

Tropical Forest timber and logging practices: Is intergenerational equity possible, and should it be considered?

ABSTRACT: For the purpose of this paper, intergenerational equity is defined as the fairness and/or consideration of conservation of natural resources for future generations. Timber, especially from tropical forests, is the main concern as many tropical forests are in poorer countries with more internal turmoil and an assumed increased likelihood for internal conflict. Three general perspectives are considered: economic, philosophical and moral, and conservationist, or sustainable management of the logging industry in tropical forests. Each perspective represents different aspects of market, societal and logging incentives that are necessary to understand the roll of intergenerational equity in logging (if any). After this discussion, the vary schools of thought on intergenerational equity will be brought together via policy recommendations and suggestions to improve the sustainability and productive use of tropical forests.

Discounting, mainly used in economics (the rate applied to equalize the costs and benefits for current and future generations (Portney, 1999)) and intergenerational equity (justice across generations from a psychological or sociological perspective, though coined by an economist (Foot, 2005)) are often interchangeable due to their linked nature. The two aforementioned concepts are both capable of analyzing what the future is worth yet for the

analysis of natural resources preservation, intergenerational equity is a more conceptual approach that may be more suggestive as the actual costs and benefits of natural resource sustainability (another notion to be discussed) is often ambiguous due to imperfect information (Kowal, 2007). “Natural resource” is another ambiguous term that needs to be resolved before intergenerational equity analyses can be properly considered. When future generations were originally considered for this paper logging seemed like an improbable case to examine. However, as research continued, logging and timber practices, techniques and regulation proved to be more intricate and complex than originally thought. More importantly, logging is an international practice that literally all societies rely on whether they are the sellers (loggers, private companies, or the government) or consumers.

The outline of this paper is as follows: The problematic aspects of logging (in terms of future costs, benefits, market failures, and incentives of tropical forest management) with respect to the economic school of thought will be discussed first. Next, the philosophical, psychological, and moral concerns of intergenerational equity for logging are discussed; followed by conservationist and sustainable management of the tropical logging industry and forests. The final section of this paper includes recommendations from the various perspectives on how to provide appropriate incentives, government regulation, and moral concern for intergenerational equity of tropical timber.

The benefits of tropical forests today are those that have the ability to be carried into future generations of the renewable resource of tropical forests are not subjected to over-use resulting in their inability to re-grow after being logged, or in the most drastic cases, clear-cut. Kahn (1998) notes several benefits of tropical forests including: natural benefits—water protection to decrease erosion, trees add to the natural hydrological cycle (which allows water

absorption), and these tropical forests provide the actual home for numerous species, many of which have not even been discovered in the most dense of forests. The man-made benefits from logging this once less-disrupted resource includes obvious products such as: furniture, home-building materials, paper, etc (Khan, 1998, 356-357).

The potential market failure from logging arises due to forests often being a public good. With little to no enforcement of government regulation of logging practices in many poorer Latin American or African nations, clear-cutting and over use of a public good—which is by definition under-supplied, over-use is almost inevitable, from the society's stand-point (Khan, 1998, 360). Moore importantly, the overuse of this good is not likely to be resolved as the incentives—namely profit, which far exceed the costs to the logger, who clearly does not consider the future of the forest and the need for maintenance in order for future generation to enjoy the same profitability. Another market failure that arises on a nearly regular basis is the lack of property rights often experienced by Latin American countries (Panayotou and Ashton, 1992). For example, in Guatemala's El Ceibel Park, squatters have over run the area to either torch the trees, or come in at night and "steal" (if property rights were actually enforced) timber for their private sales. This lack of management and enforcement of property rights of this forests is common in Brazil, Ecuador, and other Latin American area where the forests are (or were) thick and government is often in capable of fixing this market failure (Gonzalez, NYT, 2000).

If there was no knowledge of the future, there would be no need to discuss intergenerational equity—unfortunately (to some who are concerned) this is not the case. To many environmental economists, the consideration of the future of society is necessary and appropriate to consider; to other schools of economics (the majority), the future is of no such

concern (Tacconi, Bennet, 1993). However, to ignore intergenerational equity is to ignore the proper allocation of resources—which are scarce. It may be true that we—are not currently part of the future, so why consider it? However, consider for example the “veil of ignorance” (Rawls, 1971, *A Theory of Justice*). This concept alters one perspective by making the group who is considering how to for society unaware of what generation, species, race, and economic status they will be placed. With this unbiased agenda, decisions will (probably) be naturally more equitable—especially for the future that currently has no say. Yes, this is purely hypothetical and is likely never to really work—especially in Latin America, but it is an idealistic approach to justify the need to consider the future—in some alternate universe, you may be in it.

To economists that evaluate intergenerational equity for natural resources, it appears they run into problems if they only assess the cost and benefits as usual. The use—benefits received for those who actually use the forests, and non-use values—the benefits received by those who know the existence of tropical forests is immense and hard to quantify, especially when considering use and non-use values for future generations. Non-use values are especially greatly altered for current society when the future is brought in—assuming we care about it. If tropical forests are logged at a rate that exceed their capacity to re-grow, there will be no value at all for the future, there for our non-use value is meaningful in that we care about the forests in who-knows-where, Ecuador. More importantly—or at least what can be more easily measured, is the use values of these tropical forests. The benefits that the future could have are the same as today—profit from timber sales, other species will have their home, and every other benefit possibly endured by a tropical forest can be the future’s. However, with most loggers’ utter lack of concern for intergenerational equity, the chances of this are

become slimmer each season. The loggers of Ecuador, Brazil and Guatemala know their products are precious, and many exporters, furniture and home-building companies are willing to pay a price for the wood and other goods that far exceed any incentive to enforce better logging practices. But, this presents a new problem—as of today the government in Guatemala, for example is unable to enforce property rights and cannot even begin to consider what will happen even twenty years from today (Gonzalez, NYT, 2000).


