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## Lecture - 28 Corporate Obligations to Natural Environment through Appeal to Business Sense and Strategy

We are in our lecture 28. We are still talking about environment, but our today's lecture is not on the environmental laws. In the previous lecture we have talked about the environmental laws. This time and this lecture is going to be on how we can argues for business strategy point of view, why corporations should be environmentally more duty conscious.

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So, this is going to be our agenda.

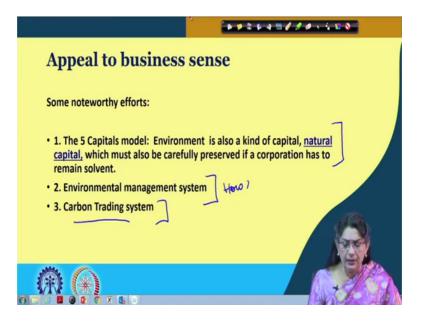
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And we will proceed by talking a little bit about in the language of strategy. So, what is the strategic advice for business? Moreover we need to answer the question what is in it for business? Why should business be interested in environment? And business understands profit corporation understands growth. So, we have to talk in terms of those whether there is any promise for either of these or both of this profit and growth for the corporation for being eco-friendly.

And then once we have tried to answer the why, what is in it for business to be environmentally conscious or sensitive and well then we need to talk about the what namely what would be the actual tools or measures or processes that can be followed because we need to convince corporations that it is a doable process. So, that is what our lecture is going to be on today.

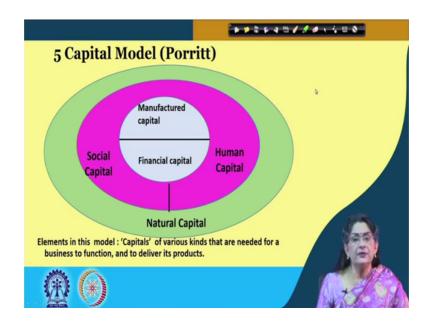
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I will start by saying what are the things that we will talk about some of the strategic advisors I am I cannot mention all of them. So, I am going to mention about some of the noteworthy efforts from those and they are one of them is 5 Capitals model, it is a way to argue persuasively regarding natural environment, I will show you in a moment. This is about the how.

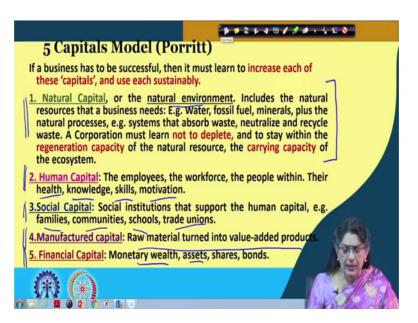
So, if talking about the practical tools, then we are talking about environmental management system, and then this is a purely strategy based solution to business you know what is in it for in it for business that answer also you will get plus how to do it. And this is the carbon trading system. So, we are going to go one by one on this.

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First the 5 Capital model. As you can see the picture talks about different kind of capitals that our business needs in order to remain solvent. These are the capitals that business requires in order to function properly and to deliver its services or goods 5 capital models. As you can see the financial capital of course, is here, but there is manufactured capital, there is human capital, there is social capital and then natural capital. So, what are they and how all of these capitals through these are we going to come at natural environment? Let us try to answer that.

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First of all let us discuss what these 5 capitals are. So, one by one, natural capital, human capital, social capital, manufactured capital and financial capital. Now, this one you know that is the most common way to understand capital namely, the money that you require in order to start your venture that the business that you are starting. So, we are talking about monetary wealth, assets, shares, bonds, all of that is under financial capital.

Now, this model says that though you think that is the only kind of capital that keeps your business growing or that is the only capital that your business should aim to grow more or nurture more, then you are wrong because there are so many other kinds of capitals. one of them is the manufactured capital. You it is true that you started out with the financial capital, but then through your business processes you also add value. So, you turn your assets into some valued products also and that is your manufactured capital.

Then there are the people in the organization, you know we are talking about the employees, the workforce, the people within. Can you run the business without them? Of course, not, so and they bring in I have already discussed this their health, their knowledge, their commitment, skills, motivation, innovation, they invest a lot and they are also the capital that the corporation must learn how to nurture how to increase this capital and how to use them sustainably.

What supports the human capital is the social capital? Social capital is the support from the social institutions that is required, what are we talking about the families, the communities, the schools, the trade unions, you know the social institutions around the business that actually support the human capital. And that actually allow the corporation also to find a social standing. It keeps, it going socially.

