Political Ideologies Contexts, Ideas, and Practices
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Ecologism Today. Conceptual Problems - The Idea of Nature. Natural Capital - Worked Example

So we're going to do our concluding lecture, our 5th lecture I think, on ecologism. And we'll look at ecologism today, and then work through an example of recent and current developments.

What about ecologism today? Where does it stand? It has much wider public support than it is often thought to have. The larger political parties, especially on the left around the world, have adopted various green policies relatively routinely. In Germany, the Green Party lead the governing coalition, or they did with the Social Democrat Party, the SPD, in several of the provincial assemblies or Länder, particularly important in Germany, in Germany because the federal upper house or Bundesrat is made up of members deputed from the Länder, from the provincial assemblies.

And under the German constitution, this chamber can approve or reject any legislation proposed by the federal government. That then means that a strong green presence in the provincial assemblies - and they've even won one very conservative assembly in the provinces - means that a strong green presence in the upper chamber of the German parliament. The Bundesrat has very great power over federal legislation and can reshape it in, on the lines it needs. In fact, Germany is notable for making green policy an element in just about every significant piece of legislation.

In France in 2011, the Greens and the Socialist Party did so well in the, in a certain form of provincial elections, in the cantonal elections, that they formed the governing coalition in several of the 96 départements, which are the third tier of the French state. As in Germany, the national upper house is elected from, in France the Senate or Sénat. The national upper house in France is elected from a range of lower-level assemblies and therefore, at that time, it got its first ever broad-left majority.

At national level, the German Greens led the way. They won 28 seats in the federal lower house, the Bundestag, in the 1983 general election. They won 47 in 2002, 55 seats in 2005, and they became coalition partners with the Social Democratic Party, the SPD, in both the resulting governments. The former co-chairman of their parliamentary faction Joschka Fischer was

Germany's Foreign Minister and Vice-Chancellor to Chancellor Gerhard Schröder, the Head of Government from 1998 to 2005.

In France, in 2011, a green alliance with the Socialist Party and other left groups won a majority in the Senate for the first time, the first time since the Fifth Republic was founded in 1958.

In the United Kingdom, the Greens attracted widespread attention by winning 15% of the vote in the European Parliament elections in 1989. And in 2010, the Greens won their first seat in the House of Commons when Caroline Lucas was elected for the Brighton Pavilion constituency in 2010. She has held her seat since then, Dr. Lucas has held her seat since then.

We need to note that the proportional or hybrid electoral systems used in almost all Scandinavian and Continental European countries, as well as Scotland and Wales, give Green Parties a far better chance of effective representation than the simple majority system, which is used in British and Indian general elections.

The simple majority system basically is winner takes all; no one else gets a look-in. But proportional or semi-proportional systems offer much, much wider ranges of representation. And therefore, the Greens have done very much better in France and Germany than they have done in the United Kingdom.

Well, what about everyday issues? In everyday matters almost all industrial countries' households have for a long time been required by their local corporations and councils to separate waste for recycling. For example, glass, paper and cardboard, recyclable plastics, all have to be separated by households just for separate collection by councils.

This is starting to be introduced in certain areas of India. Here in the city of Chennai, the system has just been formally inaugurated by the Corporation and we as householders have to follow certain segregation rules. The system is still in its very early stages, but the green intention is absolutely clear.

In the industrial countries, councils - corporations - also provide separate facilities into which people can put different kinds of household waste. And many now have separate, have separate facilities for the disposal of old computers and mobile phones or other forms of e-waste. They contain highly toxic and dangerous substances - not widely known.

Practice of course varies, and in some, in parts of the United Kingdom, the local councils only take a limited range of plastics for recycling. I can say from personal experience, it can be surprisingly difficult to find out which plastics are recyclable and which are not; there have also been scandals over the export of certain kinds of plastics to other parts of the world such as China because industrial countries, certain industrial countries, simply have not the facilities or the technical capacity to recycle those without causing significant environmental damage.

Well, non-recyclable plastics may well go into very expensive and possibly environmentally harmful landfill. Or as I said, they may be, as has come out in various scandals, exported to other parts of the world to pollute other parts, those other parts of the world.

Now public authorities in many democracies are also now required to prepare environmental impact assessments for all large projects above certain threshold values, certainly for all larger public works - but public awareness of this fact is limited and access to the reports may be restricted by law in various countries. In at least one case, which was given in the exercise, it's in the exercise accompanying this chapter, the public authority concerned submitted an assessment prepared for an area several hundred kilometres away on the opposite coast of the country. That was for a nuclear power plant, I might add. The environmental impact assessment was for an area, several hundred miles away, on the opposite coast.

