### INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

### **NPTEL**

### NPTEL ONLINE CERTIFICATION COURSE An Initiative of MHRD

### **Ecology and Society**

## Dr. Ngamjahao Kipgen Department of Humanities and Social Sciences IIT Guwahati

Welcome to the online lecture series so this lecture is part of the earlier lectures which has already been delivered by Mr. Pipkin so I hope you had a clear ideas about it I am just going to talked about some of these emotions and the concept which he has already talked about but I have more of a question the multiple choice questions so that the exercise will be more easier for you to understand the course.

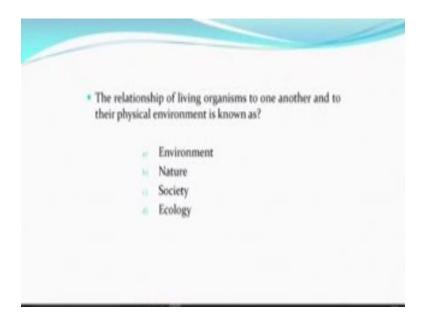
So this course is about understanding the debates you know that that lie in the deeper relationship between Ecology's and human society that is how the human society shapes the ecology how the human cultures deals with the nature and their processes and how it creates the meanings out of that interaction so today I am just going to present before you some of the you know multiple size choice questions from the earlier lectures.

I will be talking only about introductions today and hope it will help you guys to understand the course in much easier way as dr. Keegan has already talked about the details of the course and this lecture is all about understanding the dynamic relationship between human culture their ecological surroundings their cultural processes and the organizational behavior so what I am going to do here today with that I have a couple's of multiple choice questions which I will present before you and after presenting the questions.

I will give you the answer as well but the answers it's not marking the coefficient itself so answer I will provide you separately so on the first part of it I am focusing on the concept of ecology what is the ecology what is environment what is nature's and all those things and then the later

put later part of the course I will be talking more of the shift in environmental discourse especially after 1960s and the emerging debates for sustainable developments.

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Let us begins by looking at some of the basic questions about environments nature's and ecologic sphere are some of the multiple-choice questions which I will present before you so the first question goes like this the relationship of living organisms tone another and to their physical environment is now next let me repeatthe question the relationship of living organism to one another and to their physical environment is known as so there are four options for these questions option number one environment nature society and ecology.

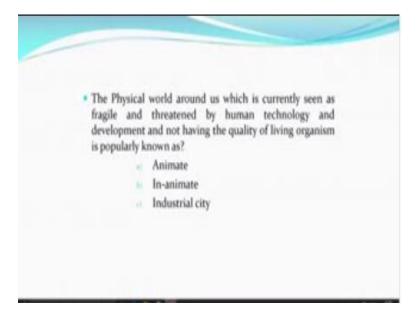
So what would-be the right answer for it what would correct answer so the correct answer for this is a colonic so ecology is that kind of systems where relations of living organisms to one another and the physical environment is intimately maintained and controlled well environments different environments more of a surrounding nature is more of where you live and Society is more of the human interactions.

So in this case the answer for the first question is ecologic so let me go to the second question now the second question goes like this the surrounding or the context within which humans animals plants another exists it's referred to as okay let me repeat the questions the surroundings or the context within which humans animals plants and other exists it is referred to s so think about it what is it that's preserved more of a surrounding you know more of a context.

Within which humans spaces animals plants spaces and other exists together so there are four options for discussions again so the first one is nature the second one is society third one is environment and food one isecologyso what would be the correct answer for this question is it nature that that sarong that is known as surrounding or the context within which human animal advance coexist or is it society.

It might be society also or is it ecology or is it environment so the correct answer for this is environment because as I told you earlier environment is the surrounding using ER or the context within which humans animals plants and other organisms coexist together with each other's so the first one was the ecology where the you know relationship of living organism to one another was determined and the physical environment is maintained and the second one is environment is more of a surrounding the context within which the human animal plans in order coexist.

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The third question goes like this the physical world around us you know we just currently seen as fragile and threatened by human technology and development and not having the quality of living organism its popularly known as so this question is quite problematic and it's quite easy as well.

So what I would like to do is I would like to repeat the questions once more before you so that you can get the sense of the questions the question goes like this the physical world around us which is currently seen as fragile and threatened by human technology and development and not having the qualities of living organism it is popularly known as so there are three options for this question one is animated another is inanimate and third one is industrial city so what would be the answer for thisquestion is it animate or is it inanimate or is it industrial city.

