A qualitative comparative way of pointing out the expected social externalities associated with the creep in nature of current eco-economic approaches to development issues

Lucio Muñoz [1]

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[1] Qualitative Comparative Researcher/Consultant, Vancouver, BC, Canadá. munoz@interchange.ubc.ca; http://www.truesustainability.com

Abstract

It is known that implementing pure economic programs(e.g. regional economic development programs) or eco-economic programs(e.g. carbon reserves) or ecological programs(e.g. parks/preserves) have direct and indirect social impacts as they affect access to socially relevant public resources, both in quality and in quantify, such as water, land, wood, fish, fruits, bush meet, and so on. Those social impacts are usually negative when social concerns are no included in the decision-making process underlying those models as then social issues are considered exogenous issues.

The linkages between social externalities and those development programs are usually presented in complex terms. Hence, there is a need to find ways to express the expected social inconsistencies that are associated with those models of development in simple terms; and isolate this way possible lines of preventive action(e.g. when planning new projects) or remedial action(e.g. after socially unfriendly programs have been implemented), which is one of the goals of this paper.

I. Introduction

Right now, there is a need to deal with pressing issues such as the need to encourage more economic development, the need to address global warming, and the need to minimize environmental degradation. For example, one way of promoting economic development has been the use of liberal trade related and non-trade related policies. One way of dealing with the global warming has been the creation of carbon reserves, an approach linking carbon sinks with carbon credits. And one way of dealing with the environmental/biodiversity degradation has been the creation of parks and reserves.

Each of the approaches above can adversely affect directly or indirectly existing traditional social access rights to public resources; and therefore, affect social well-being and even they can lead to social trauma if left unregulated. It is known that social issues are created due to relocation and/or social compacting and/or resource exclusion when limited public resources are used to support hydroelectric projects to fuel regional development (LAWT 2008; James 2010), to create carbon reserves to combat global warming(DHF 2006; Schapiro, 2010), and to create more parks and preserves to address environmental degradation (Lasimbang 2004: WRM 2005). And it has been reported in Manitoba, Canada that implementing big projects like hydro dams can produce social trauma (Loney 1995).

The less and less public resources are left in the social domain due to the expected creep in nature of these models of development (e.g. the more resources for economic exploitation and/or environmental protection the better), the more difficult it will be to meet increasingly pressing social goals such as social access to land, water, fruits, trees, bush meet, and so on. In the case of water, worries about protecting legally the right to access water are increasingly being taken more seriously. For example, a referendum on legalizing the community right to access water by changing the political constitution is being formally considered in Colombia (EcoPortal 2010), a right that already exits in Venezuela (Flores 2010), consolidating the belief that water should be considered a human right, not a business (Acosta 2010).

The linkages between social externalities and pure economic development or eco-economic development or ecological development are usually expressed in complex arguments. And this makes it difficult to see or trace social impacts. Hence, there is a need to find ways to present the expected social inconsistencies that are associated with those models of development in simple terms; and isolate this way possible lines of preventive action(e.g. when planning new projects) or remedial action(e.g. after socially unfriendly programs have been implemented).

II. Objetives

This paper has two main objectives: i) To provide a short overview of the step by step evolution of development models witnessed so far from the sedentary period to the present; and use this to stress the characteristics of current development approaches; and ii) To use the framework above to highlight the current social inconsistencies found in current development models; and to indicate the sustainability implications of that situation.

III. Methodology

First, the qualitative comparative terminology used to present the ideas in this paper is introduced. Second, the characteristics of the subsistence development model are stressed both analytically and graphically. Third, the structure of the modern economy model is pointed out both analytically and graphically. Fourth, the relevant components of the eco-economic model are indicated both analytically and graphically. Fifth, the social unsustainability associated with current models of development is mentioned; and the possible direct and indirect sustainability fixes which can lead to sustainability are highlighted. And finally, some relevant general and specific conclusions are provided.

IV. The qualitative comparative terminology

Table 1 below list the qualitative comparative terminology being used in this paper.