The tropical forest logger's generally do not consider future generations and how can they when these groups or companies are driven by the incentive to make a profit, not to protect their resources for their children. Financial gains are often sought after via pre-mature re-entry into a given forest to further increase the amount of logging performed. This re-entry is often detrimental to the forest, as it does not have the proper amount of time to regenerate. However, the timber industry does not count the future in terms of forest re-generation, all that is mainly considered by them is the extra profit to be made (Boscolo, 1998, 29). Basically, in order for loggers to inadvertently consider the future and re-think logging practices, there must be some economic incentive—which is not currently available. These other logging practices—which may not be any better in terms of decreasing the negative externalities of logging for the future, will be discussed later.

Intergenerational equity is also framed and discussed by philosophers, sociologists, and morality schools of thought. For this paper, morality is generally considered in normative terms and are often based on judgment calls of particular authors regarding what should be. However, these normative statements are generally equity based and seem rational to consider if one is concerned about intergenerational equity. One question that can be asked by philosophers is: do future generations really have rights, as they do not exist? Some argue no,

due to this very fact. They do not exist; therefore, rights should not be awarded to “them”



(Stanford, 2003). Further, if intergenerational equity is to be considered, should the past be included in some compensation package. Well, yes, and they are. The philosophical debate stems from what is and what is not—the future is not, so it should not be considered.

However, this ignores what will be—the future is inevitable, if one does not want to consider it, it does not change the fact that one day the future will be the present. 


Morality is not devoid from economics. Intergenerational equity was coined by an economist (James Tobin in 1974) to consider the preservation of goods for the future (Foot, 2005) therefore morality can be assumed to be included in economic discussions. As mentioned before, the logging business’ driving incentive is the maximization of wealth. Further, these profits are currently being experienced thus initializing logging as a core example of the inability to consider intergenerational equity. If logging is continued at a rate in which the forests cannot regenerate, it can be assumed that any moral obligation to the



future is being ignored (Kowal, 2007). According at a morality-based argument, current populations in tropical forests have the obligation to care about the future and offer them a fighting chance to enjoy the same fruits of the forest as today (Frischmann, 2005). Yet, pretending morality catches up to loggers and intergenerational equity is now a major concern how does one know the new practices to continue forest use into the future are appropriate? There is no way to definitively answer this question as one cannot see into the future, only recommendations and suggestions can be made. Yet, before doing so a final discussion of sustainability and logging practices needs to be done.

Conservationists seem to like the term “sustainable development” or management. This is used continuously in conservationist literature with respect to logging and

deforestation (clear-cutting and the deterioration of forests—often a result of logging practices). In 1997, a conservationist group took readers on a journey into the Chimanes Forest in Bolivia. According to this group’s research, only one-eighth of one percent of tropical forests use sustainable mechanisms in logging. However, what is more alarming is that the current methods of sustainable management may actually be more costly to first implement, and then maintain than the commonly held practices of logging. Basically, sustainable management does not mean a minimized environmental impact (Rice, 1997).



Though conservationists do not explicitly mention intergenerational equity, sustainable management is thrown around constantly. Based on the near over-use of the term, one can assume that future use is important to conservationists and clearly want resources to be used more strategically, or on some levels, not at all. The Pinchot conservationist movement is held in honor of the first U.S. forest Service Chief who’s, according to the non-profit, main goal was to conserve forests (Pinchot Institute for Conservation, “Mission” statement). As this conservationist movement continues to grow, so does their scope of concern. In a 2003 Pinchot Conservationist “letter”, the group notes concern for the Northwester Ecuador tropical forest. Aligning with earlier economic incentives for sustainable management (and therefore the consideration of future generations), they are clearly lacking from the loggers perspectives, and are then considered to be unlikely.

Regularly mentioned whether on a case study level – of the Chimanes Forest, or El Ceibal park or the loggers, or squatters (illegal settlers or loggers) is the fact that government regulation and/or enforcement of property rights and general logging practices is lacking or non-existent. It is true especially for economists that without properly defined and enforced property rights; a market failure is imminent for the present, and more importantly the future.

However, this is not the only issue at hand. Intergenerational equity cannot be achieved until the loggers themselves internalize their negative external effects brought upon by logging via a moral judgment. As previously mentioned, economics and morality are not excludable, and in this case, intergenerational equity is a moral issue as much as an economic resource allocation issue (Kowal, 2005).

One possible way intergenerational equity of logging can be achieved is if the problem is fixed today and carried across generations. The most common trend observed across philosophical, conservationist, and economic concerns for logging and the future is the fact that government regulation is in dire need of re-vamping. Yet, this is extremely difficult as many tropical forest are in poorer countries with far more turmoil than can be corrected in the near future. According to one conservation official in Guatemala, “ ‘How can [we] prioritize conservation in the face of overwhelming pressure? When you’re hungry for tomorrow, it’s impossible to think 20 years down the road’ (Gonzalez, NYT, 2000)”. It can be assumed that the inability to consider the future rings true to other Latin American countries that face the same internal turmoil as Guatemala. Further with wealth and accumulation of profit as the main motivation of this industry, it seems that loggers have a “get some while you can” mantra, obviously ignoring intergenerational equity. Attacking the loggers as immoral, selfish, and greedy (though sometimes may be inaccurate) is often overly critical as they are rational economic actors who want to maximize their utility. However, it is unfortunate that this may be to the detriment of future generations who are likely to depend on the same natural resource—timber, as we do today.

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