Now, those kinds of measures are a good thing. Environmental impact assessment, segregation at source of rubbish, and so on, are a good thing. But they all fall far short of the kind of thing that deep ecologism would require. That would require wholesale economic changes and it is bitterly resisted by powerful corporate interests.

In many countries, they are overwhelmingly, those interests are the biggest source of politician' election campaign funds. So are the mainstream news media, they are overwhelmingly corporate owned, and they consistently underreport or suppress the seriousness of the global environmental crisis. This has been called the ultimate media betrayal. That is a phrase drawn from Cromwell and Edwards 2006.

Other developments may well be occurring out of sight of the news media. Environmental economics is expanding and some statements of it recognizes the issues that environmental issues, concerns pose for existing economic orthodoxies. For example, the idea of externalities,

which I mentioned earlier (is), has the results that we ignore the impact of economic transactions on the environment.

In an ecological sense, there are no such things as externalities; everything we do has some environmental impact. There's strong argument for this and it includes excellent evidence to support the detailed rejection of one of the main tenets of orthodox economics, that is the idea of rational - that we're rational economic beings. It is a very strong argument for this, put by Kate Raworth in a book called, now if I remember rightly *Doughnut Economics*. Where she sees economic systems as concentric circles with the outer limit of the circle being the earth's environmental limits.

Raworth, in the same book, goes on to propose a radically revised economics, which recognizes the interconnected environmental effects of all human activity. There are other kinds of analytical methods, which include environmental audits, and in these, we take account of energy uses, greenhouse gas emissions, and so on of any activity or policy, as well as the financial costs of such environmental impacts. These can be quite shocking; online systems exist so that we can calculate the particular environmental costs of say journeys by air and the like.

Some notable authorities have produced sobering, even frightening, analyses. In some industrial countries, the costs of running a car fall steadily, while public transport gets more and more expensive, yet even coach travel, a form of transport using the internal combustion engine, could be used to great effect. In the United Kingdom, which is a comparatively small country in global terms, it's been estimated that every coach would not only take 50 cars off the road, but reduce highway or motorway car traffic by one mile's length of cars. It'll also carry up to 13 times the number of people at any one given time; I get that from George Monbiot, a book written in 2007.

Another factor often ignored in standard economic analyses, presumably because it can be called an externality, is the cost of road congestion, congestion and delays. The Royal Academy of Engineering estimated the cost of road congestion and delays in the UK, the UK alone, at 15 billion pounds a year, and that was in 2005. Again I get the figure from Monbiot.

Any number of such analyses can be found, they are very widespread, easily accessible. But the governments we elect seem as incapable as ever of reaching agreement on what could

rapidly become a global catastrophe. We may well be in the middle of one already. Conceptually, the challenge remains. We're almost certainly in need of a completely new metaphysics of value, if we are to avert the catastrophe. Few or none of us would survive global environmental catastrophe.

Of course, we've got to think about this; there are conceptual problems. Campaigners and campaigning groups are often very well aware of the differences in their various approaches. Several have produced wider statements of our predicament and what we need to do about it. But substantial conceptual or philosophic problems arise, and some of these have been clearly outlined.

For example, Andrew Vincent points out that the green agenda goes beyond human concerns, in contrast to the customary concerns which political, political theory, shows with government, justice, the state and so on. Vincent, Andrew Vincent, states the familiar distinction between shallow and deep ecology; he calls it ecocentrism and anthropocentrism. We've met that distinction, ecocentrism versus anthropocentrism. But even within these we find differences; one strain of ecocentrism sees nature as having intrinsic value, and as being a comprehensive system, we've met that one. Another strain sees us in terms of our, of our having a sound relationship with nature, and as having to change our moral sensibility in order to have a sound relationship with nature. This is the result of what Andrew Vincent calls a mature psychology rather than, rather than the result of our being convinced by moral arguments or obeying moral imperatives.

One implication is that we need to develop an entirely different sense of ourselves within the environment. Again, we've met those themes in various ecological or ecologistic approaches. Anthropocentric approaches themselves vary as well. Deep anthropocentrism is indifferent to nature, lies outside green arguments, not surprisingly, even though green activists and indeed all who are concerned would no doubt be directly opposed to, to if you like deep anthropocentrism.

In contrast, Andrew Vincent uses the term 'pliant anthropocentrism'. And this would introduce environmental concerns into the existing body of political thought. The aim of such pliant anthropocentrism would therefore be to devise a conception of being human which is appropriately alert and sensitive to the natural environment and to our impact on it. It would be human centred without being instrumental towards nature. It hardly need saying that both sets

of approaches would see humanity as living inseparably from nature, even though the concepts of interdependence would vary very greatly between the two approaches. Now, as Vincent shows, the concept of nature is crucial to this whole issue. One concept takes nature to be, so to speak, driven by patterns or perhaps by an inner logic - and that logic would be distinct from human action.