Industrial city is a city where are you no human technology industries are rampant and we're humans mean we're human is dominated by the technology so here the question says the physical world around us which is currently seen as Foristell and threatened by human technology and development and not having the qualities of living organisms is popularly known as so I think there are three questions three answers for this question.

So the correct one let me tell you the correct one the correct one is about inanimate that is not living object because here they are talking more of anon living object we are not talking about the living object we are talking about the nonliving um whereas animates more of a living object the industrial city is more of an industries what we are talking about the physical world around us and we change which incompletely under trade a trade by human technologies and development.

And which does not have the qualities of living organisms that is the living organism in an image so here the answer is in animals so this is the third question I hope you guys are following it so let me move on to next questions so this question goes like this what kind of system maintain the functioning of ecological community together as a unit within its environment to visit very interesting coefficients.

So here the question is talking more of a system you know which maintain the functioning of ecological communities like you know living community spaces plant animals given the humans together as a unit within this environment so earlier I have talked about what is environment and what is ecology so here I am asking about this kind of system you know which maintains the functioning of this ecological community together as one unit.

So within its particular environment or surrounding or context so there are three options for this question so option one is not system options to this biological system and absently is ecological system I hope you guys are getting the correct answer sense by now so you know the natural systems biological system and ecological systems are three different systems in natural systems many is the natural things whereas biological system is more of a determining the human biology or any living biology.

So on the other hand ecological system is more of a systems which determined the ecology and environment so the correct answers for this coefficient would be ecological system yes so ecological system that means the ecological system is a system you know which maintain the

functioning of the living organism that is ecological community together as one unit within a certain particular environment.

So till now I will discussed about some of the important chips let me revise it first one I have talked about ecology now what is the ecology so ecology is more of a relationship of living organisms to one another and to their physical environment and the second what I talked about is about environment you know wherever I have told you that environments more of a surrounding and the context within which England's plans and animal other coexist together.

So fun well first one is firestone is ecology second one is environment and the third one is I talked about the inanimate world or inanimate object that is the nonliving object and the fourth one I talked about the ecological systems this system is a ecological system actually is a relationship between the environment and ecology I have talked about interest coefficient what is ecology that is the relationship of living organism and the second questions.

I will talked about environment that is so together they constitute the ecological system where various living organisms coexist to one another absolute particular unit within one particular environment of context okay so let me move to another questions so this you know like the next questions talk more about the approaches to understand the ecology you know that is the theoretical frameworks for ecology.

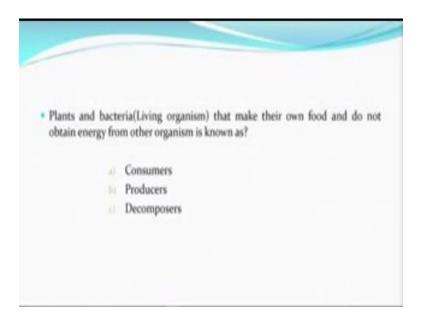
so here there are four types of in a four ways of looking at ecology that is biotic component a biotic component producers consumers and decomposers as well but I haven't included composers right now so this theoretical framework helps us to understand how ecological system functions and it depend on one another so the first questions in restrictions it's like you know nonliving chemicals and physical parts of the environment.

That affect living organisms and the functioning of ecosystem is not asked so I repeat the question again nonliving chemicals okay it's a nonliving chemical and physical parts of the environment that affect living organism nonliving objects but affecting living organisms and the

functioning of ecosystem is not that so there are four options for this coefficients one is biotic components two is a biotic components three its producers and for its consumers.

So what would be the correct answer for this thing in a very you know like logical way that is a nonliving object that is nonliving chemicals or and physical parsing of the environment that is which does not have life but it affects the living organisms or life of the system what is it about so the correct answer for this would be a biotech components because ability component it's more of a in a nonliving objects ideals more with the nonliving or physical part of the environment.

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Whereas biotech produces but where is biotech isomer of a living object you know like living organisms in the ecosystem so I hope you get the sense of this quotient that is the physical part of the environment or nonliving part of the environment affecting the living organism is known as a biotic components let me move to I think I am going quite fast so let me let me move to another question even though.

