**Political Ideologies: Contexts, Ideas, and Practices**
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**Lecture 25**
**Wk7 Topic 7 Ecologism Lec 1/4 21:05**
**Ecologism - Background, Shallow and Deep Ecology; Examples; Ecocentrism**

Welcome to our seventh topic, in our NPTEL Ideologies Course 2019-20. This, the seventh topic, is Ecologism, and it's on the various ideologies involved in our sense of our relationship to the natural environment and our involvement in it. We can hardly not be involved in it.

Where do we start?

That human activity in all its forms has had an enormous impact on all of life on earth is no longer seriously doubted. We humans have had an immense impact on all of life on earth, now, increasingly, on the climate itself, on the whole planet. The United Nations Intergovernmental Panel on Climate Change, the IPCC, has concluded that the evidence of the human contribution to global warming is, I quote, 'unequivocal', and that abandoning fossil fuels altogether will have a negligible effect on the global economy.

Now, one of the relevant human impacts is the effect of introduced species of plants and animals into local environments. This can be inadvertent or unintended, and one example is the European Zebra Mussel. It is a species of shellfish, which arrived in North America in the ballast tanks of ships. Now ships often pump out and replace the water in their ballast tanks, which they use for, for ballast and for the ship's trim and the ballast tanks are formed by a plating inside the ship's hull called the double bottom; and the tanks in the double bottom are usually the ballast tanks also often used for fuel and and oil, if I'm not mistaken.

Now pumping out and replacing the water in ballast tanks has had the result that this particular mussel, the European Zebra Mussel, has covered the bottom of American rivers and lakes, and has also blocked municipal and industrial water pipes. That is from a paper by Vitousek and colleagues published in 1997. Vitousek and his colleagues note that there are six ways in which humans cause global environmental changes, all of which had already been well documented when that paper was published in 1997.

What are these six? They are - the increasing [ mistake - ‘contradiction’], the increasing concentration of carbon dioxide in the atmosphere, alterations to the global biogeochemical cycles of nitrogen and other elements, the production and release of persistent organic compounds, such as chlorofluorocarbons, widespread changes in land use and land cover (those are often very visible), hunting and harvesting of natural populations of large predators and consumers, and biological invasions by non-native species.

The latter biological invasions are often very visible in the form of the trees and plants we see; very large numbers of those, large proportions of those are often imports or have been brought, like the European mussel, Zebra Mussel, inadvertently through contact when when ships and travellers have landed in far flung parts of the world.

Now there is no evading what may be the greatest problem humankind now faces. There is no evading our need to change our ways quickly. But modern ecology as a field of study is not very new. It started in the second half of the 19th century, as a form of biology which examined the ‘total relations of the animal both to its organic and its inorganic environment’. That is a quotation from Haeckel, the German scientist Haeckel, writing in 1866. I repeat that, the quotation, ‘the total relations of the animal both to its organic and its inorganic environment, end of quotation’.

The word ‘ecology’ itself is derived from the Greek word *oikos*, which means the household or habitat. That word is also the source of our word economy, presumably meaning the principles on which the household is run, a combination of the words *oikos* and *nomos*. Today, ecologism is a fully fledged but complex ideology. All its versions share the belief that nature is an interconnected hole, which includes all species, including humans, and the inanimate world.

Ecologism itself is divided into two main strands. These are shallow and deep ecologism respectively. And those terms were coined by the Norwegian Philosopher Arne Næss. Shallow ecology is sometimes called environmentalism and its advocates, its proponents, see ecological issues, largely in terms of human needs and activities. So shallow ecology would mean continuing to do most of the things we already do, but doing them in a different way, modifying them, so that we reduce or minimize the harm we cause to the environment.

Examples would be cars which cause less pollution, refrigerators which do not use chlorofluorocarbon coolants or CFCs, and so on. Those are all examples of a shallow ecological approach. Critics of this approach also call it weak ecologism.