Table 1

A = Social concerns, binding	a = Social concerns, not binding
B = Economic concerns, binding	b = Economic concerns, not binding
C = Environmental concerns, binding	c = Environmental concerns, not binding
Mi = Development model "i"	S = Sustainability model

The subsistence development model

It can be said that the first model of development that existed in human history was the subsistence development model, where all country assets were there to meet social concerns only. For presentation purposes here, it will be assumed that this period existed from sedentary time, which starts in the Neolithic period or around the seventh millennium BC with the discovery of agriculture and the sedentary life(Ehrenberg 1989) to the year 1947 when it is believed that the green revolution began (Ganguly 1998). In other words, the subsistence development period goes from sedentary time to just before the green revolution. During the subsistence period, no modern economy (ies) existed, only a subsistence economy; and the scale of the social impact of the subsistence system on the environment (c) was minimal or non-existent

i) Analytically

A model where social concerns are binding (A) and where modern economic concerns (b) do not exist; and where environmental issues are not relevant (c), can be represented as follows:

M1 = Abc

Clearly, in the subsistence model (M1) above meeting social needs (A) is the only binding concern. In other words, achieving social sustainability is the goal in this model.

ii) Graphically

Figure 1 below shows how the subsistence development model (M1) looks when represented by binding and non binding circles. Continuous line circles imply binding status and broken line circles indicate non-binding status. Hence, in this subsistence model (M1) only meeting social concerns (A) is binding and therefore, only society (A) has a continues line circle as the modern economy (b) as well as environmental concerns (c) do not exist.

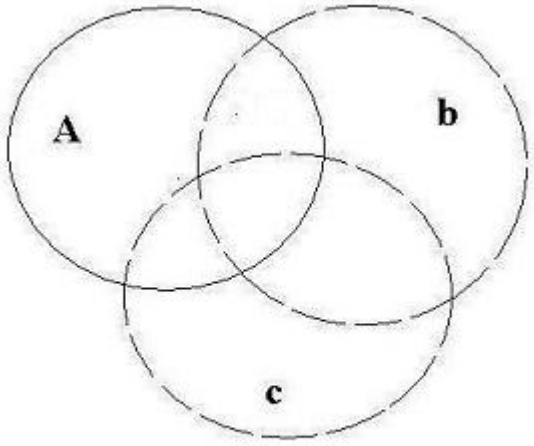

Figure 1 The Subsistence Model: Only meeting social goals matters.

iii) Relevant linkages

Figure 2 below indicates the following about the subsistence system (M1): i) That there are no relevant linkages between society and the modern economy (Ab) as the modern economy do not exist; no relevant linkages between society and the eco-economy (Abc) as the eco-economy do not exist; and no relevant linkages between society and the environment (Ac) as environmental impacts are minimal; and ii) That there are no relevant linkages between the modern economy and the environment (bc) as they did not exist.

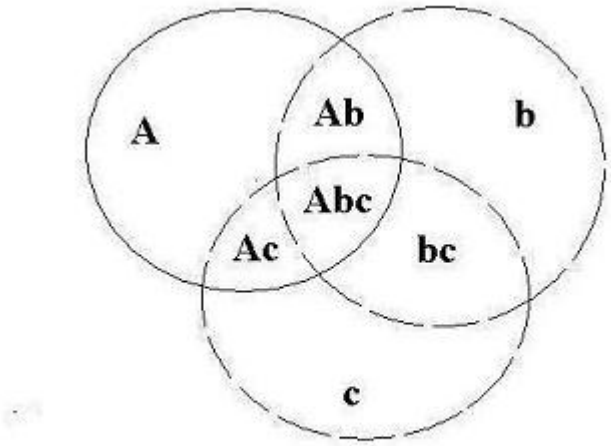

Figure 2 Linkages in the Subsistence model are irrelevant as modern economy and environmental concerns do not exist.

iv) In summary:

In the subsistence development model (M1), all public resources such as land, water, wood, fish, fruits, bush meat, and so on were there to meet social well-being goals only. Hence, the subsistence model (M1) has not relevant environmental impacts and no relevant modern economy impacts.