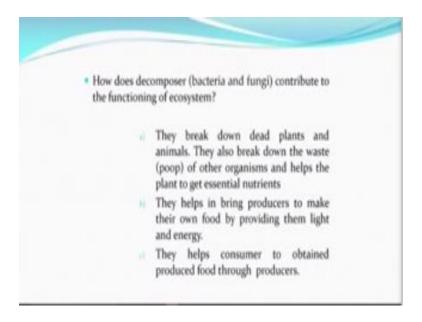
So though our next you know next questions in this section is a ball it goes like this plants and that bacteria that is living organism that makes the own food and do not obtain energy for other organisms known as this is very critical this is a component of ecosystem in a theoretical frameworks for ecologic so he previous questions I talked about the non living chemicals or object of the environment but now I am talking about the plans and bacteria that is the living organisms you know that makes their own food.

And who do not depend on other for their energy which is not given on other organisms for the energies of other foods what is known as that they are actually components I mean there are three options for discussions consumers producers and decomposers so you have to know what is the concerns and of each of this components in the ecosystems what does consumers do what does producers do and what does decompose are do.

If you know this very clearly you will easily find out the correct answer for this question so okay but even then let me tell you the correct answers so the correct answer for this is producers and producers in the ecosystem is that component that make the own food and they do not depend on other organisms for the energy or for their food that is why they are called as producers you know reduces as those who produce.

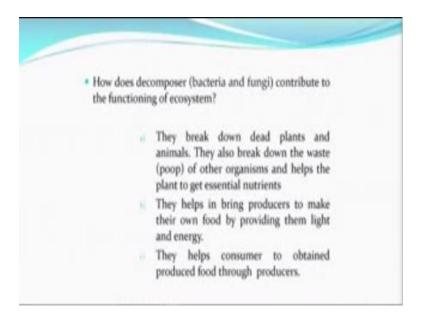
So here plants and bacteria that is the living organisms that makes the own food and do not obtain energy from other organisms is known as producers earlier I talked about abiding but produces more of a biotech of component that is plant sand bacteria that is the living organismanyways keep in mind that the producers produce their own food in ecosystem and does that depends on other organisms frothier food so I hope you get this change of this cohesion so let me move to another questions quickly.

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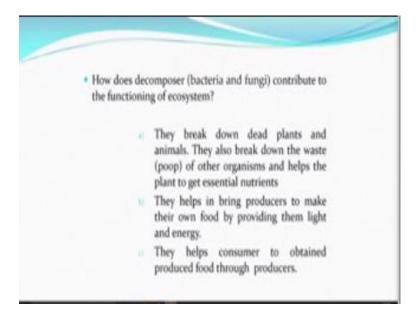
So another question goes like this which organisms in ecosystem utilize organic material manufactures by producers the questions very simple because in earlier questions previous questions I have talked about producers that produce their own food and does not depend on order forth living or for the energy but this question follows the continuations of this questions of that questions you know like named organisms in ecosystem which utilize organic materials already manufactured by producers.

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That is the it depends on producers and there are three options for this equations one is producers consumers and decomposers so producers will not be the answers as you know suggest so the answer I mean soothe options became more easier that there is only to have some consumers and decomposers so just think about it in a logical way like producers rural producers produce their own food utilize that organic materials produced by producers similarly in market system producer produce the product at Google by the product customer right.

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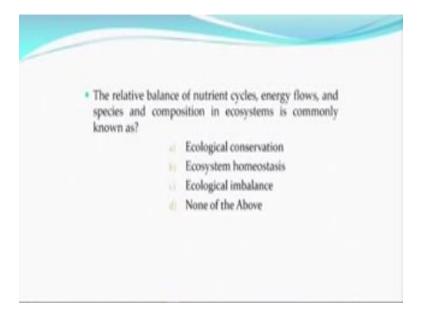
So here in ecosystem the answer will the consumers that is those who consume their canalisconsumers so I am saying that consumers I mean consumers organisms in ecosystem utilize the organic products or organics materials that is manufactured by producers in the processing of ecosystems you have got the sense of producers and consumers so the next questions the answers for the next question.