Another of the concepts involved sees humans as being a part of nature. This view raises the problem that if we're fully within nature as a part of it, then the process resulting from our existence and our actions, including the environmental damage and degradation we cause are themselves part of nature. This could imply that we should not do anything about our current conduct towards the natural environment. If we're just a natural process, a natural phenomenon, then should we do anything at all about our current conduct within the environment?

The tension here is between reducing human culture to a natural phenomenon, and anthropomorphizing nature so that we see it mainly or even only through our concerns and purposes. That is a form of restatement of the deep and shallow ecologism distinction, but it's informed by a philosophic sense of different conceptions of human nature that both those approaches involve or those respective approaches involve.

Vincent concludes that green political theory is close to incoherence. But the global environmental crisis is still very much the case. If there is some light coming through the smog, it might be found in some of the increasingly direct approaches being taken by some of the industrial countries or former industrial countries, particularly some in Western Europe and Scandinavia. I have mentioned some of these above, earlier. The change in sensibility that Vincent and others [mention] may also already be taking place.

So that is where we stand. We need to look at examples of the kinds of things that are being done and the kinds of things that are being said in response to our current global environmental crisis, even catastrophe. So, that will form the second part of this particular lecture. Let's move on to that.

The arguments around here have to do with the idea of natural capital. Can we make sense of the idea of natural capital? What is it? Well, the term is used particularly in business circles or in circles where, in thinking which tries to see that, which tries to argue that viewing the whole

natural environment as a form of capital will lead us to act better towards the environment, precisely because our market successes and our profits would depend on that.

So nature becomes a form of capital. So, what is natural capital? It's the stock of renewable and non-renewable resources, plants, animals, air, water, soils, and so on - minerals, the kinds of things we use and that provide benefits to us. What kind of benefits are we talking about? The air we breathe, the water we drink, wildlife, animals we eat, the wildlife that maintain healthy ecosystems. And that could include lots of animals we simply don't see, various kinds of bacillus, bacteria, very small plankton, and so on, in the soil and in the water.

Now, the benefits, well, all come from nature. Our existence comes from nature. So this would mean imagining, so to speak, that nature is a trust fund. We've seen similar concepts earlier. We are the beneficiaries of that trust fund. We live off, so to speak, the interest that this trust fund that nature provides, carbon storage, raw materials, water, the ability to regulate climate and mitigate floods and so on.

If we keep using too much of the capital, we run out of it, we're going to see diminishing returns. All this, the natural capital concept is put in very recognizable financial, largely capitalist, terms. So what does this mean in practice? It does mean, we have to identify our most important areas of dependence on nature. That is, identify the benefits and identify where they come from. And we have to recognize our impact, our use of them might have on these ecosystems that provide the benefits. And that'll give us an account, if you like, of the mechanics of how we use these resources in the trust fund.

Now, yes, a great deal of natural capital is in the tropics, and that's where many of the world's biggest repositories of carbon and wildlife and freshwater are. It is not true all around the world, but I mean, India, for example, has 20% of the world's population and only 5% of the world's, only 5% of the world's freshwater, groundwater; I understand that of that 5%, one half is already contaminated beyond use of almost any kind.

But according to this particular item, put out by a natural, by a natural capital organization, the tropics are the biggest source of many of the resources we use. Okay, that's the bulk of the trust fund. Now, we need to map those, if we are to know the value of the benefits and the extent of the reserves and stocks (which), from which we get them. Does that mean we are placing a value on nature? Is that a bit of a cold-hearted thing to do?

Well, ecological economists do say, some of them say, we've taken those benefits for granted. We are using them at a rate that we cannot replenish. We need to start thinking about the value of these benefits and how to change our ways and rates of using them - again, familiar arguments from all forms of ecologism.

How does this go further? In order to grow, grow in value, every business, according to the natural capital organizations have to be efficient and to make better decisions. And so we must incorporate the idea of natural capital into our business decisions. Sounds all right. Otherwise, we're missing risks and opportunities. Notice again, the profit making, the capitalist orientation and the capitalist type of language, it does seem to make sense.

For example, if we run a coffee company, we need a steady and sustainable source of high-quality beans and so on. That means protecting the environment, perhaps also protecting the lives of the farmers who grow the beans for us, perhaps in other continents, if not other parts of our own country. And so if we, our activities degrade these habitats and degrade the lives of the people who grow the beans, from which we make profits, our profits suffer. Sounds perfectly tenable.

