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Weak Landscape-Strong Emission Impact Based Development: Is this the Most Likely Response in All Countries to Global Warming Issues?

By Lucio Munoz

Abstract One of the most politically sensitive development issues in all countries today is related to how to best proceed to comply with international agreements made to effectively and fairly address global warming issues. The objective of this paper is to show, using qualitative comparative means, that currently the most likely development scenario for developed and developing countries alike when facing global warming issues is one that is based on achieving weak landscape impacts and strong emission impacts at the same time as this type of program would reflect clearly the best economic interest of all of them and would allow them to display a more environmentally friendly attitude.

Introduction

The need to address current human impacts on global warming

Some scientists believe that we should not worry about global warming yet (Michaels and Balling 2000), especially those associated with the traditional energy industry or so-called Carbon Club (Hunter 2002). However, the consensus for a while has been that there is enough evidence or institutional concern to support immediate action nationally and/or globally (SC 1993; SD 1994; OECD 2000; Hunter 2002). Efforts appear very slowly under way to minimize future impacts and to address past impacts on global warming.

Barriers to effective global warming action

The issues of landscape restoration and/or protection and the issues of the duty to decrease emissions or the right to develop further are very difficult to deal with as they are very closely tied to the existing developed/developing country development discourse. The main barriers to effective action against global warming in general appears to be the following:

a) The right to pollute-landscape restoration duty swap in developed countries

Developed countries, accepting, at least in principle, responsibilities for displaying worse global warming behavior than that of developing countries in the past agreed to act first against current global warming threats. However, as the cost of emission reduction programs is expected to be higher than the cost of landscape restoration programs, the emission reduction compliance plan of developed countries has been set or is about to be set on strongly keeping the right to pollute in exchange of

increased attention to landscape restoration/remedial action. This is leading to what the author calls the right to pollute-landscape restoration duty swap. Environmental groups despite the remaining strong environmental concerns have apparently accepted such a strategy as at least under this type of development plan emission activities are being balanced with landscape friendly activities. The author calls this situation developed country based eco-economic development.

b) The right to pollute-landscape protection duty swap in less developed countries

Developing countries have gained the so call right to develop and to act after developed countries had taken strong action against global warming. But recently, developed countries have been trying to get developing countries to act at the same time as them against global warming under the pretext that developing countries will soon become very relevant polluters too, but since developing countries expect the benefits of future emissions to be higher than the benefits from landscape exploitation, they are not very likely to give up the rights they had already won. Hence development plans in developing countries are based also on strongly keeping the right to pollute in exchange of increased attention to landscape protection/regulation. This is leading to what the author calls the right to pollute-landscape protection duty swap. Environmental groups despite the remaining strong environmental concerns have also apparently accepted this strategy as at least under this type of development plan emission activities are being balanced with landscape friendly activities. The author calls this situation developing country based eco-economic development.

Self-interest based common development solutions

Since both developed countries and developing countries benefit from polluting more while treating their landscapes better, all of them will follow their best interest and search for development plans that are more landscape friendly and emissions heavy. And this is apparently a politically feasible strategy in all countries currently: countries follow their best economic interest while taking a more environmentally friendly attitude, which is the heart of so called win-win eco-economic development strategies. However, pressures from developed countries will most likely continue to be focused on making developing countries be as landscape friendly and as less emission heavy as possible while dealing with their own impacts as it is apparently indicated in the recent November 2002/Delhi Declaration on global warming COP 8/Report from the President.

Objective

The objective of this paper is to show, using qualitative comparative means, that currently the most likely development scenario for developed and developing countries alike when facing global warming issues is one that is based on achieving weak landscape impacts and strong emission impacts at the same time as this type of program would reflect clearly the best interest of all of them.

Methodology

First, a country impact variability model is introduced to point out all possible combinations of landscape and emission impacts on global warming. Second, the current development choices and related dilemmas that both developed and developing countries

are facing when addressing global warming issues are separately described. Third, based on the above, the common politically feasible development option available to them is pointed out. And finally, some conclusions are provided.

Terminology

Table 1 shows the qualitative comparative terminology used to present the ideas in this paper.

L = Strong landscape impact	l = Weak landscape impact
E = Strong emission impact	e = Weak emission impact
C = Strong impact model	c = Weak impact model

Country impact variability model

Countries(C) can be placed in different impact groups depending on whether their separate or combined landscape and emission impacts on global warming are considered to be strong or weak. The above can be summarized in the following model:

$$C = L + E$$

From the formula above, four different types of countries can be identified:

a) *Weak landscape impact and weak gas emission impact(C1 = le)*

The first possibility is when we have a country that displays weak landscape(l) and weak emission(e) impacts on global warming at the same time. In these countries, deforestation, urbanization, and industrialization are not considered to be critical environmental problems. This situation is likely to be found in least developed countries.

