



Sustainable Development

-allocating the world's resources

A large, abstract graphic composed of overlapping, semi-transparent geometric shapes in shades of blue and grey. The shapes are arranged in a way that creates a sense of depth and movement. The year '2010' is prominently displayed in the center of the graphic.

2010

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I. Introduction

Climate change is rapidly becoming an issue of incredible international prominence. The international community must now consider potential viable solutions, and many have argued that carbon taxing, carbon credits, and incentives must be considered. In the summit, we will discuss the advantages and disadvantages of these methods and try to gain an understanding of the economic issues around climate change.

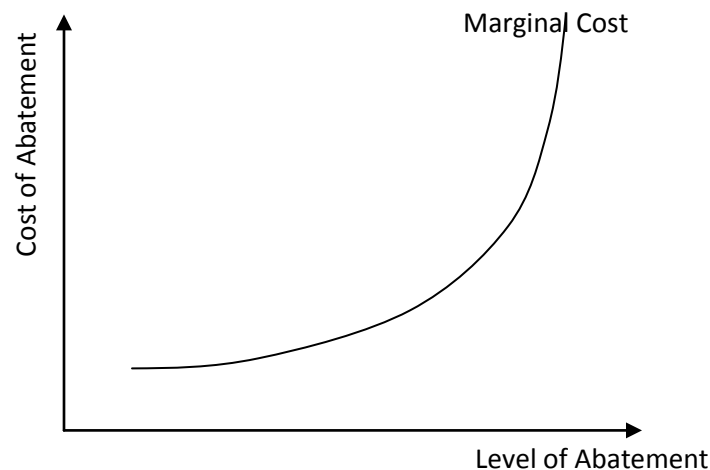
There have been some global initiatives to solve the problem of global warming and to reduce our greenhouse gas emissions. The two most relevant concerns nowadays are the Kyoto protocol from 1997 and the recent Copenhagen climate summit. The Kyoto protocol was instituted in 2005, with a goal of reducing emissions of industrialized countries by 5.2 % by 2012 from the 1990's emissions level. In Copenhagen, it was expected to find a solution that would follow the Kyoto protocol with efficient ways to cut emissions, and to get the United States to ratify it as well, but as it turned out, the conference was a grave disappointment.

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II. Abatement and externalities

Abatement

Abatement is the basic concept of reducing pollution, either air pollution, toxic waste, or any other type of environmental degradation that occurs due to economic activity. A high level of abatement means that pollution is decreased a lot and that corresponds with a low level of pollution. One of the key attributes of abatement is that the costs increase exponentially, so the more you abate, the more it costs. This is due to dispersion; as more of the pollutant is cleaned up or eliminated, it gets more and more difficult to eliminate what is left. In this way it may cost \$1000 000 for a company to abate 50% of their emissions, but it may cost them \$5 000 000 to abate 80% of their emissions. The diagram below makes this relationship clear.



Marginal cost represents the cost to abate each additional unit of pollution. As the level of abatement increases, the cost increases at an exponential rate as increased dispersion means that it costs more and more to clean up or eliminate pollution.

It is important that abatement is understood as an exponential function rather than a linear function. This explains why companies have strong incentives not to abate to a high level; abatement on a low level can be fairly inexpensive, but as the company abates more, the cost of production (how much it costs for the company to produce the product) increases. As technology improves and abatement becomes easier, the marginal cost curve can shift out, meaning that abatement costs less. This happens because it now costs less to reduce emissions, for example improved and cheaper technology for constructing nuclear power plants. The important thing to understand is that improved technology makes reducing pollution easier. Examples can be found all around us, such as the new innovations in electric cars.

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Externalities

In economics, the term externality is used for impacts of an economic transaction on a third party that is not directly involved in it. In the field of environment, we usually consider negative externalities, meaning that the impact the transaction has on a third party is negative. An example is that when someone is taking a taxi, the person contributes to the global warming by emitting carbon dioxide, and even though you are not included in the transaction, you will be affected by the taxi ride since it increases the rate of the global warming. If a good or a service has negative externalities, the price does not match the impact it has and the benefit it gives.

Questions

Do you think the consumer, in the example the person who is taking a taxi, should pay more to make up for the damage they are doing for the globe?

a. Carbon Taxing

Carbon Taxing is the concept of administering a governmental tax for organizations based on the quantity of carbon dioxide they emit (generally measured by the tonne). This solution is considered to be a simple and effective abatement approach. Supporters of carbon taxing argue that the system would force organizations to consider the environmental impacts of their business operations due to the associated economic costs of emitting carbon dioxide. It would also provide funding to governments which could be further used for other abatement policies as well as the advancement of greener technologies. Those who oppose the solution see it as a hindrance to the free market, noting that many organizations would be unable to meet carbon reduction targets and would be forced out of business. Carbon taxing is often compared to the 'Carbon Credit' or 'Cap and Trade' system.