So, something has been proposed called a natural capital protocol. What is it? It is a framework designed to help create accurate and reliable information so that businesses can measure their value and their impacts and dependences on the natural environment, on natural capital. There are examples, firms which produce sweet drinks, Coca-Cola and Pepsi Cola - Coca-Cola certainly have had some adverse publicity, if I am not mistaken, on their use of water. Certain, of course major, food corporations have had campaigns against themselves in various parts of the world because they have been given licences to, to draw groundwater and thereby both deplete groundwater heavily and very seriously affect, adversely affect the lives of those who live in the area. You will be familiar with the controversies, they are in the international media.

But Coca-Cola according to this particular item has, I quote, an ambitious target to replenish and replenish safely as much water as it uses in its, in its beverages, in its drinks, by 2020. That is next year. How would this protocol be used? Well, it would be available worldwide online and it would provide information on available resources, rates of use, nature and type of environmental effect, and so on.

I'll add here that we cannot always predict environmental impacts easily or over the short term. So there would be complications - we've already seen some of those in our analysis of the polluter pays principle. So that's the natural capital theory. That's the idea of natural capital.

Well, does it make sense? Certainly, it's, I beg your pardon, I'll go to the page that I was hoping to call up. Here we are. This is a column, called the Schumpeter column, in the *Economist* journal, dates from 2011. We will send you the links on a PowerPoint, I can't send you the texts themselves, because they're copyright.

But here we are. It's called green growth. It's a kind of commentary-type column in the *Economist*, green growth. Apparently, some emerging world economies are combining growth with greenery. What does the column say? What does the Schumpeter column say?

Well, the *Economist* is very enthusiastic about the enrichment of previously poor countries. It's worried about the environmental effects of population growth, 7 billion in 2011 to 9.3 by 2050, as demographers expect, and a growing proportion of this, of this population will be able to afford goods that were once reserved for the lites and generally available only in industrialized countries.

Can the planet support that kind of economic activity? Well, there seem - the *Economist* doesn't not say this, but it's been said that the planet even in its present form, even at present, can support population of 10 billion. The question, of course, is the consumption pattern. And the *Economist* is now cautious in this column, about a top down and western-centric approach to planetary problems like population growth and environmental impact.

So, the author cites a study by the World Economic Forum and the Boston Consulting Group, and they say, at that time 2011 there were 16 emerging market firms turning ecoconsciousness into a competitive asset or source of competitive advantage. These are highly profitable companies, apparently they're called the new sustainability champions. And they are using greenery, presumably meaning green approaches, to, I quote, 'reduce costs, motivate workers and forge relationships'. Their homegrown ideas will probably be easier for their peers to copy than anything cooked up in the West - a confident assumption there.

What is, what about these approaches? They turn limitations, resources, labour and infrastructure into opportunities. In India today, the firm, in India the firm Shree Cement, which had long suffered from water shortages apparently, developed what this article calls the world's

most water efficient system for making cement, in part by using air cooling rather than water cooling. Manila Water, a utility in the Philippines reduced water losses through wastage and illegal tapping from 63% in 1997 to 12% in 2010, because it made water affordable for the poor, much less of an incentive to steal.

It's been an issue in parts of West Africa as well, where illegal tapping of oil pipelines has been a significant problem. I should add that there have been public controversies about water losses from poorly maintained pipeline infrastructure in the United Kingdom. England and Wales certainly have privatized water systems. And there have been, those firms have been involved in controversies over the nature and quality of their infrastructure maintenance or infrastructure replacement.

Okay, back to this one. A Chinese maker of air conditioners, Broad Group, has, we are told, tapped the waste heat from buildings to power machines. A fishery group, Zhangzidao, a Chinese aquaculture company that is, recycles uneaten fish feed to fertilize crops. All this sounds very good. These are green goals - setting them is apparently a common practice.

SEKEM, an Egyptian food producer, apparently set itself the task of reclaiming desert through organic farming. In Costa Rica, a firm called Florida Ice and Farms, or Ice and Farm rather, has adopted, we're told, exacting standards for the amount of water it can consume in producing drinks. And these firms measure themselves by what Schumpeter calls their greenery. 60% of bosses pay are linked by one firm to the triple bottom line of, I quote, people, planet and profit.

Woolworths, a South African retailer, claims that many of its best green ideas come from staff not bosses. Now it is recognized that in emerging markets, it is hard for companies to stick to one specialism, I quote, 'because they have to worry about so many wider problems from lousy infrastructure to unreliable supply chains'.

So, again I quote, the sustainability champions seek to shape the business environment in which they operate. And we have given examples here, Grupo Balbo, a Brazilian organic sugar producer, working with the Brazilian government at that time 2011 to create a certification system for organic products. And that's been done elsewhere. We can buy things in the United Kingdom, which carry various kinds of certification, the Soil Association, various organic labels and so on.

Partnerships are formed between governments and NGOs - happened in Kenya, where the International Fund for Agricultural Development has formed an alliance with Kenya's Equity Bank to reduce risks when lending to smallholders. And this happens around the world. The question then is rich because green or green because rich?

