value we will ignore or missed out the real meaning of what is embedded in this inanimate objects.

Now if we try to you know like Maxim's of the animate and inanimate things one needs to tries to contextualize and make sense of what is the relationship usually being shared by these two to an tightest. Now the next question is the first question which we ask ourselves is?

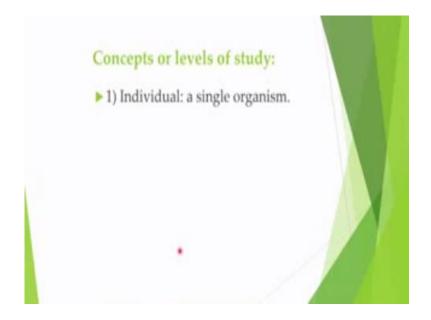
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Can we survive without the environment, now the second equation is can we actually control the environment because we have encountered environmental disasters like maybe earthquakes, floods, industrial existence extensive and with actually highlighted the animation of inanimate matter and do we really have the expertise or the skills to actually control all this environmental disaster because we have come across different disasters and we actually have a told on the human society.

But the question is are we willing to seek for a deeper meanings or if not sittings behind this the mere utility and values.

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Now I will try to look at how these the concepts of this levels of study will be looking too much before that as I said we opened tries to look into the whole ecosystem from a very narrow approach that is more which are guided by more market oriented and which often is being sponsored by the state and the development projects which we normally follow is mostly driven by the so called capitalist economy.

Now do we think that this sort of capitalist economy is sustainable do we need to look behind a mere capitalist economy, for instance if you looked at some of the problems which are being encountered by the indigenous communities for instance when the sort of development projects are normally being initiated it has sort of a wider implications if not impact on these vulnerable communities because for them the animate and inanimate is more or less the same and they cannot really distinguish between these two entities as separate bodies.

Because there have been four generations being closely associated and live with this environment now as I have been saying can these people afford to live out of this environment and which has to be understood in the context of this debate or maybe the debate of environment

versus development and if development has to be part of the discourse will these practices be seen as sustainable.

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