I hope you already got it it's about the compose have already given you the answer but you have to know what the composes is about and what the composers do and how it contributes to the functioning of the ecosystem so let mega to the another questions so the discussion goes like this how this decomposes or bacteria and fungi in ecosystem contribute to the functioning of the system that is the ecosystem sure told you that producer produce food consumers obtain food from the producers.

But what does decomposes to the computers are mostly a fungi and bacteria so what does how does the help to the functioning of the ecosystem how does they contribute to the functioning of this co system so there are four a three option for this question so let me read out the option for you the first option is they breakdown gate plants and animals in the ecosystem they also break

down the wish 'pops of other organisms and has the plant get essential Ukraine they break down these plants and animals.

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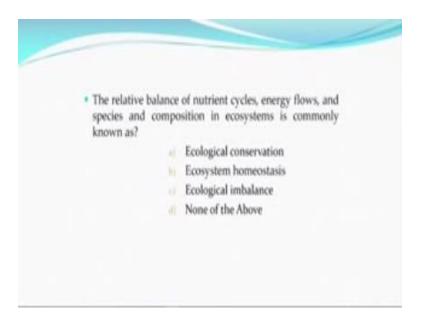


You know they also break down the wastes of otheragainand has the plans to get essential nutrients in the ecosystem so this is option number one and the option number two is like you know the health infringing producers to make their own food by providing them light and energy the health I mean the third question the third option the health consumers to obtain food produce food through producers.

I mean the questions are slightly interrelated you know but you have to know what actually is the functions of functioning's of the decomposers in ecosystem so you know like if I have to talk about the composes I talked more of bacteria and fungi how it contribute to the functioning of the ecosystem but since I do not have that much time to deal with bacteria and fungi as I think as chickened. Kip Kane has already talked about in his lectures.

So this is the you know like objective multiple choice question but I hope it will clear your concept so think about it what does decomposers do in ecosystem so let me go back to previous questions to make you to make you understand more clearly so see consumers that is consumers is the living organism that is planting bacteria that makes the own food and do not obtain energy from other organisms' that is the consumers right and you must produce the food right.

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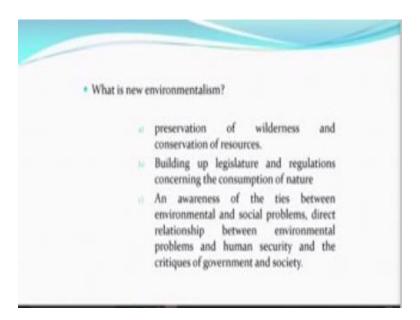
So what do producers do producers utilize organic materials manufactures by producers in the ecosystem so simply consumers consolatory consumers producer produces the food conjugates utilize organic materials so what does the decomposers do let me give you the correct answer for this you know the decomposes in the ecosystem actually break down the trans Emily so first one is the answers decomposes actually has been breaking down this plants and animals that is why they are called as bacteria.

And from me right we also break down the waste product of the organic other organisms and help the plant to get essential nutrients in the ecosystem so this you know like biotic variety producers and general decomposes these are the good theoretical frameworks to understand the ecology or ecosystem that is how ecosystem functions and maintain the systematic structure xenia and how each of each of the organisms has have their own respective functions.

To play but each of the organisms contributes to the functioning of the ecosystem larger ecosystem through either by producing or consuming or by decomposing so I hope you got getting the clear sense of these lectures I mean the questions so let meet me quickly move to another questionnow the question goes like this the relative balance of nutrient cycle energies closed and species and compositions and ecosystem.

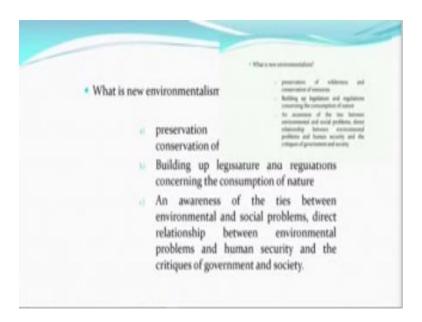
It is commonly known as I have already talked about what is the core system what is the component of ecosystem now the discussion was more of the conceptual of the ecosystem that is the relative balance of nutrient cycle that is produced a consumer decomposes they have to be in related balance that is the relative balance of nutrient cycles energy flows and species and composition in ecosystem is commonly known as so there are four options for this questions.