Causation may be difficult to identify there, but somebody called Rosenzweig in Switzerland, Phil Rosenzweig in Switzerland's IMD Business School says that, yes, management writers are prone to the halo effect. They treat the temporary success of a company is proof that it's discovered some internal principle of management. Well my PhD was on managerialism, that sort of phenomenon has been documented elsewhere, not just in my PhD. But the fact that successful companies have embraced greenery, therefore doesn't prove that being green automatically makes us successful in business.

[There's a perfect,] it could be the case that once we are successful, we can spend more on greenery. But nevertheless, the central message according to the Schumpeter column here is that some of the best emerging world companies are combining profits with green, green systems or with green, green activities. They say emerging world companies, Schumpeter says emerging world companies can be just as green as their western rivals.

Again, I quote, many have found that when natural resources are scarce and consumers are cash strapped, greenery can be a lucrative business strategy. So, green capitalist business is apparently viable or potentially viable and is showing successes already. We need to raise issues about that - is the idea of natural capital tenable? And let's look at a critical analysis of that.

We'll look at a critical analysis of this by George Monbiot, one of the world's best known environmental campaigners writing in English, a former lecturer in philosophy at Green College, Oxford, if I am not mistaken. He has for 30 years or more been an extremely forceful, extremely well informed campaigner for far sounder environmental approaches, far sounder conduct on our part.

In 2014, he gave the annual lecture at the Sheffield University, the Sheffield Political Economy Research Institute, called SPERI. They hold an annual lecture and George Monbiot gave it in 2014; it was given without notes and transcribed afterwards, and we shall draw upon it to see if the idea of natural capital is tenable.

Quite simply, what Monbiot calls neoliberal capitalism goes with natural, the idea of natural capital. It's the doctrine that the market can resolve almost all social, economic and political problems. We've met that when we've studied neoliberalism, under the topic of liberalism. It means minimal intervention spending by the state, and we can maximize the general social interest through the pursuit of self interest.

Okay, well, Monbiot gives examples, which we do not need here, of as he calls it the spectacular crashing and burning of that doctrine in the financial collapse of 2007 to 2009 and the continuing consequences. He also points out that some of those responsible, actually attained very high positions in life afterwards, partly awarded positions in the upper chamber of the House of Lords by the British Government.

But, he says it is just at this moment that some environmentalists, this moment of collapse of the neoliberal capitalist system, we may never know just how close the global financial economic system was to collapsing at the time; various people have hinted at this, but I wish they'd tell us the truth - it would be quite interesting. But some environmentalists have apparently woken up to this and they've said, this is the answer to saving the natural world. That is what Monbiot says is the natural capital agenda.

What is it? It is the pricing, valuation, monetization, and financialization of nature in the name of saving it. We've just seen how that is been put by, by Schumpeter on the natural capital organization, the one I cited earlier. So this means that ecological processes are called ecosystem services, because of course, they exist only to serve us. Hills, forests, rivers, these are terribly outdated terms. They're now called green infrastructure, biodiversity and habitats. I'm quoting from Monbiot here. Not at all à la mode my dear, not at all fashionable. We now call them, as Monbiot says, asset classes in an ecosystems market.

Monbiot says - I'm not making any of this up - he's right, he is not making any of this up. These are the names we now give to the natural world, we do see such terms as currency in everyday talk in business and in economics, and so on. Now, what do those who support this agenda say? They say, we're already failing and failing spectacularly to protect the natural world.

We're failing it because we are not valuing it enough and companies therefore will create a road scheme or a supermarket or a motorway service station or anything else, in an ancient woodland or whatever. And they see the value of what is going to be destroyed as effectively

zero. They weigh that money against the money they'll make from the industrial or other development, and they carry on.

So therefore, if we were to price the natural world, we could point out then that it is worth something because it delivers ecosystem services to us in the form of green infrastructure and green asset classes within an ecosystem market - that is a market in water, air, soil, pollination and the rest of it, pollination, yes. Then perhaps we will be able to prescribe, to persuade people who are otherwise unpersuadable that all this is worth preserving. Why? Because it's got market value.

So, natural capital proponents also point out that we could therefore raise an awful lot of money - and money that we, money that's not otherwise available for conservation projects. These are plausible and respectable arguments. But, as Monbiot says, they are the road to ruin and something even worse.

He starts with three main problems, three. The first is that what is being compared here, in terms of monetary or commercial value, involves the comparison of incommensurable entities. Well, he looks at the Natural Capital Committee's latest report in 2014. For example, that committee said - it was set up by the British Government, by the way - said that if freshwater ecosystems were better protected, the additional aesthetic value in Britain would be 700 million pounds.