The modern economy model

It can be said that the coming of the modern econom y (M2) meant a moved away from the subsistence economy (M1) as now the meeting of economic goals became paramount or binding, not the meeting of social goals. For presentation purposes here the period of the modern economy is assumed to go from 1947 the year the green revolution began until 1987 when "Our Common Future" was published by the Brundtland Commission calling for the inclusion of social and environmental parameters in development planning (WCED 1987). In other words, the modern economic period goes from the beginning of the green revolution to the publication of our common future which signaled the end of the pure modern economic model.

i) Analytically
A model where only economic goals are binding (B); and where the role of society (a) and of the environment (c) is not important can be represented as follows:

M2 = aBc

It is clear from the modern economy model (M2) above that economic concerns (B) are placed above social (a) and environmental concerns (c) all the time as only attaining economic sustainability is important.

ii) Graphically
Figure 3 below shows how the modern economy model (M2) looks when represented by binding and non binding circles. Again, continuous line circles imply binding status and broken line circles indicate non-binding status. Hence, in this modern economy model (M2) only meeting economic concerns (B) is binding; and therefore, only the economy (B) has a continuous line circle as social (a) as well as environmental concerns (c) are assumed to fall outside the model or considered to be non-relevant factors.

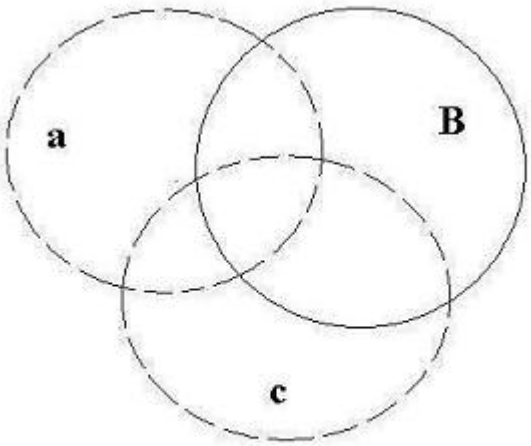

Figure 3 The Modern Economy Model: Only meeting economic goals matters

iii) Relevant linkages

Figure 4 below tells us the following about the modern economy model (M2): i) That there are relevant social linkages (aB), relevant socio-environmental linkages (aBc), and relevant environmental linkages (Bc) associated with economic activity, but they are assumed away; and ii) That the linkage between society and environment (ac) is irrelevant as it falls outside the model.

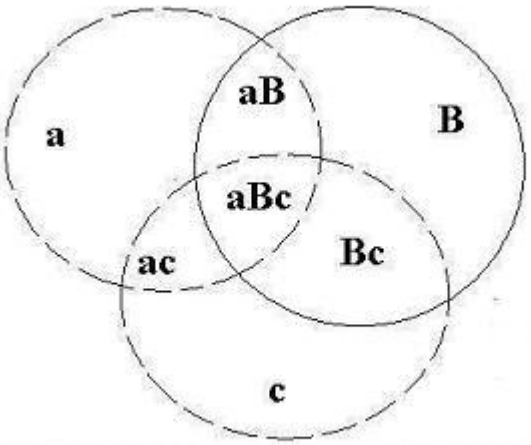

Figure 4 Social and environmental linkages in the modern economic model are relevant, but they are assumed away.

iv) In summary:

The subsistence development model (M1) was replaced by the modern economic model (M2) and now the goal of development is not to meet social needs, but to meet the modern market needs; and as more and more public resources such as land, water, wood, fish, fruits, bush meat, and so on are placed under economic exploitation, less and less public resources are available to meet social well-being goals. Hence, the pure economic model (M2) has direct and indirect social and environmental impacts, but they are assumed away.

The Eco-Economic model

And finally, it can be said that as the relevance of environmental concerns (C) associated with modern economic development became binding, then the pure economic model (M2) was substituted by the current eco-economic model (M3). Again, for presentation purposes here it can be said that the eco-economic development period goes from 1987 when "Our Common Future" was published to now as since then environmental concerns matter.

i) Analytically

A model where only economic and environmental concerns (BC) are binding; and where the social role (a) is irrelevant can be expressed as follows:

M3 = aBC

It is clear that in the eco-economic model (M3) above eco-economic goals are placed above social concerns; and therefore, here achieving eco-economic sustainability is the only goal.

ii) Graphically

Figure 5 below shows how the eco-economy model (M3) looks when represented by binding and non binding circles. Again, continuous line circles imply binding status and broken line circles indicate non-binding status. Hence, in this eco-economic model (M3) only meeting eco-economic concerns (BC) is binding; and therefore, both the economy (B) and the environment (C) have continuous line circles as social concerns (a) are assumed to fall outside the model.