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First one is ecological conservation are we talking about the conservation that conservation will help to the related balance in the ecosystem again one is ecosystem Howe most practice so are we talking about ecological homeostatic fascist third ones ecological imbalance or are we talking about the imbalance of the ecosystems that ecological got imbalance or none of the above so the answer you know the answer for this question is like the let me repeat.

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The question the relative balance of nutrient cycles energy flows and species and compositions in ecosystem is commonly known as the correct answer for this would be ecosystem for most acids okay so let me just summarize the from the beginning the first quote four or five questions talked about the kinetic concept of ecology and the rest talked about the theoretical framework for understanding ecology.

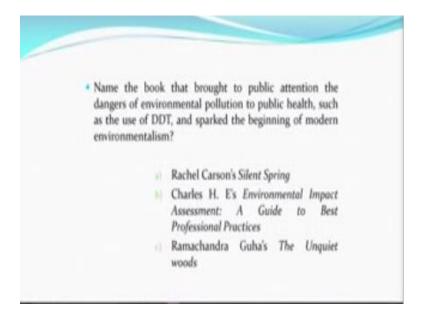
So now I would like to move more on the changing the scores on environments that is like in that is how there was a shift and the discourse of understanding environments and environmentalism across globe so what are the factors that contribute student to the emergence of the new environmentalism or what are the factors that contributes to the our needs of the new environmental and social problem or what are the factors that contributes to the diversity nobility.

Which we are still debating on so I will just talk about the basic concept about the body what is new environmentalism and all sorts of things but you have to understand the connection that is the shift in the discourse enough anyway let me goes back to the question so the equations for this section is like which period is known as the mean environmentalism in the discourse of environmental study at 1950s 1960s 1970sand 1980s so which of the following decades let me put a deaf advocate which of the following decades is considered as the birth of new environmentally the discourse of environmental study.

So there are four options 50 60 70 and 80so I think the correct answer for this would be 1960 yeah of course it's a 19601960 is the docket's where the concept of new environmentalism emerged across globe and that changed our understanding of being man in impact in entire environmental discourse that is its bring a new discourse from the earlier discourse of understanding ecology or environment or you know like any kind of social ecological natural problems.

So let me miss to another question now so what is new environmentalism then how does one understand me environmentalism coefficients so there are four options for this coefficient the option number one reservation the wild earnest and conservation of resources this new environmentalism means preservation of wild earnest and conservations of our resources option number two building of legislatures and regulation concerning.

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The consumption of nature are we talking about building of new legislatures and new regulation continuing the consumption of nature or answer number three and awareness of the ties you know between environmental and social problems direct relationship between environmental problems and human security and the critics of government and society so which one would be the correct answer for this question.

So what does the new environmentalism means you know for me this answers it is quite interval acted and I cannot say completely that this is the correct answer or this one is the correct answer but still then still then there is a differences in the in the in the options so first one is aboutpreservation of alternates and conservation of resources that is have to preserve our resources for future use we have to we have to do proper conservations of our resources.

So the second one is about building legislators and new legislations and new regulation concerning the consumptions of nature that is talking only of nature but third one is about the origins of the ties between environment and social problems direct relationship because environmental problems and insecurity and the critics of government and society so the correct

answer for this would be see you know the option number see that means the new environmentalism means that is a discord in us.

Which emerged in 1960s and which creates awareness with ties between environmental and social problem that is that that is let's try to say that environmental problem is not an independent problems and as the close connections and ties with the social problem it's more of a human problems more of a social problems so environmental environment doesn't function in its own independent - I meant has an intimate close connections with social problems.

It has direct relationship with human security and it and this environmental new environmentalisms also about critics inner critic critiquing the government and society that is the government is not able to preserve and understand the environmental question in a much deeper way and the societies are not able to connect cannot is able to preserve their natures in a much deeper way so the new environmentalism is more often ordinate you know that our next that explained the ties between environmental as well as social problem that is how both are related.