Aesthetic value, in other words what it looks like. So we would gain something like (7 million), 700 million pounds in aesthetic experience. What does that mean? It has been said as well, pretty seriously, that if grassland and sites of special scientific interests were better protected, then wild life value would increase by 40 million. The value of their wildlife like, like chalk hill blues - flowers - and dog violets that live on protect grasslands, [those] their value would be enhanced by 40 million. I don't know what the plants think of that or the flowers think of that. But, as Monbiot says, these figures are simply gibberish.

But they're not the worst he's come across, he says. Okay, what has he come across? The British Department for Environment, the Ministry for Environment, also, I think now called the Department for Environment Forests and Food and Rural Affairs. It launched the national ecosystem assessment in 2011. It said it had established the true value of nature for the very

first time actually said that. It could not give a figure, but it managed to provide figures for particular components or elements of the value of nature.

It said for example, that if we looked after our parks and greens, if we looked at them well, they would enhance our well being to the tune of 290 pounds per household in the year 2060. What does that mean? It seems to mean that an increase in well being is composed of recreation, health, and solace. That's actually quotation from the ministry report. Those are natural spaces in which our culture finds its 'roots and sense of place, shared social value arising from a sense of purpose and being able to achieve important personal goals and participate in society, enhanced by supportive personal relationships and strong and inclusive communities'.

This sounds like religious proselytizing or religious crusading. But a government report actually said that. So - as Monbiot says, we put solace and sense of place and social value and personal goals and supportive person relationships and strong and inclusive communities all together, and we get a figure of 290 pounds per household per year in 2060.

As he says, all we require now is for the Cabinet Office to give us a price for love and a true value for society. And we have a single figure for the meaning of life. He has been, Monbiot has been deliberately and - easily, given the opportunity, sarcastic. The figure, the value of the meaning of life was as some of you will remember if you have read *The Hitchhiker's Guide to the Galaxy*, worked out by the world's, by the universe giant supercomputer as being 42. The computer was called Deep Thought.

Now, Monbiot says quite rightly, this is complete rubbish. And anyone can see it's complete rubbish. So we end up with questions like this. There are some limited, genuinely commensurable payoffs. We can assess those. A friend of Monbiot's asked him once apparently, what's is the most lucrative investment a landowner can make? He didn't know. The friend said, an osprey. It is a fishing eagle, a kind of fishing eagle.

Look at Bassenthwaite in the Lake District in Northeastern England. A pair of ospreys breed there, people do go and see them. The owners of land have 300,000 people - in 2014 - visiting them every year. They charges for car parking and probably make a million pounds a year.

Yes, we can look at that and compare it to what we were doing before, such as rearing sheep, which Monbiot points out is only viable because of farm subsidies. We can actually lose money

by keeping sheep on the land. So he make a direct comparison and says, yes, there is an argument for having ospreys rather than sheep.

There are others. There's an insurance company which costed the highest mountain in the Cambrian Mountains of Wales, the mountain is called Plynlimon. This company worked out that it would be cheaper to buy Plynlimon and reforest it in order to slow down the flow of water into the lowlands. Cheaper to do that, than to keep paying out every year for carpets in Gloucester, which gets flooded when heavy rain runs off the Cambrian Mountains into, into eastern Wales, and into western England, if I've got the geography right.

There were a lot of problems in there, but it' basically the sheer incommensurability of the kinds of things we're trying to map onto commercial value or market value and nothing else. That is the first problem, incommensurability. What is the second? We're pushing the natural world. This is the second problem. We are pushing the natural world even further into the system that as Monbiot says, is eating it alive.

Dieter Helm, the Chairman of the Natural Capital Committee at that time, says this, I quote, extracted from Monbiot, taking the quote from Monbiot. I quote from Dieter Helm, via Monbiot, 'the environment is part of the economy and needs to be properly integrated into it so that [growth], growth opportunities will not be missed'. That means harnessing the natural world to the economic growth that has been destroying it.

So we are not protecting the natural world from what the economy does to it; we're subordinating it, subsuming it into and under the economic system, the natural world is just part of that. So all the things which have been so damaging to the living planet, as Monbiot calls it and now sold to ourselves, or being sold to us, as its salvation, that is we must commodify the natural world so that we get economic growth, financialisation and abstraction. These are apparently the ways to save the environment.

Monbiot, says here sorry, 'Did I say the living planet? I keep getting confused about this. I meant, asset classes within an ecosystem market.' That's actually been said, by the way. Right - the Ecosystems Markets Task Force; this is another of those, as Monbiot says exotic vehicles for chopping up nature, I quote, and turning it into money.