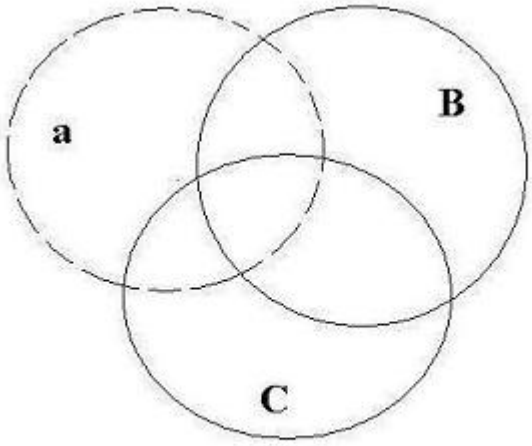

Figure 5 The Eco-Economic Model: Only meeting eco-economic goals matters.

iii) Relevant linkages

Figure 6 below says that i) There are relevant social concerns associated to pure economic activity (aB), associated to eco-economic activity (aBC), and associated to environmental activity (aC), but they are assumed to be irrelevant; and ii) That there are no concerns between economy and environment(BC) as they are working hand in hand or in win-win partnerships.

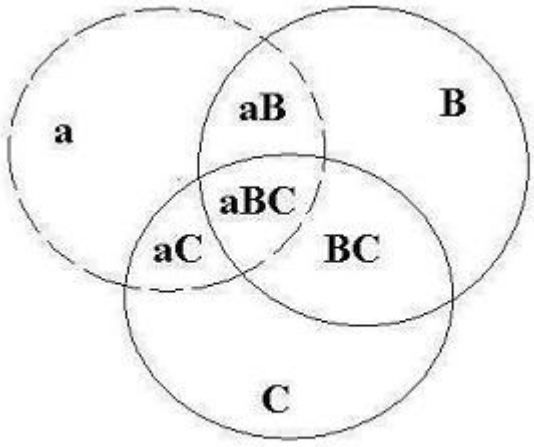

Figure 6 Social linkages in the eco-economic model are relevant, but they are assumed away.

iv) In summary

To meet environmental demands, the modern economy model (M2) has been replaced by the eco-economic development model (M3); and now the goal of development is not to meet social needs or pure economic needs, but to meet eco-economic needs; and as more and more public resources such as land, water, wood, fish, fruits, bush meat, and so on are placed under eco-economic use, then again less and less public resources are available to meet social well-being goals. Hence, eco-economic activity has direct and indirect social impacts, but they are assumed away.

The creep in nature of the current development models

Figure 7 below helps us to appreciate the worsening of social concerns that should be expected as more and more public resources are brought under economic exploitation as shown by arrow 1; as more and more public resources fall within the eco-economic domain such as carbon reserves as shown by arrow 2; and as more and more public resources are dedicated to ecological use as parks and preserves as shown by arrow 3.

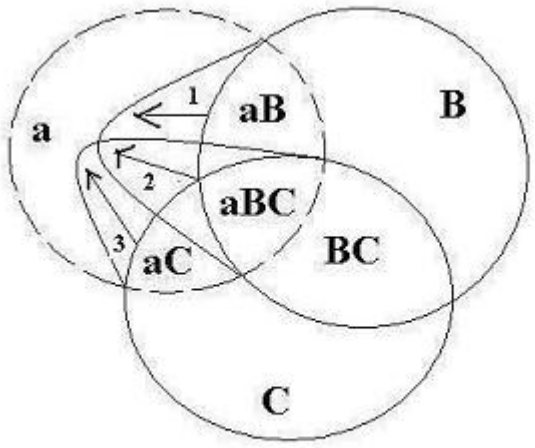

Figure 7 The Creep in Effect: As more and more public resources ara placed under economic and environmental use, less and less is available for social needs

Figure 7 above also lets us see that the more these models creep in the public resource domain, then less and less public space will be available for social actors to survive since less and less public resources would be available then for social use. In other words, economic and environmental stakeholders are acting following their goals and belief without much concern about social impacts, especially their crowding out effect on social actors.