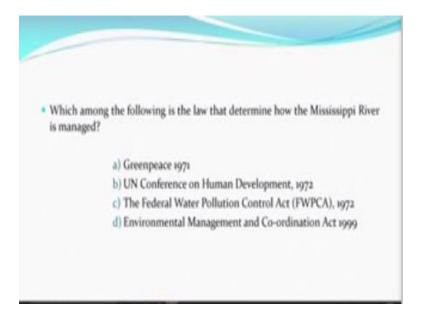
So this is the questions of environmentalism mean new environmentalism that emerged in 1960sso let me move to another question now so this question says like this name the book that brought to public attention the dangers of environmental problems to public health such as the use of DDT and sparks the beginning of modern environmentalism so the question assaying that there is one particular book you know like which brought to our public attention the dangers of environmental problems.

and which shapes the divide of new environmentalism so which is that book option number one Rachel Carson's Silent Spring is it the book is it that book which saves the book which saved which saves the beginning of modern environmentalism adoption or option number two tarnish its environmental impact assessment or guide to best professional practice adoption number threeRamachandra Gotha the unquiet hoods.

So which one is the correct answers for this questions which books save them I mean beginning of the modern environmentalism in 1960s so let me give you the answer for this and so for this

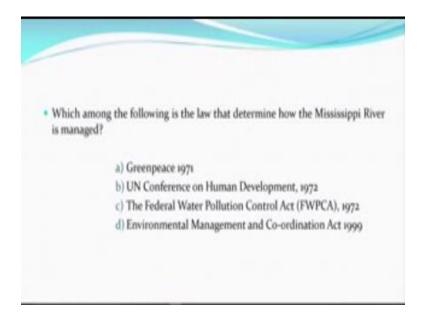
question with Rachel Carson's Silent Spring so little Rachel Carson's Silent Spring I mean it's the books that brought to our public attention in 1960s the dangers of environmental problems and environmental solutions to public health that is how environmentally created pollution is affecting.

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Our human health that is and how such as the use of DDT and such as the use of DDT like how the use of digits creating the pollution and how the growing industrialization then growing mechanizations of the English human world is create is contributing to the to the growing pollutions of the going for pollutions of the environment and how it is affecting the human health and these are the questions you know which he tried to bring up in this bookend this kept the beginning of the new environmentalism vivid so this book's Rachel Carson's Silent Spring as one of the importance and seminal books and the studies of the new environment to live it okay.

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So let me go to another questions quickly so these questions goes like this which among the following is the law that determined the Mississippi River that determined how the Mississippi River is managed so be foregoing to discussion let me tell you that you know the 1960s new environmentalisms created a new awareness and the perceptions of the peoples towards their society towards their environment.

And that is got a new kind of discourses in the entire globe regarding the use of the environment in the nature's the resources and other so calming become more conscious the society become more critics to the government the peoples become more critical to the government regarding the use of the resources regarding the management of the resources so the government on the other sites was trying to bring the new regulations and you new Act to deal with the society that is all the afternoon pieces the discourse of the environmental change completely.

So weave to you know like understand how this Mississippi Rivers Management Act Greenpeace Act and all these things came up after nineteen seventies so anyway the question is like this which among the following is the law that determine show the Mississippi River is managed until a question and options for this coefficient it's number one Greenpeace1971 UN conference

on human development1972 the federal water pollution act f WF c 1972 environmental management and coding 1999.

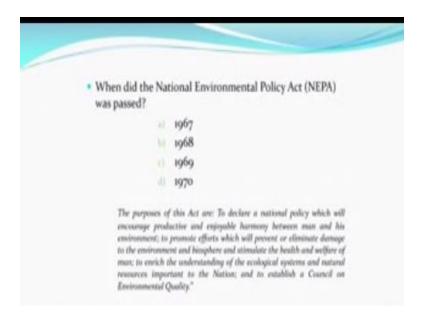
So think about it which among the following is the law that determine how Mississippi River should be managed or actively managed or if managed anyway so out of this four options the correct one is option number that is federal Water Pollution Control Act passed in 1972 this act determined how the Mississippi rivers should be managed and it is a nude is anew discourse to the environmental study so with this let me move to another question.

So this is also more related with Mississippi River Management Acts immature the Mississippi River Management Act was passed to manage Mississippi River so options there are four options for this questions the first one is 1966 second one is 1976third one is 1986 and the fourth one is 1996 so think about the discussion.

So which when the upper um RMA Act was passed to manage Mississippi River is it66 76 86 or 96 the correct answer for this is 1986 that is in 1986the Upper Mississippi River ManagementActum RMA was passed to manage the Mississippi rivers okay so let me let mega back to another questions quickly so when did the National Environmental Policy Act NEPA was passed.