From the beginning, it was pushing towards financialization; it talked of harnessing City, that is the City of London, financial expertise to assess the ways that blended revenue streams and

securitizations and enhanced the return on investment of an environmental bond. So we buy environmental bonds for this purpose apparently,

In effect, we'd be giving the natural world to the financial authorities in every country, the financial headquarters, the City of London, Wall Street, Frankfurt, you name it. And that parcels the world up into future liabilities, because that kind of wealth is built on the creation of debt. What does all this mean? Now, according to Monbiot, nature is in effect being turned into commodities and nothing else. The whole of nature is just a commodity, I remarked on this in Marx.

Now, Monbiot does say, nature has to be unbundled, if there is one thing we know, as he says about ecosystems, we know it, the more we discover about them. We know this, we cannot safely disaggregate their functions without destroying the whole thing. Ecosystems function as coherent, holistic systems. Each element depends on the other. The minute we start to unbundle them for the purposes of financial operations and commodification, we create a formula for disaster. Well, we're familiar with that from the ecological critiques that we have already seen.

What's the third problem Monbiot outlines? He says, this involves a very rude word. Hardly anyone uses it. Certainly not in polite society - begins with P and it's five letters long. As he says most people seem unable to utter it. It is of course, power. Power seems to be the one thing that the natural capital agenda ignores. He says, Monbiot says, he thinks that's deliberate.

What does it mean? Let us take a look for example, at pricing carbon, a form of polluter pays, or pay for the pollution you are going to cause, system. Monbiot looks at the example of the European Emissions Trading System. This seeks to reduce carbon emissions by creating a carbon price. He's not inherently against it. Monbiot says he can see it as potentially, as being as good a mechanism as other for trying to decarbonize society slowly, gradually. But it's failed. He says that.

As he says, an effective carbon price begins at about 30 pounds a tonne. That's the point at which we can begin to see serious industrial change and the disinvestment in fossil fuels which he says, rightly, we so desperately need. Why? What is the actual price of carbon per tonne in the European Emissions Trading System?

It ‘s about 5 pounds a tonne, and the reason is the carbon intensive industries of the European Union - very powerful and very substantial bodies - intensively lobbied the European Union. That would mean lobbying the politicians in member states, lobbying, and it would mean lobbying the European Commission, which drafts EU legislation, and the European Parliament, very intensively. And they did this so as to ensure they received an overallocation of carbon permits.

Now, far too many permits were issued, and when the European Parliament started talking about withdrawing some of these, it too was heavily lobbied and it caved in, it failed to withdraw them. So the prices stayed very low. And that means it does not actually cost these powerful businesses very much to carry on using carbon. They’re just not paying enough for their use of carbon for their, even for a capitalistic carbon trading system.

And now that is Monbiot’s criticism. He’s very forceful about this. He says, people have gone further than that - the economics of ecosystems and biodiversity that’s a project overseen by Deutsche Bank, by a member of staff at Deutsche Bank, this came up with plenty of figures. But one or two appear to be more plausible.

One of these was for example, the valuation of mangrove forests. This is how, this kind of thing works in practice; if someone cuts down a mangrove forest and replaces it with a shrimp farm, a prawn farm, that will be at that time, worth 1,200 dollars per hectare per year to whoever has done the cutting now. If we leave the mangrove forest standing, because it protects the communities who live on the coastline, and I should add, I should add, physically protects the coastline from things like tsunamis and soil erosion.

And also, as Monbiot says, it’s a wonderful breeding ground for fish and crustaceans, that is, shellfish. In that case, the mangrove forest is worth 12,000 dollars per hectare per year. So when people see the figures, they will conclude that it makes sense to save the mangrove forests and would you believe it? Hey presto, as Monbiot says, we’ve solved the problem.

His response is - ‘My left foot’. And - he says that because we’ve known for centuries the tremendous benefits that mangrove forest deliver, but has that protected them? We *know* the benefits, we *know* the protection. Has that protected them from being turned into shrimp farms or beach resorts? No it hasn’t.

And the reason it hasn't is that it might be worth 12,000 dollars to a local community, perhaps a local impoverished community of fisherfolk, but it's worth 1,200 dollars to a powerful local politician who wants to turn it into a shrimp farms and that counts for far more. Putting a price on the forest does not in any way change the power relationships. Monbiot says that relationship - he seems to mean the power relationships involved.

Well, it does happen all over the world. I mentioned the ancient woodland. That was Monbiot's example on the outskirts of the northern English city of Sheffield. Smithy Wood is an ancient woodland; 800 years ago it was recorded as providing charcoal for the monks who were making iron there. It is an important part of Sheffield's history and culture - full of stories and a sense of place and a sense of being able to lose yourself, for being something completely different, and so on.

Now, someone apparently wants to do this, in 2014, wanted to turn Smithy Wood into a motorway service station. It was unthinkable until recently, but as Monbiot says until recently before then, but Monbiot says it was perfectly thinkable by 2014 - perfectly thinkable, because the British Government at the time were thinking of introducing something called biodiversity offsets. If you trash a piece of land here, you replace its value by creating some habitat elsewhere.