And then comes the natural capital. Each of these as we said is a capital that the business cannot do without natural capital is nothing but your natural environment. What does it include or it includes all the natural resources that a business needs, whether it is water, whether it is fuel, whether it is minerals and the natural processes that you need. And like all the other kinds of capital, business not only cannot do without it, but also it must learn to use it sustainably and to stay within carrying capacity of the ecosystem.

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So, this is actually an innovative way to look at this natural environment integrating it in a capital framework and environmental and economic concerns that they actually are intertwined inseparably connected that is what the point of this net the 5 capitals model. It also there is also the argument that just as money grows or money can be spent, money can be depleted, but the proper business sense is that to conserve the money in judicious manner, so that it grows and it does not get spent.

Similarly, they say that the same argument also applies to natural capital. Natural capital also needs conservation, judicious use; otherwise, the capital would be depleted or spent. So, this is one way to look at natural environment through the natural capital model 5 capital model.

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Now, we come to the natural capitalism, the theory promotes natural capitalism. This is to phrase articulate the corporations obligations towards natural environment in terms of being conscious about natural environment as a kind of a capital. It runs on four principles; one of them is that you need to increase the productivity of the natural resources ok. So, you started with a limited quantity, but you need to increase its output. How do you do that? Well, one of the things is to minimize the use, reuse, recycle and so on. So, redesign the production processes in such a way that the finite resources have increased productivity.

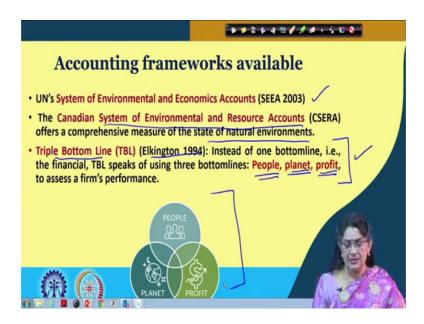
The second piece shift to biologically inspired, inspired production models. Production models can follow a mechanical model, but here the situation is that try to follow the biological models. This is known as biomimicry, mimicry means to imitate. Who do you imitate? The biological models which are like you know we are talking about a closed ecosystem think about a pond, think about an aquarium, where there are many elements and each one sort of feeds off the other ones waste becomes the living material for the other and so on.

So, this is a system where nothing is wasted and there are this interdependence of the entities. In fact, there is a branch called industrial ecology, where you will find actual discussions on biomimicry or production models that are based on ecosystems, biological models and that is a one of the principles.

Third point is that instead of the product based business a move towards a solutions based business model. If you talk to the startups, they will swear by this that the idea is to provide the solutions to industrial problems to a specific need in the industry. Why this is a principle, because the product based business is typically require more utilization of virgin resources. The solution based is actually solving a problem where you do not need to use a lot of materials for that.

Fourth principle is reinvest in the natural capital that is work with the nature and not against it. Try to take advantage of the natural systems and the way they function instead of running against it and learn to make your business adaptable to the natural environment. So, this is known as natural capitalism and I have already given you the name of industrial ecology to look into that.

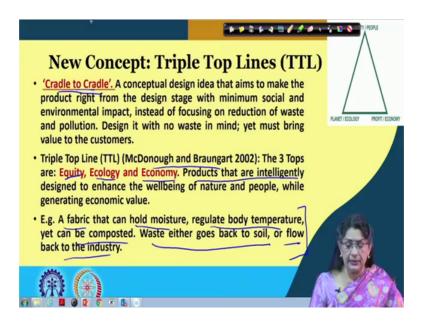
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After this conceptual frameworks, and after this whole discourse on you know natural capitals, natural capitalism, 5 capitals, the next question is, but you know any kind of activity towards the environment was going to incur some expenses and there has to be an accounting to be done. So, how do we do that? And there also we need to point out that there are several options available. First of all the United Nations has brought out a system of environmental and economics accounts, it is an accounting framework.

Canada uses Canadian System of Environmental and Resource Accounts in short CSERA. It is a very effective and comprehensive way of measuring the state of natural environments, and they use it for their activities. This is a well known accounting framework known as triple bottom line. The name should catch your attention accounting used to be on financial bottom line. So, only one bottom line, but this Elkington in 1994 proposed that instead of that in these days where sustainability is the running paradigm, we need to follow triple bottom lines, where profit is just one of the bottom lines; the other two are planet that is your environment and people that is your society. So, people, planet and profit, on this bottom lines the accounting is to be done, this is what triple bottom line means.