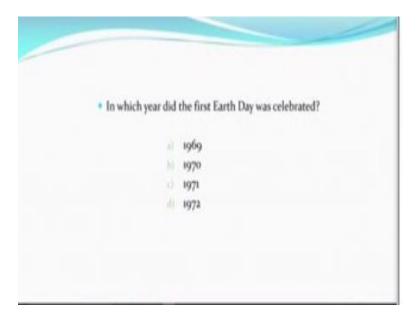
So why I am talking more of this Actfelices and other is because it's to make you understand how the new regulations and new discourse has come up in the environmentalism studies after new environmentalism in the 1960s so when did this National Environmental Policy Act NEPA was passed1967 1968 1969 1970 okay let me explain you briefly about what is this act about the purpose of this act are to declare our national policy which will encourage productive and enjoyable harmony between man and his environment to promote effort.

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Which will prevent the element damage to the environment and biosphere and stimulates the health and welfare of man to increase the understanding of the ecological system and natural resources importantly designation and establish the Council on Environmental Quality it's more of a national act you know like where national policies will be encouraged tuned and we're encouraged and were of harmonica relationship between man and his environment will be encouraged.

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So this kind of understanding will be discussed more in more in the course on cultural ecology which we will come up in next lecture series or next session where we will talk more of how cultures and ecology are interrelated and how to produce a meaning out of it what is traditional knowledge what is indigenous knowledge what are the ways of dealing with the land admission so when did the National Environmental Policy Act NEPAwas passed.

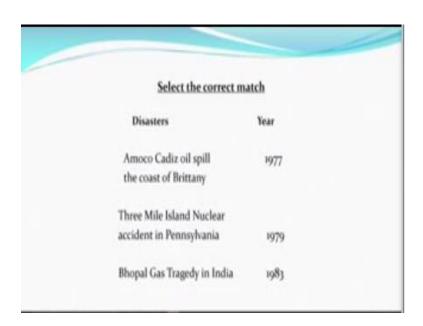
So there are four options for this questions one is 1967 one is 19681969 and 1970 the correct answer for this would be about 1969 in 1969 the National Environmental Policy Act was passed okay now let me move to anotherquestions in which year did the first odd day was celebrated as you know everyone what is odd day and why it is celebrated so the odd to the option is 69 and 70and is only one then in 72so in maturity the first or givecelebratebecause.

It was odd they came up as unawareness of the importance of this earth in environments nature's and the living organism in this world so we have to celebrate our all days so which year all day was the first celebrated so the answer for this question would be 1970now like where the first Earth Day was celebrated anyways let me move to another question quickly when in worded the UN conferences on human development took place so when and where did the human UN

conference on human development took place so there are four options 71 Geneva 72 stop along 73 New Delhi 24 Rio de Janerio.

So what would be the correct answer for this question so I think the first you and controlling the gnomon development took place in 1972 talk long so with this let me go back to another question so what is the main objectives of polluters pay principle OCD 1971 so what is the main objectives of polluter space principles OCD 1971 act I think again has talked about this all this all this concept you know there are four options for this question ones to make the party responsible for producing pollution.

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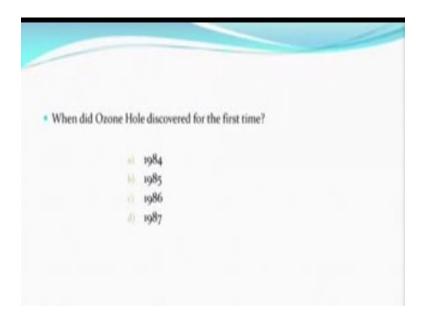


Responsible foraying damages down to the natural environment to create number two to create our nests globally about deforestation and the three to establish international law to take water system for none of the above so it's very simple I mean like options itself give you the quick answers none of a both cannot balancers in this case the established international laws take water system it's a polluted taste principle that it should not be on the water system create our own is globally about deforestation of course.

Not about deforestation on-line sure would be the option number that is the objectives of Polish polluter pays principle used 1971 is to make the party responsible for producing pollutions responsible for the paying damages down to the natural environmental i have a few questions left so let me quickly go and finish it off so then I will move the next questions so this ones about you know like it's a massive correct I mean select the correct match out of the tree so one talked about disasters and one talked about years.