Deep ecologists on the other hand, deep ecologists reject shallow ecologism for continuing to place humans at the center of its concerns, that is, setting humans above all other forms of life - and therefore, for in effect maintaining and protecting the way of life that is followed in most industrial societies. That also implies that shallow ecology preserves the inequalities which exist within and between different countries. The United States, for example, accounts for half the world's annual consumption of energy and natural resources. But it has only 6% of the world's current population. It is physically impossible for the earth to support that kind of consumption for all human beings.

According to deep ecologists, one of humanity's main purposes is to sustain nature. This means humans - we have no privileged place or status. Secondly, taking deep ecology seriously would require enormous changes in entire ways of life. For example, we might have to restrict or end commercial farming for meat production. For that we have destroyed very large areas of forest. And in it, we use substantial amounts of chemicals to fatten animals artificially, and to ensure breeding for maximum output. Several scandals have also emerged about the terrible treatment of animals in the commercial production of meat. It is also the case that the animals we feed for meat production consume disproportionate amounts of grain for comparatively small amounts of yield in the form of edible meat.

We might also, for example, have to limit our use of cotton. That is a crop which needs large amounts, large amounts of water and cannot be grown in many climates without substantial human intervention to ensure sufficient water supply. And that can also mean the destruction of other plant species. That could apply to other crops too, many of which are now grown commercially in countries into which they were imported in the first place.

We would almost certainly have to reshape entire transport systems as well. Among those would be those involving internal combustion engines and air travel. We may have to reorganize whole economies so that we consume less, commute less, and even ship goods around the world to a far smaller extent than we do now.

But - the distinction between shallow and deep ecologism is not always clear. For example, railways constitute an excellent way of transporting freight and people, often in very large quantities and very large numbers and often over very large distances. Railways can be far less damaging to the environment than say road transport. But nevertheless, they depend on fossil fuels or on electricity generated from fossil fuels. In addition, high speed railways require very expensive technology. The manufacture, construction, and use of that very expensive technology can cause significant environmental and other costs. And that is in addition to economic uncertainties around projected passenger numbers, and additional policies that will be needed to encourage the use of high-speed trains rather than cars or passenger planes.

In any case, irrespective of whether any issue or policy comes down to shallow or deep ecology, in any case, if we do not change our ways, and quickly, we may be left with no option but the enormous changes required by deep ecology. Some countries have already started acting on the matter of global warming. On average, about 40% of Germany's electricity comes from renewable sources. On the 8th of May 2017, the figure was as high as 85%. Sweden aims to have a carbon neutral economy by 2040, by 2040. And at present, it looks as though it will meet that target. In 2015, 57% of Sweden's power supply came from renewables, and the country's 10 nuclear reactors are currently being phased out. On the night of the 9th to the 10th of July 2015, Denmark produced 140% of its, of its electricity needs entirely from wind farms. Those two days were exceptionally windy, and the surplus was transmitted to Germany, Norway and Sweden. Denmark has the capacity to generate three quarters of its electricity from wind farms and plants to add to its current capacity.

Germany also plans to phase out and close down all its nuclear reactors by approximately 2050. And that decision resulted from, was a result of, the 2011 Fukushima nuclear disaster in Japan. The apparent delay until 2050, that is in effect about 40 years, may well have to do with the problems faced by any country over the storage of radioactive materials, which are used as nuclear fuel.

I should add here that, for example, certain regions of certain countries contribute unrepresentatively to improving records in the generation of electricity from renewables. Scotland, for example, has an unrepresentative contribution from, from renewables, renewables by the use of wind farms, many of which are located offshore in the Atlantic and the North Sea.

Now, Scotland of course, as a region of the United Kingdom therefore, makes a substantial contribution to the United Kingdom's record in electricity generation from renewables, which I think has at times crossed 50% or has just crossed 50%. But the Scottish contribution is, we must remember, disproportionate.

Now, each of the strands of ecologism draws upon other ideologies. We saw this with feminism, that feminism draws upon and cuts across, has its own contribution to make and has made contributions to other ideologies. Now each of the strands of ecologism draws upon elements in socialism, anarchism, feminism, conservatism and even fascism. As a result, there is a wide range of ecologist or ecological analyses of our present condition. All of these therefore, provide different kinds of policies and proposals for a sustainable future.