Questions

Has carbon taxing been tried? If so, how effective was it?
How does carbon taxing compare to other abatement policies?
Should all countries implement a carbon tax or only a select few?

b. Cap and Trade

In a cap and trade scheme, a body (government or group of governments) sets a cap for the amount of overall pollution they will allow companies to produce. Then, the group distributes or 'auctions' **emissions allowances** to organizations based on the total pollution amount set by the cap. Thus, the system restricts the amount of carbon dioxide and other

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greenhouse gases that a given industry can emit. If an industry does not use all of its allowances, it can sell them to others or hold them for the future.

There are a few difficulties with this system. The first is setting the cap at a suitable level; if the level is too high, the scheme has no real effect on the environment but if it is too low, the allowances become scarce and too expensive and restrict the industries drastically.

Second, the system sometimes only applies to specific industries. It is often the case that high-emission industries are not forced into the cap and trade system as it would pose too large a burden. Third, the concept of using **offsets** is controversial. When a company supposedly reduces or removes carbon from the atmosphere, they receive a permit to pollute the same amount, so the first action should offset the pollution. For example an industry could plant trees and thereby, be permitted to emit more.

Here is a relevant video about cap and trade: www.storyofstuff.com/capandtrade .

Questions

What are the positive sides of cap and trade? How might offsetting work?

Do you think cap and trade could effectively help to reduce the amount of greenhouse gas emissions?

Do you think that cap and trade is better than not doing anything at all?

III. Responsibility and Foreign Aid

Responsibility

When a country is undergoing economics development, industrialization is one of the common steps taken. However, while undergoing such process, a lot of environmental issues may arise, for example air pollution from factories, disposal of sewage into the ocean which leads to water pollution etc. While the problem of global climate is getting more and more serious, countries need to take into consideration the negative effects of those environmental problems. We now have countries developing at a different pace, which result in some more developed countries that are starting to open up to the global market. The positive effect of these industrialization activities may be argued to benefit all. However, the fact that countries are developing at different paces implies their contribution to the destruction of the environment is different as well. In response to the consequences that the world is facing now, who should take the responsibility to it?

The issue of responsibility is very delicate one. Some argue that since climate change is a global concern, there should not be a blame game to find whose responsibility it is,

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however, we should ask ourselves who should take responsibility to curbing it? The advice is that, it is an issue that has to involve all nations whether developed or developing for a successful solution. Every nation should therefore pick up 100% responsibility and change attitudes to solve this problem.

However, some experts also argue that, developed nations should have a greater responsibility as they contribute a chunk of the greenhouse gases. The developed countries also grew by polluting; why should the later developing countries be stopped from doing that? Contrary to that, some think that the developed nations need not take any more responsibility than the developing nations. It all boils down to the moral issue of whose responsibility it is and who should take responsibility of whose action.

The question of responsibility cannot be talked about without the mentioning of the responsibilities of firms in various countries spewing these greenhouses gases.

Questions

What is the aim of Corporate Social Responsibility?

Is it being practiced as ought to?

If not, why not and how can firms be made to be responsible for their actions?

Foreign aid

Foreign Aid is the assistance given to mostly developing nations by the industrialized well developed countries with a specific aim or to achieve specific goals; Economic, Environmental (Global Climate Change), Biodiversity, Water and Sanitation. (However, in our discussion, we will focus on Global Climate Change).

Foreign Aid has been classified into different categories by different schools of thought. One of the categorizations that we find very interesting and worth talking about is as follows:

GREEN AID is given out to help solve Global or Regional environmental issues such as Climate Change. For instance, aid given out to develop renewable energy sources such as windmills, solar etc is considered 'green.'

DIRTY AID is that given out for development sectors such as mining, logging, chemical, manufacturing, road construction. This improves nation development in terms of infrastructure but may go a long way in increasing environmental problems.

BROWN AID is given out to help solve local environmental issues such as sanitation. This may contribute to increase in living standards of the benefiting countries.

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However, it is worth noting that, benefactor countries may not give out Aids just for the good of the benefiting countries but to achieve some hidden agenda. Some experts argue that these Aids go a long way in harming the benefitting countries' economies and environments as well. These experts therefore suggest that, all Aids given out should be 'greened'.

Questions

Is 'environmental aid' really given with the intention of the good of the environment or the 'hidden intension 'of the donor countries?

Should the environmental aid be green and how far should it de greened?

How to we strike a balance between the countries' local issues and the problem or global climate change? i.e the division of green aid, brown aid and dirty aid

Is it realistic?

IV. Useful Research Links

<http://www.global-greenhouse-warming.com/moral-responsibility-of-climate.html>

http://www.computare.org/Support%20documents/Commentary/Ruddiman%20commenary%2004_01.htm

<http://science.howstuffworks.com/carbon-trading.htm>

www.storyofstuff.com/capandtrade

<http://irtheoryandpractice.wm.edu/projects/plaid/publications.php>

V. Contact

If you have any questions, feel free to email the Social Entrepreneurs group at pc.economic.summit@gmail.com



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Social Entrepreneurs of Lester B. Pearson United World College of the Pacific

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