So what which in which year that which disaster happen Omro cook edits oil spills the cost of Britain Britany is region 1977number two three miles island nucleusand accident in Pennsylvania did about1979 or global gas tragedy in India in1983 so what would be the you know like what would be the correct answer for these questions.

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So let me give you the correct answer for this question the correct answer for this question is 1979three three miles island nuclear incident in Pennsylvania you know like this three Mile Island nuclear incidents was the most significant incident in nuclear commercials Paul Klein history you know so it's happening the Year 1979 and another let me give you the viewer for

another matches well the Bhopal gas tragedy in India happened in 1984 Amoco Cadiz was spill the coast of Britain captain's in 1978.

So look let us move to another question when did awesome hole discovered for the first time and in which earth original discover for the first time in the history of environmentalism I'm talking more of new environmentalism fifth I'll just act him out how this dangers of climate change ozone hole was discovered and however the what I mean what are the impact of ozone holes and all these things.

What I am just now going to talk about when did it discovered for the first time when did the ozone hole discovered for the first time and in 84 and 85 86 and 87 okay let me explain you briefly what is ozone all relations you know like this ozone hole is a layering that that resides in the stratosphere and surround the entire Earth I mean there is a there is a region in the ocean or ozone Xenathat is marked by thin or clean layering of the ozone hole in high altitude especially in cheaply.

In winter attributed to the chemical reactions off's chlorofluorocarbons and other atmospheric pollutants that is it is caused because of the resulting increase in ultra violence ultra ultraviolet lights at ground level ground level and this ozone hole or with ultraviolencerice might cause to the skin cancers to the human so when did this first when did this concept of ozone hole depletion first discovered so it's in the year1985 so in 1995 the first organ hole near was discovered.

So let me note to another questions quickly in which year did the Montreal Protocol ad object and in 66 Families 86 87 88 89 so what simony Monteux protocol act or mod voiding one called protocol now wampum protocol is an international treaty designed to protect this ozone layer which I have talked about by cashing out the production of numerous substances that are responsible for ozone depletions it tries to control and regulate the productions of you neediest substances that are that are causing I mean that are responsible for all the wholedepressionso this mantra protocol when was it first adopted we immediately the mantras protocol Act was adopted

so adopt it in the years nineteen hundred and eighty-seven ok I hope you got 85 is overload ablation 37 is a mantra protocol Act.

So let us me go to another question this one's more about as the following so master correct answer that one is decade anode is discourse in which tickets which discourse took place nineteen sixties Green Revolution is in India is the Green Revolution in India took place in here because 1960s or 1970s our 1970sbirth of new consciousness movement groups civil rights women's right environmental rights.

And all the things within the 1970s and the objects options nineteen eight piece that is introductions of sustainable the blog length that is we have to produce first we have to work for sustainable development so we have to think for sustainable futures does it come up came up in 1980s or 1990s rise of ecofeminisms which one is B the correct answers out of eight so for me not for me budlike for this question the correct answers would be nineteen eighties develop sustainable development.

That is in nineteen eighties the world realized and our future is very scare and we have to produce you have to work for sustainable production and sustainable development in order to have sustainable futures that sort of awareness emerged in mining and this rise of this awareness rise of this anger this you know like coming up new regulations that disasters all these things are together now that's the new environmental discourse so let me move to next questions I hope this might bathe last question as well.

So let me quickly go and finish it off for this session that the last questions for this session is about the sustainable development strategies that is you taste sustainable strategies when the Unsustainable strategy published so in which here the UT sustainable development strategy was published or adopted the option was in 1998 1999 19891979.

So the correct answer for this would be 1979 that is in 1990 9that is in 1999so you just realized that we have to work for sustainable development and that is all they adopted the strategies of 80s strategy sustainable development so just I complete the today's lectures on environmental

ecology and societal hope it is it has it might help you guys and hope you guys are might have enjoyed so I will see you in next lectures till then bye see you.

# Centre For Educational Technology IIT Guwahati Production

### **HEAD CET**

Prof. Sunil K. Khijwania

### Officer- in- Charge, CET

Dr. Subhajit Choudhury

### **CET Production Team**

Bikash Jyoti Nath

CS Bhaskar Bora

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Kaushik Kr. Sarma

Queen Barman

Rekha Hazarika

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Swapan Debnath