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After that in 2002, we got to hear another innovative idea coming from this team which talks about triple top lines. The it is from the famous work cradle to cradle you know we talk about products starting from cradle the beginning point of a product to its grave that is how earlier it used to be conceived, but the now there is talk about cradle to cradle, so that it is never ends it never ends the product never ends.

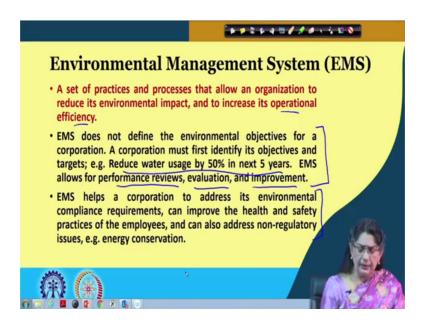
So, it is a design idea basically that says that products must be intelligently designed, so that it is there is no waste right from the beginning the in the design it should be incorporated that there is no waste, there is not going to be any waste. You can think like this that I first of all I produce a product and then I will take care of the waste and the pollution what they are suggesting, why do that. Right from the design of the product

you built it in the product in such a way that there is never going to be any waste that is why they are saying it is cradle to cradle.

So, what happens at the end life of the product, the answer is it either goes back to environment, natural environment, or it becomes a part of the product generation process ok. So, either it is going to be recycled or it goes back to into the natural environment and become raw material for something else. So, this is what the idea is cradle to cradle. And triple top lines as you can see are equity, ecology and economy. This is again you will see the references to people planet and profit. Equity here is the same as the ethical equity we have talked about fairness to people and ecology of course, is environment, economy is of course, about the financial performance.

But the main thing is it is a design based approach. The here is an example for example, if you can think about a fabric, this is where innovation comes which can hold moisture, it can regulate the body temperature and yet when its shelf life is gone, it can be used as compost. So, the waste either goes back to the soil or flow back to the industry. This is triple top line that is an innovative way to approach the problem.

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Let us come to the environmental management systems. When business is trying to curb its environmental impact, whether it is in the emission, whether it is in the waste wastage or waste control reduction of the EMS, the carbon and so on, and to increase its operational efficiency to the environmental management system or EMSS do help. What they are is a set of practices and processes, you have to install it in the business in order to see it. Now, it does not give you a specific objective that is the job of the business to set. For example, some company may say that we want to reduce water usage by 50 percent in the next 5 years that is a target set by the business itself.

And then the EMS helps to use that as a benchmark to review the performance the current performance of the company evaluate it and then suggest improvements. So, the target is set by the company, then the EMS kicks in and it gives some solid practical suggestions. It also helps in compliance environmental compliance and it can certainly improve the health and safety practices of employees and there are other things related matters on which it can also help.

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If you want examples of EMS, then the clear example would be the ISO 14000 series. The series this sort what they are is they are standard EMS framework. And they are very well respected by both regulators and government. So, ISO 14000 compliant business corporation activity is actually taken as a sign for environmental compliance by many regulatory bodies. The series actually came about as a result of the Rio Summit or the Earth Summit in 1992 that happened in Rio de Janeiro, it is a important landmark in environmental movement history.

Currently the ISO 14001 that was revised and that came out in 2015 is the standard. They offer various kind of standards for air, water, soil quality, on emissions, you know

radiations, it depends on the need of the business what exactly you want to want the advice on. If you are particularly interested in environmental audit, then ISO 19011 is there. And this 14020 is all about eco-labeling, eco-labeling, the labeling of the products should carry enough information about the ingredients, but more this labeling is all about whether what kind of environmental impact the product would have.

So, this is not about the consumers health, but it is more about what this product is going to do to the environment right. For example, you know detergent powder or fabric softener often are known to cause harm to various species. So, the labeling actually talks about the ingredients that are there whether they are safe for environment.

What ISO series does not do is the certification. So, environmental compliance, if you have EMS it is accepted by government. But the certification if you want if you need a certificate, if you are a corporation and you need a certificate, then it has to be issued by a third party and they can help you on that as well all right.