The question of course is, first of all, how are we going to value nature in that way? And secondly, how are we going to be able to create compatible, commensurate and commensurable habitats elsewhere? That has to do with the kinds of things we are going to grow. Or the kinds of things we are going to create. Can I create a lake somewhere else, and thereby provide equivalent replacement for an ancient forest, which I have cut down for a motorway service station?

In other words, as Monbiot says, we are trying to make a case to people who just do not care about the natural world. How do you convince them? He says politics does not work like that. Lots of political philosophers would take issue with that. But he seems to mean in practice politics does not involve persuading politicians. It means changing what people think. He provides, but he is changing people's values. He provides examples which may be quite unsettling.

Margaret Thatcher saw that. He actually, Monbiot actually cites Margaret Thatcher here. Barack Obama has said it, talked about changing people's values. Friedrich Hayek told his own acolytes at the end, after the war, when he founded the Mont Pèlerin Society - don't try and change the minds of politicians that takes too long, go for the, don't try and change people's minds, I beg your pardon. He said, don't try and change people's minds, that takes too long. Go for the minds of the politicians or the academics.

Monbiot's position is quite simply, we have got to change people's values. It is no good trying to tell the politicians. If we - he says people on the right understand this very well - economics are the method, the object is to change the heart and soul. Monbiot leaves it there, we - perhaps there is some evidence that we the public - may be some way ahead of the politicians and our political systems in recognizing that we live in a global environmental crisis and that we need to do something about it.

Whether we can have an impact on them, on those who make the decisions, and those who have the power, financial and political is, as Monbiot says, what we have to do and we have got to do it, we have got to start moving, mobilize.

So that is Monbiot's SPERI lecture 2014, now very widely read around the world. Let's look at some of the practical issues that occur. There are public bodies which take seriously changes in the ways we handle for example, urban solid waste. New Delhi is one. About two years ago 2017 Aman Luthra published a paper in the *Economic and Political Weekly*, identifying a process which was adopted by the government of Delhi, the National Capital Region, to gain, to segregate and gain energy to drive energy from solid waste.

Legislation, if I am not mistaken national legislation, was passed to encourage incineration, the energy incineration of solid waste, the energy from which would be used for power supply of various kinds, or to drive perhaps turbines to generate electricity and so on.

What were the issues? Certainly, setting up such plant is very expensive, they do involve technology, machinery, buildings and so on and so forth. And investment was not readily forthcoming, private investment was not readily forthcoming. Apparently the intention was to involve the private sector as well.

Secondly, the nature of solid waste produced in India - Delhi alone at that time, 2016 or 2017, was producing nearly 9,000 tonnes of solid waste a day. The nature of solid waste in, produced

in, India is of low calorific value. We can burn it but we wouldn't get much heat, much energy from the process. Much of it is also damp and much of it is also readily biodegradable. So it's not the kind of thing that we can burn very easily to get a lot of heat. We just wouldn't get a lot of heat from it. But the policy went ahead.

Secondly, there is a further risk here in the conditions that obtain in India and probably obtain in a great many other developing countries. Much of the solid waste that is generated is segregated by rag-pickers - some of the poorest people in the world, who as we are, as we already know, living in India, will take cardboard, plastic bottles, and other such things and sort them out. The damp rubbish is dealt with, often separately, by households themselves in various ways, not always, not all of which are very environmentally sound.

But the higher value, higher calorific value items and higher commercial value items, are as we know separated out by the rag-pickers by, by some of the most poorest people on the planet and they would not be taken to, and to incineration stations to incineration plants, they will be sold in local markets as we know, where they go after that is anybody's guess. I understand that some of the plastics that we discard end up as in pellet form as foundation for roads that is been tried before.

And there are further environmental problems over that, for example, with the fact that tyres in the United Kingdom are no longer used for road for foundational roadblock as they have been used in India, but are sold to India for burning they are very toxic indeed when burned. But what happens to the rag-pickers? If we introduce incineration nationally across the whole of India, what happens to perhaps tens of millions of rag-pickers. Their employment disappears overnight. Are we prepared to countenance that?

Those are the kinds of issues Aman Luthra raises. Could it be that we are simply thinking of the wrong environmentally friendly thing, in view of the conditions locally? That's the kind of issue that we'll always face when we aim to act seriously on the environmental crisis and deepening - I'll say it bluntly - catastrophe in which we live.

Now that concludes our topic, ecologism, and we shall then move on in our next class, to our eighth topic, I beg your pardon, to our I think seventh topic, or eighth topic, poststructuralism and postmodernism. So I'll meet you next time.