The social flaws of current development models

Figure 6 and Figure 7 above permit us to appreciate the social unsustainability that current development approaches have internally by design. These Figures show: i) That economic processes (aB) such as liberal economic programs are not socially friendly; ii) That eco-economic approaches (aBC) such as carbon reserves are not socially responsible; and iii) That ecological approaches (aC) such as the creating of parks/preserves are not concerned with social issues. These models affects social stakeholders by resettling them (The social relocation effect); by pushing them to survive within increasingly less and less public resources (The social compacting effect); and by taking away the livelihood they had within the public resources when under eco-economic exploitation only (The social exclusion effect). In other words, the expected social externalities of the models mentioned above are relocation and/or social compacting and/or social exclusion. As pointed out in the introduction, extreme relocation, social compacting and social exclusion processes can lead to extreme social trauma or anger.

Hence, we need to recognize that yes there is a need to implement eco-economic programs to deal with currently critical economic and environmental issues, but there is also a need to protect society, from the perhaps unintended or unavoidable impacts resulting from the actual implementation of eco-economic programs. And hence, without social regulation, these models will continue to be socially unfriendly as social concerns are not binding parts of their decision-making process. And the lack of social inclusion or protection is an ongoing source of unsustainability, which in the long term may backfire on these models as the less and less public resources such as land, water, wood, and so on are available for social use, then more and more social discontent will take place.

Direct and indirect sustainability fixes

Figure 6 and Figure 7 also allow us to highlight that to achieve socio-economic sustainability (AB), Socio-eco-economic sustainability (ABC), and socio-ecological sustainability (AC) at the same time we need to make all those models socially friendly by incorporating in their plans, actual and future, ways to address direct and indirect social externalities associated with their implementation and operation. For example, they need to have financial and other mechanisms geared to deal with expected negative social impacts inside and

outside projects resulting from the relocating, compacting, and exclusion effects they may have to minimize them or eliminating them all together.

Figure 6 and Figure 7 can be used also to highlight that if we choose economic policies that are socially friendly and environmentally neutral (AB); eco-economic policies that are socially friendly (ABC); ecological policies that are socially friendly and economy neutral (AC); and eco-economic policies that are socially neutral (BC), then the concept of social friendliness and neutrality can be made endogenous in these models. And when doing this, then the conditions for the existence of sustainability (S) are created, which can be appreciated in Figure 8 below:

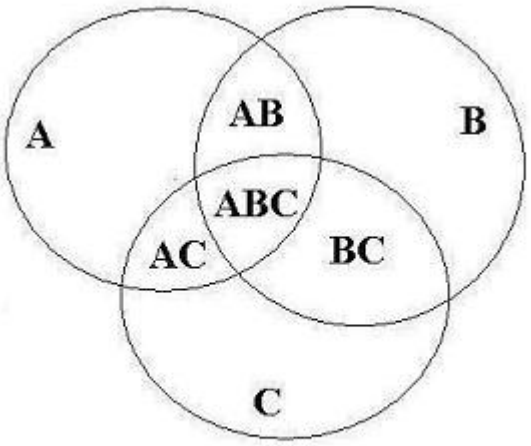

Figure 8 The Sustainability Model: When social inclusion exist in the eco-economic model, then the conditions for sustainability to exist are created.

Figure 8 above represents the sustainability model (S), where all concerns are relevant. Hence, Figure 8 lets us see the following: i) That all concerns, social (A), economic(B) and environmental (C) are binding as shown by all circles having continuous lines; ii) That all stakeholders, social (A), economic (B), and environmental (C) are working in inclusive win-win or win-win-win situations; iii) That all the components in the system are in relevant form leading the existence of general system and specific subsystem sustainability at the same time; and iv) That social inclusion transforms the eco-economic model into a sustainability model, where all actors benefit from development; and therefore, there are no longer sustainability or social trauma concerns.

VI. Specific conclusions

First, it was pointed out that the current model of development is the eco-economic model with the goal of meeting eco-economic concerns only; and that because of this, it is bound to be socially unfriendly. Second, it was stressed that the social unfriendliness of this model increases the more it creeps in the domain of public resources such as land, water, wood, and so on as then less and less public resources are available to meet pressing social needs. Third, it was indicated that this situation is not consistent with sustainability requirements, and may lead to social trauma. And finally, the need to make the eco-economic model socially friendly to avoid a total system collapse in the long-term was pointed out.

VII. General conclusions

Without social protection or regulation, the eco-economic model has the potential in the long-term to lead to a total system collapse driven by deeper and deeper social unsustainability. And as the more and more the eco-economic model creeps in the public resources domain crowding out social stakeholders, the more and more likely is that a general system collapse will take place driven by social trauma.

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