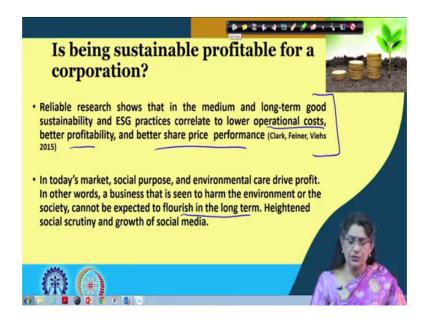
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Now, as said earlier what is the strategic benefit out of having a costly environmental management system, for example, because there is always expenses involved. The idea is that actually it increases the competitive edge for a corporation. First of all the environmental performance, performance is improved and then the risk of legal action is avoided, because it also ensures legal compliance. So, risk is mitigated and prevent lot of wasteful and polluting practices which is important.

It can be certainly used as a brand enhancer or brand differentiator, because it sends out a different image to people particularly to the customers who are environmentally conscious, particularly to investors who are environmentally conscious and allows you to enter in new in markets which are particularly sensitive on environmental issues and subtly it increases efficiency. So, there are several arguments going for installing environmental management systems.

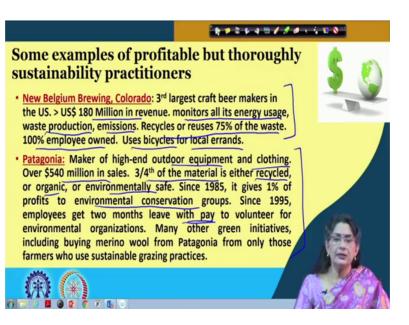
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Is there profit in it? If being green, is it going to actually add value in terms of financial capital? Research seems to indicate that for long term value actually lowers operational costs and promises better profitability and better share price performance this is from the research. Particularly in today's market, you know you can strategically position yourself on the environmental anchor, in fact, various corporations try very seriously if you examine some of the websites of very big corporations, you will see that they try to project it their environmental concerns as actually an edge as a statement of about their cooperation.

So, in general because their belief is that you know if you are environmentally irresponsible reckless, you are not going to flourish in the long term. So, there is because society is so aware about it, people in general are so very conscious about it, so it is a it gives you a strategic benefit indeed.

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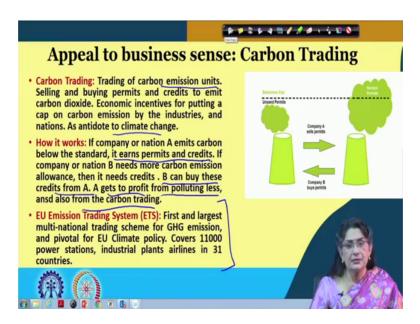


Here are some examples of companies who which have tried to be sustainable practitioners this is a brewing company in situated in Colorado, USA which are actually they make craft beer. As you can see they are doing economically quite well; at the same time the company monitors all its energy usage carefully, so that there is no wastage there. The waste production and emissions are also under monitoring and they try to keep it within limits and minimize.

It recycles or reuse as 75 percent of the waste generated which is not; which is not a small task at all. It is owned 100 percent by the employees and not only that it also looks at its logistics. So, for local errands where there is a delivery or this or that they used by cycles. So, this is a company that tries in various angles to align its business activity with its concern for the natural environment.

Here is another company well-known Patagonia which makes high-end outdoor equipment and clothing. We are talking about camping equipment, camping clothing or high altitude you know mountain sports skiing clothing and so on. Look at their sales figure, but three-forth of the material that they use is either recycled or organic or environmentally safe. And the customers who are going in to buy Patagonia clothing from Patagonia or equipment from Patagonia, they go for this reason that the company is a guilt free company, it does not do any harm to natural environment. And since 1985, it has been given 1 percent of a its profit to environmental conservation groups. Employees are given 2 weeks, 2 months of leave with pay to volunteer for environmental organizations. So, there are many other green initiatives that this company has actually looked into. So, in terms of feasibility in terms of whether such a company can exist, whether it can stand up against the competition of today, I have given you at least two answers that it is possible.

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Going to now carbon trading. This is an intricate system that also is based purely on strategic argument, how a business or corporation can get into lessening its carbon footprint in terms of emission of carbon dioxide and still come out as winner. Carbon trading is trading you know selling and buying, but what you are buying and selling in carbon trading are actually carbon emission units.