But they all have one thing in common, and that is the conviction, for which there is overwhelming evidence, that our current way of doing things seriously threatens the survival of humanity and quite possibly all life on earth.

Let’s look at some examples. Air pollution in India, as we have seen recently this year, 2019, not for the first time in recent years at this time of year, in the third, the last few months of the year. Air pollution in India is so severe that reducing fine particulate matter in the air to the current Indian regulatory standard would increase the life expectancy of 660 million people by 3.2 years. I have taken those figures from the Greenpeace Environmental Trust, a report it published in 2017, if I am not mistaken, in 2015, I beg your pardon.

In China, air pollution is estimated to contribute to 1.6 million deaths a year, or 17% of the annual figure. In January 2017, the Greenpeace Environmental Trust published a report which, among other things, draws on work by the Global Burden of Disease Research Programme. And as a result, the Greenpeace Environmental Trust estimates that air pollution causes just under 1.2 million deaths a year in India.

And it causes the country's Gross Domestic Product, GDP to be 3% lower than it would be otherwise. Smog, haze, and other atmospheric phenomena, resulting from air pollution are now a familiar cause of school and industry closures and of transport shutdowns in India. That’s well documented; I’ve drawn from Dahiya, Myllyvirta, and Sivalingam in 2017.

Greenpeace also uses data from State Pollution Control Boards to conclude that almost no places in India comply with World Health Organization, WHO, and National Ambient Air Quality Standards, that is NAAQS Standards.

Greenpeace also concludes that air pollution is the cause of a public health crisis in the entire country. That report again, was written for Greenpeace by Dahiya, Myllyvirta, and Sivalingam in 2017. But - it's no longer seriously disputed that we live in an environmental crisis. And that is no longer seriously disputed, despite the fact that several powerful corporations and very rich individuals continue to fund campaigns and media denials of climate change.

Among these are the American fossil fuel billionaires, the Koch brothers. I think one died recently. But the Koch brothers have donated something like 80 billion dollars to bodies which deny climate change. The figures are public. Greenpeace have published them, the Union of Cconcerned Scientists have published them.

In recent times, the problem of environmental, of looming environmental catastrophe was first brought to global attention in 1962. When Rachel Carson's book *Silent Spring* was published. The book focused on the damage, which our increased use of pesticides and other chemicals in agricultural was doing to human life.

Since then, as we know, every great amount of work has been done on what we now call climate change. As human activity is the major cause or factor here, the process has also been called anthropogenic climate change, or human induced climate change. These items are all consistent with a key principle in ecologism. And what is that key principle? It is that human life has to be understood as part of the whole system of all life.

Ecologists have often criticized or rejected other ideologies for placing humans at the centre of their theories and therefore neglecting the impact of human activity on the planet. They've also criticized many other ideologies for ignoring limits to production and consumption or for assuming that there are no limits to what we can produce and consume. For example, in view of our current dependence on petroleum products and other fossil fuels, what are we going to do when we use all these up? At present, we have no apparent alternative source of energy for the uses to which we put petroleum and its derivatives. These derivatives include plastics and other polymers.

So ecologists reject theories which are anthropocentric, which put humans at the centre of their respective analyses. Instead, ecologists argue, we need an economic perspective, I beg your pardon, an ecocentric perspective. Instead, ecologists argue, we need an ecocentric perspective. That is, we need to see life as an interconnected whole. And in that interconnected whole, the various elements are also interdependent. This replacement of anthropocentrism or human centred outlooks by egocentrism is a principle running through the main ideas of ecologism.

I'lll just list them here and then we'll take them turn by turn in our next lecture. What are the main ideas then of ecologism? There are four: ecology, holism, sustainability, and self-actualization. 'lll repeat the list and then we'll take them turn by turn in our next lecture: ecology, holism, sustainability, and self actualization.

So that ends our first lecture on our seventh topic, that is, Ecologism. We'll come back to this next time we meet.