b) *Strong landscape impact and weak gas emission impact(C2 = Le)*

The second possibility is when a country affects global warming through strong landscape changes(L) mainly as it does not have the industrial bases in place to have relevant contributions to gas emissions(e). In these countries, deforestation and urbanization are relevant problems, but they still do not have a strong industrial base to be relevant gas emitters. This situation may be found in non-industrially oriented developing countries.

c) *Weak landscape impact and strong gas emission impact(C3 = lE)*

The third possibility is when a country affects global warming through major emission changes(E) mainly as it has not carried out yet major landscape changes(l). In these countries, deforestation and urbanization are not widespread, but they have a very strong industrial base. This situation may be found in industrially oriented developing countries.

d) Strong landscape impact and strong gas emission impact(C4 = LE)

The fourth possibility is when a country affects global warming through major landscape impacts(L) and major emission impacts(E) at the same time. In these countries, deforestation, urbanization, and the industrial base are very relevant issues. This situation is most likely found in most developed countries.

Notice that countries in the first group(C1 = le) have the lowest combined impact on global warming while the countries in the last group(C4 = LE) have the highest combined impact. To simplify the ideas presented below, it will be assumed that all developing countries fall within the first group of countries(C1) and all developed countries fall within the last group of countries(C4).

Current development choices to most developed countries(C4 = LE)

Table 2 below shows the three development path choices or internal development dilemmas that most developed countries(C4) face when dealing with global warming issues together with the political feasibility of each dilemma. Table 2 shows that the two development options that developed countries have that require a significant reduction of gas emissions(C1 = le and C2 = Le) are politically unfeasible right now because of the high expected cost related to lowering current emission levels. Table 2 also shows that the only politically feasible development option available currently to developed countries is to keep the right to pollute while moving from a position of strong landscape impacts(C4 = LE) to weak landscape impacts(C3 = IE). And the rational for this political feasibility is that the cost of being strongly landscape friendly is lower than the cost of becoming a weak emission country.

Table 2 List of the three development choices of most developed countries(C4 = LE)

Original position	Internal dilemmas	Political feasibility
C4 = LE	C1 = le	Unfeasible
	C2 = Le	Unfeasible
	C3 = IE	Feasible

Current development choices to least developed countries

Table 3 below lists the three development path choices or internal development dilemmas that developing countries(C1) face when addressing global warming issues together with the political feasibility of each dilemma. Table 3 indicates that the two development options that developing countries have, the one requiring them to give up future emissions(C2 = Le) and the one requiring them to move from weak landscape and weak emission impacts(C3 = le) to strong landscape and emission impacts(C4 = LE) are politically unfeasible right now. The move from country type C1 to country type C2 should be expected to be politically unfeasible locally as it requires to give up the right to pollute and to display a very landscape unfriendly behavior. The move from country type C1 to C4 would be unpopular internationally, as developing countries would then become strong landscape and emission abusers. Table 3 also indicates that the only politically

feasible development option available currently to developing countries is to keep the right to pollute while moving from a position of strong landscape impacts to weak landscape impacts(C3 = IE). And the rationale for this political feasibility is that the cost of being strongly landscape friendly is expected to be lower than the benefits of becoming strong emission country.

Table 3 Listing the three development choices of least developed countries(C1 = le)

Original position		Internal dilemmas		Political feasibility
C1 = le	-----→	C2 = Le	-----→	Unfeasible
	-----→	C3 = IE	-----→	Feasible
	-----→	C4 = LE	-----→	Unfeasible

Common politically feasible option

Table 4 below shows that the internal development dilemmas that both developed and developing countries are facing lead them to a common action that reflect the best interest of both of them at the same time, and that is the action to seek the status of countries within group C3 = IE, countries with weak landscape impacts and strong emission impacts. This development option is politically feasible in both developed and developing countries for different reasons: it allows the right to pollute to developed countries in exchanged of increased expenditures on landscape restoration/remedial action and it allows the right to pollute to developing countries in exchanged of increased landscape protection/regulation. Notice that this development option(C3 = IE) introduces landscape friendliness in all countries as a central development goal, which strengthens its over-all political feasibility in the short to medium term.

Table 4 Listing common feasible development choice to all countries

Unequal position		Common action		Political feasibility
C4 = LE	-----→	C3 = IE	-----→	Feasible
C1 = le	-----→	C3 = IE	-----→	Feasible

Conclusions

It was shown above that both developed and developing countries alike have three different development choices/dilemmas. Since in all countries becoming more landscape friendly is less costly than giving up their rights to continue to generate emissions in terms of development, they should be expected to become more landscape friendly. In other words, it was shown that it is in the best economic interest of all countries to search for a development program that is weak in terms of landscape impacts and strong in terms of emission impacts; and therefore, such a development scenario is most likely to prevail in the short to medium term in all countries. These eco-economic approaches allow countries to pursue their best economic interest while having the

support of environmentalists as they are balancing the different environmental concerns affecting their economic development agenda or showing a more environmentally friendly attitude. However, as emissions are to continue, environmental concerns in relation to them will most likely grow in relevance in the long-term.

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