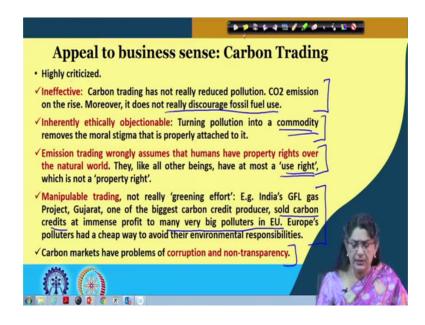
Everybody remembers that carbon dioxide is linked with the greenhouse gas; greenhouse gas emission is linked to global warming, so one is not supposed to emit much of this greenhouse gases right. So, what is this all about, its about lessening the emissions of carbon as an antidote to climate change. Now, how does it work, how does the system work? You have to think in this way that the principle is that it pays to reduce your carbon emission. It pays the company if the company reduces it carbon emission.

How, if a company or a country A emits carbon below the standard, permissible standard, then what does it gain, it earns certain credits and permits. On the other hand, here is a company B or a country B which has exceeded its carbon limits. So, what can the

country A do, it can sell the credits that it has earned to country B and gain some money. So, this B can buy the credits from A, because it needs to; it needs to because it is gone already overboard.

So, the profit goes to A for polluting less and the whole thing happens in the name of carbon trading, where is such a system you will have to look into the there are several, but European Union Emission Trading System or ETS is the very first one and the largest emission trading system. It covers many units; it has power station, industrial plants under it and it has a strong carbon trading system going.

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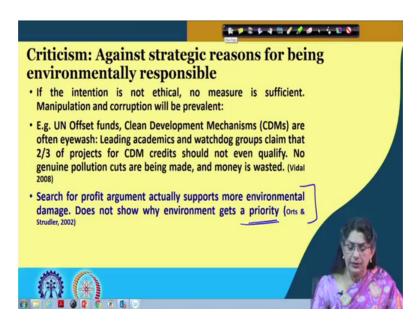


But the system has been highly criticized. You can understand first of all people have pointed out critics have pointed out that carbon trading has not been able to reduce pollution at all. In fact, carbon dioxide emission is on the rise and it does not really discourage fossil fuel usage.

What it does, it just gives mix it up more business sense to sell and buy, but it does not tell you to stop pollution, stop carbon emission at all. Second point is that if there is something inherently wrong in its argument, because turning pollution into a commodity that you can sell and buy actually sort of takes the censer away. It sort of makes it to pollute. Whereas, the argument from many is that pollution in these days and time is a moral crime ok, one should not get into that. The third point is that emission trading actually assumes that human beings are the only important things and they have the total right over the natural world to do what they want which is not the case. What they have actually is not a property right over natural environment; all they have is a use right like any other species in the world. We will talk about this issue in the next lecture, I mean greater details.

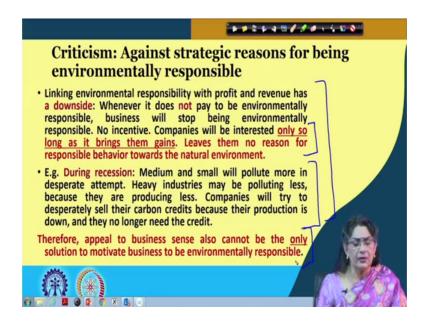
Others have pointed out that trading like anywhere is manipulable. In fact, it is not really environmentally friendly and as an example they have cited that India's GFL gas project in Gujarat one of the biggest carbon credit producer. They sold the carbon credits that they earned with immense profit to many very big polluters in European Union. So, they curbed, but they actually help the biggest polluters. And the total pollution they have for must have increased. So, it is not the most effective way. There is also allegations about corruption and non-transparency in the trading.

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So, in general what we have discussed is that if the intention is not ethical, then apparently the measure is not going to be sufficient. In fact, if you link ethical if you try to link it with profit and selling and earning and then you are never going to make a clear sense why environment is a priority rather you would try to talk in terms of making money out of the pollution and polluting environment.

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Also some people have said that you know if you cannot link it to internal realization, but you try to always argue that it has connection with profits and revenues, then people will have no reason when there is no profit to engage in environmental activity. For example, think about recession, when things are tough, in tough times when there is the profit is already becoming low.

Then the strategy arguments completely fall short, because they are at loss and they have no arguments left why corporations still must engage in environmental activities. So, therefore, appeals to business sense can go only so far, but not very far. Just like the loss it is not the best and the most comprehensive solution after all. (Refer Slide Time: 32:53)



With that I am going to end my lecture today. We will continue with this, but we will talk about the ethical grounds in the next lecture.

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Thank you very much. We will meet again.